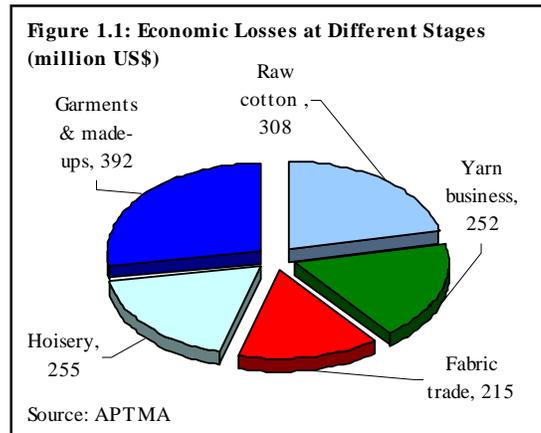


Special Section 1: Contamination of Cotton

The quality of cotton, as determined on the basis of its color, length, strength, fitness and most of all the degree of contamination, greatly affects its price. Estimates by APTMA suggest that in case of Pakistan, contamination of cotton is responsible for an annual loss of US\$ 1.4 billion (see **Figure 1.1**) whereas *Pakistan Textile Journal* estimates this at US\$ 3 billion in export earnings.



A “*Pakistan Central Cotton Committee Survey 2001*” carried out by the *International Textile Machinery Manufacturers’ Federation* has classified Pakistan’s cotton as being among the most contaminated. In fact, the International Textile Manufacturing Forum advises member textile units to avoid using yarn and fabrics from Pakistan due to its contamination. This survey was based on the analysis of 243 spinning mills located in 24 countries. It is found that cotton from India, Pakistan, Turkey and Tajikistan were the worst contaminated. Various estimates place the contamination of Pakistan’s cotton between 18 to 19 grams per bale, whereas the international standards require this to be up to 2.5 grams. The report also concludes that appropriate contamination control measures can raise the value of cotton production by 10 to 15 percent.

Contamination of raw cotton can take place at every step i.e. from the farm-picking to the ginning stage. Since cotton is picked manually by rural women in Pakistan so human hair, contamination caused by dupatta and any surplus fabric sheet are the biggest cause of cotton contamination. In addition polypropylene bags used by pickers, brackish and decayed seed cotton, leaves, flowers, sticks and weeds, immature balls, trash and dust, plastic bags are the other main sources of contamination. Moreover, addition of water by pickers, early morning picking of cotton before dew dry-up and storage of cotton on wet soil in order to increase its weight spoils its quality.

Similarly, at the time of marketing contamination is a result of sale of cotton in the

jute or propylene bags sewed with jute twine¹ and mixing of two varieties or two grades of the same variety to get economy of transportation. The major reason for this contamination is the lack of awareness of the importance of reducing contamination as well as low economic incentives for reducing contamination.

Effects of contamination

Contamination of cotton causes it to become sticky that creates obstruction in rollers, wastage of dyeing material and requires extra efforts at cleaning process that unnecessarily inflates cost. Even after cleaning leftover embedded pieces of contamination in yarn affect its quality and value.

Measures to reduce contamination

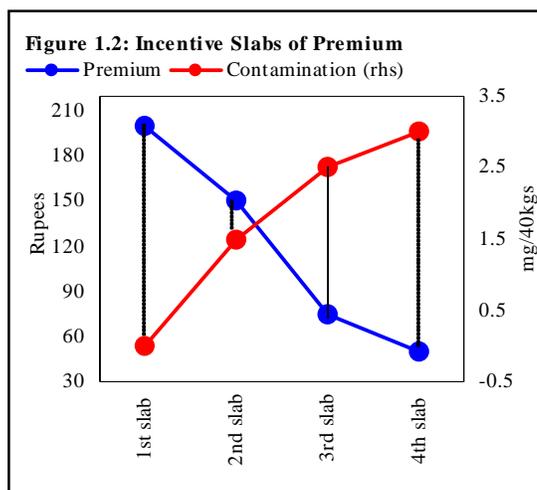
- Introduction of standardized picking storage and marketing of raw cotton.
- Dissemination of awareness through mass media to the targeted segment.
- Cloth bags instead of jute and fabric must be provided by farmers and ginning factory owners to pickers.
- Picking should be carried out at the proper time when sunshine and air have dried up the dew, rain or humidity completely.
- Picking should be done variety wise.
- Cotton should be stored on pucca floors.
- Metal body open trolleys should be used for quick transportation of cotton from field to factories.
- Pickers should be paid in cash instead of cotton to avoid contamination, which takes place at picker's home.
- Sheds and platforms should be built properly in the market.
- Bags should be opened by unsewing instead of cutting twine in to small pieces.
- Bags should not be beaten on heap. Instead it should be done separately and obtained cotton should be cleaned properly to be added in heap.
- Conveyers can greatly facilitate.
- The moisture of cotton has to be maintained at 8 percent, carefully observed by moisture meter as against twelve to thirteen percent prevailing commonly. For *Kharif* FY05 *TCP* announced that it would not procure the cotton in case of excess moisture than 8 percent.

¹ When cotton is shifted to the factory courtyard to make heaps, the jute bags are not properly opened by unsewing. Rather the jute twine is cut into small pieces and dropped in the heap, which mixes up in cotton and causes contamination. These bags are strongly beaten on the heap to make them fully empty causing mixing of jute strings and consequently contamination.

Achievement of zero contamination is impossible but reducing it to significantly lower levels is considered to be practicable. In order to improve the cotton quality gradual scale of premium price has been introduced by the government (see **Figure 1.2**). Unfortunately these incentives are not benefiting the growers, either due to contamination or regional cartels of ginning factories. It is also evident from the anecdotal evidence and indeed the absence of perceptible improvement in the average quality.

Another major step towards reducing cotton contamination is the approval of “*The Cotton Standardization Ordinance 2002*”² by the federal government. However, the cotton grading/standardisation³ has not been implemented to date.

Even after the approval of Cotton Standardization Ordinance 2002, cotton standardization and grading practices have complete legal protection but due to malpractices and lack of confidence the benefits are not filtering down to the farmers. If implemented practically, the reduction in cotton contamination would greatly help in improving the value of Pakistan’s cotton, which is now treated as ‘B’-grade and discounted by 4-5 pound sterling per bale⁴ in the international market. As an encouraging result in this direction was observed in Rahim Yar Khan where contamination level has been brought down from 19 percent to 5 percent.⁵



² Ordinance No. LXIV 2002.

³ This law was first proposed in 1994 but proposed law was not enacted.

⁴ MINFAL

⁵ MINFAL

*Pakistan Cotton Standard Institute*⁶ (PCSI) has to perform the main role in implementation of *The Cotton Standardization Ordinance*⁷. Although ginning factories have to get the license⁸ for production of clean cotton from the provincial agriculture department to operate, under the criteria led by *TCP*, poor implementation has killed the true purpose. The *TCP* should aim at transforming all ginning factories on the pattern of ginning factories in Sanghar where all sixty-four factories are developed and have pucca floors, forty-eight have weighing bridges and, as indicated by the amended cotton ordinance, cotton cloth bags instead of jute bags, new ginning saws, lint cleaners and pucca platforms have to be arranged by ginning factories.

Efforts to reduce contamination had also been made last year. Spinners and ginners had planned a strategy in order to get one million contamination free cotton bales but due to the conventional mistrust between them, this scheme did not prove very successful, and despite the government's announcement of Rs 200 premium on contamination free cotton, the objective was not achieved. However, some positive results appeared in the form of low-contaminated cotton, which fell in the category of Rs 75 per maund, but due to doubt about its quality spinners showed some reluctance in purchasing it. As a result *TCP* had to buy more than two lakh bales for export, which fetched two (US) cents per pound more than the average price of Pakistan's cotton export in the world market. Furthermore, SMEDA has also introduced ginning standards applicable from September 2004.

⁶ Its members will be representatives of the food, commerce and finance ministries of the federal government, provincial agriculture departments, Trading Corporation of Pakistan, Pakistan Central Cotton Committee, Karachi Cotton Association, All Pakistan Textile Mills Association, Pakistan Cotton Ginners Association, Textile Commissioner's Organization, one grower from each province and director PCSI. The Chairman would be the federal secretary agriculture and vice chairman is expected from the commerce ministry. An executive committee would run the administrative body of the PCSI, comprising vice chairman, three members of the board and director of PCSI.

⁷ The board will be responsible for the direction and administration of the ordinance. Standardization of cotton and recommendations to provincial government for contamination free cotton, grading and classification of lint cotton would be its responsibility. It would pre-qualify the private inspection companies and would also introduce arbitration procedures to settle disputes related to the whole procedure.

⁸ The licensed factories would have to meet some basic requirements like raised and cemented platforms, pre-cleaner installation, good operating ginning standards, new Gin Saws, full automatic press, weigh bridge for weighing seed cotton in trolleys, latest PCSO grade boxes for both phutti and lint and one trained selector for effective supervision