

PRELIMINARY EVALUATION OF BIO CONTROL AGENT ON MAIZE

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In the North Eastern India, no work has so far been done with biocontrol agent in the rain fed maize. Hence the present investigation on the response of maize to biocontrol agent was taken up.

The experiment was conducted under rain fed conditions during Kharif season of 2004 on the research plot of Agronomist, East Siang District, Pasighat (150 mtrs altitude of 94° 41' - 99° 39' E; 28° 43' - 29° 20' N) of Arunachal Pradesh. The rainfall during the crop (April to August 15 th) was 3392.66 mm. The soil of experimental field was loamy sand in texture, high in organic (1.62%) medium in phosphorus and potash (3.5 and 152.3 kg/Ha) respectively having pH 4.0. The experiment was conducted with biocontrol agent and on maize genotype Midipapit. The recommended agronomic practices were followed throughout the season. (AAU, Jorhat / 1992). No insecticide and chemical fungicide were applied at any stage of the entire crop growth.

The tallest plant height upto flag leaf 287 cm and ear height 192 cm were recorded. This might be due to varietal character of genotype (Midipapit). It could minimize the rodent attack but on the other hand taller plants may have lodging problem. The yield was very low in all the treatment. This might be due to climatic effect i.e. heavy and continuous rain (1957.9mm) during the flowering period i.e. in the month of July/04. Results indicated that there was slight difference on yield (8.75 qt l./ha) by the application of verticillium alone over control (8.63 qtl./ha). 8.7 % increase in yield (9.38 qtl./ha) was obtained when *Pseudomonas fluorescens* was sprayed alone over control. Highest yield (11.25 qntl./ha) was registered i.e. 30.36 % increase in yield over control when both *Verticillium chlamyosporus* and *Pseudomonas fluorescens* were sprayed 45,60 and 70 D A S. It was observed that less attack of insect pest and moderately attack of diseases. It was also observed that if the fully matured dried cobs kept open in the open room for long duration. There was no occurrence of pests.

REFERENCE

AAU, Jorhat, (1992), Package of Practices for Kharif Crops of Assam : 36 - 38.