

**REDUCTION of FORMOSAN SUBTERRANEAN TERMITE  
(RHINOTERMITIDAE: *COPTOTERMES FORMOSANUS* SHIRAKI)  
INFESTATIONS in TREES  
USING FIPRONIL TERMITICIDE**

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The Formosan subterranean termite (*Coptotermes formosanus* Shiraki) is one of the most destructive pests of trees in New Orleans, causing millions of dollars in damage each year. The termites tunnel into the trees, creating a network of galleries and voids, ultimately hollowing the interior of the tree. As a result of the feeding activity, infested trees are structurally weakened and collapse or lose large limbs during hurricanes or severe storms.

The purpose of the study was to determine the efficacy of Termidor<sup>TM</sup> 80WG (Aventis Environmental Science) to reduce or control the termite populations in living trees. Infested trees (with shelter tubes and presence of termites on the exterior of the tree) were treated in 1999 and 2000. All active exterior sites with Formosan subterranean termites were identified with a numbered aluminum tag attached to the tree. The insecticide was injected into the voids in the trees through ½ in. access holes drilled at the base and upper portion of the trunk (up to approximately 5 ft high). The termiticide was injected into the tree voids and galleries using a 5-gallon Richway Pestifoamer at an expansion rate of 15 gallons of foam per gallon of liquid. In 1999, ten trees were treated with a 0.125% solution of Termidor 80WG, and ten control trees were injected with foaming agent and water only. In 2000, a total of ten trees were treated with Termidor 80WG, five trees were treated at a rate of 0.0625%, and five trees were treated at a rate of 0.125%. Wood dowels were inserted into the trees via the ½ in. drill holes to determine termite activity inside the tree.

The trees were inspected monthly for signs of termite activity in the tagged observation sites and in the wood dowels. In the tree set treated in 1999, termite activity was monitored for twenty months. In the 0.125% Termidor 80WG trees, the termite activity decreased completely in all but one tree, while all control trees had termite activity. In the tree sets treated in 2000 (0.0625% and 0.125% Termidor 80WG), the termite activity was completely eliminated in both sets. Correlation between external termite activity and internal infestation was established using a Video Probe (Everest Imaging) flexible endoscope.

Based on the results of these studies, Termidor 80WG termiticide, when injected as foam into the voids and galleries of infested trees, is effective in controlling Formosan subterranean termites.