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**The Manager  
Company Announcements  
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### ***TERMILONE*<sup>®</sup> Natural Termite Solution - Commercialisation Update**

#### **Highlights**

- Trials continuing on *TERMILONE*<sup>®</sup> formulations for APVMA registration as a natural, environmentally friendly timber treatment and soil barrier against termites
- University of Western Sydney bioassay testing shows product effective as soil barrier against *Nasutitermes exitiosus* and *Coptotermes acinaciformis* termite species
- Ensystem colony treatment trial initial results show higher concentrations required; soil barrier field trial results pending evaluation
- Pilot scale tests with Southern Cross University confirm conditions for optimal oil extraction that have been confirmed in commercial facility
- Full economic analysis of *TERMILONE*<sup>®</sup> planned, pending completion of manufacturing and field testing programs; valuable IP generated from development
- Commercialisation targeting A\$1 billion a year international termite control market

BioProspect Limited (ASX:BPO) is pleased to provide an update on the development of environmentally friendly, natural Australian termite solution *TERMILONE*<sup>®</sup> for use as a timber treatment and as a soil-applied barrier to prevent termite infestation of buildings and other structures.

*TERMILONE*<sup>®</sup> is based on Eremophilone Oil extracted from the native Australian tree species *Eremophila mitchellii* (False Sandalwood). The product has low mammalian toxicity, making it safe for pest control workers and household pets, in addition to having minimal environmental impact.

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BioProspect's Chief Operating Officer, Peter May, said the Company was actively progressing the *TERMILONE*<sup>®</sup> project with the aim of registering end-use products with the Australian Pesticides & Veterinary Medicines Authority (APVMA), and had been encouraged by recent progress.

### ***Regulatory Update***

February's approval by the APVMA of the active constituent, Eremophilone Oil, has paved the way for registration of *TERMILONE*<sup>®</sup> end-use products as a timber protectant and as a toxicant and repellent for use as a soil-applied termiticide. Registration in Australia of both active ingredient and *TERMILONE*<sup>®</sup> formulations will greatly assist registration and consequently product roll-out in key international markets, including the United States and Japan.

### ***Efficacy Testing***

Trials are being conducted in Australia with the aim of generating the necessary data to support registration of *TERMILONE*<sup>®</sup> formulations with the APVMA as both a timber treatment and a soil-applied barrier treatment.

### ***Timber Treatment***

The results of a trial with *TERMILONE*<sup>®</sup> TT undertaken by the CSIRO in the Northern Territory were announced in April 2010. The trial tested the ability of *TERMILONE*<sup>®</sup> TT to protect timber against attack from the destructive subterranean termite species *Coptotermes acinaciformis* and *Mastotermes darwiniensis*.

Following the positive trial results, BioProspect is considering additional aboveground tests against *C. acinaciformis*, possibly including envelope surface treatments with *TERMILONE*<sup>®</sup>.

### ***Soil Barrier Laboratory Testing***

The University of Western Sydney is undertaking bioassay testing of *TERMILONE*<sup>®</sup> formulations as a barrier treatment in soil. The aim is to determine the Minimum Effective Concentration (MEC) in soil to control various termite species and the residual activity of *TERMILONE*<sup>®</sup> treatments at different rates of application to soil.

A recent test investigated the efficacy of different concentrations of *TERMILONE*<sup>®</sup> as a soil barrier against *Nasutitermes exitiosus* and *Coptotermes acinaciformis* termite species using two techniques, a vertical tube containing treated soil based on a technique developed in the United States, and a horizontal tube system, similar to a technique used by the CSIRO.

*TERMILONE*<sup>®</sup> at 2000ppm (parts per million) prevented *Nasutitermes exitiosus* termites from breaching the treated zone in the horizontal tube system over the 39 day test; this rate also prevented breaching (at 44 days after treatment) by *Coptotermes acinaciformis* in the vertical test. However, rates of up to 10000ppm were required to prevent penetration by this more resilient species when using the more challenging horizontal bioassay system.

Laboratory bioassay techniques are "non-choice" and therefore more challenging to the treatment since the termites must penetrate the treated zone to reach the food source. In contrast, field tests are "choice" tests in that termites can avoid the treated zone, and therefore field tests generally reflect better levels of control than might be achieved in a bioassay test.

### *Soil Barrier Field Testing*

BioProspect's commercial partner Ensysstex 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.

Initial results from the colony treatment trial indicate that higher concentrations and/or volumes of treatment solution than those used in the trial will be required for this use. The more commercially relevant soil barrier trial will be assessed six months after treatment. This trial includes a range of treatment rates (up to 10000ppm) applied to the soil and exposed or covered (by concrete slab) to simulate building construction types.

### *Formulation Development*

The timber treatment tests have been undertaken with an EC (emulsifiable concentrate) formulation containing 60% Eremophilone Oil, while the barrier tests have mainly been undertaken with an 80% EC formulation. Further formulation development is being considered aimed at improving the residual activity of Eremophilone Oil, particularly as a soil-applied termiticide. This could include micro- or nano-encapsulation and/or use of inert granular carrier systems for soil application.

### *Manufacturing Study*

The collection and processing of *Eremophila mitchellii* timber is an important component of the *TERMILONE*<sup>®</sup> project. Twenty tonnes of timber were collected in late 2009 and plans are in place to undertake a large-scale trial to produce oil from this timber under commercial conditions.

Pilot scale tests undertaken with Southern Cross University in Lismore, NSW, have confirmed the critical temperature and pressure conditions to optimise oil extraction. Additional testing has confirmed that these conditions can be duplicated in the commercial facility intended for steam distillation of Eremophilone Oil. Discussions have been initiated with the new owner of this facility to enable toll extract of the oil on a commercial scale.

### *Economic Analysis*

The cost effectiveness of *TERMILONE*<sup>®</sup> products is being evaluated based on an economic analysis of all aspects of the supply chain and performance of end-use formulations. Critical elements determining the product cost include the cost of collection, freight of timber to processing point, chipping and preparation of timber for extraction by steam distillation, oil extraction, and cost to formulate into end-use products.

The cost effectiveness of *TERMILONE*<sup>®</sup> uses will then be assessed by determining the activity against target pests, which determines the treatment rates required to achieve field performance comparable to existing competitive products. BioProspect aims to complete the full economic analysis of *TERMILONE*<sup>®</sup> use when manufacturing and field testing programs are completed.

### *Intellectual Property*

Since the termite-resistant properties of *Eremophila mitchellii* trees were first identified, BioProspect has invested considerable resources in developing the intellectual property associated with the use of *TERMILONE*<sup>®</sup> as a low toxicity natural product for use as a timber treatment or soil-applied termiticide.

Patent 2003257249 has been granted in Australia for the use of Eremophilone Oil as an insecticide, and patents are progressing in Japan (2004-533050) and the United States (10/526692). The APVMA registration of Eremophilone Oil involved the generation of significant toxicological and product chemistry data that also forms an important and valuable component of the IP associated with this unique natural product.

### ***Commercialisation Strategy***

In January 2009, BioProspect entered into an evaluation agreement with US-based Ensystem Corporation Limited, which was subsequently expanded into a Market Development Agreement in late 2009. This has enabled Ensystem to directly fund field development testing of *TERMILONE*<sup>®</sup>, and allowed BioProspect to focus on manufacture and laboratory testing programs.

The international market for termite control products is estimated to exceed A\$1 billion a year, with demand increasing for sustainable low-toxicity and natural products that do not impact on pest control workers, home owners and their pets or the environment. The United States, Japan and Australia constitute the largest termite control markets in the world and remain the focus for BioProspect's *TERMILONE*<sup>®</sup> market development activities.

Mr May said: "BioProspect remains fully committed to the scientific evaluation and commercialisation of *TERMILONE*<sup>®</sup> in key target markets. Market research confirms the need for a low toxicity, natural termite control product, and BioProspect will continue to work with key collaborators in targeting this opportunity in view of the increasing restrictions on synthetic treatments."

BioProspect's Managing Director, Charles Pellegrino, said the Company had been encouraged by the support from shareholders for its recently launched Share Purchase Plan, which closes at 5 p.m. on Friday, May 28 for eligible shareholders.

"BioProspect has an attractive range of natural products being commercialised for international markets, which along with *TERMILONE*<sup>®</sup> include *AGRIPRO*<sup>™</sup> animal health products, including *GI-Guard*<sup>™</sup> products for gastro-intestinal care, *RE-GEN*<sup>™</sup> natural therapeutic products for human health and wellbeing and natural insecticide Qcide," he said.

"BioProspect's vision is to be a leading natural product provider in both Australian and international markets, utilising a synergistic blend of traditional knowledge and modern research, and applying scientific principles in evaluation and registration of quality assured high performance products of exceptional value. We are confident that execution of this strategy will benefit all stakeholders and deliver substantial returns to shareholders."

Yours sincerely,



**COLIN JOHNSTON**  
Company Secretary