

APPRAISAL OF IPM TECHNOLOGY IN Bt COTTON

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ABSTRACT

During 2002 the Indian Government approved the release of Bt. Cotton variety for commercial cultivation. The results revealed that ball damage by *H. armigera* larvae was 2.76 % in IPM plot as against 13.60 % in farmers' practices. The cost benefit ratio recorded in IPM plot (1:3.2) was higher than farmers' practices plot (1:1.8).

INTRODUCTION

Cotton is an important commercial crop of the world and India ranks first in area and third in production in the world. During 2002 the Indian Government approved the release of Bt. Cotton variety for commercial cultivation. In order to compare the IPM (Integrated Pest Management) technology with farmers' practices (local practices of pest management) to manage the insect-pest of Bt. Cotton, large scale demonstration trials under Cotton Mini Mission – II scheme were conducted at different locations on farmers' fields of Jamnagar

districts of Gujarat state during 2007-2008.

METHODOLOGY

The IPM technology was compared with farmers' practices and cost benefit ratio was also worked out. IPM package included pheromone trap @12/ha, growing castor crop as trap crop for *Spodoptera litura*, raising marigold for *Helicovopa armigera*, spraying of NPV @ 500 lit/ha, spraying of imidacloprid 17.8 SL against sucking pest and need based application of Traizophos 40 EC against white fly, *Bemisia tabaci*.

RESULT

Table : 1 Evaluation of IPM technology in Bt. Cotton

Particulars	IPM plots	Farmers practices
American boll worm (incidence) in %	2.76	13.60
Fiber yield (q/ha)	25.20	20.00
No. of sprays	1-2	4-5
CB ratio	1:3.2	1:1.8

Results on demonstrations conducted on 25 locations. The result indicated that ball damage by *H. armigera* larvae was 2.76 % in IPM plot as against 13.60 % in farmers' practices (Table -1). The number of sprays with plant protection chemical was low in IPM plot (1-2 spray) compared to non –IPM practices (4-5 sprays). The fiber yield in IPM plot to the tune of

25.20 q/ha was higher as compared to farmers' practices plot (20.00 q/ha). Likewise cost benefit ratio recorded in IPM plot (1:3.2) was higher than farmers' practices plot (1:1.8). Therefore, the farmers of that locality were encouraged to adopt IPM technology that is safe and cost effective for Bt. Cotton.