Weekly Publication of
Cotton Association of India
COTTON STATISTICS & NEWS
Edited & Published by Amar Singh
2016-17 • No. 32 • 8th November, 2016 Published every Tuesday
Cotton Exchange Building, 2nd Floor, Cotton Green, Mumbai - 400 033
Phone: 30063400 Fax: 2370 0337 Email: cai@caionline.in
www.caionline.in

A Triumph of Hospitality

EXPERT's Column

Dr. Terry Townsend

With a Ph.D. in Agricultural and Resource Economics from Oregon State University in the USA, Dr. Terry Townsend is a consultant on commodity issues. He is currently working with the African Cotton and Textile Industries Federation (ACTIF). He served as executive director of the International Cotton Advisory Committee (ICAC) and has also worked at the United States Department of Agriculture for five years, analyzing the U.S. cotton industry and editing a magazine devoted to a cross-section of agricultural issues.

From roses given to each participant on arrival at the airport in Islamabad, along with assistance through immigration and customs, through a week of fashion shows, an elegant dinner with the President, receptions and lunches, to a final handshake at the airport on departure, the 75th Plenary Meeting of the International Cotton Advisory Committee (ICAC) since 1939 was a triumph of hospitality by Pakistan.

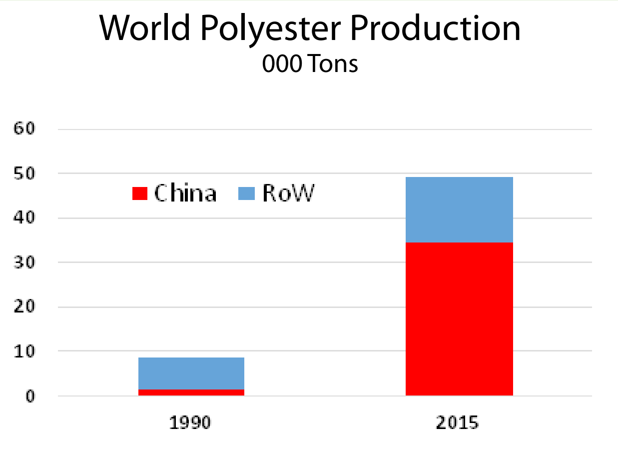
The agenda was substantive, and the meeting was well organised. The purpose of a plenary meeting is to move forward through agreements to cooperate and through the identification of best practices appropriate for national adoption. The 75th Plenary Meeting accomplished this purpose in a number of subject areas. Topics of discussion ranged from the threat of subsidised polyester production, reducing cotton's water footprint, expanding the use of SEEP indicators to define sustainability, and an explicit acknowledgment that government measures for cotton must avoid distorting the market.

The 76th Plenary Meeting will be held in Uzbekistan, presumably in conjunction with the annual Cotton Fair in Tashkent in October 2017.

Polyester Subsidies

Almost all the growth in world fibre use has been in polyester in recent years. It is self-evident that hundreds of millions of consumers are not clamouring for more polyester in their clothing and home furnishings. Rather polyester has gained market share because of low prices, and while lower oil prices have contributed, the overwhelming reason for low prices of polyester is subsidised production in China. By 2015, polyester production in China had grown to approximately 35 million tons, equal to 70% of the world total. The 35-fold increase in polyester production in China since 1990 is the single biggest factor reducing world demand for cotton today.

There are no comprehensive statistics on the number of polyester fibre production plants in China, their ownership, sources of financing or operating costs. However, the growth in polyester production in China has been so rapid, so enormous and so incongruous with investment patterns



in other countries in Asia, that it is impossible to believe that industry expansion is a result of competitive, private sector investment. Based on discussions in Islamabad, the ICAC Secretariat will expand its studies of the polyester market to include government support for polyester that have stimulated overcapacity in polyester fibre.

Unless governments with an interest in the health of the world cotton industry unite in the WTO to oppose China's subsidisation of polyester production, in the same way that governments have waged a campaign in the WTO to reduce direct government measures that distort cotton production and trade, cotton's loss of market share will continue, and the livelihoods of cotton producers will be further compromised.

Water Management

Globally, 71% of water withdrawals are used in agriculture, and cotton is often associated with water scarcity because it is a desert crop usually grown in arid and semi-arid conditions (annual rainfall below 900 mm). Issues of resource use optimisation, including water management, have been a concern of the cotton industry since at least the 1960s.

Experts in water management noted at the ICAC Plenary that cotton is a water-efficient plant (a point often missed by the World Wildlife Fund, Greenpeace and other environmental NGOs). Free or nominal water prices do not encourage efficient water use, and water should be priced according to volume (quantity) applied and not area planted. Measurement of water use is the key to management of water use.

Biotechnology in Cotton

Since commercial introduction in 1996, the use of biotechnology in all crops has increased by 3% per year. As of 2013, 18 million farmers in 27 countries planted crops with biotech traits on 175 million hectares. Therefore, it is not surprising that the use of biotechnology has begun to affect the pattern of insect infestations around the world.

India and Pakistan account for almost 50% of world cotton area, and the pink bollworm caused huge losses in yields in both countries during 2015. The situation is better in the current season, but this pest still requires vigilance. The pink bollworm has developed resistance to the first insect-resistant biotech gene. Consequently, farmers in some countries are returning to older pest control methods based on insecticides. In contrast, where the regulatory environment allows, farmers have access to second and third generation biotech events that remain effective against the pink bollworm.

Biotech cotton events providing resistant to the whitefly are at advanced stages of development. When commercialised, these new events will bring large benefits to growers. Similar progress on transgenic cotton resistant to the leaf curl disease is in development in Pakistan.

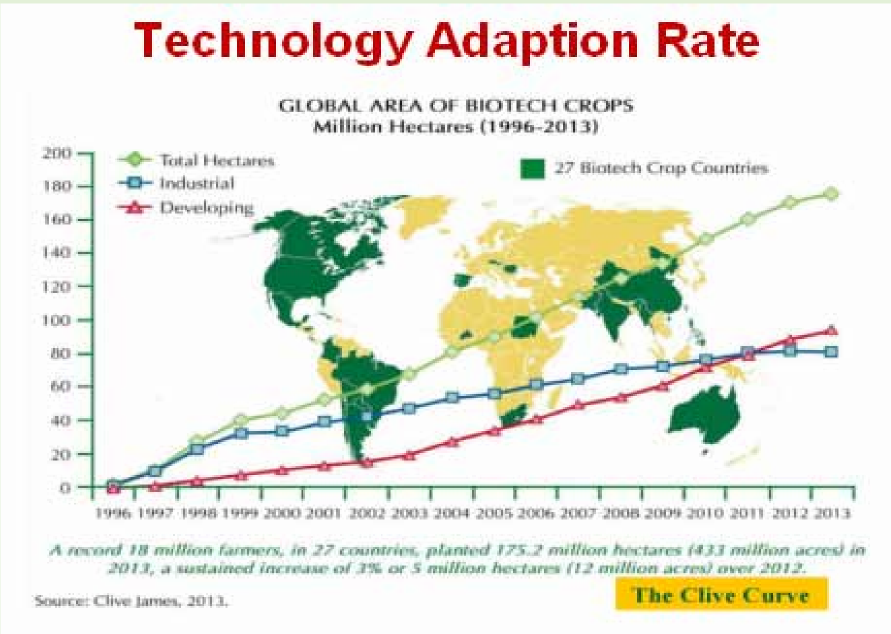


Chart courtesy of Khalid Abdullah, 75th ICAC Plenary Meeting

Photo Courtesy of Peter Wakefield, 75th ICAC Plenary Meeting.

Adoption of biotechnology is a measureable indicator of overall technology adoption. A lack of biosafety protocols, high technology fees, a lack of incentives for public sector development of biotech events and inadequate public funding for research inhibit development of biotechnology in developing countries.

Contamination: Incentives Needed

The key to reducing contamination is to provide incentives. However, the marketing system in Pakistan and most other developing countries undermines efforts to provide incentives to growers. In Pakistan, farmers sell to intermediaries (middlemen or country merchants) who aggregate lots of seed cotton from multiple small holders for delivery to gins. Consequently, it is difficult to identify sources of contamination and reward delivery of clean seed cotton upon inspection at gins. In addition, picking costs are already relatively high, making the payment of additional incentives to pickers for cotton without contamination untenable. Machine-picking may be the ultimate solution to reducing contamination.

Reducing Corruption Through Electronic Documentation

Paperwork linked to the movement of cotton is associated with trade restrictions, including tariffs, quotas, import and export licenses, subsidies, local content requirements, and embargos. Many of these requirements are associated with conformity and pre-shipment requirements, plus inspection and certification procedures on arrival. Each exchange of papers, each required stamp or signature, each face-to-face interaction, creates the opportunity for corruption. There will always be individuals who will be willing to pay to speed or slow or to facilitate or block. By eliminating the involvement of the human hand, electronic documentation can enhance efficiency and lower costs, and make corruption more difficult.

Eliminate Phytosanitary Documents from Shipment-to-Shipment

One document that is required for all cotton shipments is a phytosanitary certificate. On the recommendation of the Private Sector Advisory Panel, the ICAC has been urging countries to adopt the FAO model phytosanitary certificate for trade in cotton since 2009. However, an even more effective reform would be to recognise that phytosanitary practices in each exporting country do not vary from shipment to shipment. Accordingly, individual phytosanitary certificates for each shipment are unnecessary and could be replaced with a "confirmation of compliance" with harmonised standards for fumigation and phytosanitary practices. Thus any shipment originating from a country in compliance with such a harmonised standard would not need an individual piece of paper for each shipment.

Compliance Benefits

There are 16 separate trade agreements registered with the WTO that affect agriculture and textiles, ranging from the Agreement on Agriculture (AoA) negotiated during the Uruguay Round of GATT to the Information Technology Agreement. Cotton production and trade has increased since 1990 in developing countries that observe these agreements. The lesson is obvious, compliance with trade norms leads to increased trade.

Ginning for Profits, Rather than Ginning for Volume

Fibre length distribution is always damaged by ginning. Operational choices facing ginners include processing speed and fibre moisture content. Slower speeds result in better fibre properties but increase energy consumption and ginning costs per kilogram. Moisture affects fibre strength and elongation, but moisture management is expensive. Ginners with moisture management capabilities should increase the moisture percentage in seed cotton entering the gin stand, reduce moisture during pre-cleaning and ginning, and then increase moisture again as lint enters the bale press.

Small improvements in length distribution result in big improvements in yarn performance, but accurate and fast instruments to measure length distribution in gins is not available. Therefore, management of gin speeds and moisture are based on average or expected fibre quality results, combined with expected price premiums for improved quality. If the cotton marketing system does not reward improved fibre quality, ginners will have no incentive to optimise ginning speeds and moisture content. Cotton suffers in competition with manmade fibres because quality premiums are poorly communicated to farmers and ginners by most marketing systems.

Roller Ginning vs. Saw Ginning

There has historically been a tradeoff between saw ginning and roller ginning, with roller ginning being slower and more expensive but producing higher quality fibre. However, new high speed double-roller gins with capacities of 400-600 kilograms of lint per hour can bridge the difference with saw gins. The operating costs per kilogram of new high speed roller gins operating at 600 kilograms of lint per hour are half the cost of previous roller ginning systems. Rotary knife roller gins are suitable for use on Upland cotton and can be cost competitive with saw ginning while maintaining the traditional fibre quality advantages of roller gins. High speed roller ginning may begin to supplant saw ginning for medium staple Upland cotton varieties.

Photos provided courtesy of A. Engin Dirik, 75th ICAC Plenary Meeting

HVI Requires a System, not just an Instrument

The use of High Volume Instrument systems for testing cotton quality, involve much more than just buying a machine. HVI systems must be part of national classing systems with 100% bale sampling. When national HVI systems are implemented, marketing systems must be revised to provide quality premiums to growers and ginners in accordance with market results. Such marketing systems necessarily involve permanent bale IDs and national bale numbering systems to enable bale quality to be assigned accurately to gins and producer groups. Reliable, high speed internet connectivity is a must.

Organic Cotton: Zero Comfort Advantage Over Conventional

Photo provided courtesy of Tanveer Hussain, 75th ICAC Plenary Meeting.

Regarding textile and apparel products made from organic cotton fibres, a specialist in testing fabric for properties associated with comfort reported that there is absolutely zero physical difference between products made of conventional cotton, including biotech, and organic cotton.

Conclusion

If you were not there, you missed a good one.

Pakistan proved a wonderful host country, the ICAC Secretariat did its customary good job supporting the meeting, and delegates not only learned a lot, they achieved a lot. I enjoyed myself.

(The views expressed in this column are of the author and not that of Cotton Association of India)

Natural Fibers with Particular Reference to Cotton

M. Rafiq Chaudhry and Lorena Ruiz, ICAC

(The authors do not specialize in all natural fibers, so the facts and figures in the present article have been taken from many sources that are greatly acknowledged for their contributions to natural fibers)

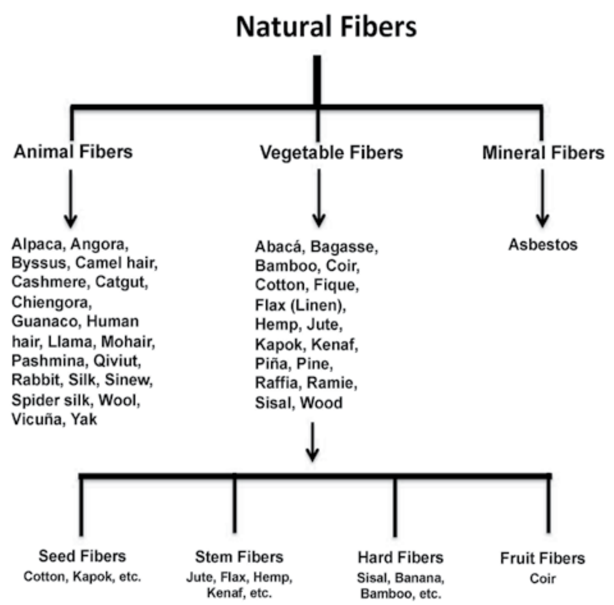
(Contd. from Issue No. 31)

Types of Natural Fibers

Linen fabric is produced from fiber extracted from the stems of the flax plant. Flax seeds are used to produce linseed oil. Hemp (genus Cannabis), a close relative of marijuana, produces a fiber that looks very much like linen and its seeds are used to make birdfeed and to extract oil. Many European countries produce small quantities of hemp, but China remains the biggest source of hemp fiber.

Ramie is a perennial tree that grows well in areas with good rainfall. The main species is Boehmeria nivea, but several closely related species are also grown. The ramie plant has the appearance of a shrub and grows to a height of over 1.5 meters. The stems are usually harvested after flowering and when its color has changed from green to yellow. Leaf shedding is another indication that the crop is ready to be harvested. With good soil and suitable weather, the ramie plant can produce as many as six cuttings, i.e., harvests, a year. A ramie plant can produce fiber up to 12 centimeters in length, but requires chemical treatment for removal of the resin that causes the fibers to adhere to the main stem.

Figure 2: Classification of Natural Fibers



• Hard Fibers

Hard fibers are collected from leaves and fruit parts. Sisal, banana and bamboo are some examples of leaf fiber production. Many species of the genus Agave are produced around the world. The general appearance of most species is that they lack a stem and that the leaves emerge directly from the roots. However, some species do have a visible stem and uses other than for fiber are also well documented. Agave Americana is the source of the agave found in Mexico and southern parts of the United States. The leaves of several other agave species also yield fiber and many agave species are grown as ornamental plants.

Sisal (Agave sisalana) is a perennial plant with an average lifespan of 7 to 12 years. The plant flourishes in dry-hot soil and weather conditions, reaching an average height of 4-6 meters (about one third of a meter height increase each year). About 300,000 tons of sisal are produced every year almost without any insecticides, irrigation water or fertilizer. The leaves that yield the fiber are composed of about 90% water. Leaves grow to a length of 1.0 to 1.5 meters in length and have spikes on the edges, which makes it hard to walk through the fields. The first harvest can be brought in when the plants are about two years old and they remain productive for 10 to 12 years. Each plant produces 180 to 240 leaves in its lifetime and yields 1 to 4 tons of fiber per hectare. The leaves are removed from the plant only when they are ready to be processed. Storage of leaves is not recommended because the quality of the fiber tends to deteriorate. The fibers are extracted through a process known as decortication wherein the leaves are processed by running them through crushers to free the fibers and get rid of the pulp. After the pulp has been squeezed out, the fibers are washed or brushed to leave them more perfectly clean. In East Africa, decortication is done in factories. The leaves are crushed between rollers and then beaten by a rotating wheel with blunt blades. Then the fibers are washed and dried. The key features of sisal fiber are high resistance to bacterial infestation and to deterioration in saltwater. The flowers produced by the sisal plant are usually sterile and the common way of propagating the next generation is through suckers that grow at the base of the plant or by means of small bulbs produced on the flower peduncle. In the past, 96% of the leaf weight was discarded, but today it is used for fertilizer, cattle feed and as fuel for biogas production. Just over 200,000 tons of sisal fiber are produced worldwide and Brazil, with almost two thirds of global production, is the largest producing country.

Banana fibers are extracted from the stem of the banana plant (Musa sapientum). The fiber may be harvested from young shoots or from the mature stem after the fruit has been collected. Unlike many other vegetable/plant fibers, the parts of the plant from which the fiber is extracted -- young shoots and/or older stems—have an important impact on the quality of the fiber. Young shoots are comparatively easy to process and produce much finer fibers. Accordingly, their uses are also different. Young shoots are harvested periodically and boiled in lye to prepare fibers for making yarn. Even in young shoots the outer layers of the stem produce much coarser fibers than the inner ones. The mature trunk in its entirety, commonly used in Nepal to obtain banana yarn, produces a vast quantity of coarser fibers. According to the literature, the fibers of the banana plant may be extracted by chemical, mechanical or biological methods. Banana fibers look like bamboo and ramie fibers but have a better spinning performance than the other two. The fibers have poor elongation characteristics, but dry rather faster. Banana fibers are comprised of cellulose, hemicellulose, and lignin. Mukhopadhyay et al. (2008) reported that the botanical composition of banana fiber is about 31% cellulose and some 15% hemicellulose and lignin, the rest being moisture, ash and extractives. The uses of banana fiber vary greatly depending on the fineness, but only a minimal amount goes into the garment industry. Right now, banana fiber is a waste product of banana cultivation and it is utilized inefficiently or only partially. The extraction of fiber from the pseudo stem is not a common practice and much of the stem is not used to produce fiber at all.

• Fruit Fibers

Coir is the primary fruit fiber. It is produced from the fibrous pulp surrounding the hard shell of the seed of the coconut palm (Cocos nucifera). Coconut palms flower monthly but since the fruit requires a year to ripen, any given coconut palm will always contain fruit at all 12 stages of maturity. Harvesting usually takes place on a 45-60 day cycle, with each tree yielding 50-100 coconuts per year. Before the coconut fruit is shipped to market, it is stripped of its leathery external skin, as well as its 5-8 cm thick intermediate layer of fibrous pulp. The fibers recovered from that pulp are called coir. Coir is the third most important natural fiber produced in the world, after cotton and jute. The main producing countries are India and Sri Lanka, with some minor production in the Pacific countries. About 75% of coir fiber comes from India and Vietnam. Total production rose to 1.2 million tons in 2013.

The fibers are extracted by various methods involving retting and soaking. The husk is kept in an environment that encourages the action of naturally occurring microbes. This action partially decomposes the husk pulp, allowing it to be separated into coir fibers and a residue called coir pith. After the husks are naturally softened by the above methods, the fibers are extracted manually by beating or mechanically through various mechanisms. The fibers thus removed are sieved for cleaning purposes before processing to obtain the final product. The main uses are rope, fishing nets, brushes, doormats, rugs, etc. Fibers are 100% biodegradable. Coir fibers measure around 35 centimeters and contain one of the highest concentrations of lignin, making it stronger than cotton but less flexible and unsuitable for dyeing. The two categorizations of coir fibers are color (brown or white) and fiber length. Coir fibers longer than 20 cm are called bristle fiber and those shorter than 20 cm are called mattress fiber.

Animal Fibers

The two fundamental animal fibers are silk and wool.

• Silk

Silk is a filament fiber produced in nature as a protein by Bombyx mori, the mulberry silk moth. Mulberry Morus spp. is a perennial cultivated mainly for foliage production, but it is also the only source of nutrition for the mulberry silkworm. According to the International Sericulture Commission, four types of natural silks are commercially produced in the world. Among them mulberry silk is the most important and accounts for as much as 90% of world production. Thus the term "silk" generally refers to the silk of the mulberry silkworm. It is reported that 60% of the cost of cocoon production goes into the cultivation of the mulberry leaf. Silk quality also depends on the quality of the mulberry leaves and on silkworm seed production. Mulberry is grown in the fields as an agricultural crop. The leaves are harvested and brought to the silkworm rearing facilities where they are fed to the silkworms in separately erected platforms or trays. After a gestation period of about four weeks, the mature worms are gathered and transferred into the montages for spinning the cocoons. The spinning process will be completed within three days and the cocoons can be harvested for marketing after five days. About 70-75% of world silk in produced in China, about 15% in India and the rest in some 15 other countries around the world.

• Wool

Wool, a protein fiber, is the fourth most important natural fiber traded in the world. It accounts for over 6% of total natural fiber production grease. The four main sources of wool are sheep, goats, camels and rabbits. The wool from diverse sources has different fiber diameters and, therefore, huge differences in quality. Wool fiber can be as fine as cashmere/merino (diameter about 15 microns) to make expensive garments or it can be coarse enough (diameter about 40 microns) to make carpets. A single sheep can produce up to 11 kilograms of wool a year (clean basis). It is estimated that half of all wool production goes into the garment industry and the other half is used to make blankets, carpets and other goods. The flame-retardant and heat-resistant qualities of wool make it one of the safest of all household textiles. Technical textile uses include police uniforms, military uniforms, thermal insulation, billiard cloths and automotive composites. Wool is produced in about 100 countries, but Australia, China and New Zealand account for half of the world's production.

International Year of Natural Fibers – 2009

The United Nations General Assembly declared 2009 as the International Year of Natural Fibers. The Food and Agriculture Organization of the United Nations, in collaboration with governments, regional and international organizations, non-governmental organizations, the private sector and the relevant organizations of the UN facilitated the observance of the Year. The ICAC actively participated in the celebration and success of the Year by carrying out numerous activities. The Year proved to be effective in increasing awareness of the importance of natural fibers. An overview of fifteen natural fibers -- abaca, alpaca, angora, camel, cashmere, coir, cotton, flax, hemp, jute, mohair, ramie, silk, sisal and wool -- is available on their web page.

Future Trends

The last 150 years have completely changed the fiber spectrum. Synthetic fibers have aggressively outstripped the share of natural fibers produced in the world. New technologies are being developed at such a fast pace that it is becoming increasingly difficult to fully comprehend the future of both kinds of fiber, natural and synthetic. What is needed now is for natural fibers to incorporate some of the qualities of synthetic fibers, while the synthetic fiber industry needs to endow its products with the combined features of natural fibers. Neither of the two options is a clear-cut choice and both depend on access to technological advances. It seems clear, however, that the future lies somewhere in the middle ground. Biotechnology and its allied sciences, innovative material advances and fiber engineering will play a key role in determining the future of all kinds of fibers.

For more reading refer to:

http://www.naturalfibres2009.org

http://www.wildfibres.co.uk/html/kapok.html

http://www.madehow.com/Volume-6/Coir.html

http://inserco.org/en/types_of_silk

http://www.iwto.org/wool/the-natural-fibre/

Industrial Application of Natural Fibers: Structure, Properties, and Technical Applications. 2010. Edited by Jörg Müssig, John Wiley & Sons, Ltd., UK.

Militký, Jiri, A. Aneja and D. Křemeněková. 2012. Future view on fibers and textiles. Proceedings of the 31st International Cotton Conference, March 21-24, 2012, Faserinstitut e.V. and Bremer Baumwollborse, Bremen, Germany.

Mukhopadhyay, Samrat, Raul Fangueiro, Yusuf Arpaç and Ülkü Şentürk. Banana Fibers – Variability and Fracture Behaviour. Journal of Engineered Fibers and Fabrics, Volume 3, Issue 2, 2008. Available online at http://www.jeffjournal. org/papers/Volume3/ Mukhopadhyay3.2.pdf

Townsend, Terry. 2012. Constraints to fiber production. Proceedings of the 31st International Cotton Conference, March 21-24, 2012, Faserinstitut e.V. and Bremer Baumwollborse, Bremen, Germany.

Source: Review of the World Situation -Volume 68 – Number 6 – July-August 2015, ICAC

COTTON EXCHANGE MARCHES AHEAD

Madhoo Pavaskar, Rama Pavaskar

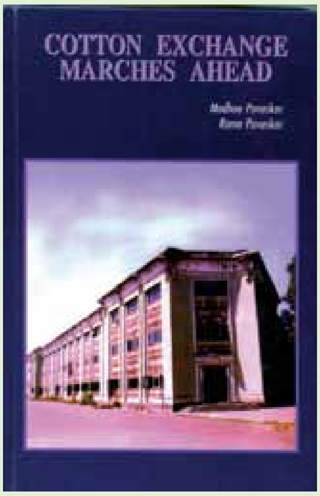
Chapter 1

The Cotton Scene

(Contd. from Issue No.31 dated 1st November 2016)

The Varietal Spectrum

King Cotton's dominant position in Indian textiles is largely due to the varietal range. India is perhaps the only country in the world growing all four botanical species of cotton, namely, Gossypium Arboreum, G.Herbaceum, G.Hirsutum and G.Barbadense. Indian cotton varieties extend to practically all staple lengths – from short staple of less than 10 mm to extra long staple of 35 mm and more, covering thereby a wide spectrum of spinnability from 2s to 120s counts. At present, over 100 varieties of cotton are grown in India, though about 20 to 25 of these account for 90 percent of the crop. Nevertheless, the extensive varietal mix provides considerable flexibility in enabling the country to expand its markets – both at home and abroad – in a wide range of textile products. That may ensure King Cotton's supremacy in India for many more years to come.



This is not to suggest that the varietal scene has not undergone any change over the past. Since independence, and especially since the sixties, there has been a distinct shift from short (below 19 mm) and medium (20 mm to 21.5 mm) staple cotton to superior medium (22 mm to 24 mm), long (24.5 mm to 26.5 mm) and extra-long (27 mm and above) staple cotton. Towards the end of 1970s, while the short-staple cotton shared merely 9 percent of the total cotton crop, medium and superior medium cotton together accounted for the lion's share of a little over 50 percent. Since then, over the last two decades while the share of short staple cotton has declined marginally to 8 percent, that of medium and superior medium almost halved and these now account for one-fourth of the cotton output. Even between these two, superior medium cotton contributes as much as 80 percent to their combined output. In other words, just at 5 percent of the total cotton crop, the share of medium staple is lower than that of even short staple.

In contrast, almost two-thirds of the aggregate cotton production at present consist of long and extra-long staple cotton. Of these, extra long staple alone shares two-fifths (40 percent) of the total crop, while the long staple cotton accounts for slightly over one-fourth. This shift partly reflects the growing demand for finer cotton cloth from yarns of higher counts, though it has also led to some surplus of long and extra-long staple cotton for exports.

At the same time, it should be recognized that in absolute terms cotton of different staple lengths has not declined, owing to the overall phenomenal growth in the total cotton production , as a result of which the cotton yarn output of different counts has actually increased. While notable increases were recorded in the higher count groups from 30s to 60s during the last two decennaries of the 20th century, the strong demand for manufacture of denims and other cheaper cloth, as also the statutory obligation for the production of hank yarn required by the handloom industry, resulted in significant expansion in the production of cotton yarn of counts below 20s. Almost 90 percent of the cotton yarn production in the country is of counts below 40s, and is almost equally distributed among the successive count groups of each set of ten (i.e. 1-10s, 11-20s, 21-30s and 31-40s).

Incidentally, the varietal spectrum of Indian cotton continues to expand with as many as 36 new varieties released during the last two decades and a half. Most of these were of long and extra-long staple cotton with average spinning capacity of 30s and more. As some of these may have replaced the old varieties in some States/regions, the varietal trend of Indian cotton appears to be moving further towards longer and higher staple in consonance with the anticipated growth in incomes and the consequent rise in the living standards and demand for finer cloth. At the same time, the country can export surplus cotton of higher staples and, if need be, import short or medium staple cotton with net gain to agriculture and the foreign exchange reserves of the economy.

The Regional Pattern

Surprising though it may seem, the staple-wise distribution of cotton in India has a distinct regional flavour. Although Indian cotton increases in staple length as one traverses from the North to the South, the staple length has, by and large, been increasing all over. The northern region comprising Punjab, Haryana and Rajasthan is traditionally the primary producer of short or non-staple Bengal Deshi cotton, though, of late, it has been growing medium and superior medium American varieties like J-34 and F-414. At the other end, the southern States of Andhra Pradesh, Karnataka, and Tamil Nadu have specialized in growing mainly long and extra-long staples like DCH-32 and MCU-5. The central region of Maharashtra, Madhya Pradesh and Gujarat, in turn, produces a wide range of both American and Deshi varieties, but mostly of superior medium and long staples.

The staplewise pattern of different regions is not static. The long tradition on the one hand, and the introduction of new varieties on the other, result in all the regions growing at least some cotton of staple lengths different from those in which they predominate. Yet, there is no gainsaying the fact that the regional pattern of cotton cultivation lends a distinct colour and perspective to the Indian Cotton Scene.

About 58 percent (5 million hectares) of the total area under cotton in the country is concentrated in the central region. Two decades and a half back the central region accounted for almost two-thirds of the area. Its share has been shrinking steadily over the years (though in absolute terms its cotton acreage has still been expanding), owing to the relatively rapid growth in cotton cultivation in the North and South. Based on the triennium averages, the area under cotton in the northern region has expanded by nearly 2 percent per annum over the quarter century from 1974-75 to 1999-2000, and in the southern region by 0.5 percent, as against just 0.3 percent in the central region. Currently, a little less than two million hectares of land each are sown with cotton in the northern and southern regions of the country.

These regional trends in cotton area, if were to continue, would necessarily raise the total cotton production in the country in the future, since cotton yields are higher in the North and South than in the central region. Thus, during the triennium ending 1999-2000, the average cotton yield was 343 kg. per hectare in the South, but was low at 280 kg. in the central region. True, during the triennium, the North also registered a very low average yield of 267 kg. per hectare. But that was mainly due to the pest infestation (especially bollworm and cotton leaf curl virus). As it is, the average yield in the Northern region had peaked as high as 369 kg. during the triennium ending 1996-97. In fairness, it should be recognized that with the spread of hybrids, the cotton yields in the central region are also improving albeit slowly. Overall, a significant increase in India's total cotton production seems to be on the cards in the early 21st century, especially since even the best yields of cotton lint in the country are still lower than those in the other major cotton growing nations of the world. The introduction of bio-technology in cotton and the likely spread of genetically modified Bt (Bacillus thuringiensis) cotton in the coming years may further assist in boosting both the cotton productivity and production. To be sure, even if the cotton acreage fails to expand, further improvements in the cotton yields will raise the country's cotton output in the future.

Import-Export Overview

Although India was a major exporter of cotton before the Second World War, with total exports varying annually from two-thirds to three-fourths of the country's cotton production then, the partition of the country on independence in 1947 saw a transfer scene. With the partition, over 98 percent of the cotton textile industry remained in India, but about 25 percent of the cotton acreage and as much as 40 percent of the cotton production (most of which of long and superior medium staple varieties) were lost to Pakistan. For the first time in its long history, India emerged as an importer of cotton. Cotton imports ranged from half a million to a million bales annually throughout the fifties and sixties, and continued to a lesser extent during most of the seventies as well. More than half of India's cotton imports at that time comprised extra-long staple cotton from Egypt, Sudan and Jordan. Imports were then subject to quota restrictions and tariff barriers. In all the three decades after the dawn of the planning era in 1951, exports rarely exceeded 3.5 lakh bales and averaged around only 2.5 lakh annually.

Meanwhile, in July 1970 the Cotton Corporation of India (CCI) was set up by the Government of India to act as a sole canalising agency for import of foreign cotton. Imports were then subject to customs duty of 40 percent ad valorem, but imports contracted by the CCI under special agreement with exporting countries were more often than not free of any duty. However, as luck would have it, with the breakthrough in cotton cultivation from the latter half of the seventies, imports virtually disappeared from the end of the seventies till the early nineties. Even during the first 30 years after independence, net imports of cotton were not more than 10 to 15 percent of the aggregate domestic consumption in any year. The "Grow More Cotton" campaigns launched in all the States from 1950-51 led to a sizeable expansion in the cotton acreage from 5 million hectares to 8 million hectares within just five years, and brought about a rapid increase in the cotton output during the early fifties.

(To be continued……)

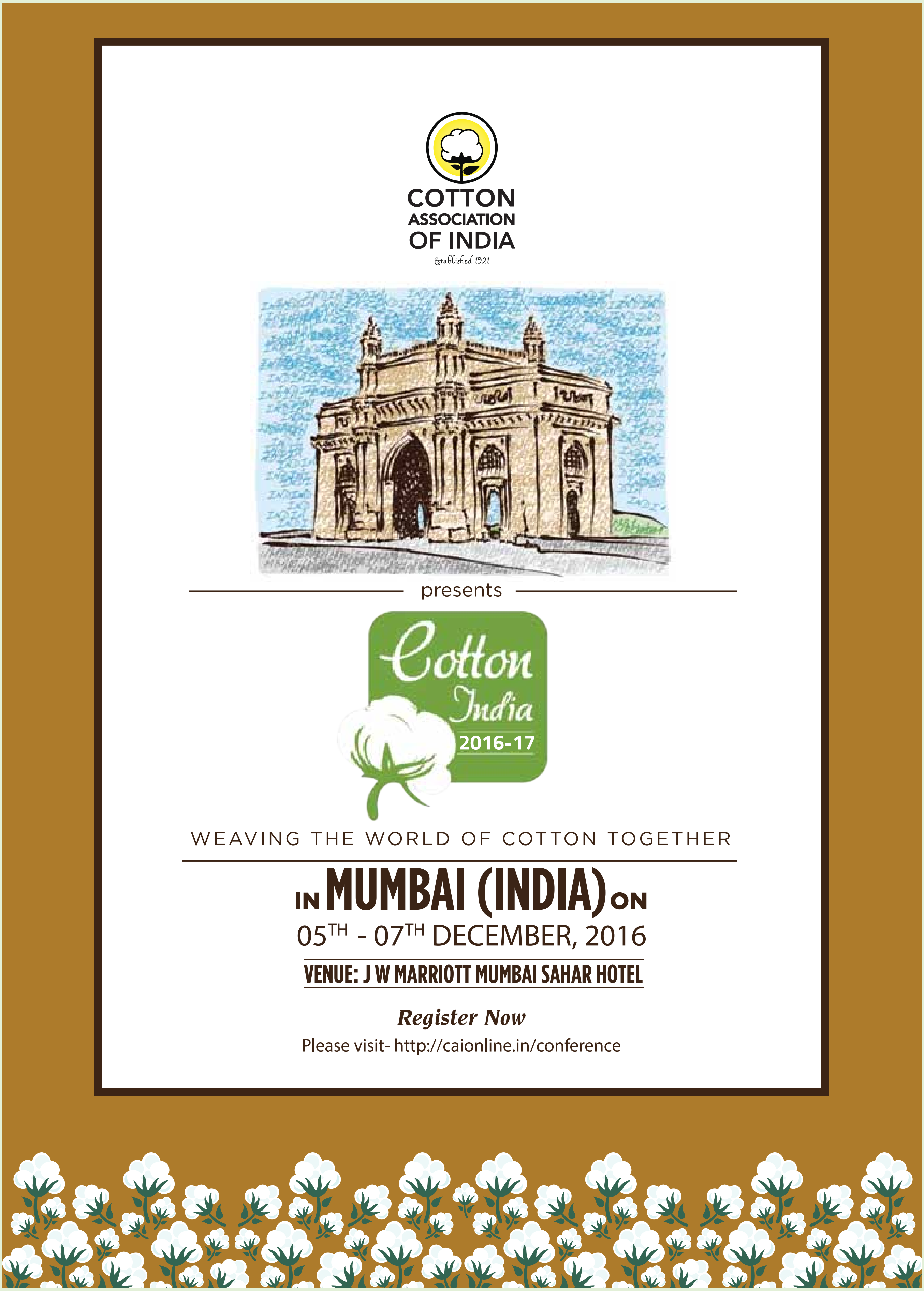
Sneh Sammelan at CAI

In keeping with tradition, the Cotton Association of India organised a Sneh Sammelan, a get together to celebrate Diwali and New Year on Saturday, November 5, 2016. It was well attended by a large number of members.

The annual Sneh Sammelan offers a wonderful opportunity for all segments of the cotton community to come together, exchange views and wish each other on this happy occasion.

Shri. Nayan C. Mirani, Vice-President, CAI, welcomed the members present on the occasion and expressed hope that the current season would bring all round prosperity for the cotton trade and benefit all the members.

Everybody present at the get-together prayed to Lord Ramchandraji and partook of the prasad.


COTTON ASSOCIATION OF INDIA
Established 1921
presents
Cotton India 2016-17
WEAVING THE WORLD OF COTTON TOGETHER
IN MUMBAI (INDIA) ON
05TH - 07TH DECEMBER, 2016
VENUE: J W MARRIOTT MUMBAI SAHAR HOTEL
Register Now
Please visit- http://caionline.in/conference

UPCOUNTRY SPOT RATES

(Rs./Qtl)

Sr. No.	Growth	Grade Standard	Grade	Staple	Micronaire	Strength /GPT	31st	1st	2nd	3rd	4th	5th
Standard Descriptions with Basic Grade & Staple in Millimetres based on Upper Half Mean Length [By law 66 (A) (a) (4)]							Spot Rate (Upcountry) 2016-17 Crop OCTOBER – NOVEMBER 2016					
1	P/H/R	ICS-101	Fine	Below 22mm	5.0-7.0	15			7705 (27400)	7705 (27400)	7705 (27400)	7705 (27400)
2	P/H/R	ICS-201	Fine	Below 22mm	5.0-7.0	15	H	H	7986 (28400)	7986 (28400)	7986 (28400)	7986 (28400)
3	GUJ	ICS-102	Fine	22mm	4.0-6.0	20			7255 (25800)	7255 (25800)	7255 (25800)	7255 (25800)
4	KAR	ICS-103	Fine	23mm	4.0-5.5	21			8886 (31600)	8886 (31600)	8886 (31600)	8886 (31600)
5	M/M	ICS-104	Fine	24mm	4.0-5.0	23	O	O	9983 (35500)	9983 (35500)	9983 (35500)	9983 (35500)
6	P/H/R	ICS-202	Fine	26mm	3.5-4.9	26			10264 (36500)	10404 (37000)	10404 (37000)	10264 (36500)
7	M/M/A	ICS-105	Fine	26mm	3.0-3.4	25	L	L	9983 (35500)	9983 (35500)	9983 (35500)	9983 (35500)
8	M/M/A	ICS-105	Fine	26mm	3.5-4.9	25			10236 (36400)	10236 (36400)	10236 (36400)	10236 (36400)
9	P/H/R	ICS-105	Fine	27mm	3.5.4.9	26			10432 (37100)	10573 (37600)	10573 (37600)	10432 (37100)
10	M/M/A	ICS-105	Fine	27mm	3.0-3.4	26	I	I	10095 (35900)	10095 (35900)	10095 (35900)	10095 (35900)
11	M/M/A	ICS-105	Fine	27mm	3.5-4.9	26			10348 (36800)	10348 (36800)	10348 (36800)	10348 (36800)
12	P/H/R	ICS-105	Fine	28mm	3.5-4.9	27	D	D	10545 (37500)	10686 (38000)	10686 (38000)	10545 (37500)
13	M/M/A	ICS-105	Fine	28mm	3.5-4.9	27			10461 (37200)	10461 (37200)	10461 (37200)	10461 (37200)
14	GUJ	ICS-105	Fine	28mm	3.5-4.9	27			10461 (37200)	10461 (37200)	10461 (37200)	10461 (37200)
15	M/M/A/K	ICS-105	Fine	29mm	3.5-4.9	28	A	A	10601 (37700)	10601 (37700)	10601 (37700)	10601 (37700)
16	GUJ	ICS-105	Fine	29mm	3.5-4.9	28			10601 (37700)	10601 (37700)	10601 (37700)	10601 (37700)
17	M/M/A/K	ICS-105	Fine	30mm	3.5-4.9	29	Y	Y	10714 (38100)	10714 (38100)	10714 (38100)	10714 (38100)
18	M/M/A/K/T/O	ICS-105	Fine	31mm	3.5-4.9	30			10854 (38600)	10854 (38600)	10854 (38600)	10854 (38600)
19	A/K/T/O	ICS-106	Fine	32mm	3.5-4.9	31			11051 (39300)	11051 (39300)	11051 (39300)	11051 (39300)
20	M(P)/K/T	ICS-107	Fine	34mm	3.0-3.8	33			14622 (52000)	14622 (52000)	14622 (52000)	14622 (52000)

(Note: Figures in bracket indicate prices in Rs./Candy)