

Effect of Abiotic Factors on The Incidence of Pod Fly, *Melanagromyza Obtusa* (Malloch) in Early and Late Sown Pigeonpea Cultivars

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ABSTRACT

Investigations were carried out to study the impact of various meteorological factors on incidence of pod fly, *Melanagromyza obtusa* (malloch) in early and late sown pigeonpea cultivars viz., LRG 41 and TRG 38. In both the cultivars the occurrence of maggot and pupae was first observed in the 48th standard week *i.e.* first week of December in both the sowing dates and pest remains active throughout the cropping season. Maximum incidence in terms of maggot population was recorded in 4th standard week *i.e.*, fourth week of January, in both the cultivars with two sowing dates, whereas, peak pupal activity was recorded in 5th standard week *i.e.*, first week of February. In both cultivars late sown crop suffered more when compared to early sown crop in terms of both maggot and pupal activity, whereas, in between the two cultivars TRG 38 suffered more than the LRG 41. Correlation studies of weather parameters with pod fly showed that morning relative humidity exhibited significant positive effect with maggot and pupal occurrence in both the cultivars, whereas, minimum temperature exhibited significant negative effect with only maggot population in early and late sown LRG 41. Multiple regression analysis using the step wise regression models can be considered as best fit for predicting population of pod fly, *M. obtusa*.

Key words : Seasonal incidence, Pigeonpea, Pod fly.