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**The Manager  
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**Field trial shows positive results for *TERMILONE*<sup>®</sup> timber treatment against termites**

Boosting the development of an environmentally friendly termite solution, Australian natural products provider BioProspect Limited (ASX:BPO) today announced positive results from a field trial with *TERMILONE*<sup>®</sup> as a timber treatment against termites.

BioProspect's Chief Operating Officer, Peter May, said the Darwin study conducted by the CSIRO had tested the ability of the natural termite solution to protect timber against attack from the destructive subterranean termite species of *Coptotermes acinaciformis* and *Mastotermes darwiniensis*.

"The aboveground trial (Hazard Level 2) showed that the treatment of timber with formulations of *TERMILONE*<sup>®</sup> TT successfully prevented significant damage by *Coptotermes acinaciformis*, which is found in urban areas throughout mainland Australia," he said.

"*TERMILONE*<sup>®</sup>'s active constituent, Eremophilone Oil, was shown to be the key ingredient to the product's effectiveness against *C. acinaciformis*. It proved less effective against the less frequently occurring and more aggressive *M. darwiniensis*, which only occurs north of the tropics."

Developed from the native Australian tree species *Eremophila mitchellii* (False Sandalwood) common to Queensland and New South Wales, *TERMILONE*<sup>®</sup> has been shown to have low environmental impact and low mammalian toxicity, making it safe for pest control workers, homeowners and household pets.

The study found that control specimens of *Pinus radiata* sapwood treated only with water and *TERMILONE*<sup>®</sup> TT solvent (without Eremophilone Oil) were destroyed by both termite species.

Yet those treated with 1.0%, 2.0% and 3.0% *TERMILONE*<sup>®</sup> TT treatment solutions suffered minimal damage against the *C. acinaciformis* termites, with mean losses of 1.1%, 1.4% and 1.4%,

respectively. These results compared favourably with those treated with permethrin, the industry's standard product (refer Appendix for full results).

Mr May said based on the encouraging results, additional aboveground tests would be considered for a *TERMILONE*<sup>®</sup> TT formulation against *C. acinaciformis*.

Meanwhile, BioProspect's commercial partner Ensystem Corporation is conducting testing in Townsville, north Queensland, of *TERMILONE*<sup>®</sup> 80EC as a soil-applied barrier and as a treatment for colony elimination, as part of a two-year international testing program.

"Eremophilone Oil has already been registered as an active constituent with the Australian Pesticides and Veterinary Medicines Authority, and we are continuing efforts to achieve registration of end-user products within the next two years," he said.

"The latest study has boosted confidence in *TERMILONE*<sup>®</sup>'s future as a safe and environmentally friendly termite solution. With moves in the United States to restrict the use of synthetic timber treatments such as copper-chromium-arsenate from certain domestic applications, demand for a natural and proven alternative is growing rapidly in the international termite control market.

"BioProspect is confident of its future as a natural product developer, with an attractive portfolio that also includes the expanding Re-Gen<sup>™</sup> range of skin and healthcare products, the new GI-GUARD<sup>™</sup> horse treatment product and natural insecticide Qcide."

For and on behalf of the Board

A handwritten signature in black ink, appearing to read "Colin Johnston". The signature is written in a cursive, flowing style.

Colin Johnston  
Company Secretary

## APPENDIX

### *Trial Objective:*

The primary objective of the study was to conduct a Hazard Level 2 (H2) (inside, aboveground exposure) field trial to evaluate *TERMILONE*<sup>®</sup> TT as a timber treatment against *Coptotermes acinaciformis* and *Mastotermes darwiniensis*. A second objective of the field trial was to identify any influence that the DDAC (didecyldimethylammonium chloride) component was contributing to the overall efficacy of the formulation. *Pinus radiata* sapwood test specimens were treated with a treatment solution consisting of 0.5%, 1.0% or 3.0% w/w eremophilone oil. Additional *P. radiata* sapwood test specimens were treated with a blank (no eremophilone oil) formulation consisting of the equivalent concentration of DDAC as would be present in the 0.5%, 1.0% or 3.0% solutions that contained eremophilone oil. A third set of *P. radiata* sapwood test specimens were treated with a solvent (no eremophilone oil and no DDAC) again at the same concentration as would be present in the original 0.5%, 1.0% or 3.0% solutions of eremophilone oil. Specimens treated with permethrin to the approved H2 retention of 0.02% m/m OD were used as a comparative reference control. Test specimens were subjected to an H2 artificial weathering schedule (vacuum oven drying for 5 days at 40°C and 0.04 mBar) prior to exposure to termite attack.

### *Results:*

- Water-treated *P. radiata* control and *TERMILONE*<sup>®</sup> TT solvent (no eremophilone oil, no DDAC) control specimens were destroyed by both *C. acinaciformis* and *M. darwiniensis*.
- After exposure to *C. acinaciformis*, *P. radiata* specimens treated with the 0.5%, 1.0%, 2.0% and 3.0% equivalent *TERMILONE*<sup>®</sup> TT Blank (no eremophilone oil) formulations sustained mean mass losses of 55.5%, 24.9%, 24.8% and 22.5%, respectively.
- The treatment of test specimens with the 1.0%, 2.0% and 3.0% *TERMILONE*<sup>®</sup> TT formulations successfully prevented significant damage by *C. acinaciformis* (mean losses of 1.1%, 1.4% and 1.4%, respectively).
- After exposure to *C. acinaciformis*, *P. radiata* specimens treated with 0.005%, 0.01% and 0.02% m/m permethrin sustained mean mass losses of 5.4%, 1.0% and 0.9%, respectively.
- *P. radiata* specimens treated with the 0.5%, 1.0%, 2.0% and 3.0% equivalent *TERMILONE*<sup>®</sup> TT Blank (no eremophilone oil) formulations were destroyed by *M. darwiniensis*.
- While there was a slight dosage effect evident in the mean mass losses for test specimens treated with the *TERMILONE*<sup>®</sup> TT formulation (i.e. lower mass losses corresponding with a higher retention of eremophilone oil) treatment with even the highest concentration of eremophilone oil (3.0%) failed to prevent significant damage by *M. darwiniensis* (mean mass loss of 77.4%).
- After exposure to *M. darwiniensis*, *P. radiata* specimens treated with 0.005%, 0.01% and 0.02% m/m permethrin sustained mean mass losses of 80.1%, 56.6% and 2.1%, respectively.

### *Conclusion:*

The results of this field trial clearly demonstrate that the eremophilone oil component of *TERMILONE*<sup>®</sup> TT was the major contributor to its overall efficacy of the product against *C. acinaciformis*.

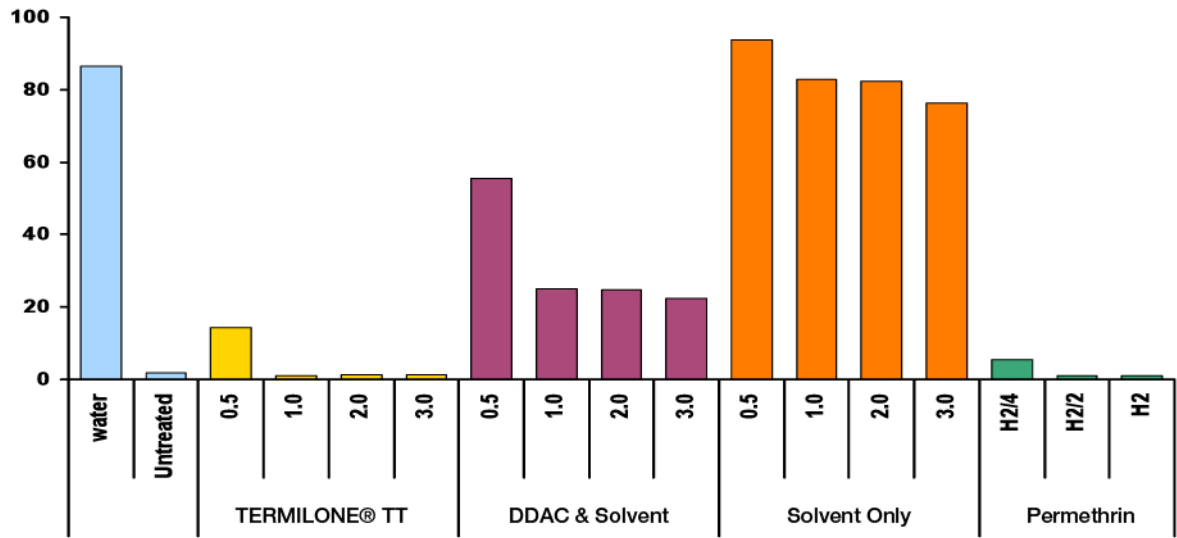


Figure 1: Mean mass loss (g) of water-treated *Pinus Radiata*, untreated *Eremophila mitchellii*, and preservative-treated *P. radiata* test specimens after exposure to *C. acinaciformis* in a H2 field trial. The data shows that the timber treated with Eremophilone Oil (*TERMILONE*® TT) suffered minimal termite damage at concentrations of 1.0%, 2.0% and 3.0%, and performed in line with the industry standard permethrin.

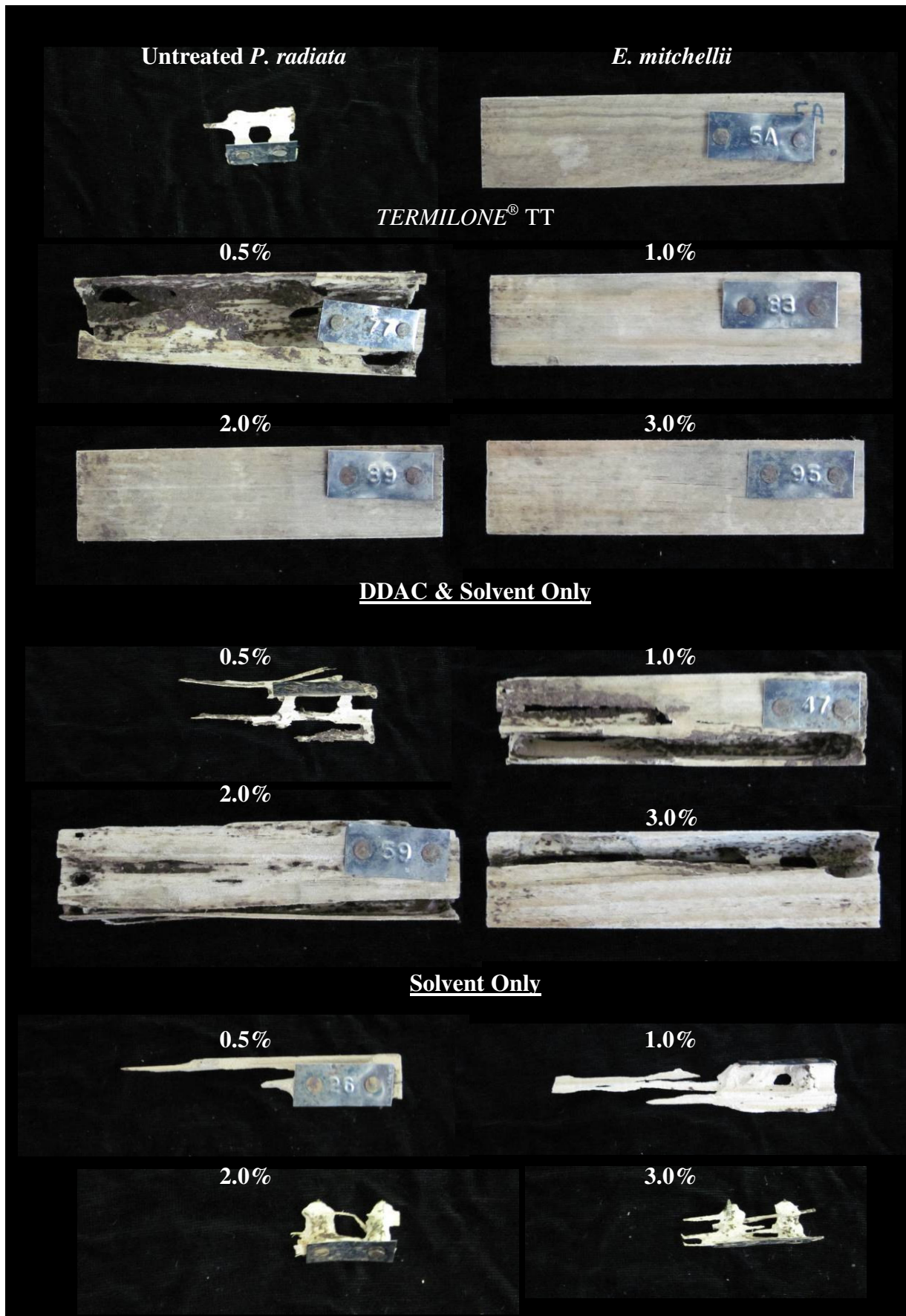


Figure 2: Condition of representative test specimens of each treatment after exposure to *C. acinaciformis* in the field. *TERMILONE*® TT solutions of 1.0%, 2.0% and 3.0% resisted termite attack compared with the solvent, DDAC & solvent and untreated specimens.