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Anthony Taiaroa, Richard Bensemenn.
Absent: Brian Lancaster (Inset)

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NZ Beekeeper Printed & Published by:

South City Print
P.O. Box 2494, South Dunedin.

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Report from Vice President and Executive Officer

Our President, Jane Lorimer, was overseas at Apimondia at the time of writing, so this monthly report was compiled by Neil Farrer (Vice President) and Jim Edwards (Executive Officer).

After the AGM in Christchurch there was a flurry of activity to address the many issues of the AFB NPMS and NBA matters by the new Executive, and of course, the interviews and subsequent appointment of Jim Edwards. After Jane's departure the pace has slowed. Executive will be meeting on 11 September and will be reporting on this in the next issue.

Recently I was handed a pile of issues of *The New Zealand Beekeeper* covering the years 1964 to 1975 — what a fascinating lot of stories and data there is to read. I noted that in 1973 the NBA celebrated the 70th Conference in Nelson: this means that in 2005 we held the 102nd annual conference. So there is much more history in the organisation than most of us realise. Many of the surnames from 1973 are still featuring today: Lorimer, Berry, and Bray just to name a few — another generation has continued these families' involvement in NBA matters and we are fortunate to have this depth of experience. Murray Reid has written articles informing beekeepers over the last 30 years. I hope to go back over some of these to be either reprinted or revised in later issues, as the topics covered are still relevant to the current generation of beekeepers.

The NZFSA has just completed a round of seminars to inform beekeepers of their part in the implementation of Risk Management Programmes (RMPs) to meet more stringent requirements for honey processing. From the time the supers are taken off the hives, to the sale of bulk honey to a packer, or packing and sale of the product either internally or overseas, beekeepers are going to have to keep far more detailed records, and meet increased standards of food handling hygiene than has been necessary to date. Some will have major problems to meet the standards necessary, others are almost there now. If you have not already received or downloaded the information you should start the process now.

The AFB NPMS is under some pressure. MAF and NZFSA audits show that reporting by beekeepers is not up to specification and this is now impacting on exports of honey from New Zealand to some markets that require freedom from AFB certification. We are working to resolve this matter. ***Please note that your reporting of AFB located in any apiary to the Management Agency within seven days of discovery is vital.***

Beekeepers who do not have a DECA will have received COI (Certificate of Inspection) forms to complete and return. Those that have received these forms will need to get someone with a DECA to inspect the hives and certify on the form. It is a timely reminder that it is an advantage for beekeepers to obtain their DECA (Disease Elimination Conformity Agreement).

It seems that we are having an early spring. In some areas pine pollen has been produced up to a month early. Hives are rapidly increasing with queens laying, putting pressure on feeding and leading to possible swarming. On the other hand, we could be moving towards an early and good honey harvest. Happy beekeeping!

- Neil Farrer and Jim Edwards

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Deadline for Publications

November 2005 edition: 21 October 2005

December 2005 edition: 21 November 2005

No January 2006 edition.

All articles/letters/photos to be with the Editor via fax, email or post:

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Conference inter-branch competition

The inter-branch competition this year was a real test. Teams of three had to make up a complete hive: base, two supers, six frames of different sizes, queen excluder, hive mat and lid. The cunning organisers put in different frames and threw in a few extra bits to confuse the contestants.

This year we had a team of 'ring-ins' representing the Western Island: Cathy and Glen from New South Wales, Australia and Heather McBrydie from HortResearch. For Cathy and Glen this was the first time they had encountered this type of gear.

Marks were for speed and quality of workmanship. Points were deducted for only putting in one nail through the top bar and for the most recurring fault: putting together frames with 3-hole end bar with 4-hole end bar. Other faults were mismatching parts for the queen excluder and the hive mat (different thicknesses) hammer marks and bent-over nails.

During the tangle on the floor several bits of the lid got mixed up between teams with some hilarious results. Comment from one of the judges: "I wouldn't employ any of them in my factory".

The Hawkes Bay team was the winner (for the second consecutive year). NBA President Jane Lorimer presented the trophy to Hawkes Bay Branch president John Berry.

- Frank Lindsay



Jane Lorimer & John Berry receiving the Branch Shield.

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BK12



Oops! Poorly constructed hive.



Waikato team: Fiona O'Brien, Moira Haddrell, John Bassett.



The axemen's carnival! Dave McMillan and David Woodward, Allen McCaw looking on.

Photos: Frank and Mary-Ann Lindsay.

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Varroa Agency Incorporated news

**by Duncan Butcher, chairman of the
Varroa Agency Incorporated**

The Varroa Agency Incorporated is having its annual meeting on Friday, September 30 in Christchurch.

The meeting is an opportunity for the bee industry organisations and council representatives to hear where the Board has progressed to, and to have input on the plans set by the Agency on its Varroa-free South strategy for the coming year.

On the agenda are the Annual Report, audited accounts, proposed budget and the appointment of board members.

The meeting will be at the Environment Canterbury offices in Christchurch, starting at 1.30pm.

The VAI, formed earlier this year to keep the South Island varroa free, has strategies now in place to protect the South Island. Funded by regional councils and the bee industry, the Agency works closely with beekeepers and local authorities on movement control, surveillance and awareness.

As beekeepers already know, the recent establishment of a National Pest Management Strategy for Varroa prompted the change in responsibility for movement control in July from Biosecurity New Zealand (formerly MAF Biosecurity) to the VAI. The Agency's surveillance programme for this year in the South Island is close to completion, and results from laboratory testing in that surveillance programme are still coming in negative.

The Agency is also pleased that it is keeping well inside the budget it was allocated when it came into being.

We would like to thank all those beekeepers that made themselves available as Approved Persons to carry out the testing of the hives. Without them, the cost to train and organise people to do the testing would have been too much to fit into the budget.

We are also pleased to welcome Nelson City as a member of the VAI. Nelson has agreed to fund its share for at least the next three years.

With all Regional/Unitary Councils on board it is a real South Island effort to make sure we **Keep the South Varroa-Free.**

Announcements from the Environmental Risk Management Agency

Chemicals LAIF Srl has been given approval to import and release APILIFE Var to control varroa mites in honey bees within beehives. This decision was approved with controls and was notified on 23 June 2005, ERMA Approval Code: HSC001662.

Landcare Research New Zealand Limited has made application to manufacture a bait to control social wasps that contains fipronil (0.1%). Submissions closed on 15 August 2005.

Excerpts taken from Environmental Risk Management Bulletin, Issue 67. The full bulletin is available online at <http://www.ermanz.govt.nz/resources/publications/pdfs/Bulletin-67-01.pdf>

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Chairperson's address to AGM, Active Manuka Honey Association (AMHA)

Dear Members,

The most satisfying achievement of the past twelve months has been that we can now say with some confidence the UMF trademark and brand can now be protected for the long-term benefit of members. With hindsight we will probably regard the past year as the turning point in the development of the UMF brand.

Since the UMF brand was first launched in the late 1990s there have been a number of successes in getting it established and this has led to it achieving superior returns for all those involved in the value chain. However this success has attracted those who wanted to make a 'quick buck' and who have ignored all the quality standards required to keep UMF manuka a superior product. The industry had become highly vulnerable to products from the 'quick buck' merchants destroying the market for everyone.

The reputation of the UMF brand has been in real danger of being lost to members.

In both New Zealand and Australia (where the trademark has been registered) there have been firms selling product using the UMF trademark without a licence. In most cases there has been no UMF activity in the product. In the past year your Committee has established systems to monitor and take action against those who infringe. The most notable achievement has been where the Committee worked with the Commerce Commission in getting a conviction against Dreamline, an Auckland retailer who was selling UMF product without a licence and no activity.

Fortunately the only cost to AMHA was people's time and we had the benefit of the taxpayer covering the extensive legal bills.

This was a benchmark case because as soon as the conviction was public a good number of other firms who had been infringing withdrew their product from the market. There have been exceptions though and it is now commonplace for your Committee to deal with Patent Attorneys who try to establish a reason for their clients to use the UMF trademark without a licence.

Outside these two countries, your Committee has initiated registration of the UMF trademark in two rounds. The first round started twelve months ago with the support of a grant from New Zealand Trade & Enterprise where the registration process was started in eight countries. I can confirm in two of these countries we have had successful registrations in Germany and the United Kingdom. At this stage all other registrations are progressing without any issues except for Japan.

Our application in Japan has to jump a few hurdles yet. Initially we found another organisation had made application for registration one month before AMHA. Fortunately the Japanese Intellectual Property Office declined the application based on a technicality. This placed us first in line but we are now going through examination.

In a second round of applications your Committee has made application for a further 33 countries bringing the potential

number of countries for protection of the trademark to 43. You can see how long the process is: it has taken 12 months to get two of the eight in the first round. So we do not expect the second round to be completed until late 2006.

Gaining protection for use of the trademark over more countries and enforcing it has been the top priority for your Committee. If we had not been successful in both these functions and product continued to be sold without the appropriate quality standards then it could have undermined the sales and prices currently enjoyed by beekeepers and marketers alike.

Critical to being able to achieve this position has been the support to AMHA shown by licensees in paying their fees for sales on finished product. Twelve months ago we did not know the quantity of UMF honey sold and certainly did not have the funds necessary to commit to trademark protection in more countries or for research projects. As the year has progressed it has become clear how much income we can expect to receive on an annual basis. This has enabled us to make decisions to implement the objectives of AMHA. The best example is we have embarked on a \$60K second round programme of registrations with \$37K cash in the bank, knowing we will have the income to cover it plus funds available for other investments.

The development of an income stream along with the implementation of a number of procedures is enabling the AMHA to carry out its objectives. There are procedures to cover:

1. membership applications
2. licensee applications
3. payment and defaulting on membership and licence fees
4. infringement of use of the trademark.

Importantly these procedures are followed by the Committee through the same steps, regardless of the individuals or organisations involved. If there is any conflict of interest then the Committee Member declares it and withdraws from the discussion and decision.

These procedures and changes to the licence are all designed to give greater control of protecting the brand in the interests of all.

During the past year the Committee has started a programme of generic marketing of the UMF trademark. A website and supporting brochure have been published to explain UMF, enable valid licensees to be identified and it starts to develop a public profile for AMHA. These initiatives are complementary with the brochure being designed for licensee's market partners to use them in the field dealing face to face with retailers. It is very important for the future security of the UMF trademark that AMHA is seen to have a visible face.

Much more has to be done to develop awareness of what UMF stands for with these two initiatives being vital in the short term to eliminate those infringing the trademark.

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The Committee has been very conscious of the state of the current UMF testing regime. Partial inhibitions and inconsistency in results from the same sample have been ongoing issues. There is no simple solution to overcoming these issues. The test relies on use of biological materials which can never be controlled in a manner to make them predictable. We have taken a twin approach to try and find a solution.

Importantly the Committee has not had the funds to commit to research projects until very recently. As indicated before the highest priority has gone to gaining protection and security of the trademark. However we are now in a position with funds to initiate research projects.

The first approach is to identify the reasons for partial inhibition and find ways to overcome it. In this regard a project has been formulated with Dr Peter Molan. However it must be accepted there may be no easy solution to this problem.

The second approach is to adopt a test method that is not directly dependent on the biological materials potentially avoiding its pitfalls. At the same time we want the test to meet a number of other performance criteria relating to turnaround time and cost per test. This is a longer-term project and being carried out with the Chemistry Department at the University of Waikato. The project will involve testing thousands of samples with the current method and then using this information to generate a database of the UMF test at each level. A sample will be able to be matched to the database and the equipment will recognise the UMF rating. This should meet our performance criteria but as with all science projects

there is no guaranteed success.

The Committee continues to work with the objectives of AMHA paramount. Individual company interests are left behind. Committee members realise we must work together to achieve a common goal. Without this attitude AMHA would quickly cease to exist. Independence of individual company information is achieved by having a Brand Manager with no UMF manuka honey interests who can deal with confidential information.

We have met six times in the past year, usually in Cambridge, since this is central to where most Committee members live and work. We have attempted to keep members well informed about activities and have sent out seven letters or newsletters over the past year.

I wish to express my gratitude to John Rawcliffe and all Committee members who have contributed without reservation over the past year.

The priorities in the next year will be for the research projects described earlier to be initiated and managed along with projects focusing on topics other than the testing regime. At the same time the Committee will have to cope with the challenge of monitoring the use of the trademark in distant geographic markets where we know the trademark is still being infringed, but we have not had the advantage of trademark protection until now.

Thank you for your attention.

Kerry Paul
Chairperson
28 July 2005

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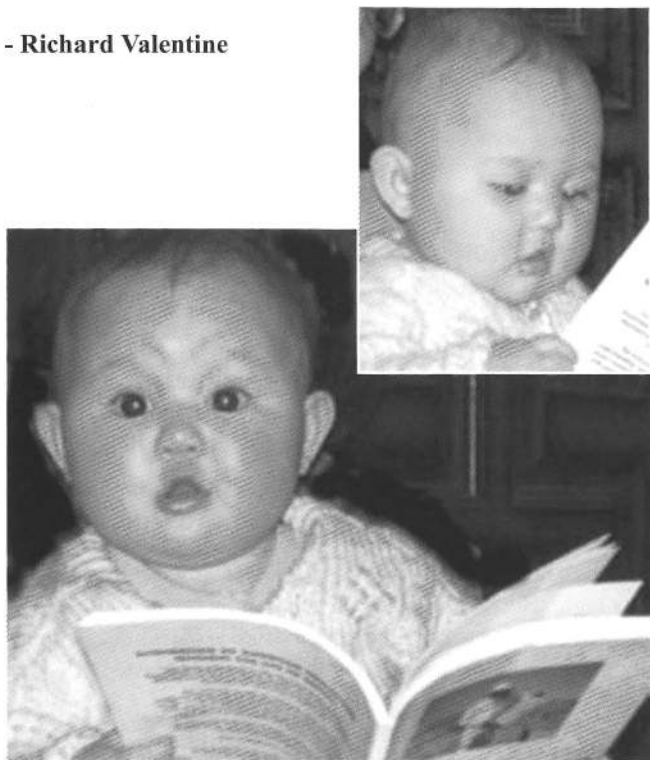
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BK18

Start 'em young!

Here are two photos of my granddaughter Nicole Valentine, seven months old. Her dad Chris has been beekeeping for 10 years and decided to give Nicole an early start into the industry!

- Richard Valentine



NIWA's climate outlook: September to November 2005

Local atmospheric circulation patterns are expected to result in more anticyclonic conditions than usual to the east of the South Island, and weaker westerly wind flows, over New Zealand.

Sea surface temperatures around New Zealand are likely to be near or above average until November 2005.

Air temperatures (see maps below) are expected to be above average in the North Island, and average or above average in the South Island.

Rainfalls are likely to be normal or above normal in the east of the North Island and north of the South Island, and near normal elsewhere. Below normal soil moisture levels and river flows are expected on the east coast of the South Island. Elsewhere, normal soil moisture levels and stream flows are expected.

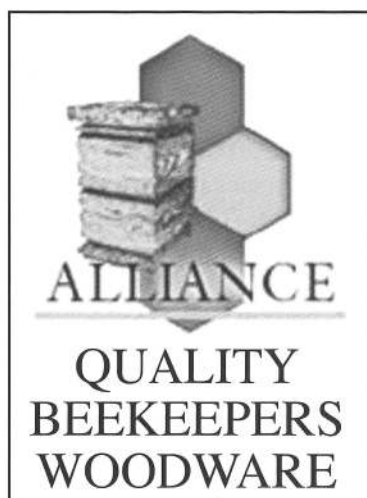
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From the colonies



Auckland Branch

Another month whizzes by, wishing I had done more boxes in the winter and waiting for the first emergency swarm call outs. We do not exactly find it humorous to rescue families trapped in their houses by a swarm, and the number of people who have never been stung is a worry when asking if they may be allergic to stings.

All in all, swarms are bad news in that it costs somebody a \$40 call out for a beekeeper's often-poor management. Though the swarm call-out rate has halved and halved again, I feel wild bees have to be the main cause of mite re-infestation here in the city. It would be my guess that beekeepers not up to the plate in Auckland must be out of bees by now.

Calls about home orchards failing for the lack of bees are up this year, as is interest from Asian lifestyleers, including a permanent hive rental to an 'apitherapist'. I'm told that administering bee stings precisely to an acupuncture point has enhanced power over just a needle in some circumstances.

Supplying fresh raw home-grown honey from hive to kitchen has appeal to some of our customers but others simply love or need bees. Thus far it is the gay community who represent the greatest portion of our customer base — I have no idea why.

Recently while I was hand loading hives from suburban areas, and also those north and south of the city, I noticed a marked difference in weight, with city hives being much heavier.

Outside the city, the period before the willows really get going is when feeding finally becomes a must. It seems that getting hives ready too early for kiwifruit pollination will be a danger this season. Carnica hives average four or five modest frames of brood at the moment without feeding, with little frame space left in two boxes from winter honey stored.

- Kerry F McCurdy

Hawkes Bay Branch

It's finally stopped raining and beekeepers in the region are getting on with their spring work. The general feeling is that hives have come through weaker than usual with greater than normal winter losses, although this varies from area to area. I have also been getting reports of hives dying from varroa even though they were treated right into May. This problem appears to be worse in areas where varroa was later in arriving.

We will be having a diseaseathon on Saturday 5 November starting at 9 am at Arataki Honey, Arataki Road, Havelock North. All beekeepers are very welcome regardless of their experience level. I hope there will still be some hives to inspect, as we are getting many reports of hobbyist and semi-commercial beekeepers hives dying in large numbers over the winter. Just as concerning are the reports of people putting treatments into hives and leaving them there for months past the recommended time. These people are placing all our

livelihoods at great risk — I don't know if they are breaking any laws but if they aren't, they should be. Once resistance occurs in any population of varroa, it will spread rapidly throughout the rest of the North Island. I'm not talking about someone being a week or two late because of work pressure, or are using a product like Apivar where overseas research has shown good efficacy for up to 10–12 weeks. But if you put in treatments in the autumn and have still not taken them out, I humbly suggest you get out of beekeeping and sell your hives to someone else. You do not belong in this industry, and we do not want you.

- John Berry

Waikato Branch

A run of fine weather has seen beekeepers out and about checking their hives. Hives wintered down well have come through with a lot of honey still on them. Heather, Wattles, Five Finger and Willow are producing early season pollen and nectar flows. Some beekeepers have started pollination with stonefruit coming on, while other beekeepers are rounding off their winter shed maintenance.

Many beekeepers will be concerned about the price of oil and how high the 'barrel price' will go. Diesel prices are at an all-time high, which will impact on beekeeping budgets. Recently the flow of sugar was halted with a strike at the Chelsea Sugar Refinery, perhaps thankfully this year and not last.

Recently the NZFSA 'Code of Practice': Processing of Bee Products' roadshow was held in Hamilton. The seminar was well attended by approximately 70 participants. The seminar gave beekeepers a chance to ask questions to help them make the transition from dealing with local councils and inconsistencies around them, and what their responsibilities will now be within the terms of the Animal Products Act 1999. Instead of counting bees to try and go to sleep at night, try RMPs, COPs, GMPs, HACCPs: **wow!**

A caution to all beekeepers to be vigilant: as the value of beekeeping and pollination increases, so does the temptation for people to steal hives. A word from long-established beekeepers: brand your hives inside and out, and make any other identifying marks.

The Waikato branch planning for conference 2006 is starting to take shape. The Waikato branch along with the Southland branch appear to have been the first in the field of beekeeping organisations, both being established in 1906, so time for a celebration — 100 years in fact!

Conference is being held at the Glenview International Hotel. The venue is only five minutes from the Hamilton International Airport. Conference attendees can fly in from anywhere in New Zealand. Overseas attendees can fly internationally with Freedom Air, from Australia and Fiji, directly into Hamilton — check their website www.freedomair.com. Auckland is the gateway for all other international guests, with Hamilton being a mere 90-minute drive south. We hope to see as many people at this wonderful celebration.

The end-of-year books are done — a chance to review anything from last season and tweak the budget accordingly.

May this be a good season with minimal varroa effects, rain just at the right time, and enough sleep to reduce wrinkles, or maybe keep them at bay at least.

- Fiona O'Brien

Canterbury Branch

I hope that everyone achieved their aims during the winter of getting all R & M done. Another important task this winter was getting your RMP up and running ("What's that?" I can hear in the background). This had to be fitted around analysing records to improve performance, and most importantly, having a winter holiday! All in all, a very busy winter.

It is once again time to start the spring work. Winter has been very mild here, with bees being able to fly most days, and the number of severe frosts could be counted on one hand. Most hives I have looked at this season are in great condition, if a little light. They are bringing in good quantities of pollen and contain good developing brood patterns. This spring season I think will be a delight for those beekeepers who suffered movement controls this time last year. (Like me, I am sure most had forgotten what undisturbed hives look like!)

- Brian Lancaster

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Colour of wasp nests

Barry J Donovan
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In the July 2005 issue of *The New Zealand Beekeeper*, Frank Lindsay says that the nest of the Common wasp (*Vespula vulgaris*) is light grey. However, it is the nest of the German wasp (*Vespula germanica*) that is light grey, while the nest of the Common wasp is brown. This difference is readily seen between the two starts to nests made by queens on the inside of a lid of a bumble bee nest box (Fig 1).

Actually, nests of German wasps at all stages of growth are always grey, but the colour of nests of Common wasps can vary. Nests made by queens can be nearly white or cream, brown, or dark brown, and even somewhat grey, but as the nests grow they become various shades of brown, with streaks of slightly different browns often apparent. As Frank said, the colour of the nests depends on the colour of the wood from which the wasps mine the fibres. We were once called to remove a nest built at shoulder height in the side of large redwood tree in the Christchurch Botanic Gardens. The spongy bark of the tree was about 30 cm thick, and the nest was mostly concealed within a cavity the wasps had mined out of the bark. The whole nest, including the covering involucrum and the combs, was the very red colour of the bark. Clearly the Common wasps had used a lot of redwood bark fibres as construction material. Even the overall grey nests of German wasps when examined closely are made of strips of slightly differing shades of grey.

Another character of wasp nests is that the grey German nests are quite resistant to deformation, whereas the brown nests of Common wasps will readily shatter if hit. We were once called to a basketball-sized Common wasp nest hanging off a wooden beam in a bike shed, and with the first touch from a gloved hand the whole nest crashed to the floor and shattered into many pieces. Our experience is that German wasp nests don't fall to pieces at all readily. Perhaps the brown fibres used by Common wasps are from wood that is more rotted than the weathered wood from which German wasps mine their grey fibres?

Anecdotal and observational evidence is that indeed the Common wasp is much less common now in most areas than it was up to about six years ago (Donovan *et al.* 2002). As Frank noticed, sometimes a queen of one species will take over a nest started by a queen of the other species, as is evidenced by changes in the colour of the combs, and we have collected a number of nests that start out with brown comb then change to grey. This suggests that a nest started by a Common wasp has been taken over by a German wasp. In turn, this suggests that when Common wasps were very common, they occupied most nesting sites, which meant that German wasps had to fight for sites in which to make their nests. Quite possibly German queens were often killed in battle, and so there were fewer nests of German wasps. But now that Common wasps



Fig 1. Starts to wasp nests made on the ceiling of a bumble bee nest box by a queen German wasp (right) and a queen Common wasp (left).

Photo: Barry J Donovan

are much less abundant, German queens don't have to compete so much for nest sites, so in some areas German nests might be becoming more numerous than they have been for a long time. However, because at least one wasp parasitoid is known to be established, over at least a large area of the South Island and possibly now over most areas of the country, German wasps should never become as numerous anywhere as they once were.

References

Donovan, B. J.; Havron, A.; Leathwick, D. M. and Ishay, J. S. 2002: Release of *Sphecophaga orientalis* Donovan (Hymenoptera: Ichneumonidae: Cryptinae) in New Zealand as a possible 'new association' biocontrol agent for the adventive social wasps *Vespula germanica* (F.) and *Vespula vulgaris* (L.) (Hymenoptera: Vespidae: Vespinae). *New Zealand Entomologist* 25: 17–25.

Lindsay, F. 2005: About the apiary. *The New Zealand Beekeeper* 13, 6: 16–17.

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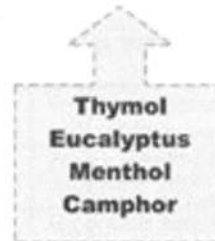
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The winner of the Public Trust competition, receiving *The Hive and The Honey Bee* book, was Jim Edwards, Otaki.

About the Apiary

It's been a warm winter and hives are now beginning to reflect this. The warm days have allowed the bees to fly and gather nectar and pollen from some very early sources. Normally beekeepers are out feeding hives and doing the odd spot check for those that seem a bit odd. These could be light in weight or just don't look right, i.e., bees not flying or something similar.

My initial checking of hives indicated that very few needed feeding. In fact, one apiary in what I consider to be a 'warm spot' had actually been storing and capping the early nectar in the top super and around the brood nest. All this stimulation has produced massive amounts of brood, with the result that some three-high hives are full of bees and need additional supering to hold them all. I also found that two hives had produced supersedure cells from which the virgin queens had already emerged. One virgin was still running around with the old queen but the other hive had already killed the old queen. My disappointment was that these old queens (last year's so they weren't very old) had beautiful laying patterns, producing nearly full frames of brood. I don't know why they decided to replace these queens but something was wrong with them — perhaps they weren't producing enough queen substance pheromone.

The hives in this apiary normally produce queen cells around the first of October, but these hives have produced supersedure cells a full two months ahead of this date. This means I'll have to step up my beekeeping activity and have queen cells ready to split these hives early next month, otherwise they will swarm as soon as a strong nectar flow starts. The odd swarm didn't used to worry me as I could usually pick up more swarms than I lost in my bait hives. But since varroa, every swarm is now lost production as well as a potential source of re-invading mites in the autumn. Hence I have had to become a more proactive beekeeper and split hives to prevent swarming, then recombine them when the main flow starts.

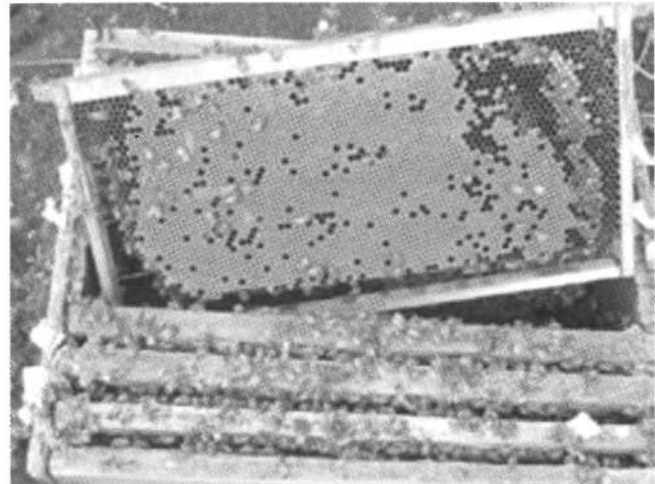
The early supersedure this year also means I will have to bring my spring hive inspection programme ahead one month. I perhaps do a more detailed inspection of my hives than commercial beekeepers because there is a history of disease in some areas where I keep bees. I prefer to do a full-frame inspection for AFB, and at the same time I remove any propolis that the bees have deposited between the frames. By cleaning the propolis from the frames I keep the bee space between the frames to a minimum, therefore requiring fewer bees to keep the brood nest warm. If the frames are gradually allowed to spread so that nine frames are evenly spaced through the super, many more thousands of bees are required to keep the super warm, resulting in less honey production. Inspections can start as soon as the weather warms up to 15 degrees C. At this temperature it's safe to take the hive apart and do a full frame inspection of the brood nest without chilling the brood.

Inspecting the hive

In the bottom supers you are looking at the frames that had brood in them during the autumn, so it's important to inspect these frames as well. Start by gently puffing a little smoke

into the entrance of the hive and across the frames in the top super. Wait two minutes and repeat. After another couple of minutes the bees will have settled down and you will be ready to proceed with the inspection.

Remove the roof and place it on the ground beside the hive, then split off each super and stack it diagonally across the roof so the bees hanging down aren't crushed. If you start inspecting the hive from the top down, you will gradually drive the bees down and when it comes to inspecting the bottom super, it will be full of bees and you could end up squashing or rolling them as you remove the frames.



Frame of brood from superseded queen with a reasonable laying pattern. The pieces of paper are the remains of a sheet used to unite two colonies together last autumn.

Cover the other exposed supers with a board or cloth to prevent the bees getting excited or being chilled. I also take this opportunity to check and clean the bottom board if it's required and check the pallet the hive stands on. A hive gets very heavy with honey during the flow and nothing is worse than finding a hive toppled over because the pallet has given way under the weight of the hive. Replace if you're not sure.

Approach the bottom super. Puff a little smoke over the bees covering the top bars and inspect the super. Is it in good order, not rotting away? Replace it if necessary. Then take out the outside frame or, if it looks to have a rotten lug, lift up the next one in towards the middle. Again, it's very important that the first few frames taken out of the super are withdrawn very slowly and gently so that the bees are not squashed or rolled.

To see everything, it's important to shake the majority of the bees off the frame. With the two outside frames removed and left in front of the hive, lift the next brood frame halfway out and give it a quick jerk downwards to remove most of the field bees. With the sunlight over your shoulder, examine the brood areas of the frame. Look down into the empty cells for old scale. Any cells that are capped and well away from the current brood areas should be investigated. While you are inspecting the brood frames for cells that are sunken, half capped or have a hole in the capping, you will see areas that have only eggs. If these are in the middle of the frame,

Continued on page 18



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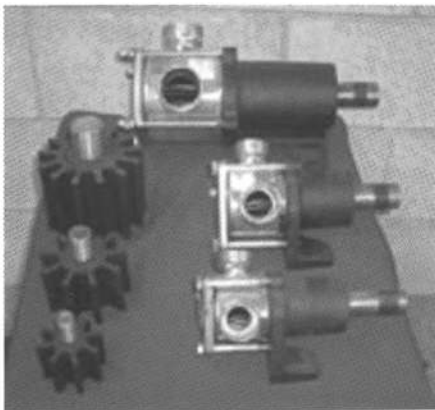
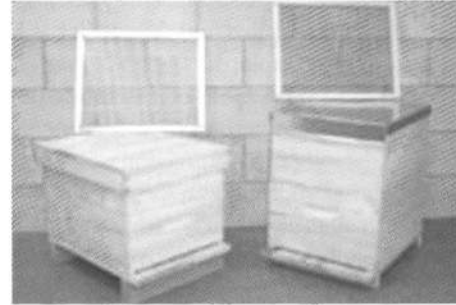
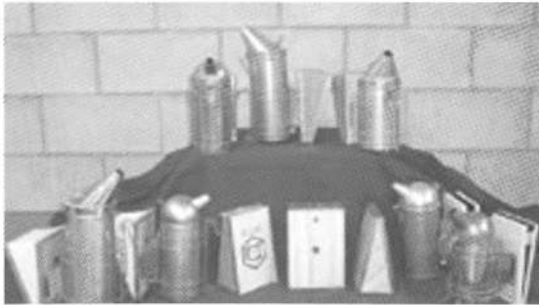
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Virgin queen running about. They are very fast on the frames.

this is where the latest batch of your bees has emerged from. Are there any odd cells that are still capped in the area? This is where you are likely to find diseased larvae, so investigate these capped cells.

Flick off the capping with the corner of your hive tool and examine the larvae underneath. Most of the time you will see larvae in the early stages of pupation, indicating that the queen laid an egg in the cell later than the surrounding cells. But depending upon the weather in your district within the last month, you might also find the odd cell where something is wrong. For example, if you have had a long spell of inclement weather you could come across the odd larva that shows sac brood (common when there isn't much pollen about), chalkbrood (a virus infection), or, horror of horrors, a light brown larva infected with AFB. If more than 20 percent of the brood cells are infected with either chalkbrood or sac brood, replace the queen. The bees normally clean up sac brood cells, but chalkbrood mummies are difficult for the bees to remove and they are a constant source of re-infection. So if more than 20 percent of the cells on a brood frame are infected, it's best that these frames are replaced sometime during the season.

The finding of a single cell with AFB means that the whole hive has to be destroyed. Anecdotal evidence suggests that if you have had a history of finding the odd AFB hive every couple of years, when you get varroa mites, you'll see more AFB in the next couple of years. Therefore you'll need to look very carefully when inspecting your hives. In the manual by Dr Mark Goodwin and Cliff Van Eaton, *Elimination of American foulbrood without the use of drugs*, there is an example of robbing on page 21 where over 80 percent of an apiary had to be destroyed when bees robbed out some diseased hives. Generally robbing only occurs when you missed the infection in the first inspection and failed to find it during subsequent inspection during the next three months. AFB weakens the hive by killing the majority of the brood during pupation, weakening the hive to such an extent that the field bees left cannot defend the hive. Once one or two bees find an undefended source of nectar, very soon all the bees get into the act of robbing. So the moral of the story is

to be very thorough. Check all the frames carefully but don't take too long about it: 30 seconds each side should be all it takes. Most of you will thankfully never see an AFB cell, but unfortunately some will as there's still a bit of it out there.

Incidentally you may also see something that looks like AFB if you have varroa mites in your hives and were late in treating them in the autumn. This will be Parasitic Mite Syndrome (PMS), which is similar to AFB but there will also be infected cells that look like sac brood and other cells whose larvae has been half eaten out. If you're not sure of what you are looking at, contact another beekeeper and ask for advice after having consulted your MAF pamphlet 'Diagnosis of Common Honey Bee Brood Diseases and Parasitic Mite Syndrome'. This pamphlet was sent to all beekeepers a couple of years ago, or look at the brood disease section in any reputable bee book.

If you still can't identify what you are looking at contact AgriQuality (their number is on page two of the magazine in a centre box) and ask for the forms to have a sample sent in for laboratory examination. Take three larvae and pop them into an old film canister or similar sealed container and send it off for analysis. This service is paid for out of your PMS levy, so use the service if you're not sure.



Two crowded hives needing supering. Note bees over the top of the super and up the front of the hives. Additionally the one in the front needs a new queen as it is not as advanced.

On with the inspection. A puff of smoke over any bees that start congregating on the top bars will keep them under control. Any frames with more than five percent drone brood should be marked or gradually worked towards the outside. If there's no brood, pollen or honey in the frame, replace it immediately with a drawn comb, or move it one frame over towards the side of the super each time you visit the apiary so that it will be easy to replace later in the season. When the main flow starts, lift these frames up into a honey super and replace it with a foundation frame. After extracting, remove these frames for melting down so they don't go back into the system again.

Inspect all the brood frames and replace them in the same position so that the brood nest remains compact, allowing the bees to easily maintain brood temperature. You won't be able to add new foundation frames into the brood super(s) until the main flow starts. While inspecting, mentally note

the position of queen cell buds. I rub off any along the top bars but leave those along the bottom of the frames. Later, when the bees start producing queen cells, it's easy to inspect for these by just looking along the bottom of the frames, instead of going individually through the frames looking for developing cells.

When the bees start to occupy more than half the top super space, add another super. Reassemble and close the hive up again. If you are a new beekeeper and are not sure what to do, get a fellow beekeeper to assist you. Learn by doing with an experienced beekeeper, after first reading the books.

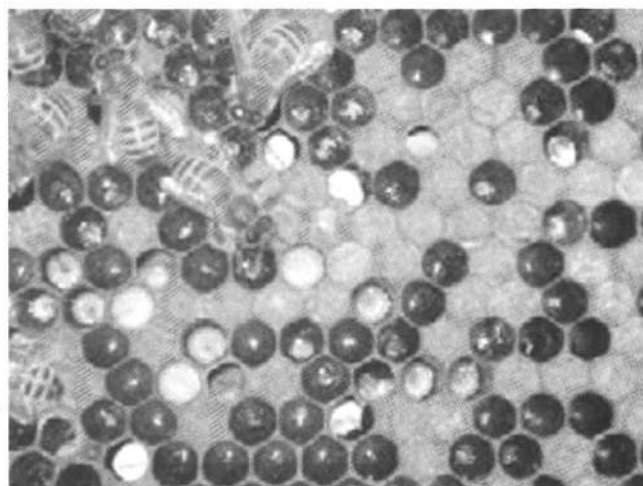
Wintering hives

One question some may ask is why do I still winter my hives three supers high? A lot of commercial beekeepers winter two supers high but several are now wintering hives in singles. I live in a marginal beekeeping area. My main honey flows are derived from the bush surrounding farmland, which starts flowering in mid-October, and it's generally all over by the end of December. Clover used to be produced but rotational grazing of dairy cows eradicated this source. One day a paddock will be full of white clover heads, the next day it's been eaten. To have the hives ready for the kamahi flow in October, I winter my hives with large populations of bees and plenty of honey stores.

I also extract later than most as many of my hives have just a dribble of nectar coming in after Christmas, which stimulates the bees into brood rearing. If I remove the honey crop early, I'll need to feed sugar back some years as the bees eat their winter stores before autumn. Most commercial beekeepers



Bottom of frames showing queen cell buds and where a queen has emerged.



Brood with Parasitic Mite Syndrome (PMS).

feed sugar, as it's cheaper than honey and they want to make as much money out of a hive as possible. I'm not totally dependent on my bees for an income, so I can be a little more generous. Perhaps Carniolan bees may solve this problem, as they stop brood production as soon as the flow stops.

Things to do this month

Check for AFB. Feed if necessary. Spray for weed control or use a machine. Check stored supers for wax moth, cull out old frames from the brood nest. Get everything ready for pollination and the honey flow.

Monitor mite numbers as sustained early brood production could mean mite levels reach the treatment threshold earlier than in previous years. Greater than six mites falling naturally per day over a seven-day period indicates the colony is likely to collapse before the end of the season (refer to page 39 in the MAF *Control of Varroa* handbook). Vary miticide products between autumn and spring treatments so that you don't create resistant mites. Try to co-ordinate the treatment of hives in an area so that all hives are treated at the same time.

- Frank Lindsay

Reminder of invitation to International Beekeeping Congress

The NBA has received a second notice from the organising committee of the International Beekeeping Congress inviting participation from the NZ beekeeping industry in this Congress, November 13-18, 2005, Bangalore, India. The conference is organised by Century Foundation, Bangalore.

Further information is available from the Organizing Secretary, Dr. V. Sivaram, IBC Secretariat - # 35, 3rd Cross, Vignananagar, Bangalore - 560075, India. Tele-fax: 91-(080)-25244592 E.mail: info@cenfound.org, Web: www.cenfound.org/IBC-2005/indexpage.html

HAWKES BAY DISEASEATHON

The Hawkes Bay Branch will be staging this year's check of hives for AFB on Saturday 5 November starting at Arataki Honey Ltd., Arataki Road, Havelock North at 9.00am. This is a marvellous opportunity for beekeepers to learn to recognise this disease by joining a team led by an experienced beekeeper.

After a brief introduction, those present will be formed into teams of three or four and driven to different locations to check on selected hives where there is a history of disease in that location. We have a very low incidence of AFB, so are keen to keep aiming at the ultimate goal of complete eradication. To achieve this it is important to track down any infestation, to burn any diseased hives and to warn any beekeepers with nearby hives to be alert.

The aim is to check as many hives as possible during the morning, so if you want to help, turn up with your protective clothing, smoker and hive tool. All other equipment will be provided, including jars for collecting any suspect larva, plus disinfecting solution for cleaning tools and gloves.

See you on Saturday 5 November 2005.

Ron Morison



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BK19

Polytech's beekeeping course hailed as a success

Budding beekeepers have finished their course and are well on their way towards tapping into the potentially-lucrative manuka honey industry on the East Coast.

One of only two national certificate courses in apiculture available in the country, Gisborne's first beekeeping course was a success and plans have been finalised for the next one starting here in spring.

Students who completed the course last week now had the skills and confidence to be a beekeeper's assistant, working alongside a qualified beekeeper, said apiculture tutor Dr David Woodward.

Most of the students had plans to start one or two hives of their own and some had secured work with local beekeepers in the potentially-lucrative industry here.

Having access to the level-two course was a real bonus for this district.

In recent years the discovery of the medicinal values of manuka honey had put a new perspective on the hectares of manuka on the East Coast.

There was huge demand for the right sort of honey and learning to become beekeepers was a step on the way for local Maori to get revenue off their land, he said.

A mix of theory and practical work, the course was successfully completed by seven people from Gisborne, the East Coast, Hawke's Bay and the Bay of Plenty.

It was a joint venture between Tairāwhiti Polytechnic and Telford Rural Polytechnic and ran from September to July, following the natural cycle of a beehive.

The course included considerable input from beekeepers in this region and the students got to see the whole process, including taking the honey off the hives at a local honey processing plant, said Dr Woodward.

Students completed a grow-safe, health and safety, and a small engine agricultural machinery maintenance course.

They also learned practical bee-keeping with local beekeepers.

The level two course involved eight two-day weekend courses, three three-day block courses as well as some theory and correspondence assignments.

Dr Woodward's expertise, skills and knowledge were put to good use while he was in Gisborne for the course and he took two extra one-day courses, one about queen-bee rearing and the other on disease recognition.

The polytech is running another national certificate in apiculture level two course starting on September 3 and

finishing in July 2006. A level three course is planned for 2006/2007.

- **Debbie Gregory**

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Gisborne beekeeper Paul Badger (front left) and apiculture tutor David Woodward from Telford Rural Polytechnic (front) with the six successful people who completed the national level two course in apiculture in Gisborne. From left at rear are lam, Norm Parata, Lawrence Sadlier, Dave Viggass, Keith Northover, Tom Robinson and Archie Gilvray.

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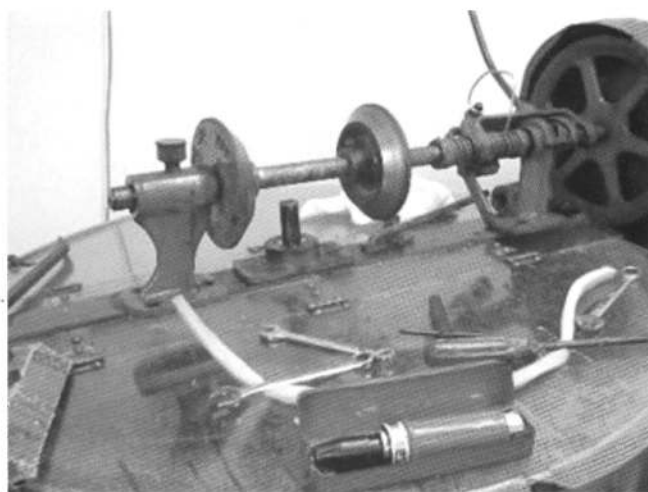
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BK248

Don't put off repairs

Some of us tend to leave maintenance of machinery to when things really need repairing. Perhaps it's something to do with being a little afraid of being left with a major problem once the machine is stripped down especially during the busy part of the season, or follow the axiom 'if it ain't broke, don't fix it'. Whatever the reason, we tend to put off fixing things until the last possible moment.

My old Pender 8-frame extractor is an example. The bearings gradually developed a rumbling and became so bad that I had



Extractor top, Extractor bottom bearing.
Photos: Frank Lindsay

to wear earmuffs while extracting, all the time hoping they would just last until I finished extracting. However, Trevor Cullen advised me that if I persisted there was a real danger that the bottom bearing could wear through the housing, and then I wouldn't be able to get a replacement so would have to buy a whole new extractor.

So I stopped extracting and removed the bottom bearing and the top bearing in just half an hour — quite a surprise to me as everything came apart easily. The top bearing was easily tapped out but the bottom one was rusted in and I couldn't budge it.

So I ordered new bearings, (one having to be brought down overnight from Auckland) and took the bottom bearing to a motor reconditioner. For a pot of honey, they popped out the bottom bearing and fitted the new one — a ten-minute job.

In reassembling the extractor I only had to make one adjustment by adding a couple of thick washers on the bottom shaft to raise it up a little (something to do with a height difference between the old can and the new stainless steel one) and the whole thing was working again in an hour. My total down time was one day: a real surprise. Had I made a note of the bearing numbers and ordered them earlier, the down time would have only been about two hours.

Apparently I'm not alone in this. I met a beekeeper in Australia who told me that his clutch thrust bearing started squealing during long trips in the middle of moving hives. These bearings only cost about \$200 but he put off getting it repaired immediately as he didn't want down time. He knew this was only a minor problem and wouldn't stop him driving despite the noise. Six months later he took the truck in for repair and it was fixed by the next morning at a cost of \$2000, as the whole clutch assembly had to be replaced. Looking back, he realised such a quick repair wouldn't have disrupted his business as it could have been done while he was extracting during the day.

The moral of the story is that we should all have a machinery maintenance programme and get things fixed as soon as you notice them.

Have you had all your power appliances, extension cords, etc., checked by an electrician? This check should be done annually.

- Frank Lindsay

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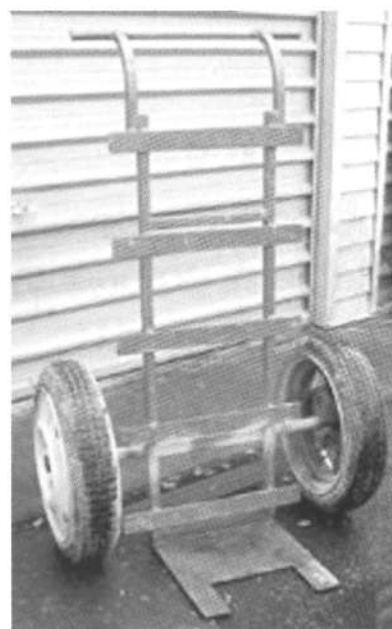
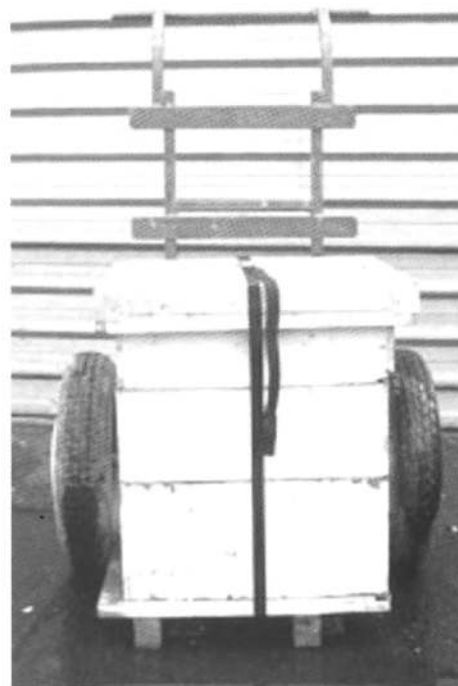
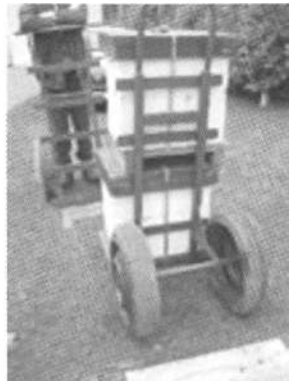
BK193

Hive Barrows

At the 2004 Southern North Island field day several hive barrows were demonstrated. The first was a cheap sack barrow purchased from a local hardware shop, made with pneumatic tyres, with the addition of two 20-mm-square channels bolted to the plate to hold hive bases or boxes. The barrow is light and easy to manage, but the smaller wheels did not function as well in the paddock.

Sample photos are provided of the next two barrows. Made from space saver wheels and scrap iron, these are ideal to move hives in the paddock, or around the yards etc. Up to five supers high (full with honey) can be moved around with ease, or up ramps and onto trucks, thus saving the beekeeper's back.

The two photos below show two hives on board and can be moved with ease. Space saver wheels are 14" size that can be obtained very cheaply; hubs can be from a donor small car such as a Suzuki Alto or similar, or turned up by a beekeeper with expertise on a lathe and welder.



Allan Richards with barrow and two hives stacked on it. Photos: Neil Farrer.

The next three photos are slightly different in that the hives can sit further in towards the axle, which makes it easier to balance, and greater weights can be moved.

Most commercial beekeepers and some hobbyists can use a welder and could create barrows such as these with minimum cost.

- Neil Farrer



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Letters to the Editor

Disappointed with CoP Workshop

Recently Canterbury beekeepers attended a workshop introduced by the New Zealand Food Safety Authority, an offshoot from MAF. We were presented with a sexy Code of Practice to discuss and follow. Perhaps not as sexy as *The Joy of Sex* but the result was the same, with the inevitable sleep descending on some individuals.

It was fascinating to see how many ways nasty bacteria could get into our honey. Things like salmonella, listeria and many more. What was not explained was how bacteria from meat and dairy products entered the picture. I don't recall adding milk as a part of the process of creaming honey. Baking products can often have a bacterial level of 10,000, while honey is heavily infested with levels of 200. Perhaps the nasty honey actually killed the bacteria? What a shame!

Aren't we lucky to have a Food Safety Authority dedicated to eliminate a problem that doesn't exist? Especially as under 'user pays' we will have the privilege of paying for lots of things to keep us in the lower income levels so we can benefit from Government handouts to the less fortunate. Red tape is wonderful when you consider all the opportunities we now have to act as secretaries, recording day-to-day activities, regular amendments to the Code and so on, so that someone can charge us each year to ensure everything is written down. Writing appears to be far more important than actually earning a living by doing something constructive.

Don't worry as you too can join in with the fun. Empire Building is the new fun game of Government departments and very soon you can see the NZFSA take over your local Council health inspector's workload. Don't be surprised if next you find them checking over your meals as you dish them out in your kitchen. No use having Nanny State running your life if they don't do it properly.

I feel disappointed that a number of efficient commercial beekeepers are now deciding to quit as they cannot cope with the additional workload being imposed by the NZFSA.

- Gary Jeffery
Mountain Beech Apiaries Ltd

Jim Sim of NZFSA responds...

The general conclusion of the hazard analysis that supports the COP was that honey is a low-risk product, there are no critical controls required, just good manufacturing practice in premises built for the purpose, kept in a reasonable state of repair, and operated in a way that minimises additional contamination of the product. So NZFSA agrees with Gary about the risk status of the product.

Any beekeeper with premises that comply with the Food Hygiene Regulations should have few additional things to

do to comply with the COP. Essentially nothing much is 'new' in the COP other than the requirement to write some systems down and then have those systems and your premises properly checked in a nationally consistent manner. The COP is more flexible than the Food Hygiene Regulations because it is written in an outcome-based manner and NZFSA can change it easily if necessary to do so. The COP also had a significant amount of industry input and is tailored for your industry.

It was interesting to note that every time we asked during an RMP workshop how many people actually had a copy of the current regulations very few hands went up. This shows that the system has clearly been reliant on a local inspector finding fault (or not) rather than a business ensuring it complies, or even understanding what rules actually apply. The real issue here is that in fact many premises do not comply with existing requirements and a new set of eyes coming through and checking will pick this up quite quickly.

At the end of the day, anyone who wants to do something different to what is in the COP is welcome to — they just need to justify what they are doing and why.

Bees Abroad

Jane Lorimer received a recent press release from UK charity, Bees Abroad (BA), established in 1999 by a small group of like-minded beekeepers who dreamed of relieving poverty through beekeeping, by carrying out projects in Africa, Mexico and elsewhere. Excerpts from this press release follow.

The charity aims to enable people to improve their income and domestic food security by becoming bee farmers. It promotes the use of sustainable and affordable beekeeping techniques.

"By pooling our resources and avoiding duplication of effort, we gained credibility and accountability, which is always important when you are trying to raise money," says Chairman, Jeff Bee. Jeff partly attributes his passion for bees to his surname which, incidentally, is the one he was born with!

And for those whose enthusiasm for beekeeping overseas has been kindled, it offers a range of unique holidays. The Kwe Danda project in Nepal was started with funds raised through the first 'Honey Hunting in Nepal' holiday in 1996. Since then, BA has taken bee lovers and wildlife enthusiasts back to Nepal and also to the Cameroon, Malawi, Thailand, and the Yucatan in Mexico. The next great adventure is set for November 2005 when a group will be going to Cambodia, not only to see a unique wonder of the manmade world at Angkor Wat but to experience a unique way of beekeeping, only discovered two years ago. For further details, contact Nicola Gilbert (nicola.gilbert@talk21.co.uk).

More information about Bees Abroad can be obtained from www.beesabroad.org.uk or from Juliet Moore, Administrator, Bees Abroad, Mumbleys Farm House, Sweetwater Lane, Mumbleys, South Gloucestershire BS353JY.

Seen at the Orange field day, New South Wales, Australia, May 2005

New Zealanders exhibiting their products

Photos: Frank Lindsay



Pat & Malcolm Haines



Ross Ward (right) with a customer



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USA National Honey Board research funding

The following three production research projects were started by the NHB in 2004:

An integrated approach to reducing pesticide and antibiotic use in honey bee colonies. Marla Spivak, Department of Entomology, University of Minnesota. Summary: Breeding for resistance is the foundation of an integrated and sustainable pest management system because resistant bees require fewer treatments to control two diseases and *Varroa destructor*. Funding period: Spring 2004–Spring 2005.

Twenty-four hour fumigation of colonies with formic acid and acetic acid for the control of varroa mites, small hive beetle, honey bee tracheal mites, and honey bee viruses. Dennis vanEngelsdorp, Pennsylvania Dept of Agriculture and Dianna Cox-Foster, Pennsylvania State University. Summary: Study designed to confirm 2003 preliminary findings which suggested that 24-hour fumigation with 50% formic acid and/or acetic acid is a viable control strategy. Funding period: Spring 2004–Spring 2005.

A third project funded and completed in 2004 evaluated a **fogging method with food grade mineral oil to control *Varroa destructor***. The treatment method was determined to be unsafe for beekeepers and of no benefit in controlling varroa populations or improving the overall health of the colony during the test period during the spring conditions in South Texas.

The following three 2005 projects have been selected for funding by NHB:

Testing oxalic acid for varroa control in dry vs. humid climates, and colder climates. Diana Sammataro, Carl Hayden Honey Bee Research Center, Tucson, Ariz. Summary: Study designed to determine if oxalic acid is an effective and safe control of resistant varroa mites in different climates. Funding period: Spring 2005–Spring 2006.

Effects of mineral oil and essential oils on honey bee worker brood and colony varroa mite populations. Jeff Pettis, USDA–ARS Bee Research Laboratory, Beltsville, Md. Summary: Study designed to determine the efficacy of mineral oils and mineral oil plus essential oils in controlling *Varroa destructor*, and to examine the potential side effects of mineral oil and mineral oil plus essential oils on colony brood and honey production. Funding period: February 2005–Summer 2005.

Ozone as a fumigant for honey bee supers and comb. Rosalind James, USDA ARS Bee Biology & Systematics Laboratory, Logan, Utah. Summary: Recently, ozone has been developed as an agricultural fumigant. For example, it is used on potatoes placed in storage to prevent rot, and it kills insect and fungal pests in stored grains. Ozone breaks down quickly into oxygen, so it has no contamination concerns. This study will test ozone gas to fumigate stored honey bee comb as a means to protect the comb from insect damage and rid it of disease. Funding period: Summer 2005–Summer 2006.

Source: Speedy Bee, February 2005

New equipment

There's always something that can be improved to make your extracting facility more efficient. After attending conference I'm gradually developing a wish list. Should I purchase a new extractor so it's fully NZFSA compliant regarding stainless steel and food?

I presently have two: an 8-frame tangential and a 21 radial, but a new 16-frame electronically controlled one looks good and has a few advantages for one who works on his own. My existing set up works really well with a helper but then I have to start drumming off before the end of the day, as I can only hold 590 kg in my storage vats (ex-USA stainless steel liquor drums).

There's a lot to choose from, manufactured both here and in Australia. If you'd like to push 200–400 boxes a day, there's a very nice Australian 45-frame horizontal extractor available. Very simple design and over 130 have been made so the problems have been ironed out. Like all radial extractors they don't remove every last drop of honey from the frames, but is very suitable if the frames are going back on to hives to be refilled. With the right de-boxing and uncapping equipment, you only need to handle individual frames to scratch off low cappings missed by the uncapper.

A heat exchanger? I do a lot of extracting later in the season and having warm (35 degrees C) honey going through the filters could save me a lot of time changing filters. Honey flows through the filters easier and doesn't block them up when it's warm. Or should I consider putting a hot water supply through my baffle tank?

A new hot room? Foam-filled panelling is light, easier to clean and would perhaps be more efficient than what I have at present, which is handmade using styrofoam, scrap timber with hardboard and chipboard liners bolted together. The doors, however, are the costly items. Should I get a roller door (made using the same panelling) or a large door like the ones you find on freezers? My present hot room only holds a day's production and I'd like a larger one that holds at least two days' production.

As always, when you upgrade one area the bottleneck moves further down the production line, so it's important to carefully plan upgrades.

A new lifter for the truck? Beekeepers are the last in the farming industry who still do a lot of manual lifting, which begins to affect one's back, hips and knees as one gets older. Other sectors have had to reduce the weights they lift. Sugar bags are now 25 kg, yet most of our supers are heavier than this. If you employ labour you may have to consider this fact.

I think I'll go for an upgraded hot room, as this will help the most to improve my throughput.

- Frank Lindsay