

The Development and Application of Transgenic Insect-resistant Cotton in China

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Abstracts: Since the beginning of the 1990s, China began its research, development and use of the transgenic insect-resistance cotton. Bt and CpTI genes were introduced into major cotton strains separately or contemporary so that a line of promising transgenic insect-resistant products were produced. The growing acreage of the transgenic insect-resistant cotton in China had been growing fast. The proportion of the transgenic insect-resistant cotton out of the total cotton growing area increased from 0.35% in 1996

to 30% in 2000. At present, the following problems were found in the insect-resistant cotton in China, i. e. resistance varies according to time and space, bollworms, resistance to transgenic insect-resistant cotton, the resistance of the present insect-resistant cotton is only effective in killing lepidopter, the existence of decreasing resistance and the safety of transgenic insect-resistant cotton. The main measures to solve these problems are seeking and selecting broad-spectrum gene, adopting special promoter, constructing multivalent insect-resistant gene cotton, strengthening the planting management and safety study of the transgenic insect-resistant cotton.

Key words: transgenic insect-resistance cotton; development; problem; safety; measures