Indian Journal of Tropical Biodiversity

STUDIES ON HOST PLANT AND INFESTATION LEVEL OF TERMITE *ODONTOTERMES OBESUS* RAMBUR

VINOD KUMAR GARG
Department of Entomology, JN Krishi vishwavidyalaya,
College of Agriculture, Ganj Basoda, Vidisha – 464221, Madhya Pradesh
Corresponding author: vinodkumarjnau@gmail.com

ABSTRACT: Termite, *Odontotermes obesus* Rambur (Isoptera: Termitidae) an insect pest on a wide range of host plants and cause economical damage. The studies was conducted during 2014-2016 revealed that one hundred and seven host plant species belonging to twenty nine families including thirty two crop plant, twentyone trees, twenty fruits plants, nine flowers & medicinal, five spice, four weeds, two plant from vegetable, ornamental & aromatic plant and one from creeper. Maximum incidence was observed in Fabaceae (31.78%) followed by solanaceae (9.55%), Moraceae (5.6%). Rest of the families was recorded less than five percent infestation..In addition to that 29.9 per cent incidence was observed from field crops followed by trees (19.63%), fruit plants (18.69%), flowers & medicinal plant (8.41%), spices (4.67%), weed (3.74%) however vegetable, ornamental, aromatic plant and creeper have least preferred and incidence was below less than 2 percent.

Keywords: *Survey, host range, incidence level, termite*

Citation: Garg VK (2018) Studies on host plant and infestation level of termite *Odontotermes obesus* rambur. Indian J Trop Biodiv 26(1): 69-75

Received on : 20 Dec 2017
Accepted on : 27 Feb 2018
Published on : 30 Jun 2018

Termites are a group of insects belonging to Isoptera order consisting of 2,500 species of which 300 are considered as pests. Termites are one of the most damaging pests in the tropics and can cause considerable problems in agriculture, horticulture, forestry and housing (Roonwal, 1979). The most troublesome type of termites in agriculture is the fungus-growing termites. They feed on dead organic material such as crop residues, mulches and soil organic matter (humus). However when this type of food is not available they will eat live plant material including crops such as groundnuts, millets and maize. Harvester termites are found in dry and semi-desert areas. They build underground nests which can be difficult to locate. They collect live green plant material and cause damage to living grasses, crops and seedlings. They will attack weak plants that are wilting or damaged (Roonwal,1979, Atwal and Dhaliwal, 2009).

Although it is a major insect pest of i.e. wheat, sugarcane, teak, bamboo (Atwal and Dhaliwal, 2009) and spite of that it may be getting the status as major insect pest in crops / horticultural crops/forestry/ medicinal plants in near future due to intensive cropping/ plantation higher dosages of fertilizers and variation in microclimate. Thus keeping this view in mind that investigation was undertaken to identify the host plant to help in decision making about their suitable management practices as preventive/ curative measures of host plant at right time to curtail easy multiplication of termite.

MATERIALS AND METHODS

The Ganj Basoda of Vidisha district of Madhya Pradesh was selected to identify the host plant of termite and their incidence level during 2014 and 2015.The Ganj Basdoa is 23°51' N 78°10E and 410 M above mean sea level. The soil type of study area is shallow medium black (pH normal).The annual maximum and minimum temperatures are 31.82^{0C} and 18.96^{0C} respectively with annual rainfall is 1051mm.The regular observations were taken at fortnight interval on various categories of host plant (e.g. trees, field crops, Fruits, vegetables, weeds, flowers, ornamental, creeper and aromatic/ medicinal plants, etc.). During the survey whole plant were observed. The incidence levels were adopted as per scale followed by Arif et al. (2009) to record mealy bug infestation on cotton (Table 1).