

# Contamination Status of Indian Cotton

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# Introduction

- **Indian Cotton Scenario:**
  - **Leading Producer in the World (26%)**
  - **Second Largest Consumer after China (22%)**
  - **Second Largest exporter after USA**
- **Harvesting: Hand Picking and Less Trash**

# Technology Mission On Cotton

Before TMC



## Outcome

- **Modernized Ginning Industry:**  
**>1000**
- **Trash Level (Cotton Bales): 1-2%**
- **Increased raw cotton Exports**
- **Adequate processing Capacity**
- **Skilled Human Resource**

After TMC



# ITMF Contamination Survey

## Most contaminated cotton descriptions:

- India (DCH, Shankar-4/6, MCU-5, J-34, India-Others),
- Pakistan (Pakistan Others),
- Uzbekistan (Medium Staples) and
- Ivory Coast.

## Clean Raw cottons :

- Australia, Brazil, USA and China

**2016: Total Mills: 90 (India :  
16)**

# ITMF: Contamination Sources

<b>Source</b>	<b>Item</b>
Fabrics Made of	Woven Plastic; Plastic Film; Jute/Hessian; Cotton
Strings Made of	Woven Plastic; Plastic Film; Jute/Hessian; Cotton
Organic Matter	Leaves, trashes, Paper, etc.
Inorganic	Sand Dust
	Rust
	Metal/Wire
Oily/Chemicals	Grease/Oil
	Rubber
	Stamp Colour
	Tar

# Effects of Contamination

- **String Jute hessian:** Increases breakages rate, Poor dye pickup in yarn, Poor yarn quality.
- **Leaves, dust, stones:** Increase the waste & reduce realization, damages to machinery parts, increases yarn breakage rate.
- **Greasy, oiled stamped cotton:** very difficult to remove at further stage, reduce fabric quality

# Purpose

- **To identify various contaminants prevalent in the Indian Cotton**
- **To assess the extent of contamination in the Cotton bales used by the spinning industry**

# Primary Survey

**Total Spindleage covered : 7 million spindles**

<b>Zone</b>	<b>No. of Mills</b>
Southern zone	30
Central Zone	25
Northern Zone	20



# Cotton - Varieties and Quantity

# Major Contaminants

- **Polypropylene**
- **sand dust**
- **Coloured Cloth**
- **Jute**
- **Organic Matter**
- **Plastic film**
- **Metal Parts**



# Sources of Contamination

- **Farmers field**

- **Picking & Storing** (Hessian & HDPE bags)
- Hairs, feathers, sand.

- **Ginning & Pressing**

- Sand & Dust,
- Labours: hair, cloth, pouch
- Use of color stamp: contaminated with color

# **Extent of Contamination**

# Contamination Status - S 6

Source	Item	I	M	S
Fabrics Made of	Woven Plastic	75	5	20
	Plastic Film	90	5	5
	Jute/Hessian	60	20	20
	Cotton	75	25	0
Strings Made of	Woven Plastic	60	30	10
	Plastic Film	75	10	15
	Jute/Hessian	50	45	5
	Cotton	95	5	0
Organic Matter	Leaves, trashes, Paper, etc.	40	45	15
Inorganic	Sand Dust	65	20	15
	Rust	80	10	10
	Metal/Wire	85	0	15
Oily/Chemicals	Grease/Oil	75	25	0
	Rubber	95	5	0
	Stamp Colour	80	10	10
	Tar	80	15	5
<b>Total Contamination</b>		<b>74</b>	<b>17</b>	<b>9</b>

- Jute and Hessian (F/S)
- Organic Matter
- Sand dust
- Woven Plastic

- Nimbhora
- Bodad
- Manavader
- Amreli
- Chotila

## ITMF CS

Year	Degree of Contamination			Participating Companies
	I	M	S	
2013	48	24	28	15
2011	50	33	17	18
2009	54	34	12	17

# Contamination Status – MCU 5

Source	Item	I	M	S
Fabrics Made of	Woven Plastic	59	27	14
	Plastic Film	86	9	5
	Jute/Hessian	59	27	14
	Cotton	64	27	9
Strings Made of	Woven Plastic	45	27	27
	Plastic Film	45	23	32
	Jute/Hessian	36	36	27
	Cotton	86	14	0
Organic Matter	Leaves, trashes, Paper, etc.	32	41	27
Inorganic	Sand Dust	50	32	18
	Rust	91	5	5
	Metal/Wire	77	18	5
Oily/Chemicals	Grease/Oil	73	27	0
	Rubber	91	9	0
	Stamp Colour	91	5	5
	Tar	95	5	0
<b>Total Contamination</b>		<b>68</b>	<b>21</b>	<b>12</b>

- Woven Plastic (F/S)
- Jute and Hessian (F/S)
- Organic Matter
- Sand dust

- Guntur
- Warangal
- Nandyal
- Bellary

## ITMF CS

Year	Degree of Contamination			Participating Companies
	I	M	S	
2013	53	19	28	15
2011	40	25	35	18
2009	44	30	26	17

# Contamination Status – DCH

Source	Item	I	M	S
Fabrics Made of	Woven Plastic	90	10	0
	Plastic Film	100	0	0
	Jute/Hessian	80	10	10
	Cotton	70	30	0
Strings Made of	Woven Plastic	40	30	30
	Plastic Film	50	40	10
	Jute/Hessian	20	60	20
	Cotton	90	10	0
Organic Matter	Leaves, trashes, Paper, etc.	20	70	10
Inorganic	Sand Dust	50	20	30
	Rust	80	10	10
	Metal/Wire	100	0	0
Oily/Chemicals	Grease/Oil	90	10	0
	Rubber	100	0	0
	Stamp Colour	90	0	10
	Tar	90	10	0
<b>Total Contamination</b>		<b>73</b>	<b>19</b>	<b>8</b>

- Woven Plastic (S)
- Plastic Film
- Jute and Hessian (S)
- Organic Matter
- Sand dust

- MP
- Karnataka

## ITMF CS

Year	Degree of Contamination			Participating Companies
	I	M	S	
2013	43	33	24	15
2011	52	28	20	18
2009	50	31	19	17

# Contamination Status

Source	Item	I	M	S
Fabrics Made of	Woven Plastic	69	17	14
	Plastic Film	89	7	5
	Jute/Hessian	63	25	11
	Cotton	69	29	2
Strings Made of	Woven Plastic	47	33	20
	Plastic Film	52	29	20
	Jute/Hessian	34	53	13
	Cotton	86	14	0
Organic Matter	Leaves, trashes, Paper etc.	38	47	15
Inorganic	Sand Dust	59	28	15
	Rust	89	7	5
	Metal/Wire	84	10	6
	Oily/Chemicals	Grease/Oil	74	25
	Rubber	94	6	0
	Stamp Colour	91	5	5
	Tar	91	7	2
<b>Total Contamination</b>		<b>74</b>	<b>17</b>	<b>9</b>

Year	Degree of Contamination			No. of Respondents
	I	M	S	
2013	74	18	8	15
2011	77	16	7	18
2009	78	16	6	17



# Bottom line

- **Overall Contamination status is *Insignificant to Moderate***
- ***The nature of contamination reveals***
  - ***Case for Man-made contamination (Major Concern)***
  - ***Need for appropriate packaging and storage***
- ***Need to Create brand “Indian Cotton”***

**PREMIUM PRICE Vs DISCOUNTING**

**THANK YOU**