

Cotton scenario in India

Cotton, the 'white gold', enjoys a predominant position amongst all cash crops in India. Cotton is an important raw material for the Indian textile industry, constituting about 65% of its requirements. The Indian textile industry occupies a significant place in the country's economy with over 1500 mills, 4 million handlooms, 1.7 million power looms and thousands of garment, hosiery and processing units, providing employment directly or indirectly to around 35 million people.

In India, cotton occupies an area of nearly 7.39 million hectares, with a production of 2.38 million metric tonnes (2002–03), ranking third in the world. The lint productivity of cotton is 322 kg/ha, which is the lowest and far below that of the world average of 627 kg/ha.

During the last fifty years, production of cotton rose from 30 lakh bales (1 bale = 170 kg) in 1950–51 to 140 lakh bales in 2002–03. During the same period the area under cultivation increased from 58.91 lakh hectares to 73.9 lakh hectares. Using the data for the period from 1950–51 to 1999–2000 on area under cultivation, area covered under irrigation and production, de-

cadal per cent compound growth rates (CGRs) are ascertained. On fitting, the exponential model $y = ab^t$, where y is the area under production, t the year, a and b the constants, the per cent $CGR = (b-1)*100$, and its significance at 5% level was tested using Student's t -test.

Significant increase in the area under cultivation of cotton was observed during the first ($CGR = 23.23$) and fifth ($CGR = 24.80$) decade and also over a period of fifty years ($CGR = 1.86$). The irrigated area under cultivation has increased significantly during all the decades (the respective decadal CGRs are 6.42, 3.35, 9.49, 10.57) barring the fourth decade ($CGR = 2.73$) and also during the period of fifty years ($CGR = 5.49$). Production also increased significantly during the first ($CGR = 4.23$) and third ($CGR = 3.68$) decade and during the period of fifty years ($CGR = 2.44$). Major cotton-producing states in India are Andhra Pradesh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu and Uttar Pradesh. Data for the period from 1996–97 to 2001–02 reveal that there is no improvement in produc-

tion in these states, as a result of which cotton production in India has declined significantly ($CGR = -7.29$).

There is need to arrest this declining trend in cotton production by way of appropriate policy measures and a package of practices, i.e. integrated nutrient management, integrated disease management, integrated pest management, etc. This will go a long way in putting the cotton trade on competitive terms under the aegis of WTO.

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Sivaraj Ramaseshan – Reminiscences

Remembrances of Sivaraj Ramaseshan published earlier in *Current Science*^{1,2} inspired me to pay homage to a science communicator/editor/scientist. I had the fortune of meeting Ramaseshan on 9 September 1996. He visited the Birbal Sahni Institute of Palaeobotany, Lucknow to deliver the Third Golden Jubilee Lecture on his chosen topic – Shells, Corals and Geophysics. He left an indelible impression on the minds of audience, both scientists and eminent citizens of Lucknow, through his erudite presentation. It was a treat to watch him gathering broken pieces of shells/corals and integrating them with geophysical generalizations. He was a rare blend of a science communicator with characteristic wit and an uncanny knack of a magician. He was a scientist to the core and open to changing scientific ethos.

Ramaseshan was gifted with analytical skill of conceptualizing data of multiple disciplines and putting forward meaningful interpretations. He succeeded in integrating biological events with abiological

parameters. Truly, he was an ardent advocate of multidisciplinary research. While presenting his imaginative talk, he pointed out the futility of specialized, narrow research and appealed for a broader outlook. He was not shy in quoting from Sanskrit scriptures to stress his viewpoint.

Ramaseshan was curious to know about the origins of life, tectonic influence on Gondwana and possible plant fossil signatures of palaeoclimate. He wondered what would be our fate without green life! Can the Azoic Era be repeated? He enquired about silting in Gomti River at Lucknow and quipped that the Central Drug Research Institute, situated on the banks of Gomti, should come up with a patent on beautification. He was referring to 'multani-mitti' used by the fair sex for glowing skin. Such was his sense of humour. His contribution to improving quality and circulation of *Current Science* was a revelation to many Indian and overseas journals engaged in science publication. His writings in the form of

editorials/news items were thought provoking. Topics like hemp³, sprites⁴, optics⁵, etc. were testimony to his versatility. He strongly opined that transparency and mutual confidence among scientists should be built-up for a powerful science base in India. Critical scrutiny of all scientific findings, especially one's own, is an unqualified desideratum of scientific progress⁶. We require the right spirit to accept new changes.

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