

## **PP63: Management of chickpea pod borer *Helicoverpa armigera* (Hübner): use of bio-pesticides**

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*Helicoverpa armigera* (Hübner) is one of the most important insect pests worldwide. The larva feeds on various important crops such as Tobacco (*Nicotiana tabacum*), tomato (*Solanum lycopersicum*. L), chickpea (*Cicer arietinum*) & cotton (*Gossypium hirsutum*), causing important damages. In the last decades, synthetic chemicals were frequently used to manage this insect throughout the world. The intense application of pesticides has led to major problems in term of insect resistance, environment pollution, in addition to their high cost. Research on bio-pesticides has been gaining increased attention and many plant extracts and essential oils have shown promising activities in insect control. In this context, biological activity of 12 essential oils and four plant extracts were studied using third instar larva of pod borer *Helicoverpa armigera*. The aim of this study was to identify efficient botanical pesticide to control of this pest under laboratory conditions using three types of tests: direct contact (Topical method), systemic effect and fumigation. Results showed that essential oils were more promising than the plant extracts in term of larval toxicity on the pod borer.