



INTERNATIONAL COTTON ADVISORY COMMITTEE

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The World Cotton Outlook^{*}

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New Technologies are Transforming Cotton

The world cotton industry is experiencing robust growth in production and consumption, and the industry is being transformed by new technologies that are raising yields and lowering production costs. Supplies of cotton lint are rising faster than demand, leading to rising stocks and lower cotton prices on average. The industry is expected to grow by about 2% a year over the next five years.

New technologies, more extensive use of existing technologies, and new areas dedicated to cotton are resulting in dramatic gains in production. The world cotton yield has grown from about 400 kilograms of lint per hectare in the early 1980s, to a little less than 600 kilograms in the 1990s and to more than 700 kilograms in the most recent complete cotton season, 2004/05. For the current season that started on August 1 and will end July 31, 2006, weather has not been as robust as a year earlier, and yields are expected to decline somewhat but will still be the second highest on record.

Biotechnology, improved management of irrigation, targeted applications of pesticides, improved use of fertilizers, and improvements in crop management are leading to increased yields and lower production costs. Biotech cotton varieties are accounting for about one-third of world cotton production this season, and this proportion is expected to rise to one-half during the next three years.

In 2003/04, the cost of production on one hectare ranged from less than \$400 in some developing countries to almost \$4,000 in Israel. Data from 30 countries indicate that the average total cost of production, including land, the value of cottonseed and economic and fixed costs, was \$1.77 per kilogram of lint (\$0.80 per pound). Excluding the cost of land rent and subtracting the value of cottonseed sold after harvest, the net cost of production averaged \$1.14 per kilogram of lint (\$0.52 per pound), and if economic and fixed costs are excluded, the resulting cash costs of production averaged \$0.96 per kilogram (\$0.44 per pound). These data indicate that the average land owner, producing cotton at average cost and gaining average yields in 2003/04 will tend to maintain or expand production when farm prices exceed 44 U.S. cents per pound. Adding approximately 10 cents per pound in average costs of transportation and handling to Asian markets, indicates that cotton production will tend to be maintained or expanded at world market prices around 54 cents per pound.

Compared to yields, world cotton area is relatively stable and varies in a range between 29 million hectares and 36 million hectares. There has been no tendency for world cotton area to

^{*} Paper presented to the IWTO Wool Forum, Biella, Italy, 29 November 2005.

rise or fall in recent decades, although there have been shifts among countries over this period, with cotton area having fallen in Central Asia and risen in Africa and Australia.

With yields rising, while area is relatively stable, world production has been increasing. World production rose from about 14 million tons in the early 1980s to about 19 million tons in the 1990s and to a record of 26.7 million tons in 2004/05. The largest cotton producers are China (Mainland), the U.S., India, Pakistan and Uzbekistan. Production has been trending higher in most countries, but because of shifts in priorities following independence, production in Uzbekistan fell in the 1980s and 1990s. In the current season, 2005/06, world production is estimated at 25 million tons, down about 6% from last season because of lower yields tied to weather, but still the second highest in history.

Demand Growth

World demand for cotton is increasing, rising from 14 million tons in 1980/81 to 23.4 million tons in 2004/05, for an average annual rate of growth of 2.1%. The last six seasons have seen extraordinary rates of growth in cotton use. Between 1998/99 and 2004/05, cotton use rose by 4% per year. World cotton use in the current season is forecast to rise by 4% to 24.4 million tons. The rate of increase is expected to slow this season as the world economy cools, but consumption is still rising to a record.

World cotton consumption is affected by economic growth and population growth, trade rules and consumer preferences, and relative fiber prices. World economic growth has been above average in recent years, contributing to the expansion in cotton demand. However, economic growth has not been so unusual as to explain the rapid increase in cotton use since 1998.

Cotton consumption is benefiting from the elimination of quotas on textiles and apparel trade among WTO members that began in the 1990s and was complete on January 1, 2005. Research suggests that because of textile quota elimination and the resultant ability of importers to source products more efficiently, the world is consuming an extra 400,000 tons of cotton each year.

Research and promotion have also supported cotton consumption. The U.S. cotton industry spends between \$60 million and \$70 million per year on research and promotion, and the U.S. government contributes another \$10 million each year in the promotion of cotton exports. The cotton industries of Australia, South Africa and a few other countries also have smaller, but still effective, programs. As a result of the cumulative impact of research and promotion expenditures since 1980, world mill use of cotton is estimated to be about 10%, or approximately 2.5 million tons, higher than it would be in the absence of such expenditures.

While economic growth, quota elimination and research and promotion programs have contributed to the rise in cotton use, a decline in cotton prices relative to competing fiber prices has been the main factor boosting the quantity of cotton used. Polyester prices are currently well above cotton prices in all markets; in the U.S., prices of polyester are approximately 50% above cotton prices. During most of the 1990s, polyester prices were lower than cotton prices, and cotton rapidly lost market share. However, during six of the last seven seasons including 2005/06, cotton prices have been lower than polyester, leading to the relatively rapid increases in cotton consumption.

Nevertheless, cotton continues to lose market share to polyester. Cotton's share of world fiber mill use was about two-thirds in the early 1960s and fell to about 50% in the 1980s. Because of competitive prices, cotton was able to maintain its share of fiber mill use during much of the 1980s, but polyester production accelerated beginning in the late 1980s, and cotton's share of the world fiber market is now about 39%.

The textile industry in China (Mainland) has been the driving force of world cotton mill use since 1998/99. Total cotton use is expected to climb to 9 million tons in China (Mainland) in 2005/06, up (10%) from 2004/05 and more than double the level of mill use in 1998/99. China (Mainland)'s share of world mill use is projected to climb to 37% in 2005/06, up from 23% in 1998/99.

Cotton mill use in the rest of the world is expected to reach a record of 15.4 million tons in 2005/06, up 140,000 tons. Mill use is forecast to rise 11% in India and 5% in Pakistan. Combined mill use in the top 3 countries is projected to reach 15.1 million tons in 2005/06, 62% of world mill use, sharply up from 8.7 million tons in 1998/99, 47% of the total. Cotton mill use in the rest of the world is projected at 9.3 million tons in 2005/06, down 500,000 tons from 1998/99. The share of developing countries in world mill consumption rose continuously from 68% in 1990/91 to 88% in 2004/05. Mill use in developed countries is headed lower.

Most of the increase in world cotton consumption at the end-use, or retail, level during the 1980s and 1990s took place in industrial countries. However, since 2000, most of the increase in cotton end use has been taking place in developing countries as consumers in China (Mainland) and India accelerate their retail purchases.

While retail level demand seems to be rising fastest in developing countries, the largest source of retail level demand for cotton in the world is still the U.S. U.S. imports of textile and apparel in 2004 were 11% higher than in 2003 in volume and 8% in value. Total end-use consumption of cotton in the U.S. reached a record of 4.8 million ton equivalents in 2004, equaling 16 kilograms of cotton consumption per capita. In comparison, world cotton consumption per capita is less than 4 kilograms and has changed little over the decades.

International trade is forecast up 1 million tons to a record 8.7 million tons in 2005/06, accounting for 35% of projected world production. Imports by China (Mainland) are expected to rise to a record of about 3.2 million tons. China (Mainland) may account for 37% of world imports, compared to 19% last season. Imports are forecast up 13% to a record 0.8 million tons in Turkey, where the gap between production and use is also widening. However, imports are forecast down in the European Union (25 countries), Russia, Indonesia, Japan, Korea, Thailand, and Pakistan.

Exports are projected to increase in many countries, boosted by demand from China (Mainland) and high domestic stocks. The United States is forecast to export 3.4 million tons, 10% more than last season, accounting for 39% of world exports. Stimulated by high stocks and higher international cotton prices, exports from the Africa Franc Zone are projected at 1.1 million tons, up 15%. Exports from Australia are expected to grow by almost 27% to 560,000 tons. Exports from Brazil are expected to increase significantly (18%) to reach 400,000 tons in 2005/06. Exports from India, stimulated by higher production and high stocks, are expected to jump from 175,000 to 275,000 tons in 2005/06 (57% increase).

Lower Average Prices

International cotton prices have declined in real terms over the last six decades because of advances in technology, and this process is continuing. During the 1970s, 1980s and 1990s, the average world price of cotton in nominal terms was 70 cents per pound, but the average international price during the current decade is expected to be between 50 and 60 cents per pound, in line with the marginal costs of production for most producers. The Cotlook A Index, an indicator of average world cotton prices delivered to mills in Europe or Asia, averaged 52 cents per pound last season, and the average this season is forecast to climb to 65 cents.

Successful Doha Round Essential

Direct income and price support provided to the cotton industry in 2004/05 totaled \$4.7 billion, or about one-sixth of the farm value of production¹. Eight countries offered direct support to the cotton industry ranging from \$2.2 billion in the U.S. to \$11 million provided by Colombia. The average level of assistance per pound of lint production is estimated at nearly \$1 in Greece and Spain, 20 cents in the U.S., 16 cents in Mexico, about 8 or 9 cents each Benin, China (Mainland) and Colombia and about 6 cents in Turkey.

The direct government measures that distort cotton production and trade lead to lower prices in the short run as production by farmers in recipient countries is higher than it would otherwise be. Estimates of impacts on prices vary from a few cents per pound in some seasons when prices are relatively high, to more than 15 cents per pound in seasons when prices are far below average thus raising the impacts of subsidies.

There is broad agreement that the venue for negotiation of reductions in agricultural subsidies is the World Trade Organization (WTO). The ICAC has a role in the WTO process. Reports from the Secretariat inform governments about the nature and scope of distortions in cotton caused by government measures, and discussions in the ICAC help to raise the profile of cotton and emphasize the need to reduce government measures that distort production and trade. Discussions during ICAC plenary meetings provide opportunities for member governments of the ICAC to urge a successful outcome to the talks on agriculture in the WTO.

At the 64th Plenary Meeting of the ICAC in September 2005 in Liverpool, Member Governments reaffirmed that production and export subsidies distort cotton production and trade causing negative impacts on cotton farmers, especially in the developing and least developed countries². The Committee called on the WTO and its members to urgently reach an ambitious agreement, and at the latest by the Hong Kong Ministerial meeting. The agreement should be comprehensive and result in substantial reductions in trade distorting domestic support, improvements in market access, and an early end date to export subsidies. Member Governments called for trade rules to be respected.

¹ Production and Trade Policies Affecting the Cotton Industry, International Cotton Advisory Committee, September 2005.

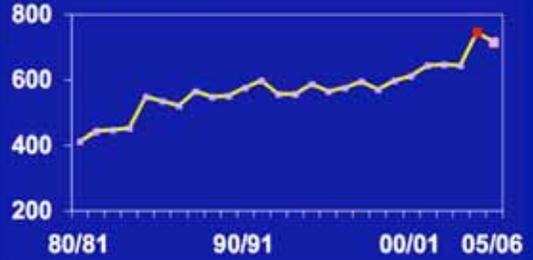
² Statement of the 64th Plenary Meeting, International Cotton Advisory Committee, September 29, 2005, Liverpool, UK.



International Cotton Advisory
Committee

WORLD COTTON YIELDS

Kilograms per Hectare



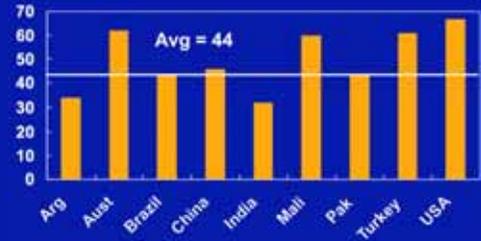
BIOTECH COTTON

Percent of World Area



Variable Cash Costs of Lint Production

US\$ per Lb.



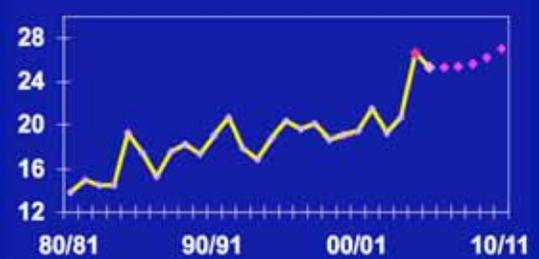
WORLD COTTON AREA

Million Hectares

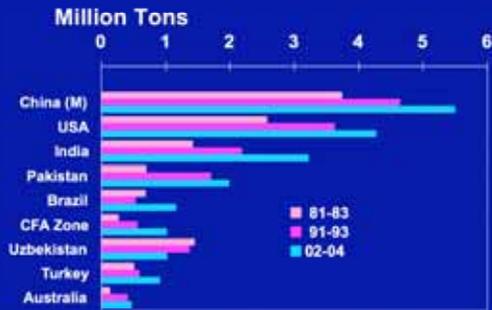


WORLD PRODUCTION

Million Tons



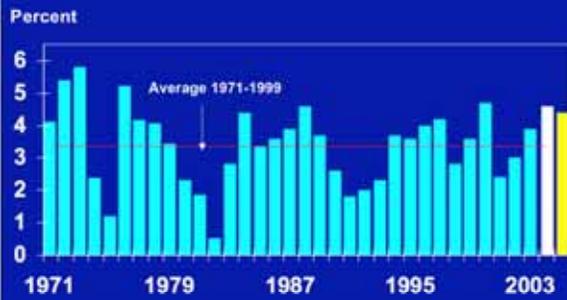
COTTON PRODUCTION



WORLD COTTON MILL USE

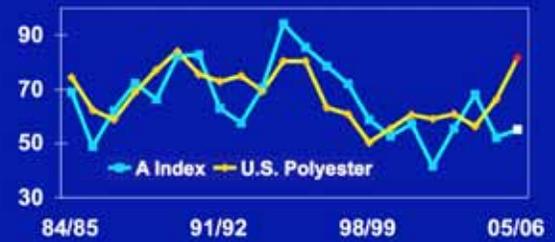


GROWTH OF WORLD GDP



FIBER PRICES

Cotton Outlook Quotes in U.S. Cents per Pound

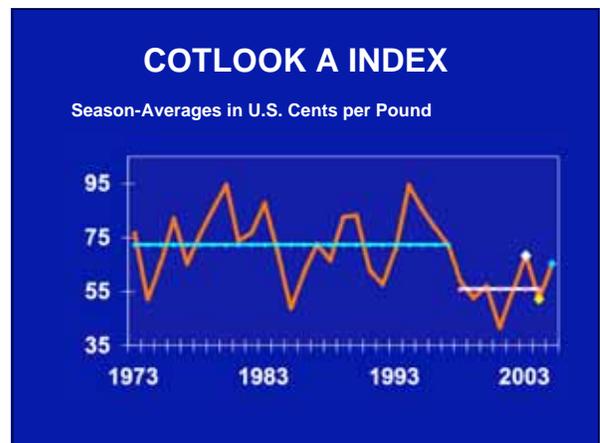
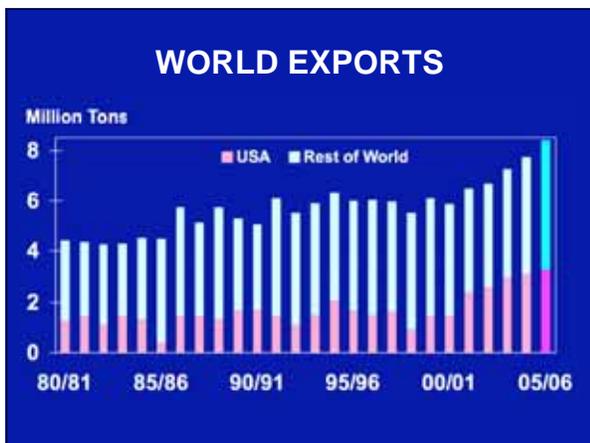
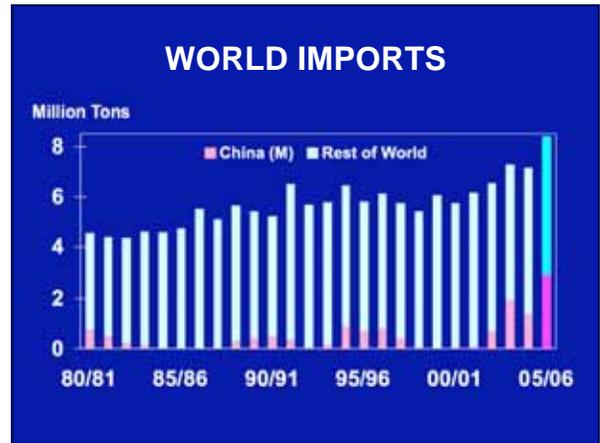
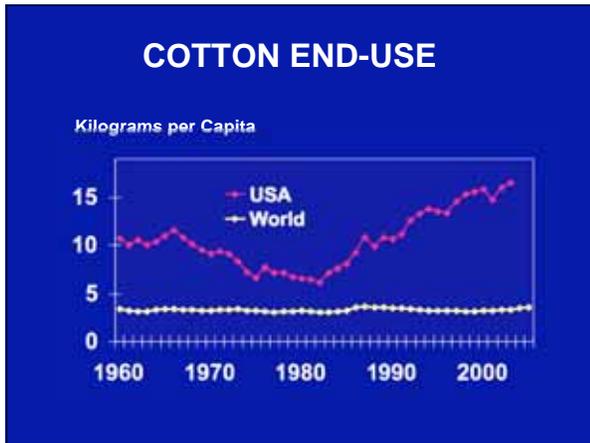
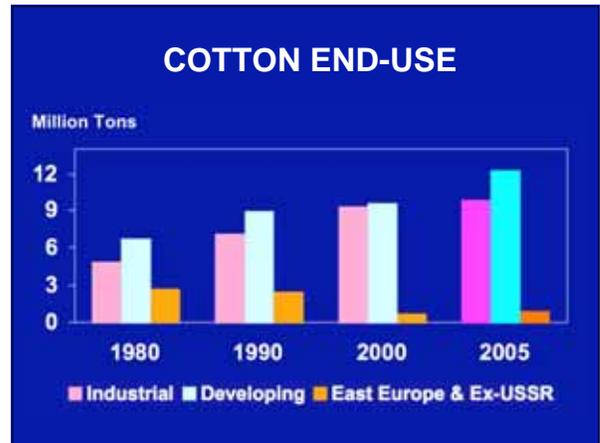
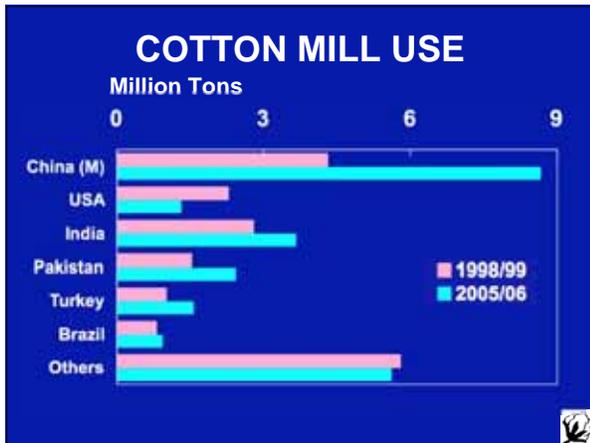


WORLD FIBER USE



COTTON'S MARKET SHARE





DIRECT GOVERNMENT ASSISTANCE TO COTTON

Billion \$



International Cotton Advisory
Committee