

Population dynamics of gall insect in *Terminalias* under Maharashtra conditions

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SUMMARY

Gall forming Psyllid, *Trioza fletcheri* minor pest is important biotic stressor limiting the Tasar production in India. Due to lack of the proper forecasting system for the incidence of the pest it becomes difficult to adopt efficient protection measures at right time. A study was, therefore, taken up to study the population dynamics of gall forming Psyllid at Field campus Khapa of Regional Tasar Research Station, Bhandara of Vidarbha region of Maharashtra during 2002-2005 with objective to work out suitable control strategies. It was observed that Psyllid infestation occur round the year under conditions of Maharashtra. intensity of infestation varied throughout the year. Maximum Infestation (20.76 to 24.25%) was recorded during months of June – July whereas it was least (0.84 to 1.96%) during October – December period. The infestation of gall causing insect declined sharply during winter and its population starts increasing from March – April onwards coinciding with rise in mercury in Vidarbha region of Maharashtra. This clearly points out that Management practices to control gall infestation should be brought in to force from this period onwards to avoid foliage loss occurring in June-July.

Key words : Tasar, Gall, Population, Biotic stress, *Terminalia*.

Tropical Tasar culture in India is exclusive craft of tribal and hill folk inhabiting the forest of Central and Southern plateau. The growth and development of the sector is directly dependent on the successful rearing of tasar silkworm and remunerative return to the farmers. Presently Tasar silkworm, *Antheraea mylitta* D., is commercially exploited in nine States of tropical India and are reared outdoor directly on the trees thereby they get exposed to vagaries of climate, pest and predators and disease (s) outbreak. It is estimated that more then 40 per cent crop losses occur due to disease/pests only (Chakravorty *et al.*, 2004).

Tasar silkworm and its food plant are closely associated with each other for production of silk. Singh and Saratchandra (2004) stressed that one of the major reason for low silk production is pest problem associated with food plants and silkworm. Gall forming Psyllid, *Trioza fletcheri* minor pest is important biotic stressor limiting the Tasar production in India. Due to lack of proper forecasting system for the incidence of this pest it becomes difficult to adopt protection measures at right time. A study was, therefore, taken up to study population dynamics of gall forming Psyllids with objective to work out suitable control strategies. Study also aimed at understanding the role of the weather factors on gall

incidence in tasar food plants and developing a forewarning system to control the outbreak of gall forming Psyllids.

MATERIALS AND METHODS

The data were recorded on naturally and predominantly available *Terminalia tomentosa* plants, intermixed with sparsely available *Terminalia arjuna* plants, at field Khapa of Regional Tasar Research Station, Bhandara during the year 2002-2005. The data were recorded throughout the year following the methodology described by Anonymous (2001). Meteorological data on average maximum and minimum temperature, relative humidity and rainfall were recorded. The month wise observations for all parameters were recorded.

RESULTS AND DISCUSSION

Perusal of Fig. 1 vividly indicate that *Terminalia*

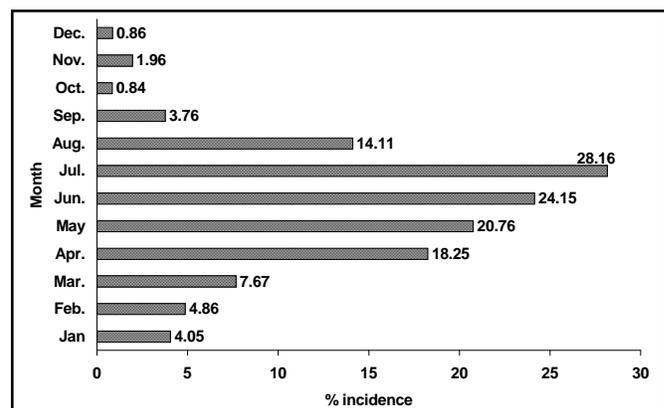


Fig. 1: Incidence of gali insect on tasar food plants (avg. of 04 years)

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