Video Transcript

Warwick Dowse
Managing Director

Termites might be small, but they are a big problem internationally, causing billions of dollars worth of damage each year. Australian company BioProspect is well on the way to developing a natural solution.

VIDEO INTERVIEW (available at www.bioprospect.com)

BioProspect's natural termite solution nears commercialisation

The chemicals traditionally used to deal with termites are coming under scrutiny for their potential effects on pest control professionals, home owners and the environment.

Australian biotechnology company BioProspect is developing a natural solution to the termite problem, using a compound derived from the oil of the native Australian tree species, *Eremophila mitchellii*, or False Sandalwood.

Testing of BioProspect's TERMILONE® compound has shown no side effects on humans, animals or the environment, and the company aims to have a regulatory submission ready for the Australian Pesticides and Veterinary Medicines Authority by September 2008. BioProspect Managing Director Warwick Dowse spoke to InvestorTV about the evolution of TERMILONE®.

"In the last video I talked about moving out of pure research and development and going into pre-commercialisation work," Mr Dowse said.

"Over the last six months we've achieved that, in particular we've reached some very good milestones with our toxicity work – both mammalian toxicity and environmental toxicity.

"The work to date has shown very good results and we're very happy with that. Some examples of the key milestones we've met over the last three to four months are our bioassays.

"The work's been done with the CSIRO Timber Biosciences Group and the University of Western Sydney. The results showed that our product meets and in some cases exceeds the industry standard, particularly with timber treatment, so this was an exciting result to achieve.

"We'll be moving into co-formulation work with a suitable fungicide which will allow us time to get into the field to do full-scale field studies. We'll also start our manufacturing study very soon and this will allow us the opportunity to look at manufacturing systems, extraction systems, harvesting and most importantly, we'll establish the cost of the raw material."

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BioProspect is already working with farmers in south-west Queensland to secure supplies of *Eremophila mitchellii*. The tree grows in a belt from north-western New South Wales, through south-west Queensland, and covers around 10 per cent of Queensland's land area. For farmers like Duncan Banks, *Eremophila mitchellii* has the potential to become a new income stream.

"We've been learning recently about getting different income streams off your property and that's where this project looks like it will fit in," said St George farmer Mr Banks.

"You could get a system so that you're not only making money out of sheep or cattle or dry-land farming, but you've got another stream that comes in at times that you can pick up a bit of extra income out of – the timber that's growing on your property at the same time.

"That's where the project's going to fit in well I think, in this area."

Extracting the unique Eremophilone oil for the production of TERMILONE® requires logs to be chipped to an appropriate size, prior to steam distillation. The oil extraction process has taken place in conjunction with research at Southern Cross University in Lismore.

"The Eremophila chemical is unique because it contains an essential oil from an endemic Australian native plant that has very good termiticide properties," said SCU Adjunct Professor David Leach.

"The most exciting part of this, or most exciting aspect of this oil is its low toxicity that we've experienced, both low dermal and oral ingestion toxicity in mammals and this is certainly giving it an edge in the marketplace.

"So in one sense then, that's its biggest asset in that it's not introducing novel chemistries and things that have not been in our environment for quite some time."

Extensive testing at the University of Western Sydney and the CSIRO's Timber Biosciences Division in Melbourne has corroborated evidence of TERMILONE's® minimal toxicity, and proven its efficacy in termite control.

Team leader for sustainable pest management at the UWS Centre for Plant and Food Science, Associate Professor Robert Spooner-Hart, has reported excellent results with TERMILONE®.

"We found, and this is after about six years' work, we found that it's highly effective, both at directly killing termites, this is what we call acute toxicity, but it's also extremely good as a repellent, so it can be used, for example, to impregnate wood and prevent

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BioProspect Limited

attack by termites, but it can also be used as a barrier treatment under houses," he said.

The pine blocks used in these trials were exposed to termites for six weeks and the termites had no other food source. The results showed the effectiveness of TERMILONE®, with wood treated with three per cent TERMILONE® suffering less damage than wood treated with the industry standard, .02 per cent permethrin.

Research into toxicity has also delivered excellent results for TERMILONE®.

"There's been extensive work done with TERMILONE® and we can say that all the evidence is looking tremendous," Associate Professor Robert Spooner-Hart said.

"We're not finding any significant mammalian toxicity at all and there's been a lot of work undertaken with what we call eco-toxicology, that is looking at its impact on for example, fish, daphnia and other creatures in the soil, and we found there also that the toxicity is extremely low and certainly lower than many other pesticides that are currently on the market."

"By late 2009 our registration process should be completed," said Warwick Dowse.

"The Australian process is very rigorous and by means of that our entry into the American and Japanese markets should be easy. We estimate the market for termite control products internationally is approximately $US1 billion.

"Having TERMILONE® participate in this market, will be good for the company, the product, and the environment as a whole."

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