



Honeybee R&D News



Chairman's Foreword

Des Cannon, Chairman, HBRDC (RIRDC)

As was heralded in the last Issue of Honeybee R&D News, a selection process has been conducted for appointment of a new Chair and a new Committee Member for the RIRDC Honeybee R&D Advisory Committee.

Dr Michael Hornitzky from NSW has been appointed Chair and A./Prof. Boris Baer, from WA, has been appointed Committee Member. Both appointments are for three years.

Contained in this issue are 'potted' biographies on both Michael and Boris.

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 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
Prof. Ben Oldroyd	(W) (02) 9351 7501
Bruce White	(02) 9634 6792
Assoc./Prof. Boris Baer	(08) 6488 4495
Senior Research Manager	
Dave Alden	(02) 6271 4128
Program Coordinator	
Helen Moffett	(02) 6271 4145

Sponsorship for State Conference

The R&D Committee at its meeting in October decided to allocate \$1000 to each State as sponsorship to assist the State Apiarists' Associations in their organising of guest speakers for their respective Conferences.

RIRDC have been advised by the various States that this sponsorship will, in part, assist in them having the following Speakers at State Conferences in 2011.

There will also be at least one RIRDC Honeybee R&D Committee member in attendance at each State Conference to present the Annual Report of the Committee to Conference.

State Conference invited speakers

NSW Apiarists Association – Tiffane Bates, WA, Michelle Taylor, NZ

TAS Beekeepers Association – John Rawcliffe, Active Manuka Honey Assoc., NZ

VIC Apiarists Association – Ben Hooper, Jonathan Arundel

WA Beekeepers Association – Nick Annand, Rob Manning

WAFF – Beekeeping Section – Tiffane Bates (re Churchill Fellowship), Greens Party spokesperson (re GMOs)

QLD Beekeepers Association – Dr Jamie Ellis, Atlanta, Georgia USA

SA Apiarists Association – Dr Jamie Ellis, Atlanta, Georgia USA



Incoming R&D Committee Chair, Dr Michael Hornitzky

Michael first became involved with honeybees when he confirmed the first case of European foulbrood in New South Wales in a frame of brood submitted to the Veterinary Laboratories, Glenfield, NSW, by Bruce White in 1977. Since that time he has been heavily involved in the diagnosis and research of honeybees, especially honeybee diseases.

Michael was the key researcher in the development of large scale gamma irradiation of bee hive equipment infected with American foulbrood (AFB) and the development of honey testing for AFB spores as a means of tracing hives with AFB. More recently he detected the new *Nosema*, *Nosema ceranae* in Australia and carried out a study of *N. ceranae* in Australia which is soon to be published by RIRDC. He has also fostered the development of honeybee disease laboratory diagnostics through the preparation of the Australian & New Zealand Standard Diagnostic Procedures for Honeybees Diseases.

Michael has previously served as a Committee member of the Honeybee Research & Development Committee from 1989-1996. He is currently a Senior Principal Research Scientist and Section Leader Microbiological Diseases and Diagnostics Research with the NSW Department of Primary Industries.

“I am looking forward to working on the Committee and with industry to foster research into the many issues which impact on beekeeping in Australia”, said Michael.

R&D Committee Member, Assoc./ Prof. Boris Baer

Boris is a scientist located at the University of Western Australia in Perth, where he is the head of the honeybee research group, known as CIBER, the Centre for Integrative Bee Research (see ciber.science.uwa.edu.au). Born in Switzerland, Boris did his PhD on bee parasites and the importance of genetic diversity on immunity at ETH Zurich in Switzerland. He then moved for 4 years to Denmark to study sexual reproduction in bees and ants, before coming to Australia.

CIBER aims to perform basic scientific research into the reproduction, immunity and ecology of honeybees. At the same time, CIBER maintains close links with industrial partners such as beekeepers to find solutions to present and upcoming challenges for Australian bees.



Update of Publications

Following the request in the last issue of Honeybee R&D News for expressions of interest in reprinting of out-of-print publications, the R&D Committee received valuable feedback from the beekeeping industry. It was decided at the Committee meeting in April to call for a Research proposal to pursue the updating and reprinting of *'Victorian Honey and Pollen Flora'*, *'Honey and Pollen Flora of Queensland'*, and *'A Compendium of Graham Kleinschmidt's Research Papers'*.

RIRDC will announce this call for Preliminary Research proposals in August 2011, as part of its Research Priorities for 2012-13.

Interest has also been expressed last year in having reprints made of

1. *'Honey and Pollen Flora of NSW'* (Alan Clemson). NSWI&I have announced that in the short-term they will be reprinting this book, and in the long-term that Doug Somerville will be undertaking a full revision of the book for later republishing.
2. and *'Beekeeping'*. This was last published in 1991 and was a revised version of *Beekeeping in Victoria*, which was first published circa 1925 with at least 5 additional revised editions under that name. The change of title in 1991 was to capture greater market share in adjoining States. A separate research proposal will be put forward for the updating and republishing of this book, as a joint project with industry, VICDPI and RIRDC.

Small Hive Beetle Trap Commercialised

It has taken some time, but the Small Hive Beetle Harborage designed and developed by NSWI&I entomologist Gary Levot has now been commercialised and is on the market. The original project to develop the device was funded by RIRDC, and the commercialisation process was a joint project between RIRDC and NSWI&I. Held up for many years by BASF's refusal to allow use of their patented chemical, the project was stalled until the patent expired, and it could then be manufactured under licence by Ensystem Australia.

Sold under the name of 'Apithor', the harborage utilises the behaviour of SHB, which retreats into the harborage to evade bees. It is then killed by insecticide in cardboard in the device. Bees cannot gain access to the treated cardboard and the beetles die without leaving the device. It is 90%+ effective against Small hive beetle, and the one-use item can be left in the hive for 3 months.

'Apithor' will be sold from one outlet in Australia, in Sydney. It can be purchased in packs of 20 for \$4.95 each (\$99.00 per 20 pack). Orders can be placed by phone (13 35 36), or by email (contact@apithor.com.au). For more information, go to www.apithor.com.au

A small royalty is paid to the RIRDC Honeybee R&D Program and NSWI&I on each sale, which means each organisation receives about 2.5% on each sale.

Research In progress Updates

Final Reports have been received from Nick Annand (Small Hive Beetle Biology Providing Control Options) and Dr Michael Hornitzky (A Study of *Nosema ceranae* in Australia). Both reports are being prepared for publication by RIRDC.

Final Reports are due in the coming months on projects on

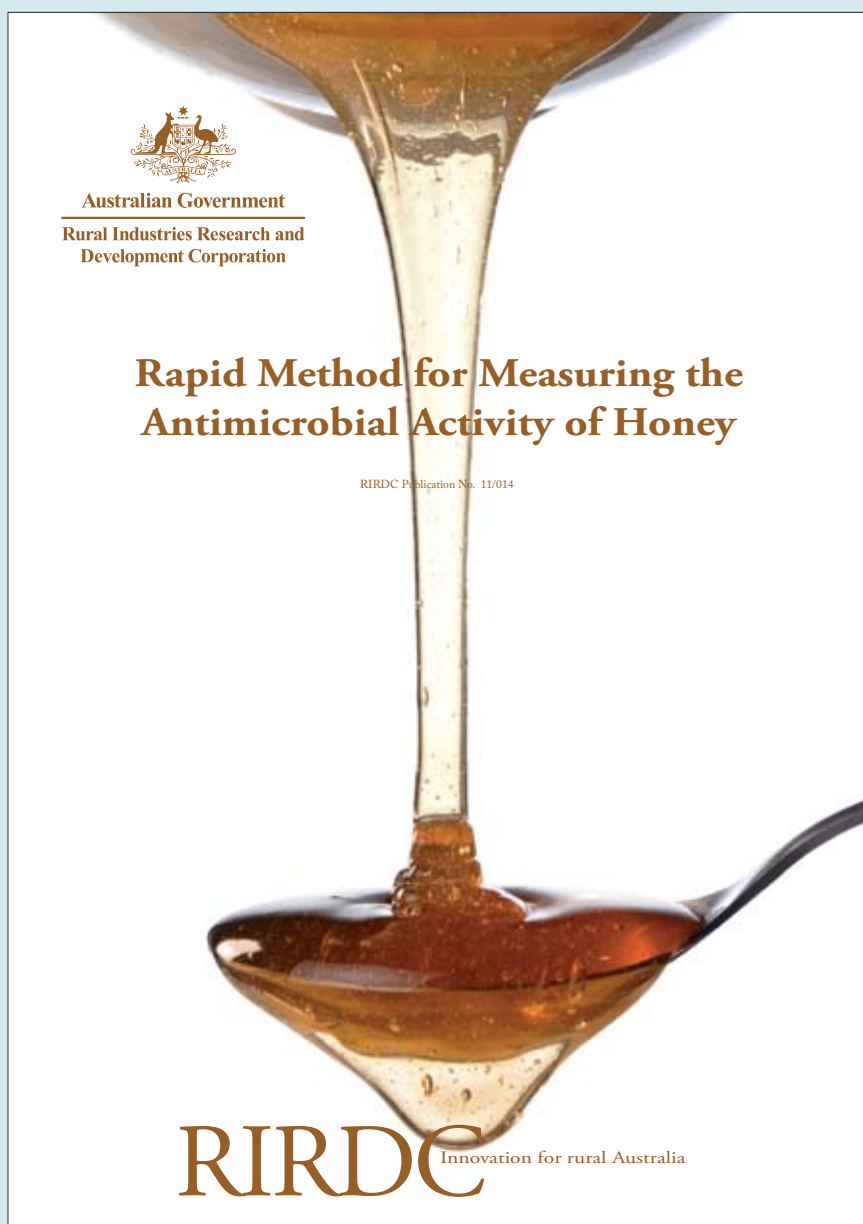
- In-hive Fungal Control of Small Hive Beetle (Di Leemon)
- Development of a Pollen Substitute Meeting the Nutritional Needs of Honeybees (John Black)
- Testing Pollen Substitutes That Meet the Nutritional Needs of Honeybees (Rob Manning)
- Planting for Pollen and Nectar Supply (Mark Leech)

Continuing Projects

- Genetic Variation of *Varroa jacobsonii* and Pathology of Microbial Pathogens (Denis Anderson)
- A Geographic Flowering Calendar Using Dynamic Data from the WWW (Stephan Winter)
- Value-adding to Honey (Joan Dawes)
- Preparing for Varroa – How Susceptible are Australia's Honeybee Stocks (Ben Oldroyd)
- Honey Industry Training Videos (Peter Crawley-Boevey)
- PhD Scholarship for Yan Peng – Sexually Transmitted Diseases as Threats for Australian Honeybees
- Honeybee R&D News

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.



Rapid Method for Measuring the Antimicrobial Activity of Honey

Code: 11-014 \$25.00 29 pages
Published: 16 Feb 2011
Author(s): John Black
ISBN: 978-1-74254-202-7

Honey has been used as a therapeutic agent since ancient times. It is particularly useful for treating open infections with relatively poor blood supply, including skin wounds on the extremities of the body and stomach ulcers caused by the helicobacter organism. Honey is known to have antimicrobial activity against bacteria and fungi resistant to many antibiotics and can control bacteria living in biofilms, which have proven difficult to control by conventional means. But honey samples vary widely in their antimicrobial activity.

This RIRDC report summarises the possibility of using near infrared spectroscopy (NIR) for rapidly measuring the antimicrobial activity of honey. The report is targeted at the marketers of honey and potentially to laboratories that could provide an analytical service for measuring the antimicrobial activity of honey.