

Management of gram pod borer *Helicoverpa armigera* (Hübner) infesting chickpea using entomopathogenic nematodes under field conditions

Rashid Pervez

Received March 5, 2017 and Accepted May 15, 2017

ABSTRACT : Chickpea (*Cicer aritinum* L.) crop caused by various insect pests. Among them, gram pod borer *Helicoverpa armigera* is one of the most important insect pests infesting damage at flowering and fruiting stages. Development of tolerance or resistance by this insect against recommended insecticides. Therefore, there is a need to identify suitable alternative biointensive integrated pest management methods for the management of this insect pest. To evaluate the efficacy of EPN 1 and EPN 2 based liquid formulation against the *H. armigera* under field conditions at IIPR Experimental Farm, Kanpur (Uttar Pradesh). Results showed that among the tested EPNs, minimum pod damage (10.6%) was recorded in EPN 1, followed by 14.8 % pod damage in EPN 2 based liquid formulation treated plants in comparison to untreated control (38.8%). Maximum chickpea yield 1575 kg/ha, followed by 1348 kg/ha was recovered, when plants treated with EPN 1 and EPN 2, respectively based liquid formulation, while 875 kg/ha yield recovered from untreated control. Thus EPN 1 based liquid formulation is promising to management of *H. armigera* under field conditions. Further study required to evaluate this promising EPN based liquid formulation against insect pests infesting chickpea at farmer's field.

Key Words : Entomopathogenic nematodes, *H. armigera*, chickpea.