

Toxicity of Cry1ac *Bacillus thuringiensis* against *Helicoverpa armigera* (Hubner) on Artificial Diet under Laboratory Conditions

Authors : Tahammal Hussain, Khuram Zia, Mumammad Jalal Arif, Megha Parajulee, Abdul Hakeem

Abstract : The Bioassay on neonate, 2nd and 3rd instar larvae of *Helicoverpa armigera* (Hubner) were conducted against *Bacillus thuringiensis* proteins Cry1Ac. Cry1Ac was incorporated into an artificial diet and was serially diluted with distilled water and then mixed with diet at an appropriate temperature of diet. Toxins incorporated prepared diet was poured into Petri-dishes. For controls, distilled water was mixed with the diet. Five toxin doses 0.25, 0.5, 1, 2, and 4 ug / ml and one control were used for each instars of *H. armigera* 20 larvae were used in each replication and each treatment is replicated four times. LC50 of Cry1Ac against neonate, 2nd and 3rd instar larvae of *H. armigera* were 0.34, 0.81 and 1.46 ug / ml. So Cry1Ac is more effective against neonate larvae of *H. armigera* as compared to 2nd and 3rd instar larvae under laboratory conditions.

Keywords : *B. thuringiensis*, Cry1Ac, *H. armigera*, toxicity

Conference Title : ICE 2017 : International Conference on Entomology

Conference Location : Paris, France

Conference Dates : October 19-20, 2017