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Population dynamics of major sucking pests infesting niger and their relation to weather parameters

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ABSTRACT

Investigations were carried out on population dynamics of major insect pests on niger (*Guizotia abyssinica* L.) at College Farm, Navsari Agricultural University, Navsari during winter 2011-12. For the purpose, 20 plants were randomly selected from an experimental area of 20×20 m. Observations were recorded at weekly interval. For recording the population of aphid (*Uroleucon compositae*), jassid (*Amrasca biguttula biguttula*), and whitefly (*Bemisia tabaci*), three leaves from top, middle and bottom portion of the randomly selected plants were critically observed and number of aphids, jassids and whiteflies were counted and population per leaf was worked out. The data on population of sucking pests was correlated with weather parameters *viz.*, maximum, minimum and average temperature, morning, evening and average humidity, sunshine hours, wind velocity and evaporation. The results revealed that the incidence of sucking pests *viz.*, aphid, *Uroleucon compositae* (Theobald) started from second week of December which reached peak (63.20 aphids/leaf) during first week of February. The incidence of jassid, *Amrasca biguttula biguttula* (Ishida) started from second week of December with a peak (8.52 jassids/leaf) during fourth week of January and thereafter, steadily declined and finally disappeared. Whereas, whitefly, *Bemisia tabaci* (Gennadius) started from second week of December with a maximum level during (14.56 whiteflies/leaf) fourth week of January. Among various weather parameters *viz.*, maximum, minimum and average temperature had highly significant negative influence on the population of all the major sucking insect pests of niger.

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