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INTRODUCTION OF BT-COTTON IN INDIA ITS EFFECT AND RESULT ON PEST SCENARIO

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Abstract—*Bt cotton is one of the first genetically modified (GM) crop with wide distribution in the developing countries. Strains of the bacterium Bacillus thuringiensis produce 200 different Bt toxins, each harmful to different insects. In India and China, the area under Bt cotton has increased sharply over the last couple of years, reaching 25 million acres in 2007 (James, 2007). Most of the Bt cotton growers in these countries are small scale farmers and several recent studies have shown that they benefit considerably from adopting the technology in terms of reductions in pesticide use and higher effective yields (Bennett and Morse, 2007). GM crops thus far have been commercialized by private sector multinationals and there are fears that monopolistic market structures might increasingly prevail which could lead to excessive prices charged for Bt seeds, resulting in lower farm profits and restricted technology access, especially for poor farmers (Lalitha, 2004; Qaim & de Janvry, 2003). Accordingly, some developing countries governments have started to intervene in GM seed pricing (Fukuda-Parr, 2007). In India, for instance, since 2006 state authorities have set official maximum retail prices for Bt cotton seeds, which are significantly lower than the prices previously charged by seed companies. The genetic resistance is the cheapest and the most efficient method of protecting crop plants from pests. The Bt transgenic cotton with inbuilt genetic resistance to bollworms will help in protection of natural enemies of insect pests i.e. predators and parasites. It will also help in reduction the cost of cultivation by reducing the use of pesticides. Moreover, it will reduce environmental pollution and health hazards caused by pesticidal use.*

Key words: Bacillus thuringiensis, Genitically modified (GM), Bt cotton.

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