

Influence of Weather Parameters on the Population Dynamics of Insect Pests of Pigeonpea (*Cajanus cajan* (L.) Millsp.)

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ABSTRACT

Field experiment was conducted to study the seasonal occurrence of major insect pests of Pigeonpea at Agricultural Research Station, Darsi during *Kharif* 2012-13. The initial oviposition by *Helicoverpa armigera* was observed from 43rd std. week and reached to a peak by 49th std. week. The initial occurrence of *H. armigera* larvae was noticed during 44th std. week and reached the peak during 52nd std. week. The incidence of *H. armigera* moth population was initiated during 41st std. week and peak moth incidence was observed during 51st std. week. The initial occurrence of *Maruca vitrata* larval population was observed during 45th std. week and the peak incidence was recorded during 51st std. week. The initial occurrence of *Exelastis atomosa* larval population was noticed during 44th std. week and attained its peak population at the end of the crop season by 3rd std. week. The occurrence of leafhopper is bimodal where early incidence starts from 37th std. week reaching its first peak during mid October and second peak during mid November. The correlation between oviposition by *H. armigera* and evening relative humidity ($r = -0.492$) was negative and significant, while minimum temperature showed significant negative influence on the larval ($r = -0.487$) and adult ($r = -0.488$) population of *H. armigera*. The correlation between larval population of *M. vitrata* and morning relative humidity ($r = 0.309$) and evening relative humidity ($r = 0.674$) showed positive influence. Minimum temperature ($r = -0.725$) and morning relative humidity ($r = -0.450$) showed significant negative influence on the larval population of *E. atomosa*. Leafhopper population showed positive correlation with maximum and minimum temperatures, morning and evening relative humidities and rainfall.

Key words : Insect pests, Seasonal Occurrence, Pigeonpea, Weather parameters.