

Australian Timber & Pest Research Pty Ltd

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The termite resistance of several species of timber including Australian spotted gum (*Corymbia* sp) and South American Cumaru (*Dipteryx odorata*), were tested against two significant wood attacking termite species; *Coptotermes acinaciformis* and *Mastotermes darwiniensis* in Northern Australia using standard exposure techniques based on those published by the Australasian Wood Preservation Committee (AWPC) "Protocols for assessment of wood preservatives" (AWPC, 2015). Spotted gum is listed in both AS5604 and AS3660: 2014 (Termite management. Part 1; New building work) as a termite resistant species. In our tests against both termite species, the Cumaru specimens, suffered less damage on average than the spotted gum specimens. Cumaru exhibited no mean mass loss against *C. acinaciformis* and only 1.9% mean mass loss against *M. darwiniensis* after 7 months exposure, whilst on average, spotted gum specimens were found to have lost 0.7% and 26.9% respectively, other non-resistant species including radiata pine, Tasmanian oak, black wattle and jarrah suffered significant mass losses during the same tests as can be seen in the following table.

Table 1: Mean mass losses recorded in H2 and H3 type termite field exposures for six timber species and two termite species using a modified AWPC "Brick Assembly Technique" test methodology.

Timber trade name	Mean mass loss %	
	C.acinaciformis (n=30)	M.darwiniensis (n=10)
Black wattle	80.0	98.6
Radiata pine	80.2	87.3
Tasmanian oak	93.6	96.8
Jarrah	73	97
Spotted gum	0.7	26.9
Cumaru	0.0	1.9

These results demonstrate that under identical exposure conditions Cumaru performed as well if not better than the termite resistant spotted gum benchmark and suggest Cumaru should be regarded as a termite resistant timber species for use in H2 and H3 applications within Australia.

For further information regarding the detail design and scope of the field trials and inherent limitations of the termite resistance rating system, it is recommended that the reader refer to the full field trial report and relevant referenced documents.

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