



**Indian Society for Cotton Improvement (ISCI), and  
International Service for the Acquisition of Agri-  
biotech Applications (ISAAA)**



**Proceedings of the  
National Dialogue on “Resurgence of Cotton”  
CIRCOT, Matunga, Mumbai, Saturday, 26<sup>th</sup> Nov 2005**

A one-day National Dialogue on ‘Resurgence of Cotton’ was held on 26<sup>th</sup> Nov. 2005 at the Jubilee Hall of the Central Institute for Research on Cotton Technology at Mumbai. Besides the inaugural session, the subject matter was discussed in three Scientific Sessions spread over the day and concluded with open interactive session with the delegates of the conference. Sh Umesh Chand Sarangi, IAS Principal Secretary to Chief Minister, Govt. of Maharashtra, inaugurated the conference. The subject matter was initiated by keynote speakers Sh TSR Subramanyan, IAS, Former Cabinet Secretary, Govt. of India, Dr. CD Mayee, Chairman, ASRB & the President of ISCI, Dr S Sreenivasan, Director, CIRCOT, Mr Andrew McDonald and Mr Bhagirath Choudhary of ISAAA.

After the formal welcome by Dr. RH Balasubramanya, Chairman, ISCI, Dr. CD Mayee initiated the debate by tracing important events in the history of cotton development in India. He attributed the spectacular increase in the cotton production over the past decade to the successful implementation of Technology Mission on Cotton (TMC) and commercialization of Bt cotton in India in 2002. Dr. Mayee also pointed out the problems and issues arising out of the excess production of cotton, which the country is witnessing presently. He did not fail to bring out the plight of farmers, especially the marginal once who are the victims of the drastic fall in the prices of cotton due to the increased production. He also attributed the introduction of Bt Cotton in large cotton growing tracks to the present growth of cotton in India. In order to sustain the production level and prevent the fall in the price, he urged the delegates to explore multifarious avenues for the utilization of cotton in areas other than the traditional ones. He concluded the address by emphasizing the need to regulate the future expansion of cotton cultivation in the country.

Sh TSR Subramaniyan in his key note address pointed out that textile industry comprises of number of segments like cotton production, ginning, spinning, weaving, processing etc. According to him, in India these interdependent segments tend to function independent of each other resulting in the overall poor performance of the industry as a whole. He urged the industry to emulate the system existing in USA, where, all the above segments act in unison. He briefly underlined few steps such as acceptance of the interdependence and mutual understanding of the various components and forging effective linkages between

the Ministry of Agriculture and other textile related agencies. He was of the view that besides the impact of TMC the contribution of seed producers like ICMF and CDRA were also responsible for the reduction of trash in Indian cotton. He stressed the need for measures such as insurance, provision of safety nets for the farmers and the persuasion of the industry to pass on the gains from cheaper raw materials to the weakest link in the chain to counter the impact of surplus production. In the inaugural session Mr. Andrew McDonald, an international expert on cotton contamination from Brazil also had a word of praise and appreciation of the Indian policy makers and scientists for the excellent work done in the successful promotion of Bt cotton in India. He at the same time cautioned ecological issues should also be given importance besides the quality and production aspects.

Sh Umesh Chand Sarangi IAS, Principal Secretary to Chief Minister, Govt. of Maharashtra in his inaugural address recalled his eight years of experience in cotton production, especially in the state of Maharashtra. He urged the government bodies and agriculture scientists to be cautious while planning the expansion of Bt Cotton growing areas in view of the surplus production. He was alarmed at the falling prices of cotton fetching lower returns to the farmers in the face of excess production. He expressed his fear that the present situation may wean away the farmers from cultivation of cotton, despite the scientific progress made in cotton cultivation. He wanted the delegates to explore ways to decrease the cost of cultivation in order to ensure higher returns to the farmers.

During the Inaugural Session a Documentary Film on Bt Cotton titled “**The Story of Bt Cotton in India**” produced by ISAAA and an ISCI publication entitled “**Cotton Production, Technology Mission and Need for Paradigm Shift**” were released by Sh UC Sarangi and Sh TSR Subramanian.

Before the commencement of the Session I, the documentary film on Bt cotton produced by ISAAA was screened. The delegates appreciated the subject content and the technical excellence of the film.

Session I “Indian Cotton Outlook” was chaired by Dr. CD Mayee, President ISCI. Four speakers presented their views on various aspects of Indian Cotton.

The first speaker Dr. BM Khadi, Director, CICR, Nagpur presented the “**Indian Cotton Scenario and the Future Trend in Cotton Production**”. He presented production figures of different types of cottons grown in the country. In his analysis of the problems and constraints in improving cotton productivity, he sighted the indiscriminate use of pesticides as major cause for building up pest resistance in general resulting in higher usage of pesticides. According to the speaker, reduced availability of micronutrients, improper fertilizer and water management practices were the chief causes of lower productivity in many areas

of the country. Dr. Khadi prescribed the following strategies such as checking the production of illegal Bt Varieties, development of variety with wide agro-climatic adaptability and adoption of integrated pest management for enhancing the cotton productivity in general. Dr. Khadi also described important milestones in the achievement under Mini Mission I of TMC in the development of long staple hirsutum varieties. He also listed suitable Bt varieties developed at CICR for various zones of the country. At the end, Dr. Khadi wanted the textile mills to come forward in a big way for promoting the concept of contract farming for the mutual benefit of the mill and the farmer.

The second lecture of the session on “**Status of Import/Export of Cotton**” was delivered by Sh Suresh Kotak, Chairman, COTAPP Research Foundation, Mumbai. In his address he delved at length of the current status of import and export of cotton and cotton textiles with facts and figures. He pointed out that due to the improvement in the quality of Indian Cottons in general as a result of the implementation of the technology mission on cotton, the Indian export is also showing an increasing trend over the past three years. He attributed the substantial export of cotton in the last year to about one million bales to the exemplary work done by Technology Mission on Cotton by way of certification of ginning factories and also to a large extent on account of roller ginning of Indian cottons. He was optimistic about the future export of cotton from India and wanted the export trade to be proactive and promote Indian cotton as a brand. He was of the view that India would benefit by joining hands with International Forum on Cotton to promote Indian Cotton. In the light of the Chinese situation where the land availability and the cotton productivity have reached the plateau, he opined that India had a good scope for export. He was confident that public – private partnership would go a long way in promoting Indian cotton and cotton textiles at a competitive price in international market.

The third presentation on “**Marketing of Cotton**” was delivered by Sh S Grover, Chairman and Managing Director, Cotton Corporation of India (CCI), Mumbai. In his address he gave a glimpse of world cotton scenario and also the prevailing marketing practices in different parts of the world. He pointed out that world cotton trade is controlled by 24 large firms whereas in India it is mainly by small traders and brokers. He also drew the attention of the audience to the fact that in USA, Brazil and other countries where farms are large, the grower himself is the ginner but in India and Pakistan the farmers sell the cotton to ginner who in turn trade the seed and lint. He spoke at length the Indian trade practices in cotton from early seventies to the present date. He was of the firm view that price fluctuation could be controlled to a large extent by resorting to futures trading. He also advocated for the instrumental grading of cotton as done world over to face the challenges of international marketing. He advised the cotton mills to refrain

from trading cotton against speculation and adopt the practice of buying the cotton on need based situation.

The last lecture of the pre-lunch session was on **‘Improving the Competitiveness of Cotton Fibre’** by Dr. S Sreenivasan, Director, CIRCOT, Mumbai. He spoke at length on the importance of cotton fibre quality in the production of quality textiles. In his analysis of the drawbacks of different varieties of Indian cottons, he pointed out that the poor micronaire of cotton of more than 27 mm is a cause of concern besides the higher variability in length parameters as compared to the cottons of foreign origin. At the same time he also pointed out the distinct advantage conferred on Indian cottons as a result of roller ginning. He informed that to meet the higher strength requirements for the modern high speed processing, it is very necessary to screen the varieties before release, employing strict quality norms. He further informed that as a result of Technology Mission on Cotton several extra long high strength cotton varieties with appropriate micronaire are in the pipeline. He also stressed the role of utilizing the cotton by produce like cotton stalk, hulls, linters, oil and oil seed cakes to fetch additional income to the farmers. He summed up at the end that the overall competitiveness of the Indian cottons could be achieved through improving maturity, micronaire, fibre strength and extensibility, reduction in short fibre content and contamination.

In view of the pressing time, the post Lunch Sessions II and III which deliberated the **‘Role of Government in Stimulating Growth and Investment Opportunities for Cotton/Cotton Textiles’** and also the **‘Expanding Trade Prospects in Cotton Textiles’** was combined and the session was chaired by Dr. CD Mayee.

Dr. NB Singh, Agriculture Commissioner, Ministry of Agriculture, Govt. of India and Dr. TP Rajendran, Assistant Director General, ICAR, New Delhi explained in detail the role of Technology Mission on Cotton and its impact on the cotton production and quality in the country. They dealt at length the achievements of Mini Mission I, II, III and IV dealing with various aspects of cotton production quality and marketing. They informed under Mini Mission I and II, emphasis was given to genetic improvement of cotton, reduction of cost of cultivation, seed distribution and training farmers in their own fields. They further explained in detail the achievements made under Mini Mission III in providing improved infrastructure facilities and cotton market yard. They also explained the progress made in establishing and updating modern ginning and pressing factories to obtain contamination free cotton. The speakers finally concluded that the sustenance of the gains of Technology Mission would entirely depend on the role of State Governments & the research inputs from ICAR laboratories in supporting the Governmental efforts.

Sh MK Sharma of Managing Director of Mahyco Monsanto Biotech Pvt Ltd., Mumbai and Sh Ramasami of Managing Director of Rasi Seeds Pvt. Ltd., Attur, gave a broad industrial perspective of “**Biotechnology in Cotton**”. Sh MK Sharma gave a detailed outline of the processes involved in the production of Bt Cotton from laboratory to the field. He stressed the need for elaborate study of biosafety aspects of Bt Cotton production through extensive field studies. He also described in brief the regulatory mechanisms that govern the propagation of transgenic crops. He informed that about forty more hybrids are in the pipeline awaiting approval for the next cotton season. According to him the cotton production increased by 38.6 lakh quintals and the cotton seed production to additional 25 lakh quintals as a result of the introduction of Bt Cotton in India. He also gave a glimpse of second-generation Bt Cotton varieties with newer genes conferring broader insect control, increased herbicide and drought tolerance attributes. The newer breed of GM cottons is likely to bring down the cost of cultivation through lower application of pesticides and higher yield per unit land area. At the same time he called for intensive research in the area of biotechnology and educate the farmers in this area of advancement.

Sh Ramasami in his address covered the entire value chain from cotton seed to yarn production. According to him, the cotton fibre quality is dependent on the combined impact of the quality of the seed, climatic variations during growth period, soil fertility and the application of appropriate fertilizers. He also highlighted the general problems faced by the ginners on account of immature fibres, short fibre content etc. in the non Bt Cottons. In contrast the Bt Cotton according to him does not face the above drawbacks.

Sh Vishwanath, Advisor, Technology Mission on Cotton, CCI and Dr. AK Basu, Former Advisor CCI deliberated on the emerging concept of “**Contract Farming in Cotton**”. The speakers provided newer insights into the practice of Contract Farming, which they had carried out with the help of stakeholders. According to Sh Vishwanath, though India has improved the cotton productivity, it is still far to reach the level of China, USA, Australia and other countries. In the context of larger area of cotton production under rain fed conditions with multitude of varieties of cotton grown in the country, contract farming of a single variety with optimized inputs and an assured return to the farmers appears to provide solution for the problem faced by the industry, both in terms of quality and price.

Dr. Basu gave the details of the various contract farming exercises carried out by CCI with the co-operation of Bayer CropScience, Excell Industries, Textile Industries, like Super Spinning Mills etc. in various states like Gujarat, MP, AP, Maharastra, Haryana, Karnataka and Orissa. Dr. Basu lamented that the desired

progress in promoting this concept could not be made due to lack of awareness on the part of ginners, farmers and textile industries. He was also at the opinion that contract farming is the answer to reduce the cost of cultivation under Indian conditions and to provide cotton with homogeneous properties to the textile mills.

The last speaker of the day was Sh Siddhartha Rajagopal, Executive Director, TEXPROCIL, Mumbai. Sh Rajagopal presented paper on “**Expanding Trade Prospects in Cotton Textile**” and elaborated his lecture with the help of excellent slides and tables. He gave a graphic picture of world textile trade of pre and post GATT period. He also highlighted the various non-tariff trade practices of the rich nations ushering in a new type of protectionism in the new world trade order. He was confident that despite the slow phase of change India with its technical man power and wealth of raw material would emerge as a leading textile power of the world. Through innumerable illustrative slides of facts and figures he painted a rosy picture for India in the post-quota regime with a projected textile business of around US\$42 billion in our own continent. He ended his lecture with a presentation of technical and financial vision for the Indian textile industry for the year 2010.

The conference concluded with an open interactive discussion of the delegates with the panel members.

Dr. CD Mayee, Dr. NB Singh, Shr Siddhartha Rajagopal, Dr. S Sreenivasan and Dr. BM Khadi acted as panel members. During the lively discussions that followed the following important issues emerged.

- a) Planned production of agricultural commodities may have to be resorted to in future in the interests of farmers and to control the price line.
- b) On the issue of expansion of Bt Cotton cultivation, it was told that based on the past experience with hybrid cotton, Bt Cotton may not expand beyond a certain limit of the total area.
- c) Appropriate government intervention was stressed to check the proliferation of illegal Bt Cottons in the country.
- d) Need for branding of Indian Cotton as a marketing tool to promote export of Indian cotton was acknowledged by one and all.
- e) On the issue of Contract Farming, it emerged that corporatisation and not co-operatisation is the need of the hour for the sustenance of the existing productivity, lowering of cost of cultivation and ensuring the availability of quality raw material to the industry and,
- f) Panel also opined that the thrust would have to come from the Industry to Farmers to forge an irreversible and stable partnership to make a beginning in Contract Farming.

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