

INTERNATIONAL RESEARCH GROUP ON WOOD PROTECTION

Section 3

Wood Protecting Chemicals

Performance of Two Imidacloprid-Treated Malaysian Hardwoods in an Accelerated Aboveground Termite Test

by

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Abstract

The performance of the chloronicotinyl insecticide imidacloprid as a wood protecting termiticide, under a simulated Malaysian biological hazard class H2 (exposure aboveground indoors against termites and wood borers), was evaluated by a novel termite field test protocol. Replicate end-grain sealed air dried test blocks (20 x 20 x 20 mm) of two Malaysian hardwoods, Kembang Semangkok (*Scaphium* spp.) and Rubberwood (*Hevea brasiliensis*) were vacuum-atmospheric pressure-impregnated in the laboratory in butanolic solution of imidacloprid to target retention of 0 (control), 1 and 3 g/m³. Halve the replicated blocks were then subjected to a prescribed water-leaching cycle, and conditioned blocks then installed in a novel aboveground H2 hazard class-type termite field test where *Coptotermes curvignathus* are prevalent. After 8 weeks exposure, untreated hardwoods were severely (termite ratings 1-2) or moderately attacked (ratings: 6.3-7.5), while, with the exception of occasional light grazing, none of the leached nor non-leached test blocks treated with imidacloprid to both target termiticide retention were regarded to be attacked (ratings: 9.8-10).

Keywords: Termite field test, imidacloprid, neonicotinoid, *Coptotermes curvignathus*, Preventol[®]TM, tropical timbers

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