

## Profitability of Bt. cotton production in Marathwada region

R.B. CHANGULE, MOHD. ASMATODDIN, A.D. THITE AND H.N. PATIL

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### ABSTRACT

Cotton (*Gossypium* spp.) is one of the most important commercial crops playing a key role in economic, political and social affairs of the world. Investigation was carried out during the year 2005-06 in Nanded and Parbhani districts of Marathwada. Data were collected from 150 farmers by personal interview method using well structured and pretested schedule. Cost concepts namely, Cost-A, Cost-B and Cost-C were used for cost evaluation. The results revealed that yield of Bt cotton in Parbhani district was 13.20 q/ha and in Nanded it was 11.71 q/ha. The results revealed that, the productivity level of cotton in Parbhani district was found to be higher as compared to Nanded district. It was observed that Cost-C was Rs.21222 for Parbhani district and it was Rs.19606.54 for Nanded district. Benefit cost ratio for Bt. cotton cultivation was estimated at 1.23 and 1.19 for Parbhani and Nanded district, respectively. The per hectare total cost of cultivation incurred in Parbhani and Nanded districts was worked out to be Rs.21222 and Rs.19606, respectively. After deduction of the per hectare total cost of cultivation from the gross returns fetched, residual left in the form of net income from Bt cotton cultivation in Parbhani and Nanded districts was worked out to be Rs.5019 and Rs.3689, respectively. This reveals that, the sample farmers from Parbhani district had an edge their counter part sample farmers from Nanded district as far as net income from cotton cultivation was concerned.

**Key words :** Bt cotton, Production, Profitability, B:C ratio

Cotton (*Gossypium* spp.) is one of the most important commercial crops playing a key role in economic, political and social affairs of the world. All the four cultivated species are being grown in India viz., *Gossypium hirsutum*, *Gossypium barbadense*, *Gossypium arboreum* and *Gossypium herbaceum*. The predominant species cultivated is *Gossypium hirsutum* which covers about 50 per cent of the area followed by *Gossypium arboreum* with 29 per cent and *Gossypium herbaceum* with 21 per cent. The area under *Gossypium barbadense* is negligible and covers only a few thousand hectares. Presently more than 70 per cent area under tetraploid cotton as against only 3 per cent area is under tetraploid in 1947 – 48.

India is the third largest producer of cotton in the world with production of around 3.95 million tons (MT) (approximately 15.71 per cent of world production). Area under cotton is around 9.50 million hectares contributing about 29 per cent in world share and keeps fluctuating owing to monsoon and other factors. Despite having the

largest area under cotton in the world, India ranks third in world output of cotton due to its abysmally low average yield of 415 kg against a world average of 721 kg per hectare. Cotton is cultivated in almost all the states in the country. However, the nine states Punjab, Haryana, Rajasthan, Gujarat, Maharashtra, Madhya Pradesh, Andhra Pradesh, Tamil Nadu and Karnataka account for more than 95 per cent of the area under cotton.

Maharashtra is the first in area and production of cotton in the country. It has 2.83 million hectares area under cotton crop with production of 0.68 million tonnes of lint (4.06 million bales) in the year 2004-05. The productivity of cotton during this year was 176 kg/ha lint yield (686 kg/ha seed cotton yield). Thus, state is contributing 22.7 per cent to the total cotton production in the country in the year 2003-04.

Cotton is dominantly grown under rainfed condition in the region. The Marathwada region accounts 27 per cent of area and 25 per cent of production in the state. Ninety six per cent cotton is grown as rainfed cotton. Nanded, Parbhani, Jalna, Aurangabad and Beed are major cotton growing districts of Marathwada region. Though Nanded and Parbhani districts contribute more than 50 per cent area of cotton in Marathwada but the productivity of these two districts is as less as compared to other districts. In these districts, farmers are growing cotton hybrids with Bt like NCS-45 (Bunny), MECH-162, MECH-184, NHH-44, JKCH-666, Tulsi, Ajit -133, Hima-15, Mallika, Brahma and Rasi on more than 80 per cent

### Correspondence to:

MOHD. ASMATODDIN, Department of Agricultural Economics and Statistics, College of Agriculture, Marathwada Agricultural University, PARBHANI (M.S.) INDIA

### Authors' affiliations:

R.B. CHANGULE, A.D. THITE AND H.N. PATIL, Department of Agricultural Economics and Statistics, College of Agriculture, Marathwada Agricultural University, PARBHANI (M.S.) INDIA