Australian Government
Rural Industries Research and Development Corporation

Honeybee R&D News

No. 5
May 2010
10/068

RIRDC Honeybee R&D News is the official newsletter of the Rural Industries Research and Development Corporation Honeybee Program

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Chairman's Foreword

Des Cannon, Chairman

Over the past few months the RIRDC Honeybee Advisory Committee has seen a cost-benefit analysis of the effects of *Apis cerana* finalised and also prepared for publication. The report presents an estimate of public nuisance and public health costs of an Asian Honeybee incursion. A number of other Research Projects have been finalised and the final reports for these have now been published. All of these reports may be downloaded from the web, or may be purchased as hard copy from RIRDC via the RIRDC website <www.rirdc.gov.au>. Full details appear later in this issue.

At its April meeting the Committee considered a number of proposals for research to commence in July 2010, however, it is still too early to report on these in detail. Many of the Research proposals considered are still being finalised, or are being negotiated, hopefully we will be able to provide more details in the next Issue of *Honeybee R&D News*. The Committee has decided to sponsor two applicants for the Marcus Oldham Course (see below).

We also welcome new RIRDC Honeybee Research Manager, Dave Alden and new Honeybee Program Coordinator Helen Moffett who take over the duties of David Dall and Lea Edwards respectively.

For further information about the RIRDC Honeybee Research and Development Program, feel free to browse the RIRDC website (www.rirdc.gov.au) or contact the new Program Co-ordinator, Helen Moffett, on 02 6271 4145, or email Helen.Moffett@rirdc.gov.au

Current R&D Committee

Des Cannon (Chair)	02 6236 3294
Dr Denis Anderson	02 6246 4148 (w)
Prof Ben Oldroyd	02 9351 7501 (w)
Bruce White	02 9634 6792
Research Manager	
Dave Alden	02 6271 4128
Program Coordinator	
Helen Moffett	02 6271 4145

Marcus Oldham Rural Leadership Course 2010

In line with the decision made by the RIRDC R&D Honeybee Committee, a selection process was used to select the candidate to be sponsored by the Honeybee Committee for this year's Marcus Oldham Rural Leadership Course. The Committee received two applications for scholarship sponsorship and decided to accept both, based on the merits of the applications and in recognition of the importance of capacity building in the industry. The Committee will this year sponsor Daniel Jones (QLD) and Graham Brooks (SA). The Candidates and Marcus Oldham College will be notified that both applications are supported but that this is not to be in any way considered by the Industry or Marcus Oldham to be a precedent for future considerations.

Dave Alden, Research Manager, RIRDC Honeybee Program

In January, Dave Alden was appointed Senior Research Manager at the Rural Industries Research and Development Corporation (RIRDC). Dave is responsible for the Honeybee Program and Pollination (as well as Horses and Organic Systems). Dave has replaced David Dall in this role.

"I'm very excited about working on these programs. In the Honeybee Program, we are working with industry and researchers to progress many worthwhile projects. Some of these include control of small hive beetle and *Nosema ceranae*, adding value to honey and pollen substitutes.

"THE Pollination Program is a joint venture between RIRDC and Horticulture Australia Limited (HAL). This aims to maintain pollination services for our horticultural and agricultural industries, as well as working to minimise the impact of pests and diseases on both the pollination and honeybee industries. The program will soon release a report: Pollination Aware: Raising the profile of an undervalue service". Dave said

Dave worked previously at the Australian Fisheries Management Authority, managing fisheries research. He is a keen backyard beekeeper, and has 2 hives at his Canberra home, which provides enough honey for the family.

We welcome David on board, and look forward to future productive interactions with him.

Pele Cannon – Climate champion for the beekeeping industry

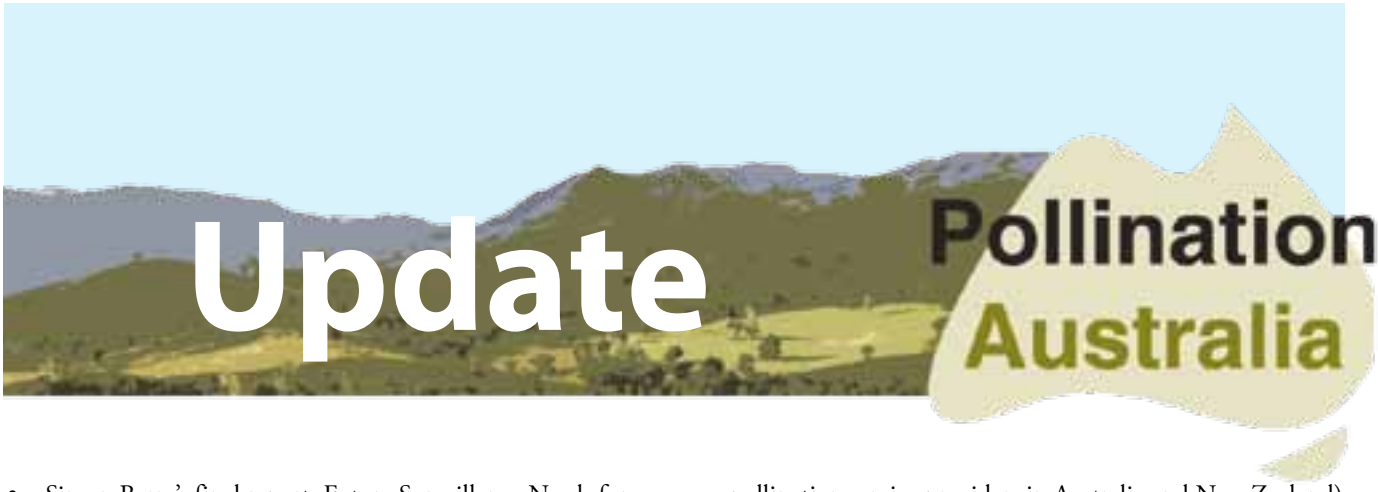
I recently attended the induction workshop of the Climate Champion program. This program is run under the Managing Climate Variability (MCV) initiative, an Australian government initiative, funded by the Department of Agriculture, Fisheries and Forestry (DAFF) and Land and Water Australia. The Climate Champion program is funded by a collective of RDC's – namely Grains (GRDC), Sugar, Meat and Livestock (MLA), Dairy and RIRDC.

The aim of MCV is to help Australian farmers meet climate variability challenges in a changing climate. For the Climate Champion program, farmers have been chosen from all over Australia, from all different sectors of agriculture, from sugar cane to grain, meat, and dairy and even viticulture and beekeeping.

The program is based on the idea that farmers learn best from other farmers. The main aim is to open up two-way communication channels between farmers, researchers and policy-makers. Peer networks and farmer-to-farmer learning and knowledge/management practice transference is an essential part of this program. This means communicating with RDC's about what research farmers want done, and working to help improve forecasting and modelling programs to better suit farmer's needs. It is also an avenue to celebrate the achievements and innovations that are continuously coming out of the agricultural sector in response to climate challenges. The Climate Champion program has set up a website – www.climatekelpie.com.au - designed to help farmers better understand the climatic situation in their region, and better utilise the range of farm management models and decision support tools available for each particular region and/or commodity.

I was accepted to the program as a representative from the Honeybee Industry, drawing on my background as the daughter of a beekeeping family, and utilising my parents' experience and networks. I am also a 4th-year student at the Australian National University, studying Climate Science and Human Ecology. As a member of the Climate Champion program, I will be required to gather information, feedback and queries from the wider beekeeping community to take to the Climate Champion workshops, and also to report back to the beekeeping community on what the program is achieving in improved forecasting and research applicable to the beekeeping industry. I will also be aiming to improve the networking of information between beekeepers about options and potential methods of dealing with the challenges of a changing climate.

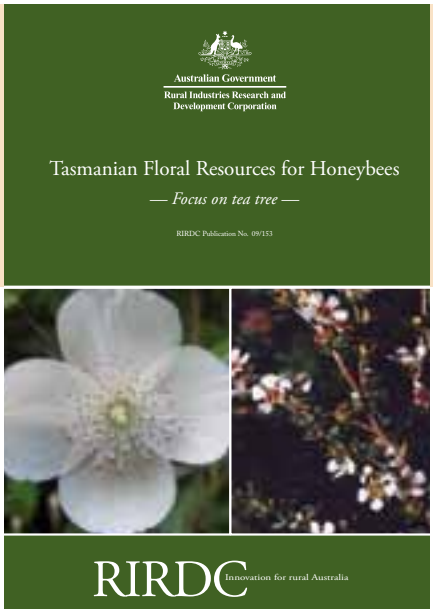
If you want to know anything else about the program, or you have any questions for me as your Climate Champion, please contact me on Pele.Cannon@gmail.com



- Simon Barry's final report, Future Surveillance Needs for Bee Biosecurity, is nearing completion.
- Rod Turner's final report, Simulation Exercise for Pollination Industries, is being prepared for publication on the web.
- Rob Keogh's final report, Pollination Aware: its importance to Australia, had been received and been reviewed by the Pollination Committee.
- Proposals on (Preparation and submission of permit applications for three Varroa mite control products) and (Writing a general pollination manual for growers and pollination service providers in Australia and New Zealand) will be funded by HAL.
- A Workshop on chemical/non-chemical research: will be held in Canberra in the third week of August. Speakers will discuss the control of Varroa using chemical and non chemical options.
- Scoping study for a Bee CRC: Proposals are being considered
- A Travel grant was granted to Mofakhar Hossain to visit Diane Leemon to discuss small hive beetle research.

New RIRDC Honeybee related publications

All RIRDC publications can be purchased in hard copy online from www.rirdc.gov.au, or may be downloaded for free from the same site. Books can also be purchased by phoning 1300 634 313



Tasmanian Floral Resources for Honeybees – Focus on tea tree

by M Leech. Pub. No. 09/153.

The development of a floral database for Tasmania is an important contribution to the sustainable development of the honeybee industry in Tasmania.

This RIRDC report provides an overview of the Tasmanian apiary industry, with particular consideration of the potential development of a tea tree honey component. It is accompanied by a field guide to the native flora of Tasmania accessed by honeybees, Apis mellifera. The report and field guide will provide useful information to beekeepers and their peak bodies, governments, consultants and researchers.

The Value-adding Potential of Prebiotic Components of Australian Honey

by P Conway, R Stern and L Tran. Pub. No. 09/179.

This RIRDC report provides data that demonstrate that some Australian honeys possess prebiotic properties, which means that they can promote the growth of beneficial microbes commonly found in the human intestine. Because it is known that maintenance of a healthy intestinal microflora can assist the immune system, as well as general bodily function, it can be suggested that consumption of honey has potential to promote overall human health and well-being.

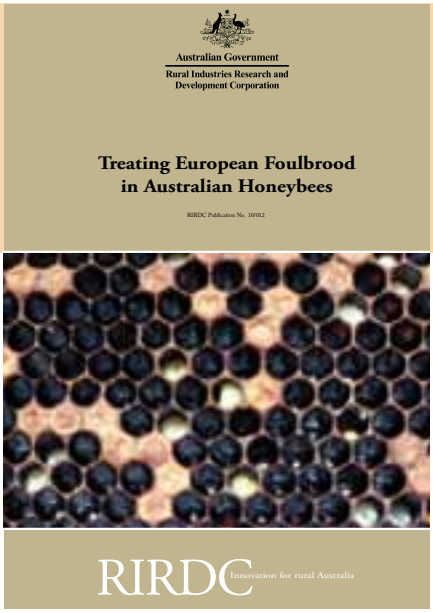
At market level, these qualities and attributes are likely to maximise product value. On a broader scale, scientific demonstration that use of honey can produce dietary and general health benefits will support beekeeping and honey industries in general, as well as assisting overall maintenance of human health.

An Investigation into the Therapeutic Properties of Honey

by D Carter, S Blair and J Irish. Pub. No. 09/180.

This RIRDC report summarises investigations into the therapeutic potential of Australian honeys. The study was conducted to increase the use and acceptance of honey as a therapeutic agent in conventional medicine.

Honey shows great potential as a topical antimicrobial agent, but it is grossly under-utilised in modern medicine. The results show that numerous Australian honeys possess significant antibacterial properties, and that honey is effective against a wide range of problematic pathogens, including multi drug-resistant clinical isolates and those growing in biofilms.

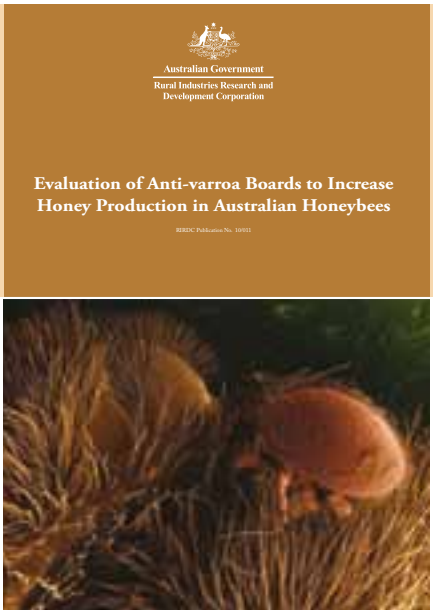


Treating European Foulbrood in Australian Honeybees

by M Hornitzky. Pub. No. 10/012.

European foulbrood (EFB), caused by *Melissococcus plutonius*, is a major bacterial honeybee disease which results in significant economic losses to the beekeeping industry in Australia and worldwide. In Australia the impact of EFB on the bee farming industry resulted in the introduction of hive treatment with the antibiotic oxytetracycline (OTC). More information was needed on the concentrations of OTC required to protect honeybee larvae from EFB.

Fatty acids are important in the development, nutrition and reproduction of honeybees. Eight fatty acids have been demonstrated to have antibacterial activity against *M. plutonius* isolates. As control agents, fatty acids would be safe and environmentally sound. A further aim of this project was to determine the dose required to reliably cause disease in larvae. This information would provide a better understanding of the ecology of *M. plutonius*.



Evaluation of Anti-varroa Boards to Increase Honey Production in Australian Honeybees

by R Spooner-Hart. Pub. No. 10/011.

This RIRDC report evaluates the benefits of using modified hive bottom boards in the absence of varroa mite in Australia. These modified bottom boards had been primarily developed to assist in management of varroa mite overseas, but there was some anecdotal evidence from Europe and USA that they might stimulate hive activity, particularly early in the season.

The project also assessed whether modified bottom boards provided any benefits for reducing small hive beetle infestations in hives, as overseas reports were not definitive.

These results, while conducted over only one season, suggest that there may not be any benefit in beekeepers changing from using conventional bottom boards in the absence of varroa mite.

Overseas assistance needed

Magda Woloszyn from Perth is currently volunteering as a Business Development Advisor for The Liberty Development Foundation (LIDEFO) in Kasese, Uganda.

One of the NGO's key projects is a beekeeping initiative in the Rwenzori mountains nearby Kasese, which she is working on.

They have over 60 beekeepers (villagers) in the surrounding villages who take part in this project.

Currently they are facing many challenges and are in desperate need of an apiary specialist to come over and help train the beekeepers and develop this excellent project that provides so much hope to the individuals involved.

They can provide accommodation and all local costs (including food) for the specialist, however they would need to fund their own travel to Uganda.

They would ideally like the specialist to visit Kasese for 2 weeks or for as long as they are willing.

Anyone interested should contact Magda Woloszyn magda_woloszyn@hotmail.com LIDEFO www.lidefo.org