

## Plantation of BT cotton from April 2010



Pakistan will officially launch genetically modified (BT) cotton cultivation from kharif season next year to achieve the target of 20 million bales by the year 2015. This statement was released by the Minister for Food and Agriculture Nazar Muhammad Gondal.

BT Cotton seeds sowing is expected to start from next kharif season and according to estimates around 20% certified BT cotton would be planted in 2010 and the cultivation area would continue to grow till the country achieves more than 90 per cent cultivation of BT cotton.

It is common knowledge that majority of farmers are already using unapproved and unspecified seeds and to some extent the lower cotton production yields can be attributed to the use of lower quality and unapproved seeds in the country. The Ministry expects that the production would gradually improve after re-introduction of certified seeds.

According to Ijaz Ahmad Rao from Bahawalpur global acceptance of Bt cotton has risen dramatically from 1.90 million acres in its introductory period in 1996 to 19.40 millions acres in 2006. Area planted to biotech varieties increased to over one-fourth of the world total in 2005/06, and it is estimated that biotech varieties account for 38 % of 86.5 million acres planted to cotton in 2006-07. Bt cotton varieties yielded significantly more per acre as compare to non Bt cotton varieties - an average 23-28 maund (1 Maund = 40 Kg) per acres versus 17-20 maund to traditional cotton varieties. This translates into more than 30% increase in yield.

Pakistan has developed the disease-resistant seeds of BT cotton as it was the basic requirement before the official launch of bio-tech cotton in the country. The public sector labs have produced a curl leave virus (CLVC) resistance seeds.

The Pakistan Central Cotton Committee (PCCC) has been experimenting on ten crops at various locations, while the Pakistan Agriculture Research Council has been conducting tests over CLVC with Chinese experts.

The ministry was in the final phase of negotiations with two local and six international firms, including Monsanto, the US-based agro firm, which would be importing BT cotton seeds from its facilities in India. The minister said that imported BT cotton seed may dominate the market in 2010 but local certified seeds would take the majority share in coming years.

India's regulatory agency for genetically modified crops, Genetic Engineering Approval Committee (GEAC) has approved the export of Bt cotton seeds to Pakistan and from September several major seed producers are exporting genetically modified cotton seeds to Pakistan for use in field trials. Monsanto, Bayer Hybrid Seeds and Nath Biogene were among the seed producers who received that permission under the direction of India's environment and forestry ministry. Bt cotton has been used to great success in India, including regions bordering Pakistan. India has doubled its cotton production since 2002, in large part due to Bt cotton. Because Pakistan has similar soil and geographical terrain as India, seed company officials believe that results from India can be replicated across the border.

BT cotton seed requires continuous improvement in order to cope with growing resistance and immunity of insects. Pierre Louis Dupont from France – an expert, who has more than 20 years of experience in cotton seed development, was offered to become Pakistan's consultant in its negotiations with Monsanto during June 2009. DuPont said it is important to consider the need to ensure continuous supply of second generation BT cotton seeds.

It is matter of great importance that depending on the correct use and application of agricultural biotechnology, the outcome can be in the form of agricultural and economic sustainability, while delivering direct benefits to the farmers and consumers. Although Monsanto in Pakistan has been doing business since 1998, in 2010 they will start marketing their seed in Pakistan and it is imperative that Ministry of Food, Agriculture and Livestock (MINFAL) should regulate the price of Bt cotton seeds that Monsanto will offer to the market. ♦