RESEARCH ARTICLE

EVALUATION OF NEWER INSECTICIDES AGAINST MAIZE PINK STEM BORER: MAJOR CONSTRAINT INSECT PEST OF MAIZE IN RAIPUR, CHHATTISGARH

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Abstract: The present studies were carried out during spring seasons of the year 2013-14 and 2014-15 at Research cum Instructional Farm, IGKV, Raipur (C.G.).Nine insecticides from different groups were applied as foliar sprays (liquid formulations) and whorl application (granular formulations) on maize crop against pink stem borer *Sesamia inferens*, Walker .The treatment was given at 15 days after germination of the crop when pink stem borer infestation was observed in the field. Among the insecticides evaluated, spinosad 45 SC proved to be highly effective in reducing the pink borer infestation with minimum leaf injury level (2.94) and tunnel length (2.31cm) resulting in higher grain yield(61.63 q/ha.).

Keywords: Chemical control, Maize, *Sesamia inferens*, Spinosad, Tunnel length

REFERENCES

Ahmed, S., Anjum, S., Naeem, M. and Asraf, M. (2003).Determination of efficacy of cypermethrin, regent and carbofuran against *Chilo partellus* and biochemical changes following their application in maize plants.*International journal of Agriculture and Biology*, **5**(1):30-35.

Borad, P. K. and Mittal, V. P. (1983).Assessment of losses caused by pest complex on hybrid sorghum CSH 5. In: *Proc. Nation. Sem., Crop Losses due to Insect Pests*,(Eds. Krishnamurthy Rao, B. H. and Murty, K. S. R. K). 7-9 January, 1983.Hyderabad, A. P., India. p. 271.

Gomez, K.A. and Gomez A. A.(1994).Statistical procedures for Agricultural research, Johnwilley and sons, New York, p.680.

Justin, C.G.L. and Preetha, V. (2014)). Survey on the occurrence, distribution pattern and management of stem borers on rice in Kanyakumari District, Tamil Nadu. *Journal of Entomology and Zoology Studies*, **2** (6): 86-90

Misra, H. P. (2011). Bioefficacy of chlorantraniliprole against shoot and fruit borer of brinjal, *L. orbonalis* Guen. *J. Insect. Sci*., **24**: 60-64.

Pal, R., Singh, G., Prasad, C.S., Ali, N., Kumar, A. and Dhaka, S.S. (2009). Field evaluation of bio-agents against *Chilo partellus* (Swinhoe) in maize. *Annals of plant protection sciences*, **17**(2):325-327.

Patra, S., Chatterjee, M. L., Mondal, S. and Samanta, A. (2009). Field evaluation of some new insecticides against brinjal shoot and fruit borer, L. orbonalis (Guen). *Pestic. Res. J*,. **21**:58-60.

Rameash, K., Ashok Kumar and Kalita H. (2012). Bio-rational management of stem borer,*Chilo partellus* in maize. *Indian Journal of Plant Protection*, **40**(3):208-213.

Reddy, M. L., Babu, T.R., Reddy, D. D. R. and Sreeramulu, M. (2003). Determination of economic injury and threshold levels for pink borer *Sesamia inferens* (Walker) in maize, *Zea mays* L. *International pest control*, **45**(5):260-263

Shahzad, M.A., Rana, Z.A., Ibrarul, H. and Hassan, T.(2010). Screening of different insecticides against maize shoot fly Atherigona soccata (Rond.) and maize borer, *Chilo partellus* (Swinh.).*Science international*, **22**:293-295.

Siddiqui, K. H., and Marwaha, K. K. (1993). The vistas of maize Entomology in India.Kalyani publishers,Ludhiana,Punjab,India p.184.

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