

Population dynamics and management of yellow stem borer (*Scirpophaga incertulas* Walker) with insect sex-pheromone trap

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ABSTRACT

Field experiment was conducted at the Research Farm, Rajendra Agricultural University, Pusa. Pest activity started from 30th standard week and continued upto 41st standard week, meanwhile it reached peak twice in 34th and 37th standard week. Thereafter, its population declined and finally no population was recorded. Correlation and multiple regression between weather parameters and the population of male yellow stem borer moth revealed that maximum temperature (°C), minimum temperature (°C), relative humidity (%) at 7 hr, relative humidity (%) at 14 hrs, rainfall (mm) and evaporation (mm) were positively correlated to the tune of 0.273, 0.453, 0.075, 0.478, 0.339 and 0.122, respectively with the population of male moth of yellow stem borer, whereas, sunshine (hr) was negatively correlated (-0.453) to that. Weather parameters were found to contribute about 34.60 per cent male moth population fluctuation of *Scirpophaga incertulas* when acted together. Further, the IPM package reduced the infestation (4.20, 8.82, 9.31% DH and 9.41% WEH) caused by rice yellow stem borer in respect to untreated control (4.88, 23.75, 27.68 % DH and 22.72 % WEH) at 15, 30, 50 and 90DAT. Moreover, IPM package gave higher yield (50.25 q/ha) as compared to the control (41.80 q/ha). It was also observed that net profit over the control was Rs. 11,825 with cost benefit ratio 1:2.27 with IPM package in both the years of study.

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