

Effect of tomatine on termites *Odontotermes wallonensis* (Wasmann) *vis-a-vis* antifeedant and repellent activity

■ R. NISHA* AND D.S. RAJAVEL¹

Department of Crop Protection, Imayam Institute of Agriculture and Technology, Kannanur, Thuraiyur, TRICHY (T.N.) INDIA

¹Department of Agricultural Entomology, Agricultural College and Research Institute, Killikulam, TUTICORIN (T.N.) INDIA

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ABSTRACT

A secondary alkaloid, tomatine was extracted from unripen fruits and leaves of tomato. It is a potent antifungal and insecticidal compound that interacts with sterols in the membranes of the insects and shows efficacy against insects and many species of termites. In this research, investigations were carried out to study the antifeedant and repellent activity of tomatine against the termite species *Odontotermes wallonensis* Wasmann. The result concluded that lowest consumption of food by *O. wallonensis* workers was recorded in Azadirachtin 100 ppm (0.15 g) followed by Tomatine 250 ppm (0.60 g). Soldiers and nymphs of *O. wallonensis* consumed 0.54g and 0.56g food in tomatine 250 ppm treatment whereas in treated check (Azadirachtin 100 ppm) consumed 0.14g in both castes as compared to untreated check (1.33 and 1.46 g). And also exhibited the highest repellent activity towards termites at all the doses. Tomatine 1000 ppm caused 82.13, 73.41 and 88.67 per cent repellent activity whereas Azadirachtin 100 ppm caused 88.67, 78.96 and 92.00 per cent in *O. wallonensis* workers, soldiers and nymphs, respectively.

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*Corresponding author:
Email: nisharengadoss@gmail.com
