Since 2015, India has been the world’s top cotton producing country, achieving cotton production of 37.7 million bales in 2017, higher than 34.5 million bales in 2016. India produces more than a quarter of the world’s cotton.

In 2017, India planted 11.4 million hectares of IR (Bt) cotton, recording an increase of 600,000 hectares from 10.8 million hectares in 2016. The significant increase was due to favorable market price and weather conditions for cotton cultivation in Kharif 2017.

A total of 7.5 million farmers in India planted 11.4 million hectares IR cotton in 2017, which is 93% of the total 12.24 million hectares of cotton grown in the country.

The increase in IR cotton area and adoption rate showed farmers’ resilience to overcome constraints including the infestation of pink bollworm (PBW) due to the poor quality of unauthorized sale of IR/HT cotton hybrids in India.

It was estimated that around 3.5 million packets of illegal IR/HT cotton expressing both Roundup Ready® events MON1445 and MON88913 were planted on 800,000 hectares in 2017. The unauthorized sale marked a major controversy due to PBW infestation and crop failure in some areas in Maharashtra.

**BIOTECH CROPS IN INDIA**

Bt technology accelerated the adoption of cotton hybrids in India, from 45% in 2002 to 96% in 2017.

In 2017, the Genetic Engineering Appraisal Committee (GEAC) of the Ministry of Environment, Forests & Climate Change (MOEF&CC) thoroughly assessed the safety and performance of GM mustard and recommended the environmental release of transgenic mustard hybrid Dhara.

Fourteen peer-reviewed research studies have been conducted over the years, three studies were conducted prior to the commercialization of Bt cotton from 1998 to 2001, whereas eleven studies were carried out to assess ex-ante impact of Bt cotton, which were reported during the post commercialization of Bt cotton from 2002 to 2013. The results of these studies on Bt cotton were consistent with the study undertaken by Gandhi and Namboodiri in 2006 showing yield gains of approximately 31%, a significant 39% reduction in the number of insecticide sprays, leading to an 88% increase in profitability, equivalent to a substantial increase of approximately US$250 per hectare (Gandhi and Namboodiri, 2006).

India has achieved a great stride in cotton production in 2017 with the area planted to IR cotton increasing by 6% from the previous year.

Insect resistant (Bt) technology in cotton hybrids delivered broad based benefits by saving losses caused by American bollworm and boosting cotton yield to 500 kg lint per hectare.

The next level of cotton yield targeting to achieve the global average cotton yield of 700+ kg lint per hectare can only be possible through the introduction of new generation biotech traits including stacked traits, smart agronomy, and high yielding cotton cultivars.

The recommendation of GEAC on GM mustard, which was based on a thorough assessment of the safety and performance of GM mustard shall not go into oblivion. The moratorium on IR brinjal by MOEF&CC in 2010 has not yielded any outcome in the last seven years, and thus a careful consideration of the recommendation of the regulatory agency on GM crops by MOEF&CC is immensely needed at this time.

SOURCE

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