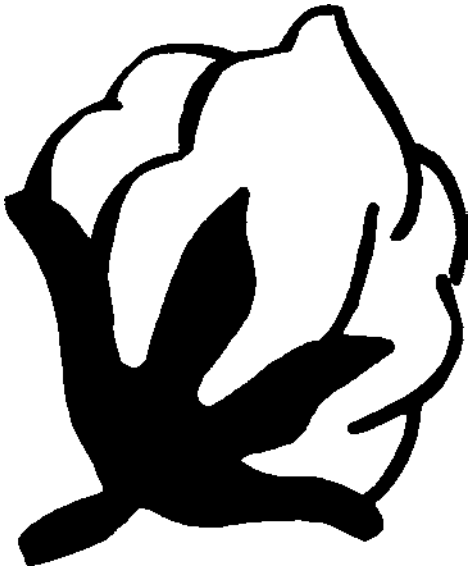

STATEMENTS

61st Plenary Meeting of the International Cotton Advisory Committee

Cairo
Egypt
October 2002

STATEMENTS
OF THE
61st PLENARY MEETING

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FOREWORD

At the invitation of the Government of the Arab Republic of Egypt, the 61st Plenary Meeting of the International Cotton Advisory Committee was held in Cairo, from October 20 to 25, 2002. This document presents statements made at the Meeting. The minutes of discussions at the Meeting (Proceedings) are published separately.

The International Cotton Advisory Committee is an association of governments having an interest in the production, export, import and consumption of cotton. It is an organization designed to promote cooperation in the solution of cotton problems, particularly those of international scope and significance.

The functions of the International Cotton Advisory Committee, as defined in the Rules and Regulations, are

- To observe and keep in close touch with developments affecting the world cotton situation

- To collect and disseminate complete, authentic, and timely statistics on world cotton production, trade, consumption, stocks and prices

- To suggest, as and when advisable, to the governments represented, any measures the Advisory Committee considers suitable and practicable for the furtherance of international collaboration directed towards developing and maintaining a sound world cotton economy

- To be the forum of international discussions on matters related to cotton prices

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Statements to Plenary and Open Sessions

Inauguration

Inaugural Remarks

Youssef Boutros Ghali
Minister of Foreign Trade
Government of Egypt

I am honored to present a statement from the Arab Republic of Egypt on the occasion of the 61st Plenary Meeting of the International Cotton Advisory Committee. I would like to start by thanking participants, the executive director Dr. Terry Townsend, official delegates, observers, representatives of international organizations and also the Committee's Secretariat, the interpretation team and organizers for all the work they haveput into make this meeting a success.

Cotton production in Egypt was liberalized before 1990. Since 1994, production and marketing have both enjoyed the benefits of liberalization, operating under the laws of supply and demand alone. The results of this policy have been extremely fruitful.

First, yield and quality have improved and remain on an upward curve. Environmentally friendly techniques are gaining ground, and proving effective against contamination.

Second, the number of actors on the domestic market has increased, with 140 traders currently operating. Of these, only twenty represent the public sector, while the others are from private companies and cooperatives.

Third, commitments to foreign markets are greater than before. In the 2001/02 season, 26 public and private sector members of Alcotexa have exported more than 108,000 tons. The private sector accounts for over 65 percent of this activity. The increase in exports despite sluggish market conditions must be attributed to the reasonable price of Egyptian cotton in comparison with foreign competitors.

In addition to the great marketing efforts achieved by Alcotexa, a logo has been created with the cooperation of the Ministry of Foreign Trade to be used on products produced from Egyptian cotton.

Area planted to cotton in 2002/03 was approximately the same as in 2001/02 (about 750,000 fed.), thus, production is estimated at around 300,000 tons (6 million cantar/lint) to cover domestic and international consumers' requirements.

On behalf of Egypt's people and government, I would like to express our profound appreciation at seeing you all here. I sincerely hope that you will enjoy your stay and follow Egypt's continued development.

First Plenary Session

Statement of Argentina

The delegation of Argentina wishes to express to the highest authorities of the government of Egypt that the remarks of the Egyptian Minister of Foreign Trade were a clear and accurate description of the current world cotton trade. With the current level of subsidies and the interventionism that have so largely determined the drop in international prices over the past few years, countries that extend no subsidies produce no cotton. In the opinion of Argentina, the Minister's statement should constitute the very backbone of this plenary.

On behalf of the Republic of Argentina, let me greet the people and government of Egypt in a spirit of brotherhood and friendship. We meet today at the cradle of human civilization, beside age-old monuments which were erected—according to Dr. Zahi Hawass, Director of the Pyramids of Giza—not by slave labor but through social systems that protected and supported the builders.

Egyptian cotton has been known to us since the mid-19th century as one of the finest exemplars of its type. However, cotton has deeper historical roots in Egypt.

The cotton of Levant (*gossyplum herbaceum linnaeus)* is a native African plant domesticated in the land of Kush, now known as Nubia, south of Egypt and north of Sudan and Ethiopia.

Nubian civilization enjoyed considerable resources. It flourished between 2500 and 350 B.C. along the banks of the River Nile and was renowned for its iron works and fine woven cotton. It is believed that fabrics such as kemmi and shamma still in use today in Ethiopia were actually produced by the mills of Meroe, the ancient capital of Nubia.

In the 4th Century B.C., Nubian woven goods were displaced by imported cloths. Levant cotton was woven only for those unable to afford imports and eventually disappeared.

The 61st Plenary Meeting continues our debate on how to ensure market operations free from interventionism, so that all countries—poor and rich; southern and northern—can engage in the production and trade of fiber and textile commodities with dignity and without the fear that unfair competition will eclipse them as surely as the Nubians of yore.

Let me again express the appreciation of the government and people of Argentina to our hosts, the people and government of Egypt . We thank them for their gracious hospitality at this plenary meeting and note that they have become the greatest importer of cotton sub-products from our country in recent years.

Market Access Liberalization Through the World Trade Organization

Richard M. Hughes
WTO, Geneva

1. I am pleased to have this opportunity to participate in the 61st Plenary Meeting as we look forward to the shape and direction of cotton production and trade in the 21st century. Following this theme, I would like to provide you with some information on two of the current activities of the WTO that have a bearing on trade in cotton and in textile products. Specifically, I would like to bring you up to date on the developments in the implementation of the Agreement on Textiles and Clothing and then review the progress in the negotiations being held under the Agreement on Agriculture.

Agreement on Textiles and Clothing

2. As you will be aware, a large share of the textile and clothing exports from the developing to the developed countries has been subject to quota restrictions for many years. The Agreement on Textiles and Clothing is the vehicle through which these quotas are being removed, over a ten-year transitional period. By the end of this transition, that is 31 December 2004, all of the bilateral quotas will be eliminated and textiles and clothing trade will be governed by normal market forces and supported by the WTO rules.

3. Many participants in this trade have been asking the questions: Will the full elimination of quotas be achieved and, if so, will this cause disruption in textiles and clothing trade flows? On the first question, there is a natural concern, after more than 40 years of quota protection, if the countries maintaining these quotas, that is, the United States, the European Union and Canada will, indeed, eliminate them. In my view, there is every reason to believe that the goal will be achieved. First of all, just over 50 percent of

all textile and clothing products are now fully integrated into WTO rules and about 20 percent of the quotas have already been removed. Also, the remaining quotas have been growing at an accelerated rate through the application of the progressive increases in the quota growth rates, which is required by the Textiles Agreement. Many quotas are now larger than the actual trade levels of the products involved. These quotas, therefore, do not perform their intended function of restricting trade and can be removed without negative impact on trade levels. In addition to this, the countries that maintain the quotas have clearly reconfirmed their undertaking to fully meet their obligations under the Textiles Agreement. Taken together, these factors point to a successful end to the quota regime in just over two years time.

4. As to the impact on trading patterns of the removal of the quota system, there is concern in some countries that the established trade flows could be affected, leading to loss of export markets and disruption in their production activity. From my experience, the one thing that is constant in textiles and clothing trade is the ongoing change and adjustment. The evolution that has been taking place for many years has accelerated during the transitional period of the Textiles Agreement and could accelerate further with the final removal of quotas. Nevertheless, it is most likely that the changes will continue to be evolutionary in nature. The key factor here is how the exporting countries are now adapting and adjusting to the changes being brought about by the impact of open competition and market forces. Not only are manufacturers being required to increase their efficiency in every aspect of production and marketing, but also governments must put in place policies which are "user friendly," to assist their manufactures to compete globally.

5. When looking at developments in trading patterns over the past few years which are having an impact in the present and the future, these shifts and changes are readily apparent. At the top of any list of key recent developments would be the rapid growth of China (Mainland), whose textile exports have grown 42.4 percent between 1994 to 2001, while clothing exports are up 54.4 percent, to reach a combined level of $53.5 billion. There can be no doubt that China will continue to expand in the coming years in view of its strong competitive position. At the same time, however, recognition must be given to the fact that clothing exports from three of the original Asian giants in this trade, Hong Kong/China, Korea and China (Taiwan) have been falling. Clothing exports from Korea and China (Taiwan) are off by about 25 percent between 1990 and 2001, while the domestic exports from Hong Kong/China have declined by 2 per cent. This is largely attributable to the industrialization and diversification of these exporters, which has left their clothing industries less competitive. This decline in the older suppliers has created opportunities for others, which has largely been taken up by China (Mainland). Changes are also clearly visible in the Caribbean and Central American region where Mexico's exports are up by over 370 percent between 1994 and 2001, as a result of its NAFTA benefits. Several other countries in this region are also sharply expanding their clothing exports, largely through outward processing operation, assembling clothing from materials supplied by the U.S. Currently, the Dominican Republic and Honduras have risen to become among the top ten suppliers of clothing to the U.S.

6. The main importing countries, the European Union, the United States and Canada have recently adopted programs which should assist and encourage greater participation in clothing exports, in particular by the least-developed countries. The EU has dropped all quotas and tariffs for these countries under its "Everything But Arms" initiative. In the U.S., the first impact of the Africa Growth and Opportunities Act or AGOA is now being seen. Also, at the recent meeting of the G-8 industrialized countries, a plan entitled the "Africa Action Plan" was adopted, under which Canada will drop all tariffs and quotas on exports from the least-developed countries. These are all positive signs of market opening, at least for the poorest exporting countries.

7. What does all of this mean to cotton producers and traders? I would say that the outlook for the downstream activities, that is, for textiles and clothing production and trade, is basically positive. First, the long-term record of growth in textiles and clothing trade should continue. In fact, with the removal of the quotas, there is every reason to believe that there will be an acceleration of world trade, particularly in clothing, and with the greatest benefits going to the developing countries. Certainly with the reliance on market forces and competition, in the absence of quotas, there will be changes in trading patterns, to the advantage of those countries, both the manufacturers and the governments, that have taken steps to adapt to the new conditions. Also, it can be expected that the evolution in production and trade, which we have seen in the past, will continue. In sum, there is every reason to believe that textiles and clothing production and trade will experience a positive future in overall terms, though with continued and likely accelerated shifts among the trading countries.

Agreement on Agriculture

8. With these comments on the progress in the implementation of the Textiles Agreement, I would like to turn now to the second area of WTO activity which is of relevance to cotton producing countries, namely, the progress in the agriculture negotiations. Over the past year or so, the ICAC has put a great deal of effort into assisting its members in both identifying and responding to the distortions in global cotton production and trade as a result of measures taken by some governments to assist their domestic agricultural sectors. Certainly, the Conference on Cotton and Global Trade Negotiations, which was held last July, was a big step forward in increasing awareness of the problems and distortions which exist in cotton trade as a result of export subsidies, domestic supports and other measures which limit market access, including high tariffs. That meeting was also a useful vehicle for providing member countries with practical suggestions on how to formulate a response to this situation, particularly in the context of the agriculture negotiations now underway in the WTO.

9. I would like, today, to take a close look at these negotiations and at the future schedule of work. First, however, it might be useful to set the scene by briefly reviewing the process that brought us to this point. Negotiations to liberalize agriculture markets are a fairly recent development. It was only through the Uruguay Round, which ended in 1994, that agriculture was first brought within the multilateral trading system. Through the implementation of the Agreement on Agriculture, WTO member countries first began their programs to reduce agricultural export subsidies, trade-distorting domestic support payments as well as import duties. The specific obligations that have been implemented since 1995 are as follows:

(1) developed countries agreed to reduce their agricultural tariffs by 36 percent over six years and developing countries accepted to reduce theirs by 24 percent over ten years;

(2) it was agreed that domestic support programmes of the developed countries would be reduced by 20 percent in six equal instalments and by 13 percent over ten years by developing countries; and

(3) export subsidies had to be reduced by 21 percent in volume and 36 percent in value over six years by developed countries and by 14 percent in volume and 24 percent in value by the developing countries over ten years.

10. These first undertakings were, in fact, a major leap forward, even though from the outset, they were clearly seen as only a beginning, a first step in a longer process of reform. The negotiators of the Agriculture Agreement were well aware of this as they wrote into the Agreement a provision (Article 20) which committed WTO member countries to begin new efforts at further reform at the beginning of 2000. In addition to this, the Declaration made by ministers in launching the Doha Development Round in 2001 went even further, making the objectives more explicit and setting deadlines for

achieving the further reductions in tariffs, in domestic support and in export subsidies.

11. This is what has happened so far. The first phase of the current negotiations, from March 2000 to March 2001, required member countries to submit proposals with what they wished to see in the further market reform. In the second phase, from March 2001 to March 2002, each of the topics raised in the proposals was individually examined in great detail. As you might expect, these proposals and their examination went well beyond the strict confines of the three principal areas of tariffs, domestic support and export subsidies. They brought up for examination members' concerns with such matters as food security, food safety, rural development, geographical indications, environment concerns, food aid, and special treatment for developing countries. These negotiations have been remarkable for the extent of participation. In the first phase alone (2000-2001), there were proposals from 121 countries (counting the EU as 16, i.e. the 15 countries plus the EU as a group) or 85% of the WTO's membership. That means an unprecedented number of developing countries is actively negotiating. This is the case in other subjects as well, but developing countries have identified agriculture as a priority concern. At the same time, the wide range of interests shown in these proposals means reaching agreement by consensus could be more difficult.

12. This brings us to the third stage of negotiations which runs from March 2002 to March 2003, leading up to the Fifth Ministerial Conference in Cancun, Mexico in September 2003. This will definitely be the most critical period in the agriculture negotiations because it will determine the shape of the final outcome. In the third phase, which has a revised mandate through the beefed up objectives spelt out in the November 2001 Doha Declaration, the concepts and proposals of the first two phases have to be translated into precise technical detail. If domestic subsidies are to be reduced (quote) "substantially," exactly how much does that mean, and precisely which domestic supports are to be reduced or removed? And so on. By the end of this year, countries' positions are supposed to be clear enough to be written into a draft overview document. That document will then be the basis for intensive negotiations in early 2003, in order to arrive at a set of "modalities" or formulas for achieving further liberalization by 31 March 2003. These modalities include numerical targets for achieving the mandate given by the ministers, which are:

(1) substantial improvements in market access as well as reductions in all forms of export subsidies with a view to phasing them out and

(2) substantial reductions in trade-distorting domestic support programs.

These modalities will then be used by the member countries to produce their own offers of comprehensive draft commitments, which they must present by the time of the Fifth Ministerial Conference in September 2003. The full process of negotiations must reach a conclusion by 1 January 2005 and form part of the final outcome of the Doha Development Round. This is, indeed, a long and detailed process which only reflects the extreme importance and sensitivity of agriculture trade.

13. How well are the agriculture negotiations going at the moment? The Chairperson gave a mixed report to negotiators on 6 September. On the plus side, a lot of work has been done. He said: "Many specific proposals were made and we had a very useful debate on the pros and cons." But, as he contemplated drafting the overview paper at the end of the year, he warned that he was "concerned about the lack of specificity in some areas." In other words, while some countries have said clearly what percentage reductions they would like to see, others have not, leaving the figures to be negotiated later. It is clear, then, that in the coming weeks and months countries will need to intensify their efforts both through the work in capitals and also between delegations in Geneva. To put it simply, the agriculture negotiations are rapidly approaching crunch time. The delegations from member countries and the WTO Agriculture Division are not likely to get much rest between the New Year and the end of March.

14. For cotton producing and trading countries, concerned with the distortions to trade resulting from the high tariffs, domestic support programs and export subsidies, these negotiations are critical. This is the time and the WTO negotiation process is the occasion when you must make your case for greater market liberalization in this sector. All of these negotiations are carried out by WTO member governments, working both individually and in regional groupings to advance their interests. It is, therefore essential that you, as representatives of your governments, responsible for or concerned with the well-being of the cotton sector, take the required steps to ensure that your national negotiating policies and positions fully reflect the concerns and objectives of the cotton sector. Your governments must also ensure that the regional groupings carry forward the concerns and interests of the cotton sector in the overall negotiating process. It is clear that this is a long-term process, but it has begun and is now moving forward in its second major effort. The ICAC has laid the groundwork through its studies and the July conference. Now, in my view, best results will be obtained by continuing and intensifying the joint effort of the ICAC and its members to advance your objectives in your capitals and in your regions.

FAO Activities in the World Cotton Market

David Hallam
Commodities and Trade Division, FAO

There are more than 200 million farmers and workers worldwide who are directly or indirectly employed in cotton production, marketing and processing and nearly one billion people who rely on cotton for their living. The food security of these people is based on earnings from the production and export of cotton. FAO has been involved in various efforts to improve cotton farmers' food security through both technical and economic programs. For instance, projects in operation in Asian countries include technology transfer for integrated pest management, and monitoring, containment and control of the cotton boll weevil. These technical programs are fully or partially financed by the FAO Technical Co-operation Programme (TCP) at the request of the countries concerned. FAO also plays an active role in the world Cotton Biotechnology Group and the ESCORENA Cotton Network, which focuses on the development of new technology.

Our economic programs undertaken mainly by the Commodities and Trade Division include monitoring agricultural commodity markets and conducting economic analyses on commodity issues including trade policy and market outlook. We undertake studies of current markets and short and longer term market prospects for many agricultural commodities, including cotton, and some of this work has been undertaken in conjunction with ICAC. We have also devoted considerable effort to the analysis of evolving trade policy developments, and have published various assessments of the impact of the Uruguay Round on agricultural markets and food security, including developing countries' experiences in implementing the WTO Agreement on Agriculture.

We also provide considerable assistance to developing countries preparing for multilateral trade negotiations including in agriculture, fisheries and forestry *inter alia* through studies, analysis and training. Over the past few years, FAO has held various regional and country workshops to assist member nations to access the impacts of implementing the Agriculture Agreement and formulating strategies to face challenges and capture opportunities raised from the trade liberalization. FAO has made and will continue to make efforts to assist member nations, especially developing countries, to build their capacity to implement existing agreements and to participate in the new negotiations.

FAO also provides technical assistance to events such as international conferences in member

countries, including the two very successful international cotton conferences held in China (Mainland) in 1999 and 2001. Since current developments in the Chinese textile and cotton industries and trade policy issues were the focus of the conferences, government and private sectors from major cotton exporting and importing countries showed strong interest in these conferences. FAO support for a possible third international cotton conference in China, tentatively planned for around the middle of 2003, is currently under consideration.

In recent years, the world cotton economy has been facing considerable challenges. The financial crisis in Asia in 1998 and the recent slowdown in economic growth in developed countries, among other factors, have had significant effects on the world cotton market. Indeed, prices of almost all agricultural commodity prices have dropped to historically low levels over the past few years. In response to these depressed agricultural commodity markets, FAO held a high level expert consultation on the developments of agricultural commodity prices early this year. Representatives of international commodity organizations (including ICAC), international organizations, and academics and other experts participated. The Consultation addressed three important aspects of the depressed levels of most agricultural commodity prices:

- the nature of the price decline, and the factors underlying it;
- the implications of low commodity prices for developing countries; and
- the case for and possible forms of actions to redress low commodity prices.

The Consultation noted that although agricultural commodity price was essentially determined by the market fundamentals, demand and supply, many other factors have significant effects on prices in the short term. The Consultation recognized that attempts to resist market forces were fraught with difficulty and had enjoyed little success in the past. However, measures which could be employed to combat the low commodity prices include adoption of new technologies to reduce production costs, vertical diversification to obtain income from value-added processing, and the reform of policies at the national and international levels which distort markets and inhibit trade. Another consultation to review the state of global commodity markets is expected to be held at FAO in Rome in March next year.

Some delegates may recall the FAO World Apparel Fibre Consumption Survey that was published over a long period of time until 1995. This work was terminated due to constraints on our budget. The data had been useful in providing a base for cotton market promotion and as a base for the medium term projections of the cotton market which have been undertaken jointly by FAO and ICAC. We are now exploring more cost-effective ways to produce this data and I hope that it may be possible to produce a new set of data on the consumption of various apparel fibers in the next year or so.

Given the importance of cotton production for food security, income, employment and national economy and FAO's mandate, we will continue to work with our member nations and with international agencies, particularly ICAC, to improve the profitability of cotton production and exports to ensure food security of millions of cotton farmers and workers.

Second Plenary Session

Report of the International Forum for Cotton Promotion

Brooke Lewis
Cotton Australia

Cotton is a fabric that for centuries has been the world's favorite. It still has about 40% of the world's market share, despite there being little effort in the area of cotton promotion throughout history. Cotton is a fiber and a fabric that has always sold itself. But will it continue to do so?

Not without promotion.

A quick look at the increasing market share of synthetic fibers would tell us that the world cotton industry cannot afford to sit back and hope cotton will continue to sell itself.

The United States is really the only country that has made any demonstrable difference to levels of cotton consumption. The Cotton USA program reaches over one billion people in more than fifty countries—an achievement that has required substantial financial investment over a long period of time.

Another success story is South Africa's Cotton Mark program that allows consumers to easily identify good quality cotton products backed up by strong trade and consumer marketing campaigns.

- ✓ But what have we done as a united global industry to outwit, out-sell and out-promote our competitors?
- ✓ How well do we know our consumers and their needs and how well are we responding to them?
- ✓ How easy is it for consumers in our countries to identify cotton products at time of purchase?
- ✓ Do we have adequate labeling laws?
- ✓ Do we have organizations whose role is to influence fashion designers, governments, the media and developers of new textiles?

Two years ago at the ICAO meeting in Cairns Australia, there was discussion about a new group being formed to tackle the serious issue of demand enhancement. Both producing and manufacturing nations expressed their concern that something needed to be done urgently to regain market share from the synthetic fiber market. At this meeting, one thing was very clear: There needed to be a coordinated effort and a collaborative approach to the world promotion of cotton.

What started in Cairns as a small group of like-minded countries developed into a formalized arrangement at the 60th Plenary Meeting in Zimbabwe last year. The group, made up of thirteen member countries, decided to call itself the International Forum for Cotton Promotion. Participating countries include:

Australia
Brazil
Egypt
Germany
India
Italy
Poland
South Africa
Spain
Turkey
United Kingdom
United States of America
Zimbabwe

All of these countries made a financial commitment to the group and are committed to the objective of the Forum, which is:

> "To encourage national marketing development programs through the exchange of ideas and experiences, for the purpose of increasing international cotton consumption and market share."

At this same meeting it was recognized that each country had its own approach to cotton promotion. Some countries were only just beginning to explore strategies in this area and others had established successful cotton promotion campaigns. Therefore, it was decided that the Forum should act as a clearing house for ideas, market research, resources and information that could allow each member country to better equip itself for the job of promoting cotton within its own country.

The first task of the Forum was to produce a booklet that documented the current promotional

activities of its members. The booklet is a practical tool that can be used to generate promotional ideas, plans and strategies within member countries with the ultimate aim of increasing world demand far cotton and cotton products. In developing the booklet, a key strength of the Forum was revealed. And that is that member countries are using different approaches and have different strengths in cotton promotion. It is these differences that will allow us to learn a lot from each other's successes and mistakes, and that will allow the Forum to be an effective working group.

Although there is still a lot of work to be done, there are some very effective promotional activities being carried out around the world; for example,

- The Brazilian Textile Association hosts an awards ceremony to acknowledge the contributions of the textile industry that for the first time this year included an award for excellence in cotton growing.
- The Gdynia Cotton Association in Poland has a registered cotton emblem that is licensed to its domestic members for product promotion on the Polish market.
- Cotton Australia is directly reaching over 40,000 students each year with its cotton education programs, delivered at the Cotton Discovery Center classrooms and cotton fields throughout Australia.
- The Istanbul Textile and Apparel Exporter's Association has a long-term plan to promote the country's textile and apparel capabilities throughout the world. It has launched a "Turkey Brand" concept to support Turkey's talented designers and sponsors fashion shows in New York, London and Paris.

We hope these and the many other activities underway by members of the Forum will inspire other countries to do more in the area of cotton promotion.

The Forum's plans for the year ahead include an analysis of labeling laws throughout the world, a collection of market research, a second and more comprehensive edition of the booklet, a series of instructional manuals for promotion, and training workshops for members.

With demand enhancement such a crucial issue to the future of the world cotton industry, I will finish by asking that all members of the International Cotton Advisory Committee consider joining the Forum and consider supporting the proposal that ICAC employ a marketing specialist. A cohesive and concerted approach to world cotton promotion is the only way ahead and we look forward to welcoming a participant from each delegation at our workshop in Breakout Session 4 on Thursday at 8.30am.

Statement of the European Union

The European Community welcomes the opportunity that it is given to clarify its position within the ICAC with regard to cotton policy and, more particularly, the support granted to this sector.

The European Community takes note of the concerns expressed by members of the ICAC regarding the influence of certain national policies on the international market of cotton and the unfavorable consequences that these policies can entail on the producers in developing countries.

In this respect, the European Community also takes note of the proposal of the ICAC to examine these problems within the current negotiations of the WTO, in particular the "Doha Development Round (DDA)" since this was launched, with a view to inserting concerns and the interests of the developing countries into the negotiations on the multilateral trading system. It is therefore logical to seek an appropriate response to these questions within this organization.

The European Community also wishes to reassure its ACP partners that it is ready to collaborate fully under the Cotonou Partnership Agreement, in particular its Article 39, and to identify appropriate solutions to the problems of the sector.

Considering the importance of the cotton sector for the economic and social development of a significant number of countries in West Africa and the state of crisis of this sector, the Commission, in collaboration with other donors, will examine the possibility of adopting compensatory measures in the short and medium term in order to avoid the collapse of the sector. Indeed, the WTO process appears far too long to bring a remedy in time.

Within this framework, the Community wishes to underline the support that it brings—in cooperating with developing countries for the improvement of the competitiveness of this sector—to the diversification of rural agricultural production as well as to regional integration and to the improvement of trade among developing countries and between those and the European Community. In particular, the measures adopted through the initiative "Everything but Arms" enables the least developed countries to export all their cotton products to the Community duty-free.

This said, on the occasion of the debate of this session, it appears also essential to clarify the following points:

- Cotton production in the European Community is primarily concentrated in two regions that are the south of Spain and the north-center of Greece. Resulting production accounts for only 2.5% of world production and does not produce, as a result, any considerable impact on world prices. In addition, the Community support system includes no intervention measure in the trade exchanges (be it customs duties, import quota, or export refunds). EU imports account for 15% of world imports and the EU is the country of destination for 25-50% of the cotton exports of Mali, Benin, Burkina Faso and many other ACP countries.
- With regard to the fundamental problem of the support granted to the cotton sector, a reform of the system of Community aid is currently under study. In line with the general reform of the Common Agricultural Policy (CAP), it is possible that aid to the cotton sector be progressively uncoupled taking due account of the impact of such a reform on the regions of production.
- In this context, the European Community wishes to underline, nevertheless, that these measures will not reach the results expected by the developing countries if similar efforts are not undertaken by other countries in the same situation.

What precedes illustrates, in short, the point of view of the European Community where the development of rules favorable to the developing countries features as a primary objective of international trade forums.

We hope, therefore, that the above remarks will help clarify our position and dissipate possible misunderstandings. It goes without saying that during the debates of this plenary meeting we reserve the possibility of our having additional interventions to defend our views in this matter.

Statement of the Common Fund for Commodities (CFC)

Sietse van der Werff

Let me start this brief presentation by sending you the best regards of Dr Rolf Boehnke, the Managing Director of the Common Fund for Commodities, who, due to other commitments, could not participate in person in this meeting. I can assure you however that he is keenly interested in the work undertaken at this meeting, which has a direct bearing on the many fields of common interest between the ICAC and the Common Fund.

I will not reiterate all the projects that the ICAC has presented thus far for financing by the Common Fund; it may be sufficient to say that the current project portfolio (covering some twelve

projects) has reached more than US$20 million in Common Fund contributions, thus making cotton, portfolio wise, one of the most important commodities covered by the Common Fund. The details of the projects can be found on the Web sites of both organizations as well as in the Common Fund's Annual Report for 2001, which can be made available upon request.

Areas covered by the various projects, be they completed or ongoing, include fields like crop protection against major cotton pests, improving marketability of cotton by securing cotton cleanliness, improved access to credits through development of warehouse receipts serving as collateral, etc. Access for smaller cotton producers to price risk management instruments is a key area where the Common Fund will be more and more active, based upon a detailed country *cum* instrument analysis which is currently being undertaken. These activities will be carefully synthesized with activities undertaken, e.g. in the framework of the World Bank-led Integrated Task Force on price risk management.

Challenging project proposals have been submitted to the Common Fund, ranging from a relatively straightforward applied research project (like in the case of a pilot project in India for making viable use of cotton stalks for productive purposes), to a more research-oriented project on cotton plant diseases particularly prevalent in Southern and Eastern Africa. Although both projects do contain research activities, due care will be taken to link with farmers and to bring in operational linkages with the actual production levels, to ensure adequate uptake of activities and results initiated by the projects.

A more complex project will focus on a geographical area of specific importance to both the Common Fund and the ICAC, namely West Africa. Cotton production in that region can be seen as exemplary for the important role that cotton plays in so many countries, where (shortly speaking) it provides employment and income for a large part of the population and is a major (if not the main) source of foreign exchange earnings for the country. While we have received several proposals to initiate project activities in that region, it was considered more prudent to first have a careful analysis made of the main pressing problems that are being faced by the majority of small holder cotton producers in that region. The Common Fund will work with the ICAC and UNCTAD to organize such a regional consultation on the basis of analysis of policies, practices and prospects as assessed by national and international expertise in the field of cotton production, processing and marketing. While the importance of the income generating aspects of cotton production for the farmers will be the key starting point, due attention will also need to be given to the broad issue of sustainability of cotton production. This is based on the need to effectively combine economic and production aspects with environmental concerns, given the not always environmentally-friendly nature of cotton production (having not only an impact on the natural environment but also posing hazards for human health).

It may go without saying that inherent to the key principles of the work of the Common Fund, the projects financed by the Fund focus on general, generic problems of commodities, in our case on cotton as a commodity. The results of the completed and ongoing projects are therefore accessible to all member countries of the ICAC and the Common Fund.

Let me conclude by coming back to the important issue of setting priorities for cotton development in the African region and the possible support that can be given by the Common Fund to ICAC-proposed projects. This stakeholder exchange/consultation, to identify priority intervention areas to the benefit of small scale cotton producers, will also be in the center of discussions at a Regional Round Table Meeting on Commodity Development, which will take place in Ouagadougou, Burkina Faso, from next 18–21 November.

The Fund's portfolio of cotton projects addresses important questions and concerns of cotton producers, and the growth of the portfolio is reflective of the determination of the ICAC and the Fund to work together for the continued development of cotton, in particular for the benefit of the millions of smallholder producers who depend on cotton production for their livelihood.

Statement of Australia

The focus of the plenary meeting this afternoon on government measures affecting cotton is extremely relevant and timely.

The WTO Round must be used constructively to remove or at least substantially reduce all forms of government measures that distort the world's trade in cotton.

The declaration signed in Doha reconfirms the long-term objective already agreed to establish a fair and market oriented trading system through a program of fundamental reform. The purpose is to correct and prevent restrictions and distortions in world agricultural markets.

Member governments have committed themselves, to comprehensive negotiations aimed at achieving

- Substantial reductions in market access impediments.
- Reductions of, with a view to phasing out, all forms of export subsidies.
- Substantial reductions in domestic support programs.

We are constantly reminded that the world has changed forever as a result of September 11. The manner in which agricultural trade is managed must also change if we are genuine about making trade in cotton more equitable for both producing and consuming countries. Yesterday, we heard from other members about the negative impact that subsidies are having on the price of cotton and the social consequences on industry participants and broader agricultural communities. We fully support these observations.

Australia urges all member countries of the ICAC to use their best endeavors provided by the Doha Round to ensure an outcome that minimizes distortions and maximizes opportunities for cotton in fiber markets.

Clearly, without the impact of distortions, Australia believes programs to build increased market share for cotton will be far more effective. Being optimistic about the outcome of the Doha round, Australia strongly supports the proposal before the ICAC Standing Committee that a new position at the Secretariat be entirely devoted to the issue of cotton promotion and demand enhancement.

Statement of Chad

Cotton is Chad's leading export. It is grown on some 360,000 hectares. In three years output has declined from 110,000 tons of lint to just 70,000 tons, due to falling prices on the world market.

When we consider that 2.5 million people in Chad derive the bulk of their income from cotton growing and the cotton trade, we can easily understand the devastating effects of the current cotton crisis on my country.

The crisis has had a number of effects: declining output; lower seed cotton prices; a sharp decline in farmers' income, seriously impacting the standard of living in rural areas; and a drop in government revenues, leading to a reduction in government commitments to social programs.

The current crisis of the world cotton industry has profound and lasting effects. All countries should coordinate their efforts to objectively analyze the multiple causes of this crisis and propose ways to resolve it.

Clearly there are several causes. Cotton has lost some of its market share to synthetic fibers, and countries of the North have agricultural production and export subsidies that guarantee stable prices for their farmers while leading to overproduction of cotton worldwide and ultimately a decline in prices.

My country believes that the world cotton community must make an effort to promote cotton consumption. ICAC's decision to recruit a person at the Secretariat level to deal with this is-

sue is excellent. Cotton needs to regain the market share lost to synthetic fibers.

The second remark that we wish to make concerns the problem of subsidies. It would be impossible to overstate the fact that subsidies distort the rules of the game in the marketplace and amount to unfair competition which penalizes countries that do not subsidize growers. We need a world cotton economy that operates on the basis of fair and healthy competition.

Statement of the African Cotton Association (A.C.A.)

Bachir Ahmed Diop

Can there be any need to restate the importance of the cotton crop in Africa? Suffice it to say that more than twenty million Africans derive the bulk of their income from this crop. Furthermore, cotton plays a very significant role in the modernization of farming systems and industrialization of the continent.

Origins of the A.C.A.

From the very beginning, senior officials of African cotton companies who have had only sporadic contact with each other have expressed the aspiration of developing close and formal ties. To give concrete form to this aspiration, a number of cotton company officials decided two years ago to establish a committee to take the initiative in creating the A.C.A.

On September 19, 2002, this process culminated in the establishment of A.C.A. headquarters in Cotonou, Benin.

The founding members are 29 companies and national associations from eleven countries, accounting for 58% of total African lint production.

Objectives

- Bring all African cotton professionals together to create a framework of consultation for dealing with issues of common interest.
- Collect, process and disseminate widely any and all information related to the cotton trade from and for members, governments and African political and economic organizations.
- Promote adherence to, and the inviolability of, commercial contracts freely entered into by two or more parties.
- Defend the African cotton industry in the face of a world economic environment that is difficult and unbalanced as a result of unjustifiable subsidies and barriers erected by some producing countries.
- Participate in the implementation of strategies to build alliances with other producing countries harmed by unfair trade practices.
- Organize consultation, exchanges of experience and the pooling of resources and expertise among cotton companies, particularly in the areas of agronomy, ginning, logistics and trade policy.
- Ensure implementation of, and adherence to, sound trade practices, as well as development of, and adherence to, a standard sales contract for African cotton.
- Take all necessary measures to further improve the quality and reliability of African cotton.

Composition

The A.C.A. is composed of active members, associate members and corresponding members.

- The active members are cotton companies and associations of cotton companies whose members are regularly involved in the production, and support for the production, of seedcotton in Africa, as well as ginning and lint marketing.
- The associate members are organizations of cotton growers, associations of textile manufacturers and associations of seed crushers.
- The corresponding members are transport and transit companies, banks, insurance companies, foreign cotton associations, international trading companies and, in general, all natural or legal persons involved in developing the cotton industry.

The association's resources come from:

- ✓ Membership fees
- ✓ Dues
- ✓ Subsidies
- ✓ Miscellaneous revenues
- ✓ Contributions and bequests

The association is very broadly open to the entire African and international cotton community. I would like to take this opportunity offered by ICAC to invite all the cotton companies of Africa, from North to South and from East to West, to join the African Cotton Association. This invitation is also extended to all world cotton associations, merchants, shippers, inspectors, banks, insurance companies, suppliers, consultants, researchers and other natural or legal persons involved in the cotton industry.

Statement of Centre de coopération internationale en recherche agronomique pour le développement (CIRAD)

Jacques Pages

For many years already CIRAD has regularly followed the ICAC plenary meetings and within CIRAD it is considered an honor and a privilege to participate in such events.

I will not present at length my institution, which is already probably very well known to many of the participants.

I will just remind you in a few words our status, mandate and activities related to cotton. Gathering 1,800 people, CIRAD is an international research organism, funded by the French government, dealing with any topics related to agriculture, forestry, veterinary sciences and environmental resources in the tropic and sub-tropic areas. We intervene mainly by means of close collaboration with research and training institutes, as well as development agencies or the private sector. CIRAD scientists are frequently posted in our partners' institutions and nowadays this is the case in more than 52 countries around the world. The cotton research program is a team of sixty agents whose activities range from genetics to fiber technology, going through cultivation practices and pests and diseases management, without forgetting economics and chain-related issues.

Nowadays, our major fields of interest are the elaboration and implementation of cropping systems adapted to diverse agro-ecological situations, the control of quality, and the follow-up of biotechnology progress. I would like today to address rapidly these two last topics.

One of the words most commonly heard at international conferences in the last few years is "globalization" or "world-wide market." This reflects a general trend of internationalization exchanges, fast communications and networking. There is an imperious need for a common ground of references, as a base of understanding, discussions and ultimately, decisions.

Agricultural activities, as the pillar of many countries' economy, are a particular field of concern and the theatre of crossed exchanges, balances, and negotiations, all of them depending on market regulations and commonly acknowledged rules.

Biotechnological products such as genetically modified cotton (GMC), and cotton quality are two issues deeply concerned by the acknowledgement of common rules, common references.

As an international public body, independent from private enterprises and deeply anchored in numerous collaborations worldwide, CIRAC has been engaged for many years already in the elaboration of standards and norms, guidelines for policy makers as well as participants in the agricultural product chains.

GMCs, whatever the purpose, be it pest protection or weed killer tolerance, are rapidly gaining importance in terms of acreage devoted to their cultivation and more generally speaking, in the number of countries agreeing to their use. Between countries such as the United States, India, China and others, which have deliberately decided in favor of GMC, and countries such as Thailand or Paraguay, which have banned their cultivation and use, a third group including Brazil and Zambia, either initiated trials or postponed their decision, deciding to acquire increased knowledge before going further.

This decision is to be supported by information provided by independent scientific sources, and CIRAD is eventually one of those. In this matter, CIRAD has developed and is implementing at this very moment a research program devoted to assess quantitatively and characterize as precisely as possible, the impact of introducing GMC in different environments. The program deals with topics such as socio-economic impacts (i.e. incidence on farmers' production systems, community, cotton chain, country's costs and incomes and organizational implications), agro-environmental impacts (i.e. incidence on farmers' practices, on environmental changes through gene fluxes, biological balances and biodiversity), GMC's sustainability (i.e. transgenic material efficiency and resistance build-up). As the basic principle of CIRAD's way of operation, as well as to benefit from the widest expertise, this program is implemented in close collaboration with other research and academic institutes—French INRA and South African Pretoria University. This collaboration aims at being developed with other institutions and already contacts are being established with Brazilian EMBRAPA, or Thai universities and West African Burkina Faso's INFRA.

Cotton quality is another key issue and there is a wide discrepancy between the level of knowledge and assessment of cotton quality characteristics. Even though gins, milling factories and traders have long-established standards and classification references, there is still a gap with the producers' own appreciation and a need for a common ground of understanding. Quality assessment devices checkup systems need to be recalibrated, complementary quality criteria such as the stickiness degree or percentage of contaminants must be more precisely defined in order to meet consumers' demand.

CIRAD has then initiated an in-depth study so as to understand the origins of quality at genome level and, all along in the production and processing chain, how quality can be affected by environment and practices. Agro-physiological simulation tools are being developed to provide key information to producers on their performance regarding quality results. Ultimately, this information will be used to assist producers in their decision-making process, offering alternatives to their practices, to achieve their own strategies. Activities are being run in Central and Western Africa (Cameroon, Mali, Benin) and in Brazil, in close partnership with local research and academic institutions as well as with other European organisms (the Netherlands universities, Belgium universities).

Knowledge gained in these two specific examples will benefit producers together with consumers and policy makers. It should contribute to narrow the gap between developing countries and industrialized ones. It will also contribute positively to the image of the cotton world by the concern towards the environment, sustainability and quality control that it expresses.

I would be too pleased to explain further the activities projected and hope that this meeting will give me an opportunity to do so and eventually establish complementary-related collaboration.

Statement of the World Bank

Although the World Bank does not directly lend to commodity production, there are many ways in which our institution is involved in the cotton sectors of developing countries, including policy reforms. In what follows, I will briefly outline the nature of World Bank's involvement in the policy debate of West Africa and subsequently I will touch on the implications of international cotton policies on the region's cotton strategies.

Cotton production is a success story in West and Central Africa (WCA)[1]. Cotton proved to be an economically efficient crop that made major contributions to the development of rural areas, to exports and to economic growth. Cotton growing was readily adopted by farmers, expanding rapidly. Production in the late 1990s rocketed to five-fold of what it was three decades earlier (less than 400,000 tons in the early 1970s to a current 1 million tons), which substantially raised the incomes of over 2 million farmers. In 2001/02, the region produced more than one million tons of cotton lint, equivalent to nearly 5 percent of the world's production. With nearly all the lint being exported, Francophone Africa became the third largest cotton exporter behind the U.S. and Uzbekistan, accounting for about 12% of world cotton trade.

Several factors contributed to making cotton production a success:

- Extension of adequate technical packages, supported by well-targeted research and broad access to credit.
- Adequate supporting services (extension, credit, roads, etc.) provided by the cotton companies.
- Guaranteed output market at stable prices.
- High input credit access and recovery rates.

The Strategic Issues and Reform Options Ahead

In spite of its success in promoting cotton cultivation, the current system of integrated national cotton monopsonies has exhibited weaknesses. In particular, the system relies on (a) the ability of the monopsonies to tax producers and accumulate profits in times of high export prices, and (b) the availability of budgetary support from national governments in times of low international prices.

The highly monopolistic and monopsonistic nature of the cotton sector is impeding broader economic development in several ways:

- The historically low prices that are paid to farmers reduce their income levels and hence their ability to invest in productivity-increasing technologies.
- The lost income leads to forgone multiplier effects that would generate additional income and employment in other parts of the rural economy and the countries as a whole.
- The potential of cotton production to support investment in other rural economic activities is underutilized, since seed cotton can only be used as collateral to borrow for cotton inputs.
- Entrepreneurial opportunities are denied to potential investors who could build on the momentum generated by a strong tradable sector to provide a wide range of agricultural services.

In the debate about reform options, two alternative approaches have emerged. Countries could retain, but reform, the current system, or they could establish free entry and increased competition in the sector.

Retaining but Reforming the Seed-cotton Monopolies/Monopsonies

The key components of reform would include:

- Setting the purchase price for seedcotton at levels closer to world market prices.
- Giving cotton farmers more influence over key decisions, especially the pricing of seedcotton, the organization of credit input supply, and the design and implementation of price-stabilization schemes.
- Increasing the extent to which activities such as input supply and transport are subcontracted to private firms.

- Eliminating subsidies on the sale of cotton lint and cotton seed to domestic textile firms and oil mills.

One of the main advantages of limited reform is that it reduces the risk that more far-reaching reforms might lead to the deterioration or breakdown of some of the strengths of the present system. Those strengths include the compulsory contract farming that ensures research and extension cost recovery, and the high recovery rates of input credit. Another advantage of this approach is that seedcotton prices would be aligned more closely with world cotton-lint prices. But this is precisely why there is some resistance to reform, since such large shares of national income are at stake. The base purchase price would remain inherently political and a subject of negotiations among the various interest groups.

With limited reform, the parastatals would continue to have greater access to political power and patronage as compared to farmers. This would, in turn, assure them a higher share of the profits. Governments would be likely to continue holding guaranteed prices low, to avoid having to subsidize cotton marketing.

Free Entry and Competitive Markets

The key components of reforms under this system would include:

- Competitive free entry at all levels of the cotton sector.
- Higher producer prices in the long run, more closely aligned with world prices.
- More efficient pricing of inputs and agricultural support services.
- Strengthening of related public activities, especially research, extension, and phytosanitary controls.
- Strengthening farmer groups and facilitating their participation in voluntary contract farming arrangements.
- A reduction in the implicit taxation by government of the cotton industry.

With greater competition, seedcotton prices in the WCA region would rapidly approach equivalent world prices. Higher seedcotton prices would generate extra government revenue indirectly through the resulting increase in cotton production and exports. In some countries, free entry may be sufficient to generate a competitive system, but in most others, restructuring and privatization of existing public companies would be required in order to signal the government's commitment to free entry.

The competitive model would eliminate the negative aspects of a monopoly system (low prices and incomes, barriers to entry, constraints to growth in marketing, transport, processing, and the export sector, and the negative fiscal effects of world market downturns). Measures would have to be taken, however, to ensure that input distribution and credit provision systems function adequately and equitably. This is why the transition to more competitive systems has to be done in a pragmatic and gradual process and should be accompanied by sufficient strengthening of the capacities of farmer organizations.

The World Bank Position

Both the competitive and reformed-monopoly models can work, and both would require specific conditions and safeguards. From the point of view of the World Bank, the best option would be a model of competitive contract farming. Such a model would allow competition among several firms based on an inter-professional agreement, or a "code of conduct," that would ensure that contracts are enforceable, and that would link credit repayment to seedcotton marketing. The Bank does not believe that it would be productive to privatize the cotton parastatals unless the minimum conditions for competition exist.

The World Bank's view is that the discipline and responsibility that a free-entry competitive system imposes on market participants would lead to a more resilient, flexible, self-reliant, and innovative national cotton sector in the long run. More importantly, greater competition would improve the sector's performance and would contribute to alleviating poverty by raising farmers' cotton revenues.

Consequently, the World Bank has, for several years now, advocated reforms along the following lines:

- Allowing free entry and competition at all levels of the cotton sector, including cross-border trade in seed cotton.
- Developing private-sector-based mechanisms to ensure effective input credit recovery linked to the marketing of cotton.
- Adopting pricing mechanisms that allow producer prices to reflect changes in world prices.
- Developing effective market-based mechanisms to reduce price risks.
- Building the technical and commercial capacities of producer associations to facilitate their participation in voluntary contract farming arrangements, input supply, and technical services.
- Establishing agribusiness trade associations to allow the private sector to participate effectively in the coordination and financing of sector-wide technical support services.
- And improving the provision of services, especially research, extension, and phytosanitary controls, where governments have an essential role in financing the public goods component.

Experience suggests that the implementation of this reform agenda will take several years to complete. Individual WCA countries are at different stages of progress toward establishing competitive sectors. Where governments cannot be convinced to move quickly to a competitive model, a reformed and regulated monopoly would be a realistic and acceptable option. In such cases, the Bank would seek to help ensure that (a) the regulated monopoly is functioning properly, (b) the parastatal is under strong pressure to perform adequately, (c) the cotton company generates fiscal resources and transfers them to the treasury, and (d) the producer price is set by a formula which is less taxing and much more favorable to producers than in the past. Moreover, producer organizations would need to be strengthened significantly to upgrade their commercial and negotiating capacities.

The responsibility for cotton policy reform and implementation rests with the national governments and the other stakeholders in the sector. The Bank stands ready to assist all interested parties in ensuring that the policies chosen contribute to the welfare of the rural populations in the region, and in maximizing the economic development potential of the WCA region's cotton sector.

The Implications of International Cotton Policies for Regional Cotton Strategies

Most major producers outside of the WCA region have programs aimed at supporting cotton production. In 1998-99 and 1999-2000, such programs were in place in the following eight countries, accounting for an estimated 53 percent of world output: Brazil, China (Mainland), Egypt, Greece, Mexico, Spain, Turkey and the United States. For the 1998/99 crop, the level of assistance offered by governments to the cotton sector in those eight countries amounted to $5.4 billion. In the following year, Egypt reduced its price support, but the seven other countries maintained theirs. Over 40 percent of the support was provided by the United States. The high levels of subsidy have been a main source of the downward pressure on world prices[2].

The European Union (EU) provides the most generous assistance to cotton growers—more than 100 percent of world prices. Moreover, EU subsidies for cotton are exceptionally generous when compared to other crops: three to four times larger per hectare than for maize and oilseeds, and seven to eight times larger than for cereals. However, cotton production (limited to Greece and Spain) is much lower than that in China or the United States. The Common Agricultural Policy's cotton subsidy system was reformed in 1999 to increase penalties for excess production.

China provides substantial assistance to cotton farmers through a reference price system for cotton. Currently, the procurement and marketing of cotton are monopolized by the government and the procurement and sale prices are

determined largely to subsidize the farmers. This has resulted in domestic prices that are about 20 percent higher than world prices. After China's entry to the WTO, the state-trading monopoly will be phased out, and domestic prices should move closer to international prices.

In the United States, the program of agricultural support is notable because it has been based on the assumption that agricultural prices would remain stable or increase slightly; the program was designed in 1996 to enhance the role played by market forces in production decisions. As production expanded and prices started to fall, the level of subsidies increased significantly. Instead of facilitating the adjustment of production to the excess supply and declining prices, the U.S. price supports have led to increasing production in the United States by making cotton more profitable than competing crops like soybeans, corn, or sorghum[3]. For instance, U.S. cotton farmers are expected to receive more support in the current crop year than in 1999, when cotton prices were also at very low levels[4].

The U.S. agricultural support programs were renewed in 2002. The farm bill (a) locks in place levels of spending that were inflated in recent years by "emergency" funding measures, (b) introduced a new countercyclical element tied to product prices, and (c) expanded the programs' coverage to other agricultural products. The new farm legislation contributes to continued overproduction and lowers world prices of the agricultural products covered by the programs, in particular cotton, which perpetuates the problems faced by WCA exporters.

The subsidies to cotton farmers in major cotton producing countries that are outlined above increase artificially the supply in international markets and depress export prices for WCA countries. Downward pressures on export prices have been exacerbated by generous (and in the case of the United States, rapidly increasing) subsidies for cotton production in the United States, China, and the European Union. Removal of these subsidies would benefit WCA countries, and allow them to better exploit their comparative advantage in cotton production for growth and poverty reduction.

[1] The Africa Franc Zone is composed of Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Mali, Senegal, and Togo.

[2] See Badiane, O. et al. Cotton Sector Strategies in West and Central Africa. World Bank Policy Research Paper, July 2002.

[3] U.S. farmers receive benefits under a number of government programs: production flexibility contract and commodity loan programs, subsidized crop and revenue insurance, and market loss assistance. U.S. policies have resulted in a decoupling of the U.S. price for cotton that farmers receive from the world price. Despite historically low world cotton prices, prices received by U.S. farmers have actually increased since early 2001, if the value of the loan programs (as a per-unit subsidy) is included.

[4] See Leslie Meyer and Stephen MacDonald, "Cotton: Background and Issues for Farm Legislation," U.S. Department of Agriculture, Economic Research Service, July 2001.

Third Plenary Session

Successful Outcomes for Cotton in the WTO Agriculture Negotiations

Michael Tietge
Department of Foreign Affairs and Trade
Australia

Before I start my presentation, I would like to say that the International Cotton Advisory Committee does a great job of facilitating cooperation and exchange of ideas among member countries to ensure cotton's place in the international market, and I am very happy to be here in Cairo and to be able to contribute to your 61st Plenary Meeting.

And something else, Did you know that until the construction of the Eiffel tower, the Pyramids of Giza were the highest man-made structures in the world? They are certainly impressive, and provide the perfect backdrop to this plenary.

I am pleased to have been given the opportunity to talk to you this afternoon on the topic of successful outcomes for cotton in the WTO Agriculture Negotiations.

I should say from the start that I am not an expert on the WTO.

As the market access facilitator for the Australian TCF industries, including wool and cotton, I have assisted our cotton industry over the years on a number of market access issues, including a few years ago with an examination of the effect of trade-distorting subsidy programs on our cotton exports.

I am also the Australian government representative on the ICAC Working Group on Government Measures and you might say a founding father of the group which developed last year in Zimbabwe. The Working Group has been collecting material on the effects of low cotton prices in member countries and documenting the economic injury. Its other role has been to identify effective strategies to reduce and eventually eliminate the negative effects on trade caused by direct government assistance to cotton production and trade.

In the context of this role, the Working Group has come up with a proposal on strategies which countries might take up with their governments to ensure successful outcomes for cotton and other commodities in the WTO. We will look at this proposal in more detail later in this session.

As we all know, the issue of government measures is not new and has featured in ICAC plenaries in recent years, mostly due to its link with the downturn in cotton prices. But this year, it has taken on greater significance as the new Doha Round of Multilateral Trade Negotiations is underway and greater focus is being directed to achieving successful negotiations for agriculture in the WTO.

Before I launch into my presentation, I just wanted to say that the Doha Round is vitally important for the global trading system. This is why our trade minister, Mr. Vaile, will host an informal meeting of trade ministers in Sydney on 14-15 November to discuss progress in the Doha Round.

There are four main issues in my presentation today:

- Firstly we'll look at agriculture and the WTO
- Secondly we will talk about some criteria which we might use to measure "success" for cotton in the Doha Round, and I'll mention some of the negotiating proposals already on the table
- Thirdly I will address the strategy proposed by the Working Group on Government Measures and draw some analogies with other negotiating proposals.
- And finally I will suggest some conclusions and actions.

Agriculture and the WTO

Cotton occupies a prominent position in the economies of many countries providing income to around 100 million farming units directly engaged in cotton production. But cotton trade remains the most corrupted of all international markets with some governments continuing to provide subsidies that distort prices, production and trade in cotton and cotton products to the detriment of non-subsidizing countries.

The Agreement on Agriculture negotiated at the end of the Uruguay Round in 1994 was a significant first step towards a fairer, less distorted trading environment by bringing trade in agriculture under world trade disciplines common to other goods such as industrial. But the post Uruguay Round situation still has many distortions and significant trade barriers remain in

agriculture and textiles, which are sectors of particular interest to developing countries.

The International Cotton Advisory Committee estimates that market distortions in the cotton industry are worth US$5.5 billion per year. These distortions are alarming; for instance, according to the ICAC, fourteen countries representing three quarters of world cotton production administer direct income and price support programs for cotton growers, resulting in higher production and forcing the burden of adjustment to low cotton prices onto non-subsidized producers. The ICAC also estimates that, if there were no production subsidies in place, the average world price for cotton would be around seventy per cent higher.

We now have an opportunity in the Doha Round to make trade disciplines in agriculture more effective and to address these distortions in the cotton market. We should recall that the Doha Mandate identified three main issues for the new round, namely:

- Substantially improved market access.
- The reduction and phasing out of export subsidies.
- Substantial reductions in trade-distorting domestic support.

These are three important pillars in the current negotiations.

At the Conference on Cotton and Global Trade Negotiations held in Washington three months ago, (8-9 July), government officials, representatives of private industry from forty-five countries and seven international organizations agreed that the WTO was the most effective venue to address trade distortion issues and called on countries to make the talks on agriculture and the problems of the cotton industry a priority in their negotiations within the WTO.

The Conference identified five policy instruments in the agenda of agricultural talks in the WTO which are important to cotton with the most important being subsidies.

As distortions in cotton markets occur primarily through production subsidies, it will be important for WTO trade negotiators to ensure that reducing domestic support gets equal consideration in the WTO talks with market access and export subsidies.

Real and substantial cuts to trade and production-distorting support, as well as more effective disciplines will be fundamental issues for negotiators to work towards in this round. In the past, countries have been able to abuse the disciplines by shifting support within domestic support categories—this should no longer be allowed.

In developing their negotiating proposals, countries will need to consider the definitions of green, blue and amber boxes to ensure they accurately capture and deal with the most trade-distorting forms of support.

Let me now deal with some of the negotiating proposals already on the table in the WTO.

Benchmarks and Negotiating Proposals

Last month in the WTO, the Cairns Group Coalition launched proposals on market access and domestic support. What are the Cairns Group proposals you may ask?

Cairns Group Proposals

Australia is the chair of the Cairns Group, a coalition of seventeen agricultural exporting countries, mostly developing countries, which account for one third of the world's agricultural exports. Australia is thus well placed to work with developing countries to promote their interests, especially in the area of lowering agricultural trade barriers and reducing distorting agricultural support policies.

Just to give you a little more background on the Cairns Group, it was founded on the realization that only a determined collective effort could defeat agriculture's exclusion from many trade rules. Although the basis for Cairns Group cooperation had been evolving for many years in Geneva, it did not develop momentum until 1986 when the group met formally in the city of Cairns, Australia, famous for being the gateway to the Great Barrier Reef, and hence the name Cairns Group. Since that time, the enlargement of membership in South America, and the addition of South Africa in particular, have reinforced the relevance of the Group.

The Cairns Group is an example of a successful, single-issue coalition and its proposals on market access and domestic support are designed to increase substantially global market access for agriculture. The proposals themselves call for significant improvements in market access and substantial reductions in trade-distorting domestic support—all good news for cotton producers. They build on an earlier Cairns Group proposal for the elimination of all forms of export subsidies.

So what is the Cairns Group proposing as a good outcome for agriculture, and hence cotton, in the WTO?

For market access, the Cairns Group proposes that all developed countries cut tariffs to 25 percent or lower and expand all tariff quotas substantially. The domestic support proposal, which is of greater interest to the cotton community, would eliminate within five years current entitlements to production and trade-distorting support worth around US$73 billion in the European Union, US$31 billion in Japan, and US$19 billion in the United States. Tightening the Green Box criteria so that Green Box support does not distort production and trade is another feature of the Domestic Support Proposal.

The Cairns Group proposals therefore are designed to lead to more open and efficient markets to the benefit of all WTO members, including developing countries. They will assist farmers in developing countries by creating more open and efficient agricultural markets, with all trade-distorting domestic support in developed countries to be eliminated over a short period. In addition, the proposals offer a range of provisions designed to help developing countries with their adjustment processes, including longer reduction periods of nine years.

I consider that the international cotton community now has a good benchmark on which to measure the criteria for successful outcomes for cotton in the WTO. I have copies of these proposals for anyone who is interested.

The U.S. Negotiating Proposal

The United States also released a strong reform proposal in July, which called for substantial tariff cuts, elimination of export subsidies, and harmonizing reductions in trade-distorting domestic support. In our view, the U.S. proposal is a good start and sends a signal that despite the massive subsidy provisions in the latest Farm Bill, the United States is serious about playing a leading role in agriculture reform.

Let me now talk about the work being carried out by the Working Group on Government Measures

The Working Group on Government Measures

As I mentioned earlier, the Working Group has developed a proposal on strategies for successful negotiations at the WTO. The proposal calls for even greater trade liberalization in the WTO talks.

Our proposal recommends a threefold strategy that asks countries:

1. To develop strategies within the context of the ICAC and the Working Group on Government Measures for the reduction and eventual elimination of subsidies so that governments can act through their negotiators in the WTO.
2. To foster industry and government alliances outside the context of the ICAC to persuade subsidizing countries to reduce and eventually eliminate support measures and document the harm these measures are having on non-subsidizing countries.
3. To seek grants and funds from the World Bank and the International Monetary Fund if countries are suffering from short-run difficulties due to low cotton prices.

The threefold strategy recommended by the chair of the Working Group is supported strongly by both the Australian government and the Austra-

lian cotton industry and we certainly recommend it to other countries.

Australia and the Cairns Group fully agree with the ICAC that it is highly desirable to reduce and eliminate export subsidies, as well as production and trade-distorting domestic subsidies.

In August this year, we were fortunate to have the executive director of the ICAC, Terry Townsend, address the 11th Australian Cotton Conference in Brisbane on the subject of Recent Developments in Global Trade.

We also arranged a roundtable for Terry and our chief negotiator on agriculture who took on board Terry's message to promote the reduction of domestic support for the cotton industry to the WTO. Terry pointed out quite rightly that countries which stand to benefit the most from reductions in domestic support are primarily developing countries, which often do not have the resources to formulate their position in the WTO.

The second strategy calls for government and industry alliances, and I am happy to say that the Australian cotton industry has close links to the Cairns Group and would ensure that cotton industry initiatives are promoted within that group.

The Working Paper also proposes two options on how cotton is to be treated in the WTO.

Let me say that the first is a general approach whereby governments individually or collectively work within the regular framework of agricultural commodity negotiations while protecting the special role that cotton has in trade and in developing economies.

The second is a disaggregated approach, which would result in limits on, and cuts to, export and domestic supports for each commodity, including cotton.

Australia would like to see reduction commitments made on a disaggregated product basis, thus we do not consider at this stage that separate negotiations on cotton would be required.

I think it's important to note that proposals of the Working Group to eliminate all export subsidies and domestic support by 2009 are broadly consistent with those of Australia and the Cairns Group.

The ICAC should consider putting its support behind the Cairns Group proposals. We naturally consider these are the most credible proposals on the table, although some, like the EU, would disagree.

The Working Group's proposal correctly notes that the goals we all share can only be achieved by political action. It has taken a forward-looking and creative approach to this in recommending that governments and the private sector must work together to highlight the damage done by protectionism and to call for change. Australia welcomes this approach and can only urge the Working Group to continue in its efforts.

We must continue to work together to achieve our common goals of a fairer world trading environment for cotton and agriculture in general.

Conclusion and Actions

I have come to the final part of my presentation drawing some conclusions and suggesting some actions.

The importance of the cotton industry in world agricultural trade cannot be overstated and we now have a real opportunity to negotiate a good outcome for cotton in the current WTO negotiations. My message to you today is that the WTO is the most effective venue for dealing with government measures and negotiation to rid the cotton market of trade distortions. There is so much that the ICAC as a body which on the whole looks after the interests of cotton producers and users can do to feed into the WTO negotiating process.

Now, the proposed strategies of the Working Group on Government Measures, and some of the negotiating positions I outlined to you today may seem ambitious but as the poet T.S. Eliot said, "Only those who will risk going too far can possibly find out how far one can go."

We all know that the WTO negotiations are going to take several years and involve complex tradeoffs but I think that the Working Group proposals put the international cotton community in a unique position to give cotton a strong voice in the WTO. We need to aim high if we are to get maximum results in this process.

The conclusion of discussions on government measures which will emerge from this plenary should help countries to table their final proposals in the WTO. The deadline of 31 March 2003 for agreement on modalities for domestic support in the WTO is critical and failure to meet this deadline would have serious consequences for the negotiations as a whole. It is also essential for everyone to work hard to build political support for a strong reform agenda out of Doha. The Australian trade minister will certainly be aiming for that next month.

I therefore encourage the International Cotton Advisory Committee to continue to act as an intermediary body between governments, industry, education institutions, international organizations and the general public and to continue its ongoing activities to monitor and document the impact of government measures on the world cotton industry and I reiterate that the WTO is the venue for the negotiation of distortions of the cotton market. This is the issue that most affects cotton producers and cotton's position as an important trading commodity.

In the wider context of deliberations on trade under the auspices of the WTO, the working group on Government Measures can make a major contribution towards furthering the case for trade reform, and more precisely, for removing distortions in the cotton market. I am proud to be a member of this group and I am hopeful that one day we may see a less distorted world, where market prices are determined solely by supply and demand and that trade distortions are a thing of the past.

On that note, I would like to congratulate the government of Egypt and the Organizing Committee for the care taken in organizing what is a very successful and productive plenary.

Statement of Argentina

We have listened to the authorities of the Arab Republic of Egypt, to the representatives of Australia and Turkey, and to reports from the Chairman of the Standing Committee and the Executive Director of the International Cotton Advisory Committee as they have addressed various aspects of the world cotton economy.

One aspect they each highlighted as particularly important was the issue of distortions in the global cotton market brought about by government subsidies to production and trade.

We are heartened by the useful recommendations of the Working Group on Government Measures included in Working Paper I, and by the debate at the Conference on Cotton and Global Trade Negotiations convened by the World Bank and the ICAC.

Surely you are familiar with such concepts as the short, medium, and long run. An outstanding exponent of economic theory and policy, John Maynard Keynes, observed that, "In the long run, we are all dead."

For the people of cotton producing countries, one year constitutes the long run. So it is likely that if some governments persist in applying interventionist policies, future plenaries may well be attended only by representatives of consuming countries and of countries that can afford to subsidize cotton producers and exporters.

Cotton production in Argentina is concentrated in eleven provinces. A World Bank study shows that 56.6% of the population in those provinces live below the poverty line while 18.2% live in extreme poverty. The same study points out that at the national level, 36.1% live below the poverty line and 8.6% in extreme poverty. These figures underscore how poor the cotton-producing regions of Argentina really are.

Following the drop in international prices, acreage planted with cotton in 2001/02 covered the smallest area since 1933/34, despite increased investments, use of new technologies, and heightened levels of efficiency in production and trade. Poverty has worsened as the population

of cotton-producing regions has also risen fourfold even though the rural exodus to other provinces and cities continues.

"…In some countries there are very few viable alternatives to cotton growing. Cotton production in developing countries is needed not only to cover the needs of the local industry but also to obtain foreign exchange to enable these countries to service their external debt.… It was also noted by some that efforts for restoration of the cotton equilibrium lie mainly with developed and key producing countries, and that artificial incentives should be eliminated." (Statement of the 44th Plenary Meeting, Item 9, 1985)

The delegation of Argentina commends the ICAC for never failing to highlight this issue in the final statements of its plenary meetings. Those of us who have spent seventeen years insisting on the importance of fair trade practices have been gratified to see our arguments upheld by such major international organizations as the WTO, the IMF, the World Bank and the FAO.

At the recent IMF-World Bank Annual Meetings, for instance, World Bank President James D. Wolfensohn enjoined developed countries to "act immediately" to dismantle agricultural subsidies as "they are a waste of resources and seriously compromise the ability of poor countries to invest in their own development." He added that trade barriers erected by the rich countries are overly burdensome and generally cloak protectionism."

Likewise, the IMF declared that:

"Many of the trade barriers described block the access of agricultural products from poor countries to the markets of the rich. Agricultural subsidies of OECD countries lower global commodity prices and increase price instability, thus harming poor countries and their most vulnerable citizens. Agriculture remains the principal economic activity of rural areas, where 75% of the world's poor live. It represents approximately 27% of the GDP of developing countries, an equal share of their exports, and 50% of their job market."

At the WTO, finally, developing countries are requesting that agreed deadlines be met such that international agricultural trade liberalization agreements are concluded by January 1, 2005.

The delegation of Argentina thus considers it paramount that the ICAC, as the world's principal international forum in this field, send a clear message to all WTO member countries, urging them to conclude ongoing negotiations by 2005 as the Doha mandate requires.

Argentina both wishes and needs to continue producing cotton. We are able to compete if allowed to do so on a level playing field. All we ask is that the basic premises underpinning a vibrant global cotton economy be allowed to function free from distortions.

Perhaps we should set aside a few hours of introspective thought during this plenary to strengthen our resolve as government representatives to the ICAC, determined to ensure compliance with agreements accorded in Doha last November 2001. Such an achievement should contribute to the mission of the ICAC as it builds on its 63 years of existence.

Agriculture (from Doha)

"13. We recognize the work already undertaken in the negotiations initiated in early 2000 under Article 20 of the Agreement on Agriculture, including the large number of negotiating proposals submitted on behalf of a total of 121 members. We recall the long-term objective referred to in the Agreement to establish a fair and market-oriented trading system through a programme of fundamental reform encompassing strengthened rules and specific commitments on support and protection in order to correct and prevent restrictions and distortions in world agricultural markets. We reconfirm our commitment to this programme. Building on the work carried out to date and without prejudging the outcome of the negotiations we commit ourselves to comprehensive negotiations aimed at: substantial improvements in market access; reductions of, with a view to phasing out, all forms of export subsidies; and substantial reductions in trade-distorting domestic support. We agree that special and differential treatment for developing countries shall be an integral part of all elements of the negotiations and shall be embodied in the schedules of concessions and commitments and as appropriate in the rules and disciplines to be negotiated, so as to be operationally effective and to enable developing countries to effectively take account of their development needs, including food security and rural development. We take note of the non-trade concerns reflected in the negotiating proposals submitted by Members and confirm that non-trade concerns will be taken into account in the negotiations as provided for in the Agreement on Agriculture."

Statement of the United States

The delegation of the United States wishes to express its concerns about the discussions regarding the working paper of the Working Group on Government Measures. We feel strongly that portions of the Working Group's report would result in fundamental changes in the ICAC's mandate and role.

The United States agrees that trade-distorting subsidies should be eliminated and has already advanced a position in the WTO that reflects this principle. However, we also believe that setting a trade policy agenda within the ICAC is inappropriate. The ICAC's purpose is to raise awareness, to disseminate information, and to facilitate cooperation about issues relevant to cotton production, consumption, and trade. The ICAC has an important role to play in the upcoming round of WTO negotiations assisting member government in analyzing issues and developing strategies to reduce and/or eliminate subsidies and trade barriers. But committing the ICAC as an organization to a specific trade policy outcome will undermine its effectiveness in serving the needs of all member governments. Perhaps more importantly, it will commit members to policies that have not been properly considered and evaluated by their own governments. Governments must retain the flexibility to determine and adjust their WTO positions to reflect their national interests for cotton, as well as for other commodities. It is not feasible to pre-determine member governments' WTO negotiating positions within the ICAC.

We recognize that these reservations are likely to generate additional questions and discussion among the members, and that we have a full agenda for this morning's session. Therefore, we have made copies of our proposed changes to the Working Group's report for all delegations. We suggest that any discussion be deferred until the drafting committee session. In the interim, members of our delegation are available to answer any questions you may have.

Revisions to Working Paper I

(Government Measures and the World Cotton Industry)

Proposed by the Delegation of the United States

Purpose: These revisions alleviate concerns that the original language would commit the ICAC to advocacy of policy positions that are not acceptable to all member governments. The U.S. delegation is concerned that adoption of the original language would:

- Risk loss of ICAC credibility in trade matters because its neutrality would be compromised; and
- Member countries would be committed to policies that have not been properly considered and evaluated by their governments.

The U.S. delegation strongly believes that ICAC should work with countries at their invitation to help them develop their own positions and avoid taking policy positions itself.

Revisions to text:

1. First bullet point, page 1, should be revised as follows: "The ICAC should support member governments in developing their strategies for the reduction and elimination of subsidies so that governments can act through their negotiators at the WTO."

2. The first paragraph in 1.1 should be revised as follows: "In compliance with its mandate from the 60th Plenary, the WGGM suggests that the ICAC assist countries to identify the effects of subsidies and strategies to work toward their reduction and elimination."

3. In the third paragraph of 1.1, the words "conclusions of the" and "agreed to" should be stricken.

4. Strike second paragraph under 1.1 on the grounds that the date for the informal session has passed.

5. The fourth paragraph of 1.1 should be revised as follows: "The WGGM could hold further discussions aimed at providing additional information to countries for their use in developing their representations before the March ministerial in Mexico."

6. The first paragraph in 2 should be revised as follows: strike "Governments must report on injuries caused by low prices" on the grounds that the ICAC has established no structure to which these reports can be submitted and has no standing in the world's trade negotiating structure to act upon these reports.

7. Paragraph 2.3 should be revised as follows: "Upon request the ICAC should assist governments in developing proposals for WTO schedules for reductions of government measures that distort cotton markets and production."

8. Strike Paragraphs 2.3.1 through 2.3.5. These points commit the ICAC to advocacy of specific policies and take ICAC beyond its proper role.

9. Strike Paragraph 2.6 on the grounds that ICAC would be committed to seek changes in the WTO working rules and procedures. Delegates need to consult their governments before making such a commitment.

10. "Thousands of billions" means trillions. Such vast sums have not been spent for the purposes stated.

11. Strike second paragraph of 5 on the grounds that ICAC has no authority to grant grace periods to governments concerning their policies on subsidies and tariffs.

Statement of Colombia

The delegation of Colombia considers it unnecessary to state one more time its position on the issue of government measures that distort the production and trade of cotton. Colombia's views have been expressed with abundant clarity, precision and conviction at previous plenaries, namely in Cairns, Australia and Victoria Falls, Zimbabwe. We therefore concur with the statements just made by Argentina and South Africa. We also agree that the word "eventually" is inappropriate. Export subsidies must be eliminated immediately inasmuch as they violate present WTO standards; then all remaining domestic support measures that distort cotton production and trade should be eliminated in short order.

No one can dispute the sovereign right of a country to assist its producers through internal measures of support. That principle ends, however, where the right of its neighbors begins. No country, then, can exercise the autonomous right to enact measures whose scope transcends its own borders and gravely jeopardizes thousands, perhaps millions of cotton farmers and other laborers in nations that cannot afford to grant them equal support, subsidies or protection.

What is unacceptable and must be corrected forthwith is the ongoing upheaval brought about by production and trade distortions which have caused millions within the cotton sector to lose their livelihood, plunging them into poverty and even life-threatening hunger.

Statement of the Netherlands

Cotton presents an extreme example of policy incoherence of some rich countries' policies versus developing countries.

Millions of cotton farmers in poor countries are undermined by billions of dollars in subsidies benefiting a relatively small group of stakeholders in the U.S. and EU.

Cotton subsidies in the rich world enhance poverty, create macroeconomic imbalances, lower social sector spending and foster socio-political instability in several cotton dependent developing countries.

The unfair competition in the world cotton market must be tackled because cotton farmers in developing countries deserve to get a better deal.

To that extent, the ICAC working group has drafted a prudent but realistic proposal.

First Open Session

Challenges Facing Investment in the Egyptian Cotton Industry

Amal El Tobgy
Mohamed El Masri
AIT Consulting, Egypt

Abstract

The major challenges facing the textile industry in developing economies in general and Egypt in particular are discussed in this paper.

The technological, management and marketing constraints, which present serious barriers to attracting the necessary investment for private sector development, are analyzed in detail. Typical issues of government policy dealing with legal regulatory systems to support sustainable growth are presented. The potentials and uncertainties posed by trade agreements are also examined.

Introduction

In developing countries where cotton is grown and where there is abundance of labor, the textile industry has been the cornerstone of the country's industrial development. For the majority of these countries the cotton textile industry, which includes spinning, weaving, knitting, finishing and ready-made apparel, is a major employer of labor, provider of local market needs and, increasingly, an important source of foreign currency earnings.

The progressive move of major industrialized economies away from labor-intensive industries, such as textiles, coupled with trade liberalization and international trade agreements have brought the textile industries of the developing countries into a highly competitive environment. An environment in which survival will depend on sustaining competitive advantage and securing both local and export markets in order to ensure economic growth, and development and prosperity of their peoples.

Egypt's cotton industry—like those of other similar developing economies—is now facing significant challenges as a result of this competitive market environment.

The Egyptian Cotton Industry—A Historical Perspective

The Egyptian cotton industry is over 100 years old (although spinning and weaving of flax is over 4000 years old). Development of the industry seriously started after World War II and continued to flourish until 1961, when the industry was nationalized as part of the government's socialist agenda. The state-owned

companies' production was directed to providing low priced goods to low income classes. Export was limited to few markets, mostly in the then communist block. This resulted in inadequate profit margins and, in many cases, losses. Over the years, lack of investment by successive governments, overstaffing and mismanagement rendered the industry out of date, operationally inefficient and financially uneconomic. Output was of low and inconsistent quality, and incapable of competing in world markets.

The late 1970s and early 1980s saw the introduction of liberalization policies which gave rise to the development of a large number of private sector small to medium production units, predominately in ready-made garment manufacture.

Competitiveness and Future Challenges

The analysis of the competitiveness and challenges facing the industry, its strengths and weaknesses may be done by considering the competitive structure of the industry, the characteristics of its factors of production and the nature of government intervention and support.

Competitive Structure

- The structure is heavily biased to spinning and weaving production, which is state-owned. Facilities are almost obsolete, organization over-manned and highly inefficient. Quality and delivery of output erratic and inconsistent.
- Private sector participation—predominately in knitting and ready-made garment manufacture—is increasing. Marked successes in some export markets. The sector has limited impact in world markets due to its small size.
- Local and international competition is intensifying.
- Large local demand for relatively unsophisticated goods. Local market growth is currently very modest.
- Multi-lateral (GATT) and bi-lateral (EU) trade agreements will result in increased competition from imported yarns and fabrics, and ultimately ready-made apparel.
- Companies often lack strategic vision, international marketing experience, market information and competent middle management. The organization structures of the majority of the companies tend to be incompatible with the requirements of export activities.
- Limited R&D and effective product development activities.
- Raw material locally available but at relatively high prices. The negative trend is mainly attributed to lower price of imported yarns and, to a lesser extent, increased use of regenerated and synthetic fibers; and lower demand for local fabrics and ready made garments.
- Weak access to international markets through effective marketing channels.

Factors of Production

- Abundant land available for growth, with easy access to European, African and ME markets.
- Good quality cotton raw material sufficient to cover local and export markets.
- Availability of skilled and semi skilled labor and technical staff. Competitive wage levels.
- Productivity of labor lower than in other competitor countries such as China, India, Pakistan and Turkey.
- Well-developed road, rail, power and sewage infrastructure.
- Port infrastructure and operation in need of reform.
- Current interest and tax rates are high.
- Access to foreign currency for procurement of inputs is sometimes difficult.
- Government Intervention and Support
- Government investing heavily in industrial and "special economic" zones.
- Privatization plans for public sector companies proceeding slowly. The asking price for companies is often unreasonable for serious investors to consider.
- As in many developing countries, policies and institutions dealing with the manufacturing sector tend to be biased against SME's. Use of investment, credit, location incentives; and infrastructure provision, etc., favor firms with better resources.
- The legal, regulatory and commercial judicial systems are in need of serious review and overhaul.
- Attractive guarantees and incentives for international and local investors.

Conclusion

It is clear that the government and industry have complementary roles in creating an enabling industrial environment for the industry to grow and develop through increased local and international investment. Actions required may include:

- Clear and transparent fiscal and monetary policies to support an export-led economy.
- Government vision concerning the future of the industry should be translated into strategic plans for development.
- Ensuring efficient legal framework which can deal smoothly and promptly with issues concerning investments.
- Speeding privatization process.
- Promoting joint ventures which can provide technical assistance and access to global markets.
- Greater attention to product development and differentiation, and establishment of niche markets, which can provide added value and make use of Egypt's superior grade cottons.
- Raising awareness of the wide range of guarantees and incentives available to international and local investors.
- Raising awareness of the technical assistance available under donor funded programs (e.g., IMP).

Private Sector Investment in Developing Countries

Ioannis Kaltsas
European Investment Bank

I felt that I had to come to this meeting not only because encouraging growth through private investment in the cotton/textile value chain is among the top priorities in the agro-industrial portfolio of the European Investment Bank, but mostly to bring an important message to the representatives of cotton producing and consuming countries.

We feel that this decade will be crucial for determining the competitive advantage in the cotton/textile value chain and that missing investment opportunities in the years ahead will have long term consequences for the development of the sector.

Over the last fifteen years, the European Investment Bank has financed more than 150 cotton/textile projects, big or small, in a large geographical region, and we have the confidence that investment in the cotton sector can be financially sustainable, economically profitable and environmentally sound both in developed and developing countries. My speech today will focus on private sector investment in developing countries, as we believe that the role of governments in these countries is more important in addressing market failures and promoting investment opportunities.

For those of you that are not familiar with the EIB, I would like briefly to underline that the European Investment Bank is not a bank like the others. It is the bank that executes the policy objectives of the European Union, inside and outside Europe. Last year, our loan volumes

amounted to 37 billion euros and our mandate covers more or less 150 countries across the globe. The role of the EIB besides financing projects is also that of technical assistance: to advise governments, private and public investors and other stakeholders on how to make better investment decisions.

It is a common secret among the international financial institutions, like the EIB, that the cotton/textile sector is one of the most interesting and at the same time one of the most complex for investment valuation. The difficulty of the sector is partially linked to the perplexity of its policy environment, whose understanding is imperative for any sound investment decision.

For example, we see more and more projects in the cotton/textile sector to base their revenue projections in a more liberalized market, after the enactment of the Multi-fiber Agreement in 2004. Investors often perceive uncertainty related to the pace of liberalization of state industries in a number of developing countries. Risk coming from the possibility that preferential agreements with ACS, Mediterranean and Least Developed Countries will be phased out one day. Complexity is also derived from constant changes both in agricultural and industrial policies of developing and developed countries, and from the increased pressure of consumer groups for higher environmental standards in the sector. Finally, new trade blocks are created and customs unions impose new terms in the competition game.

In this dynamic environment, investors in developing countries usually consider as their primary challenge the achievement of a sound financial profitability model given the historically large price volatility of cotton and yarn prices. Our experience, however, indicates that what is more important for the countries or the long term investors is the economic profitability of a project, in other words, the profitability that is not based on price and other market distortions.

Governments should also give equal gravity to the social and environmental sustainability of an investment program. The reputation of the country regarding environmental and social standards and the ability of the government to cooperate with investors to resolve problems should be considered equally important assets as, for example, tangible infrastructural assets of the country.

So, what are the challenges for governments?

Usually and unfortunately this question translates only to which incentives should governments give to attract investors. We feel that it is really inappropriate for the whole strategy of a government to be consumed in a discussion on what kind of subsidies should one give to bring local and foreign capital in the cotton/textile chain.

I do not want to be misunderstood. Sometimes reasonable financial incentives, carefully designed not to be asset stripping mechanisms, even in the form of subsidies can be welcomed, for example, in the case of an infant industry. However, a national strategy ought to have broader scope and vision. It should address infrastructural priorities, the design of an appropriate legal framework combined with serious efforts for its enforcement and the restriction of corruption.

OECD study in Africa, legal enforcement of existing legislation on second-hand clothing imports, Africa's production in yarn and apparel could quadruple in five years.

Feasibility studies that we are getting, even for small textile mills, production targeted in Africa up to 20%.

Governments should take actively the role of assisting the different stakeholders to grasp opportunities and resolve communication problems. And of course, it is the government's responsibility to defend and supervise the social and environmental dimension of investment programs. This duty should not be left to NGO's, to international financial institutions or to the philanthropy of the private sector.

Some months ago, we were appraising an investment project in a Caribbean country and to our surprise government officials told us that they had no objection as a Dutch NGO found it environmentally friendly and an international development bank assured them that it is against poverty.

I would like to conclude my speech by underlying that the European Investment Bank believes that there is a great potential also in the developing countries to attract investment in the cotton/textile chain. We want to alert governments to act now to take advantage of existing opportunities because preferential agreements have an expiration date. We aim at encouraging investors to focus on long-term sustainable projects and maximize value added along the cotton/textile chain.

We live in a fast changing world with changing investment challenges. Each stakeholder in the cotton sector, including government, should assume its responsibilities, which are probably different of what there used to be twenty or even ten years ago. In this changing environment, the European Investment Bank will remain a supporter of sustainable projects in the cotton/textile chain. If there are sound investment proposals out there we will be glad to consider them for long-term financing. Lack of access to finance cannot constitute any more an excuse for developing countries to miss development opportunities.

Difficulties Affecting Machinery Imports Based on Experience as a Controller

Peter Wakefield
Wakefield Inspection Services
United Kingdom

We sit here in the shadow of the pyramids to discuss cotton and cotton issues and, as has been mentioned this morning, cotton has been grown and traded in Egypt for not hundreds, but thousands of years. This great history has been sustained because at appropriate times, change has evolved to allow the trade to adapt to the new situations.

Today the industry is more global than ever and the challenges that face us are far different from those of our ancestors, but it is through such meetings and discussions taking place this week that we can understand each other's problems and seek resolutions. I have been asked to speak on difficulties affecting machinery imports and will do so through the eyes of a controller.

What does a controller see? Our role is usually in the pre-shipment inspection of the machinery, ensuring that the functionality is correct and the packing is secure and adequate. However, as far as difficulties are concerned, I will highlight some problems that we have encountered.

Recently, we had the experience of dispatching cardboard HVI trays for use in rapid conditioning of cotton samples from one country to another. The cost of the trays was US$1,000.00; however, on arrival we found that there were various additional import levies to be paid—import duty / excise tax / vat / warehousing / customs fee and others, which eventually totaled the grand sum of over US$2,000.00!

Import duties and taxes are understood, but in this case it is the cumbersome bureaucracy that has allowed an additional business to develop only for the clearance of the goods.

When preparing new legislation, it may seem expedient to ensure that a safeguard on duties is implemented, however it would assist if consideration were to be given to details such as:

- A single document must be stamped by two different departments within the customs house.
- After the first stamp is placed by customs, the tax office must receive payment, confirm and stamp the document.
- The document is then stamped by the second department at the customs house.
- These two offices are several kilometers apart and, therefore, a time consuming round trip is involved.

The argument is not that import duties are hindering investments in the cotton industry—provided, of course, that they are maintained at reasonable and acceptable levels—but it is the unlegislated unforeseen obstacles and behind the scene structures that artificially push up the cost of imports. These must be eliminated.

It is not always the restriction of imports, or the imposition of local import taxation that creates problems when dispatching machinery for use in cotton servicing.

Once the equipment is in place—and if you are lucky enough that all the parts arrive together and on time—that is when the headaches invariably begin to turn into migraines!

Whenever arranging to install equipment in a new location, one will always seek to ascertain all possible difficulties and attempt to cater for them in advance. However, the best forward thinking and planning does not always eradicate problems and there is always something totally unexpected that can occur.

I could cite many instances that have bedeviled operations in various countries and which were not foreseen—however, you will be pleased to learn that I will only mention two.

At one purpose-built HVI facility it was decided to have the sample trolleys manufactured locally—this to avoid delay and avoid import charges. All measurements were given to the manufacturer. The first trolley was produced and checked to ensure that all measurements were correct. Upon completion, the trolleys were duly delivered on time for the beginning of testing at the new laboratory. In this facility, loaded trolleys had to pass through three doors from the receiving area to the HVI laboratory. The first trolley was loaded with samples to be taken for conditioning into the HVI laboratory. To the naked eye, all doors appeared to be same height. You've guessed it—they weren't.

The height of the final door was one inch lower than the other two. Consequently, the trolley could not pass through the door. The problem was resolved by arranging for smaller wheels to be fitted to the trolleys.

Another example was with the rapid conditioning unit, which requires water. Low and behold staff arrived at the facility one morning to discover that the local city council had decided to switch off the water supply to the whole surrounding area. There was no pre-warning and to our dismay it was found that the water would be off not for a few hours, or days, but for some weeks!

They alleviated this unforeseen problem by installing a 1000-liter water storage tank and arranging to purchase deliveries of water to fill the tank every few days.

The previous examples represent the types of problems faced, both within and beyond our control.

One of our strengths is the ability to move quickly, for example, moving people and services from place to place. A cotton classer may be working in Brazil today, but next week he will be in Uzbekistan and soon after that in West Africa, or here in Egypt. This is not difficult; however, as the trade requires more technical classing using HVI, we find that once a unit is installed in a country—in particular one that may have a short ginning and classing season—it is virtually impossible to temporarily remove it from that country, or vice versa, to import. We seem to find that once a piece of equipment is imported, authorities are very reluctant to let it go even for a few months. It is logical in business that we attempt to maximize the usage of our investments, but to do this, in this type of situation, we are required to follow procedures and incur costs that often make the operation impractical and/or cost prohibitive.

Many people sitting here today will have tried to carry a "port-air," a portable micronaire machine, on to a plane. Oh, what fun, and I sometimes think that the designers of this black box were all high on something when they constructed the outer box.

- It is just a little too big to fit into the overhead locker.
- It is certainly too big to go under the seat in front.
- And every crewmember wants you to check this delicate piece of equipment into the luggage hold where it can be thrown around with all the other bags.

Yes, the designers never had to carry the "port-air" from one country to another. Do not misunderstand me, the "port-air" is a great piece of equipment, but where am I going with this little story? Well, it is simple and falls in line with my previous comments.

Attention to detail.

As with ensuring that import duties are manageable, we must ensure that the procedures are well thought out, simplified and practical or, as in this example, the piece of equipment that is designed to be portable, truly is portable.

I am please to note that the latest design is much improved and is much easier to carry.

I have spoken today of the imports of relatively small scale machinery and equipment, but the principle is the same, be it a single laboratory for the determination of quality, or the movement of an entire spinning mill from one country to another.

We are, all of us here today, members of the cotton community. Our business faces many challenges. Since the days of the pharaohs we have looked to overcome such challenges and strengthen our industry. We are willing to invest and take risk in order to remain competitive. So, our message is simple.

We now truly operate in a global village where speed of action and flexibility are paramount. It is therefore time that international borders reflect this.

The Unfinished Agenda of Cotton Sector Liberalization in Egypt: Simulating the Supply of Lint Cotton and Price Risks for the Domestic Spinning Industry

Albert Gierend
Mohamed Abo El Wafa
Heinz Burgstaller
Egyptian-German Cotton Sector Promotion Program (CSPP)

Executive Summary

Cotton is the largest and most important agricultural subsector in Egypt. The cotton subsector employs around two million people deriving all or a part of their income from cotton production and transformation. The value of exports of lint cotton and cotton yarn, fabrics and garments reached LE 4 billion, or roughly one-third of the LE 12 billion total value of exports from Egypt in 1999. In recent years, however, Egypt's cotton sector has become increasingly less competitive. The whole sector including production, ginning, and spinning is on a clear long-term decline showing signs of severe and increasing market instabilities after the start of the liberalization in 1994. A market simulation model for the 2000/01 season was developed to analyze the economic effects of cotton pricing on the domestic spinning industry in Egypt. A second analysis looks at the risk reducing aspects of the current price policies, namely the export price and floor price system. The main conclusion of the simulation model is that the current practice of setting export prices is counterproductive to satisfactory export performance, to domestic market equilibrium, and to low unsold stocks at the end of the cotton season. The existing price regime turns price risks into market risks of over- and under-supply. The high costs of reducing price and income risks for farmers and spinners are completely borne by the government of Egypt.

Introduction

The government of Egypt is committed to liberalizing and privatizing the agricultural sector. In the past few years, the government of Egypt has gradually decreased controls on agricultural production, marketing and processing, by turning over economic decision-making to farmers, traders, and managers of processing units. Policy reforms to liberalize and privatize the agricultural economy are designed to improve efficient use of resources within the sector, leading to increased incomes and more competitive standing in the global market.

Cotton is the largest and most important agricultural subsector in Egypt. The cotton subsector employs an enormous number of people in Egypt. The number of employees dependent upon or deriving a part of their income from cotton production and transformation is close to two million. Exports of lint cotton and cotton yarn, fabrics and garments have traditionally earned a large portion of the county's foreign exchange. The value of exports of cotton and textiles reached LE 4 billion, or roughly one-third of the LE 12 billion total value of exports from Egypt in 1999.

In recent years, however, Egypt's cotton sector has become increasingly less competitive in the international market. Figures 1 and 2 highlight many of the current problems facing the Egyptian cotton sector. Production, consumption and export trends of seed and lint cotton are showing downwards. Thus, the whole sector, including production, ginning, and spinning, is on a clear long-term decline. At the same time it seems that the cotton sector became more prone to instabilities and market turbulences when comparing market data before and after the start of liberalization in 1994/95. This is especially true for production and carryover, which have experienced tremendous annual fluctuations. It is unlikely that those turbulences were caused by external shocks rather than by incompatibility of the partial liberalization in cotton production (e.g., to free the crop rotation control) and the continuation of the old official pricing system.

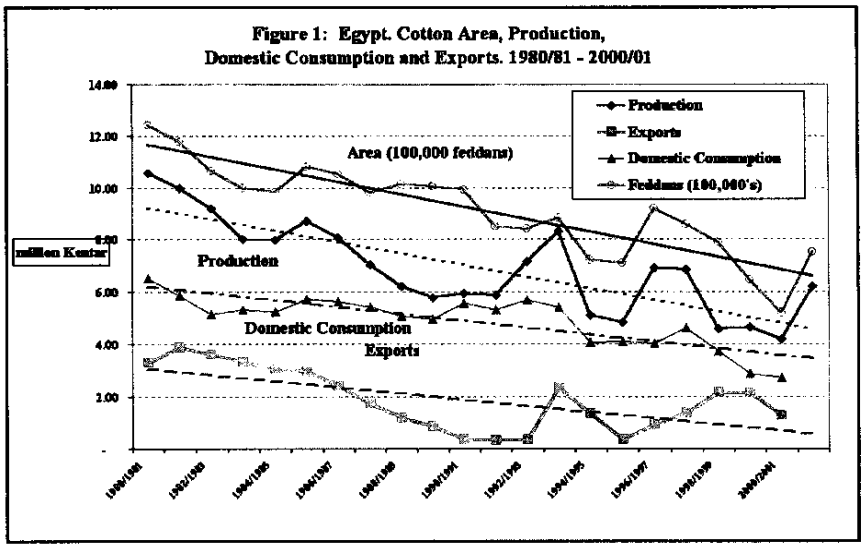
Cotton pricing is one of the most important policy issues facing Egypt today. This paper presents a market simulation model, which uses data from the 2000/01 season to analyze cotton pricing in Egypt. This type of model is a standard instrument frequently used by economic analysts. Through a series of equations, which represent the market structure and relationships among market participants, this model captures decision-making behaviors of consumers, traders, and processors. It will enable policy makers to explore the likely consequences of alternative decisions before putting them into practice, thus avoiding costly mistakes.

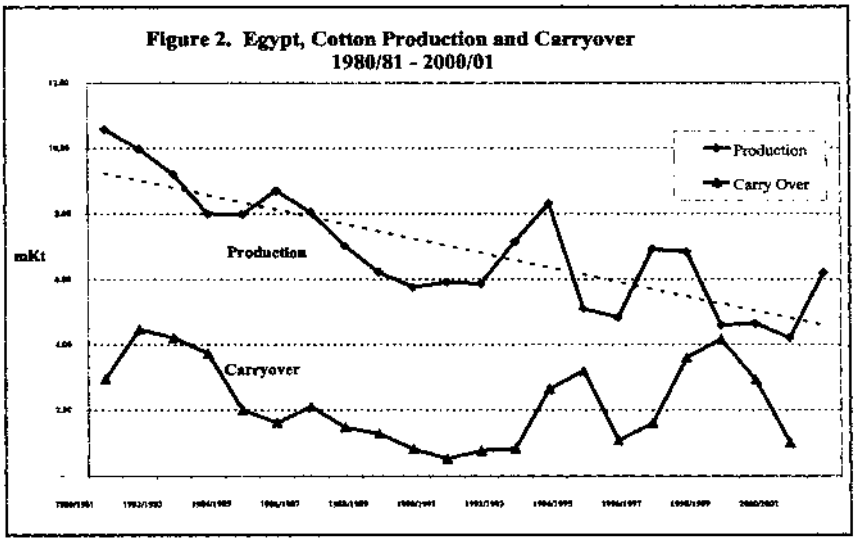
In this paper we illustrate how this model can be used to assess and quantify the economic effects of different price policy regimes on the domestic spinning industry, namely those regarding (1) floor prices to producers, (2) minimum export prices for exporters, and (3) the price paid by spinners. A second analysis investigates how risks and uncertainty from fluctuating world market prices in the LS market spill over to the Egyptian market, and what are the economic implications for farmers, spinners, exporters, and the government of Egypt (GOE). The principal conclusion of the simulation model is that the current practice of setting minimum export prices is counterproductive to maintain a necessary state of market equilibrium with little budgetary outlays and government intervention activities, as well as a satisfactory export performance. The existing Egyptian price regime turns price risks into market risks of over- and undersupply. The high costs of reducing price and income risks for farmers and spinners are completely borne by the GOE.

A Two-market Cotton Simulation Model

Development of appropriate policy recommendations requires an understanding of how policy decisions affect prices, costs and other signals that determine the behavior of farmers, traders, exporters, buyers, textile industry managers and other government agencies. The simulation model described in this paper is designed to do just that. It incorporates numerical relationships among market participants in order to:

- Show the relationships and dynamics among factors affecting the cotton sector.
- Show the logical consequences of changes in policies and prices.
- Identify winners and losers from policy changes
- Explore policy alternatives and their likely economic impacts.





- Show the degree and propagation of external price uncertainty if the model can incorporate stochastic parameters.

The market model represents the 2000/01 season since it was the most recent year with a complete set of market information. The 2001 season as depicted in Table 1 did not show significant exceptions from the long-term trend in the Egyptian LS cotton market. Thus, model results are not biased and disturbed by effects that may be attributable to specific circumstances in the 2000/01 season. For the purpose of this analysis, the world market for LS cotton is divided into two separate markets, the Egyptian market and the rest-of-the-world (ROW) market. Figure 3 illustrates the basic structure of this model. Price elasticity of the ROW demand function is assumed to be minus 3. This value means that a 10 percent drop in the price will induce an increase of 30 percent in the quantity consumed. Elasticity of domestic demand is assumed to be minus 1.5. The price elasticity of world demand for LS is higher than that of domestic demand because LS cotton in the world market faces stronger competition from alternative substitutes such as ordinary short staple cotton as well as artificial fibers and blends. It should be stressed also that foreign demand elasticity refers only to the demand for Egyptian cotton in the ROW and not the overall demand of LS cotton. The disadvantage is that changes in the world market price caused by Egyptian exports and imports cannot be estimated by the model.

The economic assessment of agricultural policies is based on Applied Welfare Analysis using the principle of consumer, producer and government surplus as the monetary indicator for the economic consequences and redistributional effects resulting from alternative policy instruments (see Figure 1 in the Appendix). For the risk analysis part, a stochastic component is embedded in the market model using the RISK (Palisade Software TM) Program to define and reproduce market parameters (e.g., prices, quota) as stochastic variables.

The two major control instruments the GOE has in operation are the floor price and the minimum export price. Both prices send an allocative signal to producers and domestic and foreign consumers to adjust their behavior by increase or decrease production and consumption.

Background on Minimum Export Prices

Once a week, the Alexandria Cotton Exporters Association (ALCOTEXA) determines the set of minimum export prices for each variety and grade for the following week. Export contracts submitted to ALCOTEXA for approval must have prices equal to or higher than the minimum price. The government of Egypt advances several reasons why export prices should be set by a committee such as that of ALCOTEXA. First, it helps to ensure that Egyptian cotton receives its proper value, commensurate with its superior characteristics; and second, minimum export prices restrain competition by preventing Egyptian exporters from undercutting each other in bidding for deals with potential buyers. The GOE fears that if exporters were allowed to compete freely for export sales, the outcome would be low prices and many traders would make losses and go out of business.

Table 1: Egyptian Cotton Statistics

Season	Area	Yield	Stock Sept. 1st	Production	Exports	Local Consumption
	Feddan	*Kentar/ feddan*	*1000 Kentar*			
1997/1998	859,255	7.96	3,604	6,841	1,390	4,622
1998/1999	788,812	5.74	4,167	4,594	2,170	3,734
1999/2000	645,417	7.12	2,919	4,654	2,143	2,882
2000/2001	518,319	8.11	994	4,201	1,273	2,708
2001/2002	750,788	7.42	1,073	6,195		

Source: The Egyptian Cotton Gazette, No. 117, October 2001

Table 2: Supply Mix and Costs of Lint Cotton for the Egyptian Spinning Industry (Part 1)

	Policy Scenarios				
	(1)	(2)	(3)	(4)	(5)
Producer Surplus (mLE)	193.15	195.16	195.16	195.16	232.26
Consumer Surplus (total mLE)	120.63	93.09	98.57	115.36	120.79
Total Surplus (mLE)	313.78	285.63	291.19	305.01	302.32
CS (1) (mLE)	120.63	91.78	91.78	91.78	56.53
CS (2) (mLE)	0.00	0.00	-0.27	0.00	-1.94
CS (3) (mLE)	0.00	0.00	5.79	20.82	40.84
CS (4) (mLE)	0.00	1.31	1.27	2.76	25.36
Deficiency Payment	0.00	0.00	0.00	0.00	0.00
Disposal Costs (mLE)	0.00	-2.62	-2.54	-5.51	-50.72
Price Discount (LE/Kt)	0.00	5.42	7.12	11.42	44.00

(1) No price intervention, no imports allowed
(2) Current situation of year 2000/01, export minimum price at 421 LE/Kt, floor price (410 LE/Kt), no imports allowed
(3) Same as (2), but imports allowed up to 50 thousand Kt at 300 LE/Kt), basic requirement 2.5 mKt from all sources except carryover
(4) Same as (3), but imports up to 180 thousand Kt
(5) Increase export price (442 LE/Kt) and floor price (430LE/Kt) by 5%, imports up to 400 thousand Kt
Consumer Surplus (CS)
CS (1) Demand at official price
CS (2) Involuntary demand
CS (3) Imported short staple cotton
CS (4) Carryover

Tab2: Supply Mix and Costs of Lint Cotton for the Egyptian Spinning Industry (Part 2)

	Policy Scenarios				
	(1)	(2)	(3)	(4)	(5)
Expenses for Lint Cotton (million Kt)					
At market price	1,090.60	978.21	978.21	978.21	798.71
Involuntary	0.00	0.00	53.24	0.00	148.15
Imports	0.00	0.00	15.00	52.94	101.47
Carryover	0.00	195.38	143.61	192.48	432.31
Sub Total	1090.6	1173.6	1190.1	1223.6	1480.6
Average price (LE/Kt)	409.43	418.17	416.62	410.21	405.64
Volume of Domestic demand of the Spinning Industry (million Kt)					
At market price (1)	2.66	2.32	2.32	2.32	1.82
Involuntary	0.00	0.00	0.13	0.00	0.34
Imports	0.00	0.00	0.05	0.18	0.34
Carryover	0.00	0.48	0.36	0.48	1.15
Sub Total	2.66	2.81	2.86	2.98	3.65

Background on Floor Prices

The Egyptian floor price policy was initiated in 1994 and guarantees a minimum domestic price of seedcotton each year. The floor prices are usually announced each year at the beginning of the planting season by the Cotton Marketing Supervisory Committee and are differentiated with respect to varieties and grades. The policy is intended to be financed by the government since it is designed as a deficiency payment system. To arrive at the seedcotton price, the export price of lint is converted to Egyptian pounds at the official exchange rate and then appropriate adjustments are made for ginning outturn ratio, marketing costs and the value of by-products. This is the equivalent export price at the farm gate. If the floor price is set higher than the equivalent price, then the government pays the difference as deficiency payment to the ginning industry. The deficiency payment tends to be very expensive since every kentar of seedcotton that is produced becomes subject to the payment. Therefore the GOE is acting very carefully in announcing a deficiency payment program when the circumstances of low market prices and over-supply emerge.

Policy Scenario 1: Costs of Lint Cotton Supply for the Domestic Spinning Industry

The entry point for assessing the impact of different policy scenarios on the Egyptian spinning sector are the costs at which spinning mills need to buy their lint cotton requirement to produce yarn of different counts for export and domestic use. Those input costs are affected by the domestic price level for different varieties and grades, by the possibility of imports of cheaper short staple lint cotton, and by the current carryover stock in the domestic market, which eventually creates opportunity to purchase lint at an attractive discounted price. Because this is a market model, other costs in the spinning industry such as overhead costs, labor costs, spinning technology and capital investments could not be factored in. However, since lint cotton constitutes between 60 and 70% of the total production costs, changes in the costs of this input item do have a significant impact on the overall costs in the spinning sector.

Sources of Lint Cotton Supply

For a detailed analysis of the effects of different policies on the Egyptian spinning sector, it is useful to decompose the supply of lint cotton to the spinners into four major categories as it is depicted in Figure 4:

1. The first category encompasses lint cotton that is purchased at the relevant market price derived from the opening price minus fobbing costs. This part of the demand is used by spinners to produce higher count yarn at a profitable margin. The economic surplus accrued to spinning mills (indicated by the first gray triangle) is positive because the willingness to pay represented as the area under the demand curve is higher than the costs at which this cotton was bought.

2. The second category includes the purchase of additional LS lint cotton at the domestic price, which can be attributed to missing alternatives for imports of cheaper staple cotton. The reason for this "involuntary" demand fraction could be explained by the financial crisis and shortage of foreign currencies, low creditworthiness and reluctance of local banks to provide credit for lint cotton purchases other than from the domestic stock. The economic surplus is negative because the costs exceed the willingness to pay. Since the willingness to pay is a monetary indicator for the value added from processing cotton to spinning yarn, we can carefully argue that the involuntary demand represents the part of production generating losses, which is commonly known as "underspinning."

3. The third category represents imports of short staple cotton to produce low count yarn. The consumer surplus accrued to spinners from imports is positive and increases with lower prices.

4. The fourth category represents the amount of cotton that the GOE is disposing from the carryover stock (if not sold for export) by paying a discount to potential buyers from the local spinning industry. The price incentive is variable and depends on the quantity the GOE wants to sell and the price expectation of the spinning industry to take up this additional amount. The economic surplus is positive and increases with the price discount.

Demand at market price, involuntary demand, and imports add up to constitute the basic requirement of lint cotton supply that is necessary to maintain an economically sufficient capacity utilization in the spinning industry.

Simulation Results on the Costs of Lint Cotton

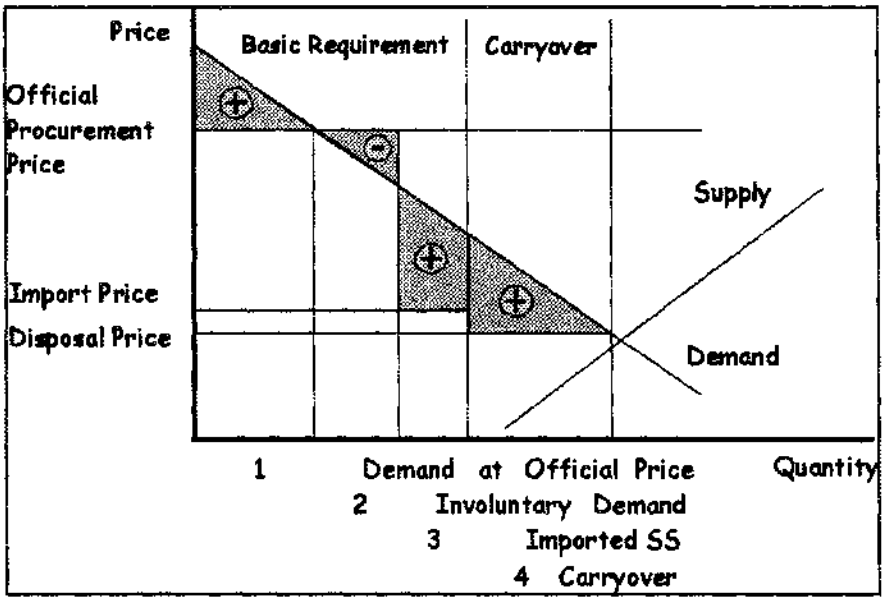
The first scenario in Tables 2 and 3 represents the baseline scenario where prices are determined by the market forces alone. Further, all domestic demand comes from local LS and no imports are allowed. Compared to the other scenarios, the absence of any kind of price controls is the most efficient policy option with respect to overall economic surplus amounting around 314 million LE, from which 193 million LE go to the cotton growers and the remaining to the local spinning industry. Market-determined prices balance local demand with production and export and prevent the accumulation of unsold stock. The only supply source for the local spinning industry is then what is bought according to the relevant domestic prices (2.66 million kentars at 409 LE/Kt).

The second scenario shows the actual situation in the year 2000/01 with an export-opening price of 421 LE/Kt and a floor price of 410 LE/Kt. The difference to the baseline scenario is (as expected) a drop in total surplus with slight gains to producers and losses to the local spinning industry buying local cotton.

Because prices deviate from the equilibrium price, a small carry over (480 thousand kentars) builds up that must be sold at a small price discount of 5.5 LE/Kt to the spinners. The price discount is calculated as the difference between the floor price at 410 LE/Kt and the disposal price (404.5 LE/Kt) at which all carryover is bought up by the local spinning industry.

The next two scenarios allow for imports of short

Figure 4: Possible Sources of Lint Cotton for the Domestic Spinning Industry



staple cotton. According to the type of yarn that is spun in Egypt (50 % of yarn produced is less that NE 20), significant quantities of short staple cotton from Greece, Syria and Sudan are suitable substitutes for LS Giza 80 and 83. Another modification is that a minimum demand for lint cotton is imposed at around 2.5 million Kt in order to maintain a certain capacity utilization of around 60%.

Scenarios 3 and 4 differ with respect to the amount of imports taking into account that due to financial problems (esp. the public sector) some spinners may lack foreign currency and/ or are not eligible to import credits. Instead, those spinners (mostly public) must resort to more expensive local LS provided by public traders or the Holding Company. The last scenario assumes a 5% price increase on the minimum export price (442 LE/Kt) and on the floor price (430 LE/Kt) to investigate how a greater mismatch between the high official price and the lower world market price translates into changes in costs and the mix of lint cotton sources.

Tables 2 and 3 show clearly that starting from scenario 2 imports reduce significantly the overall costs per kentar lint cotton (from 418 LE/Kt in scenario 2 to 410 LE/Kt in scenario 4), but on the other hand imports put further pressure on the size of the carryover and the price discounts to be paid by the GOE to the spinning mills. Government costs to sell the carryover increase from 2.5 million LE to 5.5 million LE. Under a 5% price increase, the disposal costs tend to escalate and shoot up reaching 50 million LE. Imports, carryover and disposal costs are positively correlated. This implies that the higher the imports the greater pressure on the domestic supply and build up of carryover as long as exports do not catch up.

Netting out the benefits and costs, the local spinning industry can take advantage from both cheap imports and carryover bought at a price discount at the expense of the government budget. Most likely, the benefits from cheap imports are mainly captured by private spinners (better financial status), while cotton sold at a reduced price may primarily go to the public sector. This depends on the specific conditions made upon the payment of price discounts, such as mode of payment (whether paid in cash or refunded), and the willingness of the private sector to take risks in buying the cotton at full price and being reimbursed later.

Key Findings

(1) Imports, carryover stock and disposal costs are positively correlated

(2) Imports and carryover provide on an occasional basis considerable benefits and windfall gains to the domestic spinning industry.

(3) High official prices depress local demand, inhibit exports, create large carryover, and urge spinning mills to search for alternative sources by increasing their imports. The combined effects materialize in escalating costs for the GOE.

(4) Besides the other reasons, public spinning mills are put in disadvantage as long as involuntary demand remains high and import of cheap cotton is limited.

Policy Scenario 2: Price Fluctuations in the World Market and the Effects on the Egyptian LS Cotton Market

Protection against market instability in international commodity markets and trade is a commonly found practice in agriculture. The main mason behind it is to stabilize farmers' income, export revenues or costs of imports. In Egypt, the GOE tries to protect cotton growers from price risks from the international market by providing a floor price as a minimum market price to help keep the profit for cotton growers stable over a season and over the years. In a similar fashion, the export opening price set as the compulsory selling price for all traders alike is aimed at preventing exporters to compete on price discounts for customers while keeping the export price and revenues at a high level.

The following modeling simulations analyze how price risks from the international cotton markets enter and propagate within the Egyptian cotton sector and who (farmers, spinners, traders and the GOE) are affected most in terms of exposure to fluctuating prices, costs and income. We compare a situation first with a free price formation (without floor and export opening prices); second, with floor and export prices in place at a constant price level, and third, a floor price and export price system in which prices are adjusted in line with the movements of the world market price. For the latter policy simulation, a positive rank correlation of 4.9 was imposed between the two official prices (floor and export price) and the world market price. Policy scenarios 1 and 3 have in common that the domestic prices and world market prices move in a synchronic fashion (in scenario 1 the domestic and world market prices are identical. The difference is that in scenario 3, the domestic price level can be higher or lower than the world market price through the existence of a tax or price subsidy element.

Simulation Results on Price Fluctuations in the World Market

Simulation results in Table 4 show that world market prices in all three policy scenarios differ slightly as a result of three separate simulation runs (sampling size is 500) with each run per scenario creating a different set of random numbers. Each item in Table 4 is described by its mean and the standard deviation (SD) as a measure of variation. Producer surplus in the "free price" scenario is exposed to price risks in the same manner as the world market price fluctuates since, by assumption, the local market price equals the world market price. Thus, producers are fully exposed to the price risks that come from the world market. How strong these price fluctuations are depends on the demand and supply elasticity in the world market (influencing factors are the size of the market, e.g. how much is traded in relation to production, fluctuations in annual production, price sensibility of demand, substitution effect with man-made fibers, etc). Under a fixed price regime, producer surplus stays constant and is higher than the producer surplus in the "free price" situation. Cot-

Table 4: Simulation of World Market Price Fluctuations and the Effects on the Egyptian LS Cotton Market

		Price Policies		
		Prices are free	Prices fixed	Prices vary with the WMP (Corr. 0.9)
World Market Price	**Mean**	414.45	414.77	414.98
(LE/Kt)	*SD*	*8.96*	*10.96*	*10.07*
Producer Surplus	Mean	193.77	201.63	201.63
(mLE)	*SD*	*21.10*	*0.00*	*27.08*
Consumer Surplus	Mean	121.11	109.50	109.10
(mLE)	*SD*	*15.85*	*4.71*	*6.48*
Total Surplus	Mean	314.88	304.63	294.38
(mLE)	*SD*	*5.48*	*4.71*	*16.73*
Exports	Mean	868.00	811.40	806.73
(000' Kt)	*SD*	*365.38*	*418.20*	*320.62*
Carryover	**Mean**	0.00	296.27	209.32
(000' Kt)	*SD*	*0.00*	*135.84*	*58.20*
Disposal Costs	Mean	0.00	6,528.11	389.55
(000' LE)	*SD*	*0.00*	*2,395.60*	*463.15*
Price Discount Paid	Mean	0.00	6.41	1.47
(LE/Kt)	*SD*	*0.00*	*4.90*	*1.50*
Costs of Lint Cotton	Mean	1,089.45	1,116.75	1,120.07
(mLE)	*SD*	*55.99*	*172.23*	*29.17*
Average Lint Cotton Price	Mean	409.45	412.31	413.38
(LE/Kt)	*SD*	*5.96*	*3.53*	*2.33*

ton growers benefit from the floor price in two ways, by eliminating the price risks from outside and by providing income support as long as the floor price remains higher than the average world market price. In the third scenario, the average income for farmers (expressed as surplus) is the same as with fixed prices but vary according to price adjustments. With respect to consumer surplus the "no price intervention" offers higher surplus to consumers but with greater variation. Exports look similar in all three cases. In the first and third scenarios, exports are determined by price-induced changes in domestic production and consumption, while in the second Scenario exports mainly follow price-induced changes in international demand (domestic prices stay the same).

The most striking effects become visible with the carryover and disposal costs if sold at price discounts to local spinners. As expected, there is no carryover with free prices while the "fixed price" regime creates the highest carryover coupled with high variation. Interesting to note, the disposal costs for the GOE are higher—under fixed prices compared to a price regime with adjustments—than the difference of the carryover size between the two price regimes would suggest. This can be understood by the fact that carryover size and price discounts are positively correlated creating a mechanism of cost escalation for the GOE. In years of extremely high carryover, the GOE must offer much higher price discounts to make it attractive for domestic buyers. Hence, what matters in terms of costs is not only keeping the average carryover small, but also avoiding a situation of occasional excessive stocks of cotton lint.

A general conclusion to be drawn is that any price fixing system in an export market that is protecting farmers and domestic consumers from outside price risks suffers from increased instability in the domestic supply balance. Simply speaking, price risks are merely turned into risks of over- and under-supply in the domestic market. In the case of over-supply (unsold stocks), the government is obliged to take action by physically storing unsold stock or by paying price discounts. In both cases all costs are borne by the government.

Key Findings

(l) The existing Egyptian price regime turns price risks into market risks of over- and under-supply. The costs of reducing price and income risks for farmers and spinners are completely borne by the GOE.

(2) The price regime with price adjustment increases the risks to producers, but lowers the risks for exports, size of carryover, disposal costs for carryover, price premium, and expenses to buy lint cotton. It further reduces the average carryover stock.

(3) The fixed price regime stabilizes farm income and total surplus at the expense of huge carryover and budgetary outlays by the GOE.

Conclusion

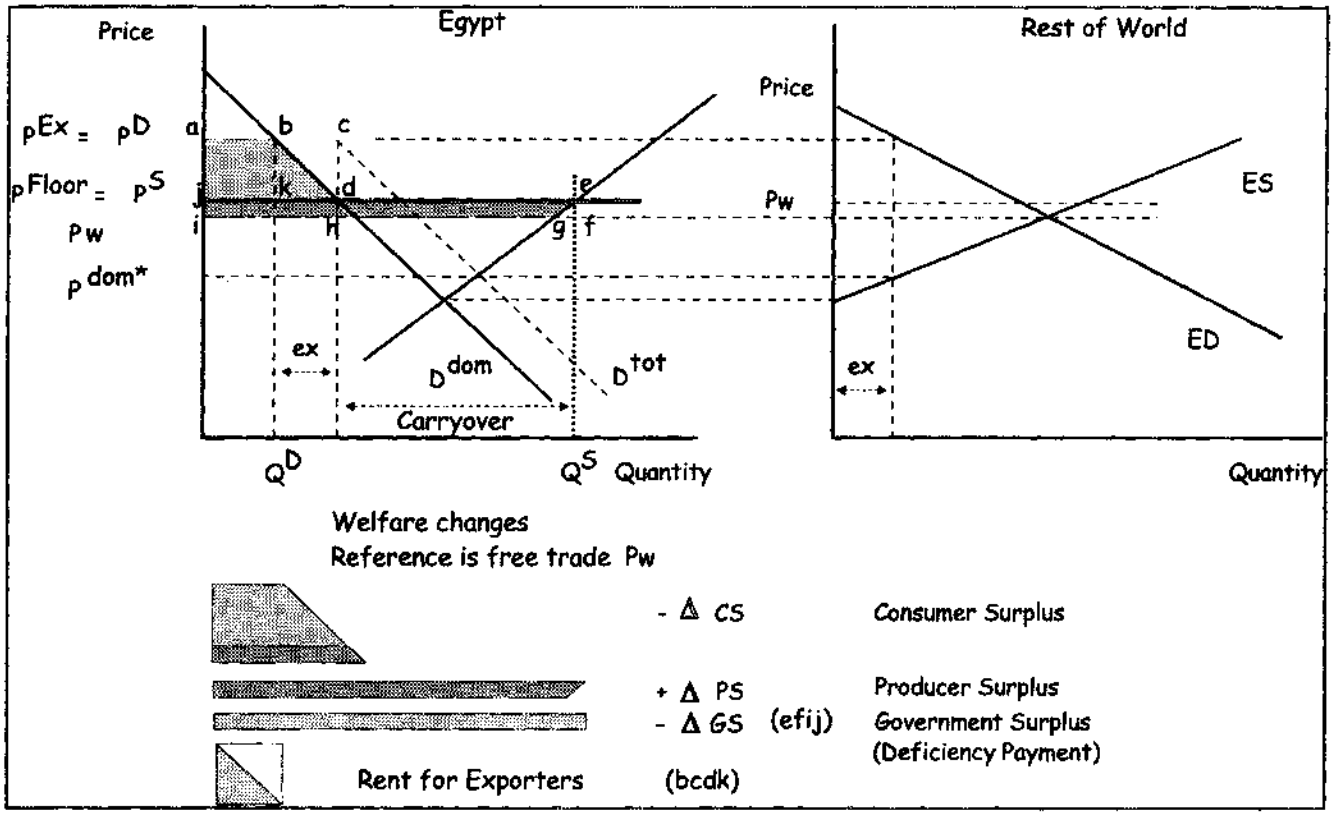
The key solution to the current problems and frequent market disruptions is a reformation of the pricing system and export policy for Egyptian cotton. Half of the time in the history of Egyptian cotton, cotton has been perceived and successfully promoted as an export crop. It is amazing that at a time where trading activities and international markets were fairly primitive and rudimentary, Egypt succeeded in exporting eight to ten million kentars of lint cotton in the early 20th Century until the 1960s.

The first and most urgent step to take on the road to expansion of exports and reduction of market turbulences is to convert the export price acting as a minimum export price system to a market orientation price with freedom of offering significant price discounts to potential buyers. Of course, in the long run the ultimate goal must be a complete liberalization of prices.

Also, floor prices of seedcotton must be handled and set more freely if export prices of lint cotton become more flexible in order to avoid excessive disbursement of deficiency payments. According to the findings of the current analy-

APPENDIX

Figure 3: A Two-Market Model



sis, price reforms towards liberalization will help in (1) stabilizing the domestic market of seed and lint cotton; (2) bringing back continuity in the volume of exports; (3) avoiding unnecessary huge carryover above a strategic stock; and (4) avoiding huge government outlays.

The stabilization of the year-to-year exports is—together with the contamination issue—the most important non-price factor for customers of Egyptian cotton who require a steady delivery of certain Giza varieties at certain grades. The importance of avoiding unnecessary large unsold stocks and carryover became clear in the analysis due to the inbuilt cost-escalating mechanism. For another reason, the GOE should not be too negligible on the carryover problem by perceiving the carryover as a temporary relief of the financial problems of the spinning industry and as an occasional source of low cost subsidized cotton. Although at first glance spinning mills can ripe significant benefits, it puts managers of spinning mills into an incredible decision problem to properly manage their cotton supply due to uncertainties in the whole disposal transaction.

Second Open Session

Statement of the Chair of the Second Open Session

Galal El Rifai
Egypt

It gives me great pleasure to chair the Second Open Session which is about Providing Incentives for Improved Cotton Quality Through Measurement of Intrinsic Values.

During the past fifty years, the ways of measuring the intrinsic values of cotton have greatly developed. Previously, measuring the quality of cotton was mainly based on visual assessment through grades, hence the strong relationship between grades and fiber properties.

Over the years, instruments for measuring the quality and parameters of cotton fibers were introduced and developed until they reached great accuracy and are now standardized. This method makes it much easier for spinners to make their choice.

Personally, I think that the visual factor still adds a finer touch and should not be completely disregarded.

Today, we are going to listen to four experts from four continents who are going to enlighten us on this important subject. I introduce to you Mr. Charles Wilson, Cotton Australia's immediate past chairman and a cotton grower; Mr. Andrew Macdonald, director of Santista Textil in Brazil; Mr. Bill Dunavant III, from Dunavant Enterprises in the United States; and Mr. Ibrahim Malloum, Paris-based commmercial director of Société Cotonière du Tchad in Chad.

A Consumer Dominated Economy and the Need for Quality Improvement

Charles Wilson
Cotton Grower
Australia

I have been asked to make the case that the cotton industry needs to meet consumer needs in order to grow as an industry.

As we are all aware, the cotton industry has faced a massive decline in market share over the past thirty years. In fact during the years from 1990 to 2000 man-made fiber consumption increased at a rate of 160% while cotton market demand increased by only 8.4% (ICAC 2002). The industry needs to ask itself a very big, Why?

Is it because we have not marketed ourselves as well as we should? Or are there some more fundamental issues that need addressing within the industry. Whatever the reason, as sure as we are all here today if the industry does not address this issue then in twenty years time there will be a lot less of us in this room.

Today I would like to touch on the need for the industry to meet consumer needs in order to grow and at the same time reverse this market trend. We must recognize that growers produce the same cotton but for two very different consumers: the mills to which his merchant is supplying, and also the end consumer in the marketplace.

Using the Australian cotton industry as an example, the major issues can be summarized below:

- To remain competitive, mills are increasing their processing capacity, and in doing so are demanding a better product from producers.
- Spinners are demanding a better description of cotton delivered.
- The Australian grower farm economics are now solidly based on customer wants and values.
- End consumer wants and demands are changing. Are we producing for consumers what they want/expect from natural fibers?
- A possible way forward from here.

At the recent Cotton Conference in Australia in August 2002, one of Australia's spinning customers, Hendra O. Husodo, gave an assessment of Australia's ability to continue to supply a product that spinners require.

Hendra gave an assessment of estimated "real" production speeds of spinning machines in 2010, placing an emphasis on quality. The chart below shows that over the last thirty years and estimated for the next eight to ten years ring spinning spindle speeds will continue to increase.

During the last International Textile Manufacturers Assn. (ITMA) show in Singapore, ring spinning speed of 25,000 rpm was not uncommon, though a production speed of 20,000 rpm (for combed yarn) and 19,000 (for carded yarn) would be better employed for yarn quality.

My point is that in a decade from now, spinners will undoubtedly continue to utilize higher spindle speeds in their production, and accordingly demand better quality raw cotton from growers, i.e. higher strength, uniformity and length.

Let me now talk about cotton specifications.

Firstly, spinning customers are not always clear on the specifications of the raw cotton they require. They need to become more specific in their needs.

In the mainstream "vanilla" standards of cotton, the need for further analysis is not as great yet. However the pressure of economics will eventually lead to a greater need for more descriptions—length, strength, micronaire and color are generally adequate for, say, denim production, however, as synthetic quality improves and spinners competition increases, then the need for better descriptions will occur.

Premium cottons however need better descriptions now.

Premium cottons need all of the above, i.e. length, strength, micronaire and color, plus measurements of neps, short fiber and stickiness.

I also believe that mills in the future will need to pay a greater premium for better quality cottons, which will encourage farmers and researchers to produce better quality lines. This may be at the expense of the vanilla lines.

Having accurate and agreed measuring instruments is a challenge the industry needs to grasp. Development of these instruments needs to be "fast tracked" to enable us to better describe and better compete.

Stocks of undesired cotton have always been the "bugbear" of our global market. Mills have the capacity to respond quickly to market signals from the retail end. Unfortunately, the response time at grower level is much slower and hampered in some cases by protection, subsidies from governments and slow information transfer. If you add in the sluggish turnaround time from the plant breeder end of the industry, then changes to fiber quality must accordingly be gradual.

In 1970, Australian cotton production was only about 100,000 bales a year with inferior cotton

characteristics; i.e. low strength of 24 GPT and staple length of 1-1/16 to 1-13/32. A decade later there was a considerable production increase to 500,000 bales a year with improved quality, notably in staple length and strength.

Australia now produces on average in a good season over 3,000,000 bales, and has earned a favorable reputation from spinners as a favorite, well-described product for the high quality yarn manufacturer. This has been achieved via a concerted effort by researchers and plant breeders, shippers and classers to "meet the market requirements" over the last two decades.

In Australia we have a quick response time from mill to grower through the use of basis, premium and discount sheets, good information flow, and pricing. Furthermore, we are not a protected industry. In addition, we respond quickly because we have innovative farmers, conduct very successful research and most importantly, because we export 98% of our product we therefore receive direct market signals from our customers.

The point is that the Australian grower's farm economics are now based on the spinning customer wants and values.

The other consumer (i.e. the end customer) has a different set of "wants." One of the key outcomes desired by today's end consumer is environmental stewardship.

For many years the global cotton industry has been criticized for its environmental management, or perhaps its lack thereof.

As we all recognize, issues such as:

- Water over extraction
- Pesticide contamination of landscapes and rivers
- Poor aerial spraying practices
- Vegetation clearing
- Decreasing water quality
- And so on (the list is ever growing in natural resource management circles)

have appeared high on the radar screens of consumers and governments in recent years.

Consumers and governments are now demanding of us all better environment stewardship. Recently it was reported in Australia that Australian business would miss out on new lucrative contracts because of our government's failure to sign the Kyoto Agreement. This is a message to the cotton industry that if they do not change these bad practices now, we may see our industry penalized.

There is no doubt in my mind that countries producing cotton that do not display good environmental practices will in the future find it harder to do business, and in some cases there will be penalties for bad environmental practice.

As a means of improving our environmental credentials, the Australian cotton growing industry embarked on its "Best Management Practice" (BMP) program over six years ago. It is a voluntary, audited, uncomplicated process that splits the farming practices into modules of operation, e.g. pesticide application. It is an ongoing continual improvement process. To date approximately 50% of growers are progressing through the BMP process, giving the industry increased credibility in the eyes of the Australian public and government.

Other sectors of the industry are now keen to complete their own BMP. To date, the Australian Cotton Shippers Association (ACSA), the Cotton Classers Association of Australia (CCA) and the Australian Cotton Consultants Association (ACCA) have started their own BMP process. The industry is now investigating if there is an opportunity to market environmentally friendly cotton under the BMP label. Merchants and mills in general have not expressed great interest, so the industry is visiting end users; clothing manufacturers, retail outlets, etc. to gauge their enthusiasm.

We feel that this further emphasizes how close the direct relationship between growers and end users has become.

Finally, how can we enhance our production systems and integrate as an industry to succeed in the future?

As we know, the environment around us is changing. The global industry needs to seek and establish a management philosophy that takes into account changes in consumer needs as well as globalization, environmental responsibilities, and social responsibilities. The ICAC has a role to play for our industry.

Issues such as

Trust: This is the prime element in every business foundation. To trade and have trust that your contract will be honored is a basic need of any industry.

Global networks: The industry is old and the networks are in place. We should use these to our advantage more for promotion and industry restructure. We need to modernize, revolutionize, and get smart like our competitors.

Globally funded research: There is a desperate need to establish a mechanism to fund research into cotton textiles. Our competitors can do this easily through their companies and are reaping the rewards. If the cotton industry doesn't start researching better textiles then we will relegate ourselves to being a 20th century product.

Improving quality by better descriptions: To compete with synthetics we must better describe our fiber. Work needs to be done on getting instrument testing to a standard which is reliable and acceptable to all sectors of the industry.

Intellectual capital: Being generous with our ideas. Using valuable industry knowledge to the benefit of the whole industry.

Environmental stewardship: Growing, processing and shipping our cotton in a way that the consumer is demanding—in harmony with nature.

And finally being creative: Our friends the wool industry have recently re-engineered their product because it didn't fit with the modern consumer. Cotton has the same challenge.

With the research and development sector providing new market specific varieties, the industry developing an industry-wide approach to marketing "Best Practice" cotton, and with ongoing and greater communication between spinners, customers and the industry, we feel there is hope for the survival of the Australian cotton industry.

We sit here today at the dawn of a new millennium in a country that is as old as the fabric itself. We have the opportunity to rise to the exciting challenges I have outlined. If we do, then I am sure that in twenty years time this room will be filled to overflowing.

Market-based Incentives for Improving Cotton Quality

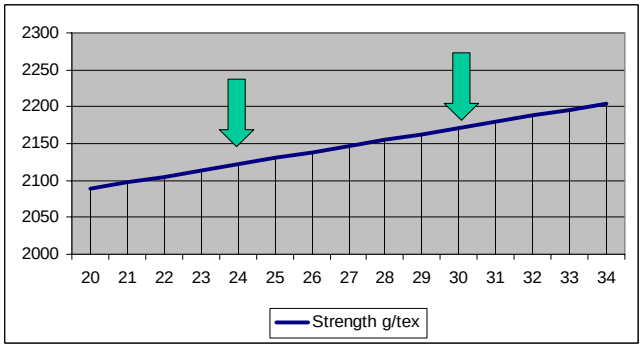
Andrew Macdonald
Santista Textil SA
Brazil

Nobody would question that HVI classing, or "computer classing of cotton" for those unaware of this term, is today, a reality, an indispensable tool for the textile industry, to maintain and improve quality and to control the application cost of cotton. No cotton textile industry can function today without the data that these instruments provide, and I believe the cotton trade understands that eventually the information will also have to be used as a pricing mechanism. The question remains how.

Today much of the world's cotton is still classed by hand and marketed accordingly, which glosses over the true value of cotton, and perhaps worse, fails to guide growers all over the world to seek the quality premiums this data should, and I repeat, should command. Why do I say should? Because even in those countries that class with HVI, in many cases they still use the old manual concepts for valuing the cotton. The principal excuse for this situation is that machines all over the world are not totally compatible for all the fiber characteristics. Which is true. Variations of calibration and air-conditioning greatly affect the results.

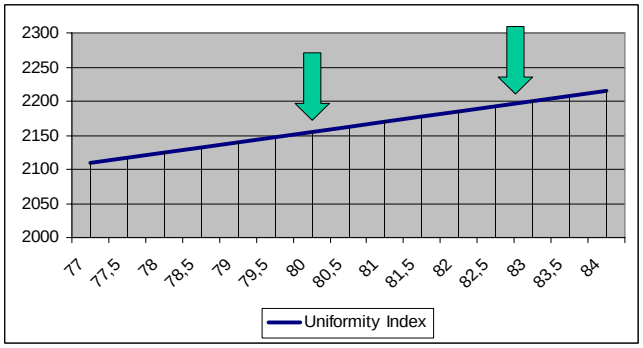
To overcome this difficulty, I am suggesting that the principle characteristics are commercially

Count Strength Product CSP
Fig. 1 STRENGTH



Length 1,10 - Mic 3,8 - Uniformity 80
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 2 UNIFORMITY



Length 1,10 - Strength 28 g/tex - Mic 3,8
RD 76.00 - Plus b 8.00 Leaf 4

acceptable and therefore negotiable, whilst the other less consistent data could be provided with cotton shipments, as information only. That way as the information becomes more reliable, buyers will be better able to judge the intrinsic values of the cotton, thereby calculating and offering premiums accordingly.

In order to better understand the impact of this information and the real value of the cotton I would like to present a few charts showing the "spinning value" of cotton as expressed in CSP (Count Strength Product), an index available on HVI machines. The formula used in CSP is based on the theoretical spinning value of any cotton, which allows some characteristics to improve the value, or perhaps compensate for other defects.

I must stress the idea is theoretical, since at the end of the day, price formation must be by supply and demand, but I am suggesting that CSP, or any other similar calculation, allows the grower, trade and textile industry to better judge the performance of the cotton prior to spinning, and so, the value of one piece of cotton from another.

Count Strength Product is a mathematical formula calculated on spinning results achieved in yarn formation. The main components, which are measured on the HVI and included in the calculation, are:

Strength
Uniformity
Length
Micronaire
Rd
+b
Leaf

For the examples to follow, I have taken a standard upland cotton, with the following characteristics:

Strength	28 g/tex
Uniformity	80 index
Length	1.10 or about 1-3/32" staple length
Micronaire	3.8
Rd	76
+b	8.00
Leaf	4

In figure 1 **Strength**, we can see the increase in spinning value, CSP, on the axis, which is a pure index, and for today's discussion will range between 1800 to 2500. On the horizontal we show the strength in grams per tex. As you see, as the strength increases so does the spinning value.

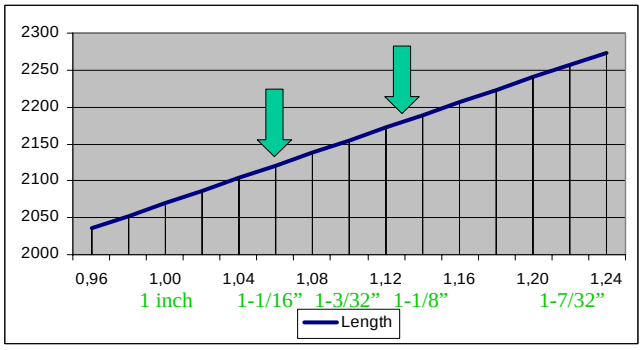
The normal upland cotton might range between the arrows; i.e. 24 to 30 g/tex, showing 50 CSP value increase. Mathematically this would mean about 2%, but, the increase in commercial value is not a straight line, but a curve that increases in value the higher the CSP factor. However, for this short presentation I will just show the CSP value and not discuss the commercial curve.

In figure 2 **Uniformity**, we can see the same pattern, with the arrows indicating a spread between 80 and 83 uniformity index, which shows a further 50 CSP increase.

Figure 3 **Length**, a steeper curve which shows the importance of this characteristic, though between 1-1/16 and 1-1/8 (1.06 UHM and 1.13 UHM) we again trace a 50 CSP increase in value.

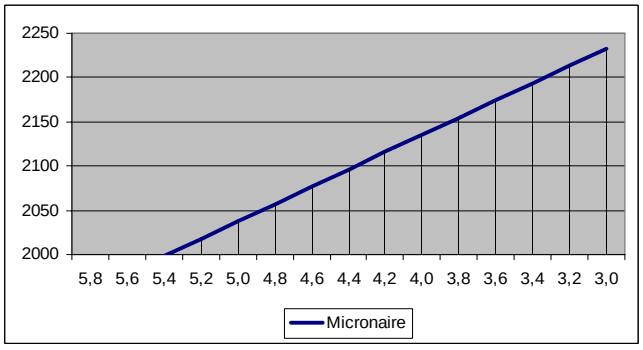
Figure 4 **Micronaire** is unfortunately much more complicated. A theoretical calculation would look like this, a very steep line, but in fact the question of maturity of the cotton takes its toll

Count Strength Product CSP
Fig. 3 LENGTH



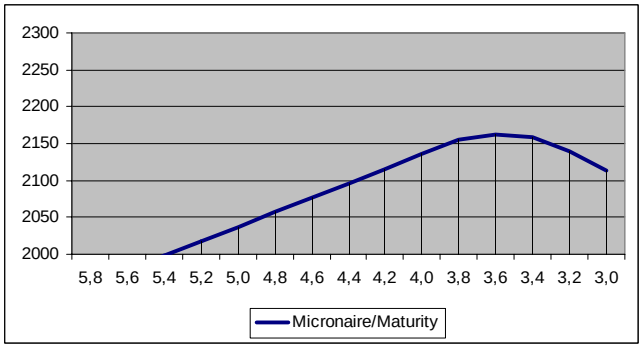
Strength 28,00 g/tex - Mic 3.8 - Uniformity 80
RD 76.00 - Plus b - 8.00 Leaf 4

Count Strength Product CSP
Fig. 4 MICRONAIRE



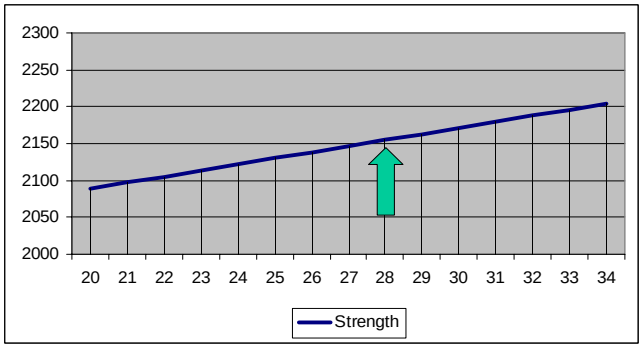
Length 1,10 - Strength 28,00 g/tex - Uniformity 80
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 5 MICRONAIRE



Length 1,10 - Strength 28,00 g/tex - Uniformity 80
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 6 STRENGTH



Length 1,10 **Strength xxxx** g/tex Mic 3,8 Uniformity 80
RD 76.00 Plus b 8.00 Leaf 4

when the micronaire becomes finer, and the curve really looks more like in Figure 5.

Micronaire values are also complicated by the effect variations can make in the dyeing process which can alter the value depending on the end use, but that's another story. The CSP effects of micronaire I will explain a little later.

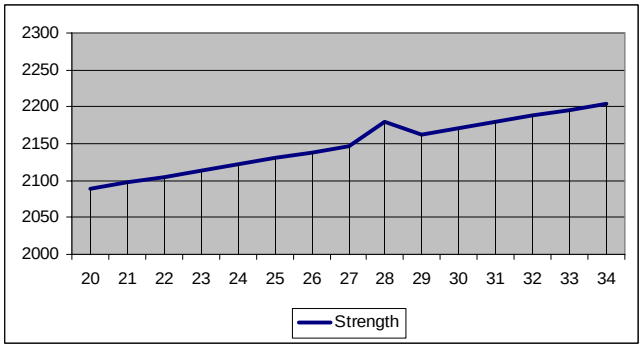
Figure 6: We return to **Strength** and let us study the effects of the other characteristics to improve the CSP value of the cotton.

Figure 7: We increase the length to UHM to 1.13 (1 1/8"), the value improves considerably.

Figure 8: By increasing the uniformity index to 83 the cotton has now increased more than 75 CSP.

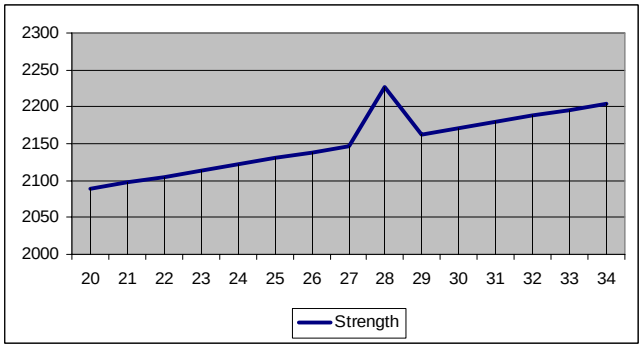
Figure 9: We can study the **Uniformity Index**.

Count Strength Product CSP
Fig. 7 STRENGTH



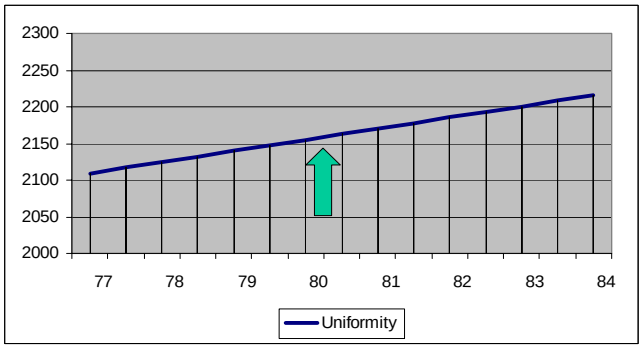
Length 1,13 - **Strength 28,0** g/tex - Mic 3,8 - Uniformity 80
RD 76.00 - Plus b - 8.00 Leaf 4

Count Strength Product CSP
Fig. 8 STRENGTH



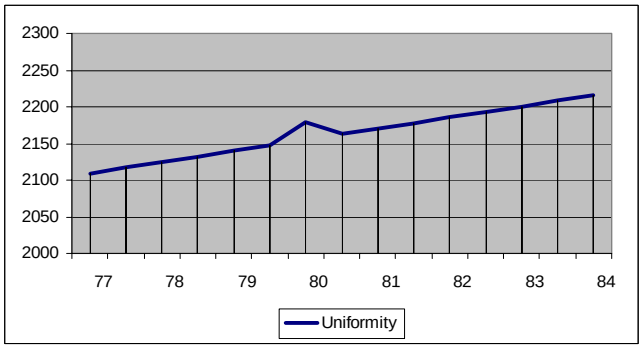
Length 1,13 - **Strength 28,0** g/tex - Mic 3,8 - **Uniformity 83**
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 9 UNIFORMITY



Length 1,10 - Strength 28 g/tex - Mic 3,8 - **Uniformity xx**
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 10 UNIFORMITY



Length 1,10 - **Strength 31** g/tex - Mic 3,8 - **Uniformity 80**
RD 76.00 - Plus b 8.00 - Leaf 4

Figure 10: Strength increased to 31 g/tex.

Figure 11: Length increased to 1.13 and the value has increase by 50 CPS.

Figure 12: We can study the **Length** of the cotton in terms of UHM.

Figure 13: Strength increased to 31 g/tex.

Figure 14: Uniformity increased to 83 g/tex and cotton has increased by nearly 100 CSP.

Figure 15: We can study **Micronaire**, which is the fineness of the fiber.

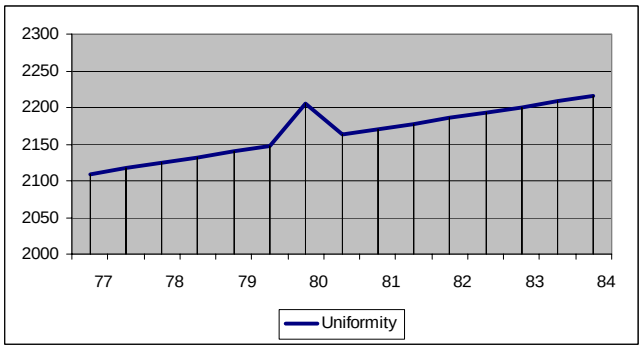
Figure 16: We increase the strength to 31 g/tex.

Figure 17: Increase the length to 1.13 UHM.

Figure 18: Uniformity index to 83 gives the cotton an increased CSP value of over 100.

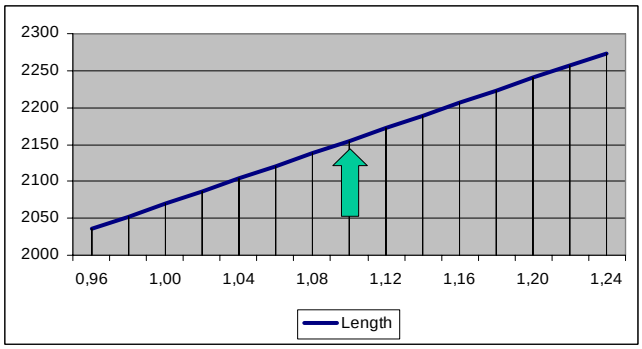
Figure 19: However, micronaire is a difficult animal since the relation to cotton values is not strictly direct. If we lower the strength to 24 g/tex, the curve becomes much more pronounced, and the lower micronaire loses value much faster.

Count Strength Product CSP
Fig. 11 UNIFORMITY



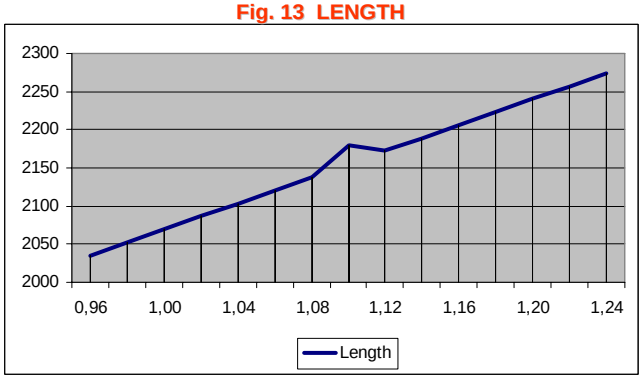
Length 1,13 - Strength 31 g/tex - Mic 3,8 - **Uniformity 80**
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 12 LENGTH



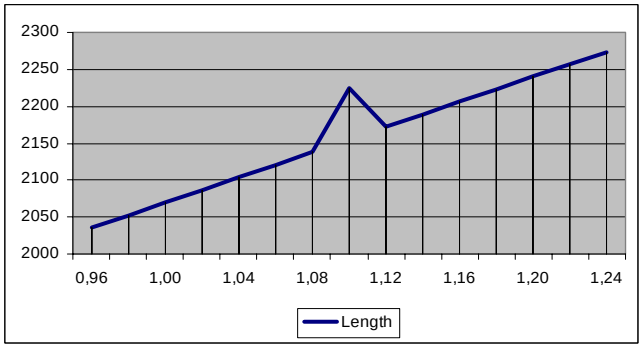
Length xxx - Strength 28,00 g/tex - Mic 3.8 - Uniformity 80
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 13 LENGTH



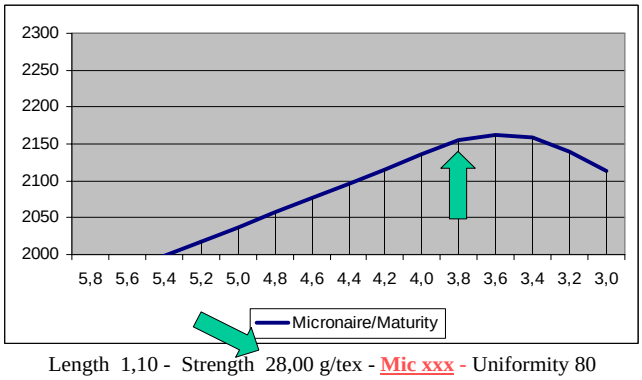
Length 1,10 - Strength 31,00 g/tex - Mic 3.8 - Uniformity 80
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 14 LENGTH



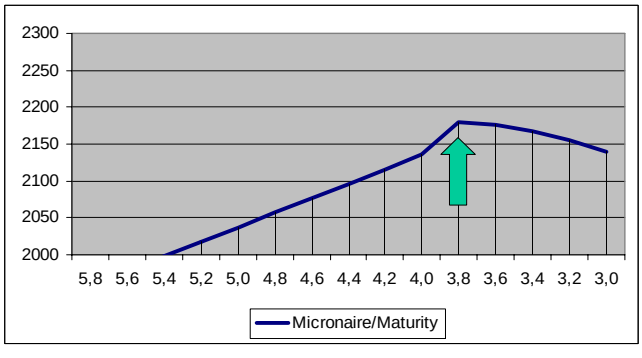
Length 1,10 Strength 31,00 g/tex Mic 3,8 **Uniformity 83**
RD 76.00 Plus b 8.00 Leaf 4

Count Strength Product CSP
Fig. 15 MICRONAIRE



Length 1,10 - Strength 28,00 g/tex - **Mic xxx** - Uniformity 80
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 16 MICRONAIRE



Length 1,10 - **Strength 31,00** g/tex - **Mic 3,8** - Uniformity 80
RD 76.00 - Plus b 8.00 - Leaf 4

Figure 20: As we increase the strength back to 28 g/tex, notice how the 3.0 micronaire increases in value in relation to the higher micronaire.

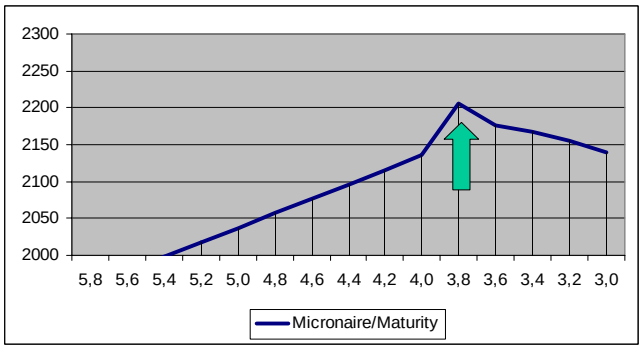
Figure 21: In this chart we have increased the strength to 33 g/tex, (as well as the other characteristics length 1.13 and uniformity 83).

Figure 22: Increasing the strength to 35 g/tex we see a sharp impact on the low micronaire cotton.

Figure 23: Whilst here with 38 g/tex the values seem to go through the roof.

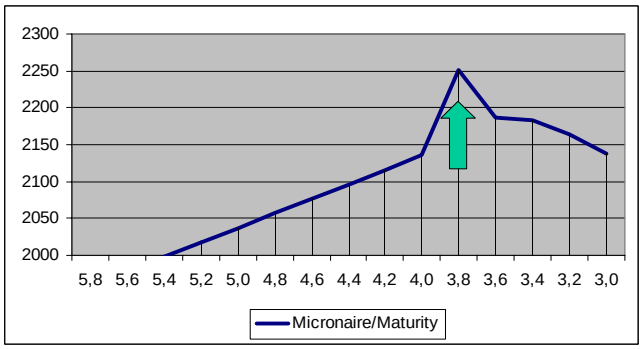
Figure 24: We have reduced the scale to show that the upward trend is limited. However if we increased the strength and length further the values would again move off the chart, which goes a long way to explain the premiums for long staple, low micronaire, high strength cottons, like we find here in Egypt.

Count Strength Product CSP
Fig. 17 MICRONAIRE



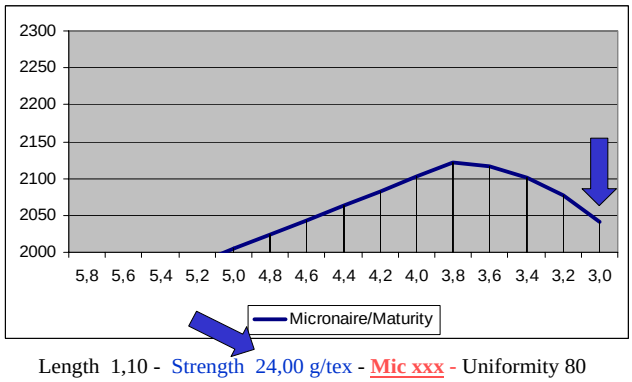
Length 1,13 - Strength 31,00 g/tex - **Mic 3,8** - Uniformity 80
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 18 MICRONAIRE



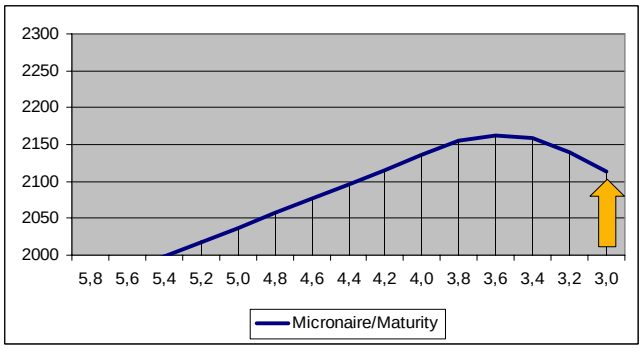
Length 1,13 - Strength 31,00 g/tex - **Mic 3,8 - Uniformity 83**
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 19 MICRONAIRE



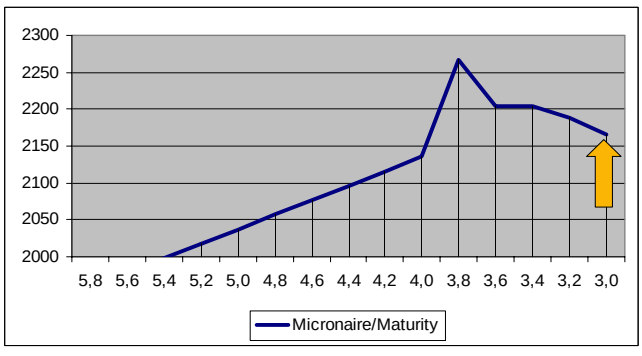
Length 1,10 - Strength 24,00 g/tex - Mic xxx - Uniformity 80
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 20 MICRONAIRE



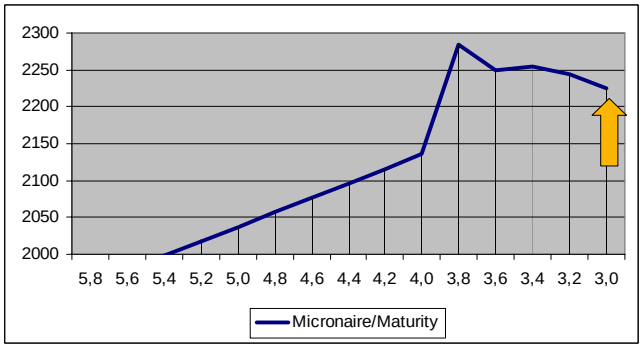
Length 1,10 - **Strength 28,00 g/tex** - **Mic xxx** - Uniformity 80
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 21 MICRONAIRE



Length 1,13 - Strength 33,00 g/tex - **Mic 3,8** - **Uniformity 83**
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 22 MICRONAIRE



Length 1,13 - Strength 35,00 g/tex - **Mic 3,8 - Uniformity 83**
RD 76.00 - Plus b 8.00 - Leaf 4

Figure 25: Here we see the reverse effect. I have plotted the value for the standard cotton with a high micronaire of 5.0. We can easily see the enormous loss of spinning value.

Figure 26: However if we increase the strength to 32 g/tex,

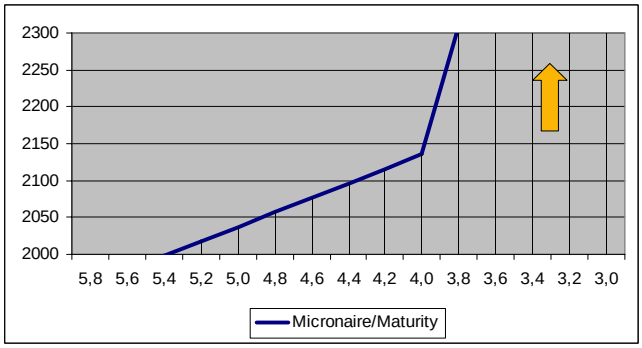
Figure 27: and increase the length to 1.13 UHM,

Figure 28: and increase the uniformity to 83,

Figure 29: and adjust the RD factor, the reflectance, we have brought the cotton value back into line with the standard.

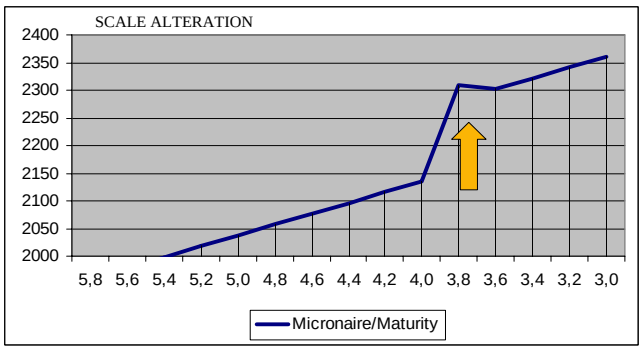
Figure 30: Mentioning the RD factor, this chart shows that the reflectance from which we determine the color of the cotton has a mild effect on the CSP. Taking a normal color range between 77 and 75, the variation is small, but I have not included these values in the comparisons, since color is considered in the grade value, which is another aspect of cotton classing which I have

Count Strength Product CSP
Fig. 23 MICRONAIRE



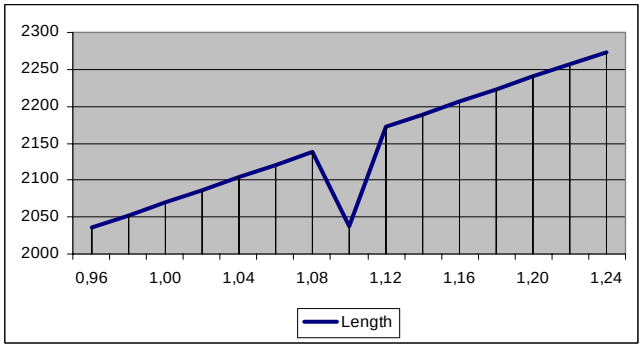
Length 1,13 - Strength 38,00 g/tex - **Mic 3,8 - Uniformity 83**
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 24 MICRONAIRE



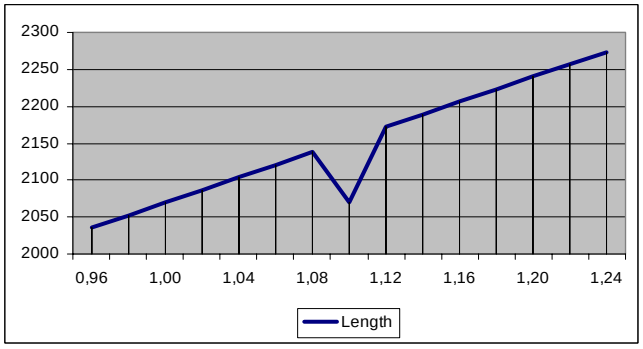
Length 1,13 - Strength 38,00 g/tex - **Mic 3,8 - Uniformity 83**
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 25 MICRONAIRE



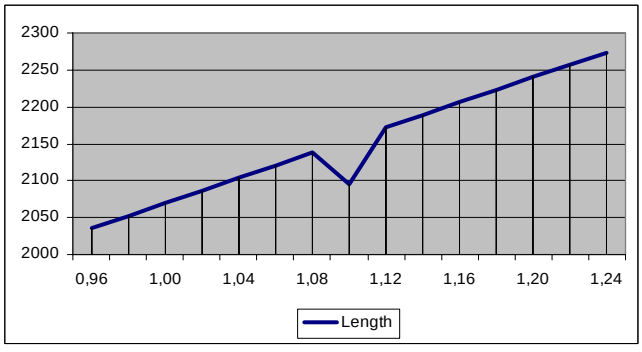
Length 1,10 - Strength 28,00 g/tex - **Mic 5.0 - Uniformity 80**
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 26 MICRONAIRE



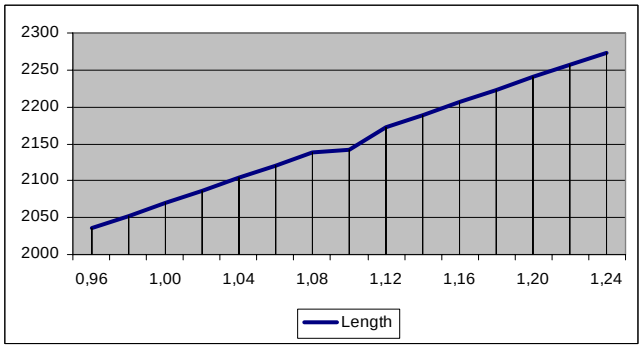
Length 1,10 - Strength 32,00 g/tex - **Mic 5.0 - Uniformity 80**
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 27 MICRONAIRE



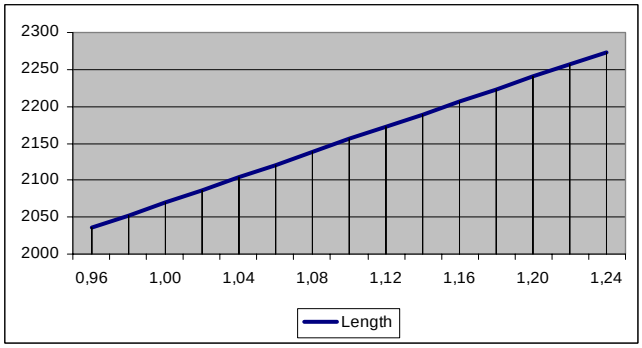
Length 1,13 - Strength 32,00 g/tex - **Mic 5.0 - Uniformity 80**
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 28 MICRONAIRE



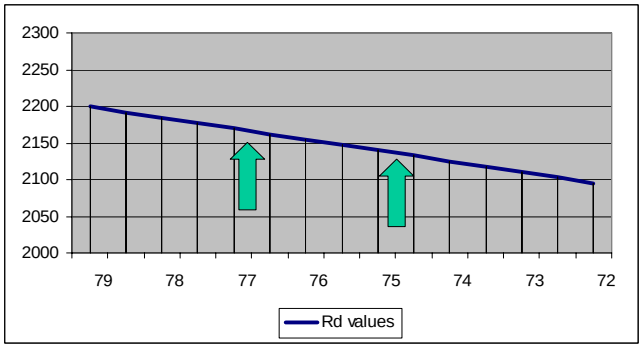
Length 1,13 - Strength 32,00 g/tex - **Mic 5.0 - Uniformity 83**
RD 76.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 29 MICRONAIRE



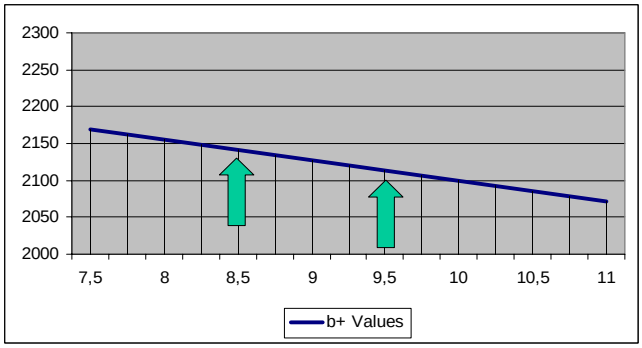
Length 1,13 - Strength 32,00 g/tex **- Mic 5.0 - Uniformity 83**
RD 77.00 - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 30 Rd Values



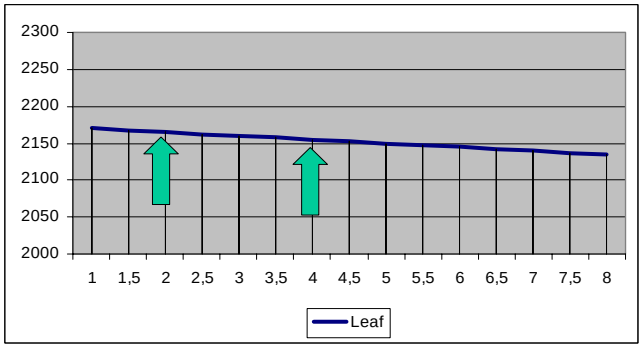
Length 1,10 - Strength 28 g/tex - Mic 3,8 - Uniformity 80
Rd XXX - Plus b 8.00 - Leaf 4

Count Strength Product CSP
Fig. 31 +b Values



Length 1,10 - Strength 28 g/tex - Mic 3,8 - Uniformity 80
RD 76 - Plus b XXX - Leaf 4

Count Strength Product CSP
Fig. 32 Leaf Values



Length 1,10 - Strength 28 g/tex - Mic 3,8 - Uniformity 80
RD 76 - Plus b 8 - Leaf 4

not covered in this presentation. We do not consider classing grades as intrinsic values, since they are visible to the human eye and can be valued accordingly. Even so the HVI is a tool which can assist or even determine the classing grade.

Figure 31: Show the +b values, or yellowness of the cotton. The range is between 8.5 and 9.5, and the same comments apply to this measurement.

Figure 32: The final slide shows us the CSP spinning values as they refer to leaf. You see the line is very flat, therefore the spinning value is little altered by the leaf content. However, the commercial reduction for leaf grade is accordingly based on the trash content, which represents a weight loss during spinning.

The idea of this short presentation was to explain how the spinner might value the cotton purchased, and I believe this has an application for growers and researchers to create the incentives for improving cotton quality.

Advantages of the High Volume Instrument System USDA, AMS, Cotton Program

Bill Dunavant III
Dunavant Enterprises
USA

Abstract

The United States Department of Agriculture (USDA) has provided the United States cotton industry with cotton grade standards and cotton classification services since the 1920s. The Cotton Program of the USDA's Agricultural Marketing Service was created for carrying out these missions through the legal authority of the U.S. Cotton Standards Act, the U.S. Cotton Statistics and Estimates Act and the U.S. Cotton Futures Act. Over the years, the Cotton Program has led the way for bringing technical developments to cotton classification. As a result, the U.S. possesses the most sophisticated and efficient classing system in the world. The success of the U.S. cotton classification system is largely due to turning the early vision of instrument based classification into today's High Volume Instrument (HVI) testing system.

HVI classification has made possible many advances that would have been impossible through manual classification. For instance, where cotton classers are limited to estimating the staple length of a cotton to the nearest 32nd of an inch, the HVI is capable of providing accurate length measurements to the nearest 100th of an inch. In 2000, the manual classing of color was replaced by the HVI color grade, which is based on measured reflectance (Rd) and yellowness (+b). In addition, every bale classed by the USDA is tested for micronaire, strength, and uniformity index, all of which are impossible to call without instrumentation.

Besides the increase in the number and quality of measurements provided, the HVI has brought a number of collateral benefits. Increased automation has drastically cut the required training

time for cotton classers (from six months to six weeks) and reduced the number of classers required, which resulted in lowered labor costs. The HVI has also been extremely conducive to the implementation of automated data management, which makes accurate data available to farmers and merchants quickly.

Perhaps the most potentially important benefit of the HVI classing system is its flexibility. Improvements in manual classing are restricted by the limits of human visual acuity, and are also highly dependent on years of training and practice. The HVI system, however, is not hampered by human limits. As industry needs change, the HVI can grow to fit the new needs. Studies are currently underway, for instance, to measure and utilize moisture measurements at the HVI. New measurements, such as short fiber content and fiber maturity, are being investigated. As the cotton textile industry demands more cotton quality information, the HVI system provides the platform for developing new quality information.

Introduction

Prior to 1980, all cotton classing in the United States was performed manually by human classers. In that year, the first HVI lines were placed in practical use in a Cotton Program classing office, marking perhaps the largest change in the classification of cotton to date. At the time, the HVI was the culmination of years of research and hard work in the automation of cotton classing dating back to the 1960s.

In the 1960s, cotton seemed to be in decline, as manmade fibers advanced. Textile manufacturers were using more petroleum-based fibers and less cotton, and cotton's market share was steadily being eroded. In the face of this dire situation, the cotton industry began pushing for development of new technology to allow objective measurement of cotton fiber properties, which would help cotton compete with manmade fibers. The USDA funded research into the application of technology to cotton classing, and as a result the first instruments were demonstrated in 1968. While most of these instruments measure a single fiber property, there was a need for an instrument that could quickly and easily measure multiple fiber properties, and this need was filled by the HVI.

After the first HVI systems began service in 1980, they quickly proliferated as new models became faster and more accurate and efficient. By 1991, the entire U.S. crop was classed with HVI systems. Today, there are approximately 250 HVI lines in use within the USDA Cotton Program.

Weaknesses of Manual Classing

Before the advent of automation, all cotton classing in the U.S. was performed manually by specially trained cotton classers. Classers went through a six-month school to learn cotton based on recognition of color, leaf, extraneous matter and staple length. When samples arrived for classing, a classer would determine the grade and staple for each sample. These values were tabulated manually and sent out to the customers by various media (printouts, punch cards, diskettes, etc.). Although this model was sufficient in the early years of cotton classification, it suffered from numerous weaknesses.

The first and foremost weakness of manual classing was its subjective nature. Humans, unlike instruments, cannot be calibrated, and keeping hundreds of classers all on the same level is difficult. This is particularly true given that an individual's performance will often drift during the workday due to such things as fatigue and state of mind. Classing performance is also affected by individual differences in visual acuity and the quality of lighting in different labs. Another weakness of manual classing is that it depends on a large base of skilled, highly specialized seasonal classers, which is neither cheap nor easy to ensure. Given that classers required a six-month training course to learn the manual classing skill, new classers could not be trained in the middle of classing season if replacement classers were required. Manual classing is also very inflexible. There are limits on the number of quality factors that can be measured by human sight and feel. While a machine-based classing system can evolve to provide new measurements as they are needed, a manual-based classing system is forever limited.

Automation and Labor-saving Ability

In virtually all industries, automation has been embraced largely because of its ability to reduce the amount of skilled human labor required. Cotton classification is no different. The HVI line is a fairly simple instrument to use, and it requires far less training to operate one than to learn to manually class cotton. The transition to HVI classification has enabled the Cotton Program to reduce the number of classers it requires, replacing much of the previous workforce with HVI operators. Because operators require so much less training time than classers, the use of HVI classification has greatly increased the flexibility of the Cotton Program in workforce planning. It is far easier to acquire new instrument operators as needed than new classers.

As a result of technological improvements, the Cotton Program has required fewer and fewer operators for a given volume of samples. Early HVI lines required three operators per instrument. In the span of approximately twelve years, instrumentation has advanced to the point that all USDA classing is performed on single operator HVI systems. For 2002, the first fully automated zero-operator HVI system, known as the Automated Classing System (ACS), will be put into production.

As the number of quality factors measured manually has declined, the training time for classers has steadily declined as well. When classers called staple length, color, leaf, and extraneous matter, the classing school lasted six months. When staple was eliminated, the school was shortened to three months. Now, with color no longer taught to seasonal classers, classing school only requires six weeks. This reduction of training time saves the Cotton Program time and money and makes training new classers far easier.

Improvement of Measurements

Under the old manual classing system, quality measurements were limited to those factors that could be measured by the human classer and classing reproducibility was limited by the skill and training of individual classers. HVI classification drastically increased the number of quality factors that can be measured and has also improved the measurements that were previously performed manually. The HVI system has also allowed for improvement in establishing absolute reference standards. Prior to instrument testing, all reference standards for classification were established by human classers. Today instrument based reference standards are used for all classification measurements and provide the means for precise and accurate measurement calibrations.

Today, the HVI yields seven major measurements—length, strength, uniformity index, micronaire, reflectance (Rd), yellowness (+b), and trash. The HVI reports length to the 100th of an inch, which is a far greater level of precision than the human classer's staple length of 32nds of an inch. Strength, uniformity index and micronaire are all valuable measurements for the textile industry and none of the three can be measured manually. Rd and +b are combined to obtain an HVI color grade that replaced the human classer color grade in 2000. The only measurements still performed manually are leaf grade and extraneous matter.

The expanded list of measurements provided by the HVI has had several definite benefits for the cotton industry. With more data available to them, textile manufacturers are better able to select cotton with particular characteristics that suit their needs. Gin machinery manufacturers have modified the designs of their equipment to optimize measured properties. Without the additional measurements obtained from the HVI, none of these benefits would have been possible.

Advanced Data Management

Under the manual classing system, all quality measurements were recorded on paper. Gener-

ally, a recorder stood between each pair of classers to write down their calls; sometimes there was one recorder per classer. Clearly, this was tremendously inefficient, and also likely to produce transcription errors. The advent of the HVI classification system served as a catalyst for the implementation of advanced data management techniques. All information from the HVI is automatically sent to the computer system, and later combined with the two grades from the classer to complete the record for each sample. This eliminates the need for recorders and greatly speeds data transmission and availability, as well as eliminating transcription errors. While computerized data management would be compatible with a manual classification system, it is a necessary prerequisite for HVI classification.

Flexibility and Improvement

Although the points already mentioned make a powerful case for HVI classification, there is a much more important point yet. That is the flexibility of the HVI system and its capacity to change and improve. The capacity for the HVI to include new measurements is only limited by technological advance and ingenuity, rather than by the limits of human vision and training. The HVI already offers several measurements that are impossible to duplicate manually, and no doubt several new measurements—such as short fiber index and fiber maturity—will be added in the future as industry demands them. Existing measurements will also improve as technology advances. Moisture measurement at the HVI may one day eliminate the need for tight lab conditioning requirements and provide for a more robust test.

The advent of the HVI system has also provided the opportunity for the possible expansion of instrument-based classification. The concept of gin-based classing is currently being debated. Although gin classing has not been developed nor proven, the opportunity for such a system is potentially possible due to the flexibility developed into the current HVI system. It is this capability to change to meet the needs of the cotton industry that makes HVI classification superior to manual methods.

Conclusion

HVI classification is here to stay. The HVI system has been proven reliable, effective, and efficient over more than twenty years of use. By improving and expanding the quality measurements available, the HVI has been of enormous importance in marketing U.S. cotton and keeping it competitive in the world market. Continual, ongoing research is devoted to expanding the number of measurements available on the HVI as well as refining the existing measurements. As technology improves, the role of manual classing will only decline further, and as synthetic fibers improve and profit margins decline, instrumentation will play a larger and larger role in keeping cotton competitive. Adoption of the HVI classification system worldwide will play a major role in the continued success of the world cotton industry.

Utilization and Constraints of the High Volume Instrument (HVI) Classification System in Chad

Ibrahim Malloum
Cotontchad

Traditional Classification

Classifying cotton is an art. It is done by a classer and consists of assessing the quality of the fiber based on the following criteria: grade, color, impurity content, preparation and yarn length.

Grade

Grade includes leaf content, color and preparation. It is determined on the basis of the quality standards used as benchmarks by classers. These standards may be the universal standards of the United States, or African standards for African cotton, or even private standards used as benchmarks.

The classer visually estimates the leaf content. This basically means the leaf, bract and husk debris contained in the fiber. Leaf content depends on the cotton variety, the harvest procedure (manual or mechanical), harvest conditions and the quality of the ginning operation.

Preparation

Preparation may be defined as the degree of smoothness or roughness of the fiber. For African cotton—generally picked by hand—preparation essentially depends on the speed and quality of ginning.

Color

The color may be white, cream, colorless or colored. A number of factors may influence the color of the fiber: rainfall, insects, fungi, excessive humidity or heat during storage of the seedcotton or the lint.

The classification is performed in the classification room, equipped with a special light called "day light." Before classification, the cotton is first conditioned in a room with a temperature of 20°C and 65% relative humidity.

To generate technological data, the classification room must be equipped with a real laboratory containing the following equipment:

- Fibronaire to determine the micronaire
- Fibrograph to measure length
- Stelometer to measure strength or pressley
- Shirley analyzer to determine impurities, etc.

HVI Classification System

The HVI classification system became increasingly common in the 1980s and truly widespread in the 1990s, when all American cotton production switched to HVI classification. HVI classification has resulted in profound changes in cotton production and marketing, as well as in the use of cotton in spinning operations.

With respect to cotton production, HVI results are used for research and varietal improvement. For researchers involved in varietal selection, it is particularly important to understand and explain the variability of the fiber's technological characteristics within a specific geographic area. For the purposes of varietal improvement, it is necessary to obtain rapidly, and in sufficient number, the results from technological analyses of the fiber of selected varieties. The results must in any event be available before the time of sowing the new crop for the selection process to be fully effective.

With respect to cotton marketing, until recently cotton was sold on the basis of length (pulling) and grade, as determined by a classer with all the subjectiveness that such a system may entail. Today, under the HVI classification system, classers feel supported in their work. In addition, armed with complete information on technological characteristics, sellers are better able to position their products in the marketplace.

Indeed, when a seller can provide a client with reliable technological results, it is altogether logical that cotton with guaranteed technological characteristics should command a higher price than cotton with no such guarantee.

The HVI analysis provides information on the basic characteristics of a cotton sample:

- Length
- Uniformity (%)
- Strength (g/tex)
- Micronaire (maturity-fineness complex)
- Elongation
- Percentage of short fiber
- Colorimetry, etc.

I will not attempt to analyze and define these different parameters, which are not my field of

expertise. Instead, I will leave it to more highly qualified individuals in this room to discuss these matters in detail. However, we can briefly state the key elements influencing some of these parameters.

Length

Fiber length is primarily a varietal feature. However, length may be affected by a number of factors:

- Lengthy exposure of cotton in the field to extreme temperatures.
- Nutritional deficit of the plant.
- Excessive use of cleaners during the ginning process.

Strength (g/tex)

As with length, strength depends on the variety and may be affected by a nutritional deficit of the cotton plant. There is a strong correlation between fiber strength and thread strength.

Degree of strength	HVI strength (g/tex)
Very strong	31 or more
Strong	29-30
Medium	26-28
Weak	24-25
Very weak	23 or less

Micronaire

The micronaire is a measurement of the fiber's fineness-maturity complex. It may be influenced by the following factors:

- Late sowing.
- Weather conditions during the plant's growth cycle such as temperature, amount of sunshine, and volume and distribution of rainfall.

A micronaire between 3.5 and 4.9 is generally considered the basis of commercial contracts. Any cotton outside this range will be discounted.

Conditions for Proper Operation of an HVI System

For the analyses to be reliable, the HVI system must meet a number of conditions:

- The system must be in perfect operating condition and properly calibrated.
- The room where the system is located must meet hygrometric and temperature standards: the temperature must be maintained at 20°C within a range of plus or minus 1°, and the relative humidity at 65% within a range of plus or minus 2%.
- The samples to be analyzed must be conditioned to reach a humidity level between 6.75% and 8.25%. It is generally agreed that cotton fiber reaches hygroscopic equilibrium in four hours, which means that a sample may be analyzed if it has been subjected to standard conditions (65% relative humidity and a temperature of 20°C) for at least four hours.

The quality of the measurements obtained by using an HVI system largely depends on the quality of the air conditioning in the room where the analyses are performed. Hygrometric variations have a strong impact on measurements of the fiber's technological characteristics, particularly strength and elongation. Proper air conditioning is thus indispensable.

Constraints Limiting Efficient Use of HVI in Chad

In some African countries and specifically in Chad, classification under the HVI system is constrained by the difficulty in maintaining a guaranteed temperature and relative humidity in the room where the analyses are performed, as required by HVI standards. The air conditioning and electric supply are very often inadequate.

Maintaining the HVI system is a real problem. There is no technician in charge of routine maintenance; the smallest problem puts the machine out of operation and then the services of a repairman from Switzerland are required. Spare parts are not available locally and need to be ordered from the manufacturer, with delivery often coming after very lengthy delays.

There are other constraints of a logistic nature: marking the cotton bales, inventory control in mills and ports, etc.

All these constraints notwithstanding, African producers have no other choice than to provide their clients (merchants and/or spinners) with reliable information on the technological characteristics of their product. We need to remove the constraints quickly because generalized use of the HVI system is irreversible, and any country unable to provide reliable HVI data will suffer the consequences.

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Statements to the Steering Committee

Second Meeting

Statement of the Private Sector Advisory Panel (PSAP)

Felix Stiegwardt
Chairman PSAP

The members of the Private Sector Advisory Panel wish to convey their thanks to the ICAC for the opportunity to exchange views on matters of importance to the world cotton industry. Members of the private sector recognize the importance of the support of governments for a healthy cotton sector.

Eleven members of the PSAP met with the Secretariat on 20 October 2002 and agreed on the following report to the 61st Plenary Meeting of the ICAC.

Business Plan and Plenary Meeting Venues

The PSAP continues to support both the Secretariat business plan and the principle of a rotation of plenary meeting venues among importer and exporter markets and between regions.

Good Trading Practices

The issue of supporting good trading practices, or contract sanctity, remains high on the agenda of the PSAP. The PSAP notes that a basic function of government is to ensure the rule of law, and that government support for the enforcement of contracts provides a crucial incentive to all parties active in cotton trade to fulfill contractual obligations. The PSAP is anxious that the ICAC Standing Committee continue to address this issue, and the PSAP supports fully the work of the Secretariat in identifying member countries whose laws recognize and allow enforcement of international arbitration agreements, with the aim of encouraging others to do likewise.

It was reported that private organizations are actively engaged in efforts to encourage contract fulfillment, and they are striving to find more effective ways of discouraging defaults on contracts. It was reported that the Liverpool Cotton Association (LCA) late last year changed its by laws in order to prohibit access to its arbitration procedures in disputes in which either party to a transaction has failed to abide by an arbitration award and whose name has been circulated accordingly, and has urged other arbitral bodies that are members of the Committee for International Cooperation between Cotton Associations (CICCA) to do likewise. Furthermore, the LCA now prohibits members from knowingly trading with defaulters, on pain of potential expulsion.

The PSAP supports the discussion of "Sanctity of Contracts" at future Plenary Meetings and suggests it is appropriate for the ICAC to support the activities of the United Nations Commission on International Trade Law (UNCITRAL). In addition, the PSAP encourages freedom of contracting in the private sector.

The PSAP requests that governments urge their textile industries not to enter into transactions with parties in default.

Increasing Use of Electronic Trading

The PSAP recommends that the Secretariat continue to monitor developments in the field of increasing use of electronic trading.

Enhance World Cotton Demand

The PSAP notes that the International Forum for Cotton Promotion is progressing with its work and that major cotton producing countries are being encouraged to develop national organizations to promote cotton in domestic markets. The PSAP notes that members of the Forum have prepared an excellent synopsis of ongoing cotton market development in member countries, which will be presented during a workshop on Thursday 24 October 2002.

The PSAP believes that the work of the International Forum for Cotton Promotion deserves the full support of the ICAC. The PSAP supports the recommendation of the Chair of the Standing Committee that the ICAC expand the Secretariat to provide professional support for the work of the IFCP.

Government Measures

The PSAP remains highly concerned about government measures that distort cotton production and trade. The Conference on Cotton and Global Trade Negotiations co-sponsored by the ICAC in July in Washington was constructive, and the PSAP issued a statement at the Conference in support of the objective of encouraging a successful outcome to the talks on agriculture in the WTO.

The PSAP is concerned about the increased imposition of non-tariff trade barriers in cotton such as phytosanitary quality restrictions. The PSAP suggests that the Secretariat add the subject of non-tariff trade barriers to its annual report on government measures and recommends that governments not resort to indirect restrictions on trade in cotton.

Improved Productivity and Pest Control

The PSAP discussed the success experienced in different countries. Some countries where cotton is grown on small farms experience difficulties as a result of poor, ill-educated farmers receiving no government assistance. Pest control and fertilizer use are often limited and ineffective.

In other countries, subsistence farmers are contracted by private enterprises and provided with seed, bags, pesticides and education. As a result of this low cost approach (US$40-45/ha), trust was developed between farmers and enterprises. The relatively low cost of the exercise is noted as a strong reason for the success of the partnership.

It was agreed that a successful experience in one region did not necessarily translate to the same success being experienced elsewhere. However, the PSAP agreed that education in the use of appropriate seed selection and pesticide use was a key factor in improving productivity and successfully managing pests. Governments were seen as important partners in offering this training to farmers.

Quality

The PSAP recognized that the development of a standardized, universally accepted, consumer-oriented quality classification system is an important goal. The PSAP notes that tests that work consistently with cotton from some regions do not necessarily take into account qualities of cotton produced in other regions.

The demands of specialized textile mills must also be considered where cotton of a consistently high quality is important to the efficient running of the operation.

The PSAP believes that measurement standards from competing companies are suitable in different situations.

Governments are encouraged to recognize their role in facilitating the development of appropriate quality standards. The PSAP concludes that the ICAC should encourage the development of consumer-oriented quality standards by promoting the subject with governments.

Genetically Engineered Cotton

The regulation of GE cotton on the basis of sound science has already been supported by the ICAC in the 60th Plenary Meeting. However, the PSAP notes that customer acceptance has met significant emotional resistance in some markets.

The PSAP concluded that more effort is needed in GE education by the Secretariat through distribution of reports and other means as appropriate.

Price Risk Management

The PSAP believes that access to price risk management instruments is important to small cotton farmers to assist them in protecting their investments. The PSAP also notes that government regulations such as financial laws that prohibit insurance coverage from foreign companies can be an obstacle.

The PSAP suggests that a simplified description of price risk management tools emphasizing insurance rather than hedging, which is often confused with speculation, be developed in order to encourage a more informed debate on the matter. The PSAP notes that market conditions differ in each country, and price risk management instruments need to be tailored to domestic conditions.

Membership

The PSAP encourages the Secretariat to seek the membership of leading participants in the cotton industry. The PSAP will assist in these efforts where possible.

Election of a Chairman

Mr. Andrew Macdonald was elected Chairman of the PSAP for 2002/03. Members of the PSAP thanked Mr. Felix Stiegwardt for his work as Chairman during 2001/02.

Next Meeting of the PSAP

The next meeting of the PSAP is tentatively scheduled for Wednesday 21 May 2003 in Washington DC. The PSAP hopes that it will be possible to arrange a discussion with the Standing Committee at that time.

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COUNTRY REPORTS FROM MEMBER GOVERNMENTS ON THE COTTON SITUATION

ARGENTINA

AGRICULTURAL YEAR 2001/02

CULTIVATED AREA

Cotton planted area in 2001/02 reached approximately 173,000 hectares, 57% less than the previous season. The harvested area covered around 165,000 hectares, 57% less than in 2000/01. Due to the continuous fall in international prices, the planted and harvested area was the smallest since 1933/34, or the lowest in the last 68 years.

Unfavorable weather conditions resulted in a harvested area 5% smaller than the planted area. Around 93% of planting was done in non-irrigated land, while the remaining 7% was planted under irrigation.

VARIETIES

The National Agricultural Technology Institute (Instituto Nacional de Tecnología Agropecuaria–INTA) is the main national cotton breeder, developing improved breeding material and new varieties with agronomic, phytosanitary and technological improvements adapted to the bioenvironmental conditions of the cotton region in Argentina. Through subsequent technological joint agreements for the creation and promotion of cotton varieties, INTA/Entidades (cooperatives and private companies) have developed the cotton varieties presently sown in Argentina.

Recently, another five private breeders have started operating: Genética Mandiyu, formed by three companies (CIAGRO S.R.L, Delta & Pine Land International and Monsanto Company); El Criadero Mycoyen S.A.; Unitec Agro S.A., (which develops varieties from the U.S. breeder Stoneville Pedigree Seed Company); Bayercropscience S.A. (formerly Aventis); and Criadero Deltapine and Land Argentina Inc.

In 1998/99, Genética Mandiyu started to distribute the NuCOTN 33B variety with the Bt gene, originally from the USA, with the name Biogodon. The Deltapine 50 B variety, which also has the Bt gene incorporated, was registered at the National Registry of Varieties of the former National Institute of Seeds (a division of the Secretariat of Agriculture, Livestock, Fishing and Food) in order to start distributing it during 2000/01. Both varieties are estimated to have covered around 30,000 hectares during 2001/02.

Criadero Mycoyen S.A. started to distribute the conventional varieties U–X–41 and MS–3 in 2000/01. Bayercropscience breeders registered the Australian Sicala 40 and Sicot 42 varieties at the above-mentioned National Registry of Varieties in order to start distributing them during 2002/03.

Unitec Agro S.A. Seedbed has registered the American Stoneville 474 variety from Stoneville Pedigree Seed Company for commercial distribution in 2002/03.

Finally, Deltapine and Land Argentina Inc. has registered the transgenic DP 404 BG and DP 428 B varieties, for expected distribution in the 2002/03 season.

The INTA varieties still cover almost all of the planted area in the country in the following proportion: Guazuncho 2 INTA, 60%; Pora INTA 20%; and the remaining varieties Gringo INTA, Chaco 520 INTA, Cacique INTA and Oroblanco INTA, around 5%. The rest of the area is sown with varieties belonging to private breeders. The table below provides a summary of the main characteristics of INTA varieties.

Through an agreement with Monsanto Company signed on April 22, 1998, INTA started the development of transgenic cotton varieties, adding Bt (against lepidopteros) and RR (resistant to glyfosate) transgenes to the present INTA commercial varieties.

The first variety arising from the agreement, Guazuncho 2000 (glyfosate resistant), has been approved by the former INASE. The remaining INTA varieties will be subsequently added to the cultivation as B/R, Bt and RR.

Area and Production (estimated on 09/30/02)

Province	Planted Area	Abandoned Area (has)	Harvested Area (has)	Production (tons)	Yield Kg/ha
Catamarca	230	0	230	700	3,043
Córdoba	500	0	500	1,500	3,000
Corrientes	3,700	900	2,800	2,800	1,000
Chaco	93,000	5,000	88,000	113,000	1,284
Entre Ríos	230	0	230	230	1,000
Formosa	8,200	200	8,000	15,000	1,875
La Rioja	1,350	0	1,350	4,700	3,481
Jujuy	0	0	0	0	0
Salta	1,400	0	1,400	2,800	2,000
Santa Fe	9,500	1,000	8,500	10,200	1,176
Sgo. Del Estero	55,000	1,500	53,500	67,000	1,252
Tucumán	0	0	0	0	0
Country Total	173,110	8,600	164,510	217,650	*1,322

Figures based on agricultural estimates from SAGPyA, the private sector and the ministries of Corrientes, Chaco and Formosa provinces. Provisional data, subject to adjustments.
*Average yield of raw cotton per hectare, equivalent to 397 kg/ha cotton fiber.

Main Characteristics of INTA Varieties

Variety	Fiber Production	Ginning Yield	Length	Strength	Micronaire
	kg/ha	%	mm	g/tex	Rate
Guazuncho 2 INTA	1,340	41.6	29.7	27.8	4.4
Pora INTA	1,150	38.0	29.9	25.9	4.6
Gringo INTA	1,110	38.4	30.6	29.9	4.4
Chaco 520 INTA	1,075	37.6	31.6	31.5	4.2
Cacique INTA	1,236	40.6	29.6	27.4	4.4
Oroblanco INTA	1,255	40.8	29.5	27.4	4.5

Source: INTA. EEA. P.R.S. Peña (Chaco)
Results from INTA Regional Comparative Tests of Cotton Varieties, 1998/99–2000/01
HVI levels measured with HVI International Patterns

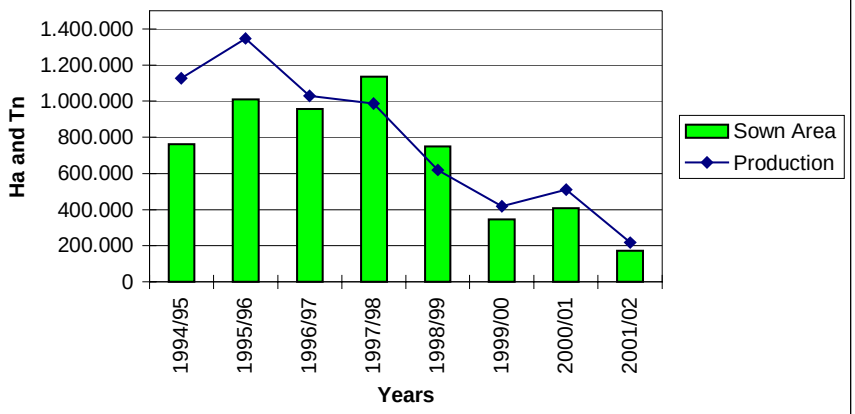
MAIN TECHNOLOGICAL VALUES OF ARGENTINE COTTON

The Cotton Fiber Technology Laboratory of INTA's Agricultural Experimental Station in Sáenz Peña, Chaco, has set the current national standards for the characterization of the main values of Argentine cotton fiber, detailed in the table below.

According to statistical work carried out by the above-mentioned laboratory covering the 1964–1997 period, the evolution of the main technological values of Argentine cotton fiber registered the following changes: length changed from close to 25 mm to close to or above 28 mm and strength increased to 20-22 g/tex Stelometer level. The progressive increase of micronaire index is evident and has remained stable at around 4.2 ug/inch in the last years.

The average values of these standards show that Argentine cotton fiber length, strength and micronaire index are placed at international average levels.

EVOLUTION OF SOWN AREA AND PRODUCTION



PRODUCTION

The final estimation of production for 2001/02 is 64,800 tons of cotton fiber.

The estimated yield of fiber per hectare harvested is 397 kilograms, 5.8% lower than the 417 kilograms in 2000/01; 2.5% lower than the 1999/00 yield (403 kilograms); and 26% higher than in 1998/99 (average 313 kilograms). Taking into account weather, plagues, lack of financing and the lowest international prices in the past 27 years, yield per hectare has decreased by 32% since 1994/95 (519 kg/ha of fiber), the last season in which the crop was developed under regular conditions.

The decrease in planted area in 2001/02 was basically due to the decrease in international prices, mainly caused by government subsidies and support to production and trade that distort the world cotton market. The Argentine government does not grant subsidies for the production and trade of cotton, therefore producers respond to the signs of the market and are at a total disadvantage with respect to the producers in countries that grant subsidies. To the above we must add the drop in the commercial quality of the fiber and a decrease in technical characteristics due to unfavorable weather (rainfall above historical average) after the first 40% of the cotton season.

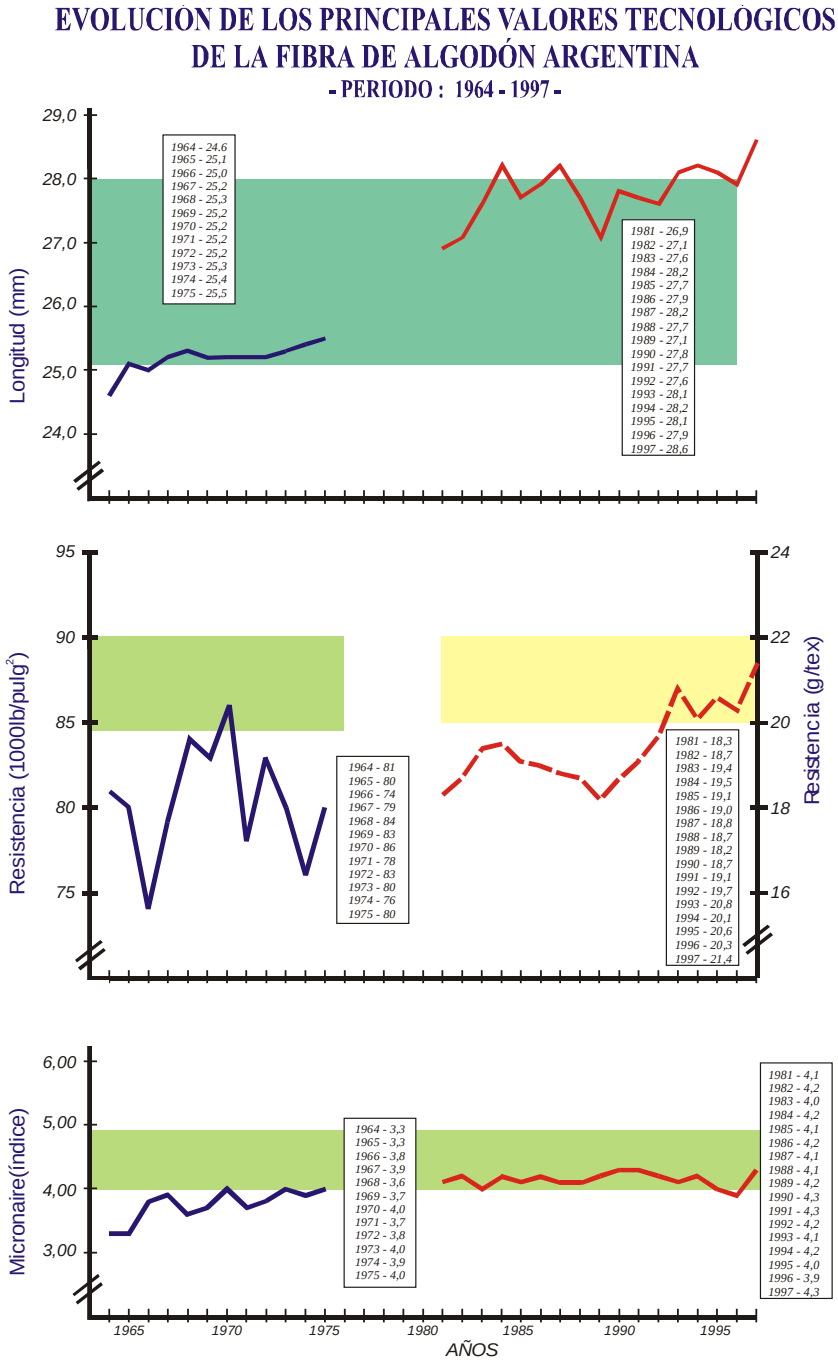
Ginning outturn decreased in the last stages of the season, another factor contributing to the drop in the price of raw cotton/ton paid to producers. The average ginning ratio for the country has been estimated at about 30%.

Prices paid per ton of raw cotton were between $450 (US$155) and $1,000 (US$345) per ton, depending on the commercial quality, micronaire, strength, length, ginning outturn and place of delivery. Most surely, for qualities equivalent to types C, C-1/4, C-1/2 and C-3/4, with micronaire indexes between 3.5 and 4.9, values would be higher. It is estimated that the regular average price for the whole season was about $650 (US$230) per ton of raw cotton. VAT and respective discounts must be added to the amounts mentioned above.

National Standards for Technological Characteristics of Argentine Cotton*

Concept	Length mm	Strength g/tex	Micronaire Index
Very high	Above 30.0	Above 31	Above 5.0
High	29.1 to 30.0	29 to 31	4.6 to 5.0
Medium	27.1 to 29.0	24 to 28	3.7 to 4.5
Low	26.0 to 27.0	22 to 23	3.2 to 3.6
Very low	Below 26.0	Below 22	Below 3.2

*HVI levels measured with HVI International Patterns



Strength expressed in Stelometer values

PROVISIONAL VALUES UP TO THE END OF THE TESTS MADE ON THE LAST SEASONS

Special mention must be made to the issue of the cotton boll weevil, *Anthonomus grandis B*, that appeared in Argentina in 1993. So far, it has been found in two districts of Formosa, where it has been isolated and controlled. Eradication is being undertaken, with some problems derived from the high degree of infestation in bordering countries. It must be stressed that Argentina has adopted a plague eradication policy financed with resources from the production sector, and budget funds from the public sector and financial institutions. There is a joint action with the Cotton Boll Weevil Eradication Foundation (Fundación de Lucha Contra el Picudo del Algodonero-FULCPA), belonging to the private sector.

Recently, the Barrier Foundation against the Cotton Boll Weevil (Fundación Barrera Contra el Picudo del Algodonero-FUNBAPI) was formed, made up by members of public and private sector organizations.

Boll weevils have been captured in the northwestern area of Corrientes (San Miguel District), near Loreto, 30 km away from the Parana River that borders the district of Ñeembucú in Paraguay. In the area affected, destruction of stubble, spraying, placement of tubes to kill boll weevils, and quarantine measures have been applied. After the captures, eradication, isolation and control efforts have continued.

Since 1997 there have been joint efforts with production sectors and the government of Paraguay to control the boll weevil in the district of Ñeembucú, Paraguay, and establish a buffer (or cushion) zone in the Paraguay/Argentina border to avoid its spreading into Argentine territory.

In 2001 the Three-Country (Argentina, Brazil and Paraguay) Project for Integrated Management of the Cotton Boll Weevil was completed, with financial contribution under no refund obligation from the Common Fund for Commodities. The International Cotton Advisory Committee was in charge of channeling the project and performing follow-up.

It would be beneficial if cotton producing countries in Mercosur—Argentina, Brazil and Paraguay—adopted a common and coordinated policy in the fight against the cotton boll weevil.

CONSUMPTION

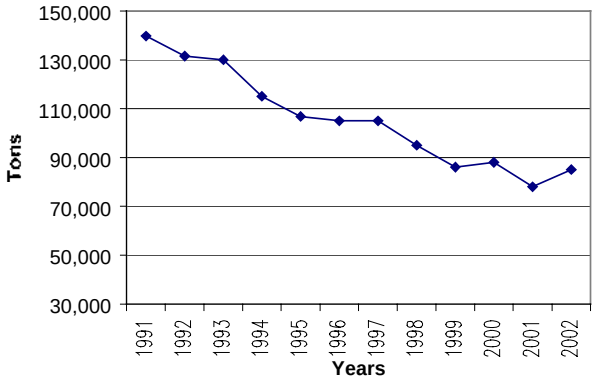
Domestic consumption of cotton fiber in Argentina has been decreasing since 1991. The evolution is as follows:

Calendar Years	Consumption (in tons)
1991	140,000
1992	135,000
1993	115,000
1994	105,000
1995	100,300
1996	110,000
1997	108,000
1998	90,000
1999	86,000
2000*	88,000
2001*	78,000
2002**	85,000

* Estimations
** Projection
Source: Fadit-Fita. Provisional figures

The drop in fiber consumption was mainly due to imports of all type of fabrics, textile clothing and ready-to-wear garments, protected under the

Consumption of Cotton Fiber 1991-2002



Source: Fadit-Fita. Provisional figures

economic opening implemented in our country. In many cases the economic opening has been used to make subsidized imports with dumping practices, and sometimes under-invoiced imports and imports that avoid customs checks. From 1999 to 2002, the social/economic situation of Argentina has contributed to this situation that still continues and which will affect consumption this year. The evolution of the value of imports and exports can be seen in the chart below.

EXPORTS

In calendar year 2001, Argentina exported about 89,250 tons of cotton fiber. Destinations were America, 41.7%; Asia, 45.7%; Europe, 12.3%; and Africa 0.3%. 12.5% of total exports were destined to Brazil and 14.8% to India. In 2002, estimated exports will reach about 25,000 tons of cotton fiber.

As of August 31, 2002, according to Senasa's records of sales abroad, 14,181 tons had been shipped to the following destinations: America, 68%; Asia, 30%; and Europe, 2%. 29% of the total exported by that date was destined to Chile and 37% to Peru.

IMPORTS

As of August 31, 2002, 4,113 tons of cotton fiber had been imported: 98% from Brazil and 2% from Paraguay. It is estimated that the total volume imported shall reach around 27,000 tons.

TEXTILE INDUSTRY

This item includes information regarding the textile industry in Argentina. Most of these indicators show the critical situation Argentina is going through.

Consumption of Textiles in Argentina

Calendar Years	Kg per capita
1985	4.75
1986	5.65
1987	5.55
1988	5.30
1989	5.10
1990	5.15
1991	5.63
1992	5.73
1993	8.30
1994	8.09
1995	6.11
1996	7.40
1997	8.50
1998	8.50
1999	7.60
2000	8.10
2001	7.20

Use of Installed Capacity
Total Estimation of the Textile-clothing Manufacture Chain (average)

Calendar Years	%
1995	42
1996	49
1997	51
1998	46
1999	40
2000	37
2001	33

Installed Capacity (+)

	1995*	1996*	1997*	1998*	1999*	2000*	2001*
Cotton spindles	935	1,050	1,080	1,100	1,200	1,450	1,450
Rotors for cotton	14	20	28	29	31	35	35
Wool spindles	260	N/A	N/A	N/A	N/A	N/A	N/A
Cotton looms	20	N/A	N/A	N/A	N/A	N/A	N/A
Wool looms	160	N/A	N/A	N/A	N/A	N/A	N/A

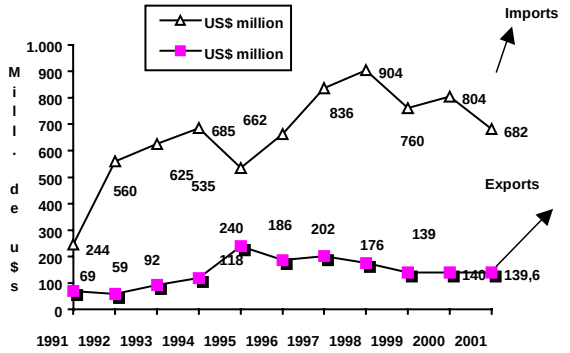
*Calendar year
(+) Figures in thousands

Share of the Textile Industry in the GNP and Gross Industrial Product* (%)

	1995	1996	1997	1998	1999	2000	2001
Gross Domestic Product	1.2	1.3	1.2	1.1	0.9	0.85	0.72
Gross Industrial Product	7.0	7.7	6.5	5.9	5.5	5.08	4.50

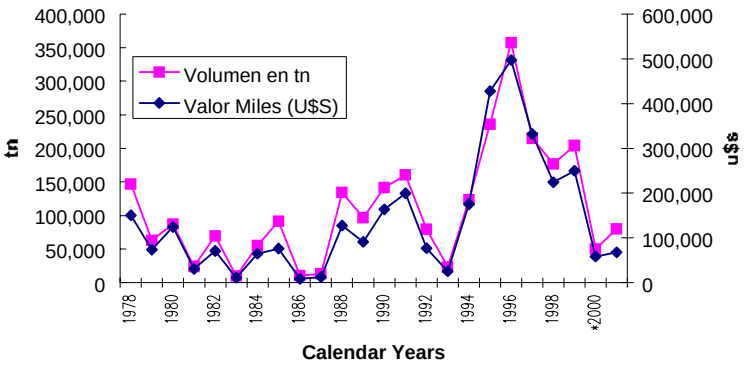
*Estimation. Provisional figures.

Evolution of Import and Export Values of All Type of Fabric, Textile Clothing and Ready-to-Wear Garments (calendar years)

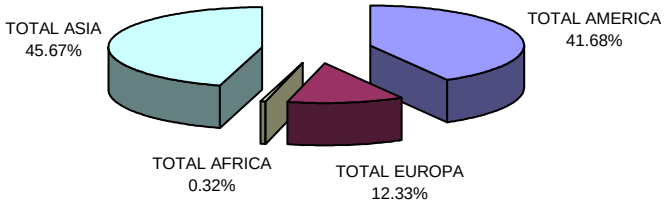


Source: Fadit-Fita-Provisional Figures

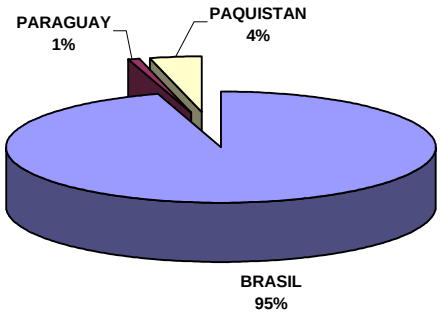
Evolution of exports of Argentine cotton fiber from 1978 to 2001



PERCENTAGE DISTRIBUTION OF COTTON FIBER EXPORTS PER CONTINENT



PERCENTAGE DISTRIBUTION OF COTTON FIBER IMPORTS PER COUNTRY OF ORIGIN



OUTLOOK FOR 2002/03

The area planted to cotton in 2002/03 cannot be accurately estimated yet because of low international prices and the economic/financial situation of Argentine producers and the other members of the cotton agroindustrial chain, who do not have the financing necessary for the crop. Likewise, prices of competitive crops such as sunflower and soybean are at very good levels due to their lower production, protection and harvest cost. Therefore, any producer with enough land to plant these crops profitably has decided to do it.

Farmers who have not made the switch yet are the ones that own infrastructure to plant cotton in medium or small-sized farms, or producers with large areas vertically integrated with ginning and who have their own harvesters.

Currently, planting intentions for 2002/03 are estimated at 200,000 hectares, about 16% above the 2001/2002 figure.

There are some provincial governments that have implemented programs to increase the area jointly with government ministries and the private sector, financing the provision of seeds and raw materials, sowing and protection of the crop, and the possibility of paying the manual labor needed for harvesting. Other provincial governments have not been able to implement their respective programs.

If 200,000 hectares are sown, it is estimated that the production of cotton fiber would reach 90,000 tons, a volume that would be equivalent to the demand of the domestic textile industry. The balance of initial stocks plus production and imports less consumption and exports shows that Argentina, which used to be a net cotton fiber exporting country may lose this status and become a net importer.

The textile industry has been greatly affected by imports of textiles and their ready-to-wear products into the country, as mentioned before. In many cases, these are subsidized imports, introduced with dumping practices, avoiding customs checks, or produced at costs much lower than in Argentina. The end of the Convertibility Plan and the current devaluation has made imported products more expensive and enabled higher competitiveness in foreign markets. This is in-

Consumption of Fiber (+)

	1995*	1996*	1997*	1998*(1)	1999 (1)	2000*(1)	2001*(1)
Cotton fiber	100,300	110,000	108,000	90,000	86,000	88,000	78,000
Washed wool	8,500	3,800	4,000	4,000	5,500	4,400	2,800
Manufactured fibers	33,900	43,700	48,800	41,300	36,200	42,800	34,700
Total	149,200	152,500	157,800	140,300	120,700	134,800	114,600

*Calendar year
(+) Figures expressed in tons
(1) Estimated. Provisional

Foreign Market

	1995*	1996*	1997*	1998*	1999*	2000*	2001*
Imports – Cotton and Tweed (1)							
Threads	3.8 Tn 17#	7 Tn 30#	6.6 Tn 28#	4.3 Tn 18#	2.8 Tn 11#	3.3 Tn 12#	2.4 Tn 7#
Plain Fabric	9 Tn 46#	12.4 Tn 4#	19.3 Tn 94#	17 Tn 92#	5.3 Tn 70#	15.1 Tn 64#	15.2 Tn 3#
Knitted Fabric	0.15 Tn 11#	0.1 Tn 0.7#	0.33 Tn N/A	0.045 Tn 0.6#	0.38 Tn 3#	9.2 Tn 53#	9.7 Tn 45#
Exports – Cotton and Tweed (1)							
Threads	10.8 Tn 41#	5..3 Tn 17#	6.7 Tn 21#	4.5 Tn 17#	3.5 Tn 12#	3.9 Tn 12#	3.2 Tn 6#
Plain Fabric	16.7 Tn 75#	12.5 Tn 63#	8.9 Tn 47#	7.8 Tn 34#	5.7 Tn 24#	3.2 Tn 13#	4.4Tn 15#
Knitted Fabric	1.5 Tn 11#	0.2 Tn 1.4#	0.5 Tn N/A	0.1 Tn 1.2#	0.2 Tn 2#	0.7 Tn 6#	0.7 Tn 6#

(1) In thousand tons and (#) U.S. million dollars
*Calendar year
Source: Fadit–Fita

creasing the consumption of cotton fiber and the production of yarn, fabrics and other ready-to-wear products, but domestic consumption in Argentina is being influenced by the drop in salaries.

Production and ginning of cotton is one of the activities with the highest added value, use of labor, even with mechanical harvest, and with a multiplying effect in the regional economies. The damage to these economies is considerable, because a large number of rural workers and small producers has moved to the cities. It has also determined the increase of poverty and indigence, with the social and political consequences that this situation entails. To protect the Argentine textile economy, national authorities have implemented measures allowed by the World Trade Organization (WTO), tending to decrease the effect of subsidies and other government measures.

Argentina requests again, as it has been doing since 1985 at ICAC plenary meetings, the immediate elimination and/or decrease of subsidies and government support to the production and trade of cotton, and the implementation of the decisions taken in the meeting of the WTO in Doha (Qatar), related to the liberalization of markets, elimination of protectionism, government support and any other economic policy measures applied, mainly, by developed countries.

These policies damage countries like Argentina that do not apply this type of intervention thus establishing disloyal competition, distorting the market and creating higher volatility and instability in prices. The damage they have caused to the first links in the cotton agroindustrial chain prevents them from having a positive reaction to the increase of domestic consumption of fiber by the Argentine textile industry, in accordance with the possibilities provided by the change in foreign exchange.

All statistics show that the increase in poverty in developing countries, producers of raw materials, and the legal or illegal emigration to developed countries is no coincidence, but it is originated in the economic policies of the countries that reject such immigration. Accordingly, as a member of the Cairns Group and one that has acted in the Uruguay Round of the GATT, we make a call again so that measures leading to the elimination of all those policies are adopted.

It is expected that in the coming negotiations made in the WTO, special treatment will be given to all matters affecting the agricultural sector, the main source of foreign exchange, economic development, and use of labor, which are of essential importance in the social and human aspects of developing countries.

AUSTRALIA

THE COTTON GROWING AND GINNING SECTOR

2001/02 COTTON CROP

The Raw Cotton Marketing Advisory Committee (RCMAC) has estimated Australian cotton production for the crop harvested in 2002 to surpass 700,000 tons (3.1 million [227kg] bales), down nearly 14 percent (113,000 tons) on the previous year's all time record crop. Based on the above figures, RCMAC estimates put average Australian lint yield for 2001/02 at what is believed to be, for a major cotton producing nation, a world record 1,731 kg (7.6 bales) of lint per hectare.

A total of 404,350 hectares was estimated to have been planted to cotton in 2001/02, down from 505,000 last year. The NSW area was around 272,800 ha (irrigated) plus 11,550 ha (rain grown). In Queensland, the area was around 102,800 ha (irrigated) plus 17,200 ha (rain-grown). The decrease in total area planted has been attributed to continuing low world cotton prices and insecurity surrounding water availability.

Approximately 97 percent of production was from irrigated crops—around 505,000 tons from NSW and 183,000 tons from Queensland. Rain-grown cotton totaled around 16,000 tons with 10,000 tons of this coming from Queensland.

Despite early estimates of a much lower crop, record yields are the major contributing factor in breaking the three million-bale mark for the season, largely the result of ideal finishing weather for the crop. The fiber quality range was comparable with the excellent results achieved last year.

2003 HARVEST FORECAST

Widespread drought conditions continue throughout Australian cotton growing regions. The Australian Bureau of Agricultural and Resource Economics (ABARE) forecasts production of lint at around 401,000 tons in 2002/03, from plantings of around 256,000 hectares. The reduction in area of 37 percent from 2001/02 is attributed to reduced availability of irrigation water.

EXPORTS

The Australian cotton growing industry is heavily reliant on exports, with up to 95 percent of annual production sold on the world market. In 2001/02, a total of 705,417 tons of raw cotton, valued at $A1,521 million, was exported. In volume terms, this represents a decrease of around 15 percent over the previous year's exports.

Principal export markets in 2001/02 were Indonesia, Japan, the Republic of Korea and Thailand.

DOMESTIC UTILIZATION

It is estimated that the domestic spinning industry consumed around 26,600 tons of raw cotton in the 2001/02 marketing year, a decrease of around 25 percent on the previous year's consumption.

MARKETING ARRANGEMENTS

Marketing is undertaken by a range of organizations including growers' cooperatives, private companies and the subsidiaries of international companies. There is no government involvement in either export or domestic marketing. A non-statutory body, the Raw Cotton Marketing Advisory Committee, acting as a sub-committee to the Australian Cotton Industry Council (ACIC), facilitates the exchange of information between the Commonwealth Government and the various sectors of the industry on cotton marketing.

There is no government price support nor any other form of assistance specific to cotton growing (making Australian growers among the most efficient in the world), ginning or marketing, other than in the form of a contribution to research and development. There is active competition amongst ginners for seedcotton and amongst merchants for raw cotton, providing growers with a choice of ginning and/or selling arrangements.

COTTON AUSTRALIA

Cotton Australia is the peak industry body for Australia's 1200 cotton growers and is funded by a voluntary levy of $2 per bale. Cotton Australia acts to represent and advance the interests of the Australian cotton industry to government, non-government organizations, the media and the community.

Promotion

Domestic promotion in Australia is the responsibility of Cotton Australia. Cotton Australia again hosted an information display at the Sydney Royal Easter Show in March/April as well as the Cotton "Evolutionary" Parades at the

Royal Queensland Show in August. A total of 43 "Evolutionary" Parades over the course of the Show focussed on Australian designed and manufactured garments made of Australian grown cotton..

Cotton Australia continued its proactive, coordinated promotion of the industry to the community, government and media. The Cotton Australia website is instrumental in this regard and continued to provide a wide range of cotton information to a growing audience.

The Cotton Store, opened by Cotton Australia in February 1999 at Sydney's Darling Harbour, continues successfully as a retail and education concept store supported by the cotton growers of Australia. The Cotton Store retails a wide range of cotton products while the Cotton Discovery Centre acts to assist the public to understand more about cotton farming, the benefits of cotton, cotton science and design.

At the Cotton Discovery Centre, professionally trained teachers can take groups of students or adults through a multi-media learning environment around a range of subject areas including geography, agriculture, design and technology, business, science and textiles. Cotton Australia, through its education programs, reaches over 12,000 students each year.

The Australian Cotton Centre

Cotton Australia has supported the establishment of the Australian Cotton Centre, opened in Narrabri, NSW, in August by the Deputy Prime Minister of Australia. The Australian Cotton Centre will showcase the industry to regional visitors and tourists through the use of both interactive displays and exhibits to promote the benefits of cotton, and the Australian cotton industry.

Farming Issues

Major issues facing the cotton growing industry during the year related to changes to water and vegetation management, specifically the right for cotton growers to farm and access water in New South Wales and Queensland. Cotton Australia provided significant resources and liaised with other industry bodies and local irrigator groups to represent the industry in discussions with the Commonwealth and state governments.

In addition to these natural resources and asset security issues, Cotton Australia also represented the interests of cotton growers in relation to chemicals, biotechnology, transport and rural infrastructure.

Best Management Practices

Best Management Practice (BMP) is the Australian cotton industry's commitment to reducing the impact of cotton farming on the natural environment, neighbors, workers and the community. Combining sound science and practical farm management, BMP is a guide for growing cotton in the best way possible. To date, over 95 percent of the Australian industry has been introduced to BMP and an increasing proportion of cotton farmers are adopting BMP principles in their farming activities. A practical BMP Manual has been distributed to growers and training seminars conducted on the use of the manual. A BMP coordinator oversees the adoption of BMP at the grass-roots level.

It is estimated that about 40 percent of the 2001/02 crop has been produced on properties that have been audited under the cotton industry's BMP program. The program comprises a code of sustainability and implementation of on-farm management programs that aim to use all available technology, resources and management systems to achieve an economically and environmentally sustainable industry. Additionally, farmers are continuing to adopt environmentally-positive strategies for pest management.

AUSTRALIAN COTTON SHIPPERS' ASSOCIATION

The Australian Cotton Shippers' Association (ACSA) represents the merchant sector of the industry and is focused on the promotion of Australian cotton and the wider interests of the industry in export markets. ACSA's aims include preserving the sanctity of contracts and upholding the integrity of trade as well as facilitating compliance with contractual obligations and adherence to arbitration awards.

ACSA is supportive of a whole-of-industry approach and holds membership of the Australian Cotton Industry Council (ACIC), the Committee for International Co-operation between Cotton Associations (CICCA) and the Australian Peak Shipper's Association (APSA), and is active on the Raw Cotton Marketing Advisory Committee (RCMAC), the Cotton Evaluation & Advancement Committee (CEAC) and the ACIC Trade Committee.

Issues that ACSA currently rates as high priority include:

- The export market development program.
- Research to create niche markets for cotton grown under BMP.
- Implementation of BMP and/or QA programs for each component of the supply chain post farm gate.
- Working proactively with growers, ginners and researchers to strive for improvements in fiber quality to maintain Australia's reputation as a high-quality supplier and protect its market share.
- Cooperation with CSIRO in its benchmarking study of Australian cotton in our offshore markets.
- Cooperation with Cotton Australia to promote better security for growers and merchants to protect a viable forward marketing regime.

RESEARCH AND DEVELOPMENT

The Commonwealth Government contributes to research and development through the Cotton Research and Development Corporation (CRDC). The CRDC is a partnership between the Australian cotton industry and the Commonwealth Government, and was established in 1990 under Commonwealth legislation.

The CRDC is funded by the cotton industry by way of a levy of $2.25 per 227 kilograms. The Commonwealth matches this levy contribution on a dollar for dollar basis, up to a maximum of 0.5 percent of the gross value of production.

The CRDC has a nine-member board with directors drawn from the industry, community and government. It is accountable to the industry through the Australian Cotton Growers' Research Association and to the Federal Parliament. The Corporation is a member of the cotton industry's peak body, the Australian Cotton Industry Council. The Corporation is based in Narrabri NSW, in the heart of one of Australia's major cotton production areas and close to the industry's key research facility, the Australian Cotton Research Institute. The Cotton Research Institute is the headquarters for the Australian Cotton Cooperative Research Centre (Cotton CRC) and the CRDC is a core partner in the Cotton CRC.

CRDC-funded research is conducted in every mainland state and territory in Australia. Field trials are undertaken in all major cotton producing valleys as well as in the Ord River Irrigation Area in Western Australia and at Katherine in the Northern Territory.

The Corporation identifies its intended outcome as a more sustainable, competitive and profitable cotton industry providing increased economic, environmental and social benefits to rural and regional communities and the nation. In the financial year 2001/02, the CRDC invested around $A14.6 million directly into funded research projects, an increase of around 5 percent on the previous year. Approximately 50 percent of the Corporation's total budget for 2001-02 was directed towards improving the sustainability of the cotton industry through continuous improvement in resource and environmental management. A further 36 percent was aimed at lifting the profitability and international competitiveness of Australian cotton while around 14 percent contributed to improving and assisting the people and communities involved in the cotton industry.

BRAZIL

Since the 1996/97 crop, when Brazilian cotton production reached bottom at 300,000 tons after falling from levels of 700,000 tons and above in a short period of four years, the national industry has gone through a major change, nothing short of a revolution.

While small farmers found it hard to stay in business under unfavorable economic conditions and no government support, others, with capital, saw an opportunity. Fueled by a domestic demand in excess of 800,000 tons and rising prices, farmers from Southeastern Brazil started moving into and/or investing in large properties in Brazil's new agricultural frontier: the Western-Central part of the country, where topography, climate and soil characteristics combine to offer ideal conditions for large scale, highly-mechanized farm operations. More recently, for the same reasons, similar initiatives have taken place in southwestern Bahia.

Investments were geared toward property infrastructure, commodity market instruments, technology, machinery and equipment. As it grew, the industry became more organized, with the creation of seven state associations, which, in turn, jointly formed a national association to coordinate and promote industry positions to the federal government and society as a whole. They have led efforts to increase awareness in all aspects of cotton production, including labor (establishing norms regarding social well being and health), technology (promoting improved seed quality and less fiber contamination), and the environment (teaching about adequate disposal of agrochemicals, preservation of marshlands and conscientious use of insecticides). The main purpose is to sustain a more efficient, lower-cost production and better-quality product, reducing, at the same time, the impact on the local environment.

The results have been impressive. Production in the state of Mato Grosso alone, the main production area in Central Brazil, reached over 500,000 tons of lint in 2000/01, or 60% of Brazilian production. Productivity was a record 3,500 kg of seedcotton per hectare, which raised the national productivity to new levels—2,834 kg/ha, a 25% increase over the previous season (Table 1). Brazilian production had not met domestic consumption since 1991, but finally, at the end of five long years of efforts by private individuals and corporations, that level was reached once again in 2001 (Chart 1).

However, price conditions in the world and domestic markets have been progressively weak (Chart 2). As the ICAC has noted, international cotton prices, as measured by the Cotlook A Index, collapsed from 66 cents per pound in December 2000 to 41 cents per pound in April 2002.

This has negatively impacted the area planted for the Brazilian 2001/02 crop, reducing it by 14%, to 750,400 hectares. This reduction in area planted, in combination with adverse weather conditions in certain growing areas, lead to an 18% drop in production in 2001/02, exceeding by two percentage points the expected losses and falling to a level of 766,000 tons of lint. Due to the continued weakness of prices, area planted for 2002/03 should at best remain at the low levels recorded in the previous season and may drop by as much as 6%, according to the most pessimistic estimates. In this case, assuming normal weather conditions, production would be anywhere between last season's and an increase of 5% (Table 3).

Exports, which were at 150,000 tons in 2000/01, fell by 34% to an estimated 100,000 tons in 2001/02 and are expected to fall an additional 10% in 2002/03 to 90,000 tons (Table 2).

The Brazilian government and producers are concerned with the growing use of government subsidies to production and exports, especially in major exporting countries, because of their undue negative influence on international prices. The ICAC has pointed out that government subsidies to cotton producers have increased world production, despite all economic factors recommending against it, and greatly contributed to the decline of market prices, with an estimated impact of minus 31 cents per pound in 2001/02,

TABLE 1

BRAZIL: COTTON AREA, PRODUCTION AND YIELD (2000/2001 AND 2001/2002)

STATE / Region	AREA (1,000 ha)			PRODUCTION (1,000 TON)						YIELD* (kg/ha)		
				Cotton lint			Cottonseed					
	2000/01	01/02	VAR (%)	2000/01	01/02	VAR (%)	2000/01	01/02	VAR (%)	2000/01	01/02	VAR (%)
RO	2.6	-	-	1.2	-	-100.0	2.3	-	-100.0	1,355	-	-100.0
PA	-	-	-	-	-	-	-	-	-	-	-	-
North	2.6	-	-100.0	1.2	-	-	2.3	-	-	1,346	-	-
MA	2.4	3.1	29.0	2.9	4.0	-	5.0	6.7	-	3,300	3,450	-
PI	8.1	8.9	10.0	0.8	2.2	175.0	1.6	4.5	181.3	300	750	150.0
CE	29.4	40.0	36.0	4.0	9.2	130.0	8.1	18.8	132.1	410	700	70.7
RN	19.7	23.6	20.0	1.2	4.5	275.0	2.4	9.2	283.3	180	580	222.2
PB	8.4	12.2	45.0	1.0	3.0	200.0	2.0	6.1	205.0	350	750	114.3
PE	7.3	10.2	40.0	0.8	1.2	50.0	1.7	2.4	41.2	350	350	-
AL	21.0	21.0	-	4.2	4.2	-	8.4	8.4	-	600	600	-
SE	0.3	0.3	-	-	-	-	-	-	-	180	180	-
BA	55.0	69.1	25.6	61.4	78.3	27.5	98.1	125.2	27.6	2,900	2,945	1.6
Northeas	151.6	188.4	24.3	76.3	106.6	39.7	127.3	181.3	42.4	1,343	1,528	13.8
PR	68.4	39.0	-43.0	58.2	32.0	-45.0	104.9	57.7	-45.0	2,385	2,300	-3.6
Sul	68.4	39.0	-43.0	58.2	32.0	-45.0	104.9	57.7	-45.0	2,385	2,300	-3.6
MG	38.6	37.8	-2.0	29.4	29.4	-	50.1	50.0	-0.2	2,060	2,100	1.9
SP	65.7	61.1	-7.0	60.0	54.6	-9.0	104.3	95.1	-8.8	2,500	2,450	-2.0
Southeas	104.3	98.9	-5.2	89.4	84.0	-6.0	154.4	145.1	-6.0	2,337	2,316	-0.9
MT**	392.0	294.0	-25.0	533.9	407.2	-23.7	842.1	642.3	-23.7	3,510	3,570	1.7
MS	50.4	45.4	-10.0	66.5	59.9	-9.9	106.2	95.6	-10.0	3,425	3,425	-
GO	97.6	83.1	-14.9	111.3	94.7	-14.9	181.5	154.6	-14.8	3,000	3,000	-
DF	1.5	1.6	6.7	2.0	2.1	-	3.2	3.4	-	3,450	3,450	-
C-West	541.5	424.1	-21.7	713.7	563.9	-21.0	1,133.0	895.9	-20.9	3,410	3,442	0.9
N/NE	154.2	188.4	22.2	77.5	106.6	37.5	129.6	181.3	39.9	1,343	1,528	13.8
C-South	714.2	562.0	-21.3	861.3	679.9	-21.1	1,392.3	1,098.7	-21.1	3,155	3,165	0.3
Brazil	868.4	750.4	-13.6	938.8	786.5	-16.2	1,521.9	1,280.0	-15.9	2,834	2,754	-2.8

SOURCE: CONAB Feb-02

(*): Yield expressed in unginned cotton.

TABLE 2

BRAZIL: COTTON LINT SUPPLY AND DEMAND (1990 - 2002)
(1,000 TONS)

FEBRUARY/02

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001 (1)	2002 (2)
SUPPLY	877.0	859.3	851.8	997.8	1,011.3	991.7	1,017.6	931.1	877.5	891.9	1,081.7	1,188.3	1,100.5
Begining Stocks	125.2	36.4	16.9	76.4	160.9	170.4	135.5	186.9	132.1	91.5	81.5	168.2	181.0
Production	665.7	717.0	667.1	420.2	483.1	537.0	410.1	305.7	411.0	520.1	700.3	938.8	786.5
Center/South	577.6	603.0	585.9	366.8	361.0	449.4	333.7	246.7	385.9	482.8	607.1	861.3	679.9
North/Northeast	88.1	114.0	81.2	53.4	122.1	87.6	76.4	59.0	25.1	37.3	93.2	77.5	106.6
Imports	86.1	105.9	167.8	501.2	367.3	284.3	472.0	438.5	334.4	280.3	299.9	81.3	133.0
DEMAND	840.6	842.4	775.4	836.9	840.9	856.2	830.7	799.0	786.0	810.4	913.5	1007.3	946.0
Dom. Consumption	730.0	718.1	741.6	829.5	836.6	803.7	829.1	798.7	782.9	806.5	885.0	860.0	860.0
Exports	110.6	124.3	33.8	7.4	4.3	52.5	1.6	0.3	3.1	3.9	28.5	147.3	86.0
Final Stocks	36.4	16.9	76.4	160.9	170.4	135.5	186.9	132.1	91.5	81.5	168.2	181.0	154.5

Source: CONAB-MAPA/ SRF-MF/ SINDITEXTIL-ABIT/COOPERATIVAS

Prepared by:CONAB/DIGEM/SUGOF

(1) ESTIMATE

(2) FORECAST

almost double the impact of the previous season (–17 cents per pound).

The perverse effects of major exporters' subsidies on prices, however, are not affecting all producers. A small group of countries, accounting for almost 50% of world production and a major share of world exports, besides being a main cause of the problem, is being shielded from this price reduction by way of government aid. In addition, in the case of the two major world producers, exports are aided by government subsidies as well.

This is a blatantly unfair situation, which is hurting unsubsidized producers in Brazil and elsewhere in the world, not only domestically, but also abroad, in export markets. Unsubsidized producers are being forced to reduce production in the face of lower prices and take financial losses to compensate for increased production made possible by subsidizing countries, bringing about additional adverse economic and social repercussions.

In the case of Brazil, the injury to Brazilian producers as a result of low prices was estimated, on a conservative basis, at $638 million for 2002 alone.

As we look ahead, there is guarded hope that prices may improve. World stocks are falling, the international economic outlook has improved and the fight against predatory subsidies at the multilateral level is garnering support from producing and consuming countries alike. After a short turbulent period, expectations and economic outlook in Brazil has also improved significantly over the last weeks.

A recent study by the Brazilian textile industry estimates that consumption of all fibers is expected to increase during the next decade along with population growth, together with greater purchasing power that can raise the per-capita consumption of fibers from 7.7 kg in 1999 to 10.5 kg in 2005 and 11.7 kg by 2008, still considerably less than consumption per capita in the developed nations where the average fiber consumption reaches 25 to 30 kg.

To meet this expected demand, fiber production should expand not only for cotton, but also for synthetic fibers. Cotton's challenge will be to maintain the high market share of 65% of all fibers in Brazil, which will require that domestic production continue growing. This should not become a problem if price levels improve.

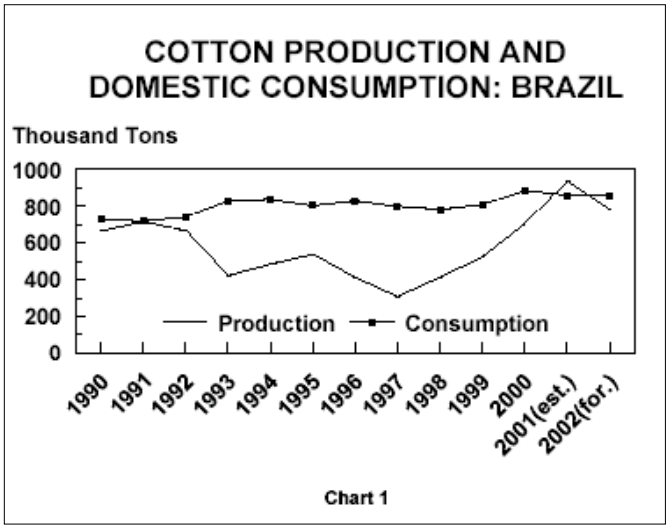


Chart 1

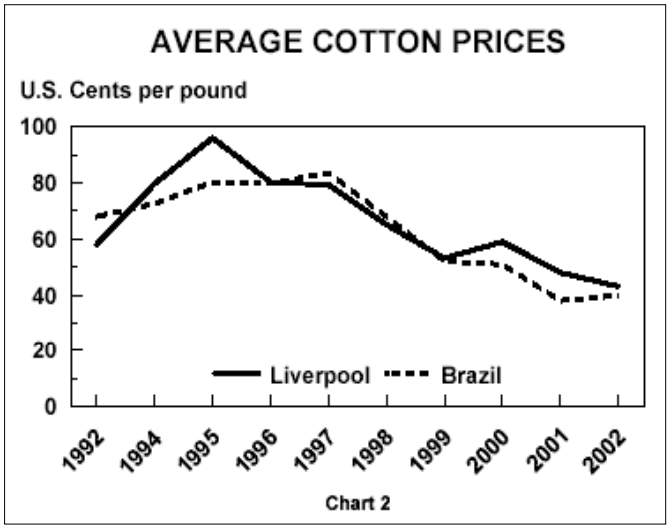


Chart 2

Table 3

COTTON LINT

COMPARISON OF AREA, PRODUCTION AND PRODUCTIVITY

2001/02 and 2002/03 Seasons

REG.	ÁREA (000 ha)					PRODUCTION - LINT (000 t)					PRODUCTIVITY (kg/ha)		
	2001/02	2002/03		CHANGE (%)		2001/02	2002/03		CHANGE (%)		2001/02	2002/03	CHANGE
	(a)	(b)	(c)	(b/a)	(c/a)	(d)	(e)	(f)	(e/d)	(f/d)			(%)
TO	0,3	1,5	1,5	400,0	0,0	0,3	1,8	1,8	470,0	470,0	3.000	3.420	0,0
North	**2,9**	**1,5**	**1,5**	**-48,0**	**-48,0**	**0,3**	**1,8**	**1,8**	**470,0**	**470,0**	**310**	**-**	**-100,0**
MA	3,1	3,1	3,1	0,0	0,0	3,1	3,8	3,8	22,0	22,0	2.700	3.300	22,2
PI	8,9	8,9	8,9	0,0	0,0	1,0	0,9	0,9	-9,0	-9,0	330	300	-9,1
CE	20,3	20,3	20,3	0,0	0,0	5,4	2,7	2,7	-49,0	-49,0	800	410	-48,8
RN	19,7	19,7	19,7	0,0	0,0	3,9	1,2	1,2	-69,0	-69,0	595	185	-68,9
PB	10,2	10,2	10,2	0,0	0,0	2,9	1,2	1,2	-59,0	-59,0	850	350	-58,8
PE	8,0	8,0	8,0	0,0	0,0	1,4	0,9	0,9	-34,0	-34,0	530	350	-34,0
AL	17,0	17,0	17,0	0,0	0,0	3,0	4,2	4,2	42,0	42,0	530	750	41,5
BA	70,2	77,9	81,4	11,0	16,0	68,1	87,0	90,9	28,0	33,0	2.520	2.900	15,1
Northeast	**157,4**	**165,1**	**168,6**	**5,0**	**7,0**	**88,6**	**101,9**	**105,8**	**15,0**	**19,0**	**1.609**	**1.632**	**1,4**
PR	37,6	28,2	30,1	-25,0	-20,0	31,0	23,6	25,1	-24,0	-19,0	2.310	2.340	1,3
South	**37,6**	**28,2**	**30,1**	**-25,0**	**-20,0**	**31,0**	**23,6**	**25,1**	**-24,0**	**-19,0**	**2.310**	**2.340**	**1,3**
MG	37,8	35,9	36,7	-5,0	-3,0	30,7	29,3	29,9	-5,0	-2,0	2.195	2.205	0,5
SP	63,1	56,8	59,9	-10,0	-5,0	58,0	52,2	55,1	-10,0	-5,0	2.520	2.520	0,0
Southeast	**100,9**	**92,7**	**96,6**	**-8,0**	**-4,0**	**88,7**	**81,5**	**85,0**	**-8,0**	**-4,0**	**2.398**	**2.399**	**0,0**
MT	312,8	281,5	294,0	-10,0	-6,0	391,4	389,9	407,2	0,0	4,0	3.225	3.570	10,7
MS	45,4	46,8	48,6	3,0	7,0	62,4	66,7	69,2	7,0	11,0	3.570	3.700	3,6
GO	91,7	88,0	89,9	-4,0	-2,0	101,4	103,3	105,6	2,0	4,0	2.910	3.090	6,2
DF	1,6	2,2	2,2	35,0	35,0	2,2	3,0	3,0	40,0	40,0	3.525	3.600	2,1
C-West	**451,5**	**418,5**	**434,7**	**-7,0**	**-4,0**	**557,4**	**563,0**	**585,1**	**1,0**	**5,0**	**3.197**	**3.485**	**9,0**
C-South	**590,0**	**539,4**	**561,4**	**-8,6**	**-4,8**	**677,1**	**668,1**	**695,3**	**-1,0**	**3,0**	**3.004**	**3.237**	**7,8**
N/NE	**160,3**	**166,6**	**170,1**	**4,0**	**6,0**	**89,0**	**103,7**	**107,6**	**17,0**	**21,0**	**1.514**	**1.617**	**6,8**
BRASIL	**750,3**	**706,0**	**731,5**	**-5,9**	**-2,5**	**766,1**	**771,8**	**802,9**	**1,0**	**5,0**	**2.675**	**2.858**	**6,8**

SOURCE: CONAB **Oct/02**

CHINA (TAIWAN)

PREFACE

The cotton spinning industry in China (Taiwan) has faced a difficult business environment in recent years. As a result, many spinners have shifted production overseas, changed the mix of products they produce, or increased the value-added in their products in order to remain competitive. In 2001, the depressed cotton market, together with the economic downturn that occurred after the September 11th terrorist attacks, left most spinners in a deficit situation. This year, demand improved during the traditional peak fall and winter seasons and cotton prices remained low. These factors have helped spinners return to profitability, indicating that the worst is over for the domestic industry.

According to statistics provided by the Taiwan Cotton Spinners' Association, the total number of spindles in Taiwan dropped to 2.4 million in 2002, following the long-term structural adjustments previously noted. The actual number in operation is 1.9 million, representing capacity utilization of 80%. All indications are that Taiwan's cotton spinning industry remains in a depressed state.

IMPORTS AND EXPORTS OF TEXTILES AND CLOTHING

In 2001, China (Taiwan) exported textiles and clothing worth US$12.6 billion, an amount, how-

ever, that was down 16.9% from the level reached in 2000. Of these exports, yarns accounted for 12.7% of the total (down 10.7% from 2000); fabrics for 61.6% (down 18.2% from 2000); apparel for 14.1% (down 19.7% from 2000), fibers for 6.3% (down 15.7% from 2000); and clothing accessories for 5.3% (down 6.8% from 2000). It will be noted that fabrics remained the major export category in 2001, despite the downturn in the textiles and apparel sector as a whole. Hong Kong was the major export market for all Taiwan-produced textile and apparel products last year.

The total amount of textiles and clothing imported into Taiwan fell to US$2.4 billion in 2001, down 18.4% from the previous year. Of these shipments, yarns accounted for 18.1% of the total (down 33.3% from the 2000 level); fabrics for 19.3% (down 25.1% from 2000); apparel for 33.9% (down 5.1% from 2000); fibers for 22.2% (down 15.8% from 2000); and clothing accessories for 6.5% (down 14.6% from 2000).

CURRENT STATUS OF THE COTTON SPINNING INDUSTRY

Raw Cotton Imports

Raw cotton is the lifeblood of the cotton spinning industry. Since there is no raw cotton produced in China (Taiwan), the cotton spinning industry in Taiwan relies entirely on imports. According to statistics provided by the Customs Department of the ROC, the total amount of raw cotton imported into Taiwan in 2001 was 245,661 tons, representing a decrease of 9.3% from the 2000 level. In terms of value, imports were worth US$299.2 million, down 8.0% from 2000. The U.S. was the largest supplier of raw cotton to Taiwan last year, accounting for 114,208 tons, or 46.5% of the total, an increase of 15.8% over the total in 2000. The second largest supplier was Australia, accounting for 29,532 tons, or 12.0% of the total, an increase of 11.8% over 2000.

Other important suppliers to Taiwan include Côte d'Ivoire, with 26,602 tons (10.8% of the total, a decrease of 27.2% from 2000); Togo, with 12,769 tons (5.2% of the total, an increase of 29.5% over 2000); China (Mainland), with 8,000 tons (3.3% of the total, down 56.0% from 2000); and Uzbekistan with 7,810 tons (3.2% of the total, down 65.6% from 2000). Countries whose shipments increased by 50% or more in 2001, compared to 2000 levels, were Argentina, with an increase of 153.4% over 2000 (1.3% of the total); and Burkina Faso, with an increase of 60.6% over 2000 (0.7% of the total).

Production of Cotton Yarn and Cotton-Blended Yarn

According to the latest production statistics, total production of pure cotton yarn and cotton-blended yarn in Taiwan in 2001 stood at 263,301 tons, down 6.9% from the level in 2000. The consumption of raw cotton also decreased in 2001 from the level attained in 2000, from 270,981 tons to 245,661 tons.

In 2001, total production of short staple yarn was 589,232 tons, down 10.6% from the level reached in 2000. Of this amount, domestic consumption accounted for 530,704 tons, down 4.4% from 2000. The remaining 61,282 tons was exported, although this amount was 26.3% less than what had been exported during the previous year.

Total production of cotton yarn in 2001 was 172,154 tons, down 5.1% from the 2000 level. Of this amount, 147,467 tons, or 85.7%, was sold domestically, down 4.5% from 2000. Meanwhile, the volume exported rose by 20.4%, to 27,699 tons during the same period.

Total production of CVC cotton-blended yarn was 91,147 tons in 2001, about 10% lower than in 2000. Of the total, domestic consumption accounted for 81,834 tons, or 89.8%, down 3.7% from 2000. Exports accounted for 9,635 tons, a decrease of 16.1% compared to the 2000 level.

Analysis of Staple Yarn Imports and Exports

According to the statistics provided by the Customs Department of China (Taiwan), the volume of staple yarn exported directly was 129,219 tons in 2001, a decrease (4.6%) from the 135,404 tons exported in 2000. The total amount of staple yarn exports in 2001 was valued at US$353.5 million, a decrease of 14.7% compared to 2000. At the same time, staple yarn exports represented 3.8% of the total value of yarn and fabric exports. Exports of cotton yarn, which accounted for 32.7% of the staple yarn export total, rose 3.6% by volume, even while they fell by 10.9% in dollar terms. Major export markets for Taiwan-produced staple yarn were Hong Kong, accounting for 62.7% of the total; Japan, with 5.0%; the Philippines, 4.9%; and Vietnam, 4.7%.

In 2001, Taiwan imported a total of 111,329 tons of staple yarn, an amount that was down by 24.8% from the 2000 level. By value, this category of imports fell by 28.4%, to US$214.7 million in 2001. Polyester staple yarn represented the largest share of imports, accounting for 50.6% of the total. Cotton yarn has occupied second place since the first quarter of 1999 (and in 2001, held onto a share of 40.1%). The largest supplier of staple yarn to Taiwan was Malaysia, accounting for 33.8% of total imports, followed by Pakistan with 21.7%; India, 14.0%; Indonesia, 13.3%; and Thailand, 10.6%.

CONCLUSION

After peaking at 4.5 million spindles in 1993, the cotton spinning industry in Taiwan has been steadily shrinking. The decrease has been steepest in ring spinning, where the number of equipped and operating spindles has dropped to 2.4 million and 1.9 million, respectively. Meanwhile, capacity utilization fell to 84% in 2001, and further to below 80% in 2002. Although this year has seen some signs of recovery in the sector, the number of spindles in operation is ex-

TABLE 1

Raw Cotton Imported into China (Taiwan)

2001

Country of Origin	Kg.	Value US$
USA	114,208,483	129,539,599
Australia	29,532,21	39,590,582
Côte d'Ivoire	26,605,828	34,362,413
Togo	12,769,559	16,666,289
Zimbabwe	9,277,878	12,307,112
China	7,999,825	13,112,426
Uzbekistan	7,809,951	9,922,589
Pakistan	5,931,720	6,003,550
Mali	5,201,204	6,909,242
Paraguay	3,945,482	4,413,092
Argentina	3,253,017	3,183,449
Central African Rep.	3,133,563	2,900,487
Benin	3,060,780	3,895,786
Uganda	2,941,339	3,908,298
Burkina Faso	1,700,304	2,040,454
Others	8,290,088	10,467,402
Total	245,661,237	299,222,770

Source: Compiled from customs statistics by TTF

TABLE 2

China (Taiwan)'s Production of Cotton Yarn by Spinning

Year	Cotton Yarn (mt)	Blended Yarn (mt)
1997	166,764	95,719
1998	182,496	94,760
1999	185,339	92,097
2000	181,452	101,252
2001	172,154	91,147

Source: TCSA and TMSA Statistics

pected to decrease further in light of the present difficulties the industry is facing.

Taiwan has become a difficult environment in which to operate a textile business. Domestic labor costs are the highest in Asia, second only to Japan. Customs duties are comparatively low, and the domestic market is now open to global competition following Taiwan's membership in the World Trade Organization. Taiwan also confronts other challenges in the manufacturing sector, including shorter working hours, labor shortages, and rising production costs, all of which hamper the competitiveness of specialized cotton mills.

In response to this more challenging business environment, many spinning factories have been forced to reduce production, move overseas or even close altogether. Business owners who have moved production lines overseas as a means of reducing production costs have seen these operations become profitable. Most of these ventures are in China (Mainland), Latin America, and Vietnam.

As a result of these structural changes, imports of yarns are today less significant in the domestic marketplace than they once were. However, Taiwan's domestic spinners can take advantage of several unique factors, including the ability to produce small volumes, engage in highly varied production, develop new products to meet the demands of today's consumers, and strengthen vertical integration between upstream and downstream companies. If the industry repositions itself to take advantage of such special capabilities, then there is much room for development of the spinning industry in China (Taiwan).

EGYPT

INTRODUCTION

With appreciation and gratitude the delegation of the Arab Republic of Egypt submits this economic report covering statistics concerning Egyptian cotton and policies about production and marketing. We are interested in participating in the activities of the ICAC because it is the international forum that gathers the representatives of cotton producing and consuming countries, and Egypt is one of the main states that founded this association in 1939.

CULTIVATED AREA (2001/02)

The cultivated area reached about 752,000 feddans during 2001/02 compared with 518,000 feddans in 2000/01, an increase of about 234,000 feddans. The increase includes all varieties produced.

Concerning 2002/03, the cultivated area is expected to reach 766,000 feddans, about the same area as that of 2001/02.

PRODUCTION IN 2001/02

Due to the increase in area and productivity, there was an increase of up to 6.3 million cantars of lint or 314,000 tons, compared to 4.2 million cantars in 2000/01 or 210,000 tons, an increase of 2 million cantars (100,000 tons or 48 %). This event reflects the achievement of one of our goals which aims to concentrate on vertical and horizontal increases to reach the adequate quantity required to cover local and international needs.

If we assume that yields in the 2002/03 season will be at the same level as those of 2001/02, production is expected to be 300,000 tons (6 million cantars) including all varieties.

LOCAL CONSUMPTION

Consumption of Egyptian cotton at local mills up to the end of August 2002 was about 150,000 tons compared to 135,000 tons in season 2000/01, and 144,000 in 1999/00. This season Egypt imported about 6,000 tons of cotton from Sudan and Greece for a total consumption of Egyptian and foreign cotton up to August 2002 of 156,000 tons.

EXPORTS IN 2001/02

Season 2001/02 is considered one of the most successful exporting seasons when commitments have reached about 108,000 tons. In spite of the depression that has dominated the cotton market from the end of 2000 till now, we have exported cotton not only to traditional markets but also to new markets. The total number of coun-

2001/02 STATISTICS AND 2002/03 PREDICTIONS COMPARED WITH EARLIER SEASONS

	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03 Est.
Cultivated Area (1000 feddans) Table 1	884	721	710	921	859	789	645	518	752	766
Production 1000 M/T Table 2	411	251	238	341	338	226	230	208	313	287
Local Consumption 1000 M/T Table 3	271	203	205	201	231	187	144	135	150	150
Exports 1000 M/T Table 4 & 5	118	68	19	46	70	108	99	64	108	100
Imports 1000 M/T Table 6	---	41 USA	20 USA	10 Various	---	---	17 Greece	Sudan 1.5 Greece 5.0 Syria 20.0	Sudan 1.3 Greece 5.0	Greece 1 Sudan 5

1 feddan = 1.03805 acres M/T = 1000 kg. = 20 cantars

EGYPTIAN VARIETIES AND AREA

Extra Long Staple	2000/2001 Feddans	2001/2002 Feddans	Difference
GIZA 45	112	294	+182
GIZA 70	72,004	94,725	+22721
GIZA 88	10,599	27,712	+17113
TOTAL	82,715	122,731	+40016
Long Staple			
GIZA 86	113,872	165,661	+51789
GIZA 89	128,103	202,433	+74330
G17A 85	80,879	102,938	+22059
GIZA 80	61,432	80,753	+19321
GIZA 83	51,183	77,588	+26405
GIZA 90	39	254	+215
TOTAL	435,508	629,627	+194119
GRAND TOTAL	518,223	752,358	+234135

VARIETIES PRODUCTION AND YIELD (LINT)

ELS	2000/01		2001/02	
	PRODUCTION	YIELD	PRODUCTION	YIELD
	M. Ton	Kilo/Fed	M. Ton	Kilo/Fed
GIZA 45	24	213	52	180
GIZA 70	26,184	364	38,005	401
GIZA 88	4,765	450	13,085	472
TOTAL ELS	30,973	375	51,143	417
LS				
GIZA 86	48,893	430	74,397	499
GIZA 89	52,521	410	82,636	408
G17A 85	28,433	352	39,244	381
GIZA 80	23,253	379	33,414	414
GIZA 83	23,642	460	32,740	422
GIZA 90	8	-	81	-
OTHERS	8	-	-	-
TOTAL LS	176,758	406	262,512	417
GRAND TOTAL	207,731	406	313,655	417

Lint cantar = 50 kg.

COTTON EXPORTS IN 2001/02 COMPARED TO PREVIOUS YEARS

Season	Extra Long Staple		Long Staple		Total	
	1000 Tons	%	1000 Tons	%	1000 Tons	%
1993/94 base year	42	100	76	100	118	100
1994/95	29	70	39	51	68	58
1995/96	19	45	---	---	19	16
1996/97	18	43	29	38	47	40
1997/98	20	48	50	66	70	59
1998/99	24	57	84	77	108	92
1999/00	39	93	60	79	99	84
2000/01	31	74	33	43	64	54
2001/02	44	105	64	84	108	92

tries to which we have exported our cotton reached 40 worldwide.

The policy implemented for 2001/02 is an extension of the one implemented in previous seasons and is based on many principles. One of the principles is complete freedom in cotton planting and trading under the liberalization issued in 1994, and setting a voluntary marketing system for dealing with prices fixed and announced in marketing centers, in addition to the following points:

- Establishing a minimum buying price from producers at which a good marginal profit could be achieved, and providing agricultural services needed.
- Establishing export prices in accordance with market mechanisms and matching international prices, taking in consideration differences in quality.
- Improving spinning utility and control handling from picking to exporting to avoid pollution and contamination, and an orientation toward production of organic cotton that is considered to be environmentally friendly. Also, experiments to cultivate natural colored cotton in new areas such as Toshki.

The Egyptian cotton market has been distinguished in the last season by important characteristics that show complete freedom in domestic and foreign trading:

- The number of domestic traders has increased to reach more than 140, including 30 traders from the public sector and the rest from cooperatives, private sector, companies and individuals, which controlled more than 40% of the crop during 2000/01.
- The number of companies registered in the Alexandria Cotton Exporters Association has increased to 27, nine of which are from the public sector and the other eighteen from the private sector.

The two parties (public and private sector) divided up the cotton acquired to be exported during 2001/02 so that the public sector share was 41,000 tons from the total committed quantity. This fact indicates the success of the cotton trade liberalization policy, domestic or foreign.

QUALITY TEST REPORT

The general remarks from the Agricultural Research Center of the Cotton Research Institute, Ministry of Agriculture, regarding quality tests, are

- Fibers of all cotton varieties were characterized by a high degree of maturity. All spinning procedures were easy, with lower percentages of waste and accepted yarn strength.
- Regarding the policy of reducing the number of cotton varieties, two ELS and five LS cottons were grown last season.

TABLE (1) **ACREAGE OF EGYPTIAN COTTON BY VARIETY** **1 FED.=1.03805 Acres**

Feddans

FROM 1993/94 TO 2002/03

Variety	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03 Est.
Extra long staple(over 1-3/8")										
Giza 45	13,161	6,308	5,848	2,931	5,265	9,731	6,141	112	294	1,000
Giza 87	-----	---	---	340	94	65	---	-----	---	---
Giza 76	21,404	12,422	8,749	15,165	13,034	6,916	-----	-----	----	---
Giza 70	148,681	56,491	65,320	102,705	119,931	159,586	72,811	72,004	94,725	120,560
Giza 77	80,771	14,270	22,169	39,196	34,485	26,259	-----	-----	----	---
Giza 88	-----	---	---	---	78	73	1,266	10,599	27,712	33,310
Giza 84	4,936	8,929	---	-----	---	-----	---	-----	---	---
Sub-total	268,953	98,420	102,086	160,337	172,887	202,630	80,218	82,715	122,731	154,870
Long staple(over 1-1/4")										
Giza 86	-----	-----	4,652	42,488	120,435	249,818	170,553	113,872	165,661	144,200
Giza 89	---	-----	---	775	9,718	63,223	158,329	128,103	202,433	161,800
Giza 75	399,617	454,860	418,986	378,009	198,226	---	---	-----	---	---
Giza 81	21,808	15,089	---	---	---	---	---	---	---	---
Giza 85	6,626	18,221	42,833	146,634	156,342	98,752	130,405	80,879	102,938	125,228
Giza 80	122,199	96,028	111,017	147,702	153,976	70,009	49,091	61,432	80,753	83,114
Giza 83	17,420	15,015	27,329	43,818	47,649	104,230	56,732	51,183	77,588	93,928
Dendra	47,476	22,689	2,828	---	-----	---	---	-----	---	---
Giza 90	---	---	---	---	---	---	---	39	254	3,000
Sub-total	615,146	621,902	607,645	759,426	686,346	586,032	565,110	435,508	629,627	611,270
Others	211	1,121	476	1,148	22	150	89	96	---	---
Total	884,310	721,443	710,207	920,911	859,255	788,812	645,417	518,319	752,358	766,140

TABLE (2) **PRODUCTION OF EGYPTIAN COTTON CLASSIFIED BY VARIETY** **1 ton = 20 metric cantars**

1 metric cantar = 110.23 lbs.

Tons **1993/94 - 2002/03**

Variety	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03 Est.
Extra long staple(over 1-3/8")										
Giza 45	2,909	1,648	1,554	472	1,276	1,425	1,033	21	53	184
Giza 87	-----	---	---	72	21	8	---	-----	---	---
Giza 76	10,007	3,417	2,926	4,008	4,209	930	-----	-----	----	---
Giza 70	72,529	19,822	24,539	36,950	52,667	47,367	24,354	26,184	38,005	43,944
Giza 77	33,806	3,644	8,446	13,631	14,632	6,632	-----	-----	----	---
Giza 88	-----	---	---	---	26	15	532	4,765	13,085	12,358
Giza 84	2,200	2,460	---	-----	---	-----	---	-----	---	---
Sub-total	121,451	30,991	37,465	55,133	72,831	56,377	25,919	30,973	51,143	56,486
Long staple(over 1-1/4")										
Giza 86	-----	-----	1,941	12,826	44,654	62,188	53,638	48,893	74,397	52,200
Giza 89	---	-----	---	320	3,765	19,180	62,956	52,521	82,636	61,889
Giza 75	184,937	143,897	131,838	124,491	77,357	---	---	-----	---	---
Giza 81	10,523	4,137	---	---	---	---	---	---	---	---
Giza 85	3,107	6,757	11,618	55,889	58,784	27,993	38,400	28,433	39,244	42,014
Giza 80	61,725	46,786	40,876	66,910	57,071	19,852	21,955	23,253	33,414	31,334
Giza 83	8,224	7,820	13,164	25,537	23,479	40,664	26,809	23,642	32,740	42,126
Dendra	21,238	9,899	1,189	---	-----	---	---	-----	---	---
Giza 90	---	---	---	---	---	---	---	8	81	792
Sub-total	289,754	219,296	200,626	285,973	265,110	169,877	203,759	176,750	262,512	230,355
Others	81	260	75	337	5	13	15	8	---	---
Total	411,286	250,547	238,166	341,443	337,946	226,267	229,693	207,731	313,655	286,841

TABLE (3) MILL CONSUMPTION OF EGYPTIAN COTTON BY VARIETY

Tons **1993/94 - 2001/02**

Variety	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02 to 8/2002
Extra long staple(over 1-3/8")									
Giza 45	995	3,155	611	-----	-----	-----	-----	-----	-----
Giza 76	5,995	6,852	2,149	250	632	101	-----	-----	----
Giza 70	31,087	48,899	13,469	14,828	13,548	15,452	14,000	17,664	11,768
Giza 77	15,870	7,880	2,579	236	840	661	237	-----	-----
Giza 84	244	3,402	70	-----	-----	-----	-----	-----	-----
Giza 88	-----	-----	-----	-----	-----	-----	-----	74	946
Sub-total	54,191	70,188	18,878	15,314	15,020	16,214	14,237	17,738	12,714
Long staple(over 1-1/4")									
Giza 75	146,721	63,344	118,165	59,082	83,014	29,104	144	5	-----
Giza 81	7,206	2,277	-----	-----	-----	-----	-----	-----	-----
Giza 86	----	----	1,993	-----	890	21,805	8,093	13,766	10,832
Giza 89	----	----	----	-----	26	13,492	50,665	43,357	35,211
Giza 85	3,071	5,109	10,915	51,602	52,921	30,265	31,953	25,455	28,395
Dendera	15,917	10,079	1,137	-----	-----	-----	-----	-----	-----
Giza 80	43,052	38,438	40,695	56,001	57,185	23,866	15,126	16,426	33,674
Giza 83	1,061	8,638	13,172	15,030	21,851	51,689	23,628	18,633	29,174
Sub-total	217,028	132,885	186,509	185,930	216,092	170,488	129,849	117,642	137,286
Others	-----	-----	432	4,215	205	267	240	2	-----
Total	271,219	203,073	205,387	201,244	231,112	186,702	144,086	135,382	150,000

TABLE (4) EXPORTS OF EGYPTIAN COTTON CLASSIFIED BY VARIETY

1 ton = 1,000 kg. = 3 bales of 6.53 cantars = 20 cantars

Tons **1993/94 - 2001/02**

Variety	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02
Extra long staple(over 1-3/8")									
	646	743	1,156	927	903	170	399	765	879
Giza 45	2,267	2,492	1,425	1,956	2,053	1,084	986	1,501	235
Giza 76	15,714	16,647	11,660	10,349	10,067	15,064	31,606	20,595	31,155
Giza 70	23,038	8,004	4,572	4,843	6,248	7,384	5,721	5,375	943
Giza 77	-----	-----	-----	-----	215	51	526	2,941	10,631
Giza 88	-----	973	-----	-----	-----	-----	-----	13	-----
Giza 84,87									
Sub-total	41,665	28,859	18,813	18,075	19,486	23,753	39,238	31,190	43,843
Long staple(over 1-1/4")									
Giza 86	-----	-----	-----	9,989	31,350	54,224	39,924	19,370	32,826
Giza 75	43,765	34,577	-----	18,057	11,115	17,927	326	-----	-----
Giza 81	3,620	324	-----	-----	-----	-----	-----	-----	-----
Giza 89	----	----	-----	-----	2,572	7,330	9,386	6,658	19,066
Giza 85	----	127	-----	180	3,027	2,427	3,159	2,679	2,978
Dendera	3,777	----	-----	-----	-----	-----	-----	-----	-----
Giza 80	18,776	3,983	-----	179	1,679	1,339	3,192	801	2,883
Giza 83	6,183	240	-----	-----	174	454	2,578	1,475	2,370
Sub-total	76,121	39,251	-----	28,405	49,917	83,701	58,565	30,983	60,123
Type Export	141	-----	-----	-----	120	1,026	1,175	1,461	3,713
Total	117,927	68,110	18,813	46,480	69,523	108,480	98,978	63,634	107,679

TABLE (5) EGYPTIAN COTTON EXPORTS BY COUNTRY OF DESTINATION

Included: Colombia 502 T; Belgium 0.35 T

1993/94-2001/02

COUNTRY	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2000/02
ITALY	8,839	12,113	2,256	14,755	17,774	32,206	21,654	2,177	18,187
SWITZERLAND	11,585	5,026	392	2,261	-	363	489	1,166	6,141
GERMANY	9,478	2,892	-	2,537	2,262	2,940	3,112	1,424	3,292
FRANCE	1,872	709	1,044	586	1,035	664	705	275	29
UNITED KINGDOM	144	98	-	171	24	25	-	20	26
GREECE	988	1,709	1,028	1,823	2,203	4,614	3,459	75	1,671
PORTUGAL	1,543	1,645	245	684	1,740	2,372	2,066	1,231	2,557
SPAIN	1,805	409	377	1,110	1,387	1,291	970	333	752
AUSTRIA	274	92	-	26	73	-	-	-	336
IRELAND	174	-	-	305	169	326	293	147	-
DENMARK	-	-	-	77	257	240	175	-	-
HOLLAND	298	-	-	-	-	253	75	-	-
TURKEY	12,731	8,356	2,045	5,147	12,340	13,443	11,931	2,833	6,346
MALTA	-		-	-	-	-	-	525	-
MOROCCO	357	120	-	50	-	51	204	-	-
TUNISIA	1,295	52	-	-	-	-	-	-	-
MACEDONIA	209	418	-	-	-	-	-	-	-
CZECH REP	1,241	917	-	934	1,212	337	169	33	-
SLOVENIA	905	99	102	298	238	1,266	619	-	673
CROATIA	50			-	24	-	-	-	-
ROMANIA	972	49	-	98	248	100	49	-	13
HUNGARY	91		37	323	939	1,088	674	120	376
FINLAND	-	52	25	24	-	-	-	-	-
BULGARIA	395	-	-	-	-	-	-	-	-
CHINA P.R.	1,863	2,147	653	372	299	290	3,191	1,350	4,890
YUGOSLAVIA	-	-	-	-	261	299	-	-	-
POLAND	-	-	-	42	-	23	100	-	-
SOUTH KOREA	11,224	8,106	4,210	5,264	2,946	7,834	7,508	2,513	7,192
JAPAN	6,278	8,710	4,495	4,347	5,954	3,973	4,760	3,017	4,431
INDONESIA	6,487	1,375	-	416	998	1,438	1,817	1,646	2,444
THAILAND	4,622	1,392	176	742	1,107	3,350	4,875	1,045	4,111
TAIWAN	1,654	318	-	41	2,279	1,739	2,462	-	360
SINGAPORE	123	72	-	-	25	99	23	-	52
HONG KONG	-	-	12	-	-	-	-	-	-
PHILIPPINES	-	-	-	24	37	12	48	25	48
INDIA	26,811	8,418	-	3,288	11,019	16,972	11,588	8,423	19,083
BANGLADESH	1,346	195	-	175	-	465	1,356	-	813
PAKISTAN	653	-	-	13	1,152	64	37	653	10,247
MALAYSIA	-	-	-	-	580	1,442	180	-	380
UNITED STATES	343	318	1,396	-	24	5,020	10,847	-	9,260
BRAZIL	306	735	122	504	458	2,027	2,738	1,660	2,060
PERU	-	-	-	-	350	408	-	-	-
USSR (CIS)	-	-	-	-	5	25	-	25	-
SOUTH AFRICA	-	-	183	-	102	500	270	450	-
LEBANON	-	-	-	-	-	500	-	-	-
OTHERS	853	1,577	15	43	2	400	534	24	2040*
TOTAL	117,927	68,119	18,813	46,480	69,523	108,480	98,978	83,402	107,804

*Includes: 1,040 tons to Belgium, 475 to S. Africa, 425 to Morocco and 100 to Colombia

TABLE (6) IMPORTS FROM 1992/93 TO 2001/02

Season	Imports M/Kentar	Imports 000/Tons	Variety	Region
1992/93	738	37	ACALA	CALIFORNIA / ARIZONA
1993/94	0	0	ACALA	CALIFORNIA / ARIZONA
1994/95	810	41	ACALA	CALIFORNIA / ARIZONA
1995/96	400	20	ACALA	CALIFORNIA / ARIZONA
1996/97*	200	10	UPLAND	TURKEY/SYRIA/INDIA/PAKISTAN/ AUSTRALIA/CENTRAL ASIA
1999/00	500	25	UPLAND/ACALA	GREECE, SUDAN
2000/01	320	16	UPLAND	GREECE, SYRIA
2001/02	120	6	UPLAND/ACALA	GREECE, SUDAN

* Subject to spinning experiments

Variety And Grade	Visual Color	HVI MEASUREMENTS													Micromat			
		Color		Mike Value	Fiber Length					Fiber Stength & Elongation %				Pressley Index 0 gauge s.w.r	Fiber Fineness & Maturity			
		Reflectance Rd %	Yellowness +b		UHM (mm)	ML (mm)	Uniformity Index (%)	2.5% SL (mm)	Uniformity	ICC Stelometer (level)		HVI CC Presley (level)			Mike Value	Maturity Ratio	Maturity (%)	Fineness (m/tex)
										Strength (g/tex)	Elonga-tion %	Strength (g/tex)	Elonga-tion %					
Giza 70 G/Fg	White	76.4	9.4	3.9	35.4	30.6	86.5	35.6	50.3	34.7	6.7	43.5	8.0	11.3	4.0	1.04	92	148
Good		75.3	9.5	3.8	35.3	30.5	86.5	35.5	50.0	33.9	6.6	42.8	7.9	11.0	3.9	0.99	87	141
Giza 88 G/Fg	Creamy	66.1	12.4	4.0	35.1	31.3	87.6	35.7	50.0	34.9	6.5	43.2	7.8	11.1	4.0	1.02	91	148
Good		65.2	12.5	4.0	34.8	30.1	86.6	35.0	49.0	34.6	6.4	42.9	7.4	11.1	3.9	1.01	88	142
Giza 86 G/Fg	White	74.2	9.9	4.4	32.9	28.0	85.1	33.2	50.7	31.2	6.8	40.5	7.8	10.9	4.4	1.04	91	167
Good		73.8	9.4	4.4	32.8	28.1	86.9	32.5	50.1	31.1	6.8	40.1	7.8	10.7	4.3	1.03	91	152
Giza 85 G/Fg	White	77.1	8.9	4.1	30.5	26.6	87.0	30.0	51.0	29.9	7.7	36.8	8.9	10.3	4.1	1.05	91	146
Good		75.6	8.4	3.9	29.7	25.5	86.0	29.8	51.0	29.7	7.5	36.6	8.7	10.0	4.0	1.06	92	139
Giza 89 GIFg	White	76.9	8.6	4.1	31.9	27.9	87.5	32.3	50.3	31.4	6.9	38.8	7.9	10.3	4.1	1.05	92	159
Good		75.9	8.4	4.1	31.8	27.7	86.8	31.5	50.0	30.7	6.8	38.4	7.8	9.9	4.1	1.04	91	155
Giza 80 G/Fg	Creamy	62.0	12.7	4.5	31.5	27.4	87.0	31.4	50.0	30.3	7.5	38.6	8.6	9.9	4.5	0.94	83	180
Good		60.7	12.9	4.4	30.8	26.7	87.0	31.0	49.9	30.0	7.2	38.3	8.5	9.7	4.5	0.94	83	177
Giza 83 G/Fg	Creamy	64.3	12.3	4.3	30.2	25.5	84.4	30.4	48.6	27.5	7.2	34.1	8.6	9.5	4.2	1.03	89	160
Good		62.8	12.2	4.1	29.8	25.1	84.1	29.7	48.5	27.3	7.0	33.3	8.4	9.5	4.0	1.04	90	158
Varieties on trial																		
Giza 45 Good	White	72.1	8.8	2.9	34.8	30.0	86.2	35.0	50.4	34.5	6.8	43.8	7.8	10.9	3.0	0.97	86	112
Giza 90 Good	Creamy	63.3	12.5	3.9	30.2	25.7	85.1	30.4	50.3	26.9	7.4	35.4	8.7	9.5	3.9	0.98	87	157
G 81xG 83	Creamy	61.6	12.0	4.5	29.0	24.6	84.8	29.0	49.6	29.6	7.1	36.7	8.4	9.7	4.5	1.06	91	166

HVI stength based on:

1- Stelometer level using Internatioanl Calibration Cotton (ICC). 2- Presley level using HVI Calibration Cotton (HVI CC)

SPINNING TEST REPORT ON THE EGYTIAN COTTON CROP OF 2001

Variety and Grade	Sugar Content %	Ring Spinning										Rotor Spinning (O.E)		
		Lea Product			Single Yarn							Lea Product	Single Yarn	
		Carded	Combed		Carded (60s)		Combed (60s)		Combed (120s)			Carded 30s	30s Carded	
		60s	60s	120s	C.N/Tex	E(%)	C.N/Tex	E(%)	C.N/Te	E(%)			C.N/Tex	E (%)
Giza 70 G/Fg	0.16	2760	3015	2425	17.8	4.8	20.2	5.0	15.5	3.3				
Good	0.19	2600	2965	2335	16.7	4.3	18.8	5.0	14.8	3.4				
Giza 88 G/Fg	0.16	2800	3145	2460	19.3	4.6	22.2	5.3	16.6	3.2				
Good	0.20	2760	3110	2245	17.8	4.5	19.4	5.2	15.5	3.4				
Giza 86 G/Fg	0.17	2475	2800	1700	16.1	4.6	17.5	4.3	13.7	3.1		2595	15.4	5.0
Good	0.22	2370	2700	1645	16.0	4.6	15.8	4.7	10.3	3.4		2305	11.2	4.6
Giza 85 G/Fg	0.15	2220	2570		13.8	4.9	15.4	5.3				2450	13.6	5.4
Good	0.18	2150	2490		13.3	4.7	12.0	4.9				2375	12.2	5.5
Giza 89 G/Fg	0.19	2230	2550		13.6	4.3	15.2	4.6				2220	9.7	4.8
Good	0.21	2165	2400		12.8	4.3	14.1	5.0				2190	9.2	4.6
Giza 80 G/Fg	0.16	1900	2140		12.1	4.2	12.7	4.9				2175	11.3	5.5
Good	0.25	1780	2035		11.6	5.0	12.5	4.6				1945	10.8	5.3
Giza 83 G/Fg	0.14	1760	2140		11.6	5.4	13.2	5.8				1960	10.4	5.9
Good	0.21	1710	2115		10.3	5.3	12.7	5.8				1645	8.2	5.9
Varieties on trial:														
Giza 45 Good	0.16	2985	3200	2600	17.5	4.8	18.4	5	18.0	3.9				
Giza 90 Good	0.18	2000	2340		14.8	5.8	15.2	5.1				1980	9.3	5.5
G.81 x G.83	0.15	1995	2190		14.2	4.4	15.3	5.0				1910	10.8	4.6

C.N./tex (10N=~1.02 Kg)

1. These tests were carried out on 1,220 samples drawn from seven cotton exporting companies for different grades of commercial varieties, while varieties on trial were drawn from experiments of the C.R.I.

2. All tests and spinning procedures take place at C.R.I. under standard atmosphere (20 + 1.2 C and 65 % +2% R.H.)

3. The new promising long staple cotton hybrid Giza 81 x Giza 83 will be planted if required in upper Egypt.

4. The extra long fine cotton variety Giza 45 is being regrown commercially in 2002 to satisfy the demand from international spinning companies.

5. Product values and single tests of combed yarns tended to be higher than last season owing to the increase in efficiency of combing machines due to repair.

GERMANY

TRENDS IN THE COTTON INDUSTRY

VOLUME AND ORIGIN OF IMPORTS OF COTTON

Imports of raw cotton into Germany dropped by 10.2%, from 144,337 tons in 2000 to 129,682 tons in 2001.

As in the last few years, they primarily came from Uzbekistan, although its share dropped from 28% in 2000 to 17.7% in 2001.

Sudan still comes second, accounting for 9.4% of imports (2000: third place with 7.1%), followed by Chad (7.4%), Cameroon (7.0%), Greece (7.0%), Brazil (5.8%), USA (4.7%), Mali (4.2%), Argentina (3.9%), Egypt (3.0%) and Zimbabwe (2.9%).

Compared with 2000, there was a particular increase in imports from Brazil and Paraguay. At the same time Kazakhstan accounted for a far lower share of imports (see Annex).

RE-EXPORTS OF COTTON

German re-exports of cotton rose in terms of volume from 14,516 tons in 2000 to 17,896 tons in 2001, which is a year-on-year increase of 23.2%.

The main destinations were the Czech Republic, which received more than 40% of the re-exports, and Austria, Poland, the Netherlands, Switzerland and France.

IMPORT PRICES OF COTTON

The average price of all raw cotton imports to Germany amounted to €1.42/kg in 2001, which is +12.7% compared with €1.24/kg in 2000.

COTTON TEXTILE INDUSTRY

There was a slight increase of 0.2% in the production of cotton yarn in 2001 over the preceding year (2001: 123,608 tons; 2000: 123,359 tons).

In contrast, the output of cotton fabric dropped substantially (- 8.7%; 2001: 136,141 tons; 2000: 149,178 tons). The decline was even greater in the case of cotton clothing. Here, output fell by 11.8% to 24,700 tons (2000: 28,000 tons).

The decline in production is the result of a weak order situation affecting the entire textiles and clothing sector. For example, in the case of man-made fibers, production declines of over 10% were recorded for yarns, fabrics and clothing. This means that the positive expectations of the textiles and clothing sector—stimulated by a hopeful development at the start of 2001—have not been fulfilled.

The causes of this are to be found not least in the global economic downturn and the uncertainty following the terrorist attacks of 11 September 2001, which resulted in a tangible deterioration in the business climate across the economy. Also, for some years there has been a perceptible change in the consumption patterns of the population, expressed in a declining share of spending on textiles and clothing.

FOREIGN TRADE IN COTTON TEXTILES

Exports of cotton textiles and cotton clothing increased again in 2001. Once again, exports have proved to be the main source of hope for the textile and clothing industry. There were sharp rises in particular for denim fabrics (+13.1%), cotton yarns (+10.2%) and cotton clothing (+9.6%). In total, 61,753 tons of cotton yarn, 115,930 tons of cotton fabric, 5,822 tons of denim fabric and 44,902 tons of cotton clothing was exported in 2001.

With the exception of cotton fabric, there is still an import surplus in all sectors—most significantly in the case of cotton clothing. In the field of cotton yarn, this import surplus has been reduced. In total, 86,064 tons of cotton yarn, 106,116 tons of cotton fabric, 6,267 tons of denim fabric and 301,332 tons of cotton clothing were imported in 2001.

OUTLOOK

The German textile and clothing industry is not expecting a fundamental improvement in the economic situation this year, although it does expect demand to pick up at the end of the year. The sector continues to suffer not only from the shift of production capacities and jobs abroad and the pressure of competition from international suppliers, but also from weak demand on the domestic market and the structural changes in the traditional specialist retail outlets and in the consumption patterns of the population.

Hopes continue to be focused on exports, particularly as there are increasing signs of a recovery in the world economy.

GOOD TRADE PRACTICES

Germany has always attached particular priority to fair conditions in international trade. Germany believes that the adherence to signed agreements and the recognition and implementation of arbitration rulings provide an important foundation for this.

International trade should not be impaired by subsidies, no matter of what type. We are convinced that all sides ultimately profit from fair competition. That is why we expect the integration of the textile and clothing trade into the general GATT rules and its further liberalization to provide a fresh stimulus to international trade.

IMPORTS OF COTTON INTO THE FEDERAL REPUBLIC OF GERMANY

Country of Origin	Quantity (metric tons)	Quantity (metric tons)	Quantity (metric tons)	Change Quantity (per cent)
	2001	2000	1999	2001 / 2000
Uzbekistan	**23,116**	40,261	48,930	**-42.6**
Sudan	**12,133**	10,266	7,354	**18.2**
Chad	**9,533**	15,101	12,534	**-36.9**
Cameroon	**9,073**	6,947	1,076	**30.6**
Greece	**9,029**	10,130	9,054	**-10.9**
Brazil	**7,465**	789	1	**846.7**
USA	**6,049**	4,823	2,601	**25.4**
Mali	**5,511**	3,415	3,552	**61.4**
Argentina	**5,016**	2,632	1,744	**90.6**

IMPORTS OF COTTON INTO THE FEDERAL REPUBLIC OF GERMANY

Country of Origin	Quantity (metric tons)	Quantity (metric tons)	Quantity (metric tons)	Change Quantity (per cent)
	2001	2000	1999	2001 / 2000
Egypt	**3,826**	2,240	1,819	**70.8**
Zimbabwe	**3,700**	4,295	4,721	**-13.9**
Kazakhstan	**3,439**	1,771	657	**94.2**
Paraguay	**3,412**	–	107	**-**
Israel	**3,351**	5,225	2,657	**-35.9**
Syria	**2,898**	5,182	2,014	**-44.1**
Benin	**2,714**	3,828	1,455	**-29.1**
Turkey	**2,531**	1,006	2,477	**151.5**
Côte d'Ivoire	**2,413**	973	–	**148.1**
Tadzhikistan	**2,206**	1,776	1,513	**24.2**
Pakistan	**2,177**	6,554	–	**-66.8**
Turkmenia	**1,819**	3,807	2,848	**-52.2**
Togo	**1,410**	52	284	**2606.3**
Kyrgyzstan	**1,316**	965	962	**36.3**
Nigeria	**1,008**	–	261	**-**
Iran	**846**	–	349	**-**
Burkina Faso	**730**	2,261	2,810	**-67.7**
Azerbaijan	**688**	215	596	**219.9**
India	**551**	798	568	**-30.9**
Senegal	**422**	322	228	**30.8**
Latvia	**333**	507	343	**-34.3**
Central African Rep.	**238**	3,411	–	**-93.0**
Spain	**201**	2,448	111	**-91.8**
South Africa	**132**	3	–	**4296.7**
Yemen	**116**	4	–	**2657.1**
Hungary	**46**	34	24	**33.0**
Mozambique	**42**	–	–	**-**
Czech. Republic	**42**	109	96	**-62.0**
Switzerland	**35**	–	24	**-**
Qatar	**25**	–	–	**-**
Estonia	**24**	162	2	**-85.4**
Other Countries	**72**	2,026	3,562	**-96.5**
Total	**42,758**	**49,974**	**30,489**	**-14.4**

GREECE

COTTON SITUATION AND OUTLOOK

OVERVIEW

In Greece, cotton is a national product cultivated mainly in the best irrigated fields. 95-99% of cotton cultivation is fully mechanized and the best cultural practices are usually applied.

In 2001, total area under cotton was 394,000 ha approximately, while total seedcotton production reached 1,240,000 tons. The average seedcotton yield was 3,150 kg per hectare.

For 2002, total area under cotton, as reported in the Integrated Administration and Control System (area covered by declarations) is 356,000 ha and the estimated seedcotton production is between 1,000,000 and 1,100,000 tones.

The 2001 growing season was especially favorable for cotton production. The prolonged very good weather conditions permitted cotton yields to reach the uppermost limits in the last twenty years, while fiber quality was at the highest level.

On the contrary, weather conditions in 2002 do not guarantee high production levels and will

probably affect quality. In fact, 2002 has been a year with increased rainstorms and adverse weather conditions.

During the last two years, the area under cotton production exhibited a declining pattern compared to previous years, mainly because of national policies adopted. The current national policy is aiming to restrict cotton area because of the decline of water resources available during the last few years. Another reason for this restrictive policy is the increasing pollution with nitrates of the land sown to cotton.

It is well known that cotton cultivation is requiring a great amount of chemicals in the form of fertilizers and insecticides or in the form of defoliants and desiccants.

The volume of the various inputs, along with high labor costs are increasing the cost of production and consequently are decreasing farmers' income, since cotton prices have been declining in recent years.

In order to limit the environmental hazards, the new regulation of the European Union (EU) authorizes member states to proceed in the restriction of cultivated land by applying appropriate rotation systems in order to limit nitrate pollution. Greece has already made use of this possibility in the framework of the above-mentioned restrictive national policy.

CULTIVATED VARIETIES

Most of the cultivars grown in Greece are imported and belong mainly to the Deltapine and Stoneville varieties and partly to Acala types. About 20-30% of the cultivated land is sown to varieties developed locally. The expansion of the various cultivars depends on marketing policies adopted rather than on their true value.

QUALITY OF COTTON PRODUCTION

The quality of the lint produced in the 2001/02 season was very high because of the extremely favorable weather, as mentioned. All quality characteristics like staple length, micronaire and strength were at the highest level, as well as color grade. Most of the crop was over 29 mm in length and between 4 to 4.6 micronaire. Most of the crop was classified in the middling and higher white grades.

COTTON RESEARCH

Cotton research is adapted to national and international trends and at present is focused on the development of strains for low input production and resistance to biotic and abiotic stresses.

SUPPLY

Domestic Consumption, Trade and Stocks

Because of recent improvements in world market cotton prices and last year's very good quality of Greek cotton, there was an increase in exports which led to minimum stocks at the beginning of the new ginning period 2002/03.

One-third of lint production is being consumed locally and the rest is being exported mainly to EU member countries, to Turkey and, in smaller quantities, to third countries. A small quantity representing long staple cotton is being imported for specific uses.

Greece is in compliance with the European Union's Common Agricultural Policy. Our long-term objectives are to restrict the cultivated area in order to prevent environmental pollution. Also, taking into account the local context of production and especially labor costs that cannot be avoided, our long team objective is to decrease the use of inputs and, consequently, to increase the outcome from cotton production.

INDIA

INTRODUCTION

Cotton is one of the principal cash crops of the country and plays a key role in the Indian economy. It engages millions of farmers, while another about 40-50 million people depend on activities relating to cotton cultivation, cotton trade and its processing, for their livelihood. It is the principal raw material for the domestic textile industry comprising (as of 3/31/02) 1,579 spinning mills; 281 composite mills with an installed capacity of 35.75 million spindles; 408,800 open-end rotors; and 140,000 looms in the organized sector; plus another 1,046 small-scale spinning units with 2.58 million spindles and about 71,000 rotors in the small-scale decentralized sector. Cotton and cotton related textile items contribute significantly towards the export earnings of the country.

COTTON AREA

The total area under cotton cultivation in India is around 9 million hectares, the highest in the world. Area under cultivation in 2001/02 (Oct.-Sept.) was 8.85 million hectares, an increase of 3.2% over area under cultivation during 2000/01. Of the total area, about 35% is irrigated and the rest is rainfed.

INDIAN COTTON VARIETIES

India has the distinction of growing all the four cultivated species of cotton, viz., *G. arboreum* and *G. herbaceum* (called Desi/Asian cottons), *G. hirsutum* (American upland types) and *G. barbadense* (Egyptian type), and also hybrid cottons. India produces a large number of cotton varieties and hybrids. Though the number of varieties in cultivation exceeds seventy, 98% of the production is contributed by about 25 varieties only.

PRODUCTION AND YIELD

Production of cotton in India is spread over three zones, i.e., the Northern Zone comprising the states of Punjab, Haryana and Rajasthan; the Central Zone comprising Maharashtra, Madhya Pradesh and Gujarat; and the Southern Zone comprising Andhra Pradesh, Karnataka and Tamil Nadu. These nine major cotton producing states account for almost 99 percent of cotton production in the country. In addition, cotton cultivation is gaining momentum in the states of Orissa and West Bengal.

Cotton production during 2001/02 was 2.69 million MT (equivalent to 15.8 million 170/kg bales), showing an increase of 12.8% vis-à-vis 2000/01. Cotton yield during 2001/02 was 303 kg per hectare. The improvement was due to an increase in cotton production in the two Central Zone states of Gujarat and Maharashtra, and a good crop in the Southern Zone state of Andhra Pradesh.

AVAILABILITY OF COTTON IN 2001/02

Production of cotton during 2001/02 was higher at 2.69 million MT (15.8 million bales) due to the factors mentioned earlier. Added to this was the higher carry-over stock of 0.49 million MT (2.90 million bales) from the previous year and substantially higher imports of 0.37 million MT (2.20 million bales). Thus, total availability of cotton during 2001/02 was comfortable at 3.55 million MT (20.90 million 170/kg bales), compared to 3.44 million MT (20.26 million 170/kg bales) available in 2000/01.

CONSUMPTION

Mill consumption of cotton (both organized and small-scale spinning units) in 2001/02 was marginally higher at 2.74 million MT (16.10 million bales) compared to 2.73 million MT (16.03 million bales) during 2000/01.

Non-mill consumption of cotton in 2001/02 was 0.20 million MT (1.20 million bales), compared to 0.22 million MT (1.27 million bales) in 2000/01. However, total consumption of cotton during 2001/02 remained more or less stable at 2.94 million MT (17.30 million bales).

EXPORTS AND IMPORTS

With a view to boost cotton trade, the government of India liberalized raw cotton exports in

July 2001, dispensing with the system of allocating a cotton export quota in favor of different agencies, and obtaining a government certification for registration. During 2001/02, about 0.17 million MT of cotton is anticipated to be exported.

Imports of cotton are under Open General License (OGL) from April 1994 and at present attract a customs duty of 10 percent. Textile mills in the country are at liberty to import cotton of any variety from any source.

Price Trend in 2001/02

The first half of 2001/02 witnessed a continuing declining trend in the prices of raw cotton. Prices of most of the cotton varieties subsequently touched the Minimum Support Price (MSP) level in all cotton growing states except Punjab and Haryana in the Northern Zone. The decline in prices was in line with the declining trend in international prices, cotton's comfortable availability position and also the financial crunch faced by textile mills due to lower demand for yarn and fabrics, thereby limiting their cotton buying to immediate requirements. However, from May 2002, with reduced arrivals, prices rose above the MSP level.

IMPROVEMENT OF QUALITY AND PRODUCTIVITY

Steps Taken by the Government

Bacillus thuringiensis (Bt Cotton)

One of the major problems faced by cotton farmers in India is pests, which cause significant losses in the major cotton growing states. Hence, consumption of pesticides is very high. In India, about 55% of total pesticides is consumed on cotton. Commercial cultivation of Bt cotton starting in 2002/03 will play a significant role in the area of pest resistance and thereby improve fiber quality. It will also lead to improvement in cotton yield. However, the area for Bt cotton in 2002/03 is reported to be quite low (about 40,000 ha) and its real impact will be known only starting from the 2003/04 cotton season.

Integrated Cotton Cultivation (Contract Farming)

With a view to benefit the cotton farming community on the one hand, by way of making available quality inputs like seeds, pesticides, etc., for producing quality cotton and to enable the user industry (i.e. textile mills) to obtain the desired quality of cotton on the other, the government has taken steps to popularize integrated cotton cultivation (contract farming). Contract farming will involve corporate sector participation not only in extension services but also in making available quality inputs like seed, fertilizers, etc., to farmers to improve the productivity and quality of Indian cotton.

The Cotton Corporation of India (CCI), in coordination with the government and agricultural

State-wise Cotton Production for 1999/00, 2000/01 and 2001/02 (Oct-Sept)
(in million tons/million bales of 170-kg each)

STATE	PRODUCTION					
	1999/00		2000/01		2001/02	
	MT	M Bls	MT	M Bls	MT	M Bls
Punjab	0.14	0.80	0.16	0.95	0.15	0.90
Haryana	0.18	1.05	0.17	1.00	0.09	0.52
Rajasthan	0.22	1.30	0.18	1.08	0.10	0.58
Gujarat	0.48	2.85	0.41	2.38	0.57	3.35
Madhya Pradesh	0.26	1.55	0.33	1.92	0.34	1.98
Maharashtra	0.62	3.65	0.31	1.83	0.57	3.35
Andhra Pradesh	0.37	2.20	0.43	2.52	0.47	2.75
Karnataka	0.14	0.80	0.13	0.77	0.14	0.80
Tamil Nadu	0.09	0.55	0.09	0.55	0.08	0.50
Others	0.03	0.15	0.02	0.10	0.01	0.07
Total	2.53	14.90	2.23	13.10	2.52	14.80
Loose lint not accounted for in statewise break-up	0.12	0.70	0.15	0.90	0.17	1.00
Grand Total	2.65	15.60	2.38	14.00	2.69	15.80

Lint Cotton Prices of Selected Varieties in 2000/01 & 2001/02 by Month
(spot prices in rupees per candy and U.S. cents/lb)

Variety	J-34 (Med)		H-4 (Long)		S-6 (Long)		DCH-32 (ELS)	
Month	Rs.	U.S. Cts	Rs	U.S. Cts	Rs	U.S. Cts	RS.	U.S. Cts
2000/01 SEASON								
Oct	16641	45.72	19300	53.02	20614	56.63	29536	81.14
Nov	17640	48.12	20540	56.03	21804	59.47	31164	85.01
Dec	18158	49.52	21146	57.67	22479	61.31	35425	96.62
Jan	17846	48.85	20400	55.84	21804	59.68	35373	96.82
Feb	17841	48.91	19736	54.11	21082	57.80	35273	96.70
Mar	17957	49.14	19061	52.16	20570	56.29	34957	95.66
Apr	18047	50.19	19337	53.77	20721	57.62	35000	97.33
May	18404	50.03	19808	53.85	20904	56.82	35000	95.14
Jun	19188	52.09	20188	54.81	20800	56.47	35000	95.02
Jul	18592	50.31	19284	52.19	20376	55.14	33104	89.58
Aug	17689	47.86	18789	50.84	19795	53.56	31805	86.06
Sept	17550	47.50	18533	50.16	19404	52.52	31000	83.90
2001/02 SEASON								
Oct	15576	41.54	17208	45.89	18312	48.83	29160	77.76
Nov	13910	37.09	15067	40.18	16043	42.78	25695	68.52
Dec	13785	36.49	14930	39.53	15880	42.04	25405	67.26
Jan	13356	35.29	14612	38.61	15592	41.19	25104	66.32
Feb	13083	34.27	14100	36.94	15083	39.51	24417	63.96
Mar	12923	33.82	14005	36.65	15264	39.94	24177	63.27
Apr	13672	35.65	14780	38.53	15844	41.31	26068	67.97
May	14068	36.61	14864	38.68	15932	41.46	26112	67.95
Jun	14664	38.16	15392	40.05	16632	43.28	26284	68.40
Jul	15530	40.61	16807	43.95	18037	47.16	27426	71.72
Aug	15550	40.84	17829	46.83	19104	50.18	29267	76.87
Sept	14365	37.87	17109	45.11	18183	47.94	28078	74.03

Note: one candy = 355.62 kg

Cotton Exports and Imports in Last Three Years
(in million MT/million bales of 170-kg each)

YEARS	EXPORTS		IMPORTS	
	MT	Bales	MT	Bales
1999/00	0.01	0.065	0.37	2.20
2000/01	0.01	0.060	0.38	2.21
2001/02 (P)	0.02	0.100	0.37	2.20

(P) -Provisional

universities, will also play an important role in promoting contract farming in cotton. CCI has already undertaken some projects in Andhra Pradesh, Madhya Pradesh, Gujarat and Orissa by forming groups of farmers.

Progress of Technology Mission

In 2000, the government of India launched the Technology Mission on Cotton (TMC) comprising four Mini Missions to address the issues of productivity, improving quality and reducing the cost of cotton cultivation. Research and development of cotton is being strengthened under Mini Mission–I for genetic improvement of seeds and dissemination of technology to farmers. Extension activities are given emphasis under Mini Mission–II. Under Mini Mission–III, market yards are being improved, and under Mini Mission–IV, processing quality is being improved through the modernization of existing ginning and pressing factories. Preliminary evaluation results have shown signs of improvement in cotton quality.

Developmental/Extension Activities Undertaken by CCI

The state-owned Cotton Corporation of India (CCI) has been undertaking various development programs and extension activities for the last four years to supplement government efforts to increase production, productivity and quality of cotton. Details are as follows:

- A village adoption program on the principle of the "one variety one village" concept for the benefit of cotton growers.
- Distribution and supply of quality inputs like seeds, fertilizers, genuine pesticides, etc., to cotton growers.
- Cotton crop surveillance and field training organization in association with states' departments of agriculture and states' agricultural universities.
- Promotion of cotton cultivation in non-traditional areas such as the states of Orissa, rice fallow tracts in West Bengal in Eastern India, and rice fallows in Tamil Nadu in South India.

Other agencies like the East India Cotton Association (EICA) and the Indian Cotton Mills Federation (ICMF) are also actively involved in promoting cotton research and development.

FUTURES TRADING

Cotton futures trading in India resumed in December 1998. The East India Cotton Association (EICA), Mumbai, a premier trading organization, is conducting futures trading operations on an all-India basis. Futures trading, which is a step towards price risk management, is expected to perform two important functions, viz. price discovery and price risk management. It is useful to both the cotton producer and the consumer. The trading volume transacted is increasing gradually.

JAPAN

GENERAL SITUATION OF THE JAPANESE ECONOMY

At the beginning of 2001 the Japanese economy continued its slow recovery thanks to relatively handsome exports started the previous year. However, due to the decrease of exports in the latter half of the year caused by the U.S. economic slowdown, company profits and equipment investment decreased, and the unemployment rate maintained its worst record. As a result, real economic growth throughout 2001 was –0.5% with no sign of recovery, which resulted in minus growth after three years

The Japanese economy shows a deflationary recession with the continuing fall of commodity prices for more than two years.

SPINNING INDUSTRY IN 2001

Number of Spindles

Consumer preference for low price products was fomented further by the deflationary economy. Consequently, demand for domestic textile products, which were priced higher than imported ones, was very low. As a result, the Japanese spinning industry was forced to make further downsizing.

The number of cotton-type spindles installed in Japan continuously decreased by approximately 8% to 2.75 million at the end of 2001 compared to the previous year. The decrease in equipment is still continuing although at a slower pace. On the other hand, the Japanese spinning industry has continued its globalization by transferring production lines overseas to such countries as China, Thailand, Indonesia and Brazil, where the industry's equipment is estimated to be at almost the same level as it was in Japan.

Supply and Demand of Cotton Products

Regarding supply, the production of spun yarn in 2001 decreased by approximately 12% to 139 thousand tons, and the production of cotton made-up goods decreased by 9% to 600 million square meters.

Imports of cotton yarn and cotton fabric decreased by 10% and 11% respectively, owing to the downsizing of production in Japan. Imports of cotton made-up goods increased by 8.1% to 627 thousands tons, exceeding those of the previous year when imports hit the highest record.

Regarding domestic demand of cotton products in 2001, individual consumption suffered from low-income growth as well as a high unemployment rate. Consequently, clothing expenses per household in 2001 decreased by 2.2%, which

Table 1
Imports, Consumption and Stocks of Raw Cotton
(unit: thousand tons)

	Imports	Consumption(*)	Stocks
1995	348	354	70
1996	323	325	69
1997	293	307	55
1998	303	300	58
1999	268	273	53
2000	275	283	45
2001	240	242	43

* Correcting figure
Cotton: not carded or combed
Source: Ministry of Finance and Ministry of Economy Trade and Industry

meant ten years of consecutive minus growth. Clothing sales by large-scale retailers were also down by 3.6% from the previous year due to weak demand and lower sales prices.

Exports of cotton fabric decreased by 1%, while exports of cotton yarn and cotton made-up goods increased by 8% and 31% respectively, compared to the previous year. This export increase was caused by the expansion of re-imports after processing abroad, in addition to the devaluation of the yen, which boosted exports of cotton made-up goods.

In the aforementioned situation on supply and demand, cotton-product stocks at the end of 2001 decreased by 8% to 107 thousand tons compared to stocks at the end of 2000.

COTTON IMPORTS AND CONSUMPTION

Imports

Imports of raw cotton in 2001 decreased by 13% to 240 thousand tons compared to the previous year. In detail, imports from Australia increased by 6% to 136 thousand tons, which represented 57% of all cotton imports. Australia has been the top exporter by country of origin in three consecutive years. On the contrary, imports from the U.S. decreased by 18% to 78 thousand tons, a decrease to 33% from 35% the previous year.

Regarding extra-long staple cotton, imports from Egypt decreased by 21%, while those from Sudan decreased by 50% compared to the previous year.

Consumption

Cotton consumption for all uses declined by 13% to 171 thousand tons. Cotton stocks at the end of 2001 decreased by 4% to 43 thousand tons compared to those at the end of year 2000.

CONSUMPTION OF RAW MATERIAL IN SPINNING INDUSTRY

With regard to consumption of raw material in the spinning industry in 2001, consumption of raw cotton, cotton waste, rayon staple fiber, synthetic fiber, and reused wool decreased without exception so that total consumption of these fibers decreased by 15% to 306 thousand tons. However, the share of each fiber in the overall consumption changed as cotton and rayon increased to 55.6% and 7.8% respectively, while synthetic fiber decreased to 34.0%.

OUTLOOK FOR COTTON CONSUMPTION AND IMPORTS IN 2002

With regard to the outlook for cotton consumption and imports in 2002, the demand for cotton products in Japan will be relatively handsome, while equipment scale and working capacity will decrease. Therefore, consumption of cotton for all uses in Japan in 2002 is estimated to decrease further by 5% to 163 thousand tons. Also, imports of raw cotton in 2002 are estimated to decrease by 5% to 230 thousand tons.

Table 2
Imports of Raw Cotton by Country Origin
(unit: tons)

	1997	1998	1999	2000	2001
U.S.A.	138,905	141,724	87,296	95,857	78,158
Mexico	9,023	7,096	7,096	6,459	4,419
Guatemala	-	-	-	-	-
Nicaragua	-	-	-	-	-
Brazil	-	-	-	-	-
Peru	1,377	179	510	395	77
India	19,627	7,342	8,290	8,014	5,255
Pakistan	3,648	3,162	441	2,471	215
Syria	2,234	4,904	10,145	12,246	2,033
China	1,091	1,297	2,557	4,106	2,744
Former USSR	(*) 8,691	(**)3,014	(**) 5,264	(**) 5,956	(**) 523
Egypt	4,376	5,871	4,124	4,421	3,514
Sudan	1,788	1,710	1,036	1,203	599
Cote d' Ivoire	984	120	59	40	60
Chad	1,100	1,890	1,729	873	512
Zimbabwe	2,650	3,297	2,947	2,216	3,008
Australia	90,344	114,795	130,447	128,640	135,693
Others	7,117	6,608	4,143	2,845	2,864
Total	292,955	303,009	268,286	375,050	239,674

* Includes Russia, Ukraine, Uzbekistan, Kazakhstan, Azerbaijan, Tadzhikistan, and Turkmenistan
** Uzbekistan
Source: Ministry of Finance

Table 3
Consumption of Raw Materials for Spinning
(unit: tons)

	1997	1998	1999	2000	2001
Raw Cotton	222,641	208,673	208,505	194,428	170,115
Waste Cotton	21,598	18,651	15,595	13,394	7,902
Rayon Staple Fiber	51,532	40,799	31,462	28,688	23,822
of which Viscose	47,802	38,517	28,898	25,320	21,849
Synthetic Fiber	181,515	147,495	133,979	125,007	104,054
of which Polyester	84,391	68,553	61,887	59,986	50,602
of which Nylon	2,725	2,300	2,553	2,827	2,406
of which Acrylic	81,415	65,440	58,757	51,662	41,939
of which Vinylong	8,291	7,392	6,950	7,001	5,695
of which others	4,693	3,810	3,832	3,531	3,412
Grand Total	477,286	415,618	389,541	361,517	305,893

Source: Ministry of Economy Trade and Industry

Table 4
Production of Yarns
(unit: thousand tons)

	1997 %	1998 %	1999 %	2000 %	2001 %
Spun Yarn					
Cotton Yarn	184 (14)	173 (15)	171 (15)	159 (15)	139 (14)
Rayon Stable Fiber	43 (3)	33 (3)	25 (2)	22 (2)	20 (2)
Synthetic Yarn	214 (16)	177 (15)	159 (14)	146 (13)	122 (12)
Others	64 (5)	48 (4)	46 (4)	38 (3)	31 (3)
Total	505 (38)	431 (36)	401 (35)	365 (34)	312 (31)
Filament Yarn					
Synthetic Filament	736 (56)	683 (64)	664 (58)	669 (61)	640 (64)
Rayon Yarn	73 (6)	68 (6)	58 (5)	54 (5)	41 (4)
Raw Silk	2 (-)	1 (-)	1 (-)	1 (-)	1 (-)
Total	811 (62)	752 (64)	742 (65)	724 (66)	682 (69)
Grand Total	1,316 (100)	1,183 (100)	1,143 (100)	1,089 (100)	994 (100)

Note: Figures indicate the percentage of each product in total output.
Source: Ministry of Economy Trade and Industry

REPUBLIC OF KOREA

GENERAL ECONOMIC SITUATION

Korea's gross domestic product in 2001 recorded a 3% growth, much lower than the 9.3% growth in 2000, due to an economic slowdown both at home and abroad. A drastic fall in world prices of semiconductors, which have been Korea's main export items, especially reduced our exports to US$150 billion, a 12.7% decrease from the previous year. Imports declined 12.1% to US$141 billion. Thus, our trade surplus stood at US$9 billion, 21.2% down.

Our textile industry also experienced a downturn in 2001. Exports went down 14% to US$16 billion, while imports increased 1.8% to US$5 billion.

BASIC STRUCTURE

The number of spindles at the end of 2001 was 2,065,718 (20 SWAK members), a 2.1% decrease from the end of 2000. The figure for looms was 1,810 (20 SWAK members), a 17.5% decrease from the previous year. The continued scrapping of old facilities account for this decline.

The number of production workers at the end of 2001 was 12,698, an 8.6% decrease from the previous year.

ACTIVITY

The economic slowdown in Korea lowered spun yarn production to 261,803 tons in 2001, a 2.5% decrease compared with 2000. The figure for fabric went down to 190 million SM, a 16% decrease.

TRADE

The volume of cotton imports in 2000 was 335,935 tons, a 6.5% increase from the previous year.

The value of cotton yarn and fabric imports remained about the same as last year's, US$533 million and US$289 million, respectively.

The value of cotton yarn and fabric exports decreased 10.7% and 10% to US$117 million and US$597 million.

Table 1 Imports of Raw Cotton

Unit: M/T

	1998	1999	2000	2001
USA	169,144	66,234	81,343	126,898
Australia	41,469	53,728	52,969	90,683
Uzbekistan	56,176	94,008	67,661	64,676
China	1,036	66,754	87,778	25,378
Russia	12,225	14,633	6,454	4,294
Others	22,464	49,649	19,250	30,051
Total	302,514	330,373	315,455	335,935

Table 2 Facilities of Cotton Textile Mills

Unit : 1,000 Spindles

	1998	1999	2000	2001
No. of Spindles	2,271	2,200	2,110	2,066

Note: SWAK members only

Table 3 Production of Cotton Yarn

Unit : M/T

	1998	1999	2000	2001
Cotton Yarn	168,705	190,294	182,357	191,826
Cotton Blended	58,118	57,871	56,921	45,376

Note: SWAK members only

Table 4 Exports of Cotton Yarn

Unit : M/T

	1998	1999	2000	2001
Japan	8,512	7,958	4,012	2,904
Hong Kong	12,964	11,286	9,258	10,397
China	5,460	4,437	4,475	4,348
Others	13,321	11,909	11,087	11,454
Total	40,257	35,590	28,832	29,103

OUTLOOK

In the first quarter of 2002, the Korean economy seems to have emerged from the trough of a downturn and entered a recovery phase from the fourth quarter of 2001. However, there remain uncertainties. The exchange rate of the Korean won continues to go down against the U.S. dollar, thereby weakening the price competitiveness of our export items. The recovery of the U.S. and Japanese economy is not yet visible. Overall, the growth of the Korean economy in the second half of this year will largely depend on the world economy.

MALI

COTTON SITUATION

In Mali, a country of the Sahel, south of the Sahara, more than two million farmers grow cotton, the country's leading export.

Output for this crop year was close to 600,000 tons, which makes Mali the second largest producer in Africa, after Egypt.

The industry is today grappling with a crisis stemming from the farmer revolt of 1999-2000, when producer's price was reduced to CFAF 150,000 per ton subsequent to the drop in world prices, aggravated by management problems at CMDT (Mali's cotton company).

This situation led the government, in cooperation with the agricultural sector represented by the Chamber of Agriculture and farmer organizations, to organize a convention on the cotton sector. At this convention, relevant recommendations were made for resolving the crisis.

At the domestic level, an incentive producer price of CFAF 200,000 per ton was set, and decisions were made about reforming the industry, particularly by refocusing CMDT's cotton producing activities and by creating a second private cotton company. In addition, incentive measures were adopted to promote investments in the processing subsector, since barely 3% of cotton is processed on site.

At the subregional level, our country participated in the ministerial meetings of CMA/AOC and WAEMU on the problems of the cotton sector. At these meetings, Mali supported the principle of encouraging procedures at the WTO level to eliminate production and export subsidies that countries of the North give to their producers. These subsidies result in unfair competition in the world market and contribute to the further impoverishment of African cotton growers and the national economies of Africa.

PAKISTAN

PREAMBLE

Cotton occupies a unique position in the agrarian economy of Pakistan. Therefore, the government has always emphasized the need for the improvement—both quantitatively and qualitatively—of this singular cash crop. As a matter of policy, the government encourages vertical expansion in cotton production with quality improvement as an integral part of the cotton development program, realizing that future gains in cotton production would best be possible through quality improvement. There is also a general realization that Pakistan is an important country for cotton and yarn production and has the potential to become a key force in the worldwide cotton and textile market place. Thus, in order to reach this goal, concerted efforts are under way to establish a quality-focused cotton marketing system in the country.

DOMESTIC SITUATION

In 2001/02, cotton was sown on 3.1 million hectares that yielded 10.6 million bales (170 kg each). The average yield realized was 581 kilograms per hectare. For 2002/03, the government has fixed the cotton area and production target at 2.90 million hectares and 10.09 million bales, respectively.

The current crop condition has been satisfactory and promising so far, and there is much likelihood that the envisaged production target will not only be achieved but also surpassed despite a decline in planted area provisionally estimated at 2.644 million hectares. Private circles are anticipating a crop of 10.5 million bales this season.

Incidence of sucking pests and bollworm in varying proportions was reported from the cotton belt, but the situation remained under control. Cotton leafcurl virus infestation of low to medium intensity was noticed in certain areas, with great concern. In order to overcome the virus problem, the Ministry of Food and Agriculture, in collaboration with the Provincial Agriculture Department, has been keeping close watch on the situation to formulate a viable strategy in that regard. The government has already taken the following measures:

- All cotton varieties except CIM-446, CIM-482, CIM-473, CIM-443, FH-901 have been banned for sowing.
- Only one or two new varieties will be approved in a year, instead of approving several varieties.
- Sowing of exotic Bt cotton has been banned.
- Use of biotechnology in varietal development programs.
- Adequate funding in the form of grants arranged to finance virus-related projects.

PRICES

Season 2002/03 started with optimism as better seedcotton prices than the lower values witnessed last season were expected. However, in order to protect farmers from any drastic decline in market prices, the government announced a support price of Rs. 800 per 40 kg. But, so far, prices have remained way above the support price level. Hence, there has been no government intervention yet. It appears that the average seedcotton prices during the season would remain above the support price on account of the expected higher world market prices of raw cotton and the growing domestic mill consumption.

CONSUMPTION

According to the Textile Commissioner's Organization, the installed capacity of the reported 450 textile mills as of 30th June 2002 was 9,060,328 spindles; 141,184 rotors; and 10,114 looms. As for mill consumption of raw cotton, the All Pakistan Textile Mills Association has placed it at 11.4 million (170 kg each) in 2001/02, whereas for 2002/03, consumption is envisaged to rise to 12 million bales.

IMPORTS/EXPORTS

According to the Textile Cotton Association, a total of 1.57 million bales (170 kg each) were imported during 2001/02, whereas exports during the season remained at 0.241 million bales. There is no restriction or duty on the imports or exports of raw cotton.

QUALITY IMPROVEMENT

Regarding quality improvement of Pakistani cotton, the government has taken the following important measures:

- The Pakistan Cotton Standards Institute has been setup to implement the cotton grading/classing program at gin level on the basis of already approved grade/standards for seedcotton/raw cotton. These standards are recognized both by national and international organizations. To give a legal backing to the Institute, the Cotton Standardization Ordinance was promulgated recently.
- In order to overcome the contamination problem in cotton, the government launched a campaign in 2001/02 to promote the production of high quality, contamination-free cotton in the Rahim Yar Khan district (Punjab Province). Encouraged with the achievements realized in the R.Y. Khan district, the government decided to extend the clean-cotton production program during 2002/03 to three other districts, namely Bahawalpur in the Punjab, and Ghotki and Sanghar in Sindh. The premium rate for lower contamination levels has also been determined in consultation with private sector stakeholders.
- The provincial governments have made necessary amendments in the Cotton Control Act thereby banning the use of jute/hessian and polypropylene for bagging the seedcotton. The movement of seedcotton from field to factory in open trolleys is recommended. Gins have also been directed to adopt other recommended measures required for producing clean cotton.
- Facilities for instrumental evaluation of raw cotton are made available also to the private sector at the offices of the Pakistan Cotton Standards Institute.

RESEARCH AND DEVELOPMENT

Improvement and development of cotton growing, marketing and manufacturing in the country is entrusted to the Pakistan Central Cotton Committee (PCCC) under the Cotton Cess Act, 1923. The Act authorizes the PCCC to collect a cotton cess on the consumption and exports of raw cotton in the country. The cotton cess (Rs. 11 per bale) is the only source generating funds required for cotton research and development purposes.

The necessity and efficacy of the cotton research program has been obvious on many occasions, particularly in the early 1990s, when cotton production in the country fell prey to the cotton leafcurl virus. But cotton researchers in the coun-

try made it possible to continue with cotton cultivation by urgently developing CLCV-resistant cotton varieties and their production technology.

The PCCC has two mono-crop multidisciplinary research institutes in the two major cotton growing provinces, namely Punjab and Sindh, in addition to a number of research stations/testing centers spread all over the cotton belt. Provincial governments and the Nuclear Institute for Agriculture and Biology also participate in the evolution of new cotton varieties.

CURRENT COTTON POLICIES

For the quantitative and qualitative improvement of raw cotton and to safeguard the interests of all the stakeholders in the country's cotton economy, the government has been paying attention to the following measures:

- Vertical expansion in cotton production.
- Cotton research focused on high yield potential and long staple virus-resistant cotton varieties.
- Encouraging cotton production in new potential areas in the provinces of Balochistan and NWFP.
- Support price for seedcotton to safeguard growers' interests.
- Induction of the Trading Corporation of Pakistan for price stabilization through procurement, only if seedcotton market prices fall below the support price level.
- Qualitative improvement in cotton through standardization and grading at grass root level.
- Cotton pricing and marketing based on the staple grade.
- Campaigns for producing contamination-free cotton.
- Free trade in cotton (no duty on imports or exports of raw cotton).

PARAGUAY

Paraguay is trying right now to recover the cotton area lost during the previous season due to low prices and lack of government measures to financially support the production of cotton. A planting intention of around 250,000 hectares is in the cards today, compared to roughly 150,000 hectares planted during the previous season, and slightly over 300,000 hectares two years ago as shown in the table.

For 2002/03, cotton's national outlook is as follows:

Area to be planted by Nov. 15, 2002, 250,000 has.

Estimated farm yield, 1,150 kg/ha.

Seedcotton production, 287,500 tons.

Average gin yield, 35%.

Lint cotton production, 100,000 tons.

Domestic usage, 6,000 tons.

Exportable surplus as of 3/1/03, 94,000 tons.

All Paraguayan cotton is rainfed (irrigation is nonexistent), and 95% handpicked. Hence, the country depends on weather conditions during planting, growing and harvesting.

The country's lint cotton grades vary from good middling to low middling, of which traditionally 85%-90% is SLM and better, staple 1.3/32, prime mike 3.5/4.9 and 85/90,000 Pressley, with total absence of sugar or stickiness.

Because Paraguayan cotton is grown on small farms and about 95% is hand-picked, the fiber shows very little neps and seedcoat fragments. Cottonseed multiplication programs are conducted by the Ministry of Agriculture in close teamwork with the French Mission (CIRAD-CA, ex IRCT), which is partly financed by CADELPA. This task continues firm and strong and shall provide even more homogeneous lint cotton characteristics for the years to come.

Paraguay has had a good record and proven reliability in supply and performance, contract fulfillment, and ethical cotton trade practices.

Traditionally, Paraguay has been selling its entire export surplus during the first six months of the crop year beginning in March, although the corresponding shipments may take place during the whole crop year. Paraguay hardly carries stocks from one year to another, except if foreign buyers delay the shipments or default on their cotton purchases.

CADELPA, the Paraguayan Cotton Chamber, continues to work closely in a joint effort and good cooperation with the Paraguayan government and, particularly, with the Ministry of Agriculture, to ensure healthy cotton crop growth, farmers assistance, crop progress and quality, good and appropriate seed research and development, timely seed distribution and plantings and also, very particularly, to minimize and eradicate contamination.

Paraguay is definitely against any government measures or practices that distort cotton markets, trade and production.

Although Paraguay has not yet officially approved the use of GM cottonseed varieties, more reasonable than emotional understanding is gaining consensus, and it is expected that the situation will be reviewed soon.

PARAGUAYAN SEEDCOTTON PRODUCTION

Crop Year	Area Planted (Has.)	Production (Tons)	Yield (Kgs/Ha)
1970/71	32,000	16,600	519
	50,000	40,500	810
	87,000	69,900	803
	102,000	75,084	736
	112,000	99,229	886
1975/76	112,000	105,041	938
	218,000	222,486	1,021
	315,000	284,646	904
	359,000	229,201	638
	262,400	229,526	875
1980/81	351,760	316,699	900
	302,950	253,263	836
	298,403	228,373	765
	305,661	302,406	989
	407,567	460,032	1,129
1985/86	350,000	312,068	892
	312,000	243,000	779
	402,500	543,178	1,350
	439,000	630,600	1,436
	530,000	643,885	1,215
1990/91	560,000	753,000	1,345
	492,000	389,000	791
	235,450	389,188	1,653
	381,186	379,877	997
	332,210	461,169	1,388
1995/96	320,000	328,868	1,028
	110,697	139,097	1,257
	202,000	220,646	1,092
	166,204	181,830	1,094
	194,760	244,000	1,253
2000/01	259,000	285,000	1,100
2001/02	130,500	123,975	950
2002/03 (intention)	250,000	287,500	1,150

PHILIPPINES

INTRODUCTION

The cotton industry in the Philippines is still developing despite many years of existence. Today, domestic production lags far behind consumption as shown by a consistently low proportion of locally produced lint to total lint demand. As a matter of fact, the country relies highly on lint imported primarily from the United States of America, Australia and Pakistan.

The industry is fraught with the challenges to step up cotton productivity in order to diminish import dependence alongside with increasing farmers' income. Since the implementation of a private-led cotton program in 1999/00, the industry started to pick up the pieces. No matter how small this may be when compared to the industry's phenomenal growth in 1991/92, there is reason to be optimistic that the industry will be able to join the ride to globalization and sustainability.

PRODUCTION AND CONSUMPTION

Production

For three successive years, cotton production in the Philippines posted modest gains starting in 1999/00. Total area planted to cotton increased by an annual average of 59%. In the same breadth, seedcotton yield swelled by as much as 37%.

These positive developments are primarily attributed to new cotton technologies as well as increased participation of the private sector.

The commercialization of the cotton hybrid Navkar 5, registered locally as NSIC-C02, created a bandwagon effect after its phenomenal introduction in 2000/01. The hybrid gives at least 50% higher seedcotton yield than the pure lines earlier recommended for planting. On the other hand, increased investments made by private business groups in cotton production and marketing encouraged farmers' greater participation in the cotton program.

Consumption

In terms of utilization, the country's spinning mills consumed an average of 54,342 metric tons of lint annually from 1999-2001. The abrupt deceleration of domestic lint consumption in 2001 was an expected consumer reaction to the political crisis and ensuing economic slowdown that occurred in the same year. Domestic consumption declined by 20% compared to the previous year, the lowest ever registered in the past five years.

Depreciation of the Peso

The depreciation of the local currency against the dollar by nearly 14% in the same year prompted import dependent sectors and industries, such as textile and yarn mills, to cut down on imports of cotton lint. Accordingly, cotton lint importation was only 43,000 MT, nearly 21% lower than the 10-year average.

Downsizing of Textile Mills

In order to remain operational and financially afloat, textile mills resorted to implementing cost-cutting measures. This meant downsizing or minimizing the procurement of raw materials, thereby reducing production output and contributing further to the decline of lint consumption.

Changing Consumer Preference

Subsequent to trade liberalization, the Philippine garments industry shifted from being cotton-fiber dependent to becoming fabric-dependent, leading to an incremental decline in lint consumption by textile mills. Furthermore, the depreciation of the peso against the dollar and the high cost of importing lint encouraged textile producers to substitute cotton with man-made fibers, thus further reducing the demand for cotton.

Outlook for 2002/03

The three-year performance of the local cotton industry projects a positive outlook in 2002/03 and beyond. Given this scenario, the country's cotton program targets an increasing production base to increase domestic share to lint demand in the textile industry.

GOVERNMENT INTERVENTION

Monthly Price Bulletin

The Cotton Development Administration (CODA), the Philippines' cotton agency, in coordination with the Textile Mills Association of the Philippines (TMAP), a non-government organization, prepares and distributes a monthly lint price bulletin. This publication contains information about the current world market price of lint based on a monthly cotton outlook index. Thus, it provides a leverage for cotton traders and producers.

Cotton Industry Organizations

So far, the Philippines, through CODA, has already organized cotton industry councils at the regional level. Three councils have been formally organized, one each in the major island of Luzon, Visayas and Mindanao. The councils are constituted by the different cotton farmers' cooperatives operating in the different cotton growing areas within the island.

Tax-free Importation

Republic Act 8435, otherwise known as the Agriculture and Fisheries Modernization Act of 1997 (AFMA), provides for tariff-exempt importation of inputs, machinery and equipment for agriculture and fishery purposes for five years starting in 1999. This effort of the Philippine government is advantageous especially for farmers since chemical inputs are still primarily imported.

Cotton Standards

The country adopts the existing international quality standards for lint valued by the spinning mills. In this regard, cotton research is geared towards developing cotton varieties and improving existing ones to satisfy quality standards.

Cotton Contamination

Cotton contamination is one of the problems haunting the industry. This is usually caused by the presence of polypropylene particles in the lint, which reduces the quality of the raw material.

Recognizing the importance of high quality cotton, CODA has intensified its campaign against the use of polypropylene bags as receptacles for the seedcotton harvest as well as plastic twines for tying. Instead, the use of bamboo baskets, jute sacks and twines, and cheesecloth bags is strictly enforced. So far, CODA has conducted several meetings with cotton farmers all over the country to discuss the adverse effects of contamination on lint quality. Emphasis is made on the fact that cotton traders refrain from buying contaminated cotton, which is disadvantageous to cotton growers.

Non-genetically Engineered Cotton

Early this year, CODA released the guidelines on the importation of non-genetically engineered cottonseed for research and commercial production purposes. These guidelines provide firms the necessary procedures for importing non-GM cotton.

Participatory Technology Development

The Philippines is one of the six countries in Asia implementing the Cotton IPM Program undertaken by the Food and Agriculture Organization (FAO) with funding from the European Union.

Starting in 2001/02, CODA has been implementing the component project entitled "Participatory Technology Development (PTD) on Cotton IPM: Follow-up Activity on IPM Farmer Field Schools in Rice/Corn-Based Cotton Production Systems in the Philippines," in the provinces of Ilocos Sur and Pangasinan, northern Philippines.

New Production Technology

Cotton growers in the country are now planting a new cotton variety after CODA released it for commercial planting. This variety is a hybrid from India that was evaluated under local growing conditions. Registered as NSIC-Ct12, it produces at least 50% more seedcotton than the locally bred varieties. Last cotton season, NSIC-Ct12 yielded a record high of 2.47 MT/ha on average.

POLAND

The season that ended on July 31, 2002 was not usual for the world cotton market. Its exceptionality consisted in the fact that the basic parameters of the cotton market reached spectacular values.

Stimulated by very low prices (average A Index = 41.85 U.S. cts/lb), world cotton consumption reached a record level of 20.1 million tons. Government subsidies in many cotton producing countries encouraged a huge planted area and allowed world production to increase to a record 21.4 million tons.

The increase in world cotton production could have been even higher had it not been disturbed by the tragedy of September 11 in the USA. After that event, mainly in the USA but also in other countries, consumers' moods were at a low point, reflected in the drop of sales including cotton products.

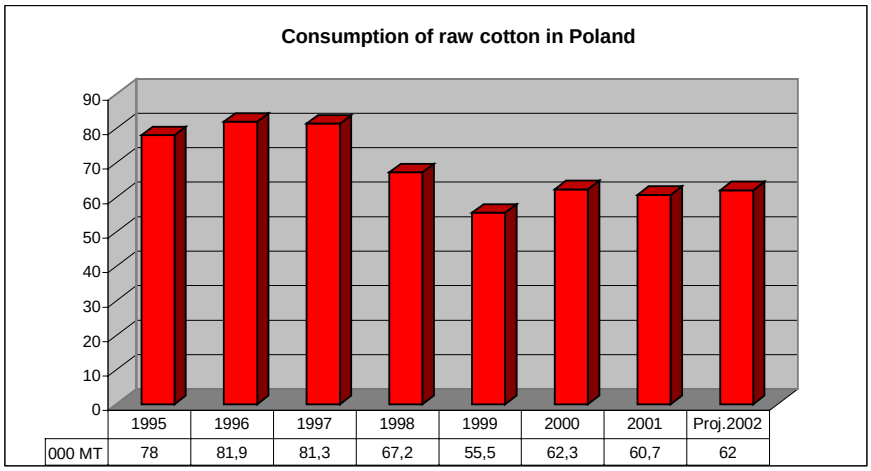
We fully accept the text of the "Proposal on Strategies for Successful Negotiations at the WTO—The Chair's Current Thinking on Strategies for Reduction and Eventual Elimination of Government Measures," the document elaborated by ICAC's Working Group on Government Measures.

In spite of the fact that Poland is only a cotton importer and that low prices resulting from subsidies are advantageous for importers and consumers, we understand the negative impacts of such actions on the cotton market. We also take into consideration the fact that in years when prices have been low—and mainly in seasons 2000/01 and 2001/02—the quality of cotton received by the Polish market has been low, particularly as far as foreign matter content and preparation are concerned, parameters strictly connected with proper caring about the planting and ginning process.

For the Polish cotton market, 2001/02 was an average season, similar to the two previous ones. Regarding the current condition of the world as well as the Polish economy, this fact seems to be positive. In addition, the first nine months of the present year show that Poland's cotton imports and consumption in 2002 will rise by 1.5%.

The Polish cotton sector was influenced by the following factors:

- The steady low level of cotton prices encouraged purchases and processing of cotton.
- The strong position of the Polish zloty in relation to the dollar and euro in the first half of the year hindered exports of Polish cotton products; in July, the zloty was weakened by about 10%, which improved the situation to a certain degree.
- Expensive loan rates limited investments in the Polish cotton industry.



- Mild internal demand and simultaneously a vast volume of imports of cheap cotton products to Poland (including used garments), adversely influenced the quantity of cotton processed in the Polish industry.

Consumption and imports of cotton in Poland have been stabilized during the last four years, after a severe breakdown at the beginning of the 1990s.

Since twelve years ago, the direction of cotton imports to Poland has not changed in a meaningful way. Central Asian cottons play a dominant role in the Polish market as well as in the European market because of price and easy access.

Since 1989, the Polish cotton sector has been undergoing a process of restructuring and privatization. Cotton trade was privatized most quickly and for ten years now it has remained entirely in private hands.

The restructuring and privatization of the industry is a complicated investment-demanding and time-consuming process. Nevertheless, the last several years brought considerable progress.

In 1998, the share of the private sector in yarn and fabrics production was 13%; in 1999 it was 15%; at the beginning of 2001 it was 28%; and currently in 2002 it is 51%.

It is a very good symptom that in several of the privatized enterprises old machinery was replaced with new, which allowed to modernize the technology of yarn and fabrics production.

Since the beginning of the economical-political changes in Poland, the Polish cotton sector has neither been supported nor given donations by the state and barriers in raw cotton ready-made goods trade do not exist.

THE GDYNIA COTTON ASSOCIATION

The Gdynia Cotton Association (GCA) has been involved with the Polish cotton trade and industry for 67 years. It gathers 98 members from fifteen countries (69 domestic and 29 foreign), representing the following sectors: cotton growing, trading, processing, transportation, forwarding, and science. The Association renders a vast package of cotton testing services, laboratory, as well as manual testing. The laboratory is a quality assured unit (accredited) and probably it is the only one in the world able to effectively test according to all Uzbek standards—UzRst 604/93, O'z DSt 604-2001, Russian norm GOST 3274-72—and according to the USDA standardization system.

Besides settling disputes concerning cotton contracts, which was the reason for establishing the GCA in 1935, the Association undertakes activities concerning legal regulations domestic and worldwide; customs and trade problems connected with cotton domestic and international turnover; promotion campaigns (establishing the GCA Cotton Emblem); statistical activity; and preparation for accession to the European Union.

The GCA is promoting the principle of sanctity of contracts and honesty in commerce. To achieve this aim, participants of the cotton turnover should possess a thorough knowledge of certain fields of law and cotton marketing, and of the raw material. Therefore, one of the main objectives of the GCA is the educational activity effected through the organization of international conferences and cotton classification courses.

During the last ten years, graduates of the courses included individuals from Poland and over one hundred persons from Central Asia, Africa, the Far East and Europe.

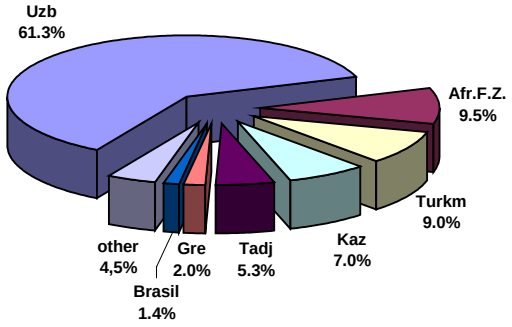
The GCA is cooperating with the most important international cotton organizations, i.e. ICAC (where GCA represents the government of Poland), CICCA, USDA, and with European cot-

ton associations. The GCA participated in the creation of the Confederation of European Cotton Associations, as well as in the elaboration of the harmonized European Rules.

The Gdynia Cotton Association is the signatory of the Universal Cotton Standards Agreement and provides the Polish market with physical standards of various kinds of cotton from other cotton producing countries. We must state that year by year this task is becoming more and more difficult because the standardization institutions dictate very high prices, deny selling the standards at all, or do not answer even the applications for standards.

We would like to present a motion stating that cotton associations should receive official valid standards free of charge, as is the case with the American Standards. The possession of cotton standards by cotton associations is an important element for observing the principle of sanctity of contracts and fair trading rules, as it makes possible to classify the raw material in a proper way and settle quality disputes by means of arbitration.

Share of medium staple cotton on the Polish market according to origin in 2001



At the same time, cotton producers should be aware that easy access to their standards may be a promotional instrument of their cotton.

Despite volatile and sometimes adverse changes in the world economy, we are sure that the world cotton market as well as the Polish market will continuously develop, and we hope that we will continue to have our share in this process as it has been taking place for 67 years now.

RUSSIA

The Russian Federation has managed to overcome the crisis in its transition to a market economy and achieve a significant economic upsurge. Over the three-year period immediately following the crisis, Russia's GDP has grown by 20.6%, including 30.9% in the manufacturing and 13.2% in the services sectors. Since 1999, the major trends in the Russian economy that can be safely extrapolated into the immediate future are the following: macroeconomic and currency stability; moderate and predictable inflation; improvements in tax laws and a gradual alleviation of the tax burden; continued protection of investors' rights; implementation of the early stages of a court reform, and measures to ensure that the laws have equal force over the entire expanse of the Russian Federation; introduction of civilized patterns of land use, purchase and sale.

The steady improvement of the economy has boosted the demand for textiles and the purchasing power of the population eager to buy textile products. Hence, the high rates of growth currently experienced by the cotton-processing industry, one of the largest subdivisions of the textile sector.

GENERAL CHARACTERISTICS OF THE COTTON-PROCESSING INDUSTRY

Most of the installed capacity of the sector can be found in the Central Administrative Region of the country, viz. the Ivanovo, Vladimir, Moscow, Leningrad and Tver oblasts or provinces (Table 1).

The average industry-wide profitability level is merely 2%, the lowest among all the components of the textile sector, which can be ascribed to the wide use of toll transactions in this particular subsector.

The cotton-processing industry needs an infusion of investment badly. In 2001, the depreciation rate of capital goods reached 61% (compared to 58.1% the previous year). The average industry-wide wages in 2001 amounted to 2,024 rubles.

Raw Material Supply

The Russian Federation grows little cotton of its own and is totally dependent on imports.

In 2000, Russia imported 296,526 metric tons of cotton fiber; in 2001, 335,537 metric tons; and during the first six months of 2002, 151,685 metric tons.

Cotton is imported into the Russian Federation duty-free (Appendix 1).

On July 1, 2001, the Russian Federation instituted a 20% value-added tax on all imported cotton irrespective of its source. Since Russia imports the bulk of its cotton from Uzbekistan as well as from Kazakhstan, Turkmenistan, Kyrgyzstan and Azerbaijan, the general expectation was that cotton prices would soar by 20% starting in July of that year.

However, cotton prices in Russia surged a lot earlier than that, viz. in February 2001 because trading companies jacked up their prices in anticipation of the VAT in spite of the price slump in the world market. They also tried to build up their reserve stocks, which explains why during the second quarter of 2001, a record amount of cotton fiber, over 158,000 metric tons, was imported into Russia, while a year before the volume of imports for a similar period had amounted to merely 83,000 metric tons.

As a result, the market was glutted and the extra cotton had to be warehoused, which is the reason why prices weakened in April 2001 and the slide continued until November of that year. The slump in the world market proved to be a boon to Russian spinners who were able to dodge the

Table 1

Regional Geography of the Cotton-processing Industries in Russia

	Vladimir	Ivanovo	Leningrad	Moscow	Tver	Others	Total
Spinning		3	5	10	1	6	25
Weaving	6	11	1	8	3	2	31
Finishing	1	2	1	2			6
Spinning/weaving	5	16	1	19	2	13	56
Weaving/finishing	3	3	1	3		2	12
Full processing cycle	3	7	2	9	2	15	38
Total, oblast by oblast	18	42	11	51	8	38	168

Table 2. Imports of Raw Cotton into the Russian Federation by Country Origin (HS 5201)

Country of Origin	Quantity in 000 metric tons					Share, per cent				
	1998	1999	2000	2001	2002 Jan-June	1998	1999	2000	2001	2002 Jan-June
Total	**114,857**	**231,965**	**296,526**	**335,537**	**151,685**	**100**	**100**	**100**	**100**	**100**
Non-CIS countries	*3,702*	*8,308*	*6,667*	*2,275*	*1,362*	*3.2*	*3.6*	*2,2.*	*0.7*	*0.9*
Austria	309	147	0	0	0	0.2	0.1	0	0	0
Afganistan	236	0	0	0	0	0.2	0	0	0	0
Burkina Faso	0	0	0	357	0	0	0	0	0.1	0
Guinea	0	0	424	0	0	0	0	0.1	0	0
Cameroon	0	200	145	317	0	0	0.1		0.1	0
China	0	3,401	779	0	0	0	1.5	0.3	0	0
Latvia	2,659	4,134	3,509	310	0	2.3	1.8	1.2	0.1	0
United States	251	152	1,799	418	95	0.2	0.1	0.6	0.1	0.1
Turkey	115	0	0	540	918	0.1	0	0	0.2	0.6
Central African Rep.	0	0	0	182	350	0	0	0		0.2
Other countries	132	274	11	151	0	0.1	0.1			
CIS-countries	*111,155*	*223,657*	*289,859*	*333,262*	*150,323*	*96.8*	*96.4*	*97.8*	*99.3*	*99.1*
Azerbaijan	5,106	10,444	6,017	10,586	9,434	4.4	4.5	2	3.2	6.2
Kazakhstan	22,015	27,448	35,042	39,908	34,604	19.2	11.8	11.8	11.9	22.8
Kirghizstan	840	6,661	11,431	16,235	18,655	0.7	2.9	3.9	4.8	12.3
Tajikistan	4,010	6,553	12,469	18,729	10,023	3.5	2.8	4.2	5.6	6.6
Turkmenistan	2,978	28,619	16,840	6,627	390	2.6	12.3	5.7	2	0.2
Uzbekistan	76,204	143,882	208,059	241,160	77,216	66.3	62	70.1	71.9	50.9
Other CIS-countries	2	50	1	17	1					

Data on custom basis

expected 20% jump of the domestic prices. A slump in world prices offered a relief, making up for the upward pressure on domestic prices due to the introduction of the value-added tax.

Table 2 contains the data on cotton fiber imports with a breakdown by exporter countries over the 1998/99 period. In recent years, Uzbekistan has been the number one supplier of cotton fiber to Russia; in 2001, it accounted for 72% of total imports. However, with other former Soviet Union republics, viz. Kazakhstan, Azerbaijan and Kyrgyzstan, aggressively marketing their cotton to Russia, Uzbekistan's market share has been rapidly trending downward (57% in the first quarter of 2002, 42% in the second quarter).

Over 70% of cotton consumed by the Russian industry is handled by 15 to 20 major trading companies, such as Power International, Tesco, Classic Plus Textile, Altro, Watson Textile, etc. Most of them have been active in this market for about a decade.

The bulk of imported cotton fiber is consumed by cotton spinners.

Cotton Yarn Market

In 2001, domestic spinners accounted for 91% of the Russian cotton yarn market; the share of imports amounted to 5%; 3% was exported; and the rest (1%) went into the residual stocks. During the first quarter of 2002, the market share of the domestic cotton yarn producers rose to 92%; the imports share was reduced to 2%; the exports dropped to 2%; and the residual stocks increased to 4%. In the second quarter, the picture remained essentially unchanged.

The cotton yarn market is highly differentiated; there are no large producers who would dictate the pricing policy. During the first six months of 2002, fourteen spinners produced 38% of the total (Table 3).

It should be noted that notwithstanding the unmistakable recent progress, cotton yarn production volume has not yet reached the 1993 level.

There is a clear trend in yarn production that can be observed from one year to another. The first six months of 2002 are no exception: about 160,000 metric tons of cotton was processed of which 10% was consumed by the government. Given the 2001 residual stocks, there is no shortage in the market.

In the second quarter of 2002, the volume of yarn production dropped somewhat, so that residual stocks of the products diminished accordingly. The volume of cotton yarn production increased in 2001, but during the first six months of 2002 it began to shrink.

About 3% of the total cotton yarn volume produced by Russian spinners is exported, with yarn #5205 accounting for the lion's share of the exports.

The volume of cotton yarn imports is relatively small though it has to be taken into account when determining the demand for cotton fiber.

Cotton Fabric Market

Cotton fabrics accounted for 85% of the total fabric production in 2001.

The three leading groups in the general structure of the Russian cotton fabric market are linens (27%), prints (24%) and clothes (16%). They are in great demand and account for much of the consumption. Fabrics used to make work clothes account for 9% of total consumption, but their share has been shrinking partly due to the trend to substitute synthetic and blended fabrics for pure cotton. There is a demand for fabrics of the towel, upholstery/decorative and clothing groups, but it accounts for a minor share of the market, 3%, 1% and 0.8% respectively.

The Russian cotton fabric market has always been dominated by domestic products. Table 4 shows the production and residual stock dynamics for cotton fabrics in 2001 and in the first and second quarters of 2002.

In 2001, the production volume of cotton fabrics continued to grow, reflecting a stabilizing effective demand for domestically produced textiles, both of the raw material variety and finished products. During the first quarter of 2002, trends did not change. In 1999, the production volume of cotton fabrics grew over the previous year by 115.6%; in 2000, by 144.7%; and in 2001, by 119.6%.

Cotton fabric consumption is determined, by and large, by the economics of the sewing industry as well as by the effective demand of the population.

Currently, the supply of cotton is in rough balance with the aggregate industrial, corporate and consumer demand. At the same time, imports continue to play a small part in the replenishment of the resources.

The sector is characterized by a high degree of concentration. In 2001, just eleven plants accounted for 70% of the total production; 72% in the first quarter of 2002; and 63% in the second quarter.

Of the total quantity of cotton fabrics produced in Russia, 24.1% was exported in 1999; 24.9% in 2000; 21.6% in 2001; 17.9% in the first quarter of 2002; and 20.8% in the second quarter. Coarse cloth coded TH VED 5208 accounted for most of the exports (93% in the second quarter of 2002).

The main importers of Russian cotton fabrics are non-FSU foreign countries. Imports command a small share of the Russian cotton fabric market.

FORECASTS

According to forecasts, by 2010 the sector will have reached up to 60% to 65% of the 1991 level,

Table 3. Cotton Yarn Production in Russia (M/T)

2001		2002 – 1st quarter		2002 – 2nd quarter	
Production	Stocks	Production	Stocks	Production	Stocks
297,317	2,821	79,730	3,281	69,650	2,928

Table 4. Cotton Fabric Production in Russia (000 sq/mts)

2001		2002 – 1st quarter		2002 – 2nd quarter	
Production	Stocks	Production	Stocks	Production	Stocks
2,087,193	21,726	599,850	32,339	559,272	33,282

which translates into 600,000 to 650,000 metric tons of yarn and 2.9 to 3.1 billion square meters of fabric. Under favorable economic assumptions, in 2010, the annualized total volume of processed cotton will amount up to 580,000 metric tons.

The cotton-processing sector will grow primarily through increasing the production of the following fabric varieties:

- Over 150 cm in width.
- Blended with synthetics.
- Finished in special ways: crease-resistant and sanforized; embossed; glossy; and better able to retain the original shape thanks to the use of polyurethane thread.
- Made of cotton-flax yarn containing up to 30% of flax cottonin.

The primary synthetics used in the cotton sector are polyester and polyacrylonitrile fibers as well as high-modulus and regular viscose fibers. Currently, only regular and high-modulus viscose fibers are produced in Russia; there is no production of polyester or polyacrylonitrile fibers.

Blended into cotton fabrics, synthetic fibers reduce cotton consumption and produce competitive fabrics meeting the requirements of the world market. The 2010 demand for synthetic fibers earmarked for use in cotton fabrics is estimated at 40,000 metric tons, earmarked for use in synthetic fabrics at 21,000 metric tons.

As for plant modernization, most of the funds will be spent on acquiring:

- In spinning
  Automated production lines for fiber loosening and blending, carding machines and drawing frames equipped with automatic linear density regulators, spinning and winding machines with automatic package removers and electronic yarn cleaners.
- In weaving
  Preparation/weaving and weaving equipment to manufacture fabrics at least 150 cm in width.
- In finishing
  Batch and continuous finishing machinery for both pure cotton fabrics and fabrics made of cotton blended with synthetic fibers and threads.

It should be noted that on August 30, 2001, the government of the Russian Federation issued Decree #638 reducing the duties on most of the imported equipment having no domestic analogs.

QUALITY

Russia has in force seven standards for cotton fibers and methods for testing: GOST 3279-76 for cotton fiber specifications; and GOST 3274.0-72 to 3274.5-72 for cotton fiber-testing. Lint standards and testing methods of Russia's leading cotton suppliers (mainly, Uzbekistan) differ from those used in Russia, creating certain difficulties when drawing cotton fiber supply contracts as well as processing imports by the Russian textile industry.

A project to harmonize the domestic and international standards has been put underway in Russia. Two testing centers—SGS (city of Ivanovo) and Wakefield (township of Bronnitsy, Moscow Region)—have been set up to evaluate lint quality and help adjudicate differences arising in the course of the trading process. Similar centers equipped with modern instrumentation for evaluating the quality of cotton fibers on the basis of international standards must be set up in all textile regions of Russia engaged in cotton trade and processing.

The contamination of imported cotton on the whole has diminished. Still, not infrequently the level of impurities exceeds the contractual figure. Under the Uzbekistan Standard OuzDSt 604:2001, the lint impurity index is defined as the total level of impurities and soft foreign matter (thus permitting to set less stringent contamination requirements). If the impurity index of the imported lint is to be further reduced, all cotton imports must be evaluated for the level of hard foreign matter (as in U.S. standards).

Table 5. Export/import of Cotton Fabrics in the Russian Federation (million sq/mts)
(Codes TH VED 5208, 5209, 5210, 5211, and 5212)

	1999	2000	2001	2002 January-June
Exports				
Total	304.2	440.6	419.8	214.3
(including non-FSU countries)	212.4	316.8	287.8	144.4
Imports				
Total	52	62.6	84.2	30.9
(including non-FSU countries)	19.4	20	40.0	19.7

Genetically Modified Products

Appendix 1

Cotton

TNVD code	Name	Import duty (as % of customs value or in euros)
5201 00	Cotton fiber not subjected to carding or combing	Duty-free
5202	Cotton waste (including spinning waste and shredded raw material)	Duty-free
5203 00 000 0	Cotton fiber subjected to carding or combing	Duty-free
5204	Cotton thread packaged or not packaged for retail sale	5
5205	Cotton yarn (except for cotton thread) containing 85 percent by weight or more cotton, not packaged for retail sale	5
5206	Cotton yarn (except for cotton thread) containing less than 85 percent by weight cotton, packaged for retail sale	5
5207	Cotton yarn (except for cotton thread) packaged for retail sale	5
5208	Cotton fabrics containing 85 percent by weight or more cotton fibers, with a surface density of not more than 200 grams per sq. meter	15
5209	Cotton fabrics containing 85 percent by weight or more cotton fibers, with a surface density of more than 200 grams per sq. meter	15
5210	Cotton fabrics containing less than 85 percent by weight cotton fibers blended primarily or exclusively with synthetic fibers, with a surface density of not more than 200 grams per sq. meter	15
5211	Cotton fabrics containing less than 85 percent by weight cotton fibers blended primarily or exclusively with synthetic fibers, with a surface density of more than 200 grams per sq. meter	15
5212	Other kinds of cotton fabrics	15
540774 000 0	Fabrics containing less than 85 percent by weight synthetic fibers blended primarily or exclusively with cotton fibers	10
5513	Synthetic fabrics containing less than 85 percent by weight synthetic fibers blended primarily or exclusively with cotton fibers, with a surface density of not more than 170 grams per sq. meter	10
5514	Synthetic fabrics containing less than 85 percent by weight synthetic fibers blended primarily or exclusively with cotton fibers, with a surface density of more than 170 grams per sq. meter	10

The laws of the Russian Federation regulating the use of genetically modified products only cover foodstuffs and medicines. Starting on September 1, 2002, all products of this category are required to carry an appropriate label.

TRENDS

Over the last two years, trading companies specializing in supplying raw materials to Russia have been abandoning toll transactions and long-term contractual relationships in favor of a different arrangement: setting up integrated associations with textile industries. This strategic choice has been made by such trading majors as Power International, Tesco, Classic Plus Textile, Texcocontract, and Step Plus Ltd. Interestingly enough, some Western cotton operators, such as the Austrian company Altro GmBH, have been actively exploring investment opportunities in the Russian textile sector. These trends have by and large provided for a stable market for cotton fiber suppliers and improved the return on the investment in lint purchases. Currently, ten major textile associations and holding companies produce 65% of the country's cotton fabrics.

Professional Associations

In order to facilitate their activities, the operators in Russia's textile market have formed a number of professional associations that provide the framework for economic and legal organization, write rules and standards, offer arbitration services, carry out informational and analytical activities, conduct workshops and discussions, and debate issues of standardization and classification of raw materials and finished products. Prominent among these associations are the Russian Cotton Society, the Moscow Cotton Chamber, the Association of Textile Industries (city of Ivanovo), and the Association of the Light Industries of the Vladimir Oblast.

RESEARCH

Russia has attempted to grow cotton on its own in order to have a domestic source of raw material. Scientists contend that the country has the potential to produce at least 100,000 metric tons of lint, which would be about 30% of the total quantity currently consumed by the textile sector. Already, six cotton plant varieties adapted to the prevailing conditions of the Russian Federation have been bred and entered in the State Register of Selection Achievements.

SOUTH AFRICA

EXECUTIVE SUMMARY

Production of cotton lint by RSA and Swaziland ginners totaled 38,634 tons for the 2001/02 marketing year (1 April to 31 March), up 30% from that of the previous year, whilst cotton lint consumption by RSA and Swaziland spinning mills increased by about 12% over that of the previous year to 72,826 tons. No cotton lint was exported in 2001/02.

For the 2002/03 marketing year, production of cotton lint by RSA and Swaziland ginners is expected to be just below 20,000 tons, 50% down from the previous season, because of the fact that many cotton hectares (irrigation and dry land) have been planted to maize, wheat and sunflower due to more favorable price prospects for these crops in relation to cotton. Cotton lint consumption is expected to reach about 77,000 tons, 6% up from last season, which means that about 70% of spinners' cotton requirements will have to be imported. No cotton lint is expected to be exported during the current marketing season. Looking ahead towards production prospects for 2003/04, early indications are that production would probably be somewhat higher than this season due to the improving international price situation.

The free trade agreement between countries within the Southern African Development Community (SADC) that has been in force since 2000 will see the RSA duty on cotton imports from SADC phased out in about 15 months' time. The full duty of R1.60/kg cotton lint is still applicable to imports from outside SADC, in respect of imports that do not qualify for rebates.

Current high levels of domestic support, mainly in developed countries, clearly inhibit the development of the cotton industry in South Africa. For this reason, a substantial reduction in trade and production-distorting subsidies remain the major objective for South Africa in the WTO negotiations. International trade rules, however, should provide enough policy flexibility to enable developing countries to provide non-trade distorting financial support to their emerging farmers.

The cotton industry has reaffirmed its objective for 30% of the domestic crop to be derived from emerging farmers by the year 2005, as cotton growing lends itself ideally to cultivation by small-holders and could play an important role to settle and enlarge the developing sector in the rural areas. Cotton SA drives this objective by way of the "Small Scale Cotton Farmers' Forum," which coordinates and monitors progress with regard to the set objective and provides an environment where positive interaction between role-players could lead to increased market access for the small cotton farmer. One of the latest initiatives was the establishment last year of a permanent training facility for small-scale cotton farmers at a local tertiary institution. About 50 small-scale farmers have been trained so far and a second round of courses involving 50 new trainees is currently underway.

In general, the textile industry showed some growth in both production and turnover, as well as in imports and exports. For the year 2001 exports of textiles were 16.8% higher than in 2000, exports of clothing were 35% higher, whilst exports of cotton textiles increased by 26% from 2000 to 2001. Due to the free trade agreement with the European Union as well as the USA's Africa Growth and Opportunity Act (AGOA), exports of textiles and clothing are expected to increase at rates of more than 3% per annum.

Table 1 shows the hectares planted and yields since 1991, whilst Table 2 reflects the supply and demand position as well as estimated average lint prices since 1991.

TABLE 1 : HECTARES PLANTED AND YIELDS FOR THE REPUBLIC OF SOUTH AFRICA
(SWAZILAND EXCLUDED)

MARKETING YEAR	HECTARES IRRIGATION	HECTARES DRYLAND	TOTAL HECTARES	YIELD* IRRIGATION	YIELD* DRYLAND	WEIGHTED AVERAGE YIELD*
1991/92	32 155	58 969	91 305	2 337	679	1 262
1992/93	19 048	28 711	47 840	2 064	402	1 063
1993/94	7 240	27 886	35 228	1 993	568	859
1994/95	11 258	55 941	68 338	2 721	623	958
1995/96	19 038	35 096	54 796	2 362	318	1 024
1996/97	17 609	72 809	90 418	2 742	778	1 160
1997/98	15 954	67 017	82 971	2 189	403	746
1998/99	20 361	69 578	89 939	2 724	580	1 065
1999/00	31 263	67 356	98 619	2 680	545	1 222
2000/01	10 486	40 282	50 768	3 107	777	1 258
2001/02	18 539	38 153	56 692	3 455	593	1 529
2002/03**	9 451	22 105	31 556	3 519	586	1 464

* *Kg seed cotton per hectare*
** *Estimate*

TABLE 2: COTTON LINT - SOUTH AFRICA* PRODUCTION, IMPORTS, CONSUMPTION AND EXPORTS (Metric Tons)
(SWAZILAND INCLUDED)

MARKETING YEAR	PRODUCTION**	LINT IMPORTS FROM: ZIMBABWE	OTHER	TOTAL LINT CONSUMED	EXPORTS	AVG. RSA LINT PRICES*** (RSA c/kg)
1991/92	49 450	8 765	18 189	67 212	4 177	472
1992/93	20 528	2 450	32 249	66 177	0	480
1993/94	15 047	10 162	39 733	64 786	0	490
1994/95	26 977	15 710	26 453	71 193	0	512
1995/96	24 063	7 268	38 977	65 607	0	635
1996/97	44 634	10 465	20 936	72 743	0	740
1997/98	31 134	24 187	27 661	83 610	0	795
1998/99	42 381	17 143	20 857	69 463	11 113	810
1999/00	53 144	11 322	17 863	75 058	6 139	820
2000/01	29 768	18 852	10 870	65 115	1 256	764
2001/02	38 634	18 516	19 112	72 826	0	962
2002/03***	19 426	est. 56 000 total imports		77 000	0	1100

** *Lint produced in the RSA & Swaziland from RSA, Swaziland, Zimbabwe, Botswana, Namibia and Mozambique seed cotton.*
*** *Estimates*

OVERVIEW: 2001/02 MARKETING YEAR

Production

Production of cotton lint by RSA and Swaziland ginners totaled 38,634 tons for 2001/02 (1 April to 31 March), up 30% from that of the previous year.

The RSA grown cotton crop showed an increase of about 34% over that of the previous season. Total hectares planted to cotton were 12% up from the previous season (77% more hectares under irrigation) mainly due to the more favorable price prospects at planting time towards the end of 2000.

About 89% of the cotton lint production of 38,634 tons was produced by local ginners from cotton grown in the RSA whilst approximately 6% of the production was produced from cotton grown in Swaziland. The balance of about 5% represents Zimbabwe, Botswana and Namibia cotton purchases, ginned in the RSA.

Consumption and Trade

Although the total lint consumption of 72,826 tons by RSA and Swaziland spinning mills for 2001/02 was 12% up from the previous year mainly due to increased garment exports, it was still 13% less than the 1997/98 record consumption of 83,610 tons. The market share of cotton in the RSA textile fiber market for 2001 is estimated at 27.1%, down 2.5% from the previous season.

Spinning mills imported 37,628 tons of cotton lint, about 26% more than in the previous season. Although Zimbabwe and Zambia are still the main suppliers, accounting for about 61% of total imports, Zimbabwe's share of imports fell from 63% last year to 49% this year. The average domestic lint price is estimated at R9.62/kg, 25% higher than the previous year's average, mainly due to the weakening of the South African rand against the U.S. dollar since the latter part of the previous year.

No cotton lint was exported in 2001/02.

OUTLOOK: 2002/03 MARKETING YEAR

Production

Production of cotton lint by RSA and Swaziland ginners for 2002/03 is expected to be just below 20,000 tons, a 50% decrease over the previous season. Approximately 16,300 tons are estimated to be produced from RSA grown seedcotton, whilst the balance of about 3,000 tons relates to expected seedcotton purchases from neighboring countries, 50% of which is from Swaziland. The decrease in production can mainly be attributed to an estimated 44% decrease in total hectares due to the poor price prospects at planting time last year and the fact that many cotton hectares (irrigation and dry land) were planted to maize, wheat and sunflower because of more attractive returns from these crops in relation to cotton

Looking ahead towards production prospects for 2003/04, early indications are that production would probably be somewhat higher than this season due to the improving international price situation.

Consumption and Trade

International cotton prices are extremely low due to high levels of subsidies, mainly by developed countries. These low prices seriously impede the development of the local industry. The same applies to cotton production in other countries of the SADC region. To enable countries in the region to share in the benefits of international trade, real structural changes are necessary in developed countries to ensure fair competition on the basis of comparative advantage.

Due to a lack of resources, tariffs is the only policy instrument available to developing countries to protect local producers against unfair competition from highly subsidized producers. SA, supported by many developing countries, sees a very strong link between further market access commitments by developing countries and substantial reductions in domestic support by developed countries.

For developing countries, high tariffs on value-added cotton products remain a problem. To stimulate the secondary cotton industry in developing countries, tariff peaks and tariff escalation on cotton products must be addressed in the current WTO agricultural negotiations.

For 2002/03, expectations are that cotton lint consumption will continue to grow due to increased exports under the African Growth and Opportunity Act (AGOA) agreement. It is expected that consumption will reach 77,000 tons this season, an increase of almost 6% over that of the previous season. Due to the small crop, it is expected that more than 70% of local spinners' cotton requirements will have to be imported during the current marketing year.

To protect the local cotton industry against subsidized low priced lint imports, a duty on the importation of cotton lint of R1.60/kg has been in force since 1992. However, due to the fact that the RSA is currently not in a position to satisfy the demand for cotton from domestic production, a rebate of 100% of the duty is allowed on cotton lint imports by way of a permit system administered by the Department of Agriculture. The free trade agreement between countries within the Southern African Development Community (SADC) that has been in force since 2000, will see the RSA duty on cotton imports from SADC scaled down to zero in equal installments within five years from implementation. The current duty applicable to SADC countries of R0.60/kg (effective since January 2002) will be further reduced with effect from January 2003 and be completely phased out 15 months from now. The full duty of R1.60/kg cotton lint is still applicable to imports from outside SADC, in respect of imports that do not qualify for rebates.

Due to the small crop and higher consumption, no cotton lint is expected to be exported during the current marketing season.

The average price paid to growers for seedcotton delivered for sale in 2002/03 is estimated to be over R3.00/kg, which is about 18% up from the average of R2.54/kg of the 2001/02 season.

DOMESTIC STRUCTURES

Following the demise of the Cotton Board at the end of 1997, a non-profit seeking cotton industry service company, namely Cotton SA, was founded by role-players. The main functions of Cotton SA, in no way involved in the marketing of cotton and which is representative of the South African cotton industry, are the following:

- The rendering of information services to all role players.
- The promotion of cotton production and usage.
- The maintenance of quality standards and norms and the provision of training.
- The coordination of research.
- The facilitation of the development of the small-scale cotton farming sector.
- To act as the representative industry forum.

As far as the facilitation of the development of the small scale cotton farming sector is concerned, the cotton industry has reaffirmed its objective for 30% of the domestic crop to be derived from emerging farmers by the year 2005, as cotton growing lends itself ideally to cultivation by small-holders and could play an important role to settle and enlarge the developing sector in rural areas. Cotton SA drives this objective by way of the "Small Scale Cotton Farmers' Forum," which coordinates and monitors progress with regard to the set objective and provides an environment where positive interaction between role-players could lead to increased market access for the small cotton farmer. One of the latest initiatives was the establishment last year of a permanent training facility for small-scale cotton farmers at a local tertiary institution. Since its inception, about fifty small scale farmers have completed the course consisting of four training modules and a second round involving fifty new trainees is currently underway.

QUALITY CONTROL

Participants

- **Ginners** who participate, submit samples to Cotton SA on a bale-for-bale basis to receive a grading certificate used as a base for the local marketing of their crop.

  Ginners who are responsible for their own grading and classification submit full results of their analysis to Cotton SA at year-end.

- **Spinners** utilize the service mainly due to the fact that comprehensive HVI information is available for all assessable lint characteristics required for the preparation and production of the various quality blends, as well as the monitoring of imported and local cotton in relation to the purpose for which it was purchased.

- **Producers** submit samples for grading and classification purposes mainly to check the consignment in terms of that for which it was purchased and/or to obtain information concerning the expected quality of their crop.

- **The Research Institute for Industrial Crops** and other relevant organizations also submit samples to the Quality Control Division for testing purposes in order to evaluate the various selections of new and present cultivars, as well as advanced breeding lines still in the pipeline.

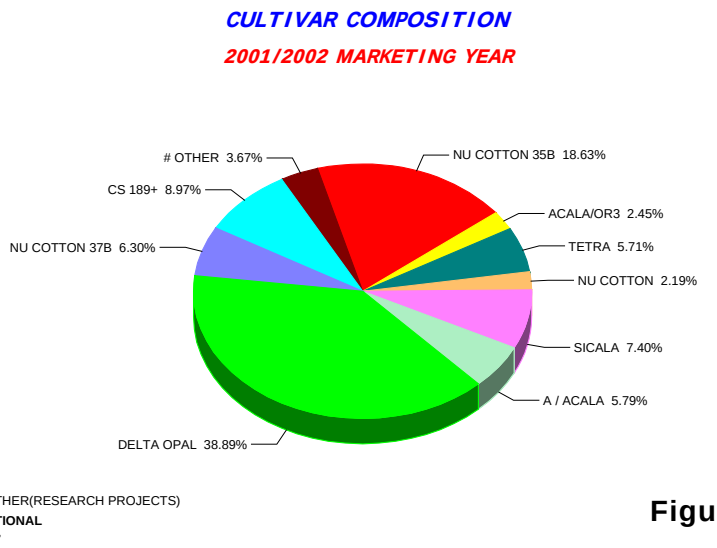


Figure 1

Performance of Cultivars

A cultivar composition of the South African cotton crop (including Swaziland, Botswana and Namibia) as well as the percentage contribution of each cultivar for 2001/02 is illustrated in Figure 1.

Some notes on cultivar performance:

- Cultivars such as Delta OPAL, NuCOTN 35B and CS189+ performed exceptionally well in most of the irrigated cotton producing areas.

  √ In the Weipe area in the Limpopo Valley (Northern Province), CS189 and Delta OPAL were the major contributors towards the premium classes such as AX/AO.

  √ This refers to cotton with a minimum staple length of 1 1/8", a minimum micronaire value of 3.50 and fiber tenacity well in the excess of 28gms/tex (Pressley 1/8 gauge value).

- Sicala with a market share of 7.40%, compared to the previous year's 19.75%, is mostly planted in the Loskop Valley and also produced AO (1 1/8 staple) cotton, which from a marketing point of view is well accepted in the spinning industry.

- Tetra, NuCOTN 35B and Alba-Acala (which is grown in Swaziland) are normally classed in the 1-1/16"–1-3/32" staple group (1.06-1.09 inches) with fiber tenacity values ranging from 25-30 gm/tex (HVI level). This quality description is, within the South African context, referred to as A2/A1 cotton.

- It is expected that NuOPAL will replace Delta OPAL in the forthcoming season as it was very well accepted by farmers.

- In total, only four cultivars have been recommended by Cotton SA for commercial production in the RSA for the coming season (scaled down from eight varieties recommended last year) to facilitate the production of a more homogenous and uniform cotton

TABLE 3

GRADE BREAKDOWN		PRODUCTION YEAR	
USDA Standards (White)	SA Equivalent	2000/01 %	2001/02 %
Good Middling	Deal	18.10	20.30
Strict Middling	Dirk	19.07	23.36
Middling	Doly	31.88	36.48
Strict Low Middling	Duns	19.11	14.01
Low Middling	LFY	6.49	2.65
Good Ordinary	* BSG	5.31	3.21
Below Good Ordinary	Undergrade	0.04	0

** BSG - BELOW STANDARD GRADE*

TABLE 4. GRADE & STAPLE BREAKDOWN – 2001/2002 MARKETING YEAR

Fibre Tenacity	25-30 gm/tex (HVI Level)										
Staple	**1 3/16"**	**1 1/8"**	**1 1/8"**	**1 3/32"**	**1 3/32"**	**1 3/32"**	**1 1/16"**	**1 1/16"**	**1 1/32"**	**BSG**	**Total %**
Micronaire	**3.50/4.90**	**3.50/4.90**	**3.30/3.49**	**3.50/4.90**	**3.30/3.49**	**3.00/3.29**	**3.50/4.90**	**3.30/3.49**	**Min 3.00**	**Below 3.00**	
Good Middling %	1.16	12.99	0.05	5.65	0.02	0.05	0.31	0.00	0.06		20.30
Strict Middling %	0.82	9.30	0.43	11.58	0.18	0.25	0.66	0.00	0.14		23.36
Middling %	0.94	12.36	0.49	19.08	0.13	0.40	2.53	0.00	0.54		36.48
Strict Low Middling %	-	-	-	11.37	0.21	0.22	1.55	0.00	0.67		14.01
Low Middling %	-	-	-	1.72	0.01	0.11	0.52	0.00	0.30		2.65
BSG (Below Low Middling) %	-	-	-	-	-	-	-	-	-	3.21	3.21
U/grade %	-	-	-	-	-	-	-	-	-	0.00	0.00
TOTAL %	2.92	34.65	0.98	49.39	0.55	1.03	5.57	0.00	1.70	3.21	100.0

NOTE: BSG (Below standard grade cotton)

for the local market. One of these varieties is limited to one production area only, whilst the other three are recommended for all production areas. The three cultivars are Delta OPAL (conventional cotton), NuOPAL (Bt variety) and DP5690RR (Roundup ready variety). A stacked gene variety (Bt and Roundup ready) is currently awaiting registration and is expected to be commercially available soon.

Some notes on the performance of the SA Cotton crop:

- Grade performance compared to the previous season was very similar except for the fact that the Below Standard grade (BSG) cottons decreased from 5.31% to 3.21%.
- BSG refers to cotton with a micronaire value of below 3.00 and/or 1" (25.4mm in staple) or both. It can also be cotton that did not adhere to the LFY or Low Middling white grading standards. Strength values must be a minimum of 70,000 P.S.I. (0 gauge) or below 22 gm/tex (HVI level).
- 89.52% of all cotton produced in the RSA was within a staple range of 1-3/32" to 1-5/32" (1.09–1.17 inches). The contribution with regard to the 1-1/16" (1.06 inches) cottons came to 5.57% with a very small percentage of cotton being within a staple range of 1–1-1/32" (1.0–1.03 inches).
- 83% of the crop was within a prime micronaire range of 3.5–4.9 whilst high strength values averaging 28 gm/tex (HVI level) were maintained.

Table 3 reflects the grade composition compared to the previous year and table 4 reflects the grade and staple breakdown.

LOCAL TEXTILE AND CLOTHING SECTOR

The South African economy has reacted in various ways to the changing global economic environment. This was influenced by the greater competitiveness of South African producers, brought about by cost-cutting programs and the competitive gains due to the depreciation in the real exchange value of the rand. The conditions in the local textile and clothing industries appeared to be also not too bad. In general the textile industry showed some growth in both production and turnover, as well as in imports and exports.

The average manufacturing volume of production index for textiles for 2001 was 1,4 % higher than in 2000 while the average for clothing was approximately 4.7% lower. Local mills have absorbed part of the market that was lost by those firms that closed down since 1999. Some firms have moved out of traditional high-volume areas into more specialized activities such as furniture and automotive fabrics and industrial applications.

Ex-factory sales for spinning, weaving and finishing increased by 9% from 2000 to 2001 and amounted to R7 billion. They are expected to increase during 2002 by approximately 5% to R7.5 billion. The value of ex-factory sales for clothing increased by 5% from 2000 to 2001.

During 2001 the total value of textile imports was R5.2 billion, 11,5% higher than 2000. The value of ready-made imported clothing increased by 9% during 2001 and amounted to R1.5 billion. It is expected that the quantity of textile imports will continue to increase. Imports of cotton textiles increased by 60% in value to about R1 billion in 2001.

Exports of textiles during 2001 amounted to R3.4 billion, 16.8% higher than in 2000. Exports of clothing in 2001 amounted to R1.9 billion, 35% higher than in 2000. Exports of cotton textiles increased by 26% from 2000 to 2001 and amounted to R0.3 billion. Due to the free trade agreement with the European Union as well as the USA's Africa Growth and Opportunity Act (AGOA), exports of textiles and clothing are expected to increase at rates of more than 3% per annum.

Due to the increase in international oil price and the depreciation of the rand, it is expected that there will be steep price hikes for inputs. This will have a negative impact on the prices of consumer goods and it will be very difficult for the textile industry to contain price increases to the minimum.

Although there are no apparent investments in new mills, the local industry in general is doing its best to expand and to be competitive against low priced imports. Imported raw materials based on dollar prices will continue to have an impact on local production costs. However, it is estimated that the industry will continue to show signs of growth towards the end of 2002 due to increased exports.

SUDAN

INTRODUCTION

Background

Sudan with an area of 2.5 million square kilometers is the largest country in Africa. The country has great untapped potential for agricultural development. About one third of the total area is suitable for crop or pastoral production, but only a small fraction of this land is under intensive use. The economy is heavily dependent on exports of agricultural products especially cotton, gum arabic and livestock. The country has proven potential resources in minerals and petroleum, and now oil exports constitute nearly 50% of the value of total export earnings.

Agricultural Sector

The agricultural sector dominates the economy. It provides the livelihood for over 80% of the population, accounts for about 46.4% of GDP according to 2000 statistics, and provides a big share of inputs for the country's agroindustries.

Cotton Sub-sector

More than 300,000 families in the Sudan depend on cotton for earning their livelihood. Several other thousands are engaged in cotton related activities.

Cotton proceeds constitute a considerable share of the country's foreign currency earnings.

PRODUCTION IN 2001/02

Total cotton output in 2001/02 amounted to 378,082 bales (71,336 M/T), compared with 395,623 bales (74,650 M/T) in 2000/01. Although 2001/02 production was slightly less than the previous season, the average yield in 2001/02 witnessed a significant increase over the 2000/01 yield as shown in Table 1.

OUTLOOK FOR 2002/03

Area and Varieties

Total area cultivated to cotton in 2002/03 increased to 400,112 feddans (415,316 acres) compared with 299,713 feddans (311,102 acres) in 2001/02, an increase of 33.5% over last season acreage. This is mainly attributed to the restoration of cotton areas allotted to grains last season.

Regarding varietal acreage, lower medium staple world prices during last season compelled many farmers, especially in the Gezira scheme, to switch more area from the medium staple variety (Acala) to the ELS variety (Barakat). Table 2 shows area allotted to each variety this season compared with the previous season.

Area cultivated with Barakat nearly doubled, as it increased from 112,679 feddans grown last season to 216,096 feddans sown in 2002/03, while Acala area slightly declined from 181,034 feddans to about 169,000 feddans in 2002/03.

Crop Establishment

Reports from cotton producing areas show that crop development has advanced normally but it is too early to give a clear production outlook as sowing was only completed by mid-August 2002. However, according to a preliminary estimate based on the average yield of the last five seasons, an output of about 442,000 bales (420 lbs/ea) is expected, comprising about 240,000 bales of ELS Barakat, 200,000 bales of medium staple Acala and 2,000 bales of the short staple variety Nuba.

Exports

Exports during 2001 amounted to about 218,000 bales (41,150 M/T) compared with 232,000 bales (43,700 M/T) exported in 2000 (Table 3).

Domestic Consumption

Local consumption of cotton witnessed a sharp drop in 2001 to about 16,000 bales of 420 lbs., compared with 48,000 bales in 2000. The decline is mainly attributed to some structural problems facing the industry, which is why the textile industry assumed a considerable share of the government's relief program that will benefit some government-owned mills while others will be privatized.

Marketing Policy

The main features of Sudan's Cotton Marketing Policy have remained the same for the last fifteen years. These incorporate the following:

- Adoption of a tender system as the main method of sale, being the most flexible and fair system.
- Complete restriction of all forms of preferential treatment or any other transaction that may affect the principle of equal treatment and fair competitiveness.
- Efficient and timely execution of contracts to the best satisfaction of buyers.

Government Measures to Improve Cotton Sector

The big obstacles and problems facing the cotton sector in recent years, and the continuous decline of cotton production and its negative impact on farmers' income have awakened government concerns, which can be summarized as follows:

- Rehabilitation of the irrigation networks in the major cotton producing schemes.
- Structural reorganization of major schemes with the ultimate objective that farmers be responsible for all production operations, while the government responsibility will only be confined to the administration of irrigation networks and provision of extension services. The process of reorganization started with the largest scheme in the country, i.e. the Gezira scheme, with the assistance of the World Bank; this process will be gradually extended to other schemes. All other agricultural services like ginning, agricultural engineering operations and light railway are now in the process of being privatized.
- In an attempt to encourage cotton production, the government abolished all forms of taxes on cotton at local and national levels:
  - √ Export tax since 2000.
  - √ Local taxes and royalties since 2001.
- World cotton price distortions caused by production and export support programs applied by many producing countries (especially developed countries) have far-reaching, detrimental implications on the economies of developing countries which cannot afford to apply such programs. Sudan, being one of these adversely affected developing countries, strongly calls for the removal of all measures distorting international trade and cotton production, and in this regard, strongly supports the proposal of the Working Group on Government Measures (WGGM) on strategies for successful negotiations at the WTO for the reduction and eventual elimination of government measures.

COTTON RESEARCH PROGRAM

Cotton research is pillared upon the following specialties:

- Variety improvement
- Cotton stickiness and testing technology
- Agronomy and plant physiology

The objectives of the program are

- Varietal improvement for higher yields, earliness, disease and insect resistance.
- Diversification of the intrinsic quality by breeding new styles and varieties having different balances of fiber characteristics, measuring up to progress in textile and spinning technology.

- Vertical upgrading of productivity via generation of multidisciplinary technological packages that fit into the integrated crop management (ICM) strategy and with concomitant reduction in production costs.

Variety Improvement

Breeding

The number of released varieties to date is more than fifty. Of these fifty releases only six are currently grown either commercially or in limited propagation plots. These are Barakat 90(EFC), Barakat S(EFC), Barac(67), Acala(93)H(HA), Albar(57)12(CC) and Acrain(CC). Encouraging research efforts have been exerted to replace the long grown current varieties Barakat, Barac(67)B, Albar(57)12, and Acrain, and to extend the quality range to the (FC) and (HA) cotton types. Hundreds of lines are emerging from crossing and selection programs of individual breeders. Efforts are being directed toward multiplying and market testing of the variety Acala(93)H. The project also contains very promising advanced lines (twenty eight) resistant to a new strain (post-Barakat) of bacterial blight, and other plant characters such as okra leaf (two lines), hairiness (many lines) and frego bracts (four lines) that will reduce insect-pest damage. The breeding for fusarium wilt resistance has resulted in S-pima (Sudan Pima), which is the top quality extra-fine count cultivar excelling Barakat in length, strength and fineness, in addition to OLB (Okra Leaf Barakat), which is a selection from a cross between Barakat and Pima Okra. It is early maturing, high yielding and has more GOT compared to Barakat. Biotechnological research is being focused on the production of doubled haploid cotton and molecular tagging of useful traits for market-assisted selection.

Genetic Resource Management: Evaluation of Shambat Collection

The Shambat Collection was once the world's richest gene bank for cotton. It includes about

Table 1. PRODUCTION

Scheme& Variety	2000/01 Season	2001/02 Season	Percentage Increase
	Yield of seedcotton per feddan (in kantars of 315 lbs)	Yield of seedcotton per feddan (in kantars of 315 lbs)	
Barakat: (ELS)			
Gezira	**4.62**	**5.10**	**10%**
Acala (M.S)			
Gezira	**4.78**	**5.74**	**21%**
Rahad	**3.60**	**4.47**	**24%**
Girba	**3.97**	**4.23**	**7%**
Suki	**3.85**	**4.25**	**10%**

Table 2. VARIETAL ACREAGE

Variety	2002/03 Season		2001/02 Season	
	Feddans	Acres	Feddans	Acres
Barakat (E.L.S)	**216,096**	**224,308**	**112,679**	**116,961**
Acala (M.S)	**169,016**	**175,438**	**181,034**	**187,913**
Nuba (S.S)	**15,000**	**15,570**	**6,000**	**6,228**
Total	**400,112**	**415,316**	**299,713**	**311,102**

Table 3. EXPORTS

Year / Variety	1997	1998	1999	2000	2001	2002*
Barakat (ELS)	**59,567**	**110,605**	**68,886**	**85,047**	**54,241**	**41,684**
Shambat - B (L.S)	**21,541**	**-**	**700**	**995**	**100**	**-**
Acala (M.S)	**326,516**	**260,118**	**116,337**	**146,165**	**163,777**	**197,905**
Nuba&Acrain (S.S)	**6,072**	**3,000**	**5,112**	**-**	**-**	**-**
Total	**413,696**	**373,723**	**191,035**	**232,207**	**218,118**	**239,589**

*** Upto August.**

Table 4. AREA BY VARIETY (IN THOUSAND FEDDANS (ONE FEDDAN=1.038 ACRES)

VARIETY	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03*
EXTRA LONG STAPLE (BARAKAT)	**47**	**81**	**122**	**146**	**95**	**71**	**97**	**85**	**120**	**216**
LONG STAPLE (SHAMBAT-B)	**55**	**43**	**22**	**8**	**-**	**-**	**-**	**-**	**-**	**-**
MEDUIM STAPLE (ACALA)	**160**	**292**	**427**	**394**	**290**	**179**	**279**	**297**	**198**	**169**
SHORT STAPLE (NUBA&ACRAIN)	**-**	**-**	**-**	**115**	**36**	**28**	**11**	**21**	**31**	**15**
TOTAL	**262**	**416**	**571**	**663**	**421**	**278**	**387**	**403**	**349**	**400**

*** ESTIMATE**

Table 5. YIELD PER FEDDAN OF SEEDCOTTON IN KANTARS OF 315 LBS

VARIETY & SCHEME	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/ 01	2001/02
EXTRA LONG STAPLE (BARAKAT)											
GEZIRA	4.6	3.89	3.8	4.46	3.75	3.76	4.07	4.0	2.9	4.62	5.1
BLUE NILE	-	-	1.25	-	-	1.50	-	-	-	-	-
WHITE NILE	-	-	-	2.66	3.50	1.50	-	-	-	1.61	0.56
LONG STAPLE (SHAMBAT)											
GIZIRA	5.67	4.4	3.28	3.3	5.02	-	-	-	-	-	-
SUKI	-	-	-	-	-	-	-	-	-	-	-
WHITE NILE	-	-	-	2.23	2.80	-	-	-	-	-	-
BLUE NILE	5.0	2.0	2.25	3.27	3.0	2.0	-	-	-	-	-
MEDIUM STAPLE (ACALA)											
GEZIRA	5.85	3.85	3.66	4.22	4.45	4.30	4.62	4.64	2.7	4.78	5.74
BLUE NILE	-	-	-	-	3.50	2.0	1.55	2.50	2.4	2.1	2.0
WHITE NILE	-	-	-	3.38	3.0	2.2	1.8	3.75	2.6	2.57	3.0
RAHAD	6.23	4.25	4.12	5.2	5.0	5.22	5.03	3.0	2.5	3.6	4.47
GIRBA	4.63	3.50	3.02	4.03	3.15	3.16	3.90	2.88	3.58	3.97	4.23
SUKI	-	-	-	2.54	3.50	2.90	2.72	3.05	3.4	3.85	4.25

Table 6. COTTON PRODUCTION IN THOUSAND BALES (420 LBS)

Variety	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03
Barakat (E.L.S)	37	77	90	119	94	67	61	97	139	240
Shambat(L.S)	41	31	18	3	-	-	-	-	-	-
Acala (M.S)	167	329	439	404	346	173	212	297	238	200
Nuba& Acrain (S.S)	-	-	-	27	21	2	2	2	1	2
TOTAL	245	437	547	553	461	242	272	396	378	442

800 accessions of wild, semi-wild and cultivated species. Every season about 50-80 accessions are characterized. Morphological, phenological and yield-related characteristics have been documented for about 200-250 of wild and cultivated collections and the process is continuing.

Variety Maintenance

Maintaining an existing cultivar is more important than developing a new one. Due emphasis is put on variety maintenance, which is one of the major concerns of the program. Nevertheless, seed mixtures have been reported despite the presence of morphological differences and color markers.

Seed Production

Cottonseed multiplication and certification is receiving top priority by the Cotton Research Program (CRP). The program is continuing with the organization of intensive training courses for the seed production staff in various cotton growing corporations. The program provides breeder seed and supervises the production of foundation seed.

Table 7. SUDAN COTTON PRODUCTION IN BALES OF 420 LBS AND M/T FOR 2000/01 AND 2001/02

Producer	Variety	2000/01		2001/02	
		Bales	M/T	Bales	M/T
Extra Long Staple					
Gezira	Barakat	92,681	17,487	137,834	26,006
Others	"	4,611	870	1,397	264
Total Barakat		97,292	18,357	139,231	26,270
Medium Staple					
Gezira	Barac (67)B	164,380	31,015	138,423	26,118
Rahad	"	41,605	7,850	24,276	4,580
Girba	"	44,007	8,303	43,776	8,260
Blue Nile	"	14,538	2,743	5,987	1,130
White Nile	"	15,718	2,966	10,100	1,906
Suki	"	16,447	3,103	15,910	3,002
Total Acala		296,695	55,980	238,472	44,996
Short Staple					
Nuba	Acrain	1,636	309	379	72
Total Short		1,636	309	379	72
G.Total		395,623	74,646	378,082	71,338

Table 8. EXPORTS OF SUDAN COTTON IN THOUSAND BALES OF 420 LBS (CALENDAR YEAR)

YEAR	QUANTITY
1991	461
1992	391
1993	288
1994	417
1995	373
1996	414
1997	414
1998	374
1999	191
2000	232
2001	218
2002 (up to August)	240

Table 9. MONTHLY SHIPMENTS FOR THE LAST THREE SEASONS (IN BALES OF 420 LBS)

MONTH	1999/00	2000/01	2001/02
AUGUST	24,986	14,731	21,143
SEPTEMBER	10,206	16,715	22,264
OCTOBER	15,928	13,339	11,229
NOVEMBER	25,301	16,932	42,253
DECEMBER	18,070	24,810	26,264
JANUARY	6,856	27,422	35,021
FEBRUARY	13,804	9,906	22,287
MARCH	32,707	21,472	33,194
APRIL	36,602	7,273	38,435
MAY	17,603	11,084	16,320
JUNE	14,888	7,749	31,281
JULY	23,220	10,059	30,536
TOTAL	240,171	181,492	330,227

Table 10. LOCAL CONSUMPTION (IN BALES OF 420 LBS)

YEAR	EXTRA LONG STAPLE	LONG STAPLE	MEDIUM STAPLE	TOTAL
1992	17,309	7,700	72,035	97,044
1993	29,550	4,900	33,904	68,354
1994	10,216	3,255	52,467	65,938
1995	7,600	-	47,400	55,000
1996	4,997	-	69,529	74,447
1997	9,846	-	58,329	68,835
1998	-	-	49,577	49,577
1999	-	-	43,681	43,681

Cotton Stickiness and Testing Technology

Fiber Testing

All material from single plant selections through lines and varieties is tested for stickiness, lint outturn and quality characteristics. The laboratory also performs studies on spinability (classical and open-end micro-spinning) and determines yarn strength and defects (neps and irregularities).

Stickiness

The following research efforts are in progress to alleviate the stickiness problem.

- Effect of soil moisture, sowing date and picking time on stickiness.
- Testing facilities to detect stickiness levels (physical and chemical):
  - √ Mini-card
  - √ SCT
  - √ Chemical test of total soluble sugars
- Research into methods likely to improve the spinning process and the quality of the yarn depending on the sticky potential of the cotton.
- Future mapping of zones varying in stickiness indices.

Agronomy and Crop Physiology

Cotton cultural practices are always being evaluated in light of new developments. Guidelines for agronomic research are as follows:

- Evaluation of planting date on crop growth and yield.
- NPK fertilizer management experiments in different production zones.
- Response of cotton to several soil moisture depletion levels.
- Evaluation of a new agronomic package for the okra-leaf type cotton, Sudac-K.
- Yield and quality response to several spacing arrangements in Sudac-K, Acala 93(H) and Barac (67)B.

- On-farm trials in different production zones for verification of the results obtained at research stations.
- Development and application of an integrated management system for cotton production.
- Irrigation scheduling via infrared thermometry or soil moisture content instead of calendar days.
- Investigation into causes of excessive growth and use of plant growth regulators (PGRs) to curtail it.
- Effect of seed rates, methods of delinting and dressing treatments on plant growth, seedcotton yield and quality
- Studies into chemical defoliation to facilitate mechanical picking and reduce contamination with honeydew.
- Generation of technical packages that fit both, ecologically-different zones and variability in crop duration (short, medium and late varieties).

Table 11. QUALITY DATA OF COMMERCIAL AND PROSPECTIVE VARIETIES

VARIETY	FIBRE LENGTH 2.5% SL (MM)	FINENESS MATURITY		BUNDLE STRENGTH STELOMETER (1/8) G/TEX
		M.V.	FIN MIL TEX	
1- COMMERCIAL VARIETIES:-				
BARAKAT(S)	34-36	3.4-3.6	133	27-30
BARAKAT	33-35	3.5-4.0	150	26-28
BARAKAT(90)	32-34	3.7-4.2	160	27-29
SHAMBAT-B	31-33	3.5-3.9	145	22-24
BARAC(69)2	28-30	3.6-3.9	160	22-23
BARAC(67)B	27-28	4.0-4.2	170	21-22
ACALA(93)H	29-30	4.7-4.9	185	20-21
ALBAR(57)12	25-27	4.1-4.5	195	19-20
ACRAIN	25-27	3.4-4,0	190	17-20
2- PROSPECTIVE VARIETIES:				
S.PIMA	34-36	3.5-3.9	130	28-30
O.L.B.	31-33	3.3-3.8	140	24-27
CATCO-1	26-28	4.0-4.3	191	20-21
CATCO-2	27-28	4.1-4.4	193	20-21

TANZANIA

COTTON SITUATION

Cotton production in 2002/03 is forecast at 62,100 tons compared to 50,335 tons last season, up by 2% but still 36% below the record crop obtained in 1992/93. As of 30th September 2002, 175,000 tons of seedcotton, equivalent to 60,375 tons of lint, had been purchased. An additional 1,725 tons is likely to be purchased before the end of October 2002.

Three factors may have contributed to increase production this season, namely good producer prices paid to farmers last season, timely availability and delivery of cotton inputs and generally favorable weather this season in the major cotton growing areas. Nevertheless, productivity remains extremely low in Tanzania, in part due to lack of credit financing for input procurement following the demise of "interlocked transactions" previously handled by regional cooperative unions, and poor crop management. Average yield now stands at 276 kg per ha. in the western cotton growing area (WCGA), where over 90% of the crop is grown.

Summary of Improvements in Recent Years

As intimated last year, the government of Tanzania, in collaboration with other stakeholders in the cotton industry, continues to address all pertinent constraints affecting the performance of the cotton sector in order to achieve the intended production goals.

Additional steps being taken to enhance the implementation of the Cotton Sector Development Strategy include:

- Establishment of a cotton input scheme that will enable farmers to pay for input requirements at the time of selling, starting in 2003/04.
- Introduction of bath acid and mechanically delinted seed for planting, effective next season.
- Replacement of current mixed varieties with a single variety, UK 91, to be grown all over the WCGA.
- Establishment of a marketing information system through which stakeholders will have easy access to relevant information.
- Strengthening of farmer groups and rationalizing to cotton marketing outlets in order to improve cotton quality and data collection pertaining to production.
- Privatization of the monitoring and quality control services at the ginnery.
- Installation of a new state of the art High Volume Instrument Spectrum II in August 2002, to ease classing. Effective next season, all bales will be classed using HVI.
- Formalization of Tanzania's participation in the African Growth and Opportunity Act (AGOA) to enhance internal cotton consumption.

Research and Development

Cotton research in Tanzania has been addressing the following issues in order to increase pro-

ductivity as well as reduce the cost of cotton production in general:

- Development of improved varieties adapted to the changing production and marketing requirements.
- Development of appropriate pest management practices, including promotion of the use of scouting techniques and botanical insecticides such as Neem and Tephrosia vogeli among others, in order to reduce cost of production.
- Development and demonstration of improved production practices.

Exports

During the 2001/02 season, Tanzania exported 37,207 tons of cotton lint valued at US$35.1 million, which represents 73% of the total production. The major markets included Indonesia, China (Taiwan), Malaysia, Kenya, Thailand, Bangladesh, India and Portugal.

Exports for 2002/03 are estimated at 41,272 tons, 11% higher than last season. Exports during July, August and September 2002 were 9,718 tons valued at US$7.6 million.

Local Consumption

During 2001/02, local textile mills consumed a total of 13,678 tons compared to 9,740 tons the previous season, an increase of 40% or 3,938 tons. The increase in local consumption is attributed mainly to the determination of some of the textile mills to utilize the AGOA scheme, which provides for duty free and quota free access to the U.S. market without limits for apparel made in eligible sub-Saharan African countries.

OUTLOOK FOR 2003/04

Given favorable weather conditions, cotton production during 2003/04 is forecast at 72,864 tons. This represents an increase of about 20% or 12,144 tons. Three main considerations have been taken into account in forecasting such an increase, which are:

- Higher farm gate prices this season are likely to motivate farmers to cultivate more cotton and improve productivity.
- Continued provision of farm inputs to farmers at affordable prices will reduce cost of production and improve productivity and quality.
- Introduction of delinted seed will help engender the use of appropriate and labor saving agronomic practices resulting in increased yields.

TOGO

IMPORTANCE OF COTTON IN THE ECONOMY OF TOGO

Togo occupies a strategic position in West Africa as a result of its geographic location, human resources and economic potential. The country covers 57,000 square kilometers and has a population of approximately 4.7 million, with an annual growth rate of 3.1%.

Although Togo does possess mineral resources, most importantly phosphate, it is essentially an agricultural country. Agriculture occupies roughly 60% of the working population and accounts for 36% of gross national product. The main food crops are maize, sorghum, millet, cassava and yams. The cash crops are cotton, coffee and cocoa.

Despite a decline in output during 1999/00 and 2000/01, cotton remains the leading industrial crop in Togo, as well as the leading cash crop for farmers.

The cotton growing area covers some 80% of the country, which, in terms of latitude, makes it one of the most extensive cotton growing areas of all West Africa. From north to south, cotton is grown in a great variety of natural and human situations in Togo.

COTTON PRODUCTION

The cotton crop is well integrated into the country's farming systems and has achieved significant gains in output since the 1980s. Output rose from 23,800 tons in 1980/81 to 187,700 tons in 1998/99.

This totally manual operation is characterized by a large number of small holders with very small-sized farms per grower, barely 0.5 of a hectare each, and relatively low yields.

Although Togolese cotton research has developed some very interesting varieties that are capable of producing good yields, cotton production in Togo runs into a number of common constraints at the farm level.

The main constraints are

- Uncertain rainfall conditions.
- Declining soil fertility in some cotton growing areas.
- Under-utilization of inputs such as inorganic fertilizers.
- High cost of inputs.

The Togolese cotton industry has experienced difficulties in recent years that have led to a drop in output. From 187,700 tons in 1998/99, output fell to 133,900 tons in 1999/00 and 117,400 tons in 2000/01.

This drop in output is due to unfavorable weather conditions, particularly the poor distribution of rainfall over time and space; a substantial loss of motivation on the part of farmers who have stopped growing cotton as a result of late payments and the downward adjustment of the seedcotton purchase price at the 1999/00 harvest; and a disorganized system of outreach and support for farmers.

The main consequences of this situation are

- A substantial decline in cotton income for farmers.
- A significant loss for the entire national economy due to the drop in export earnings and all the subsidiary effects on national economic activities.
- Difficulties in recovering seasonal credit for inputs from cotton growers.
- Obvious difficulties for ginning companies (SOTOCO, SICOT, SOPIC), which have been unable to obtain a sufficient volume of seedcotton for their operations.

Fortunately, special efforts made in 2001/02 to remobilize farmers and stimulate output proved to be successful. Output rose to 168,340 tons grown on 164,925 hectares, for a yield of 1,021 kilograms per hectare.

Research and Development

Togo has impressive cotton research programs that have led to the development of several varieties that are well recognized, highly valued and now grown in several countries of the West African sub-region. An effective technical approach has also been developed. Togo participates in the sub-region's research networks.

Input Supply

To provide growers with access to inputs of sufficient quantity and quality in line with annual production schemes, SOTOCO (Société Togolaise du Coton) assesses the needs of growers' cooperatives, consolidates these needs and then places an order with private local or foreign suppliers.

Once the inputs (fertilizers, insecticides) arrive at the Lomé port authority, they are delivered to the cooperatives on credit through a mechanism that allows private transporters to move the inputs directly into the cooperatives' warehouses.

Cooperatives then take responsibility for the internal distribution of inputs to their members and for credit recovery when the seedcotton is collected. The system of input supply, as described above, works very well and results in credit recovery at the rate of approximately 98%.

Average annual consumption of fertilizers and insecticides comes roughly to 30,000 metric tons and 1,200,000 liters respectively.

Cotton Varieties

Until the year 2000, the best known and most widely grown cotton variety in Togo was STAM 45, which offers both hardiness and adaptability in addition to good agronomic and technological characteristics.

Today, only one variety is grown in Togo, namely STAM 279, which is superior to STAM 45. It provides a better yield in the field as well as a good ginning outturn, and its lint is of excellent quality (uniformity, micronaire, color).

Harvesting

The entire seedcotton harvest—a purely manual operation—and primary marketing are performed locally by growers grouped into cooperatives. However, SOTOCO trucks and private transporters carry the seedcotton to the mills. Arrangements are made each year to ensure that the seedcotton is collected and transported to the ginning facilities prior to the onset of rains.

Ginning

Ginning is performed by eight mills located throughout the country, four of which belong to SOTOCO and four of which are privately owned. These mills have a total capacity in excess of 230,000 tons and they are all in good condition. Together, they can process the country's entire seedcotton output during the dry season over a period of about five months.

The average lint yield at ginning is approximately 41.5% for the STAM 45 variety and 43% for the new STAM 279 variety.

Marketing

Togolese cotton lint is recognized for its excellent technical characteristics: grade, micronaire (3.8 to 4.2) and length of the yarn (approximately 60% long-yarn content). It is exported to the following continents in descending order of volume: Asia 74%, America 15%, Africa 5% and Europe 5%.

In an average year, Togo sells roughly 95% of its output in higher grades of cotton.

Togolese lint has always sold well in all the markets where it is known, and the country has always attached great importance to honoring all its commitments to clients.

Today, the status of the market at the international level is a major concern for Togo as current prices continue to plummet. From our perspective, it would be desirable for this trend to be quickly reversed so that an activity such as cotton growing, upon which the survival of so many people in our countries depends, does not simply disappear.

Until the year 2000, cottonseed was primarily sent to NIOTO (Nouvelles Industries Oléagineuses du Togo). However, since 2001 it has been available for export in order to receive a better return.

Prices

The price paid to growers for their seedcotton is set by a presidential decree, based on proposals from the Ministers of Agriculture, Livestock and Fisheries, and Industry, Commerce and Free Trade Zone Development. These proposals are developed by the Fiduciary Committee of the cotton industry, which is responsible for monitoring and managing the industry with respect to pricing. The proposals take into account average world prices for cotton lint, the need to preserve the industry's equilibrium and also the need to maintain farmers' interest in growing cotton.

Farmer Organizations

The development of cotton grower cooperatives and their umbrella organizations has always been one of the key mandates assigned to SOTOCO by the government of Togo, because the cotton industry provides an excellent opportunity to initiate and consolidate a movement to organize and give structure to the rural areas of the country.

Such efforts to give structure to the rural areas began in 1980 and have evolved over time. The focus is now on cooperatives which, over the past decade, have gradually taken over some of the industry's key functions. There are currently 2,600 such groups that handle all matters related to input management and seedcotton collection on behalf of growers.

To fulfill their new responsibilities, particularly those related to their representation on various bodies charged with organizing and managing the industry, the cooperatives have formed umbrella organizations. There are presently 27 prefectural unions that are in the process of joining together under five regional unions. Regional representatives of cotton growers have already been elected. The regional unions will soon form a national federation.

OUTLOOK FOR COTTON IN 2002/03

To consolidate the results of the 2001/02 crop and ensure sustainable growth in output, specific actions have been programmed and are already being implemented for the 2002/03 crop. The key goals of this crop year are to increase the amount of area planted to cotton and, in particular, to improve yield per hectare and quality. The target for 2002/03 is to produce 180,000 tons. In addition, other objectives are to make credit for inputs more secure and to improve the level of technical services provided by field agents in the form of outreach and support for cotton growers and their groups.

In the short term, Togo expects to increase its seedcotton output to more than 200,000 tons. This increase will be organized around the following critical elements, which have already received considerable attention in recent years:

- Varietal improvements in order to develop varieties that are more productive in the field and at ginning, but also well suited to the agro-climatic conditions of the cotton growing regions.
- Improvement of the technical approach to cotton growing, and greater mastery of this approach by growers.
- Efforts to control pests, particularly *Heliothis armigera*, aphids and whitefly.
- Capacity-building and greater professionalism on the part of cotton grower organizations.
- Improvement in the quality of seedcotton and cotton lint by eliminating sources of contamination that still remain despite achievements; the goal is to work toward zero contamination.

All these improvements will be made within an increasingly liberalized environment. However, the desired changes cannot be achieved unless the world price for cotton lint becomes less volatile and the liberalization mechanisms, sometimes disconnected from local realities, do not have the effect of disorganizing the national system of cotton production.

International market conditions continue to deteriorate and are now producing financial deficits in the cotton industry, especially in Africa. This situation inevitably raises the issue of support for the industry, particularly to protect the income of small cotton growers. It will be necessary to focus on developing a price guarantee and support mechanism that, in the future, can thwart ongoing declines in world prices such as we are now witnessing.

TURKEY

AGRICULTURE AND THE TURKISH COTTON INDUSTRY

Background

The agricultural sector has long been the basis of national development. The number of people actively engaged in agriculture (full and part time) is about 9.7 million (around 41% of the total labor force). Four million farm units operate in the agricultural sector and the average farm size is 5 ha. The share of agriculture in the Turkish GDP is about 14%. The most important products are cereals, cotton and oil seeds, followed by various types of fruits and vegetables.

Cotton is the basic income source for millions of people. Agroecological conditions and ages-old cotton production practices are the main advantages that have made cotton cultivation important for centuries in Turkey. Cotton is also the main raw material for some industrial products manufactured in Turkey. Thus, the contribution made by the cotton sector to the food and fiber industry continues to grow in importance.

Presently, with an annual cotton production approaching 1 million tons, Turkey ranks as the fifth largest cotton producing country in the world. Cotton is grown in four different regions covering 25 provinces. According to a present estimate, more than 300,000 farmers and their families are engaged in cotton farming and produce almost 2.5 million tons of seedcotton each year, with an average yield of 1,370 kg per hectare.

The crop value of cotton is US$1.2 billion at current market prices. Revenue by the cotton industry is estimated between US$10-12 billion. The cotton-based textile and clothing industry is an important sub-sector. Yearly, the total export volume of textiles and clothing is around US$12 billion. Cottonseed is another important component of cotton produced along with the fiber. Annual cottonseed production averages 1.4 million tons, and more than 200,000 tons of oil is extracted from delinted and crushed seeds.

As it is the case with other countries, cotton in Turkey faces competition from other crops, deeply affecting farmers' cultivation decisions. Due to world price fluctuations, total cotton cultivated area has also shown fluctuations. Inadequate irrigation, plant diseases and polluted soil are other factors causing a decrease in cotton area and yield. Despite these negative factors, average cotton yield in Turkey has increased during recent years mainly due to the use of new cotton varieties, new areas opened to cotton cultivation and improved cotton production practices.

The development of the Turkish textile and clothing industry is largely based on skilled labor force, continuous modernization and renovation investments, and advantage of the proximity to Europe, the main outlet for exports. With the availability of high quality cotton, the Turkish textile and clothing industry has been in continuous development for the last twenty years. During the 1990s, Turkey annually imported about US$1.3 billion worth of textile and clothing machinery, mostly textile machinery, thus creating a modern spinning and weaving capacity. Presently, ring yarn capacity is approximately 700 thousand tons while the open-end yarn production capacity is nearly 520 thousands tons. It is worth mentioning that textile machinery imports, which showed a sharp decrease in 2001 due to the financial and economic crises, have again started to increase in 2002.

As a result of continuous investments in the 1990s, both the production and export capacity of the industry have increased. Presently, the Turkish textile and clothing sector represents approximately 10% of the GDP, while it earns around 35% of total export revenues and provides about 2 million jobs. The export revenue of the Turkish cotton industry is estimated at around US$7 billion, a 60% of the total textile and clothing exports.

With the gradual development of the textile and clothing sectors, cotton cultivated area as well as total cotton production have continuously increased for the last twenty years. However, production has not been able to keep in pace with demand, which has now reached 1.25 million tons per year, due to the fact that it has lost ground to excessively subsidized imports of lint cotton. A continuous increase in cotton consumption has exceeded domestic production, making Turkey a net cotton importer since 1992.

Despite the expansion of cotton area and increases in yield, the growth of cotton consumption continued to remain higher than the growth of cotton production, resulting in increased imports each year. It is expected that a substantial reduction and the ultimate elimination of all sorts of subsidies in the world cotton economy will make domestic cotton much more competitive than imported cotton. Also, the completion of the GAP Project will significantly reduce the dependency of the Turkish textile and clothing industry on imported cotton.

Agricultural Policy Changes

Turkey has a tremendous potential for rural growth, but this potential has largely remained unexploited. While the overall GNP growth since 1980 is about 3.4%, agriculture grew only about one third of this rate. The share of the sector in the economy shrank from 36% to 15%. The government has still maintained an important role in the agricultural development. Different government policies and tools have been used to increase production and income of producers in different periods. State-owned enterprises and agricultural sales cooperative unions were important instruments used to implement agricultural policies through direct intervention into production and marketing activities in the past.

However, price support policies utilizing primarily the agricultural sales cooperatives unions (ASCUs) have not produced satisfactory results since most of these organizations have gradually turned into inefficient enterprises.

A policy change was needed to increase production and productivity in the agricultural sector. As part of an economic program that started being implemented at the beginning of 2000, remarkable policy changes have been introduced in the agricultural sector. The primary development objective of the Agricultural Reform Implementation Project (ARIP), also supported by the World Bank, is to assist the Turkish government in the implementation of several agricultural reforms.

Impact of Policy Changes on Cotton Production and Trade

The implementation of new policies is expected to cause considerable changes in both cotton production and marketing. ARIP includes structural reforms to agricultural sales cooperatives, which have always had a direct impact and a critical role on cotton marketing and trade.

According to the new law, adopted in June 2000, ASCUs will no longer be expected to implement any support measures on behalf of the government. They will be required to become independent, financially autonomous and self-managed organizations, dedicated to serving farmer members by selling and processing crops on their behalf and making decisions according to market signals.

Because of extremely depressed cotton prices during recent years, the government had to give some compensation to cotton growers in the form of a premium from 1998/99 onwards. However, the amount of this premium has been continuously reduced owing to budgetary constraints. The premium per kg of seedcotton was 12 cents, 10 cents, 9 cents and 70,000 TL/kg (about 5 cents) for 1998/99, 1999/00, 2000/01 and 2001/02, respectively. The premium amount for 2002/03 has not yet been determined.

Another project worth mentioning is also related to the cotton industry. The Commodities Market Development Project (CMDP), started in 1999, has the overall objective of increasing the marketing efficiency of two major agricultural commodities, namely grains and cotton. The main components of the project can be enumerated as follows:

- Modernization of seven selected commodity exchanges for cotton and grains.

- Introduction of a warehouse receipt system, thus enabling the trading of warehouse receipts instead of the physical commodity.
- Introduction and establishment of new standards for these commodities, so that trading of warehouse receipts can be extensively practiced.

Another interesting development to note is related to the establishment of a futures and options exchange company in Izmir. This exchange will first be engaged in the starting of the futures trading in cotton, which might be followed by other agricultural commodities. However, it is not yet possible to announce the likely start-up date for such trading.

Research and Development

Turkey's agricultural research system consists of research institutes of ministries, universities, state enterprises and the private sector. Currently, there is not a single national agricultural research authority directing research policies. Therefore, public organizations determine and implement their own research policies independently from each other.

The General Directorate of Agricultural Research (GDAR) of the Ministry of Agriculture and Rural Affairs (MARA) is in charge of setting priorities for cotton research and allocating resources. There are nine cotton research institutes operating under GDAR, which conduct most of the research, but the private sector has also an important role because they finance universities' research activities. During recent years, the private sector has engaged in many cotton research activities and has encouraged researchers to develop cotton quality and yield to prevent some problems stemming from fiber quality.

Cotton research activities in Turkey have mostly concentrated on breading and genetics. Researchers either from universities or from institutes focus on developing new varieties for each cotton production region. Cottonseed companies also engage in developing and adapting new varieties. Pesticides and insecticides are the other important research fields where many research activities are conducted. There are also studies on pest management for Turkey's different cotton regions.

Cotton is generally harvested by hand-picking. Contamination problems stemming from hand-picking cause serious quality problems in spinning. Hand-picking cost has a share of 15-20% in total production cost. Moreover, labor cost in Turkey has been continuously increasing. Due to these reasons, mechanical harvesting, especially in the Aegean and Southeastern regions, is now preferred by some producers. Parallel to the expansion of mechanical harvesting, universities have started making investigations to examine the effects of harvesting machines on fiber quality and ginning methods, and trying to develop suitable cotton varieties for mechanical harvesting.

Information obtained in research activities is disseminated through conferences, workshops and meetings organized by institutions. MARA local extension workers transfer this information to cotton producers in production areas.

MARKET DEVELOPMENTS

Production

Cotton production figures since 1990/91 are given in Table 1. Fluctuations in total cotton area are mainly due to changes in domestic and world cotton prices. Farmers are highly sensitive to cotton prices. The main remarkable characteristic of this period is the continuous increase in average yield. National average yield has risen to almost 30% in ten years. The rise in yield has compensated some of the decreases in area and production.

Depressed world and domestic cotton prices since mid-season 1998/99 caused immediate and sharp decreases in consecutive seasons. Due to depressed cotton prices, the government decided as an emergency measure to reintroduce the production premium system in 1998/99, which eased the dissatisfaction of producers to some degree. Continuity of premium payments affected farmers' decision and discouraged them from leaving cotton production. During that period, prices of alternative crops have also remained depressed. Despite low domestic and world prices for the last three seasons, cotton area has shown a slight increase, the result of a significant increase in the GAP region, as opposed to dramatic drops in the Cukurova and Antalya regions.

For the current season, it is estimated that total cotton area is about 721,077 ha., average yield is 1,370 kg/ha., and total production is 2,541,832 tons. Cotton area, production and yield figures according to cotton growing regions for the last three seasons are given in Tables 2, 3 and 4. Weather during sowing was slightly rainy in some regions, so the sowing period was delayed with no adverse impact on yield. Climate during the plant growth period was near to ideal. Early and heavy autumn rains, especially in the Aegean Region, adversely affected harvesting activities and deteriorated the quality of the cotton fiber to some degree.

As can be seen from the tables, the Southeastern Region, where there is a gradual expansion of irrigated area created by GAP, has become Turkey's largest cotton growing area. Production costs in this region are relatively lower than in the Aegean and Cukurova regions and thus, more and more producers in this region take up cotton farming.

Turkish cotton producers have been adversely affected by low world cotton prices, evidenced by high-income losses. A decrease in cotton area, which is clear when looking at regional levels, is not only causing losses to producers' income but also significant decreases in direct and indirect employment. It is calculated that farmers' cumulative income losses have been around US$2.8 billion since 1995/96 due to low world cotton prices. Furthermore, Turkey had to pay around US$3.1 billion to cotton imports during

TABLE 1
COTTON PRODUCTION AND YIELD

	Area	Production	Yield
Crop Year	(000 ha)	(000 tons)	(Kg/ha)
1990/91	641	654	1,020
1991/92	599	561	937
1992/93	637	574	901
1993/94	568	602	1,060
1994/95	581	628	1,080
1995/96	757	851	1,124
1996/97	744	784	1,054
1997/98	719	838	1,165
1998/99	756	871	1,152
1999/00	719	791	1,100
2000/01	654	880	1,345
2001/02	693	922	1,330
2002/03*	721	988	1,370

* Figures will be revised in December 2002

TABLE 2
PRODUCTION ACCORDING TO REGIONS
2000/01 SEASON

	Area	Production	Yield
Region	(000 ha)	(000 tons)	(Kg/ha)
Aegean	208.3	286.3	1,375
Antalya	12.7	14.1	1,108
Cukurova	116.1	152.7	1,315
Southeast	317.1	426.8	1,346
Total	654.2	880	1,345

TABLE 3			
PRODUCTION ESTIMATES ACCORDING			
TO REGIONS - 2001/02 SEASON			
Region	**(000 ha)**	**(000 tons)**	**(Kg/ha)**
Aegean	235.2	290.5	1,235
Antalya	10.6	14.1	1,330
Cukurova	150.9	206	1,365
Southeast	296.7	411.4	1,387
Total	**693.4**	**922**	**1,330**

TABLE 4			
PRODUCTION ESTIMATES ACCORDING			
TO REGIONS - 2002/03 SEASON*			
Region	**(000 ha)**	**(000 tons)**	**(Kg/ha)**
Aegean	226.6	294.8	1,301
Antalya	10	13	1,330
Cukurova	147.4	208.6	1,415
Southeast	337	471.3	1,398
Total	**721**	**988**	**1,370**

* Figures will be revised in December 2002

the same period. If producers had not received premium payments, which have been set at a minimum for the last four seasons, cotton cultivated area and production would have further decreased, necessitating even larger quantities of imports.

Consumption

Cotton consumption has also shown a gradual increase and has reached about 1.3 millions tons, which makes Turkey the fifth largest cotton consumer country in the world. The Turkish textile and clothing industry is an export dependent industry and cotton demand fluctuates according to changes in exports. Domestic financial crises experienced during 2000 and 2001, coupled with the global economic slowdown of 2001, limited the increase of Turkish textile and clothing exports. Exports increased slightly, around 3%, in 2000 and 2001, after a 5% decrease in 1999.

Annual cotton consumption has exceeded the one million-ton level for the last six seasons since 1996/97. Total cotton consumption in 2000/01 and 2001/02 was around 1.15 and 1.23 million tons, respectively (Table 5). According to 2002 first nine months figures, total textile exports increased around 13.2%. The increase in clothing exports on the other hand has been around 20%. As a result of increasing exports, it is expected that total cotton consumption will be over 1.25 million tons this season.

Trade

Turkey has had a liberalized cotton trading market for more than a decade. There are no quantitative restrictions in exports and imports of cotton. No export and import duty is charged on foreign trade of cotton. Furthermore, there is no government control over cotton prices. Cotton is freely traded and prices are determined by domestic demand and supply and by international prices.

The cotton trading market is composed of ASCUs, cotton ginners, mills, textile factories and foreign traders. Producers generally do not engage in lint cotton trading. ASCUs are still important market makers with a share of around 20% in volume.

There are regulations on grading and standardization of ginned cotton. Criteria used in grading and standardization are ginning methods, color, fiber length, contamination and foreign matter content. Cotton gins are controlled by grading and standardization inspectors. In addition, there is a regulation defining minimum standards for ginning. Storage conditions, workers' qualifications, labeling specifications and ginning requirements are all defined by this regulation.

TABLE 5						
COTTON SUPPLY AND USE IN TURKEY (000 TONS)						
Seasons	**Production**	**Beg. Stocks**	**Imports**	**Cons.**	**Exports**	**Ending Stocks**
1990/91	655	211	46	557	164	150
1991/92	561	150	92	607	56	140
1992/93	574	140	233	676	59	212
1993/94	602	212	119	700	109	124
1994/95	628	124	236	850	1	138
1995/96	851	138	112	900	55	99
1996/97	784	99	320	1,065	35	123
1997/98	838	123	399	1,150	23	188
1998/99	871	188	263	1,000	86	247
1999/00	791	247	525	1,200	44	217
2000/01	879	217	416	1,150	28	334
2001/02	922	334	468	1,250	30	444
2002/03*	988	444	200	1,250	30	352

* Estimate

TABLE 6				
COOPERATIVE UNIONS PURCHASE PRICES				
(For Std.1 Seedcotton)				
Season	**TL/Kg**	**US Cents/Kg**	**TL/Kg**	**US Cents/Kg**
1990/91	2,150	80.20	2,050	76.50
1991/92	3,800	85.40	3,650	82.00
1992/93	5,900	73.60	5,650	82.00
1993/94	5,750	48.50	5,350	45.10
1994/95	25,000	73.50	10,000	55.80
1995/96	40,000	86.00	36,000	78.20
1996/97	70,000	78.00	60,000	67.00
1997/98	140,000	82.90	120,000	71.00
1998/99	195,000	71.40	160,000	58.50
1999/00	230,000	51.50	205,000	45.80
2000/01	380,000	59.20	305,000	47.50
2001/02	680,000	48.50	550,000	39.30
2002/03*	800,000	48.80	540,000	33.00

* Preliminary prices

Seedcotton Trade

Despite the financial difficulties ASCUs have recently been facing, the total amount of cotton purchased increased last season compared to the previous season. In 2001/02, ASCUs purchased 18.8% of total cotton production, whereas the previous season it was 15.7%. TARIS and CUKOBIRLIK were able to increase the total amount of cotton purchased by 32% and 24% respectively, compared to the previous season, while ANTBIRLIK purchased 20% less cotton compared to the previous season.

Cooperatives purchase prices since 1990/91 are given in Table 6. Last season, the seedcotton price first announced by TARS was T/L680,000 (48.5 cents) per kg of Aegean cotton. CUKOBIRLIK set a minimum price of T/L550,000 (39.3 cents) per kg of seedcotton from

TABLE 7 COTTON IMPORTS (TONS) (Calendar Year)					
Supplying Countries	**1997**	**1998**	**1999**	**2000**	**2001**
USA	96,300	137,793	31,650	197,900	186,411
Greece	88,900	56,520	104,350	129,612	117,209
Syria	23,600	47,034	17,904	71,094	36,631
Egypt	5,839	1,377	13,526	11,341	6,330
Israel	20,239	16,906	18,692	18,675	6,892
CIS	80,900	86,746	66,542	102,158	55,791
Others	47,744	24,049	129,461	36,004	47,892
Total	**362,852**	**382,125**	**343,649**	**566,784**	**454,159**

the Adana and Cukurova regions. Southeastern region cotton, considered equivalent to Agean cotton, was traded at around T/L590,000-600,000 (42.8 cents) per kg. At the time of writing this report, ASCUs were on the point of announcing their preliminary purchase prices for 2002/03.

Lint Cotton Trade

As mentioned above, the domestic lint cotton market can be described as a competitive market with no restrictions on foreign trade and no government intervention. Thus, prices are determined by market forces. The domestic lint cotton market is integrated with international markets so that prices are open to signals from international cotton markets.

Figure 1 shows price developments of Std 1 Izmir cotton compared to the Cotlook A Index. As can be seen from this graph, domestic market prices have been well above the Cotlook A Index for the most part of 2001/02.

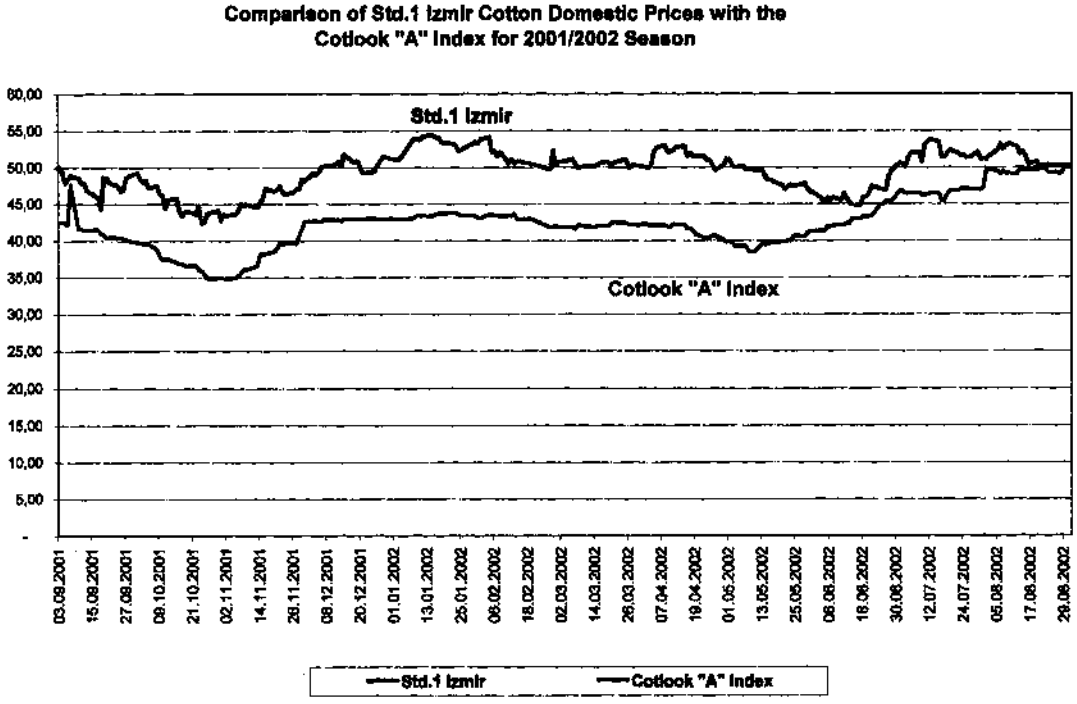
An overvalued Turkish lira made cotton imports favorable for the Turkish cotton industry, and cotton imports in the last season increased by 13% and reached 468,000 tons from 416,000 tons the previous season. The USA share in total cotton imports remained high last season, around 43%. Due to high imports and increased domestic production, ending stocks also increased by 39% to 444,000 tons. In 2002/03, a further increase in cotton imports is not considered likely.

Being a net cotton importer, Turkey is no longer a large cotton exporting country. Annual Turkish cotton export volume varies between 20,000 and 30,000 tons. Last season's cotton export volume is estimated at around 30,000 tons and it is likely that exports in the coming season will remain at the same level.

CONCLUSIONS

Depressed cotton prices worldwide have created adverse effects in the Turkish cotton industry. The government has endeavored to minimize these adverse effects with emergency assistance considered to be symbolic in comparison to assistance provided in some other countries. If the government had not continued to implement these symbolic premium payments, the domestic cotton sector would have definitely collapsed, causing social and economic damage. It is sincerely hoped that the negotiations on agriculture within the WTO will produce fruitful results to the agricultural world in general and to the cotton sector in particular.

FIGURE 1
CENTS/LB.



UGANDA

INTRODUCTION

As reported at previous plenaries, the government of Uganda has totally liberalized its cotton sector over the past six years and only left a regulatory body, The Cotton Development Organization, to regulate, promote, coordinate and advise on relevant cotton sector policies.

Cotton as a crop continues to play a major role in the government's Poverty Eradication Program, given that it is grown by small-scale farmers and has potential to provide economic empowerment to about 50% of the entire Ugandan rural population in the northern, eastern and western parts of the country.

2001/02 PRODUCTION

Lint production registered an increase of 21%, from 18,500 MT the previous season to 22,500 metric tons in 2001/02. This achievement is credited to good weather and improved cotton prices at the time of planting.

PRICES

Due to the very low international prices that prevailed at the onset of the marketing season (November–December 2001) and lack of a significant price recovery during the season, our farmers received U.S. 42 cents per kg of lint, being 50% of the Free-on-Truck lint prices in Uganda. Although this price was not the best in the past six years of liberalization, it provided some relief.

This price was obtained due to the financial support of the private sector's Ginners Association, in an effort to encourage more production from small-scale farmers who are the sole producers of the crop in Uganda.

CONSUMPTION

Domestic lint consumption decreased from 7% the previous season to 2%. This calls for a more concerted effort to invest in local mills to support our farmers' price. The government of Uganda is tirelessly continuing its efforts to attract investments, both foreign and local. All are welcome.

EXPORTS

98% of our total production was exported, mainly to Portugal, Switzerland, the United Kingdom and to our neighbors, Rwanda and Kenya.

RESEARCH AND DEVELOPMENT

Ginning Outturn (GOT)

Our researchers continue to collaborate with willing partners, world over, to improve our varieties and adapt them to Uganda's cotton growing conditions. A GOT of 40% has been achieved at research level, up from 31% in 1993. Other lint characteristics detailing the relevant parameters are detailed in Table 1. Worth noting is that our lint quality has been restored to its high standards over the past four years.

Quality Control

Our small-scale farmers have been sensitized over the past six years and now appreciate the premium price and the importance of good quality cotton, which has greatly reduced cotton contamination at the farm.

Quality control is further enhanced at gin level by the enforcement of strict monitoring by an independent private audit company put in place by the Ginners Association. As a result, 84% of our lint has been marketed in the first four internationally established grades over the past four years (Table 1).

COMMON FUND FOR COMMODITIES (CFC) PROJECT

Uganda has been the beneficiary of a three-year CFC Trade System Improvement Project in Eastern and Southern Africa, co-financed by ICAC. The project was launched in July 2000 after a delay of about two years. Most of the obstacles have been removed and the project is now on course. A mid-term review is planned for early next year. Given the delay which was not our making, the government of Uganda intends to request an extension of the project.

CONCLUSION

The rehabilitation phase of the cotton sector in Uganda is now complete after six years of hard work. The country is currently concentrating on increasing acreage by organizing small-scale farmers into medium to large-sized groups for better productivity and economies of scale.

Our other challenge is to offer better farm-gate prices. All work toward this end is being handled through a government and private sector partnership in order to increase local lint consumption and utilization.

Table 1. Uganda's Cotton Official Standards

Uganda Standard	Micronaire	G-tex	Staple Length (inches)	International Equivalent
Roller Ginned				
UCON	3.8-4.0	30-32	1 5/32-1 3/16	Good Middling
UCOB	3.8-4.0	30-32	1 1/8-1 5/32	Strict Middling
UCOP	4.0-4.2	29-30	1 1/8-1 5/32	Middling
UCOA	4.0-4.2	29-30	1 1/8	Strict Low Middling
UCOM	4.0-4.2	28-29	1 1/8	Low Middling
UCOG*	4.2-4.4	27-29	1 3/32-1 1/8	Good Ordinary
Saw Ginned				
UCOSA I	4.0-4.2	29-30	1 3/32-1 1/8	Strict Middling
UCOSA II	4.0-4.2	29-30	1 1/16-1 3/32	Middling
UCOSA III	4.0-4.2	28-29	1 1/16	Strict Low Middling

*This grade has not been produced in the last three seasons due to improvement in quality assurance.

UNITED KINGDOM

INTRODUCTION

The United Kingdom's main connections with the international cotton industry today are mainly in fields other than the actual processing of fiber. Cotton trading still retains a strong base in the UK and the provision of trading rules and arbitration services gives Liverpool a pre-eminent role in the worldwide cotton industry. Furthermore, UK companies provide numerous ancillary functions of value to the international cotton community, including information services, and its institutions retain a substantial agricultural research capacity from which cotton benefits.

RAW COTTON IMPORTS

The following table compares UK raw cotton imports for 2001 with those during the two preceding calendar years.

United Kingdom Raw Cotton Imports

- in tonnes -

	2001 Jan/Dec	2000 Jan/Dec	1999 Jan/Dec
Central Asia	415	1,079	1,427
US	14	279	701
South Africa	-	203	560
Uganda	-	-	411
Egypt	184	313	313
India	-	-	294
Mali	-	-	100
Tanzania	853	355	97
Syria	34	-	76
Zambia	76	-	40
Pakistan	.	-	25
Turkey	-	-	5
Zimbabwe	37	25	-
Cote d'Ivoire	-	20	-
Israel	1	28	-
Nigeria	123	60	-
Others	19	207	711
TOTAL	1,756	2,569	4,760

Source: HM Customs & Excise, courtesy *Cotton Outlook*.

INTERNATIONAL COTTON PRICES

When the ICAC met a year ago in Victoria Falls, world prices (as measured by the Cotlook A Index) had been following a downward trend for a period of some twelve months, in the face of a general oversupply and mounting economic difficulties. The tragic events in the United States, which immediately preceded the 2001 meeting, had a further depressive influence on global business activity levels. Cotton prices shrank to levels that, taking inflation into account, were historically low. The Cotlook A Index fell to 34.95 cents per lb. on October 29, 2001.

The path to recovery has been very slow and a rise above the 50 cents per lb. mark—a level not breached since early in 2001—has yet to materialize. Despite low prices, cutbacks in cotton plantings for the 2002/03 season have not been as large as might have been anticipated. However, growing conditions generally have been less favorable than last year's and a drop in world cotton output of approximately 10% might be in prospect. World consumption appears to have regained upward momentum, with forecasts of growth approaching 3% being widely predicted. In consequence, a correction in theoretical world stocks seems probable, with many forecasts suggesting that the massive increase sustained in 2001/02 will be more than offset by the end of July next year. The longer-term price outlook thus appears somewhat more promising but much cotton has still to be marketed, particularly by the United States, which is now consuming less itself. This is serving to temper expectations of price gains in the immediate future.

LIVERPOOL COTTON ASSOCIATION (LCA)

Arbitration and Enforcement of Awards

The last twelve months has seen a considerable turnover for LCA. Last year LCA reported a 50% reduction in the number of disputes. This year has seen an unprecedented rise: 400% on the total for 2001 and 165% based on the average for the previous five years. There has also been a corresponding increase in the number of appeals referred to the LCA with, on average, an appeal being lodged for every six arbitration awards stamped.

It would appear that because prices have fallen to unexpected levels there has been a proportionate increase in the number of firms or individuals who have chosen to contest or even ignore previously agreed but frequently unsigned contracts. This situation more than any other has acted as a catalyst for taking forward the "Good Trading Practices" initiative expediently. This initiative gave warning in October 2001 that the Trade, and the LCA in particular, could no longer be expected to turn a "blind eye" to those members of the Association and the Industry, more generally, who choose to conduct business with firms that have failed to fulfill arbitration awards legally made against them.

The upward trend in the number of disputes taken to arbitration is expected to moderate next year as a modest increase in raw cotton prices begins to take effect. It is also felt that the measures introduced in support of good trading practices are also beginning to moderate the behavior of some members of the industry.

The increased demand for arbitration has highlighted a shortage of experienced arbitrators to take this work forward. The LCA has therefore turned its attention towards the availability of properly trained individuals who are prepared to undertake this task. There remains a concern that the less experienced traders in the industry are reluctant to make themselves available for dispute resolution tasks for fear that they lack experience and/or any form of training. This has led to an LCA initiative to provide formal training for those who would be willing to act as arbitrators. This training will encompass the procedures involved in dispute resolution, the development of a deeper understanding of the Arbitration Act and cover the duties and responsibilities of the Arbitrator.

The fulfillment of awards continues to be a problem but with new measures now in place ensuring increased discipline into the market, the focus is being shifted towards the issue of enforcement. The LCA is keen to support the enforcement initiatives that are now in hand through CICCA, the ICAC and UNCITRAL. This began in May 2001 when the LCA, representing CICCA, delivered a keynote speech on the "Sanctity of Contracts" to ICAC's Standing Committee. This issue is now gathering momentum.

Laboratory Matters

Throughout the last twelve months there has been a notable increase in the number of applications from international cotton merchants and spinners to make use of the LCA's high volume instrumentation (HVI) testing facilities. It has been particularly encouraging to have been able to conduct quality testing for large spinning mills in India, Indonesia and Pakistan, which have been keen to use the laboratory for the provision of data on length, length uniformity, strength, elongation, micronaire, color and trash content. It would appear that mills in this region are drawn to the LCA because its role as an independent arbitral authority underscores its impartiality within the international market. To encourage greater use of cotton testing facilities, LCA's Board of Directors has now introduced generous discounts for volume testing.

This year the Association has been conducting a survey into the requirement for providing facilities to measure "stickiness." The purpose has been to establish demand before determining whether to install the testing equipment. Demand has been weak. However, there has been an increase in the requirement to provide data on fiber parameters such as nep and sugar content. The LCA is currently promoting the availability of this testing service to both members and non-members.

Cotton Standards

Throughout the year the LCA has continued to welcome representatives from major cotton producing countries for the purpose of adopting grade standards as Liverpool Official Standards. The Cotton Development Organisation of Uganda, The Sudan Gezira Board, and standards from Kyrgystan, Pakistan, Tanzania and the USA have all had their replacement standard boxes adopted by the LCA. Finally, a set of standards representing Australian, the Community of Independent States (CIS) and West African cotton has been received from The Seam, a company specializing in "online" trading. These standards have been accepted by the LCA albeit for reference purposes only. Meanwhile, the LCA continues to hold standard boxes representing almost all major cotton varieties.

International Cotton Trade Seminar

The annual International Cotton Seminar remains one of the major highlights of the LCA calendar and appears to be growing from strength to strength. Twenty-nine delegates from 22 different countries honored the LCA by making the long journey to Liverpool. Presenters also traveled great distances to provide the seminar with the benefit of their experience of the international market and industry. This year, thanks to the generosity of seven Liverpool based international companies, the LCA was able to welcome its first sponsored student. The successful candidate is from Paraguay.

International Cotton Trade Dinner

The LCA's 2002 International Trade Dinner, which will be held in St. George's Hall, Liverpool, on 4 October is likely to set new records for numbers attending. Even as early as June, applications exceeded the capacity of the Hall (which is 720) by over 100. There is a large number of people who plan to visit Liverpool to listen to the keynote presentations on matters of particular concern or of interest to the international community, or who wish to visit the Cotton Trade Exhibition, who may not find a seat at the dinner. Many delegates visit Liverpool for the purpose of attending the Advisory Council meeting or to participate in one or a number of the many meetings representing segments of the international cotton community. Whatever the attraction of Liverpool, this event represents the single largest gathering of cotton merchants and perhaps, for that reason alone, justifies the long journey that countless delegates embark upon from every cotton-producing region.

LCA Articles, Bylaws and Rules

The Articles of Association have recently undergone a major review to take account of modern working practices. The Articles and Bylaws also make provision for the office of Second Vice President, introduced by a special resolution last year. The first holder of this office is from Brazil and in effect will be the first overseas resident to hold the office of LCA President, representing the LCA's transition to a wholly international trade association. The Articles and Bylaws also include major amendments to properly reflect the recommendations of the Sub-Committee on Good Trading Practices. Amplification of these new rules, together with information on the penalties that are likely to be awarded to members who choose to trade with companies whose names have been included on the LCA's list of unfulfilled awards, have been published in the LCA Bylaws. Amplification in the form of guidelines is being posted on the LCA Website—www.lca.org.uk. The Association is therefore confident that buyers and sellers of raw cotton, whether subject to the Articles or not, will be provided with an opportunity to become familiar with the likely consequences of electing to do business with a firm whose name has been posted on "The LCA Default List."

International Visits

Bremen

The LCA was well represented at the 26th International Cotton Conference organized by the Fiber Institute and Bremen Cotton Association. The main topics of the conference were cotton production and marketing, fiber properties and processing. Modern and futuristic automated cotton classing together with internet-based marketing were included in the program, which embraced several presentations from companies in the U.S. Transgenic cotton was another subject that focussed the attention of the conference. Overall, this was a thought-provoking and often stimulating event, which contained something for everyone. The conference also provided an opportunity for CICCA to meet when the LCA delivered what was to be the first of a series of presentations on good trading practices.

Turkey

Cotton Council International (CCI) conducted an invaluable seminar in Turkey this summer visiting four main regions. Exceptionally, CCI extended an invitation for a small LCA delegation to join the group since all U.S. cotton sold to Turkey is under LCA Rules and it was judged that a large number of questions would be based upon matters relating to these rules and the LCA Arbitration Service. This turned out to be the case. It was very clear, however, that despite the size of the Turkish cotton industry, a large majority of importers of raw cotton did not understand the LCA Rules neither did they possess a Rule Book.

American Cotton Shippers Association (ACSA)

This year's ACSA convention was relatively upbeat given the "turnaround" in finances that ACSA's President had presided over. The hope is that this can now be sustained. The prime focus for discussion was on good trading practices and there was an expectation that the LCA proposals would help kick-start the membership of ACSA and the Committee for International Co-operation between Cotton Associations (CICCA) into reintroducing a sense of parity and honor back into the international market.

Universal Standards Conference

The 26th Triennial Cotton Standards Conference for American Upland Cotton was held in Memphis earlier this year. The conference had not met for four years following an agreement to delay for twelve months to permit the U.S. Department of Agriculture (USDA) to devote more time to solve a pin trash problem relating to new standards. The conference was judged a success. The Overseas Signatories work well under the chairmanship and secretarial support of the LCA. The Signatories raised a small number of procedural points that will be the subject of further discussion within USDA. While expressing much satisfaction with the overall conduct of the conference, they requested more time to assess the standards themselves.

The Committee for International Co-operation between Cotton Associations (CICCA)

Reinforcing good trading practices whilst helpful is not in itself the complete answer and as a result CICCA continues to direct its efforts towards those measures that will help reinforce the principle of the sanctity of a contract. This is being done by urging the 42 member states of ICAC to underwrite, implement and reinforce the provisions of the New York Convention on the enforcement of arbitration awards. CICCA is also working in partnership with UNCITRAL and ICAC to establish empirical data to help determine the full extent of the problem facing the cotton industry. Until this is done, long-term solutions will be difficult to determine.

In parallel, CICCA is working with the International Textile Manufacturers Federation (ITMF) through the Joint Cotton Committee to establish a regular dialogue with the spinning community on matters relating to the drafting of contracts and the development of a better understanding of the LCA Rules and Bylaws, for the purpose of avoiding subsequent disputes. The catalyst for renewed effort over this matter may be directly linked to the LCA initiative on good trading practices. There remains much to do but CICCA is of the view that progress will be actioned by confronting these problems head on. This is one of the reasons why CICCA has recently adopted an emblem as an identifying mark to signify CICCA's long-term commitment to the sanctity of a contract and support for good trading practices.

Cotton Cooperative Research

Following the early success of the Ph.D. student from Cardiff University over the measurement of biomarkers in cotton as a quality control index, the work continues to move forward. Research has now reached a stage that entails

the detection and analysis of bacterial endotoxins and other contaminants in cotton. In parallel, the research laboratory at Cardiff has reached an agreement with the Liverpool Cotton Research Corporation to establish a simultaneous endotoxin/glucan assay for cotton tissue that will prove invaluable data to this project. The next paper to be published on this subject will be at the U.S. Beltwide Cotton Conferences in 2003.

COTTON IN THE UK AID PROGRAMME

The UK has a long association with all aspects of cotton production in less developed countries (LDCs) and this is reflected in its continuing commitment to aid in the cotton sector in those countries. This assistance continues to form a modest but important element of both the research and development and technical cooperation components of the UK Aid Programme, funded through the Department for International Development (DFID). It is recognized that cotton is an important cash crop for small, resource-poor farmers, and that the most significant constraint to cotton production by small farmers in LDCs is yield losses caused by insect pests, plant diseases and weeds. This includes the increasingly important and widespread problem of pest resistance to conventional pest control chemicals.

Consequently, most UK aid to the cotton sector in LDCs is provided in the field of integrated pest management (IPM), focused on the development and implementation of sustainable, cost-effective and environmentally friendly strategies that can be integrated with existing programs of pest, disease and weed control.

Current DFID-funded research and development on cotton is conducted through its Crop Protection Program, administered by Natural Resources International (a consortium of UK universities). NRInternational commissions cotton-related R&D projects both from UK and LDC institutions and universities.

British agro-chemical and pest control companies are also important contributors to UK aid funded research and to the implementation of appropriate IPM and IRM strategies for LDCs, often in close collaboration with NRInstitute and the universities in addition to undertaking research on equipment and products in cotton producing countries.

R&D and technical cooperation work carried out during the last year includes:

ICAC-supported, funded through the Common Fund for Commodities

- A major international project on the chemical aspects of sustainable control of the American bollworm on cotton has completed its second year of operation, with laboratory and field-work in India, the People's Republic of China (PRC) and Pakistan. The work, led by NRI at the University of Greenwich, is optimizing the incorporation of insecticidal chemistries into the IPM of cotton pests.

DFID funded

- Provision of IPM advice to Ugandan cotton farmers in partnership with the IDEA project.
- Support of the government of India's program on area-wide management of insecticide resistance in cotton (2002-2004) in 26 districts of the Indian Union.
- Work continues on weed management in cotton in the Zambezi valley and other areas of Zimbabwe.
- Work at Rothamsted Agricultural Experimental Station on Chinese, Pakistani and Indian cotton bollworms is focussed on determining the genetics of resistance and cross-resistance patterns, in conjunction with the CFC/ICAC project mentioned above.

EU funded

- Work on farmer-appropriateness of Bt transgenic cotton in PRC. This collaborative venture between the University of Greenwich, CABI, the Danish Institute for Agricultural Research and CIRAD is exploring the implications of Bt transgenic cotton on the beneficial and other non-bollworm pest insects, on farmers income and on insecticide use. It examines the prospects for the development of resistance and its subsequent management, including the development of molecular diagnostic tools for resistance.

Other Cotton Research in UK Universities and Institutions

The Institute of Arable Crops Research (IACR) Rothamsted continues working on insecticide resistance in whiteflies, of great relevance to cotton. The International Pesticide Application Centre of Imperial College of the University of London undertakes studies on spray application in cotton and has run training courses for international students in this area. A number of cotton ginning and trading companies also support research in such areas as the alleviation of the impact of stickiness in cotton, water use efficiency and the trash content problem. Private sector research and development work continues on the design and efficacy of spray equipment.

UNITED STATES

UPLAND COTTON SITUATION AND OUTLOOK

Overview, Acreage and Production

U.S. upland cotton production in 2002/03 is forecast at 17.5 million bales, down from a record 19.6 million bales in 2001/02, 3.7 percent above the 5-year average.

Planted area in 2002 totaled 14.1 million acres, 1.4 million (9 percent) below the previous year. Harvested area is forecast at 12.7 million acres, which suggests an abandonment rate of 10.4 percent. Yield per harvested acre is forecast at 664 pounds, above the 5-year average of 640 pounds. In 2001, harvested area reached 13.6 million acres, with an abandonment rate of 12.5 percent. Yields averaged 694 pounds per harvested acre. Since we are still in the 2002-harvest season, yields could vary from current estimates. Currently, production is forecast down 11 percent from last season. Significant area harvested decreases (greater than 20 percent decreases) are forecast for Mississippi, Louisiana, California and Arizona. Area is expected to increase only in Texas, Oklahoma, and North Carolina.

Domestic Mill Use

Mill use of upland cotton in 2001/02 was 7.6 million bales, the lowest level in 14 years and compared to 8.7 million used in 2000/01. In 2002/03, mill use is projected to recover slightly to 7.8 million bales.

Foreign Trade

Upland raw cotton exports totaled 10.6 million bales in 2001/02, up from 6.3 million in the previous year. The top export destination was Mexico, which imported 1.95 million bales from the U.S. representing 18 percent of all upland exports. The top ten upland markets also included Turkey, India, Indonesia, China (Taiwan), Thailand, Koreas, Pakistan, Japan, and Hong Kong. Together these destinations represented 82 percent of upland exports.

In 2002/03 upland shipments are projected to remain at 10.6 million bales due to the large U.S. exportable supply and increased world demand. In 2002/03 the U.S. share of world trade of all cotton is expected to decrease to 36.3 percent, above the 5-year average of 27.5 percent. In 2001/02, the U.S. share of world trade (all cotton) was 37.7 percent.

U.S. upland cotton imports in 2001/02 are estimated at 10,000 bales. A majority of the imports were from Greece and Syria. In 2002/03, U.S. imports are projected to be unchanged due to an abundant domestic supply situation.

Supply and Stocks

The 2.1 million-bale decrease in production in 2002 from 2001 is greater than the 1.4 million bales-increase in beginning stocks. Therefore, total 2002/03 upland supply is projected at 24.8 million bales, down 3 percent from 2001/02. Despite the forecast decrease in the U.S. upland cotton supply, U.S. exports are not expected to decrease from last season's 10.6 million. Imports are expected to remain at 10,000 bales.

Total use in 2002/2003 is forecast higher at 18.5 million bales, 300,000 bales above 2001/02 as both exports and domestic use are forecast up. Coupled with the smaller supply, ending stocks for 2002/03 are forecast to decrease by 13 percent to 6.3 million bales. At the end of 2001/02, the upland stocks-to-use ratio equaled 39.8 percent. For 2002/03 the stocks-to-use ratio should decrease to about 34 percent.

Manmade Fibers

U.S. domestic consumption of manmade fibers declined in 2001 for the first time in seven years as the U.S. recession affected all fiber consumption. The 8 percent decrease from 2000 was the result of lower U.S. manmade fiber mill use while imports of textile and apparel products continued to expand in 2001. U.S. manmade mill use in 2001 is estimated at 9.8 billion pounds, nearly 11 percent below the previous year and the lowest since 1992. Despite this, manmade fibers accounted for over 70 percent of the fibers used by U.S. mills in 2001. Textile exports declined slightly in 2001 while imports rose nearly 2 percent to 4.9 billion pounds. Overall, manmade fibers accounted for about 55 percent of the total fiber consumption in the United States, slightly below the previous 5-year average. In addition, U.S. per capita consumption of manmade fibers fell slightly from 2000 to 44 pounds in 2001, the lowest in 5 years.

Inter-fiber Competition

Similar to manmade fibers, U.S. cotton domestic consumption decreased in 2001, as U.S. mill use declined a dramatic 19 percent from the 2000 level. U.S. mill use returned to the 3.8-million-pound level as a result of the continued rise in cotton textile imports. In 2001, U.S. cotton textile imports were slightly higher at a record 7.5 billion pounds, while exports declined 13 percent to 2.1 billion. As a result, total U.S. domestic consumption of cotton reached nearly 9.3 billion pounds in 2001, about 6 percent below 2000 and the lowest in 4 years. Overall, cotton continues to account for 41 percent of total domestic consumption, slightly above the previous 5-year average. However, U.S. per capita consumption of cotton decreased to only 33 pounds in 2001, the lowest in 4 years.

Cotton's share of fibers used in the cotton system in 2001/02 averaged 81 percent, up from last season's 79 percent and the highest in over 30 years. While only accounting for a small percentage of the final product price, raw cotton prices were below those for polyester the entire season. For the season, U.S. upland mill-delivered cotton prices during 2001/02 averaged about 41 cents per pound, 18 cents below a year ago. However, polyester staple prices remained near 60 cents per pound during the comparable period. Meanwhile, rayon staple prices have continued well above those for cotton, averaging nearly 98 cents per pound for the season.

UPLAND MARKET SITUATION

Prices

Prices received by farmers for upland cotton averaged 51.10 cents per pound for the 2000-2001 marketing year, according to the National Agricultural Statistics Service, USDA. This compares with 45.00 cents for the 1999-2000 marketing year and 60.20 cents for the 1998-1999 marketing year.

Quotations for color 41, leaf grade 4, staple 34, mike 35-36 and 43-49, strength 23.5-25.4 cotton, in the designated markets averaged 51.56 cents per pound for the 2000/01 season. This was down from 52.36 cents for the 1999/00 season. Quotations averaged 59.33 cents per pound in August 2000, the first month of the marketing year. Average quotations were fairly steady until January but then dropped steadily until leveling off in June and July. The highest monthly average was 62.16 cents per pound in November 2000 and the lowest was 37.38 in June 2001. The season's highest daily average quotation for the base quality occurred on November 30, 2000 at 63.57 cents per pound and the season's lowest daily quotation was 35.39 cents on June 20, 2001.

Quality

Color. The predominant color of upland cotton classed from the 2001 crop was color 31, accounting for 35 percent of classings, according to the USDA Agricultural Marketing Service, Cotton Program. Color 31 was the predominant color grade in 2000 and made up 31 percent of classings. In the white color grades, color 41 and better made up 82 percent of classings, up from 80 percent in 2000. All white color grades

Season average prices, upland cotton, for the base quality, by designated markets, cents per pound, 1996-2001 1/ 2/

Market Areas	1996	1997	1998	1999	2000	2001
Southeast	72.33	68.60	62.06	53.81	52.63	33.02
North Delta	72.11	68.36	61.82	53.34	52.32	33.24
South Delta	72.11	68.36	61.82	53.34	52.32	33.24
East Texas-Oklahoma	70.29	65.93	57.66	50.49	51.03	32.59
West Texas	69.89	65.88	57.76	50.12	50.71	32.39
Desert Southwest	69.88	65.63	55.92	48.79	49.47	32.60
San Joaquin Valley	74.47	71.79	63.78	56.67	52.45	34.64
Average	**71.58**	**67.79**	**60.12**	**52.36**	**51.56**	**33.10**

1/ Year beginning August 1.
2/ In mixed lots, net weight, compressed, FOB car/truck.

High and low average prices for upland cotton base quality in the designated markets, by seasons 1/

	HIGH		LOW	
Year	Date	Price	Date	Price
1996 2/	3-Sep-96	78.11	12-Nov-96	68.00
1997 2/	8-Jul-98	77.79	8-Apr-98	59.82
1998 2/	24-Aug-98	74.19	12-Jul-99	47.21
1999 2/	22-May-00	60.71	20-Dec-99	45.94
2000 3/	30-Nov-00	63.57	20-Jun-01	35.39
2001 3/	10-Jul-02	41.39	25-Oct-01	25.94

1/ Year beginning August 1.
2/ Color 41, leaf 4, staple 34, mike 35-36 and 43-49, strength 23.5-25.4 prior to year 2000.
3/ Color 41, leaf 4, staple 34, mike 35-36 and 43-49, strength 26.5-28.4.

accounted for 84 percent of the 2001 crop, up from 83 percent in 2000. Light Spotted color grades comprised 14 percent of classings, down from 16 percent in 2000. Spotted color grades made up about 2 percent of classings this season, as compared to 1 percent a year earlier. Tinged, Stained and Below color grades accounted for less than 1 percent of classings this season, the same as last year.

Leaf. The predominant leaf grade of upland cotton classed from the 2001 crop was leaf grade 3, accounting for 56 percent of upland classings. Leaf grade 3 was the predominant leaf grade a year earlier, making up 54 percent of classings. Leaf grades 1-2 comprised the next highest percentage from the 2001 crop at 21 percent against 24 percent a year ago. Leaf grade 4 made up 22 percent of classings from this year's crop, compared with 19 percent in 2000. Leaf grades 5-7 made up about 2 percent of classings, as compared to 3 percent last year.

Staple. The average staple length of upland cotton classed from the 2001 crop was 34.5 thirty-seconds inches, up slightly from 34.2 a year ago. The predominant staple length was 34, making up about 29 percent of classings. Staple 34 was the predominant length last year, accounting for 26 percent of classings. Staples 31 and shorter comprised 2 percent of classings this season, down from 5 percent last year. Staples 32 and 33, at 21 percent, were down from 26 percent the previous year. Staple 35 made up 26 percent of the crop, up from 22 percent last year. Staples 36 and longer accounted for 22 percent of classings, up from 20 percent the previous year.

Mike. The average mike of upland cotton classed from the 2001 crop was 4.6, up from 4.3 last year. Cotton with mike 3.4 and lower made up 2 percent of classings against 6 percent in 2000. Cotton miking 3.5 through 4.9 comprised 76 percent of the classings this season, down from 86 percent a year ago. Cotton with mike 5.0 and higher made up 21 percent of the classings, up from 8 percent in 2000.

Strength. The average fiber strength of upland cotton classed from the 2001 crop was 28.3 grams per tex, compared with 27.6 in 2000. Strengths in the 22 grams per tex and lower range accounted for less than 1 percent of classings, the same as last year. Strengths in the 23 to 25 range accounted for 7 percent compared to 16 percent last year. Cotton with strengths of 26 to 29 grams per tex accounted for 68 percent of classings, against 64 percent a year ago. Strengths in the 30 and higher range comprised 24 percent of classings, up from 19 percent a year ago.

Varieties Planted

The Deltapine brand of upland cottonseed was the most popular planted in the United States for the 2002/03 season, according to the USDA, Agricultural Marketing Service's Cotton Program. The Paymaster brand was the second most popular followed by Stoneville, Aventis, SureGrow, All-Tex, Phytogen, and CPCSD.

Transgenic varieties—genetically engineered varieties resistant to worms, herbicides, or both—accounted for about 77 percent of the upland cotton planted in the United States in 2002. This is down about 1 percentage point from the 2001 crop, but up some 5 percentage points from the 2000 crop. Usage of transgenic varieties in 2002 varied from a high of 99 percent in Kansas to a low of 42 percent in California. Texas producers planted transgenic varieties to 60 percent of their 5.8 million cotton acres.

Deltapine brand varieties were the most popular planted in 2002, accounting for 32.2 percent of the United States acreage. This brand accounted for 57.5 percent of the acreage planted in the southeastern states (Alabama, Florida, Georgia, North Carolina, South Carolina, and Virginia). It accounted for 27.5 percent of the acreage planted in the south central states (Arkansas, Louisiana, Mississippi, Missouri, and Tennessee), 19.7 percent in the southwestern states (Texas, Oklahoma, and Kansas), and 36.3 percent of the acreage planted in the western states (Arizona, California, and New Mexico). Deltapine's most popular varieties were DP 451 B/RR, DP 458 B/RR, DP 5415 RR, and DP 5690 RR, accounting respectively for 6.9, 6.0, 4.1, and 3.4 percent of the U.S. cotton acreage.

Paymaster brand varieties were the second most popular planted in 2002, accounting for 26.2 percent of the United States acreage. These varieties accounted for 3.3 percent of the acreage planted in the southeastern states, 23.3 percent in the south central states, 44.5 percent in the southwestern states, and 0.6 percent in the western states. The most popular Paymaster varieties were PM 1218 BG/RR, PM 2326 RR, and HS 26, accounting respectively for 6.4, 6.1, and 3.0 percent of the U.S. acreage.

Stoneville varieties were the third most popular planted in 2002. These varieties accounted for 13.1 percent of the acreage planted. They accounted for 9.7 percent of the acreage planted in the southeastern states, 31.6 percent of the acreage in the south central states, 5.2 percent in the southwestern states, and 0.8 percent in the western states. The most popular Stoneville varieties were ST 4892BR and ST 4793R, accounting respectively for 5.7 and 3.2 percent of the United States acreage planted to cotton.

Estimated percentage of upland cotton planted to leading specified varieties, by growth area, 2002 crop

South-eastern	DELTAPINE DP 458 B/RR	DELTAPINE DP 541 B/RR	DELTAPINE DP 5415 RR	DELTAPINE DP 5690 RR	STONEVILLE ST 4892BR	AVENTIS FIBERMAX FM 989 BR	SURE-GROW SG 521 R
	13.63	12.03	11.59	7.84	6.15	5.67	4.35
South Central	PAYMASTER PM 1218 BG/RR	STONEVILLE ST 4892BR	DELTAPINE DP 451 B/RR	STONEVILLE ST 4793R	SURE-GROW SG 215 BG/RR	STONEVILLE BXN 47	DELTAPINE DP 458 B/RR
	21.99	13.17	12.99	8.95	6.43	5.00	4.18
Southwest	PAYMASTER PM 2326 RR	PAYMASTER HS 26	ALL-TEX ATLAS RR	AVENTIS FIBERMAX FM 832	PAYMASTER PM 2200 RR	PAYMASTER PM 2379 RR	AVENTIS FIBERMAX FM 958
	14.23	6.85	6.83	6.31	6.01	5.62	4.01
West	PHYTOGEN PHY 72 ACALA	CPCSD ACALA RIATA RR	CPCSD ACALA MAXXA	DELTAPINE DP 388	DELTAPINE NUCOTN 33 B	CPCSD ACALA BXN NOVA	DELTAPINE DP 458 B/RR
	20.39	17.31	7.16	3.32	3.26	3.16	2.86
United States	DELTAPINE DP 451 B/RR	PAYMASTER PM 1218 BG/RR	PAYMASTER PM 2326 RR	DELTAPINE DP 458 B/RR	STONEVILLE ST 4892 BR	DELTAPINE DP 5415 RR	DELTAPINE DP 5690 RR
	6.85	6.41	6.13	5.97	5.74	4.06	3.39

Aventis varieties were the fourth most popular planted in 2002. These varieties accounted for 10.5 percent of the U.S. acreage and accounted for 14.0 percent of the southeastern states planted acreage, 3.0 percent in the south central states, 14.2 percent in the southwestern states, and 1.1 percent in the western states. The percentage of acres planted to Aventis varieties more than doubled from the 2001 crop.

Suregrow varieties were the next most popular and accounted for 7.2 percent of the U.S. acreage planted in 2002. All-Tex varieties, planted primarily in Texas, Oklahoma, and Kansas, were the sixth most popular and accounted for 4.2 percent of the 2002 cotton acreage. Acres planted to All-Tex increased sharply in 2002.

ELS COTTON SITUATION AND OUTLOOK

Overview, Acreage and Production

The U.S. ELS cotton production in 2002/03 is forecast at 629,000 bales, down 10 percent from the previous season. U.S. plantings of ELS cotton are estimated at 264,500 acres in 2002, down 2 percent from last season. The national ELS cotton yield is forecast at 1,251 pounds per harvested acre, similar to 2001/02. Harvested area in 2002/03 is estimated at 241,400 acres, indicating an abandonment rate of 9 percent. Despite a 10-percent decrease in area harvested, California remains the dominant ELS producing state, accounting for 87 percent of the ELS acreage.

Domestic Mill Use

Mill use of ELS cotton in 2001/02 was 104,000 bales, compared with 124,000 bales in the previous year. In 2002/03, mill consumption is projected to recover slightly to 115,000 bales.

Foreign Trade

As of September 2002, U.S. exports for 2002/03 are forecast at 475,000 bales up from last season's 400,000 bales. Despite the larger U.S. supply, exports in 2001/02 of 400,000 bales were down 9 percent from the previous year's level of 437,000 bales. The major export destination was Japan, which accounted for 18 percent of total U.S. ELS exports. The other top ten export destinations included Pakistan, Indonesia, Italy, Korea, Thailand, India, Germany, Taiwan, and Belgium. The top ten markets accounted for 82 percent of total ELS exports.

ELS imports for 2001/02 are estimated at 20,000 bales with over 95 percent imported from Egypt.

Supply and Stocks

The ELS cotton supply in 2001/02 of 841,000 bales was 30 percent above the level in the previous year. Ending stocks for 2001/02, estimated at 347,000 bales, resulted in a stocks-to-use ratio of 68.9 percent, compared with 21.6 percent in 2000/2001.

The ELS cotton supply for 2002/2003 is forecast to increase to 991,000 bales, up 18 percent from the previous year. Ending stocks for 2002/03 are expected to increase 18 percent to 411,000 bales, due to increased supply more than offseting higher use. With the expected increase in stocks, the stocks-to-use ratio is forecast to increase to 69.7 percent, the highest since 1983/84.

ELS (American Pima) Market Situation

Quality

Color grades 1 and 2 made up 93 percent of classings from the 2001 crop, up from 81 percent for the composite grades 1 and 2 last year. Color grade 2 was the predominant color grade in 2001, accounting for 51 percent of the classings. Color grades 3 and lower comprised 7 percent of 2001 classings. Leaf grades 1 and 2 accounted respectively for 66 percent and 30 percent of the 2001 classings. The average staple length was 46.0 thirty-seconds inches, as compared to 45.6 last year. Staple 46 was the predominant length, comprising 64 percent of classings this season, compared to 68 percent in 2000. Average mike was 4.1, the same as last year. Average fiber strength was 40.1 grams per tex, up from 39.3 last year.

Varieties Planted

Phytogen was the most popular brand of American Pima planted in 2002. Phytogen variety PHY 76 Pima accounted for 66.5 percent of the United States Pima acreage and was the most popular variety planted in California (76.4 percent of California Pima acreage). Deltapine's DP 744 Pima was the second most-planted American Pima variety and accounted for 11.3 percent of the U.S. crop. Deltapine's DP 340 Pima was the next most popular variety and accounted for 9.0 percent of the U.S. Pima acreage. The most popular Pima varieties in Arizona were CPCSD Pima S-7 (39.8 percent) and Deltapine DP HTO Pima (35.9 percent).

U.S. GOVERNMENT PROGRAMS

Domestic Programs for 2002 through 2007

Upland Cotton

The current upland cotton program is authorized by the Farm Security and Rural Investment Act of 2002 (2002 Act). This Act, passed in May, 2002, retains most of the provisions from the previous farm legislation, the Agricultural Market Transition Act of 1996 (1996 Act), in that it again provides no authority for retiring land from production. It retains the separation of most farm payments from farm production or market prices. One exception, however, is that the 2002 Act provides for payments to producers when market prices are below certain "target" levels. Counter-cyclical payments, 2002-style, are made on the basis of historical farm planted area and average yields, not on the basis of actual planted area or production. Thus, counter-cyclical payments are said to be "de-coupled." Only the payment rate per pound is as it was of old, namely, determined by comparison of market price to target price. The 2002 Act continues to provide farmers complete flexibility in their planting decisions and to reduce the influence of government policies in the marketplace for agricultural commodities. In addition to upland cotton, the 2002 Act also provides payments for feed grains, wheat, rice, peanuts, soybeans, and minor oilseeds. These are the "program crops." It provides minimal price support and is designed to enable American farmers to produce for the marketplace. An enrollment period began on October 1, 2002. Farm operators and owners may update their historical average yields and historical planted area by furnishing supporting data for the period 1998-2001. Or, they may retain area and yield averages that were used to make payments under the 1996 programs.

General Provisions Applicable to Program Crops

Direct payments will be made to farm operators and/or owners over the next 6 years. These payments are not tied to market prices or to any planting requirement or prohibition, except for compliance with plans on the farm for erosion control or wetland preservation. Hence, they cannot be considered to provide support for prices or as income subsidies to compensate for low market prices.

Each farm's historical planted area (base area) in each of the program crops (corn, sorghum, barley, oats, wheat, rice, peanuts, soybeans, minor oilseeds, and upland cotton) will form the

basis for payments under the program. There are no significant planting requirements or prohibitions other than that the land should be used for an agricultural purpose or, if not planted, should be protected from erosion. Plans previously developed for the farm which specify certain cultural practices, or which require the installation of certain physical infrastructure to protect against soil erosion or to preserve wetland environments, must be complied with. Land formerly dedicated to a program crop which is presently enrolled in the Conservation Reserve Program (CRP), a 10-year leasing arrangement which holds fragile lands out of production to combat erosion, may re-enter production and may begin earning payments at the expiration of the 10-year lease as long as conservation plans for the farm are followed.

The 2002 Act provided direct payment rates for each of the program crops. The direct payment rate for upland cotton is 6.67 cents per pound. In each year through 2007, producers with a history of upland cotton production on the farm are projected to receive a total of approximately $450 million. By contrast, producers of the largest of the program crops, corn, are projected to receive as total of about $2.0 billion each year. The total land area and the average yields for each program crop that will receive these payments will be essentially fixed at the conclusion of the enrollment process.

Counter-cyclical payments are computed for the farm, rather than for the farmer, and are based on the historical planted area (base area) in each of the program crops and on the historical average yields for each program crop on the farm. The total land area that will receive the payments will vary only by the addition of base area on such lands as may be released from the CRP over the next 6 years. The target price for upland cotton will be 72.4 cents per pound. The maximum payment rate that can be paid for upland cotton is 13.74 cents per pound. This will be paid if the annual average market price is below 52.0 cents. The counter-cyclical payment rate for the year will reach zero if the average market price reaches or exceeds 65.73 cents.

Many provisions of the upland cotton program that was in effect for the 2001 and earlier crops were retained in the 2002 Act. Producers are entitled to receive "marketing assistance loans" as in past programs. The loan rate for the 2002-2007 crops of upland cotton is fixed at 52.0 cents per pound. Producers are eligible for loans on their entire production. Loans are available for a period of 9 months from the first full month after the loan is made. Loans are nonrecourse; forfeiture of the cotton pledged to the Commodity Credit Corporation (CCC) constitutes payment of the loan in full, regardless of the current market value of the cotton.

Marketing loan provisions are continued under the 2002 Act with no modifications. If it is determined that the world market price for upland cotton, adjusted to U.S. quality and location (the adjusted world price or AWP), is below the loan rate for any crop, then the Secretary of Agriculture shall implement a marketing loan program to provide for the repayment of loans at the AWP.

Eligible producers who agree to forgo CCC loans may receive loan deficiency payments on their total production otherwise eligible for loan. The loan deficiency payment rate is equal to the difference, if any, between the loan rate and the loan repayment rate (AWP) in effect during the week in which the application for payment is filed. Loan deficiency payments are subject to a payment limitation.

A **3-step procedure** to help keep U.S. cotton prices competitive is continued for the 2002 through 2007 crop years. Under Step 1 the Secretary has discretionary authority to make a downward adjustment to the AWP when (1) the Friday through Thursday average of the lowest priced U.S. growth as quoted C.I.F. northern Europe for M 1-3/32 inch cotton (U.S. Northern Europe price) is greater than the Friday through Thursday average of the cheapest five northern Europe quotes (Northern Europe price), and (2) the AWP is less than 115 percent of the loan rate. The maximum allowable AWP adjustment is equal to the difference between the U.S. Northern Europe price and the Northern Europe price.

Step 2 requires issuance of marketing certificates to U.S. domestic users and exporters when the U.S. Northern Europe price exceeds the Northern Europe price and the AWP does not exceed 134 percent of the loan rate for each week of a consecutive 4-week period. The value of the certificate will equal the difference in the fourth week between the U.S. Northern Europe price and the Northern Europe price, multiplied by the quantity of cotton exported or purchased by the domestic mill during the Friday through Thursday period following the fourth week. After July 31, 2006, the program will operate only if the U.S. Northern Europe quote exceeds the Northern Europe quote by more than 1.25 cents for the 4-week period, and the payment rate will be the difference between the two quotes, less 1.25 cents.

Step 3 provides for a special import quota if the U.S. Northern Europe price, adjusted for any payment rate under Step 2 in the previous week, exceeds the Northern Europe price in each week of a consecutive 4-week period. The quota would equal 1 week's domestic mill consumption based on the seasonally adjusted average rate for the most recent 3 months for which data are available. This is approximately 32,600 tons or 150,000 bales. Importers would have 90 days to purchase and an additional 90 days to import the cotton. Quotas established under this provision can overlap.

A **limited global import quota** must be established whenever the average spot market price for SLM 1-1/16 inch cotton during the preceding month exceeds 130 percent of such average price during the preceding 36 months. The amount of the limited global import quota is equal to 21 days of domestic consumption except when a special quota has been established during the previous 12 months, in which case the quota would be the smaller of 21 days of domestic consumption or an amount needed to increase the supply of cotton to 130 percent of the demand. A 90-day period will be allowed for entering cotton under this quota. This quota cannot be in effect while a Step 3 quota is in effect.

Even if neither of the quotas is in effect, cotton still may be imported under the tariff rate quotas (TRQ) established pursuant to the General Agreement on Tariffs and Trade (GATT). Over the next twelve months, approximately 222,000 bales of raw upland cotton (staple 35 or less) may be imported at the "in-quota" tariff level under the TRQ's and about 184,000 bales of extra-long staple.

ELS Cotton

The 2002 Act provides for a nonrecourse loan program for extra long staple (ELS) cotton.

A national average **loan rate** established for the 2002 through 2007 crops is 79.77 cents per pound. Producers participating in the program are eligible for loans on their entire production. Loans are available for a term of 9 months from the first entire month after the loan is made.

Loans are nonrecourse, i.e., forfeiture of the pledged cotton to the Commodity Credit Corporation (CCC) constitutes payment of the loan in full, regardless of the current market value of the cotton.

The 2002 Act gave CCC the authority to sell ELS cotton for unrestricted use at price levels determined appropriate by the Secretary of Agriculture to maintain and expand domestic and export markets. The announced CCC sales policy set the minimum sales price at the highest price offered, but not less than the market price, as determined by CCC. CCC inventory of ELS cotton as of September 1, 2002, was about 30,000 bales.

The 2202 Act provided no authority for target prices, counter-cyclical payments, direct payments or for the acreage reduction programs for ELS cotton. ELS cotton may be grown on any farm without restriction, and producers are eligible for marketing assistance loans on all ELS cotton produced on participating farms.

An **ELS cotton competitiveness payment pro-**

gram was authorized by legislation enacted on November 29, 1999. This program was extended to July 31, 2008, by the 2002 Act.

In authorizing the ELS cotton competitiveness payment program, Congress established that the program will trigger after 4 weeks in which the U.S. domestic spot price of ELS cotton exceeds the lowest price of competing non-U.S. growths. The payment rate is the amount of that difference, if any, determined each week. Under this general guideline, adjustments to price quotations for non-U.S. ELS cotton, C.I.F. northern Europe, were determined so that non-U.S. prices were made equivalent to the U.S. spot price with respect to location and quality. Valid comparisons between the U.S. and non-U.S. prices then could be made to arrive at reasonable payment rates.

A "base" quality for U.S. Pima for purposes of the ELS payment program was defined as Pima grade 3, staple 44, a close approximation of Egyptian Giza-86. As of the time that the program was conceived, only two non-U.S. growths were being quoted, C.I.F. northern Europe. Egyptian Giza 70 is a cotton of superior quality to the "base" Pima, so a "discount factor" of -7.0 cents per pound is being applied to the Giza 70 quotation before the comparison is made with the U.S. Pima spot price. At that time Central Asian Pima was the only other foreign ELS cotton being quoted. To achieve comparability between Central Asian Pima and the "base" quality of U.S. Pima, a premium of +18.0 cents per pound is being applied to the Central Asian Pima quotation. As required in the future, adjustment factors for other non-U.S. growths of ELS will be determined and applied.

The adjustments to the respective non-U.S. prices are designed so that the adjusted quotations would reach just short of the price thresholds thought to imply competitiveness with U.S. Pima. A change in any of the three prices could elicit a response from the competitiveness payment program if the change decreased U.S. competitiveness.

As of October 2002, payments have totaled about $4.5 million

Export Credit Programs

Under Title I of Public Law 480 (P.L. 480) the United States is authorized to sell commodities such as cotton, cotton yarn, and unfinished fabric manufactured entirely from U.S. cotton on long-term credits to participating countries.

To prevent P.L. 480 exports from interfering with normal commercial trade, the United States establishes a usual marketing requirement (UMR) in the Title I agreement, which can be waived or reduced in cases of unusual economic difficulty. In accepting the UMR, the participating country agrees to continue commercial purchasing at levels consistent with recent trade history. Sales of cotton under P.L. 480 are intended to help expand world trade rather than replace normal commercial purchases. For fiscal year 2002, there was no cotton funded under the P.L. 480, Title I program.

CCC Export Credit Guarantee Program GSM-102

Initiated in 1981, the GSM-102 program attempts to develop, maintain or increase markets for U.S. agricultural commodities. The program assists U.S. exporters in obtaining short-term commercial financing by providing credit guarantee protection against the risk of nonpayment for both commercial and non-commercial reasons. The program requires that export sales be secured by a dollar denominated letter of credit issued by a CCC-approved bank. If the importer's bank defaults on payments for any reason, the CCC will pay the exporter or the lending institution the amounts covered in accordance with GSM-102 regulations.

Whenever the Department of Agriculture (USDA) determines that a country is eligible for a GSM-102 program and there is market demand for U.S. exports, a public announcement is made. This announcement states that CCC will accept applications for guarantees against nonpayment on sales of a particular commodity to that specified country. After such an announcement, but before shipment, any qualified U.S. exporter with a sale of a covered commodity to the specified country must submit an application to register its sales with the CCC. A guarantee fee must also be submitted to the CCC with the written application. Before the application is submitted, the exporter should first determine whether bank financing will be available. The export sale must be secured by an irrevocable letter of credit payable in U.S. dollars from a CCC-approved bank.

The repayment period specified in the announcement is extended for up to three years under GSM-102. Approvals of acceptable applications are made up to the dollar limit stated in the announcement. The exporter is provided with a payment guarantee, which specifies the maximum value to be guaranteed by CCC. Presently, CCC generally covers 98 percent of the port value of the commodity plus 55 percent of the average investment rate of the most recent 52-week Treasury Bill. Coverage is effective from the date of export and continues in force for the period covered. The exporter may assign to a U.S. bank or other financial institution the proceeds payable by CCC under the payment guarantee. Notice of the assignment is sent to the Treasurer of the CCC who then acknowledges its receipt. Within 30 days after export of any commodity covered by a payment guarantee, the U.S. exporter must furnish the export information required by the GSM-102 regulations.

If the foreign bank, which issues the letter of credit, fails to make scheduled payments, the exporter or assignee must notify CCC of the default within 10 days of the payment's due date (or any extension thereof). Within 30 days after notice of nonpayment, the exporter or assignee files a claim for the date of nonpayment.

In recent years, USDA has used the market basket approach under the majority of GSM programs, where no specific dollar amount is assigned to a commodity. Registrations are made on a first-come, first-served basis. In fiscal year 2002, the United States announced guarantees totaling $4.53billion to 33 countries and regions. Sales of $223.9 million in cotton were registered in the Central and South American Region, Indonesia, Korea, Mexico and Turkey through September 27, 2002.

CCC Intermediate Export Credit Guarantee Program GSM-103

The Food, Agricultural, Conservation and Trade Act of 1990 specified that for fiscal year 1992, $500 million be made available for the implementation of an Intermediate Credit Guarantee Program, covering loans of more than three but less than 10 years in duration. This program is designed to help developing economies make the transition from concessional financing to cash purchases. The operation of the GSM-103 program is similar to that of GSM-102, except for the longer guarantee period and the method of calculating interest coverage, which is determined by a floating rate formula rather than a fixed rate. Although GSM-103 was originally intended for livestock, other commodities have been announced recently.

Supplier Credit Guarantee Program

Under the Supplier Credit Guarantee Program (SCGP), initiated by the Federal Agriculture Improvement and Reform (FAIR) Act of 1996, CCC guarantees a portion of payment due from importers under short-term financing (up to 180 days) that exporters have extended directly to the importers for the purchase of U.S. agricultural commodities and products. These direct credits must be secured by promissory notes signed by the importers. A substantially smaller portion of the value of exports (currently 65 percent) is guaranteed under SCGP than under the Export Credit Guarantee Program GSM-102 where CCC is guaranteeing foreign bank obligations. In fiscal year 2002, the United States announced guarantees totaling $1.08 billion to 30 countries and regions. As of September 27, 2002, $3.6 million of cotton was registered under this program.

COTTON MARKET DEVELOPMENT

Domestic Market Development

Under provisions of the Cotton Research and Promotion Act of 1966, a Cotton Research and Promotion Program was started in the United States in 1967. The program is intended to provide the means to establish and finance a coordinated program of research and promotion designed to strengthen cotton's competitive position, and to maintain and expand domestic and international markets and uses for United States cotton.

From 1967 to 1990, the program was financed through refundable assessments paid by producers. Amendments to the Act, contained in the 1990 Farm Bill, expanded the funding base for

Table 1: COTTON: SUPPLY AND DISAPPEARANCE, BY TYPE, 1982-2002

Year	Beginning Stocks 1/	Production 2/	Imports	Total Supply 3/	Mill Use 4/	Exports	Total Demand	Loss5/	Ending Stocks
				1,000 480-POUND NET WEIGHT BALES					
				ALL KINDS					
1982	6,632	11,963	20	18,615	5,513	5,207	10,720	-42	7,937
1983	7,937	7,771	12	15,720	5,921	6,786	12,707	238	2,775
1984	2,775	12,982	24	15,781	5,539	6,215	11,754	-74	4,102
1985	4,102	13,432	33	17,567	6,413	1,960	8,373	-154	9,348
1986	9,348	9,731	3	19,082	7,452	6,684	14,136	-80	5,026
1987	5,026	14,760	2	19,788	7,617	6,582	14,199	-182	5,771
1988	5,771	15,411	5	21,187	7,782	6,148	13,930	165	7,092
1989	7,092	12,196	2	19,290	8,759	7,694	16,453	-163	3,000
1990	3,000	15,505	4	18,509	8,657	7,793	16,450	-285	2,344
1991	2,344	17,614	13	19,971	9,613	6,646	16,259	8	3,704
1992	3,704	16,218	1	19,923	10,250	5,201	15,451	-190	4,662
1993	4,662	16,134	6	20,802	10,418	6,862	17,280	-8	3,530
1994	3,530	19,662	20	23,212	11,198	9,402	20,600	-38	2,650
1995	2,650	17,900	408	20,958	10,647	7,675	18,322	27	2,609
1996	2,609	18,942	403	21,954	11,126	6,865	17,991	-8	3,171
1997	3,971	18,793	13	22,777	11,349	7,500	18,849	41	3,887
1998	3,887	13,918	439	18,244	10,401	4,298	14,699	-394	3,939
1999	3,939	16,968	97	21,004	10,194	6,750	16,944	145	3,915
2000	3,915	17,188	16	21,119	8,862	6,740	15,602	-484	6,001
2001 6/	6,001	20,303	30	26,334	7,722	11,000	18,722	12	7,600
2002 7/	7,600	18,134	25	25,759	7,900	11,200	19,100	-41	6,700
				UPLAND					
1982	6,567	11,864	12	18,443	5,457	5,194	10,651	-52	7,844
1983	7,844	7,677	8	15,529	5,861	6,750	12,611	225	2,693
1984	2,693	12,852	21	15,566	5,491	6,125	11,616	74	4,024
1985	4,024	13,277	33	17,334	6,338	1,855	8,193	-148	9,289
1986	9,289	9,525	3	18,817	7,385	6,570	13,955	-80	4,942
1987	4,942	14,475	2	19,419	7,565	6,345	13,910	-209	5,718
1988	5,718	15,077	5	20,800	7,711	5,883	13,594	180	7,026
1989	7,026	11,504	2	18,532	8,686	7,242	15,928	-194	2,793
1990	2,798	15,147	4	17,949	8,592	7,378	15,970	-283	2,262
1991	2,262	17,216	13	19,491	9,548	6,348	15,896	12	3,583
1992	3,583	15,710	1	19,295	10,190	4,869	15,059	-221	4,456
1993	4,456	15,764	6	20,226	10,346	6,555	16,901	22	3,303
1994	3,303	19,324	18	22,645	11,109	8,978	20,087	-30	2,588
1995	2,588	17,532	400	20,520	10,538	7,375	17,913	64	2,543
1996	2,543	18,413	403	21,359	11,020	6,399	17,419	20	3,120
1997	3,920	18,245	13	22,178	11,234	7,060	18,294	62	3,822
1998	3,822	13,476	427	17,725	10,254	4,010	14,264	-375	3,836
1999	3,836	16,294	53	20,183	10,055	6,303	16,407	160	3,665
2000	3,665	16,799	8	20,472	8,738	6,303	14,995	-449	5,880
2001 6/	5,880	19,603	10	25,493	7,618	10,600	16,925	22	7,253
2002 7/	7,253	17,505	10	24,768	7,785	10,725	16,925	-31	6,289

Table 1 continued: COTTON: SUPPLY AND DISAPPEARANCE, BY TYPE, 1982-2002

Year	Beginning Stocks 1/	Production 2/	Imports	Total Supply 3/	Mill Consumption 4/	Exports	Total Demand	Loss 5/	Ending Stocks
				1,000 480-POUND NET WEIGHT BALES					
				EXTRA-LONG STAPLE					
1982	65	99	8	172	56	13	69	10	93
1983	93	95	4	192	67	36	103	-7	82
1984	82	130	3	215	49	90	139	2	78
1985	78	155	0	233	61	105	166	-8	59
1986	59	206	0	265	67	114	181	0	84
1987	84	285	0	369	52	237	289	27	53
1988	53	334	0	387	71	265	336	-15	66
1989	66	692	0	758	73	452	525	31	202
1990	202	358	0	560	65	415	480	-2	82
1991	82	398	0	480	65	298	363	-4	121
1992	121	508	0	629	60	332	392	31	206
1993	206	370	0	576	72	307	379	-30	227
1994	227	338	2	567	89	424	513	-8	62
1995	62	368	8	438	109	300	409	-37	66
1996	66	529	0	595	106	466	572	-28	51
1997	51	548	0	599	115	440	555	-21	65
1998	65	442	12	519	147	288	435	-19	103
1999	103	674	44	821	139	447	586	-15	250
2000	250	389	8	647	124	437	561	-35	121
2001 6/	121	700	20	841	104	400	504	-10	347
2002 7/	347	629	15	991	115	475	590	-10	411

1/ Compiled from Bureau of the Census data and adjusted to an August 1 480-Pound net weight basis. Excludes preseason ginnings.
2/ Includes preseason ginnings.
3/ Totals made from unrounded data.
4/ Adjusted to August 1-July 31 marketing year.
5/ Difference between ending stocks based on census data and preceding season's supply less disappearance. For supply less disappearance. For upland cotton, this difference primarily reflects an increase of an estimated one percent in average bale weights due to moisture absorption once cotton is ginned and begins to flow through marketing channels. Additional moisture is absorbed by cotton moving in export channels. For ELS cotton, this difference reflects in part, reporting discrepancies for stocks, mill consumption and exports.
6/ Estimate.
7/ Forecast.

the program by authorizing assessments on imported cotton and cotton-containing products while eliminating refunds of producer paid assessments. These changes became effective in 1992. The import assessment is about 1 cent per kilogram of non-U.S. origin raw upland cotton contained in a product, the same rate applied to domestic cotton.

The Act provides for the establishment of a Cotton Board to administer the program. The Board is currently comprised of 25 members representing U.S. cotton producers and five organizations of importers of cotton products. Board members are nominated by producer and importer organizations certified by the Secretary of Agriculture. The Secretary appoints the Board members who administer the program and submit plans and budgets to the Secretary for approval.

Research, promotion and technical assistance activities are carried out by a contracting organization, Cotton Incorporated. Since 1975, cotton's domestic market share at retail, excluding carpets, has increased from 34 to over 60 percent. Research activities funded under the Cotton Research and Promotion Program effectively develop innovative processes and treatments for cotton to provide consumers with the latest in fiber technology.

International Market Development

Cotton Incorporated

Cotton Incorporated's overseas operations began in 1973, with the purpose of expanding export markets for U.S. cotton by providing technical and marketing assistance abroad. Cotton Incorporated maintains headquarters in Cary, North Carolina, with other offices in New York City, Los Angeles, Dallas, Osaka, Mexico City, Shanghai, and Singapore. Overseas activities include technical servicing to mills to enhance cotton processing technologies, introduction of new fabric and machinery technology, and the presentation of color fabric trend forecasting.

Cotton Council International

Cotton Council International (CCI) is the export promotion arm of the National Cotton Council of America. CCI's primary mission is developing markets for U.S. cotton exports of cotton fiber and value-added cotton products through cooperation with the U.S. Department of Agriculture, industry groups and firms in program countries. CCI's headquarters is in Washington, D.C., with overseas offices in Hong Kong, Korea, and the United Kingdom.

CCI coordinate advertising campaigns for 100 percent cotton products containing a majority of U.S. cotton under the COTTON USA program. This program reaches over one billion current and potential customers of U.S. cotton in more than 50 countries worldwide. Special projects have been undertaken to expand cotton consumption around the world. Examples include: foreign cotton spinner and manufacturer's representative's orientation tours to the United States; trade missions of producers, exporters and government representatives from the United States to consuming countries; and conferences and seminars on cotton trade, processing, and promotion.

LIST OF USDA WEB SITES

FAS Cotton Group website: http://www.fas.usda.gov/cots/cotton.html

Cotton and Wool Outlook (CWS): Economic Research Service, U.S. Department of Agriculture. Description: Monthly. Provides information and statistics on domestic and world cotton and wool production, consumption, export sales, use, and prices, including data on raw fibers and textiles. http://usda.mannlib.cornell.edu/reports/erssor/field/cws-bb/

The USDA Economics and Statistics System: Contains nearly 300 reports and datasets from the economics agencies of the U.S. Department of Agriculture. These materials cover U.S. and international agriculture and related topics. Most reports are text files that contain time-sensitive information. Most data sets are in spreadsheet format and include time-series data that are updated yearly. http://usda.mannlib.cornell.edu/

The USDA Baseline provides: longrun projections for the U.S. agricultural sector through 2009. Projections cover selected agricultural commodities and agricultural trade, and aggregate indicators such as farm income and food prices. As "baseline" projections, they represent one plausible scenario for the next ten years, and reflect both model results and judgment. The projections assume no shocks and are based on specific assumptions for the macroeconomic conditions, policy, weather, and international developments. http://www.ers.usda.gov/briefing/baseline/

AMS The Cotton Program: The program promotes the orderly and efficient marketing of cotton by preparing, distributing, and encouraging the use of universal cotton classification standards, and by providing cotton classification and market news that meet the needs and expectations of the cotton and textile industries. http://www.ams.usda.gov/cotton/index.htm

USDA AMS Market News Reports - Cotton Reports: AMS provides current, unbiased price and sales information to assist in the orderly marketing and distribution of farm commodities. Reports include information on prices, volume, quality, condition, and other market data on farm products in specific markets and marketing areas. Re-

Table 2: U.S. PER CAPITA DOMESTIC COTTON CONSUMPTION, 1982-2001 1/

Calendar Year	Mill Use	Textile Imports	Textile Exports	Net Trade 2/	Domestic Consumption 3/
			Pounds		
1982	10.72	3.86	1.11	2.75	13.50
1983	12.00	4.84	0.94	3.90	15.90
1984	11.50	4.84	0.87	5.31	16.81
1985	11.80	6.75	0.87	5.88	17.20
1986	13.54	7.94	1.14	6.80	20.34
1987	15.46	9.62	1.23	8.39	23.85
1988	14.32	8.66	1.33	7.33	21.65
1989	16.36	9.52	2.05	7.47	23.83
1990	16.47	9.67	2.66	7.01	23.48
1991	17.20	10.24	2.68	7.56	24.76
1992	18.64	12.45	3.11	9.34	28.98
1993	19.13	13.86	3.54	10.32	29.45
1994	20.07	14.68	4.15	10.53	30.60
1995	19.70	15.54	5.06	10.48	30.18
1996	19.69	15.91	5.74	10.17	29.86
1997	20.30	18.97	6.69	12.28	32.58
1998	19.35	22.28	7.24	15.04	34.39
1999	18.18	24.59	7.60	16.99	35.17
2000	17.24	27.38	8.87	18.51	35.75
2001	13.85	27.15	7.64	19.51	33.36

1/ U.S. apparent consumption of cotton and cotton textiles.
2/ Imports minus exports.
3/ Mill consumption plus net trade.
Compiled by Economic Research Service, USDA, from Bureau of the Census data.

Table 3: RAW COTTON EQUIVALENT OF U.S. EXPORTS OF DOMESTIC COTTON MANUFACTURES AND IMPORTS FOR CONSUMPTION OF COTTON MANUFACTURES, 1982-2001

Calendar Year	Total Exports		Total Imports	
	1,000 Pounds	1,000 Bales 1/	1,000 Pounds	1,000 Bales 1/
1982	253,342	527.8	903,791	1,882.9
1983	219,614	457.5	1,135,502	2,365.6
1984	206,081	429.3	1,465,475	3,053.1
1985	213,224	444.2	1,629,166	3,394.1
1986	274,828	572.6	1,910,474	3,980.2
1987	298,004	620.8	2,335,696	4,866.0
1988	330,266	688.1	2,118,775	4,414.1
1989	491,067	1,023.1	2,353,918	4,904.0
1990	638,822	1,330.9	2,416,410	5,034.2
1991	676,308	1,409.0	2,592,913	5,401.9
1992	794,973	1,656.2	3,193,165	6,652.4
1993	914,725	1,905.7	3,574,387	7,446.6
1994	1,080,823	2,251.7	3,795,927	7,908.2
1995	1,330,810	2,772.5	4,048,669	8,434.7
1996	1,524,678	3,176.4	4,171,553	8,690.7
1997	1,792,384	3,734.1	5,084,073	10,591.8
1998	1,957,103	4,077.3	6,026,211 1	2,554.6
1999	2,073,505	4,319.8	6,711,432	13,982.2
2000	2,442,982	5,089.5	7,541,382	15,711.2
2001	2,123,784	4,424.6	7,545,249	15,719.3

1/ Bales of 480-pound net weight.
Compiled by Economic Research Service, USDA, from Bureau of the Census data.

ports cover both domestic and international markets. The data is disseminated within hours of collection via the Internet and made available through electronic means, in printed reports, by telephone recordings and through the news media. http://www.ams.usda.gov/cotton/mncs/index.htm

USDA - National Agricultural Statistics Service Reports by Commodity: http://www.usda.gov/nass/pubs/estindx1.htm - cotton

World Agricultural Outlook Board WASDE REPORT: The World Agricultural Supply and Demand Estimates(WASDE) report is available electronically within one hour of release. http://www.usda.gov/oce/waob/wasde/wasde.htm

Farm Service Agency(FSA): The Farm Service Agency provides "Program Fact Sheets" in Portable Document Format (PDF) on all commodity programs including cotton. http://www.fsa.usda.gov/pas/publications/facts/pubfacts.htm

Export Credit Guarantee Programs: The Commodity Credit Corporation (CCC), U.S. Department of Agriculture, administers export credit guarantee programs for commercial financing of U.S. agricultural exports. The programs encourage exports to buyers in countries where credit is necessary to maintain or increase U.S. sales, but where financing may not be available without CCC guarantees.

http://www.fas.usda.gov/excredits/exp-credguar.html

United States Farm Bill: Information on the 2002 U.S. Farm Bill http://www.usda.gov/farmbill/index.html

Table 4: MANMADE FIBERS: U.S. CONSUMPTION 1982-2001

Year	Cellulosic	Noncellulosic	Total
	Million pounds		
1982	522.1	6,253.1	6,775.2
1983	598.6	7,585.5	8,184.1
1984	587.9	7,378.2	7,966.1
1985	545.6	7,679.9	8,225.5
1986	608.3	8,044.4	8,652.7
1987	585.6	8,480.1	9,065.7
1988	612.9	8,595.0	9,207.9
1989	600.8	8,616.8	9,217.6
1990	598.9	8,448.1	9,047.0
1991	556.5	8,535.7	9,092.2
1992	557.7	9,173.2	9,730.9
1993	594.4	9,566.2	10,160.6
1994	516.8	10,217.6	10,734.4
1995	481.2	9,832.7	10,313.9
1996	456.1	10,053.4	10,509.5
1997	434.4	10,672.7	11,107.0
1998	362.6	10,741.8	11,102.9
1999	311.2	10,776.7	11,087.8
2000	295.5	10,724.1	11,019.6
2001	274.8	9,696.4	9,971.2

Compiled by Economic Research Service, USDA, from *Fiber Organon* and Bureau of the Census data.

UZBEKISTAN

MAJOR TRENDS IN THE COTTON INDUSTRY

Being a major producer and exporter of cotton not only in Central Asia but also in the world, Uzbekistan is actively interested in the operations of the world market.

In the course of the program of structural transformation and liberalization of economics being implemented in the Uzbek Republic, the following goals are addressed in the cotton production sphere:

- Implementation of new technologies in the areas of seed production, irrigation and cotton growing.
- Improvement of quality and consumer-oriented characteristics of the cotton fiber, and baling.
- Stimulation of Uzbek cotton consumption worldwide by widening sale markets.
- Privatization of state-owned property, demonopolization of the cotton sector and improvement of management systems.

A World Bank project entitled "Modernization of Cotton Production," designed to increase the export potential of Uzbek's agriculture and develop the private sector, should be mentioned in particular. In order to produce and export cottonseed, seed producing corporations and joint ventures have been created in certain regions of the republic.

In the beginning of 2002, the government of Uzbekistan and the International Monetary Fund signed a Memorandum about the economic and financial policy designed to facilitate large-scale financial reforms (Monitoring Program).

For the cotton sector in particular, it included the issue of reorganizing state-wide purchases of raw cotton by a reduction to 50% of the production volume, whereas the remaining 50% will be used by farmers at their own discretion.

Production, Consumption and Exports

Production in Uzbekistan averages 1-1.2 million tons of lint annually, out of which 75% is exported. Since 1996, production of cotton lint in the republic is declining mainly due to a decrease in cotton area in favor of other agricultural crops.

The major consumer of lint is the domestic textile industry. Currently, the National Program for the Development of the Textile Industry–2000-2005 is being implemented. This program is aimed at increasing domestic cotton consumption to 500,000 tons—about 50% of the total production volume in Uzbekistan—in order to manufacture high value added products such as yarn, fabrics, hosiery and garments.

Our flexible marketing policy is aimed at the expansion of geographic locations of export markets and at maintaining optimum export volumes.

However, cotton lint exports are being negatively affected by severe competition from other producers, increased production and consumption of chemical fibers, and volatility of international prices.

Due to reduced cotton plantings and increased domestic consumption, the physical volume of exports decreased in the last years by 23%, and earnings from exports dropped by 54.6%, mainly as a result of falling prices.

Research and Development

Seed Production, Cotton Agrotechnology and Quality Control

Scientists and researchers in Uzbekistan continue to work on growing new varieties to improve lint quality. In particular, scientists at the Institute of Genetics and Experimental Plant Biology are working on the creation of middle staple cotton lines of the third fiber type as well as fine staple lines. They also continue their research in the area of genetically modified cotton.

In the last years, over 150 new varieties of cotton have undergone national testing, and 18 of them were recommended for planting. Area dedicated to new promising varieties has been increased by almost 2.5 times, with the corresponding reduction of varieties that were grown previously. Of particular interest are issues related to growing ecologically clean cotton because no chemical products are used in its agrotechnology, harvesting and processing.

Fine Staple Cotton

At the present time, Uzbekistan occupies ninth place in the world as a producer of fine staple cotton and, despite its small scale, the interest of potential buyers in this particular cotton is increasing.

Logistics

Within the framework of measures designed to transport Uzbek cotton to foreign markets, further development and improvement of logistics becomes very urgent. The main destinations of Uzbek cotton are Iran (with an access to the markets of South-East Asia), the Baltic countries, and Russia, whereas transportation through Ukraine and the Transcaucasian corridor is decreasing.

The creation of cotton terminals in the republic is very important for the improvement of logistic systems. Today, we have four cotton terminals in Uzbekistan which function in the customs mode called “a free storage,” and provide international traders with the entire set of logistic services.

ZIMBABWE

THE COTTON INDUSTRY

The cotton sector continues to be a key sector within Zimbabwe’s economy and is the largest foreign currency earner after tobacco and gold. The sector employs more than 200,000 peasant farmers and their families in the lower lying agronomic regions of the country that are suitable for cotton production.

The liberalization of the economy in 1993/94 saw the entry of several buyers of seedcotton that expanded the market base for farmers. As a consequence of the unrestricted entry by new players, seedcotton-purchasing methods have been greatly transformed. The regulatory Cotton Council has actively sought to uphold industry standards in order to protect the country’s reputation as a producer of high quality cotton.

The cotton industry in Zimbabwe is vibrant and successful, and receives no government subsidies. The various stakeholders have urged government to relinquish its continued control of research in order to make the industry fully self-sustaining.

Crop Intake

Following an impressive growth since 1992/93, the cotton sector was adversely affected by drought in 2001/02 resulting in poor yields averaging only 600 kg/ha and a small national crop of about 190,000 tons, compared to a record crop of 353,000 tons in 1999/00

The table shows yields and cotton production since 1991/92.

Inputs Scheme

Most of the large players in the cotton sector assist growers through input credit schemes. Basically, the schemes entail the supply of inputs—such as planting seed, farm implements, fertilizers and chemicals—to farmers on credit, with monies recovered through deliveries of seedcotton. It is estimated that up to Z$3 billion will be disbursed to growers this season.

Land Reforms

The impact of land reforms on cotton production has not been apparent due to the current drought. Traditionally, cotton has been grown in marginal areas of the country by small-scale farmers and the relocation of growers to more fertile land will mean additional cotton plantings in the future. The government of Zimbabwe has earmarked massive financial resources to assist newly resettled farmers with crop inputs.

Research

The government-run Cotton Research Institute is now receiving royalties from a seed company that has the rights to commercialize all the varieties released so far. Funding from the European Union’s Stabex fund and donations from the cotton sector have enabled the institute to survive, but the government is being encouraged to commercialize the activities of the Institute and give it some freedom of operation.

Varieties

Optimism in the cotton sector has been boasted by the continued good performance of the Albar FQ 902 and SZ 9314 varieties, both of which give high seedcotton yields with lint outturns in excess of 40% and produce good quality fiber. In addition, some long staple selections developed have proven adaptable to dry land and irrigated conditions, opening up greater areas to develop cotton for clients requiring a longer staple cotton.

The number of varieties has now been reduced to three and it is planned to have only one variety

Seedcotton Yield and Production

Year	Yield (kg/ha)	Production (t)
1991/92	200	(d) 60,000
1992/93	600	214,000
1993/94	620	181,000
1994/95	330	(d) 105,000
1995/96	900	284,000
1996/97	750	278,000
1997/98	800	272,000
1998/99	850	303,000
1999/00	900	353,000
2000/01	900	335,000
2001/02	600	(d) (e) 190,000

Source: Cottco e = estimate d = drought year

countrywide to enable Zimbabwe to market a more homogenous fiber.

Tests of Zimbabwean varieties in several regional locations have yielded very positive results. They have out-yielded local varieties by 30% and have a higher lint outturn and better fiber quality.

Seed Production

Seed certification is controlled under the authority of the Agricultural Research and Extension Services in the Ministry of Lands and Agriculture. A private company, Quton Seed Company, has been appointed as a certifying agency for cottonseed and the company has registered its laboratory for seed testing.

Farmers have a choice of aphicide-treated or non-treated planting seed. Treated seed protects the young cotton crop for six to eight weeks from aphids and other sucking pests and research results have shown that in addition to savings in foliar sprays, crops grown from treated seed have better stands, are more vigorous, and usually yield better than untreated seeds. Increases in yields of up to 30% have been recorded in the last two seasons.

Seed Sales

Seed sales are progressing well and anticipated sales for the forthcoming crop are estimated at between 8,500 and 9,000 tons. Given reasonable rains, a potential crop of 250,000 to 300,000 tons of seedcotton is possible.

Ginning

There are thirteen ginning facilities in the country with a capacity of 450,000 tons owned by three private companies. National production has not been sufficient to fulfill available capacity. The few commercial farmers still growing cotton are increasingly opting for toll ginning and private market arrangements.

The standards imposed by the Cotton Council ensure that each ginner adhere to the required levels of grading and control of contamination to uphold the country's reputation as a producer of good quality cotton.

Marketing

The textile sector continues to be adversely affected by the general downturn in economic activity. The shortage of foreign currency and the decline in demand for textile goods locally, coupled with poor yarn prices internationally, have seen some companies struggle to maintain operations.

The domestic textile industry, however, consumes up to 30% of the cotton output. Zimbabwe is able to command a premium on cotton exports due to its unique handling of cotton, which places great emphasis on uniformity, and the elimination of contamination. Markets for Zimbabwe's cotton include Europe, South Africa and the Far East.

PROSPECTS

Many cotton farmers would welcome the introduction of higher yielding varieties through biotechnology. The adoption of biotechnology by the cotton industry will have to meet with the approval of the government-controlled Biosafety Board, whose approach to BT in general has been extremely cautious.

Following the drought last year, there is great optimism that this season will be normal, that land reforms will result in a larger planting area, and that the total crop will reach 300,000 tons. The cotton sector is poised to play a critical role in the country's economic recovery.

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