July 2014, Volume 22 No. 6

The NEW ZEALAND BeeKeeper

Exercise Gemini productive, successful

- Trees for Bees at Eastwoodhill
- Wētā website seeks specimens
- Inspecting and feeding hives

Manuka Health New Zealand Limited

We Buy Your Propolis at a Premium Price

Manuka Health's BIO New Zealand Propolis™ is the first propolis with certified levels of bioactives

Manuka Health, along with New Zealand and global scientific and medical research centres, are carrying out an extensive research program to investigate the unique composition and health properties of New Zealand propolis.

Manuka Health is leading the way to understand the bioactive profile of propolis and develop innovative techniques to enhance its bioavailability and healing properties for various health conditions.

Manuka Health's laboratory is one of only a few commercial laboratories in New Zealand that can test for Caffeic Acid Phenethyl Ester (CAPE) and major bioflavonoids.

Manuka Health's propolis products are tested and certified according to the levels of bioactives in them.

Manuka Health's new payment schedule for raw propolis

Because propolis with higher levels of bioactives has a greater value, Manuka Health has introduced a new payment schedule to compensate you for your raw propolis based on the levels of bioactives.

Please contact John Connor or Keith Rodie for more details on the premium payment.

Manuka Health will supply you with propolis mats and, once returned to us, we will extract the propolis, test it and provide you with the results before returning the mats to you for reuse.

For more information please contact John Connor or Keith Rodie

John Connor Email: johnc@manukahealth.co.nz
249 Bruce Berquist Drive, Te Awamutu
Phone: (07) 870 6555, Fax: (07) 870 6556

Keith Rodie Email: keith@manukahealth.co.nz, Mob: 021 994 516

The New Zealand BeeKeeper is the official journal of the National Beekeepers' Association of New Zealand (Inc.)

ISSN 0110-6325

Printed by South City Print, PO Box 2494, Dunedin 9013, New Zealand

NBA website: www.nba.org.nz

CHIEF EXECUTIVE OFFICER:
Daniel Paul
PO Box 10792
Wellington 6143
Ph: 04 471 6254
Fax: 04 499 0876
Email: ceo@nba.org.nz

EXECUTIVE SECRETARY
(including NBA Membership & Journal Subscriptions)
Miriam Nicholson
PO Box 10792
Wellington 6143
Ph: 04 471 6254
Fax: 04 499 0876
Email: secretary@nba.org.nz

EXECUTIVE COUNCIL:
Ricki Leahy (President/Upper South Island)
Stephen Black (Vice President/Waikato)
Neil Stuckey (Northern)
Deanna Corbett (East Coast)
Dennis Crowley (Bay of Plenty)
Mary-Ann Lindsay (Southern North Island)
Roger Bray (Central South Island)
Russell Berry (Lower South Island)

EDITORIAL/PUBLICATION (excluding advertising):
Nancy Fithian
8A Awa Road, Miramar
Wellington 6022
Ph: 04 380 8801 Fax: 04 380 7197
Mobile: 027 238 2915
Email: editor@nba.org.nz

ADVERTISING INQUIRIES:
South City Print Ltd, PO Box 2494, Dunedin 9044.
Phone: 03 455 4486, Fax: 03 455 7286
Email: leonie@southcityprint.co.nz

PUBLICATIONS COMMITTEE:
Frank Lindsay
26 Cunliffe Street
Johnsonville
Wellington 6037
Ph: 04 478 3367
Email: lindsays.apiaries@clear.net.nz

JOURNAL SUBSCRIPTIONS:
— 11 Issues —
NZ $140.00 GST inc - incl P&P
Australia $165 .00+ NZ $25.00 TT fees and incl P&P
Rest of the World $176.00 + NZ $25.00 TT fees and incl P&P
Subject to review if postage charges increase

DEADLINES FOR ADVERTISING AND ARTICLES:
Due on the 6th of the month prior to publication
All articles/letters/photos to be with the Editor via fax, email or post to Nancy Fithian (see details above).

Articles published in *The New Zealand BeeKeeper* are subject to scrutiny by the National Beekeepers' Association management committee. The content of articles does not necessarily reflect the views of the association.

CONTACTS TO THE NEW ZEALAND BEEKEEPING INDUSTRY:
Rex Baynes, AFB NPMP Manager
PO Box 44282, Lower Hutt 5040
Email: rbaynes@ihug.co.nz
Phone: 04 566 0773

American Foulbrood Management Plan
www.afb.org.nz

AsureQuality Limited
Ph: 0508 00 11 22
www.asurequality.com

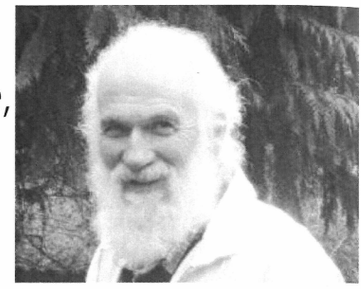
Exotic Disease and Pest Emergency Hotline 0800 80 99 66
www.biosecurity.govt.nz

Contents

Front cover: Te Aroha beekeeper Christine Moeller took this photo of one of her hives.

Exercise Gemini productive, successful

By Ricki Leahy, NBA President



It seems a bit strange writing this before Conference, knowing that whatever comments I might make could be either old news or irrelevant when this journal reaches you.

However, I can share some thoughts that will remain relevant about 'Exercise Gemini'.

For those who may not have heard, this exercise was hosted in Wellington on 28 May by the Ministry for Primary Industries (MPI), and focused on a simulated discovery of an incursion of the small hive beetle (SHB). Some of us may be fans of The Beatles but I can assure that you won't be a fan of these little blighters.

The objectives of Exercise Gemini were:

- to increase the bee industry's understanding of the response's structure and how it works
- to support our understanding of how a response will work as a Government Industry Agreement (GIA) partner
- to give us all the opportunity to review the draft Operational Specifications for the small hive beetle in a simulated implementation of an operational activity
- to develop a communications plan for industry notification in a response, and to determine which other industries would be affected by any future biosecurity responses and how they would be affected.

As you can see, the scope of the exercise was huge, and the depth of skills present in that meeting room was very impressive. As well as the beekeepers who participated, there were key personnel from both AsureQuality Limited and MPI. These personnel are the professionals who would make up the response teams as the managers, communication experts, operations planners and intelligence analysts through to the logistics of the response. The calibre and expertise of these individuals was very evident.

Positive communication was a key feature of the day. Wherever we hit a snag, we worked constructively to find ways around it to achieve a successful outcome. As we worked on a particular scenario, the focus was on constructive discussion and lots of exploratory thinking.

Exchanging ideas was very worthwhile and enabled all parties to thoroughly understand both the logistical and practical limitations. This exercise demonstrated the need for planning and putting in place management strategies and processes that would enable the bee industry to be an important part of helping in any response at all levels.

> **"For me, a GIA is so much more than how much it may cost us: it is about how we can be involved to make it work."**

The power and usefulness of the Apiary Database was demonstrated and I must say it was stunning. In no time at all, information about apiaries in the controlled area was at our fingertips. We had data about how many different beekeepers were affected by the controlled area, including the number of hives and apiaries that are involved, and just as importantly, we had information as to how many apiaries outside that area could be linked to the controlled area.

The Apiary Database is such a good planning tool. Many of us don't understand the importance of accurately recording all our apiary registration details. Obviously if we understood that the accuracy determines how good the 'tool' is, we may make more of an effort to ensure that the details that we supply are correct. Surely we should decide to take our share of responsibility towards that end. If we realised that biosecurity is all about protecting our bees and our livelihoods, wouldn't that alone give us good reason to keep our records up to date? Perhaps this could be part of our contribution towards our industry's participation in a GIA.

For me, a GIA is so much more than how much it may cost us: it is about how we can be involved to make it work. Keeping good records would be a part of that partnership. We need to figure that the greater community is expecting us, as a major player in the primary sector, to take a leading role in the future of our country's biosecurity. MPI definitely has a deliberate commitment to partnership with industry and I imagine that the MPI may also have its own challenges to face in an environment in which relationships are changing.

In summary, Exercise Gemini was productive and successful. The foundations of future working relationships were formed. Everybody recognised the importance of having involvement from all sectors. It became obvious to me how potentially 'lost' the industry could be at the initial stages of any incursion without that professional full-time support.

So what's happening in our hives now? Forget it. Go back inside and keep warm: that's what the bees are doing. It's not long until we have to prise the hives open again anyway. Happy beekeeping.

[Editor's note: see page 6 for impressions from NBA Life Member Frank Lindsay, who also participated in Project Gemini.]

Avoid the Spring rush; get your Apivar orders in early to help ensure we can meet your preferred delivery date.

Order form available online at www.apivar.co.nz; email and phone orders welcome.

Apivar®

Want to know more about Apivar?
Look at the FAQ's on the www.apivar.co.nz website.
They contain some really good in-depth information.

10 – 90 strips	$3.48 each plus G.S.T.
100 – 490 strips	$3.23 each plus G.S.T.
500 – 990 strips	$3.04 each plus G.S.T.
1000 – 4990 strips	$2.82 each plus G.S.T.
5,000 – 9,990 strips	$2.78 each plus G.S.T.
10,000 – 19,990 strips	$2.72 each plus G.S.T.
20,000 plus strips	$2.69 each plus G.S.T.

Dosage Rate: 2 Apivar strips per brood box.
Payment is required prior to delivery by cheque or electronic banking.
Prices subject to change without notice.

New Zealand Beeswax Ltd

Post: 44 Gladstone St South, RD 22, GERALDINE 7992
Factory: 44 Gladstone St South, ORARI, South Canterbury
Phone: 64 3 693 9189; Fax: 64 3 693 9780
Email: info@apivar.co.nz; Web: www.apivar.co.nz

Apivar® is the product and the registered trademark of:

Veto-pharma S.A, Véto-pharma 14, avenue du Quebec F-91945 Courtaboeuf Cedex France

BK236

Impressions of Exercise Gemini

By Frank Lindsay, NBA Life Member

Over the past few months, the Canterbury Branch has presented their concerns in the journal as to the costs and implications of a Government Industry Agreement (GIA).

The Canterbury Branch also has been asking questions of NBA CEO Daniel Paul, as he has been involved with the early stages of GIA. Unless the Executive Council approves expenditure to answer these questions, Daniel cannot reply.

Like many others, I haven't been party to GIA meetings and needed to be convinced of its advantages. So on 28 May, I attended a simulated exercise on the small hive beetle (SHB) at the MPI head office in Wellington.

Also attending were Ricki Leahy (NBA President), Daniel Paul (NBA CEO), John Hartnell (Chairman, Federated Farmers Bees), Neil Mossop (commercial beekeeper), John Burnet (Wellington Beekeepers' Association), Carol Downer (Auckland Beekeepers' Association), along with staff from the Ministry for Primary Industries (MPI), GIA staff, and AsureQuality Limited.

This exercise, dubbed Exercise Gemini, was formulated on GIA principles on how Government and industry would respond in the event of an SHB incursion and hopefully answer some of the questions posed.

Overview

The morning was spent reviewing background information such as the current structure of MPI, Biosecurity New Zealand and their field operations, and how Government agencies would operate under GIA.

Under the present system, MPI makes the decisions with perhaps an industry representative observing. Under a GIA, an industry representative would be in the top decision-making teams.

The surveillance protocol was explained. Basically MPI and AsureQuality carry out a yearly 'active surveillance' of all potential hot spots for export certification. Three hundred samples from the live bee exports are also tested for exotic diseases and unwanted organisms. MPI also relies on 'passive surveillance', with beekeepers reporting anything they see that is unusual in their hives.

It was pointed out that 25 percent of beekeepers are new to beekeeping (mostly in the cities, which are hot spots). Although new beekeepers receive an information pack when they register that includes information on exotic diseases, it appears that new beekeepers are not very familiar with exotic diseases.

At the meeting, beekeepers advocated that active surveillance be carried out on a two-monthly basis, and that a greater awareness campaign should be organised. Beekeepers also suggested that fridge magnets could go out to all registered beekeepers in the October edition of *The New Zealand BeeKeeper*.

It was put forward that industry also wanted to be involved at the front end (i.e., import protocols), as well as being involved in any attempt to eradicate an organism once it arrives in New Zealand. MPI noted that surveillance protocols were due to be reviewed within the next two years.

EFB alert in Christchurch

MPI staff presented a summary of the European foulbrood (EFB) alert in Christchurch earlier this year. An initial false-positive result was found to be due to another bacillus bacteria being used in an agricultural spray. This confused the issue, setting forth an incursion response that →

Some of the participants at Exercise Gemini. This photo was taken by Dr Daan Vink of MPI, who also was one of the presenters.

Left to right: Mary van Andel (MPI), Michael Langford (AsureQuality), Daniel Paul (NBA CEO), beekeepers Carol Downer, John Burnet and Neil Mossop, Deirdre Nagle and Richard Calvert (AsureQuality Limited), Fiona Bancroft (MPI), Thomas Chin (industry representative from the small seed sector). Kate Jones of AsureQuality is in the background. Present but not pictured: John Hartnell (Federated Farmers Bees), Ricki Leahy (NBA President), Frank Lindsay (NBA Life Member).

was cancelled 24 hours later when the bacillus bacteria was discovered to be the culprit.

We were told that it can take up to seven days to identify a bacteria/virus using polymerase chain reaction (PCR) and other techniques. PCR testing alone can take up to two days to get a reliable result. We have to appreciate that there will be a delay before we get reliable identification.

John Hartnell raised the issue of the problem encountered when two organisms were being investigated at the same time, and the bee industry was not given a high priority regarding *Nosema ceranae*. MPI recognised that it sometimes had problems with logistics during an outbreak, and is looking at having portable laboratories in containers that could be moved close to an outbreak centre.

Other surveillance mechanisms

We then covered the makeup and duties of the National Biosecurity Capability Network and its interconnections with agencies such as AsureQuality Limited. This was followed by Quenten Higgan from AsureQuality, who gave us the background to what is possible using the Apiary Database administered by AsureQuality.

Marco Gonzalez of AsureQuality then gave us a demonstration of APIWEB, including what the database contains and how he uses the system in his work. (APIWEB is the front end of the database, which is able to be updated by beekeepers.)

One suggestion to come out of this discussion was that beekeepers perhaps could enter the maximum number of hives that might be placed in an apiary during the year into the APIWEB database. This would then indicate the potential workload that could be expected in the event of an exotic surveillance inspection.

Neil Mossop mentioned the difficulty of having to re-enter GPS co-ordinates for hive sites if a record was entered incorrectly or lost, as these sites sometimes are many kilometres away from base, particularly in summer. Any apiaries without GPS co-ordinates could make an export order non-compliant.

With reference to possible places where SHB could be found, honey houses are very attractive but are not in the Apiary Database. It was suggested that RMP-registered plants be added to the database. John Hartnell suggested that all honey houses should have light traps for SHB larvae running constantly as a passive surveillance measurement tool (Although adult beetles hide from light, larvae crawl towards it so they can pupate in the ground.)

Other places suggested for surveillance during an outbreak were silage pits, bumble bee nests and feral hives. The Apiary Database recorded feral hives and swarms reported by the public during the Nelson varroa outbreak under the name 'Mr Feral', so these could be checked and sealed. (Beekeepers need a name to put information into the database and because these were feral hives, they were given the name 'Mr Feral'.)

SHB incursion exercise

In the afternoon we reviewed the draft document MPI had prepared for this exercise, based on a hypothetical SHB incursion found in the hive at the Auckland Town Hall. MPI had selected a radius of 18 kilometres, as this exercise assumed an early interception of a beetle.

Using mapping techniques, they demonstrated how and where teams would be managed. Simple traps made of coreflute (a modern version of corrugated cardboard) would be placed in all hives in the zone and removed within two days as a surveillance measure. This would not replace the full inspection of hives as required by the OIE (the World Organisation for Animal Health).

Protective clothing with pockets could provide hiding places for beetles, so one-piece spray suits would be used.

Because beetles hide away from light, vehicles used in the surveillance could inadvertently migrate the beetle. Interiors would have to be sprayed with a broad-spectrum insecticide like Ant Ban (permethrin). However, this could pose problems if a beekeeper's vehicle was used, as these vehicles are also used to transport live queen bees, and insecticides and bees don't mix. MPI has undertaken to check the half-life of possible insecticides.

The topic of methods of destroying hives prompted a lot of discussion. It might be more desirable to depopulate rather than burning hives; i.e., gas and seal them until the 'all clear' is given, then repopulate the hives. What is required is a simple, safe method that doesn't leave a residue.

The use of formic acid and other gases should be investigated, as there are difficulties with using methyl bromide. Beekeepers suggested that MPI consult with Dr Mark Goodwin on the best way to depopulate beehives.

The same extensive discussion occurred with ground spraying. The optimum spraying distance from a hive depends upon the ground conditions: covering the ground with plastic might provide a better result, as the spraying might not need to be repeated. Lots of 'what if' scenarios were presented with subsequent suggestions to work through.

> "This exercise gave us a taste of what could be achieved under this new GIA regime."

A requirement that became obvious is that the beekeeping industry needs to devise a quick way to contact all beekeepers in the event that an exotic disease is detected. In most cases, a 'stand still' order will be instituted in the North and/or South islands and beekeepers should know what they could do to assist.

All in all, this was a very good exercise with knowledge freely exchanged. We have a draft of a workable SHB plan and relationships have been established with the MPI staff involved. This exercise gave us a taste of what could be achieved under this new GIA regime.

Personal observations

The GIA website states that industries signing up to a GIA "will have a direct say in

Continued on page 9

Continued from page 7

managing biosecurity risk". I understand this to mean that those industries signing will have input into the whole process, not just emergency responses; i.e., import protocols to make the possibility of accidental introduction less likely.

For instance, bee semen imports should be scanned for viruses and excluded if any are found, but do we really know which viruses we have in New Zealand? And do we know which of the four ERIC (enterobacterial repetitive intergenic consensus sequence) types we have in our existing diseases? There are many strains of the same disease, some of which might be more virulent. To allow a product into New Zealand with possible chalkbrood spores shouldn't be dismissed lightly, as we could be importing a far greater menu of diseases than we have now.

To be "at the table", we have to sign up. However, before we take this first step, we as an industry have to work through our priority list of exotic diseases and how we would like them dealt with.

If we are to sign up to a GIA, we will go through the exercise of identifying our exotic disease priorities because we will be working together. Therefore, the industry will incur travelling costs, etc. for those individuals involved, but we needn't reinvent the wheel. Why not initially use a representative from Plant Health Australia to show us what they have been working on regarding bees, so that biosecurity requirements and agreements are similar in both countries? This may cost money but could save us considerable time.

Then there is the question of how we pay for participating in a GIA. Instituting an industry levy is quite a process to work through, but it's something we used to have before beekeepers rejected it on cost grounds. As for signing up to the deed, I don't have any problem with this, as there is an opt-out clause. We can withdraw in six months if what's intended doesn't suit the industry.

We can take our time to decide as GIA really only begins in 2016 "with the agreement of the industry". Biosecurity charges could come in for those outside GIA in 2017. The advantage of going in early is that while working through GIA, we will also be working to include other allied industries and educating them as to our requirements for bees.

However, what we have to watch for is that the economic impact report doesn't overrule any action we would like to happen in favour of another industry group, with possible adverse effects on our bees. Varroa has taught us about the costs of an incursion to our own individual businesses. We now know to have opt-out clauses in pollination contracts when an outside influence can affect us and our bees.

I also learnt that I need to provide greater detail in my diary when recording movements for hives/nucs, queens and supers between apiaries. MPI needs this level of detail to trace movements, should I have to complete an Organism Investigation Report when an exotic disease is found. Good recordkeeping makes possible compensation claims easier to administer, as well as enabling the all-important tracing of the movements of an exotic disease.

Cost considerations

We can expect to pay a maximum of 40 percent of the cost of an outbreak where no other industry is involved, but we can cap the expenditure. The fruit fly incursion cost $1 million for three weeks' work, so a similar exercise with bees could see us being billed for $400,000. (This is the amount that the NPMP collects each year for AFB, but our collection costs could be spread over five to 10 years.)

This would mean that the plug would be pulled on further expenditure when this figure is reached, if we so desired. We can reduce this cost if the costs of those beekeepers physically involved are used as part of our share/contribution. We have to recognise that beekeepers are specialists and their time should be charged out at a reasonable rate.

I have looked at how GIA is working across the Tasman and been very impressed, especially since Plant Health Australia took over looking after bees. Under GIA in Australia, the industries that pay a levy can direct how much money is invested and where this money is spent. Some of their levy money is directed to biosecurity research.

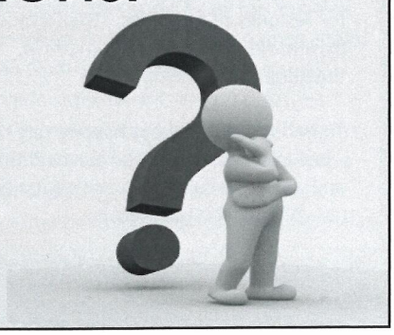
Australia has been working on GIA for 12 years, and nearly all industries have now signed up. We have a long way to go as an industry, but we can use Australia's expertise to help us formulate procedures for New Zealand. It just takes a little money, which unfortunately our association doesn't have. We need to structure a biosecurity commodity levy to which all beekeepers contribute.

In conclusion, there are definite advantages in signing up to a GIA. There is a cost, but we also need to have input into the complete biosecurity package.

Send us your burning questions!

Do you have a burning question about beekeeping? Are you worried about your beeswax? Mystified about moths moving in? Need help dealing with varroa and other pests? Well fear not, help is at hand.

Every keen beekeeper has a list of questions they'd love to know the answers to. Luckily, the NBA has local beekeeping brainboxes on hand to answer any beekeeping-related queries, from giving your hives a helping hand to sussing out your swarms. Whatever your question, simply email it to editor@nba.org.nz and we will post the answers in a future issue of *The New Zealand BeeKeeper*.



POLYSTYRENE MATING NUCS

Easy to use • Cost effective • Proven results
1-100 $13.00 plus GST 100+ $12.00 plus GST
Phone Steve, Apiflora NZ Ltd
07 543 0984 027 4923 937

Beekeeper Manager
Te Awaiti Station

6612 ha coastal Wairarapa Station requires an energetic and experienced Manager to drive expansion of its existing manuka honey business.

Accommodation at Te Awaiti Station provided. School bus at gate.

Email applications to:
dan.riddiford@paradise.net.nz
or phone Dan Riddiford at 06 306 9849 after 7pm
or phone the Station Manager 06 307 8870

***BEEZONE QUEEN CELLS *CARRICELL INCUBATORS**
***BEEZONE QUEEN BEES *QUANTITY DISCOUNTS**
***John & Judy Dobson**
***67 Poporangi Rd RD1 Hastings 4171 New Zealand**
***Ph: (06) 870 7070 *Fax: (06) 870 7077 *Mobile: 0274 494 396**
***Email: beeline@xtra.co.nz *web address: www.carricell.com**

100% PURE NEW ZEALAND HONEY

We want your honey!!!

All Honey varieties required

Steve Lyttle at
100% Pure New Zealand Honey in Timaru
is waiting for your call:

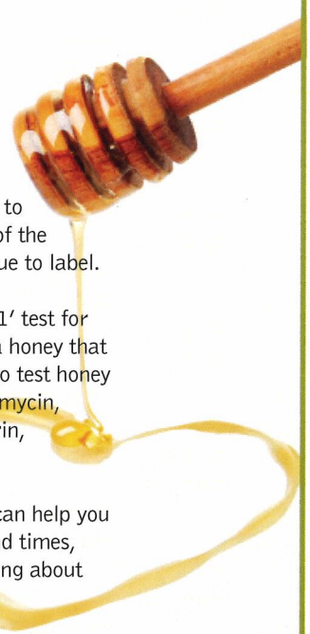
Phone: 03 688 7150 Mobile: 027 499 5599

Email: steve@purenewzealandhoney.com
Post: 15 Treneglos Street, PO Box 2155,
Washdyke, Timaru 7910

PURE NEW ZEALAND HONEY

ANALYTICA LABORATORIES

CAN YOU PROVE IT?



Yes you can. Analytica Laboratories provide the honey industry with a full range of quality and authentication tests, to help ensure honey products are of the highest standard possible and true to label.

We have devised a unique '3-in-1' test for DHA, MG, and HMF in manuka honey that is fast and cost-effective. We also test honey for residues of miticides, streptomycin, pyrethroid insecticides (flumethrin, fluvalinate), and tutin.

To find out more about how we can help you - including our prices, turnaround times, and what our customers are saying about us – please visit our website.

www.analytica.co.nz 07 974 4740

BEE HEALTH – NUTRITION

FEED BEE®

Use it in Spring
Use it to build strong Nucs
Use it for Hives going into Pollination

Available in 20kg Bags,
or 300 gram Patties

Contact
Apiary Services Ltd – Neil Farrer
7 Nixon St, Wanganui
Phone 0274 579 634

South Island Beekeepers Contact
Ecroyd Beekeeping Supplies

Trees for Bees at Eastwoodhill

By Barry Foster, NBA Past President

It gives me great pleasure to write about a success story with our bees.

This story builds on the work of others who made the place now recognised as the National Arboretum of New Zealand, also called Eastwoodhill Arboretum, near Gisborne. Specifically, it is about the work undertaken by Dr Linda Newstrom-Lloyd and others for the Trees for Bees research programme at Eastwoodhill Arboretum between September 2011 and May 2014.

In 1910, a local farmer and plantsman named Douglas Cook set out with a dream of independence from a somewhat strict upbringing to build his own farm as he wished and plant trees on it. There's nothing new in that, except that after surviving injury as a soldier in the First World War, that dream expanded over the ensuing years to one that, in Cook's words, was "To create something beautiful, some place restful in a world of hates and greed".

Little did he know how that dream would expand and develop into the national—and indeed global—treasure it is today. Eastwoodhill is the largest repository of Northern Hemisphere trees in the Southern Hemisphere and as such, it fulfils Cook's aim to be a safe house in an age of accelerated biodiversity loss. It is also the home for a considerable collection of Southern Hemisphere and native trees as well.

For a scientist like Dr Linda Newstrom-Lloyd, who is studying the diversity, abundance and quality of pollen available for honeybees, Eastwoodhill has become a gold mine for her research. Indeed, Linda cannot talk about this place without joy and reverence for Eastwoodhill Arboretum and what it has come to mean for her. It has provided approximately 150 candidate bee plant species that have been catalogued by Linda and her team.

The spring 2012 samples taken from bees foraging on the Eastwoodhill trees and shrubs have been analysed for percent crude protein and the spring 2013 samples are in the process of analysis.

The 'Dream Team' at work. At front: Valentine Touron and Jules Boileu. At back: Jean Noël Galliot and Dr Linda Newstrom-Lloyd. Photo supplied by Landcare Research.

Pollen is a vital nutrient for bees. Between 120–245 milligrams are needed for to develop one bee from egg to adult. It is common knowledge for beekeepers that bees need diversity and abundance of pollen, particularly in spring and autumn. If you read some of the recent scientific literature on the nutritional needs of honey bees, you will see that diversity plays an even greater significance in bee health than common anecdotal evidence suggests.

> "[Pollen] diversity plays an even greater significance in bee health than common anecdotal evidence suggests."

A diversity of pollen provides a functional food for bees, building immunity as well as fulfilling nutritional needs in an environment that is increasingly full of pathogens and toxins.

When the Trees for Bees programme received the first grant from the MPI Sustainable Farming Fund (SFF), I invited Linda to come and see Eastwoodhill as a potential resource for the research. In September 2011, Linda came on an exploratory trip and from that time decided to base a significant portion of her research at the arboretum. The research began in August 2012 and gathered pace with the arrival of French intern Jean Noël Galliot in September that year. With this extra help, Linda was able to catalogue and collect more samples from candidate trees through spring and into early summer that year. Nonetheless, the curator told her at that time that she had only just scratched the surface of the collection of 3500 taxa.

This knowledge invigorated an even greater effort the following year, starting in September 2013 with the aim to spend 12 months at Eastwoodhill on research in the arboretum. Spring 2013 saw the arrival of three French interns, including once again Jean-Noël Galliot, who had been such a cornerstone of help the previous year. This group became known as the 'Dream Team' to Linda for the wonderful working relationships they developed as they together devised a strategy to regularly and methodically scour the arboretum for species of trees that bees were visiting. The success

Continued on page 13

Continued from page 11
of this research owes much to Jean-Noël Galliot, who trained the other two students, Valentine Tournon and Jules Boileu. The trio worked tirelessly together for long hours photographing, collecting and cataloguing various species, most taking over an hour or two each to complete.

During this time, Linda kept up with the administration and management of samples to transport them to Landcare Research for processing, before submitting them to GNS Science researchers including Dr Karyne Rogers, who oversees the protein analysis, and doctors Ian Raine and Xun Li, who photograph the pollen and confirm identifications.

Summer 2013 saw a slowing of pace as the honey flow took the pressure off the need for pollen sources and allowed the team to visit sites in Te Araroa, Tiki Tiki and Ruatahuna to collect manuka and kanuka pollen for protein analysis. After these trips the student interns were able to enjoy a New Zealand summer as tourists before returning to France in January. Linda remained at Eastwoodhill Arboretum to assess the pollen sources for autumn but as the main flowering in Northern Hemisphere trees is in spring, few species were flowering in the driest part of the summer and in the autumn. In the midst of this work, a group of local people involved with and supportive of Trees for Bees research planned and conducted two conferences at Eastwoodhill in April 2012 and May 2014. The videos of these conferences are available on www.treesforbeesnz.org. In addition, a seminar day on bee plants was held in September 2013.

The success of the Trees for Bees research at Eastwoodhill Arboretum is twofold. The first is obviously the sheer volume of data that has been gathered, catalogued and analysed. The second lies in the human aspects surrounding this research effort. Never before have I had the privilege of being part of conferences that brought together so many people from such diverse backgrounds under a common theme as was found in the two Eastwoodhill Trees for Bees conferences. Information has been freely shared and new and lasting contacts made in an atmosphere that I described in my President's report as 'Magic at Eastwoodhill' (Foster, 2013). Support within the Gisborne region and elsewhere has enabled this research to continue with a second successful bid to MPI's SFF for funding backed by significant co-funding as a result of contacts made. Five demonstration farms have been started in the Gisborne area, bringing Trees for Bees from the research data into a practical reality that has helped to implement the results. A far wider group of people are now aware of the need to nutritionally support bees.

Colour abounds at Eastwoodhill for most seasons of the year. In a figurative sense, during the time that the Trees for Bees programme has been at Eastwoodhill, it has cast a warm, rich hue over the people who have been involved and continue to be involved with this important research.

References

Foster, B. (2013, June). Magic at Eastwoodhill. *The New Zealand BeeKeeper, 21*(5), 4–6.

Captions for the Conference and field day photos (p. 17)

Top row, left to right:

Dr Linda Newstrom-Lloyd (Landcare Research) being interviewed by Mark Peters of The Gisborne Herald *on the first day of the conference. You can access his article at www.gisborneherald.co.nz/article/?id=36970*

Conference participants outside the library at Eastwoodhill Arboretum just before the conference began. NBA Past President and Poverty Bay Branch member Barry Foster commented, "The conference generated plenty of dialogue between the 71 people who attended. The informal atmosphere and sharing of knowledge contributed greatly to the enjoyment of the whole conference".

Second row, left to right:

Poverty Bay Branch President Paul Badger (foreground), NBA President Ricki Leahy (front right) and Apimondia Oceania Commission President Maureen Maxwell (in black at left) were among those who attended the field trip to Gisborne farmer Peter Hair's trial plantings of Trees for Bees at his property at Lake Repongaere. Peter's property is the site of the first demonstration farm that has ongoing monitoring of hive weights with the Hivemind system. Read more about this project on page 15 of the June 2014 journal.

Dr Linda Newstrom-Lloyd makes a point at the panel discussion in the Puketoro Station woolshed.

The long thin photo shows the view overlooking Waitahaia Station, inland from Tokomaru Bay. Plans are for a range of bee-friendly trees to be planted for multiple purposes including honey production.

Third row, at left:

The two buses that climbed the steep and difficult Mata Road, Tokomaru Bay, to the field day sites.

Bottom row, left to right:

Field trip participants visiting Owetea Station north of Gisborne, owned by The Ingleby Company Ltd. Ingleby New Zealand has retired this land and planted manuka and bee-friendly trees here for erosion control and bee forage. Puketoro Station manager Mike Bramwell (pointing) spoke about the erosion control plantings at Owetea Station. Long-term sustainable practices are part of the Ingleby philosophy; hence this gully is being restored by using a mix of native and exotic species, rather than a short-term fix using pine trees.

Looking west over Waitahaia Station, north of Gisborne and inland from Tokomaru Bay. Ingleby New Zealand proposes to retire some of this land from grazing and plant manuka for honey production, as well to control erosion in the gully. The man in the cap is Trevor Jones from Plant & Food Research. Trevor is doing work on cultivars of poplars and willows that are more drought tolerant. Dr Linda Newstrom-Lloyd will be working with Trevor Jones and Ian McIvor in the willow collection in Palmerston North over the next few months.

All photos were taken by Barry Foster.
Thanks to Barry for these photos and explanations.

Ceracell Beekeeping Supplies Ltd

Manufacturers and Suppliers of Quality Beekeeping Goods. For All Your Beekeeping Needs.
Please contact us for competitive pricing! Just some of the items we supply:

Apiguard ®

- Up to 93% efficiency rate
- Works best in warmer temperatures
- Thymol based treatment. Thymol is a natural constituent found in thyme and some honeys such as thyme.
- Withdrawal period for honey: 0 days
- Easy to use foil trays, sold in carton of 10 x 50g trays. 2 trays per treatment per hive. Also available in 3kg tubs, & 25g sachets
- Registered in over 36 countries worldwide including such countries as Germany, France, Italy, Switzerland, UK and USA.

Looking for a TOTALLY ALTERNATIVE treatment in the warmer months then try APIGUARD ®

Registered as an input for Organic Honey Production with AsureQuality New Zealand

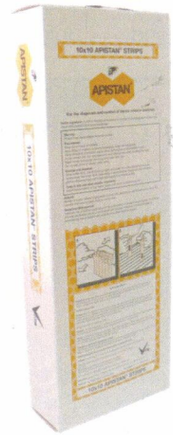
Apiguard 25g Sachets

- Easy to use
- Better control over dosage
- Ideal for both commercial and
- hobbyist beekeepers

Only $2.00 + gst each

Apistan ®

- Still a viable treatment option where there is no resistance
- Eliminates up to 100% of all mites in a hive
- Strips can be used in a hive for up to 8 weeks
- Will not give sub-lethal dose during 8 week period—controlled release combined with therapeutic dosage, used correctly will not promote resistance in mites.
- Proven efficiency from beginning to end of treatment period
- Apistan is that effective that it will resurrect hives that are collapsing from parasitic mite syndrome
- Economic to use only two strips per brood nest required
- Long shelf life, For current stock expiry date please enquire
- Apistan is not affected by removal from its packaging and can be repacked for use if necessary.
- Packed 10 to sealed foil pouch, 10 pouches per carton=100 strips



The most effective Varroa Treatment
The most reliable Varroa Treatment

The standard against which other treatments are measured
Registered bee medication in over 50 countries worldwide

Resistance to Synthetic Pyrethroids has now been scientifically confirmed in a yard of beehives in Northland. This may not be an isolated instance. Please ALTERNATE your treatments!

AFB Diagnostic Test Kit

The Vita American foulbrood (AFB) Diagnostic Test Kit enables beekeepers and bee inspectors to test for AFB in honeybee larvae and to obtain the results immediately and easily in the apiary.

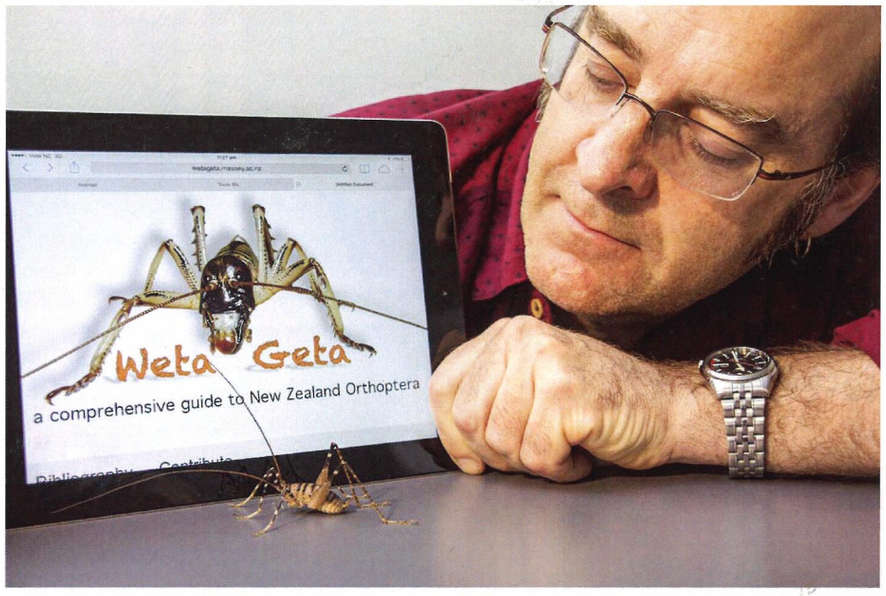
For more information on these products go to the Vita Europe website
www.vita-europe.com

Ceracell Beekeeping Supplies Ltd | PH 09 274 7236 | FAX 09 274 0368 | info@ceracell.co.nz | www.ceracell.co.nz
24 Andromeda Crescent, East Tamaki, Auckland | PO Box 204184, Highbrook, Manukau 21631, Auckland.
Open Monday—Friday 9am to 5pm. Saturdays 10am to 2pm (from September to March only unless otherwise stated) Please contact us prior to collection
Prices Exclude GST and Freight. Subject To Change Without Prior Notice. Goods subject to availability.

Wētā website seeks specimens

Media release from Massey University, 8 May 2014

Massey University entomologists are calling on those brave enough to capture specimens and photos of New Zealand's creepiest of crawlies—the wētā.



Massey University Associate Professor in Evolutionary Ecology Steve Trewick with a cave weta from the living display at Palmerston North's Te Manawa museum.

Massey's Ecology Group has launched the "Wētā Geta" website filled with photos and information on how to identify New Zealand's orthoptera such as grasshoppers, crickets and especially wētā. They are inviting members of the public to send in photos of wētā to help Massey researchers classify new and existing species and catalogue their whereabouts.

Associate Professor in Evolutionary Ecology Steve Trewick says the team is primarily looking for photos of peculiar looking wētā. "In the past we've had people send in some pretty grizzly *[grisly]* packages, so we're advising people to send us a photo first and kill the insect by putting it in a jar and freezing it. We'll look at the photo and send out the appropriate packaging for the insect to be posted to us."

Associate Professor in Evolutionary Ecology Steve Trewick with a cave weta.

New Zealand is home to 70 known species of wētā, but Dr Trewick says we know very little about them. "One of the unfortunate features of wētā conservation is the lack of basic information on their distribution, abundance and ecology. New species of wētā are still being discovered regularly but most people are either repulsed by them or they're so interested they don't want to kill them."

There are five broad types of wētā: the tree, ground, giant and tusked wētā belong to one family. The cave wētā belong to a separate family with lots of native species but poor information. All wētā are nocturnal and live in a variety of habitats including grassland, shrub, forests, caves and urban gardens. Dr Trewick says the main focus are the cave wētā, many of which are small and rarely seen.

The website was funded by the Department of Conservation's Terrestrial and Freshwater Biodiversity Information Systems Programme which supports the conservation of New Zealand's indigenous biodiversity by increasing awareness of an access to fundamental data and information.

You can view the website at: wetageta.massey.ac.nz

BAM returns

The hugely successful Bee Aware Month (BAM) will this year be held in September. Initial planning is already under way and we are looking forward to another high profile, nationwide event that earns revenue for the NBA and promotes bees and beekeeping in New Zealand.

Last year's event generated thousands and thousands of dollars of publicity and advertising, all of which promoted the NBA. We have already started to receive calls from the media about BAM 2014.

If you'd like to be involved in some way please email secretary@nba.org.nz. And don't forget to keep an eye on our Bee Aware Month Facebook page.

New three-in-one manuka test

Media release from Hill Laboratories

New Zealand's honey industry can now test manuka honey faster and more cost effectively than ever before thanks to a new three-in-one test introduced by the country's leading analytical testing laboratory, Hill Laboratories.

The test, dubbed the Manuka Suite, is available to producers and sellers of manuka honey across the country this month and uses new technology and methodology to test the bioactive components in manuka honey.

Manuka honey is produced in New Zealand by bees that pollinate the native manuka bush and sells for a high premium worldwide. To sell the product for a price indicative of the manuka level, producers and sellers of honey need to undertake manuka honey tests.

Hill Laboratories Food and Bioanalytical client services manager, Jill Rumney, said the new technology and methodology used in the Manuka Suite allows the organisation to group together three of their most popular manuka honey tests.

"Our new Manuka Suite test combines the three vital compounds required for active manuka honey tests; dihydroxyacetone (DHA), methylglyxol [methylglyoxal] (MGO) and hydroxymethylfurfural (HMF), into one ground-breaking test," Jill said.

"DHA and MGO testing work in partnership to indicate the level of activity present in manuka honey and HMF testing assesses whether the honey has been heated or cooled. Previously these tests were undertaken separately.

"The newly introduced technology and methodology allow us to run our honey testing at a lower cost than before and so we are able to pass these savings on to the customer in the form of lower prices. It also allows us to turn around results quicker than ever before," she said.

The technology instrument used is Ultra Performance Liquid Chromatography (UPLC). This singular piece of technology prepares the honey sample, turns it into liquid form and undertakes the DHA, MGO and HMF testing.

"As an indicator of the improved speed at which we can now take these tests, we used to be able to test one sample every half hour using three instruments, whereas with the UPLC, used in the Manuka Suite, we can now test a sample in seven minutes using only one instrument," Jill said.

Hill Laboratories team leader Ashleigh Jacques with the new Ultra Performance Liquid Chromatography instrument (UPLC).

Jill said Hill Laboratories developed and introduced the Manuka Suite to meet the needs of its existing clients in the honey industry.

"Hill Laboratories is the biggest and best honey testing lab in New Zealand. We have a vast number of honey clients and it's of utmost importance to us to produce competitively priced tests for our clients without compromising on quality.

"The Manuka Suite is a response to the needs of existing and prospective honey clients, and we're excited to have this offer go-live across the country," Jill said.

Well-known worldwide for its superior taste and medicinal purposes, manuka honey sells for 10 to 20 times higher than other types of honey and is estimated to earn New Zealand up to $120 million a year in export dollars (Wynn, Milne & Leake, 2013).

Hill Laboratories is a 100 per cent privately owned New Zealand analytical testing laboratory and has three major testing areas: Agriculture, Environmental and Food. The organisation has undertaken honey testing since 2006 and offers a complete range of tests for the apiculture industry beyond just honey.

With its main site in Hamilton, Hill Laboratories currently has four sites in the North Island, two in the South Island, and an office in Japan.

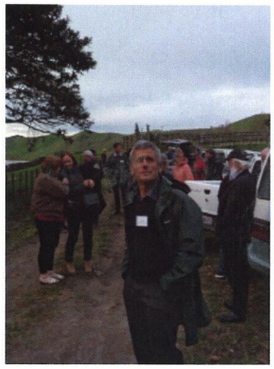
Sources

Hill Laboratories. New Zealand honey industry to benefit from new three-in-one manuka test. Media release, 27 May 2014.

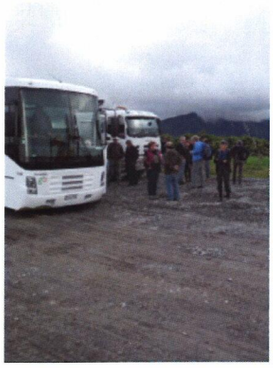
Wynn, K., Milne, J., & Leake, J. (2013, August 25). The land of bad milk and fake honey. Retrieved from http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11113964

TREES FOR BEES

Photo captions are on page 13



Conference and field day, Eastwoodhill Arboretum, 9–10 May 2014.



Ceracell Beekeeping Supplies Ltd

Manufacturers and Suppliers of Quality Beekeeping Goods. For All Your Beekeeping Needs
Please contact us for competitive pricing! Just some of the items we supply:

New Stock Just Arrived

Children's Bee Suit
$69.00 + gst

Green Rigid Hat
$15.50 + gst

Suitable for melting Crystallised honey in tanks

Immersion Honey Melter
$940.00 + gst

Hobby Uncapping Tray
$50.00 + gst

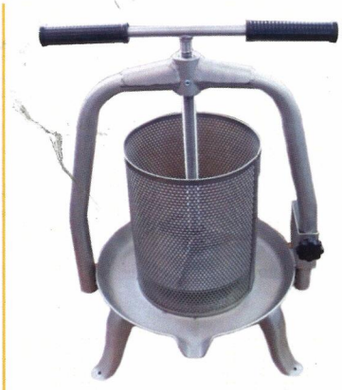
Super Uncapping Tray
Stainless Steel
$225.00 + gst

Aluminium Uncapping Scratcher
$15.00 + gst

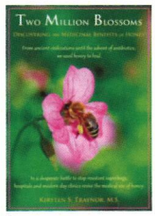
Green is the queen marking colour for 2014

Marking Paint
$8.50 + gst

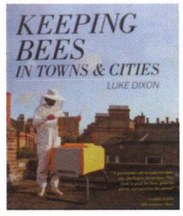
Queen Marking Cage
$5.80 + gst



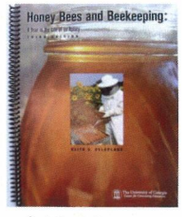
Stainless Steel Honey Press
$580.00 + gst



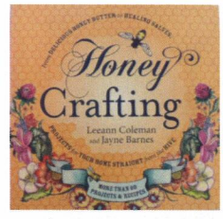
$43.00 + gst



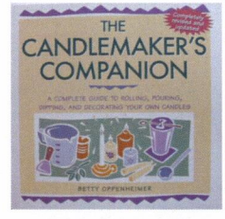
$43.00 + gst



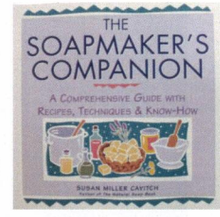
$48.00+ gst



$40.00 + gst



$46.00 + gst



$46.00 + gst

...more books available at www.ceracell.co.nz

Ceracell Beekeeping Supplies Ltd | PH 09 274 7236 | FAX 09 274 0368 | info@ceracell.co.nz | www.ceracell.co.nz

24 Andromeda Crescent, East Tamaki, Auckland | PO Box 204184, Highbrook, Manukau 21631, Auckland.

Open Monday—Friday 9am to 5pm. Saturdays 10am to 2pm (from September to March only unless otherwise stated) Please contact us prior to collection

Prices Exclude GST and Freight. Subject To Change Without Prior Notice. Goods subject to availability.

NSWAA 2014 Conference report

By Frank Lindsay, NBA Life Member

I attended the New South Wales Apiarists' Association (NSWAA) annual conference. This year it was held in Narrabri, situated inland in northern NSW, from 8–9 May.

The best thing about Australia at that time of the year (May) is that it's nice and warm.

Narrabri is at the end of a volcanic plain, a flat region that grows mile upon mile of cotton, wheat and sorghum. It's also cattle country, with some sheep and the odd emu. The farms are huge. The area gets good rain (600 millimetres per year) and has artesian water resources underground so farmers can irrigate when required.

About 10 km out from Narrabri.

Located at the edge of the cotton fields were huge round bales arranged in lines (six could fit on a long truck tray). Each bale weighs several tonnes, of which 300 kilograms is made up of seed. Because the cotton has been sprayed, the seed won't germinate so is used for cattle fodder. When we visited, it had been raining and large trucks were unable to enter the fields without getting bogged, so the bales just had to stay there until things dried out. I was told that when planting, tractors work 24 hours a day (three shifts) for a month.

Plant Health Australia

We went to the conference mostly to see how Australia's form of Government Industry Agreement (GIA) is going and to hear about progress on their research topics. The beekeeping industry was originally assigned to the animal sector and wasn't getting support, so a couple of years ago beekeepers affiliated with the plant sector under Plant Health Australia.

Cotton fields in Narrabri, NSW.

Plant Health Australia has 40 horticultural industries signed up and supporting them. Beekeeping is more related to this sector through pollination and since the change, things are now really moving on the surveillance front with the development of electronic surveillance bait hives.

A commodity levy is collected to support surveillance, residue testing and the administration of their peak industry body. Government also contributes 50 percent but the way the money is spent is directed by the industry paying the levy, not the government.

Plant Health Australia is putting money into surveillance research as well as investing money in a fund to react to an incursion. Varroa is the most likely incursion but with continued early finds, hopefully it will be destroyed before it can become established. The Asian honey bee incursion was directed under the old administration, with some States not supporting Queensland with eradication funding, so has been a bit of a disaster as far as the bee industry is concerned.

Plant Health Australia wants to see more money spent on biosecurity, so beekeepers were being balloted for a 4.5 cents per kilogram increase in the honey levy. With the increased funds, Plant Health Australia would establish a bee biosecurity officer in each State, as well as increasing the number of electronic detection bait hives in ports. Not many of the really large-scale beekeepers were at the conference to support the ballot and if it fails, the State Governments would pull their support from the industry.

One of their problems was that the Federal Government legislated that a Government agency collect levies and they charge a $300 collection fee for each levy, meaning that the industry loses substantially on levies from small beekeepers. To break even, the levy minimum would need to be set at 2.5 tonnes of honey produced. Beekeepers want the sales level increased from 600 kilograms to to 1500 kilograms and the honey levy increased from 2.3 to 4.6 cents per kilogram of honey sales, but this is dependent upon the outcome of the ballot. Even at 1500 kilograms, the industry would still be losing money on the collection costs from smaller beekeepers. There's something to be said for our NPMP levy recovery system.

One of their research projects reported on was on 'prebiotic' honey. The University of Sydney has been studying Australian honeys and found that most are a good prebiotic. Some of the more complex sugars go right through to the digestive system into the colon, where they promote the production of good bacteria while suppressing bad bacteria. All that is needed is a teaspoon of honey per day. It doesn't matter how the honey is administered: taken in tea or coffee as a sweetener, in ice cream, yoghurt, on a sandwich or just off a teaspoon. This is a cost-effective alternative to all the products advertised on television.

A couple of the younger beekeepers had visited North America during the year and presented photographs of what they saw. One of the biggest producers has four Cook & Beals wax separators in a line and one person dedicated to removing the wax.

Challenges facing NSW beekeepers

The NSW beekeeping industry is facing similar challenges to us. A lot of beekeepers do not belong to the NSWAA and branches ➔

are folding through lack of interest, yet hobby beekeeper numbers are increasing. Commercial beekeepers need to change their 'them and us' attitude and welcome all beekeepers to their meetings, and hold more field days where everybody's issues are discussed.

The Executive and secretary of NSWAA were overloaded, dealing with issues that seemed to rise every couple of days but were failing to meet members' expectations on the big-picture items. They didn't have a committee structure to do the most of the work for them, only the executive secretary.

The day before the conference started, the NSWAA Executive brought together branch presidents, secretaries and Department of Primary Industries (DPI) officers to discuss issues and plan for the future. Greg Mills of GoAhead Business Solutions and his wife Carmel facilitated this planning day. They had gone through early industry reports, identifying issues and putting each one on A5 pieces of paper on the wall. Each member prioritised these issues by placing coloured dots on what they individually thought was important. The issues with the most dots were each taken by a group to work through and produce a couple of action points.

One proposal to come out of this exercise was to list the expertise of members, be it in the IT field, research, report writing, etc. Like-minded people could then be formed into committees, each overseen by an executive member, which would release the executive from day-to-day issues so they could concentrate on governance issues. (The NBA already has such a committee structure.)

Elections were also an issue. Most beekeepers on the NSWAA Executive devote huge amounts of time away from their business and some simply couldn't afford it. This year, for the first time a hobbyist was elected to the Executive. Her immediate objective was to update the NSWAA's website and get it operating. Communication is mostly by phone and fax, as only five percent of beekeepers have email: something to do with living distant from populated areas and the high cost of satellite services.

Other issues in Australia

The issue of honey imports was raised during conference. A product had been coming into the country from Turkey with a map of Australia and the word 'honey' across the label. It had been tested and turned out to be coloured corn syrup. The Turkish Government didn't see it as a food safety problem and weren't being very helpful. Beekeepers were fighting through a parliamentary commission to have it removed from the shelves. Apparently there are now three products currently being sold as honey that aren't. I trust that our MPI would be more amenable to resolving this sort of problem if our borders are ever opened to honey imports.

> "Some species only flower once every three to five years, and even up to once every eight years depending upon rainfall."

We caught up with a few beekeeping friends and discussed their problems. The drought has been a big worry for inland beekeepers: hives haven't produced since October and the bees and beekeepers were feeling it. Some colonies had been reduced to a handful of bees. Generally under these conditions, hives are combined to save feeding costs and are ramped up again when things come right.

An alternative was to ask to borrow another beekeeper's site and move the hives to where they could at least maintain themselves. Beekeepers over there are generous in that way, as they may need the same favour sometime in the future when their area goes dry.

One of the big issues in NSW is AFB. We know one beekeeper who can't bring his hives home for fear that some will come down with AFB shortly afterwards. Some are not facing up to the issue (perhaps thinking it's EFB) and have been dosing with oxytetracycline (OTC) but the problem persists. NSW has tried to get a national AFB programme going. NSWAA executives have brought this issue to the national peak body a number of times over the years but the States can't agree on a single approach so the proposals have lapsed, leaving an ever-increasing problem unresolved.

Field trip

On Saturday 10 May, 15 vehicles set off for a look-see and barbecue at the salt caves in the Pilliga State Forest, travelling over dirt forestry roads. The region has a very interesting history. Originally the area was open forest and after the 1830s, sheep farms were established, with wells dug every mile to provide access to water. The main trees are ironbark and cypress-pine, with red gums around the rivers.

With the introduction of water sources, cattle then became more abundant. Farmers had no need to control the dingo population and as a consequence, the dingoes wiped out a little native rodent, which ate off the new growth as it sprung out of the ground. When these rodents were eliminated, the scrub grew so quickly and thickly that farmers couldn't keep the land clear and walked off.

Tree growth happens when the area floods. Flooding occurred infrequently but when it does, floodwaters could be a metre or more deep covering the whole plain, going right through the towns.

Although a little dusty, the forest roads were in excellent condition. During the summer, the dust can be a foot deep in places, which makes driving a truck quite tricky as you can't see the holes in the road surface. Getting stuck can be a problem, especially if you have open beehives on board.

Our first stop was a cleared area where a coal gas bore had been drilled to assess the potential flow. There is a vast coal seam under the region that is estimated to provide 50 years of gas for NSW. There is considerable opposition to coal gas mining, mostly due to fracking. Farmers don't want the artesian aquifer damaged, as the region is dependent on the water for agriculture.

The General Manager of Santos Ltd (a large oil and gas exploration company based in

Top: The road out of Pilliga State Forest. Bottom Left: During the field day, the group visited an area being rehabilitated after a gas well had finished being tested. Bottom right: View from the tower looking down at the picnic area.

Australia) told the conference that fracking is no long needed as they had developed an alternative technique. They now drill a hole one kilometre away from the borehole (sealing the aquifer as they go) and when the coal reef is reached, drill horizontally through to the borehole. They drill hundreds of feet underground to strike a four-inch hole a kilometre away: marvellous technology. The drill hole we visited had been sealed, and the 100 metres of cleared forest had been covered in compost and was being watered to encourage new growth to re-establish the forest.

We then stopped at a couple of apiary sites used by beekeepers and looked at the vegetation available. Apiaries are one mile apart and have to be paid for even if not used. Some species only flower once every three to five years, and even up to once every eight years depending upon rainfall.

Inside the mouth of the salt cave. You can only go a few metres inside now, as it collapsed some time ago. All photos by Frank Lindsay.

Buds can hang on a tree for 18 months and if there isn't sufficient rain, they will drop before opening. Apparently now there is a steady supply of pollen and nectar from June onwards to allow the hives to be left on site for six months if required.

Following our look around, we moved off to the salt caves for lunch, climbed up a lookout tower and then drove for 21 kilometres along another dusty road with the odd rutting and dips where water crossed in the wet, back to the main road to Narrabri.

Down on the coast they'd had more rain, and conditions were much better. A friend and I took a quick look in a few hundred hives to judge their condition and to ascertain whether they had enough honey to warrant extracting. Ironbark was just finishing in the forest lands and what the beekeepers call tea tree (melaleuca—a paper bark with a flower similar to bottle brush, except it's white) and banksia were just starting closer to the coast. Beekeepers can get a steady supply of honey in the winter but hives are not pushed because if they come down with nosema, the hives can take six months or more to recover.

Small hive beetle (SHB) seems to be less of a problem than previous years but all hives now had APITHOR™ traps in them. These work well until the bees propolise the entrance. Beekeepers run a hive tool through the entrance slit every now and then to keep them open and working. Generally if they see beetles, they will cut away the propolis blocking the trap.

Nearly all beekeepers run single-super brood nests in either eight or 10 frame supers, but there are still a few 12-frame supers in use. These are generally divided in half and used to run two queen units or are divided for nucs. A number of beekeepers are now hanging beetle traps on the wall inside of the brood super (there are nine frames in these supers). It is easier to maintain them when hung this way, as most have their bottom boards permanently secured to the bottom of the brood super. This also stops them getting wet if the bottom board fills up with water. When it rains over there, it really rains. Hives mostly have small entrances all year round and are on stands away from cane toads, etc. Ants quickly develop nests between hives if they are left pushed together. We don't see these sorts of conditions in New Zealand.

After a quick stop to purchase a couple of clamps from the EZYLoader factory, we started heading towards Brisbane.

So that was our short break. As the pilot said after leaving Brisbane in 25-degree heat, "welcome to a balmy Wellington, it's 12 degrees".

Postscript

While in Australia, it was suggested to me that New Zealand and Australia should get together every three years to hold a joint scientific conference, with venues alternating between countries. Australia already has a day each year where all those doing Rural Industries Research and Development Corporation (RIRDC) research projects report back to beekeepers. And we generally put on good seminars, so why not share a larger event?

Universities on both sides of the Tasman are greatly involved in bee research, and last year our scientists also suggested a joint conference. Yes, there will be additional cost (perhaps an extra $800 per person for the flights) but in the scheme of things, this isn't that much.

What we would also have to look at is supporting Ph.D. students' travel so they have an opportunity to speak at these events. Perhaps we should set up a committee to look into this suggestion.

BAYVAROL®

NZ's No 1 VARROA TREATMENT

Why?

- it's highly effective (up to over 99% efficacy)
- it's the easiest to use (rigid strips - no curling)
- it's very safe to use (very important - especially for staff)
- it has twice the contact area (4 strips per brood chamber)
- very kind to beeswax, propolis & comb honey
- very gentle on queen bees & nucs
- it can be used during the honey flow if required
- strips have a 5 year expiry date from date of manufacture

Resistance?

We are still selling well over one million strips per year with over 99% of all customers totally happy with efficacy, however it's now more important than ever before to ensure that you use the correct dosage – being 4 strips per full depth single brood chamber - and to test their effectiveness after the treatment has been completed. Further, to our knowledge, not one hive has ever been lost due to Bayvarol resistance – which is a better record than any other treatment, with or without resistance!!!

We'd strongly recommend that you use Bayvarol® as one of your treatments & MAQS® or Thymovar as the other.

Bayvarol® is New Zealand's most popular Varroa treatment, for **very** good reason.

Current prices as at 1st April 2014

Packets - 20 strips per packet	20+ $ 2.09 + GST per strip
Order in multiples of 20 strips	100+ $ 1.96 + GST per strip
(Packed: 5 x foils of 4 per packet)	**720+ $ 1.64** + GST per strip
Bulk - 800 strips per carton	800+ $ 1.59 + GST per strip
Order in multiples of 800 strips	**9,600+ $ 1.54** + GST per strip
(Packed: 200 x foils of 4 per bulk carton)	

For orders of up to 80 strips please add $7 incl. GST for freight.
Orders of 100 strips or more are despatched freight free to anywhere in New Zealand.
Payment is required prior to despatch by Visa,
M/Card, Cheque or Electronic Banking.

For orders, please email: ecroyd@beehealthy.co.nz

Bayvarol ® - Registered trademark of Bayer AG Germany - Approved under the Animal Products (Ancillary and Transitional Provisions) Act 1999

Ecroyd Beekeeping Supplies Ltd

Since 1913

Phone: (03) 358 7498 • Fax: (03) 358 8789 • Email: ecroyd@beehealthy.co.nz

P.O. Box 5056 Papanui, Christchurch, New Zealand • 6 Sheffield Crescent, Burnside, Christchurch

www.ecroyd.com

Waikato Branch

We've had a couple of beauty frosts, just about hard enough to kill the wasps but not quite: we need one more frost! The days have started cold but warmed up into beautiful, sunny autumnal days (17–19°C: just gorgeous), then cold at night.

However, the bees don't seem to want to snuggle down yet. They are out buzzing around collecting pollen (the gorse is flowering) and they seem pretty happy. Hopefully they will settle down soon: as I write, Fieldays is nearly here—need to check out all those trucks and sugar tank engines (the engine pumps the sugar syrup out of the sugar tank on the truck).

Then of course there is the conference and, most importantly, that holiday! Oh, and making boxes, cleaning sheds, waxing frames, preparing for that RMP—you know the drill!

- Barbara Cahalane

Bay of Plenty Branch

AFB course

Ross Carroll will be again running an AFB and disease recognition course. We're aiming for Saturday 30 August, to be held at the Te Puna Memorial Hall. This year, applications will go straight to Mary-Ann Lindsay. Register your interest by emailing lindsays.apiaries@clear.net.nz

Regional roundup

I haven't commented for a while, so I'll give you a brief roundup for the season from both my perspective and that of some local beekeepers. Like most other areas, we came out of last winter with strong colonies and enjoyed a mild spring. It was an easy year to make increases in hive numbers: often as easy as putting out a bait hive and capturing one of the many swarms that were flying past at the time.

I believe I have commented before that kiwifruit flowering was a good week to 10 days earlier than average. Fortunately, hives had also grown stronger quickly to correspond with this. Pollination season was a mixed bag. Psa orchard hygiene is apparently no longer an issue for most; crop spray applicators too often pay little attention to the requirements to prevent spray poisoning of bees, resulting in stressed hives, generally lower hive strengths and increased queen losses coming out of pollination.

My guess is that in favourable weather conditions such as this year, not only do the bees do well, but so does the varroa mite, with mite counts increasing faster than previous years during the summer. Juggling honey crops and mite treatments was a challenge at times.

During the spring and early summer, nectar flowed with good crops being reported (for example, rewarewa). But by Christmas it had mostly stopped, with only start-stop flows from then on, as night-time temperatures (January in particular) were well down and limited nectar flows. No one likes to tell all and there are stories of very low honey crops in some areas, but in general, I suggest that the overall crop was below average or average for most beekeepers.

Lots of new apiary sites are popping up all around the region, which is already highly populated with bees. Demand for resources is increasing for summer and winter sites. There have been a few reports in the area of hives being tampered with or stolen. Silson Apiaries had two valuable queen rearing hives taken from an Apata site in May. Anyone with information on stolen hives is asked to contact their local police station, or provide information anonymously through Crimestoppers on 0800 555 111.

We have had a few light frosts in late May and June, but it's been warm enough for bees to fly on many days. Still, there will be time for a few more beekeeper sleep-ins before it all starts again ;-)

- Greg Wagstaff

Hawke's Bay Branch

May was warm and dry and autumn grass growth has been quite spectacular. Hives generally winter better when it is cold, so it will be interesting to see what they are like in the spring. Jonquils are already in flower and some plums are flowering out of season. What we really need is a good long cold snap to provide some winter chilling.

Wasp numbers have dropped off and are no longer a problem in most areas, although there are the odd isolated apiaries still suffering from this problem.

- John Berry, Branch President

Nelson Branch

Winter is well and truly here. Indications are that autumn was average, after a below-par summer. Most hives appear well stocked, and with strips out and young bees to overwinter, there are no major worries.

The local Tasman/Nelson Beekeeping Club has recently voted to join the NBA. This is great news and partly due to a couple of excellent field days, one in October 2013 and one in March 2014 which were organised and run by the Nelson Branch. Thanks to Cath and Gareth Ayers and Ricki Leahy for hosting them.

The Nelson Branch held its AGM in April. Murray and Nicky Elwood were reappointed as Branch President and Secretary, respectively. Nahum Kelly resigned from the Treasurer and Scribe roles, with Hans Claus elected as Treasurer and me being elected as Scribe. Ricki Leahy will continue as vice president and representative for the Upper South Island Ward.

That's all of the key news; time now to check what beekeeping equipment needs to be repaired or replaced and what new things the funds will allow me to buy!

- Jason Smith

Otago Branch

The Otago Field Day will be held on Sunday, 19 October at Lawrence.

The programme and speakers will be decided in the near future.

- Tudor Caradoc-Davies, Branch Secretary

Inspection time

By Frank Lindsay, NBA Life Member

This month I was going to write a little more on extracting plants but I've run out of time. Something to do with helping to run conference this year, taking a trip across the Tasman and too much television.

We're now a month into winter and things are relatively mild, if you call 12 degrees mild. Yes, we have had a few weeks of rain and the ground is sodden but looking around, it's quite noticeable that some of the spring sources are already flowering: magnolia, kowhai, Hawaiian pohutukawa, plus the odd daffodil. Is it due to the hole in the ozone layer or just the mild winter? Perhaps a cold spell will put things back to normal.

The usual winter sources are in flower: tree lucerne, Spanish heath and gorse are providing excellent pollen and nectar. Black wattle is a lesser source but the bees are working it.

In the garden, my bees are flying for an hour or two during the middle of the day, bringing in pollen and a little nectar. Generally the bees would have reduced their brood rearing down to just the size of your hand in a single frame, but some hives have far more than this.

They should be clustered up preserving their energy but if you knock on the hive, the bees are out within seconds to investigate the intrusion. Usually on a cool, fine morning there is just a bit of a buzz and it takes quite a while for one or two bees to come to the entrance to investigate.

Robbing

Continued brood rearing means that honey reserves are being used, perhaps a lot earlier than usual. This also means that the odd varroa mite left in your hive is breeding or even worse, your bees could have relocated and are robbing a nearby hive that has gone queenless or has been overcome with varroa mites.

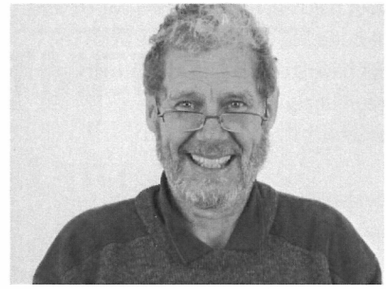
If you have more than a couple of hives, you can easily tell when one is out robbing. Generally only a few bees will be flying during the middle of the day, perhaps collecting pollen or water. At times when it's really warm, you will see 'new' bees circling out from the hive entrance, memorising its location and the surrounding landmarks. You wouldn't have seen any of this activity last month: wasps were still plaguing hives so the bees were in defence mode. Now that it has got colder and wetter, most of the wasp nests would have died, so the bees are more relaxed around the entrance.

"If you have more than a couple of hives, you can easily tell when one is out robbing."

If the bees are busy, flying in good numbers and going straight in and out of the hive much later than you would expect, they are probably robbing a hive. The first and second winters after varroa arrived, most hives produced a 'winter' honey flow. Managed hives were robbing dying feral hives.

It's quite natural for bees to take advantage of a free nectar source, but there are dangers. The bees could be bringing back mites or worse still, AFB spores. Generally AFB shouldn't be a problem if all the beekeepers around you checked their hives a month after robbing season. It's pretty unlikely to get AFB during the winter, but it is possible.

More likely, robbing is due to varroa mites. I noticed when I first got varroa that my hives started collapsing in July due to my bees bringing back varroa mites from collapsing feral hives. It took only a month after I saw them robbing for the hives to collapse. Keep



this in mind when you check your hives this month.

Inspecting and feeding hives

Have a look around the entrance. If you see lots of bees dead in front of the hive with pollen on their hind legs, it means that the bees are coming in cold and if landing short, they can't climb back into the hive. This happens especially if the hive is in the shade.

Extend the landing board by placing a piece of wood sloping from the entrance to the ground on a 45-degree angle. With this in place, any bee landing short has an opportunity to crawl up and into the hive. Clear away any long grass around the hive so there is airflow around and under the hive. Look at the dead bees outside the hive. Do they look old, with worn wings? That's the natural die-off of the field bees that happens during early winter.

Heft the hive. While standing close to the side of the hive, place your hand in the top handhold and lift the back of the hive upwards. A two-high hive should still be so heavy that you should hardly be able to get it off its stand. If it's fairly light, the hive may need feeding, so investigate.

Gently remove the roof, prise up the inner cover (split board/mat) and look down the frames for capped honey frames. If you have to see further, remove an outside frame gently and look again. Usually I will get a good indication that the bees are light on stores if the cluster is already into the top super.

At the same time, look also for moisture in the centre of the crown board immediately above the cluster. A dripping mat and wet top bars indicate too little top ventilation. Bees naturally give off water vapour, storing their solid waste in their bodies. They will

vent only during a warm day. Watch out for your neighbours' washing. Advise them not to put it out until the bees have flown after a spell of bad weather.

If the hive needs feeding, there are several ways to do this. Honey frames are the easiest but can be a source of disease. Sugar syrup is easy but will chill in the evening. Trough feeders on the outside of the hive tend to cool quickly, making it more difficult for the bees to remove. If the bees have to leave the cluster to get to the feeder when it's cold, they can become chilled. Feeding is best done using an upturned tin, glass jar or plastic container with holes in the lid; the vacuum holds in the liquid. An alternative would be to use a large snaplock bag. Fill with a ratio of two parts sugar to one part water (i.e., thick sugar syrup), place the bag on the top bars and puncture three or four holes in the top surface of the bag. Press down to form a puddle of syrup in the middle of the bag. Dribble a little over the sides so the bees find the syrup.

If you are feeding syrup, moisture can be a problem. Increase the top ventilation by putting a small twig (a couple of millimetres thick) in each corner of the top super, just under the hive mat.

Another alternative method of feeding is to soak a bag of white sugar overnight and put this in the hive above the top bars. Put on an empty super to protect the bag and shelter the bees. The bees will come up and chew the bag, thus getting at the sugar. This is just an emergency measure as the bees will take only what they need, but it will at least keep them alive.

If you have mesh floorboards, it's relatively easy to put in a slide and read the varroa mite fall in three or four days' time. Hives should be dropping only one to two varroa mites a day at the most if your earlier treatments worked well.

Sampling without a mesh bottom board is more difficult. You can't start pulling out frames as this will disturb the cluster, leading to a loss of bees. If disturbed, the colony may break cluster, lose heat and then will use even more stores to re-establish the cluster temperature. Your only option is to put a sticky board on the baseboard. A thin piece of coreflute (an ex-real estate sign) cut away in a 'V' at the entrance and coated with an oil and vaseline mix (50–50) should hold any mites that fall.

Of course, this advice pertains only to coastal hives. Bees in the mid- to lower South Island and perhaps the middle of the North Island shouldn't be flying at this time.

Nucleus hives should also be checked to see that they still have honey. Again, do a quick check of their weight, but also take into consideration that some nucs will have a frame or two with brood. We have moved some nucs on to tree lucerne and these are flying like mad although located in a completely shaded site.

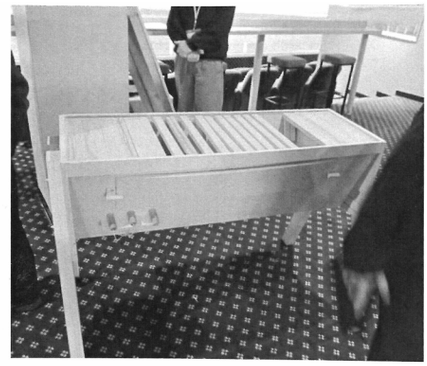
Inspecting top-bar hives

Top-bar hives also need checking. So many die during winter because of the position of the hive entrance. These hives operate on the same principle as the clay pot hives used around the Mediterranean hundreds of years ago. The opposite end to the entrance was plugged with mud, so the bees stored the honey at the back and brood towards the entrance.

Because top-bar hives have an entrance in the middle, the bees store honey at either end, with brood in the middle. During winter, the colony generally moves to the warm end, leaving the other exposed. If it gets really cold, the bees find it difficult to move sideways onto more honey and therefore starve.

The same as with Langstroth hives, it's possible to look into the hive by removing end bars. If the bees are running short of the honey close by, push a full frame up against the cluster. If they need feeding, use the upturned container. Make a gap between the bars so the bees can come up and feed.

Looking into a top-bar hive.



Another view of a top-bar hive. Photos by Frank Lindsay.

Making up gear

For commercial beekeepers, wintertime is also gear-making time. All the work must be completed before spring inspections start, as it's not possible to make up time once real beekeeping work starts in the spring. Boxes can be scraped for propolis and given a little attention. Old, broken frames are discarded and replacements made. Most commercial beekeepers now replace 30 percent of the brood frames each year to keep viruses and bacterial infections under control.

Corners and edges of supers should be sanded down a little to remove rough edges, and the top of the box is chamfered a little to allow the hive tool to slip in between the supers more easily. Finally, give them a coat of paint.

Things to do this month

Sort out old combs and render them down. Purchase new frames. Purchase plastic frames early so the plastic smell has time to reduce. Water blast dark plastic frames and re-wax—a great indoor activity at this time of the year. Make up new gear (bases, roofs, split boards, etc.) ahead of spring.

Check your hives after storms. Make sure cattle haven't knocked any over. Heft each hive to check its weight. Order spring queens.

Winter is also a time to get a little education. Check the FarmSafe website for training opportunities.

Some lucky beekeepers in warmer climates won't be worrying about things to do, as they are taking a holiday.

Bees Abroad project in Kenya

News release from Bees Abroad and BNR Communications, UK

Bees Abroad has secured major funding from the UK Department for International Development (DFID) for a three-year project to alleviate poverty through advancing beekeeping skills and supporting bio-conservation and bio-enterprise in the arid and semi-arid land (ASAL) in the Kenyan district of Laikipia.

The Bee Products Enterprise Development (BPED) aims to raise incomes of 900 pastoral households through beekeeping providing for improved production, value addition, trade and profit sharing. It will also increase opportunities for women and marginalized members of society to engage in sustainable economic activity and increase control of their income.

International Development Minister Lynne Featherstone said: "This project will change the lives of over 5,000 people in Kenya, half of whom live below the poverty line and are dependent on food aid. DFID funding will help Bees Abroad give people the skills and support they need to learn a trade which can increase their independence.

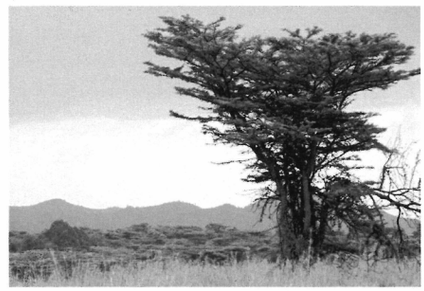
"Beekeeping is a potentially vital source of income for these rural communities. As well as teaching beekeeping skills, the project will provide vital training in business and marketing, to help rural communities run successful enterprises. This is going to help generations of families increase their income and become self-sufficient. I hope Bees Abroad can create a real buzz around this worthwhile project."

The project will be implemented for Bees Abroad by John and Mary Home, assisted by David Evans. John and Mary already act as volunteer project managers for several of the charity's projects in Kenya. As well as helping community groups improve their beekeeping skills, they have been responsible for teaching beekeepers how to make value-added products such as hand creams and wax polish.

Another of their innovations is the 'A-maizing' bee suit which can be made for less than £1 by utilizing waste maize sacks and the sound parts of damaged mosquito nets. This application was made possible with help and encouragement from those in Bees Abroad and much support from family and friends.

Commercial and community-owned bee product enterprises with a sound ethical, environmental and business base create new economic opportunities for pastoralist men and women. This project will increase economic returns from beekeeping and provide economic incentives for the sustainable use of indigenous natural resources. Product branding and market links will help communities to access rewarding local, national and East African regional markets.

Creating livelihood diversification will take pressure off water and grazing available in the wider Laikipia ecosystem, contributing to protection of natural resources, particularly in the water catchment areas. An improved ecosystem will lead to wider livelihood improvements such as reduced tension and conflict between communities, greater resilience to drought and greater gender equity within households.



The mountains are the Lolldaiga range in Laikipia County, which is typical of the semi-arid land in which the project will be based.

The hives are on the Lolldaiga Ranch. The photo shows catcher boxes waiting for the migrating bees during the flowering season.

Bee products are culturally and socially acceptable. Honey and wax are already sold in the targeted areas, but at a low and disorganised level. The project proposes to expand existing knowledge and practices, implementing business-based systems to ensure economic viability.

Introducing low-cost beekeeping equipment, often made from locally sourced materials, enables producers to expand to commercial levels. Community cohesion will be supported by the democratic decision-making and participation in the enterprise, especially under fair trade standards.

Better bee colony management also increases the stability of local food supplies through the bees' pollination activities. Understanding the need to preserve natural resources for honey production promotes care for sustainable natural resources.

The development of the national organic market will increase awareness among consumers and the farming community of environmental issues, helping to make the value of Kenyan natural resources better understood and appreciated.

For more information, visit www.beesabroad.org.uk

Source

Bees Abroad and BHR Communications. Three-year Bees Abroad project in Kenya wins Government funding. Abridged from a news release, 30 December 2013.

NATIONAL BEEKEEPERS' ASSN OF NZ (Inc.) EXECUTIVE COUNCIL

East Coast Ward

Deanna Corbett
420 Massey Street
Hastings 4120
Ph: 06 876 8852 (home: evenings)
Email: djcorbett@xtra.co.nz

Northern Ward

Neil Stuckey
PO Box 303251
North Harbour
Auckland 0751
Ph: 09 415 5931 (w)
Email: neil@whoney.co.nz

Southern North Island Ward

Mary-Ann Lindsay
26 Cunliffe Street
Johnsonville
Wellington 6037
Ph: 04 478 3367
Email: lindsays.apiaries@clear.net.nz

Central South Island Ward

Roger Bray
Braesby Farm, RD 1,
Ashburton 7771
Ph/Fax: 03 308 4964
Email: birdsnbees@xtra.co.nz

Waikato Ward

Stephen Black (Vice President)
Bees-R-Us
685 Uruti Road, RD48
Urenui 4378, Taranaki
Ph: 06 752 6860
Email: bees@beesrus.co.nz

Bay of Plenty Ward

Dennis Crowley
PO Box 16156, Bethlehem
Tauranga 3147
Ph: 07 579 2554
Email: crowleys@slingshot.co.nz

Upper South Island Ward

Ricki Leahy (President)
151 Mangles Valley Road
Murchison
Ph/Fax: 03 523 9354
Email: beechdew@farmside.co.nz

Lower South Island Ward

Russell Berry
2488 State Highway 5, RD 3
Rotorua
Ph: 07 366 6111
Mobile: 021 741 690
Email: russell@arataki-honey-rotorua.co.nz

NBA Branches: First named is President/Chairperson. The second named is Secretary.

NORTHLAND

Interested parties wishing to start this branch up again, please contact Neil Stuckey 09 415 5931 (wk) or neil@whoney.co.nz

AUCKLAND

Graham Cammell
20 Thorps Quarry Road
Clevedon, RD 2 Papakura 2582
Ph: 09 275 6457
Email: graham@cammellshoney.co.nz

Bob Russell
101 Kern Rd
RD 3, Drury 2579
Home Ph: 09 294 8656
Work Mobile: 027 284 8951
Email: bob.russell@xtra.co.nz

WAIKATO

Cameron Martin
Haumea Road
RD 1, Galatea 3079
Ph: 07 366 4804
Fax: 07 366 4804
Email: busy-bee@xtra.co.nz

Jane Lorimer
Hillcrest Apiaries 'Kahurangi-o-Papa'
RD 3, Hamilton 3283
Ph: 07 856 9625
Fax: 07 856 9241
Mobile: 027 294 6559
Email: hunnybee_wave@ihug.co.nz

BAY OF PLENTY

Dennis Crowley
PO Box 16156, Bethlehem
Tauranga 3147
Ph: 07 579 2554
Email: crowleys@slingshot.co.nz

Barbara Pimm
448 Woodlands Road
RD 2, Opotiki 3198
Ph: 07 315 7650
Email:hikuhoney@xtra.co.nz

POVERTY BAY

Paul Badger
19A Pine St
Gisborne 4010
Ph: 06 868 4785
Email p-mbadger@xtra.co.nz

Tim McAneney
11 Oak St
Gisborne 4010
Ph 06 868 9446
Email: tim@mcaneney.gen.nz

HAWKE'S BAY

John Berry
46 Arataki Rd
Havelock North 4130
Ph: 06 877 6205
Email: jrberry@ihug.co.nz

Deanna Corbett
Home Ph: 06 876 8852
Email: djcorbett@xtra.co.nz

SOUTHERN NORTH ISLAND

Allan Richards
14 Bastia Avenue
Wanganui
Ph: 06 343 5039
Email: allan.serena@xtra.co.nz

Frank Lindsay
26 Cunliffe Street
Johnsonville
Wellington 6037
Ph: 04 478 3367
Email: lindsays.apiaries@clear.net.nz

NELSON

Murray Elwood
10 Whiting Drive
Wakefield
Nelson
Ph: 03 541 8929
Email: muzzbuzz@ts.co.nz

Nicky Elwood
10 Whiting Drive
Wakefield
Nelson
Ph: 03 541 8929
Email: muzzbuzz@ts.co.nz

CANTERBURY

Brian Lancaster
1133 Coaltrack Road
RD 1
Christchurch 7671
Ph: 03 318 7989
Email: be.lancaster@xtra.co.nz

Linda Bray
Braesby Farm, RD 1,
Ashburton 7771
Ph/Fax: 03 308 4964
Email: birdsnbees@xtra.co.nz

OTAGO

Peter Sales
"Te Ora"
RD 1, Port Chalmers
Dunedin 9081
Ph: 03 472 7220
Email: foxglove@paradise.net.nz

Tudor Caradoc-Davies
779 Portobello Road
Dunedin 9014
Mobile: 027 208 5133
Email: brightwaterbees@gmail.com

SOUTHLAND

Doug Lomax
15 William Stephen Rd
Te Anau
Ph: 03 249 9099
Fax: 03 249 9068
Mobile: 027 245 3384
Email: dougandbarbara@xtra.co.nz

John Stevenson
Southern Lakes Honey
PO Box 163, Te Anau 9640
Ph: 03 249 7954
Email: sl.honey@gmail.com

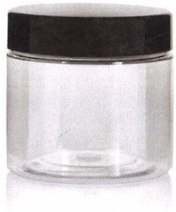
NBA LIBRARIANS

Roger and Linda Bray
Braesby Farm, RD 1, Ashburton 7771
Ph/Fax: 03 308 4964
Email: birdsnbees@xtra.co.nz

APIMONDIA OCEANIA COMMISSION

Maureen Conquer, President
Ph: 09 292 8282
Mobile: 021 956 349
Email: maureen@wildforage.co.nz

If your details have changed, please email editor@nba.org.nz and secretary@nba.org.nz so that we can update your details in the journal and on the NBA website www.nba.org.nz.



360ml Round Pot

500gm Round Jar

340gm Round Jar
(coming soon)

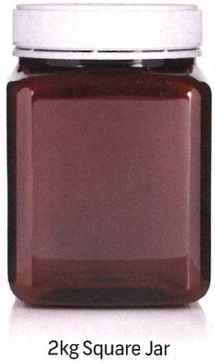
250gm Round Jar

2kg Hex Jar

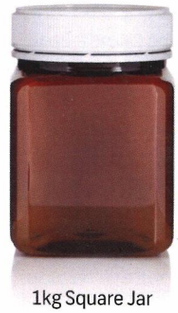
1kg Hex Jar

500gm Hex Jar

250gm Hex Jar



2kg Square Jar



1kg Square Jar

500gm Square Jar

250gm Square Jar

NEW ZEALAND'S MOST EXTENSIVE RANGE OF HONEY PACKAGING

Pharmapac's range of export quality packaging for honey has now expanded to contain square, hex & round jars. Sizes range from 250gm - 2kg.

Pharmapac is a New Zealand owned company, with more than 30 years in the business of designing, manufacturing and producing plastic packaging solutions for not only local, but an ever growing list of international clients.

All of our products are manufactured in our ISO9001-2008 accredited facility in Auckland, New Zealand.

No supply contracts are required.

Pharmapac follows well defined parameters of quality, conforming to various national and international standards. As these standards change, we work with our suppliers to continue to meet these requirements.

For more information or product samples please contact us at:

Pharmapac Limited
88 Wairau Road
Glenfield
Auckland 0627

+ 64 9 444 9631
sales@pharmapac.co.nz

100% NEW ZEALAND OWNED & OPERATED

TELARC REGISTERED™
Quality ISO 9001

* Our stock jar colours are amber & clear. Stock closure colours are white, blue, gold, green & black. For your own custom coloured closures, a minimum order of 5000 units will apply.

PHARMAPAC

PPAC

NEW ZEALAND MADE

www.pharmapac.co.nz