

USE OF AN ACOUSTIC EMISSIONS DETECTOR TO ENHANCE THE PERFORMANCE OF RECRUIT AG TERMITE BAITING SYSTEM

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Recruit* AG is the above-ground baiting element of the Sentricon® *Termite Colony Elimination System* which is used to protect structures from termite infestation and damage. It is designed to be placed directly over active structural infestations of subterranean termites. Experience has shown that mud tubing, galleries in wood and visually accessible signs of feeding damage are not necessarily reliable predictors of success in using an above-ground placement of a termite bait. This paper describes a study designed to determine if the use of an acoustic emissions detector (AED) could increase the probability of termite feeding in an above-ground placement and, therefore, result in more rapid elimination of the infesting termite colony.

Recruit AG stations were placed in separate structures with and without the use of the AED. Trained, professional termite control technicians followed the label use directions and placed stations at locations within a structure as they deemed appropriate. There were no restrictions placed on the technician regarding the location of stations or the number of stations placed in an individual structure. The resulting data were evaluated using the Binary Logistic Regression statistical method to determine significance.

Results showed that Recruit AG stations placed using the AED were more than twice as likely to result in consumption by termites. A feeding intensity threshold, as measured by the AED, was identified which showed station placements at activity sites above the threshold were five times more likely to result in consumption than sites below the threshold. Not only were station placements at sites above the activity threshold more likely to experience more termite feeding, but they also resulted in greater consumption of the bait matrix.

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