

BOOK REVIEWS

India's Tryst with Bt Cotton- Learning from the First Decade by N. Lalitha and P. K. Viswanathan, 2015, Published by Concept Publishing Company Pvt. Ltd., A/15 - 16 Commercial Block, Mohan Garden, New Delhi - 110 059, India pp:294, Price ₹ 950.

The authors make an attempt to relook into the consternation that exists in the genetically modified crops in modern agriculture. The book discusses different topics such as development of agri-biotechnology business scenario, significance of public research institutes with special reference to cotton, institutional arrangements, price control on seed industries, farmers' decisions about Bt cotton adoption and the rising issues of labour scarcity and availability.

The book highlights the significance of current status of both public and private R&D focused on developing different varieties which can perform well under different climatic characteristics with resistance to pest and diseases. The book discusses the emergence of agri-biotech companies in India which was primarily due to liberalisation of seed policies. It also highlights the pressure on land resources and future need of per capita consumption of cloth which indicates the requirement of cotton for present and future generation. It also underscores the importance of increasing the cotton production to the tune of 33.4 million bales which is a herculean task. This situation alarms all the stakeholders of

biotechnology and agriculture industries to frame appropriate policies so as to cope up with the growing demand and adopting sustainable approaches for conserving natural resources and preserving environmental quality. The institutional mechanisms should be arranged in such a fashion that every crop should be channelised through environmental sensitivity approach by Ministry of Environment and forest departments throughout the country. In India, Bt cotton evolved as promising variety of cotton for higher returns and reduced expenditure on pesticides and use of inputs. It is emphasised that a collaborative approach is needed to create awareness among farming community about biosafety techniques and using refugee crop in cotton.

However, consideration of risk and uncertainty factors about Bt cotton and adoption of the technology shows that young farmers are ready to take calculated risk if they have proper information on both backward and forward linkages of any agricultural produce. In a nutshell, the small and marginal farmers are very much interested in adopting new technology and acquired the required information about technology which was observed in Gujarat. Further, the study points out about the emerging issues of labour use in cotton cultivation and observes that there is an increase of nearly 10 per cent in cost of cultivation exclusively for human labour.

The book suggests that social, technological and regulatory problems should

be taken care of before advancing for higher mode of action especially in GM crops so that each and every farming community will benefit from the technology. The book explains about the significance of technology in terms of both production and productivity especially cotton which is used as clothing material and majority of farmers are interested in adopting this technology. It also discusses the potential avenues and required institutional framework for smooth regulation of BT cotton technology in India. The book also focused on the significance of public-private partnership approach for seed supply channels through local and international stakeholders which are exclusively governed by regulatory norms of the countries involved in diffusion of the technology to farmers.

The book provides a glimpse of various issues involved in biotechnological aspects in general and BT cotton in particular and will be very useful for all the stakeholders involved in the biotechnology especially GM crops.

Dr. Siddayya

Tank Irrigation of Dry Zones in India: A Sustainable Livelihood by Sebak Kumar Jana, 2014, Published by Concept Publishing Company Pvt. Ltd., A/15&16, Commercial Block, Mohan Garden, New Delhi - 110 059, India, pp: xxiv and 184, Price ₹ 600.

The book makes an attempt to present the effects that research has had in the past and to be continued in future for achieving long-term objective of sustainable livelihood of rural population. There are different kinds of approaches and different ways to measure, particularly groundwater which depends on

utility of tank irrigation systems in terms of development, efficiency, management and constraints. The major drawback of inefficient tank irrigation systems is solely due to lack of support among the stakeholders of tank irrigation management communities. On the other hand, particularly in dry zones, groundwater is continuously exploited over the years which created a sort of threat to upcoming generation which leads to huge water scarcity coupled with high investment.

The author highlights the significance of tank based irrigation especially for dry zones in India. The study explores the approaches for sustainable irrigation development, which not only act as surface reservoirs but also contribute towards finding the new tank investment trends, identifying both positive and negative impacts and also having greater share in improving livelihood of rural masses particularly in dry zones of India and more especially in West Bengal.

The book discusses the pattern of irrigation development among study districts in West Bengal. About 68.96, 85.71 and 70 per cent of block-wise decline in tank irrigation was observed in Paschim Medinipur, Bankura and Purulia districts of West Bengal, respectively. It also provides a blue-print of agro-climatic features of districts which can easily identify the changes due to irrigation developments over a period of time after developing tank irrigation structures in and around study area in West Bengal. The profitability analysis reveals different findings based on crops cultivated was observed across the tanks. This also helps in deciding the cropping pattern for increased agricultural