

1697 Performance of new generation Bt cotton hybrids in Indian rainfed eco-system

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Field experiment was carried out for two seasons at Agricultural Research Station, Dharwad Farm, Dharwad-580 007 (Karnataka, India) to evaluate the performance of different new generation Bt cotton genotypes under rainfed eco-system. Second generation genotypes MRC-7201 and MRC-6322 with *cry1Ac* + *cry2Ab* genes have shown high level of resistance to all the three species of bollworms. The incidence of bollworms did not cross economic threshold in BG-II hybrids. First generation Bt genotypes with *cry1Ac* intraspecific hybrids have received one spray and interspecific hybrids received two sprays. MRC-7201 recorded 0.13 larva of *H. armigera*/ pl and 4.98 per cent fruiting body damage. MRC-6322 BG-II was on par with MRC-7201. RCH-368 Bt found better with 0.1 /plant larva of *E. vittella* and 0.54/ pl *H. armigera* with 5.73 per cent damage among genotypes with *cry1Ac*. Interspecific Bt hybrids MRC-6918 and RCH-708 performed better under protected condition. All Bt hybrids were effective in containing pink bollworm incidence. Seed cotton yield was 20.58 and 18.47 q/ ha in MRC-7201 and MRC-6322 BG-II hybrids respectively without any protection against bollworms.

Key word: Bollworms, *cry1Ac*, *cry1Ac* + *cry2Ab*. Second generation Bt.