INTERNATIONAL JOURNAL OF PLANT PROTECTION
VOLUME 12 | ISSUE 2 | OCTOBER, 2019 | 87-93

● ISSN-0974-2670 | Visit us : *www.researchjournal.co.in*

IJPP

RESEARCH PAPER

DOI : 10.15740/HAS/IJPP/12.2/87-93

Antifeedant activity and field evaluation of spinetoram 12 SC against termite, *Odontotermes obesus* on sugarcane

■ N. Muthukrishnan **and** M. Visnupriya*
Department of Agricultural Entomology, Tamil Nadu Agricultural University, **Coimbatore (T.N.) India**

ARITCLE INFO

Received : 10.04.2019
Revised : 15.08.2019
Accepted : 01.09.2019

KEY WORDS :
Sugarcane, Spinetoram 12 SC, Antifeedant activity, *Odontotermes obesus*, Sett treatment, Soil drenching

***Corresponding author:**
Email : haivinuento@gmail.com

ABSTRACT

In this experiment a new insecticide molecule, spinetoram 12 SC was taken up to evaluate its antifeedant and repellent activity in laboratory and efficacy in the field with different mode of application against termite control. Laboratory experiments were conducted in Insectary, Agricultural College and Research Institute, Madurai. Field experiments were laid out in Randomized Block Design at farmer's field located in Mandhikanmai village, Kalayarkoil Block, Sivagangai district during 2014 – 2015 and to study the effect of sett treatment and soil drenching of spinetoram 12 SC with variety CO 86032. At the time of planting, sugarcane setts were treated with various doses of spinetoram 12 SC (90, 120, 150 and 180 g a.i./ha) and covered with soil. After planting in 35 days old sugarcane soil drenching treatment was also effected with the same dose of sett treatment. Imidacloprid 20 SL, Rynaxypyr 20 SC and chlorpyrifos 20 EC were standard checks. The cumulative mean food consumption was minimum 0.71 g, 0.78 g, 1.02 g, 1.23 g, 1.44 g and 1.56 g in various concentrations of spinetoram *viz*., 360, 300, 240, 180, 120 and 60 ppm, respectively. The highest mean per cent repellent action was noticed in spinetoram 360 ppm and 300 ppm (93.4 and 91.2%, respectively) at 12 HAT. Field experiments were inferred that spinetoram 12 SC 180 and 150 g a.i./ha were significantly effective in minimizing number of termite colony per plot, number of termites per colony and per cent sett damage in both sett treatment and soil drenching methods.

How to view point the article : Muthukrishnan, N. **and** Visnupriya, M. (2019). Antifeedant activity and field evaluation of spinetoram 12 SC against termite, *Odontotermes obesus* on sugarcane. *Internat. J. Plant Protec.*, **12**(2) : 87-93, **DOI : 10.15740/HAS/IJPP/12.2/87-93,**