



## RESEARCH PAPER

# Succession of insect pests and their natural enemies on soybean in Jabalpur district of Madhya Pradesh

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**Abstract :** A Field trial was conducted on succession of insect pests and their natural enemies on soybean (var. JS 97-52) during Kharif season 2016 at experimental field of BSP unit, JNKVV, Jabalpur (MP). Observation on insect pest and their natural enemies were recorded on the basis of weekly interval. Observation of foliage feeders (*viz*; tobacco caterpillar, brown semilooper, green semilooper and bihar hairy caterpillar) were recorded on one meter row length (mrl) at randomly selected five different spot. Sucking insect pests was recorded on individual plant by caging method. Further, stem borer infestation (stem fly and girdle beetle) was recorded from each randomly selected five plants whereas, natural enemies of insect pests was recorded from one mrl from randomly selected five spot. The findings revealed that total eight different species of insect pests and two predators and one entomopathogenic fungus (*B. bassiana*) was recorded during the whole cropping season. The first incidence of whitefly and jassids were observed on 7 and 23 days old crop (DOC), respectively which were available up to maturity of the crop. Further, first incidence of tobacco caterpillar and brown semilooper was recorded on 30 DOC while green semilooper and bihar hairy caterpillar were observed on 32 and 51 DOC, respectively. All these foliage feeders were continue present till the maturity of the crop. Infestation of stem fly and girdle beetle were first observed on 27 and 45 DOC, respectively which were also available till the harvesting of the crop. Among natural enemies predators *i.e.* ladybird beetle and spider were observed on 32 and 37 DOC while an entomopathogenic fungus *i.e.* *B. bassiana* infected larvae were observed *i.e.* green semilooper and tobacco caterpillar between 72 to 79 DOC.

**Key Words :** Soybean, Foliage feeders, Girdle beetle, *Beauveria bassiana*, Lady bird beetle

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