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The NEW ZEALAND BeeKeeper

Working harmoniously

• Organic varroa treatments • Australian EFB study tour
• Rent for apiary sites • Young problem solvers teach community

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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)
Jessica Williams
PO Box 10792
Wellington 6143
Ph: 04 471 6254
Fax: 04 499 0876
Email: secretary@nba.org.nz

EDITORIAL/PUBLICATION:
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

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

American Foulbrood Management Strategy
www.afb.org.nz

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

Exotic Disease and Pest Emergency Hotline 0800 809 966
www.biosecurity.govt.nz

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Front cover: Front cover caption: Kevin Gibbs and Aaron (one of Ian Oakley's crew) grafting queen cells. This photo was taken at one of Ian Oakley's apiary sites in the Hattah-Kulkyne National Park, Victoria, Australia.
Photo: Frank Lindsay.

Working harmoniously

By Frans Laas, NBA President

On 13 December 2010 the NBA and Federated Farmers Bees met with a number of very senior MAF officials to discuss a way forward in establishing a more harmonious working relationship.

This development was brought about by MAF's response to the discovery of *Nosema ceranae* in the Coromandel district.

The bee industry was somewhat incensed by the way that MAF officials handled the response and sent a letter to the Minister to air our views, resulting in the 13 December meeting.

The bee industry's relationship with government departments has traditionally always been rather tense and often acrimonious. The question that must be asked is how this situation arose in the first place, but these matters are now largely historical.

Mutual cooperation is normally a more productive way of dealing with issues; however, both sides need to act in good faith. One of the criticisms of the bee industry is that we play the man, not the ball. This is an interesting point of view and appears to be a fair call. But my own experience as a former MAF employee suggests that officials like to hold on to the ball a bit too tightly. It should come as no surprise to these officials when they become the ball. The operation of the AFB NPMS is also hamstrung, to some extent, by the Government and its agents wanting their cake as well.

At the meeting we had a free and open dialogue to discuss ways of moving forward, as the Minister is keen to see this situation remedied as soon as possible. For this relationship to become more positive, the bee industry will need to see tangible results from MAF to avoid a return to the bad old days.

As a consequence of this meeting, MAF and the industry have agreed on a joint project to reassess the economic value of bees to the primary sector. Work by the NBA Secretariat indicates that the previous figure of three billion dollars is probably excessively conservative. Unfortunately MAF was not very keen to pursue the establishment of sentinel hives in the Auckland area, which will disappoint the Auckland Branch. MAF pointed out the technical issues that they would need to deal with, leading them to conclude that some of the aims of sentinel hives would not be realised.

> "MAF and the industry have agreed on a joint project to reassess the economic value of bees to the primary sector."

As part of this new understanding, senior MAF officials will be invited to visit the industry coalface to get a perspective of the world of the commercial beekeeper. We also intend to have some regular update meetings where branch presidents will be given the opportunity to attend to better understand the MAF viewpoint.

At the most recent NBA Executive Council meeting on 18 February, the Executive agreed in principle to signing a memorandum of understanding (MoU) with MAF to enable this process.

Problems with hive shifting

Recently we have heard of a number of incidents where some beekeepers are shifting bees in an inappropriate manner. In one case, the police prosecuted an individual for having an unsafe load.

There are correct ways of transporting beehives and these processes should be followed. Stopping off at shops to buy food and petrol with unconfined bees during the day is clearly not good practice, and shouldn't even be done at night. In fact, when you are shifting hives you should have sufficient fuel for the journey, or carry spare fuel just in case and buy any food needed beforehand so you shouldn't have to stop at all.

22 February quake

Our thoughts are with Cantabrians and everyone in the bee industry at this extraordinary time. As far we are aware, beekeepers in the region are not in any difficulty as a result of the 22 February earthquake. The NBA Library in Ashburton is safe and secure.

We will have a fuller report in the April issue. Anyone who wishes to share their experiences, photos etc is most welcome to contribute: contact editor@nba.org.nz

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Treating with organic varroa treatments

By Frank Lindsay, NBA Life Member

If the reports from the Waikato field day last year are true that several beekeepers have encountered mites resistant to Apistan®, then all beekeepers will have to look carefully at organic treatments and experiment with them to see how they work in their area under their management conditions.

Organic varroa treatments are used extensively in Europe but European beekeepers have an advantage over us in that they have long brood-free winters, which makes organic control more effective.

Many organic beekeepers in the bottom of the South Island will be faced with treating varroa for the first time. The experience of North Island beekeepers in maintaining their organic status has been mixed, with several initially losing half their hives due to ineffective treatments and collapsing ferals. Even the trials that HortResearch Limited (now Plant and Food Research Limited) conducted have produced mixed results.

It's quite hard to successfully treat hives with organic fumigants. The first thing you notice is that the bees fan extensively to remove the gas. If too much is applied, you have queen and brood losses; too little and you get an insufficient kill that allows the mites to build again, resulting in winter losses.

Generally you have to put treatments in more often and you have to monitor the results in **all** hives to see that the treatments are actually working; i.e., do mite counts.

With organic acid treatments you have to wear all the protective gear as these treatments are dangerous. For a commercial beekeeper this can be time consuming and impractical, so after a few trials, most have opted to lose their organic status and use non-organic strips as they give a guaranteed kill rate (that is, while we don't have resistant mites). Those that have successfully maintained their organic status have apiaries isolated from other beekeepers so that there is a minimum of reinvasion. They are also using proprietary products, as they are easier to handle and require less safety gear.

> "With organic acid treatments you have to wear all the protective gear as these treatments are dangerous."

Experience with MiteGone™

Initially some used MiteGone™—an Oasis-type product in cellophane wrapping that allows 12 grams of 65% formic acid to evaporate over a 21-day period—but found it didn't work. In 2002, Bill Ruzicka from Canada (the inventor of this product) came to New Zealand and checked out the conditions here and the reasons for the decreased efficacy of MiteGone™.

First, he found that the humidity in the hives was higher in New Zealand than in Canada so insufficient acid was being released. All that was needed was to cut the wafer on an angle so that a greater surface area was exposed and this gave the correct evaporation rate.

Some hobby beekeepers have been successfully using formic acid pads for years. A lot more work is required to monitor mite fall and treatments are applied when varroa numbers increase. But there are no chemical residues so the bees are healthier.

Second, Bill Ruzicka recommended that we reduce the entrance right down, and either tip the hive back slightly or place a strip of wood (the height of the hive runners) across the front of the bottom board to create a "pool" of gas on the bottom board so that those mites falling off bees are killed by the gas. This is essential as normally formic acid (and most of the other fumigants in low concentrations are an irritant) only causes the mites to drop off, but without the pool of gas they recover and can climb back up on to the next passing bee. The bees get out of the hive through the reduced entrance and up and over this piece of wood.

Now the pads come in ready-to-use packs for both commercial and hobby beekeepers. Just pour in the acid and they are ready to pin out. They come pre-cut; one pad per five frames of bees, and can be left in all winter and reused again in the spring if not too chewed (see www.mitegone.com).

Reducing the hive entrance with newspaper

Incidentally, years ago some beekeepers rolled up newspaper and stuffed it into the entrance during late summer to reduce the hive entrance, which assisted the bees to defend the hives during robbing and into the winter when populations were smaller. As the bees expanded in the spring the paper gets chewed away, thus increasing the entrance to the hive. Since then beekeepers have tended to leave entrances wide open all year round. Perhaps we should revisit some of the old methods and see if they are still relevant to today's beekeeping.

Mesh bottom boards

Following the arrival of varroa, a lot of beekeepers adopted open mesh bottom boards, with mixed results. Others are very pleased as the boards are said to contribute up to a 20% loss of mites, plus they keep hives drier in winter. Mites that fail to attach or are groomed off the bees will fall through to the ground or on to a slide, away from bee traffic.

However, for organic acid vapour treatments to work with mesh bottom boards, it's essential that the bottom of the hive be enclosed by covering or designing it so that a piece of coreflute, hardboard or tin can be inserted under the mesh, thus enclosing the bottom of the hive to maintain the right level of gas in the hive and a pool of gas in the bottom. My experience in our windy climate with open mesh floors is that the bees do not cluster right down to the bottom of the frame in the first super as it's too draughty, so I leave the coreflute in all year round and clean it regularly.

Oxalic acid application methods

Oxalic acid is cheap and effective, but when dribbled into the hives between the frames it can cause some bee losses and cause some bees to shed their stomach lining. Therefore it's best if this is applied on a hot day when bees are flying so they can void outside the hive. Oxalic acid might also help control nosema. It works best when there is no brood and for the bees' health it should be repeated (if required) only once per month, or once for every generation of new bees.

The other method (which still requires a code of practice to be developed) is oxalic acid vaporisation. This is a time-consuming method but can be reduced by using several vaporisers at once. Again this method can be dangerous if the vapours (which are colourless) are breathed in. *Thirty parts per million will kill you in a confined space. Also, the acid will burn your skin and eyes, so full safety gear is required for all acid treatments.*

I have played with different vaporisation methods and found them very effective. One to two grams gives a 10 to 12 day varroa knockdown and is safe on bees and queens. From memory, early Swiss research showed that hives could be treated up to eight times per year before any detectable residue is noticed. I have yet to trial a commercial hot air gun model from the Italian company Lega. This is meant to give a 0.25 gram treatment in 15 seconds per hive, so could be used commercially if it works under our conditions.

Applying thymol crystals in dishes. Photo: Hort Research.

Thymol

This is an interesting chemical that can give other benefits, i.e., it can control nosema and chalkbrood as well as varroa. There are various commercial treatments available and all give good results if placed directly over the brood frames. This is a little different from the recommendations but again, we must adapt these treatments to suit our conditions.

Apiguard®

Apiguard® requires two treatments to be effective. An Auckland commercial beekeeper puts the gel directly on to the top of the frames so the bees have to clean it up. He sees a little bit of brood kill where it was initially placed but this method allows the bees to spread the treatment rapidly, giving good results.

Food Grade Mineral Oil (FGMO)

FGMO treatment (cotton coated cords and fogging once a month) works for some when they have mesh bottom boards and are diligent with replacing the cords (every three weeks). When this treatment was first introduced, the best hive I saw during an inspection was using this treatment, and no mites fell when Apistan® strips were put in the hive for surveillance.

Most opt for fogging alone but from my mite counting, fogging only gives a one-day knockdown that can vary from 300 to 1800 mites, but it really depends upon the number of mites in the hive (mine at that time had a total of 5000: a month's counting). It requires four squeezes of the trigger with the nozzle about 600 mm away from the entrance to put enough fog directly into the hive. The bees come pouring out and the fog goes everywhere. A passing motorist called the fire brigade when I was fogging an apiary close to a highway—very embarrassing.

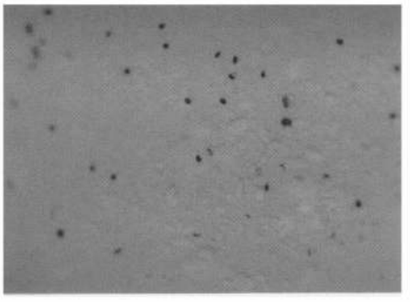
FGMO can be used on half the hives in an apiary as a smoker and then the rest are fogged/smoked and then worked. It's quite effective in stopping robbing as it must mask odour. Fogging too often will kill hives and a naked flame too close to the entrance of a fogged hive will cause the hive to pop, lifting the roof. Amazing it doesn't seem to kill any bees but it does give you a fright.

A more effective treatment (yet to be approved) is to add 5% thymol to the mineral oil. This not only kills the mites by blocking their breathing spiracles, but the thymol will also kill the mites by dissolving their cuticles, perhaps giving a longer kill time.

Note that organic treatments can only be applied when the honey is off the hives.

Other methods

There are other methods a hobbyist with a few hives at home could adapt. Sprinkling a quarter cup of icing sugar over the top bars of a two-high hive, every three days for 21 days, in conjunction with a mesh floor board, will clear almost all the mites out of a hive. The icing sugar prevents the suction cups on the mites' legs from working effectively and the extra grooming of the bees to remove the icing sugar dislodges the mites. Chemical free but labour intensive. It's easy but it also pays to check after the treatment to ensure it has been effective.



Varroa covered in icing sugar collected in a white tray after being shaken off honey bees. Photo: Hort Research.

Another simple method of reducing mite levels through the season is to put in an empty frame in the brood nest and allow the bees to draw a comb of drone brood. This is cut out on the 18th day to prevent any drones from emerging. I just did this with the hive in the garden and it now has a mite level of 9 mites per 100 cells. Most by now should have already started treating their hives.

[Editor's note: this is part 2 of a 2-part article. Part 1 appeared in the February issue, and provided an insight into how varroa treatments work.]

Australian EFB study tour

By Frank Lindsay, NBA Life Member

In September 2010, eight beekeepers from the Southern North Island Branch set off on a study tour to southern New South Wales and Victoria to look at EFB.

We had been working with Des Cannon and Peter McDonald to arrange for pairs of beekeepers to spend five days working with a commercial beekeeper. Kevin Gibbs and I were allocated to Ian and Pat Oakley.

The Oakleys live in Carwarp, a little community of a dozen houses alongside the railway line and State Highway 79, 10 minutes south of Red Cliffs. Mildura is the main commercial centre, another 20 minutes north of Red Cliffs, and is situated in the top right hand corner of Victoria. New South Wales is 15 minutes away across the Murray River and South Australia is an hour to the west. Carwarp is the main grain storage depot for the wheat in that area, with nine big storage silos and 10 hectares of flat concrete-lined bunker storage where trucks tip wheat on to the ground. It's not uncommon to load out several thousand tonnes in a day.

It's an ideal location for a beekeeper: in the country, close to almond pollination and the town where Ian can get seasonal labour in the form of backpackers whom he trains.

The area is one of contrasts. Close to the Murray River you find grapevines, almond trees, orange groves, avocados and all sorts of ground fruits growing, thanks to irrigation. Out in the country, on one side of the road is sand with scrubby mallee trees (a variety of *Eucalyptus*) that could be up to 100 years old. On the other, hectares of green wheat fields, which are dependent on the seasonal rains to thrive. Early land was sold in square mile blocks. Now land is worth approximately $250 an acre. It's amazing that crops can grow in the sandy soil but apparently the sandy loam is an ideal hydroponic medium: just add manure and rain and anything will grow. When we visited, the place was green with high grass everywhere. Most ground-producing pollen plants like wild turnip had flowered and were setting seed. Ian said within six weeks the green grass would have all been burnt off to straw.

Ian and Pat run 1800 hives but are expanding again to 2000-odd hives. This is the number they were running when they were interviewed by Doug Somerville (chief Technical Specialist, Apiculture, NSW Department of Primary Industries) for his book *Fat Bees, Skinny Bees*, a study of Australian plants, their nutrition and beekeeping techniques regarding feeding bees. The Oakley's business is a family affair employing one daughter, Ian's sister, a permanent beekeeper and between four to six backpackers during the busy part of the season.

The district is called Mallee after the predominant tree species in the area, but along the Murray River are red river gums and there are large areas of black box on the floodplain. The black box situated away from the river but still on the floodplain looked dead—the result of the 10-year drought—but some were just sprouting new growth again from the trunks following the winter rains. Ian told us 10 years ago you couldn't push a truck through there, as it was so thick. Now there are only tree trunks. We don't really know what drought is here in New Zealand.

Beekeeping sites in national and forest parks

When we arrived, Ian was trying to negotiate refuge sites in the national parks so he could move his bees away from plague locust areas. Ian had found a hatching site just two kilometres away from a canola crop his bees were pollinating, so the hives needed to be moved quickly to allow the farmer to spray to protect his crop. We set off into the Murray-Sunset and Hattah-Kulkyne national parks to check out what was flowering to support bees around the few registered bee sites still in the surrounding national parks.

Beekeepers have traditionally had apiary sites in the forest and national parks for which they pay rent (whether they are used or not), as the Australian *Eucalyptus* trees have irregular flowering (two, three and up to eight years apart, but most flower every three to four years). The flowers are set when they receive sufficient rainfall, but it could be another 12 months before they flower. Because of these irregular flowerings, beekeepers have traditionally loaned sites to other beekeepers when there is a drought or a forest fire in their area.

> "These national parks are not forests as we know them."

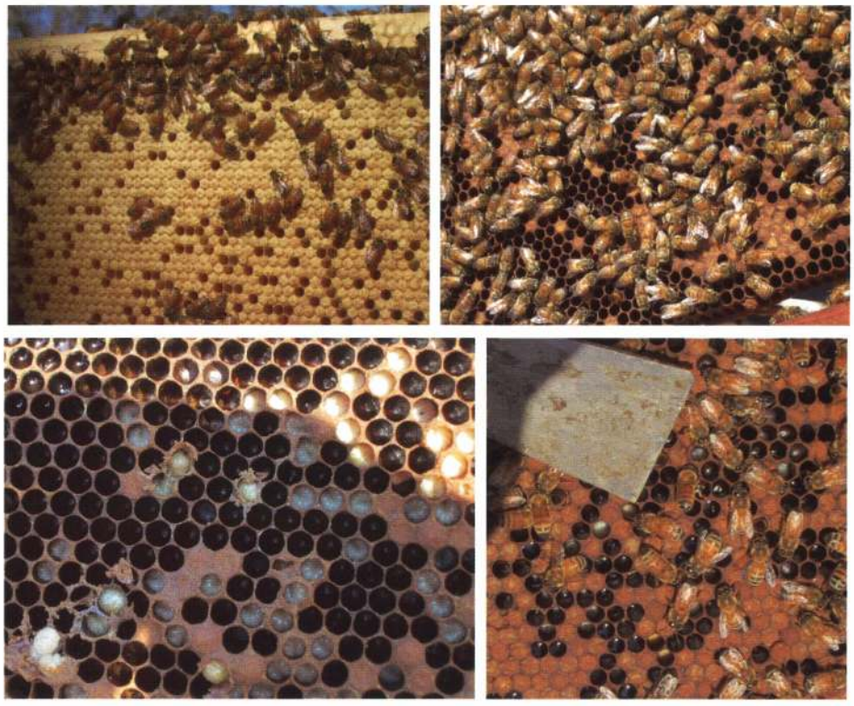
During the last decade, however, more and more parks are excluding beekeepers. Their rationale is that it's part of the greening of the parks but I saw flowers full of nectar. Bees don't normally threaten species in the park but assist in the propagation of the seed set that helps the plants and trees to re-colonise the area.

These national parks are not forests as we know them. Millions of years ago, this area was a shallow ocean. Salt lakes still exist in the lower areas along with small sand hills covered with red sand. On these hills certain trees (mostly the seven different types of mallees: white, giant, Christmas, little red, yellow, acorn are the principal ones) and scrub grow, including scattered areas of tea tree that were flowering during our visit.

Ian had selected a number of sites to put his bees on to protect them from spraying. These sites were either registered or close to registered apiary sites but he still needed the local ranger's permission, which was begrudgingly given on most selected sites.

Ian showed us a number of his apiary sites. He puts up to 240 hives on a site, four to a pallet. Like most beekeepers in Victoria and southern NSW, he uses eight frame boxes, a single brood super and WSP (three-quarter) supers for honey, separated by a wire queen excluder. The bottom boards have a steel bottom and 35-mm rims. The roof fits flush with the top super and has a 45-mm rim. Hives are wintered two high with the queen excluder in place. They are set up in pairs on the pallet with all entrances to the front. Each pair of hives is strapped on to the pallet with a single Emlock. The front and back hives are separated by about 100 millimetres for bee access to the back hives. Hives are moved to different locations following the flows.

Ian and Pat have three main vehicles: a three tonne 4x4 double cab truck, six tonne 4x4 bogie, (tandem) drive semi with a 36-foot long tray, a B double 27-foot tray, axle 32-foot bogie plus a 44-foot step down tray, which holds 2,200 WSP supers and which tows a swinger forklift on a trailer. The big semi has a hitchhiker forklift on the rear and can carry 400 hives. It was as good as a 4x4 as Ian could lock up all eight driving wheels. →



Identifying European Foul Brood (EFB) in the early stages. From left to right: (1) Shotgun appearance of the brood. This hive was headed by a young queen so should have wall-to-wall good brood. (2) Another hive with shotgun brood, showing sunken cells in the middle of the frame. (3) Note the light yellow larvae in cells. This photo also shows a sunken cell and exposed larvae. (4) A single cell shows up distinctly. Photos: Frank Lindsay.

Ian Oakley grafting queen cells.

Ian's beekeeping year starts in early July. Bees are fed pollen supplement "which warms them up" and within three days the queens will have started laying. By the second week of August the hives are moved into almond pollination with two to three frames of brood and a super of bees. These are huge orchards and hives are dropped in sites through the orchard in 18-pallet lots.

The hives are left in the Mallee district for the mallee flows (four flows) and are then moved six hours to south for clover seed, lucerne and canola hybrid pollination. The Oakleys work the area from a house they own in Frances, South Australia (4.5 hours south of Mildura, just across the South Australian border), and the staff use a mobile home which in a previous life was a mobile library. Ian uses the big semi to transport the hives and the honey supers back to their plant at Carwarp for extraction.

On day three of the trip we caught up with Pat, Shirley, Aaron and backpacker David, who were preparing hives for the flow. All work is arranged so it can be carried out by untrained staff. They were shaking all the bees off the frames on to the floor (ensuring the queen would be in the bottom super), inspecting the frames for disease and queen cells, putting six frames of brood and two foundation frames in the bottom supers, a queen excluder and then the three-quarter honey super. Spare frames of brood were collected and added to weaker hives so all were up to the same standard.

Before working out what work was required in an apiary, Ian would inspect three hives. By observing the number of flying bees he would inspect a weak, a medium and a strong hive, thus giving him an idea of the strength of the apiary. He would walk along a row of hives and by tapping the top of the wooden roof with his finger, he could tell by its sound whether the hive needed supering or not. Bees collect in the roof cavity when they get populated or are full of honey, and a full roof gives off a dull sound compared to an empty roof. Tin roofs don't give this indication. I get the same indication when bees come up into our dry (Miller) feeders. A roof full of bees from a strong hive can be put on a weaker hive, giving them an instant population boost. This helps to stop strong hives from swarming.

Dealing with EFB

EFB can be a major problem for hives in the spring some years. Even hives working a good flow will come down with EFB. Ian doses the hives with oxytetracycline (OTC) before they go into pollination and again if they show signs of EFB after they come out. He showed us some of the hives that failed to make the pollination grade. Some were just a clump of bees covering half the centre frames—less than a two-frame nuc. These hives had been affected with nosema and EFB and if left untreated would have died out completely. Ian explained EFB to us. There are two stages: the watery early stage and the brown, smelly stage, but EFB won't rope like AFB. The larva dies anywhere in the cell, at all angles, curled, while an AFB-affected larva is always straight in the cell.'

The first indication of EFB is by the shotgun appearance of the brood. In good light, when you look at the larvae before they are capped, you can detect those that are slightly off coloured (grayish), and those that are at a more advanced state (slightly yellow). This is when the larva is still in the curled stage (6–8 days). If the larva breaks down in this early stage, the internal goo is grayish.

You really have to see EFB to be able to identify it in its early stages. Identify it too late and the hive breaks down and is useless for honey production, if not dead. EFB is basically a nuisance but if left untreated can be as bad as varroa. Ian has to treat the hives with OTC (placed on top of the brood nest) or they would die. The hives are not normally storing nectar when he treats them so residues are not a problem. He tried not treating one season but all his hives collapsed and it took all summer to get the bees back into shape again. With 40 years' experience, Ian doesn't know how those beekeepers who say they don't treat for EFB can have healthy hives, even though some of these beekeepers live in the same district.

Other observations

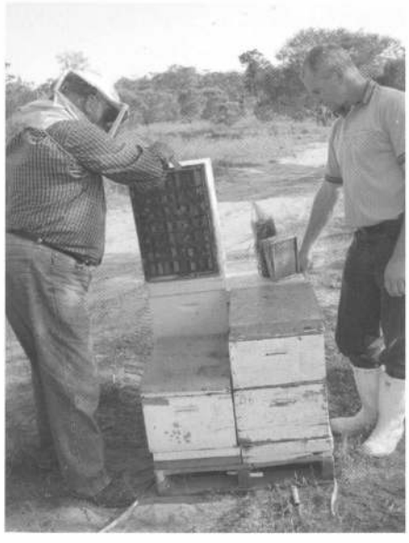
Not surprisingly, Australian beekeepers use some different terminology. A U-turn is a U-bolt. Lifting up a super to undersuper is

The crew working hives.

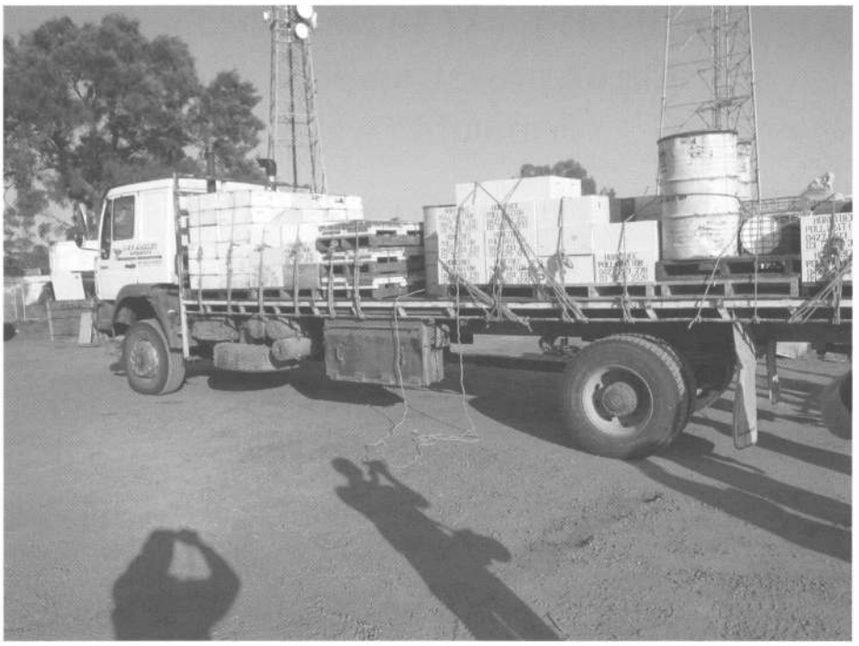
called a "jack-up". The small ants are called piss ants—I wonder who they upset the most: the bees or the beekeeper. They thought Kevin had a nice Kiwi accent; mine they said was less pronounced.
We were really looked after. We saw a snapshot of their spring activities and a demonstration of just how quickly they can load hives, transport them to a new location and set them down again. Ian was very patient, stopping all the time so we could take pictures of trees and animals, explaining the various species of trees and describing the very small differences between varieties of mallees. Some nights we talked well into the wee hours. On Friday, Pat suggested it was time we went home so Ian could get off the grog and back on to his diet.

Irrigation pumps make everything possible.

We greatly appreciate the time and tips these beekeepers gave us which will better prepare us for EFB and will assist our beekeeping in the future. We hope that we gave them a few tips in return that will help with their beekeeping. All in all, it was a really enjoyable learning experience.



Ian and Kevin looking at dud hives.



Ready to roll. Photos: Frank Lindsay.

Postscript

After I got home, the second hive I looked at had all the indications of EFB. My heart sank and I had that sick feeling in my stomach as I'd been through restrictions when varroa first arrived in our area. I carefully took samples of infected larvae and sent them off for laboratory testing, and also sent photos to AsureQuality Limited. Two weeks later I had a ring from the lab saying the samples proved negative for EFB. They suggested that perhaps it's a virus associated with parasitic mite syndrome (PMS) or half-moon disorder, none of which were visibly present in the hive.

Who do you call?

Recently the Secretariat has been receiving a lot of calls regarding hive registration and pest management issues, most of which we are unable to answer as those issues are dealt with by other entities. So, to make it easier for you to know who to call for what, we thought we would give you an easy reference guide.

AFB RECOGNITION COURSES

Rex Baynes – Manager, AFB NPMS
PO Box 44282
Lower Hutt 5040
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Rent for apiary sites

By Mary Allen

"Those beekeepers are ripping us off! Have you heard how much they are making off our land?"

"Yes, but remember the large donation that beekeeper guy pays to our school which your children attend?"

"You have seen their trucks going up and down our road loaded with bee boxes. One beekeeper told me they are producing active manuka honey and being paid a fortune, so why are we being mugs and not receiving more money for those beehives? DOC now demands a large payment from those beekeepers, so we should too. When those beekeepers work they do work hard, but they are hardly ever at their hives."

There are a number of valleys around Raetihi where beekeepers place their hives and there is not a valley that has not produced complaints. Greed is a human trait.

As beekeepers, you and I both know that not every box of honey taken off a hive will be full of honey. Not every manuka site produces active manuka honey.

We moved to a family farm near Raetihi (Waimarino District, now Ruapehu) in 1987. To the east we can see Mt Ruapehu and to the west a large area of steep hill country extends to the Whanganui River. Much of the farmland had been abandoned and left to revert to scrub (manuka). At that time we bought our first two hives. A Taihape beekeeper ran hives here and there was only one other man with 100 beehives, which he sold to one of migrating beekeepers when we arrived. Shortly after we took up residence in the district, the first of the Bay of Plenty beekeepers brought his hives into the area in summer. He was wise not to leave them in the area over winter and spring, as it is a hard place in early spring to keep beehives. Now thousands of hives arrive each year, about mid-December.

Hives in manuka country, West Coast. Photo: Frank Lindsay.

New beekeepers complain of big operators buying up large areas of land. As some of those beekeepers grow bigger they do to others what was done to them; e.g., putting one or two hives on a site which could take a hundred hives. The latest thing I heard (but have no proof of) is a large beekeeper renting out sites to others.

Several beekeepers said to me they would never pay for sites with money. Some of those who said that, and meant it at the time, now pay in money for bee sites.

Some beekeepers have offered work to locals but many want the money, not the hard work. All this is just the market at work.

To pay for a site with a yearly pot of honey used to be the normal thing. When I was a child at Whakamaru, I remember the beekeeper gave our family a kerosene tin full of honey each year.

When we asked, "What do people do in return for siting bees on someone else's land?" we were advised to give a six kilogram pot (some want smaller pots). Most farmers are happy with this and in most cases this is still the arrangement.

Payment for sites escalates

Just over a decade ago beekeepers started paying for sites, especially manuka sites. Very soon after that the Department of Conservation (DOC) wanted payment. Once DOC wanted payment, some farmers who used and maintained roads through Conservation land to reach other parts of their farm also wanted payment for the use of the road. Now the beekeeper had to pay three times for one site: the apiary registration, DOC and the farmer who maintained the track.

Next thing I heard of beekeepers seeing hives and talking to the farmers, agreeing to pay more than the existing beekeeper. The price of a hive on the land went up every few years, from $10 to $20 to (the highest I have heard of) $30 per hive. I do not know the latest figure. A few years back some were paying a percentage of the crop value (10% was a figure quoted) but I think this leads to trouble, as trust is required. Some pay per hive plus a percentage of the crop. I think a base payment per hive is best: then the farmer can count the hives.

A few people have told me the amounts they now have to pay to DOC—the figures are so high it is hard to believe. →

Consider a written agreement

Years ago Ted Roberts, an Apiary Officer in Palmerston North, suggested we should have a written agreement between the farmer and beekeeper. We never did this as I felt that a farmer would take offense, feeling his handshake was not good enough for us. I can now understand where Ted was coming from.

Many times farmers have asked us to put hives on their land. After walking around and finding a spot suitable to both the farmer and us, we make sure he is happy by explaining when we harvest the honey there will be lots of bees around for several days. Will the people and dogs be kept well away? A year later the same farmer may be upset with the bees and ask us to shift the hives.

Both the farmer and beekeeper need to understand each other's requirements and payment. A farmer may be more than happy with the money he is going to receive, until a few months later when his neighbour tells him the beekeeper on his farm is paying him twice as much.

Contracts were not required once but could be a good idea now as there are things a farmer needs to know. It is so easy to forget to mention something, especially if you get sidetracked. Items on the agreement need to include contact details for both parties.

Communication is vital

It is up to the beekeeper to talk to the landowner at least once a year. As with anything, if this is not done a small concern may fester into a big complaint, and you the beekeeper may be shown to other landowners in a bad light.

> "We need acceptance by the general public, so the more we can do the better."

Matters to be considered include:

- when to expect payment, how much, and if payment in kind is acceptable or is cash preferred
- safety issues on both sides; e.g., weak bridges; do not leave dogs tied to a fence near beehives; stock
- the farmer needs to ensure access to hives is not obstructed, and if there is a locked gate that the beekeeper has a key or access to one.

Here are some other things that do not need to be in an agreement, but are helpful to both sides:

- leave gates as found, open or shut.
- the beekeeper needs to keep hives away from gates and stock routes.
- do not leave honey on gate chains.

In the *New Zealand Farmer* last November there was an article about a Canterbury farmer prepared to pay a beekeeper to site hives on his land. He realised it would reduce the amount of nitrogen he would need to apply in future to make the grass grow.

People talk about how beekeepers give back and they are the ones to be admired. Beekeepers give back in many different ways. We need acceptance by the general public, so the more we can do the better. The beekeepers who come behind us need to be welcomed, so we need to leave a good impression. We need to support our industry to keep it strong.

BUSINESS

Tutin in honey amendment gazetted

From Food Standards Australia New Zealand

FSANZ recently announced the gazetting of an amendment which included a proposal for maximum limits for tutin in honey.

"Amendment No. 121 was gazetted on 10 February 2011 in Australia and published in the *New Zealand Gazette* on the same day (effect in New Zealand will follow gazettal of a Ministerial Notice).

It is available from the FSANZ website at http://www.foodstandards.gov.au/foodstandards/changingthecode/gazettenotices/.

The Applications and Proposal under which these amendments were made included: Proposal P1009 – Maximum Limits for Tutin in Honey.

You can subscribe to the *Australia New Zealand Food Standards Code* and the users' guides by contacting Anstat on +61 3 9278 1144 or order online <http://anzfa.anstat.com.au>.

You can subscribe or unsubscribe through the FSANZ website under the 'Subscription Service' link on the bottom right of all of their webpages (if you have difficulty doing this contact <information@foodstandards.gov.au>).

Source

Email from Standards Management Officer, Food Standards Australia New Zealand, 10 February 2011.

News from ERMA

Here is a round-up of recent news from the Environmental Risk Management Authority (ERMA).

New ERMA website goes live

ERMA's new website was launched on 14 February, with the aim of making their information easier for you to find. Go to http://www.ermanz.govt.nz and try the new database search, site searches, and others.

Streamlining the HS application process

A recent law change means only applications for hazardous substances that are likely to be of significant public interest will be publicly notified by ERMA New Zealand in future.

This change will streamline the process, resulting in a faster turnaround time and reduced costs for routine hazardous substances applications.

Publicly notified applications will be handled in the same way they are now, with a consultation document provided for public submissions.

Where applications are not formally notified for public consultation, the applicant will be asked to comment on the staff's preliminary recommendations via a draft decision document, rather than the current Evaluation and Review document.

Non-notified applications will be listed in ERMA's monthly newsletter, *The Bulletin*, and all decision documents will continue to be posted on our website, www.ermanz.govt.nz.

To subscribe to *The Bulletin*, please email <thebulletin@ermanz.govt.nz>.

Reassessment programme in full swing

ERMA New Zealand's reassessment programme is gaining momentum with a number of substances currently under review.

The reassessment programme involves taking a second look at substances already approved for use in New Zealand.

This month the reassessments of insecticides acephate and methamidophos and the fungicide quintozene opened for public submissions.

Decisions on the future use of the insecticide and veterinary medicine trichlorfon and the insecticide dichlorvos are pending; and work on reassessing the pesticide diazinon is also underway.

To read the application for the reassessment of acephate and methamidophos, go to http://www.ermanz.govt.nz/search-databases/Pages/applications-details.aspx?appID=ERMA200399

To read the application for the reassessment of quintozene, go to http://www.ermanz.govt.nz/search-databases/Pages/applications-details.aspx?appID=ERMA200692

Submissions on both these applications close on **16 March, 2011.**

Submissions sought on changes to public notification

ERMA New Zealand is seeking feedback on a proposal to change the way applications are publicly notified. The proposal is intended to improve the notification process and reduce administration costs.

In 2002, ERMA New Zealand asked the public for its views on ways of informing people about applications. An analysis of the submissions showed that public notices in newspapers were viewed by those responding as being the least useful of the methods surveyed.

The Bulletin and the ERMA New Zealand website were viewed as the two most useful methods of notification. The use of the website is also cheaper for the applicant and ERMA New Zealand.

If the proposal is adopted, full details of the consultation would be placed on the ERMA website, www.ermanz.govt.nz, which would be accessible from the homepage. Advertisements may also be placed in daily newspapers in some cases.

Submissions close on 4 April, 2011.

To read the consultation document or make a submission, go to http://www.ermanz.govt.nz/consultations/Pages/default.aspx and click on Discussion document on public notification process.

New rules for LPG

New rules around the use of LPG come into effect in March 2011.

The changes follow an Environmental Risk Management Authority review of LPG last year. They include tighter rules around the use of odorants, improved signage and refrigeration facility design requirements and restrictions on the quantities of LPG that can be stored indoors.

From March 2, industry and the public should be complying with the new rules. For further information on the rules, go to http://www.ermanz.govt.nz/search-databases/Pages/controls-details.aspx?SubstanceID=1403&AppID=3279

To find out more about using and storing LPG and the requirements for using cylinders indoors, go to http://www.ermanz.govt.nz/hazardous-substances/using-storing/common-substances/lpg/Pages/default.aspx

Source

The Bulletin—Issue 128, February 2011 ISSN: 117-3619. (Abridged from an email from ERMA New Zealand, 17 February 2011.)

See page 3 for more info.

Young problem solvers teach community

By Heather Greaves, Oturu School

The teachers at Oturu School, near Kaitaia in the Far North, try to make learning as authentic as possible and over the past few years, the school has built up a unique environment for growing and learning.

They have vegetable and flower gardens. They have beehives and hens. They have more than 200 fruit and nut trees. They pick, press and market their own olive oil. They make kawakawa balm.

In 2011, they will have a registered kitchen and are renovating an old shelter shed to become a shop so they can prepare, market and sell products from the bees, hens and gardens to the public.

Four of the senior students (in Year 8) are the school's Community Problem Solving team. They are Ayvran Mackie, Manaaki Jakobs-TePaa, Annaleah Cassidy-Taylor and Teina Snowden. They are part of a worldwide programme (the Future Problem Solving organisation), which was founded in 1974 by American professor Dr Paul Torrence. Its mission is to develop the ability of young people globally to design and promote positive futures using critical, creative thinking.

The girls proudly display their certificates and trophies after the finals in Auckland: Left to right: Teina Snowden, Ayvran Mackie, Manaaki Jakobs-Te Paa, Annaleah Cassidy-Taylor.

The Oturu team are in the junior section of the Community Problem Solving competition. This means they find a problem in the community and try to solve it. Because of the school's reliance on the actions of honey bees for the success of their food and marketing ventures, it was this topic that they researched.

They were aware of the problems with varroa mite but felt that adults were already tackling that problem, so they came up with a number of solutions that they could be involved in. They decided that they would be able to educate students and adults about the importance of bees and how to make bee-friendly gardens with suitable plants.

> "The team has been invited to the international finals in the USA in June."

The team began their work on this topic in 2010. They first had to set out their underlying problem, which was 'Honey bees are in danger'. Many people don't realise how important honey bees are for our survival and are unaware of what they could do to help the bees. How might we, the Oturu Bee Friendly Problem Solvers, encourage people in the Far North community to recognise the importance of bees so that they can help the bees, and the bees can help them, in 2010 and into the future?

They researched about bees and surveyed their parents to find out what they knew about bees. They got seeds, made information brochures and mazes and gave them out at presentations to the junior students at Oturu School, Paparore School and Papatawa School.

They spoke to teachers from six Far North schools and also to other adults at the Kaitaia Saturday morning market, where they gave out free seeds and information brochures and gave people tastings of olive oil and honey and a try of their kawakawa balm.

Harvesting the first honey from the hive, February 2010. Photos: Heather Greaves.

They have also discussed the gardens at the new Te Ahu Centre in Kaitaia, which is replacing the town's community centre. The manager of the centre has met with them and has said that they will be able to put a bee-friendly garden in the centre grounds when the building is finished. He also suggested some other areas around town where they could put in gardens to attract bees.

In November 2010 the team from Oturu was first in the junior community problem solving section of the Future Problem Solving National Finals in Auckland. They have been invited to the international finals to take place at the University of Wisconsin-La Crosse, USA in June. They will be competing against teams from America, the Asia Pacific region and South Africa.

Before they go to the USA, the team has plans to continue with their visits to local schools and to the Saturday morning market. They are going to talk to local farmers' groups about the importance of shelter on farms to protect the bees and to help them with pollination of crops. They are hoping that they will get some feedback from the readers of this article for ways that they could help with the problems bees are having. They are also fundraising for their trip to the USA.

Have a look at our website: http://beefriendlyproblemsolvers.weebly.com. If you would like to contribute to our fundraising, our address is:
Oturu School, RD2, Kaitaia, 0482. Our bank account number is: 123096 0253320 01.
The team gratefully acknowledges Arataki Honey for their financial support.

FROM THE COLONIES

Bay of Plenty Branch

There have been many challenges for beekeepers in the Bay of Plenty region this season. The tropical weather we are continuing to experience has been great for beachgoers, but proving to be, in some cases, disastrous for beekeeping.

Psa disease affecting kiwifruit vines, diagnosed for the first time in New Zealand last spring, continues to be a major concern for kiwifruit and service industries. The destructive Italian strain has been found only in the Te Puke area where the strategy is to contain the spread of disease. It is reported that 200ha of infected vines are currently being cut out and destroyed. Secondary infection is occurring in some orchards and monitoring in all orchards is ongoing. It is unknown whether pollinating bees are a vector for the disease, resulting in speculation in this regard. It is important that the beekeeping industry maintains an active role in managing the control of Psa.

Instances of poor orchard spraying practices during pollination have affected most of the beekeepers I have spoken to, resulting in bee poisonings during the last pollination season. Spray poisoning may often be the result of neighbouring orchards being sprayed while hives are present and bees active. This situation will likely be more common in future, if not properly managed, with new kiwifruit varieties coming into production and their staggered flowering periods across varieties. It is important that beekeepers report every instance of suspected spray poisoning so that a quantifiable and accurate picture of the problem is known. The "Bee Losses Survey" form can be downloaded from the www.nba.org.nz website.

A number of floods have occurred in both the eastern and western Bay of Plenty, resulting in some apiary sites and sheds being flooded and in at least one case hives being washed away. It is predicted that further ex tropical storms are likely to reach the region this year.

Discussions with a number of beekeepers this week (mid February) would indicate that honey crops have been widely varied about the region. While early spring flows showed promise, what followed was a different story. The rewarewa in most areas failed to flower, as did the tawari and clover.

While manuka flowered prolifically early on, in most cases it didn't last long enough to produce honey in any quantity. Periods of windy, wet and overcast weather, especially just prior to Christmas, has dramatically affected flowering and nectar flows. The general opinion is that honey crops are well below average and maybe the worst experienced for 10 years.

Looking ahead, the first branch meeting is planed for the end of March. This will be a discussion group and briefing along the format that was successfully run last year. Check for event details on the NBA website under events.

- Greg Wagstaff

Hawke's Bay Branch

We didn't get the floods that a lot of places had but we did get a lot of rain. Unfortunately this has not led to much of a resurgence in the amount of flowers around, and the overall feeling is that the Hawke's Bay will have a below-average crop.

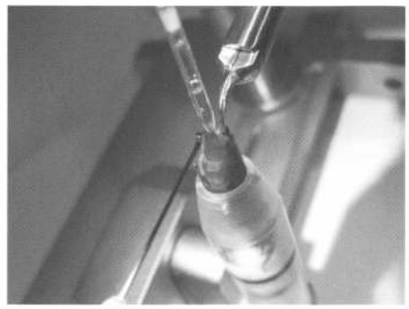
Like last year, most hives are not showing much sign of varroa yet, but a few isolated areas are already showing signs of PMS and need treatment urgently. I saw some hives the other day that had symptoms of what we call 'purple death'. Some of the capped brood is very dark and when you take the tops off them the gutline of the bee larva is a dark purple and the larva itself has a purple tinge. Normally these bees develop fine but

Penny and Mark Berry and Amy Dobson being shown AI techniques by Susan Cobey, our delightful tutor all the way from the United States of America.

occasionally the darkest coloured of them die. I have always blamed it on koromiko pollen but would be interested to hear from anybody else who has other ideas.

- John Berry, Branch President

[Editor's note: John's report in the February issue referred to an artificial insemination (AI) course at Ruakura run by Susan Cobey. Three people from the HB Branch attended this course, not a total of three as mentioned in the report. Below are a couple of photos from this course.]



A virgin queen held ready for insemination. Photos: John Berry.

Nelson Branch

We have had the most beautiful weather here in the top of the South for the past month or so: beautiful warm days and nights. Virgin queens have been able to get out on their mating flights very soon after the cells hatching, and with a combination of fabulous weather and a multitude of drones we are getting a high percentage of well-mated queens for our autumn requeening.

I wish the same success could be said for the honey crop. We had the most appalling weather right on the cusp of the main manuka flowering, which resulted in a widespread non-flowering or a week or two of light flowering before it was all gone.

After taking off an early crop of kamahi before Christmas the flow just stopped: it's only these first couple of weeks in February that it's starting to come in again.

At least the hives will go into winter heavy this year with no feeding needed at this stage, which is a big saving when you consider the price of sugar at the moment!

One or two hives are showing some mite damage; it seems it's the hives that went into the honey early and had the Apivar® in for six weeks as recommended on the packet.

After talking with the distributor, I was told that in fact the Apivar® needs to be in for 8–10 weeks. I hope that information will find its way out to all those using it.

Apart from those one or two hives, we are very happy with the level of mite control we received using Apivar®. We are using Bayvarol® for our autumn treatment.

To top off a lousy honey season, we have had some disturbing reports of full honey boxes being stolen from hives. With the number stolen from one particular area, it's obviously a beekeeper (and probably someone local) and not just a random act.

As beekeepers we all need to look out for each other and keep an eye on what's happening in our areas. We all work so hard and in years like this for very little return, it's soul destroying to go to a yard and see that some scumbag has stolen from you.

The sun is shining and the birds are singing and tomorrow is another day ☺. Just trying to end on a positive note!

- Gareth Ayers

A collection of wax candles from the honey shop and museum of Geoff and Robyn Ernst, south of Tirau (photo taken in 2006). Photo: Fiona O'Brien.

Bee Losses Survey—a reminder

Thank you to all those who have completed the survey and returned it to the national office.

The information we are gathering as a result is of great importance and will be extremely valuable in building cases to ERMA, MAF and AGCARM for re-evaluating a range of pesticides and for raising the bar in horticultural application practices. Both ERMA and MAF have expressed their interest in the results of the survey.

We appreciate this is a very busy time for you all, but if you have experienced bee losses for whatever reason we would encourage you to take the time to complete the survey and send to us.

If you would like further copies of the survey, please email pauline@nba.org.nz

A copy is also available on www.nba.org.nz

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The National Beekeepers' Association of New Zealand Incorporated
PO BOX 10792, WELLINGTON 6143, NEW ZEALAND
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Using a two-bucket extractor

By Paul Walsh, Auckland Beekeepers' Club, email: paulwalsh@clear.net.nz

At the club's apiary we have, for years, been using various bucket and sieve arrangements to separate honey and wax collected during hive inspections.

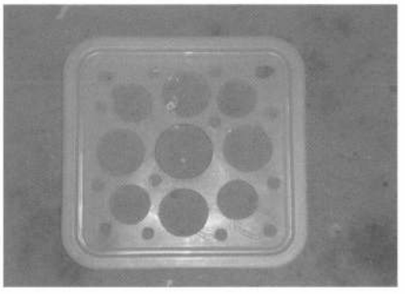
Burr comb, excluder scrapings, culled comb and the like can be collected along with contained honey. Paul Brown developed a system of two buckets with a sieve between and tied together with a wire hooked around the handles.

With the advent of plastic frames (from which comb can be scraped off and the frame returned to the hive for the bees to refill) and an increasing number of members with top bar hives, we thought we might make more use of the continuous harvesting concept. It was decided we needed a tap on the bottom bucket and an easier way to hold the contraption together.

General arrangement. Note the honey gate, bee escape and the Mk 2 holding straps.

The square bucket makes it much easier to fit the honey gate. Various taps, vented and unvented, were tried but they proved to be too slow. One of the problems cited by members was the number of bees that could be caught if the lid was left off for long. The bee escape might give some of them a fighting chance. The Mk 3 has a neater arrangement of straps using a plastic clip, involving less threading and easier connection.

The type of bucket used allows us to anchor the holding straps by threading it through a slot cut with a knife and drill bit into the plastic reinforcing, wrapping it around a piece of plastic and back onto itself and sewn (I actually melted the ends together with a hot iron).

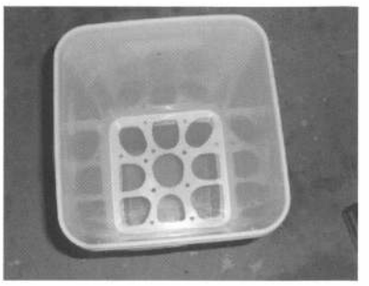


Various methods have been tried but the most practical and versatile way of supporting the filter is to place it under the bottom of the top bucket. The lid for the bottom bucket is cut away, leaving a supporting flange of at least 20 mm.

Should you wish to use a soft flexible filter such as muslin, you may have to leave more supporting material as in the photo above. But the surface area is less and it will drain much slower.

The bottom of the top bucket is drilled and cut in a similar fashion, maximising the surface area but keeping support. If too much is taken away the bucket walls will distort, resulting in leakage.

Cutting the plastic can be quite time consuming. I used a jigsaw for this, trimming with a knife and sandpaper. If you were using a supportive bottom lid you would have to make sure that the holes lined up.



Note that the mesh filter can be seen through the bottom of this (top) bucket.

To keep the honey flowing you must vent the bottom bucket with a small hole near the top. A five-millimetre hole above the handle should be sufficient. You may wish to vent the top bucket as well, but if you have a bee escape that will do it.

Various things have been used as a filter. Your choice will depend on cost, purity of honey required, viscosity of the honey and time to filter. Some of the things tried are:

- $2 shop 'splatterguard'. The stainless mesh is about 1mm x 1.5mm and can be cut with scissors.
- Plastic 'shadecloth' as used for propolis
- Plastic queen excluder (my favourite!).

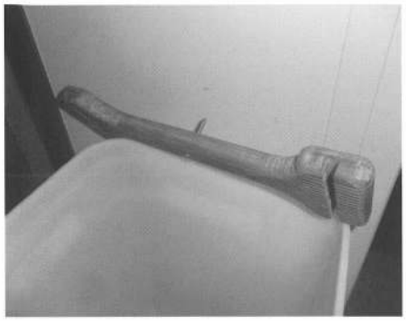
Thick materials should be cut to fit inside the bottom rim of the top bucket. Thin materials such as cheesecloth, thin stainless mesh, or muslin should be cut larger, which will hold them in place and reduce leaking when the straps are tensioned.

You could use the 'bag' system where a large cheesecloth bag is suspended inside the top bucket with the top folded over the outside. After several hours the bag is lifted out and squeezed or wrung out. This has been proposed for manuka honey but I haven't tried it.

The honeygate or tap should be fitted as low as possible, but don't forget to allow for the width of the inside washer. The bee escape should be fitted the correct way up.

This leaves us with the 'dogbone'. I have made mine from a piece of kwila decking but any hard easily cleaned wood will do. The screw is stainless and is to rest the frame on

when scraping. It must be wide on the sides to stop rolling over. It is not attached but fits closely on the rim and easily removed for cleaning.



The dogbone. Photos: Paul Walsh.

If you are not scraping or uncapping frames you will not need one.

List of materials

- Two square buckets. They cost $22.15 for the pair, with lids, including GST. They are 15 litres and are called 6902PHNA Logisticx Square pail and lids. The supplier I bought them from (Stowers, Auckland) also sells various taps and washers but not honey gates. A tap and threaded nut cost $5.70 but didn't work very well.
- Stowers also sells the 10-litre version, which is probably better. The 10-litre version would be lower and more stable. Weight-wise, even 10 frames of honey is probably a bit much if it has to be carried any great distance.
- The 15-litre version will hold the scrapings from 20 frames but the weight will be too much for the straps to hold. The top will separate from the bottom, leading the honey to leak out (at best!).
- The bee escape, honey gate and plastic queen excluder were from Ceracell Beekeeping Supplies in East Tamaki, Auckland.
- Plastic clips were sourced from a supplier in Manukau.
- The splatterguard and tiedown webbing came from a $2.00 shop in Onehunga.

Other useful tools were a battery drill and holesaws, craft knife, felt pen, sandpaper, hacksaw blade, jigsaw and 10 cups of coffee.

I hope this is of some use and guidance.

Possible improvements would be:

- a better seal between buckets
- some sort of quick-fit lid that fits around the 'dogbone' to stop bees flying in
- a stand to keep the honey gate clear of the ground.

Thanks for suggestions and critique from those club members that love to tinker. We would love to see some photos of other versions.

[Editor's note: this is an abridged version of an article originally published in the February 2011 issue of the Auckland Beekeepers' Club newsletter, along with a series of photos illustrating the process. Due to space considerations we were unable to reproduce them all here, or provide a full list of suppliers. If you would like a copy of the full article, please contact the author.]

Cherry-red bees in the Big Apple

By Susan Dominus, *The New York Times*

Cerise Mayo expected better of her bees.

She had raised them right, given them all the best opportunities—acres of urban farmland strewn with fruits and vegetables, a bounty of natural nectar and pollen. Blinded by devotion, she assumed they shared her values: a fidelity to the land, to food sources free of high-fructose corn syrup and artificial food coloring.

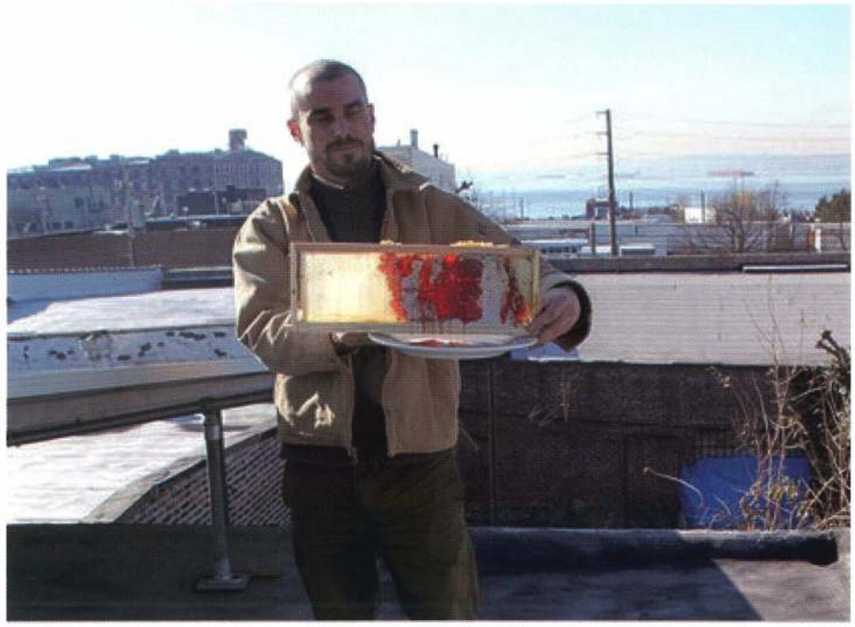
And then this. Her bees, the ones she had been raising in Red Hook, Brooklyn, and on Governors Island since May, started coming home to their hives looking suspicious. Of course, it was the foragers—the adventurers, the wild waggle dancers, the social networkers incessantly buzzing about their business—who were showing up with mysterious stripes of color. Where there should have been a touch of gentle amber showing through the membrane of their honey stomachs was instead a garish bright red. The honeycombs, too, were an alarming shade of Robitussin.

"I thought maybe it was coming from some kind of weird tree, maybe a sumac," said Ms. Mayo, who tends seven hives for Added Value, an education nonprofit in Red Hook. "We were at a loss."

An acquaintance, only joking, suggested the unthinkable: Maybe the bees were hitting the juice—maraschino cherry juice, that sweet, sticky stuff sloshing around vats at Dell's Maraschino Cherries Company over on Dikeman Street in Red Hook.

"I didn't want to believe it," said Ms. Mayo, a soft-spoken young woman who has long been active in the slow-food movement. She found it particularly hard to believe that the bees would travel all the way from Governors Island to gorge themselves on junk food. "Why would they go to the cherry factory," she said, "when there's a lot for them to forage right there on the farm?"

It seems natural, by now, for humans to prefer the unnatural, as if we ourselves had been genetically modified to choose artificially flavored strawberry candy over strawberries, or crunchy orange "cheese" puffs over a piece of actual cheese. But when bees make the same choice, it feels like a betrayal to our sense of how nature should work. Shouldn't they know better? Or, perhaps, not know enough to know better?



*David Selig of Red Hook, Brooklyn, a restaurant owner and amateur beekeeper, was also disappointed that instead of honey his bees had produced a red concoction more reminiscent of maraschino cherries, or of cough syrup. Photo by Ozier Muhammad/*The New York Times.

"Why would they go to the cherry factory," she said, "when there's a lot for them to forage right there on the farm?"

A fellow beekeeper sent samples of the red substance that the bees were producing to an apiculturalist who works for New York State, and that expert, acting as a kind of forensic foodie, found the samples riddled with Red Dye No. 40, the same dye used in the maraschino cherry juice.

No one knows for sure where the bees might have consumed the dye, but neighbors of the Dell's factory, Ms. Mayo said, reported that bees in unusually high numbers were gathering nearby.

And she learned that Arthur Mondella, the owner of the factory, had hired Andrew Coté, the leader of the New York City Beekeepers Association, to help find a solution.

Mr. Mondella did not return phone calls seeking comment, but in an interview, Mr. Coté said that the bees were as great a nuisance to the factory as Red Dye No. 40 was to the beekeepers. (No, Ms. Mayo was not alone: David Selig, another Red Hook beekeeper, also had bees showing red.)

"Bees will forage from any sweet liquid in their flight path for up to three miles," Mr. Coté said. While he has not yet visited the factory, he said that the bees might be drinking from its runoff, and that solving the problem "could be as easy as putting up some screens, or providing a closer source of sweet nectar."

Could the tastiest nectar, even close by the hives, compete with the charms of a liquid so abundant, so vibrant and so cloyingly sweet?

Perhaps the conundrum raises another disturbing question: If the bees cannot resist those three qualities, what hope do the rest of us have?

A story of the perils of urban farming, this is also a story of the careful two-step of gentrification. Red Hook embodies so much of Brooklyn culture—an infatuation with the borough's old ways, just so long as those do not actually impinge on the modish design and values.

The maraschino cherries that emerge from the Dell's factory have probably graced thousands of retro-chic cocktails and sundaes in Red Hook itself, or at least in Williamsburg. Finding some solution to the maraschino juice bee crisis—to all urban clashes of culture—is part of the project of New York, a wildly creative endeavor in and of itself.

All summer long, friends of Ms. Mayo were forever pointing out the funny coincidence that her first name means "cherry" in French; as a slow-food advocate with the last name Mayo, she was already accustomed to such observations.

Mr. Selig, who owns the restaurant chain Rice and raises the bees as a hobby, was disappointed that an entire season that should have been devoted to honey yielded instead a red concoction that tasted metallic and then overly sweet.

He and Ms. Mayo also fear that the bees' feasting on the stuff could have unforeseeable health effects on the hives.

But Mr. Selig said there was something extraordinary, too, about those corn-syrup-happy bees that came flying back this summer.

"When the sun is a bit down, they glow red in the evenings," he said. "They were slightly fluorescent. And it was beautiful."

Source

Dominus, S. (2010). The Mystery of the Red Bees of Red Hook. *The New York Times,* 30 Nov 2010, page A1 of the New York edition. Internet link: http://www.nytimes.com/2010/11/30/nyregion/30bigcity.html?_r=2. Published 29 Nov 2010. Accessed February 19, 2011.

LETTERS TO THE EDITOR

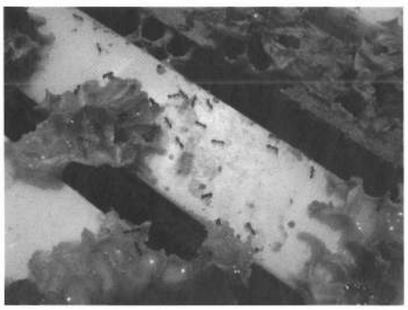
Argentine ants

By Barry Foster, NBA Vice President, East Coast Ward Representative

Argentine ants were found to have arrived in New Zealand several years ago and since then they have spread around the country, including pockets around Gisborne.

Here is a photo taken at an isolated hive of mine just north of Gisborne, where Argentine ants are getting into the honey supers while the bees seemed to be confined to the lower super. This is a three-box hive with a queen excluder on top of the first box and two boxes of honey above it. Local authorities sell a bait specifically for Argentine ants that is placed in small lengths of garden hose bait stations around a property and beyond. This controls them but will not eliminate these ants.

This will be a growing problem for all beekeepers and I'm wondering what others have found and what they are doing about it?



Hasta Apimondia!

Information provided by the Congress organisers

Apimondia 2011, the 42nd International Congress of Apiculture, will be held in Buenos Aires, Argentina, from 21–25 September. Apimondia also includes ApiExpo.

The venue, the Blue Pavilion of "La Rural Predio Ferial de Buenos Aires", provides 2,700 square feet of exhibition space in an area specially prepared for visitors to walk comfortably. You will be able to see products from exhibitors in the areas of health, nutrition, tools, machinery, services, inputs, technology and related products.

You can find more information on their website: www.apimondia2011.com.

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A bit of a fizzer

By Frank Lindsay, NBA Life Member

We are now coming to the conclusion of a season that initially was shaping up to be an exceptional production year.

A mild spring set the hives up well, allowing the bees to make the most of the early sources. However, all was spoilt just before Christmas when wet, cool weather set in for two weeks. Instead of producing nectar, trees went into a growth phase despite putting on a good show of flowers. Supers put on after Christmas hardly had a frame drawn out, and pohutukawa that generally drips nectar from its flowers hardly produced.

With continued showers in the western regions, pasture has kept growing but has produced very little flowering except for catsear. Some farmers are smiling and are about to make their fourth cut of hay, while farmers on east coast sheep farms (those without irrigation or lucerne) are feeding out the last of their early silage to sheep on stalky bare paddocks. What a difference in conditions from west to east. Travelling around you can see lacebark, korimako, rata and pink and red eucalyptus flowering, while pennyroyal, lotus major and catsear can be seen flowering in the wetter pasture areas.

Along the rivers, some willow leaves are turning yellow, indicating autumn is near. The bees have started to pack honey down around the brood nest in preparation for winter. When the last of these sources finish, the bees will start robbing weak hives. But they are also opportunists and will gather fruit sugars from fallen apples and pears after wasps have made an opening in the ripe fruit. I have also seen them gather nectar from ripe totara berries. Bees will also gather honeydew from plants infested with aphids and *Scolypopa*—one being tutu.

In December I thought that it might be one of those plague years for *Scolypopa* north of Wellington as I noticed tiny *Scolypopa* on a few tutu spikes a month earlier than usual. But all the rain and cool weather in the region has cut back their numbers considerably. Just lately I have only found them on a few blackberry bushes: none are on any of the tutu bushes. In one of my potential hot spots, quite a few tutu trees along stream verges have died—the result of a three-quarter-inch borer hole in a root plus a little poison. I had also asked the odd farmer spraying the banks along the road verges to flick poison on the odd tutu tree. Even though we are in a low-risk area, it doesn't hurt to minimise a possible problem.

"Swarms at this time of the year won't survive the winter unless they receive massive feeding."

Preparing for winter

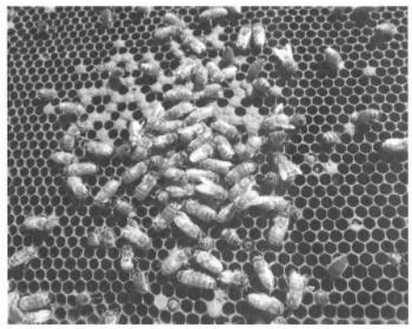
In my apiaries the four-frame nucs I made in November have been steadily building in bee numbers due to a constant dribble of nectar, but not enough has been coming in for the bees to store any. By early February they were in singles or doubles, with beards of bees hanging from entrances.

What to do? Do I super them to give them space that they will fill with more brood, or do I leave them in the hope they won't expand further? Normally at this time of the year with a dribble of nectar coming in, some hives will produce a few supersedure cells to replace a failing queen. However, our conditions resemble spring so the odd hive has been stimulated to swarm. Swarms at this time of the year won't survive the winter unless they receive massive feeding.

As the crop is removed, the varroa treatments go into the hives. I also clean up the apiary sites with a weed wacker. Some beekeepers spray around the hive to remove grass but I believe anything sprayed close to hives will end up in the wax—something USA beekeepers have found when they tested their wax while researching the cause of CCD.

One of the most commonly used insecticides used in agriculture was the third highest residue (after miticides) to be found in the beeswax. This was considered unusual, until some twigged that the beekeepers were using this chemical to spray pallets to prevent fire ants migrating on them when the hives go to almond pollination. It may take a bit longer but by keeping the grass down in around my hives, it makes it easy to observe the odd crawling bee.

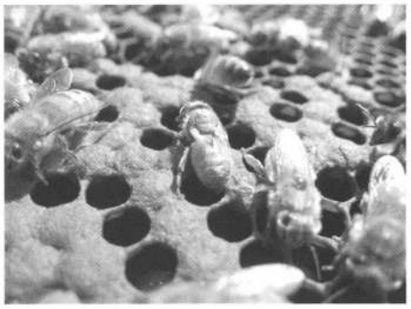
I was surprised in mid-February to see several bees without wings in one apiary. I saw hardly any mites on the mesh bottom board trays except for one hive. On opening this hive I observed a reduced population with full blown parasitic mite syndrome (PMS)—mites on bees, bees without wings, shotgun brood with sacbrood—not a good look. How did this occur? Did I forget to treat this hive in spring? Have the bees been robbing a feral hive? I don't know but this hive will receive a few frames of emerging brood to get it back into good condition to produce winter bees.



PMS brood frame.

Hives that haven't pulled their weight, those that hardly produced a crop due to swarming or have had other problems are being marked for splitting. I intend to winter a good number of nucleus hives to meet the demand for bees by new beekeepers and to make up for the odd hive that goes queenless during the winter. Hives that have a spotty brood pattern or a have the odd drone brood larvae in amongst worker cells (the first sign of a failing queen) are also

marked for queen replacement. Protected queen cells will be added to these hives shortly. This will also help with the varroa treatment by creating a brood break. When this happens all the mites will be on the bees so are easier to kill.



Deformed wings and varroa visible. Photos: Frank Lindsay.

Things to do this month

Remove honey supers, complete AFB checks, extract honey, requeen hives, treat for mites and prepare to winter down hives: replace the odd super and close down entrances.

Some hives may need supplementary feeding to carry them through to spring. Keep an eye on wasp numbers: they are increasing rapidly now. Put out some homemade jam (it contains more sugar than store-bought jams) to get them feeding in one spot. On your next visit, add poison to the jam while you're working the apiary and remove it when you leave. Sometimes bees will work the jam and we don't want to poison them.

Commercial beekeepers without much honey will have to farm through a financially restricted period. They may have to combine hives to reduce hive numbers—don't skimp on winter feeding. Some beekeepers may be able to sell bees for the package industry. If numbers are reduced, consider banking a number of queens in case they are not readily available when you want them. Queen banks have to be fed continuously and supplied with young bees regularly to keep the bees feeding the caged queens.

48-hr queen cell introduction

by Larry Connor

The following article has been excerpted from the August 2010 issue of Bee Culture.

A small but growing number of beekeepers are moving grafted queen cells two days after grafting. The reasons for use of these cells are these: a) The queens are from a particular stock, and this offers a low-cost option for introducing a particular stock into an apiary; b) At the 48-hr stage the larvae is still quite small, and still unable to move from the mass of royal jelly in the started cell; c) If produced in a quality queen rearing operation, the cells will be well filled with royal jelly, with often 80 to 90% of all the jelly the larva will receive from the nurse bees before sealing; and d) Last and perhaps most important, these cells may be transported a number of hours outside the hive with no apparent harm to the developing larva.

This allows for beekeepers to travel a distance from the source, or to ship the cells by overnight delivery. A cell may be carefully placed into a brood frame so the tip of the cell hangs downward and the bees are able to complete the cell building process. My favorite aspect of this system is the rapid feedback I get from looking at the cell two or three days after introducing the cells into a new group of bees—if the queen cell has been accepted it will be sealed and well cared for by the bees. But if they decided that the larva was not perfect, if the larva was overheated during transport, or for any other reason defective, you know it right away. No need to wait another week or two to take action, such as add another cell, search for the overlooked and very stealthy queen in the box, combine the brood with a hive that has got it right and has a fully sealed queen cell. The system still requires most of the queen development time (about nine to 10 more days before the queen emerges), and the time for mating and egg laying to start.

Further reading

Dr Larry Connor's website www.wicwas.com

Safe quad bike use

By the Department of Labour

The Department of Labour has released Guidelines for the *Safe Use of Quad Bikes on Farms.*

The Guidelines support the Department of Labour's Harm Reduction campaign to reduce the unacceptably high rate of farm accidents involving quad bikes.

Every year, 850 people are injured on farms while riding quad bikes. Five die. This is a toll we must reduce.

These guidelines provide farmers, farm workers and contractors with practical advice about how to stay safe when using a quad bike for work.

They are very clear about what the Department expects of employers and others who have duties under the Health and Safety in Employment Act 1992. While not law, the guidelines may be used by the Courts to help decide whether or not someone has failed to comply with any provision of the Act.

From April the Department's quad bike campaign will broaden to focus on enforcement action where inspectors find evidence of people working with quad bikes in a dangerous way.

Ignoring the information is just not an option.

The guidelines can be found on our website at http://osh.govt.nz/publications/booklets/safe-use-quad-bikes/quad-03.asp

Keep beeswax in the honey house!

By Maureen Maxwell, Northern Ward representative

Here are a couple of tips to protect home furnishings from beeswax spills.

Removing beeswax from furniture

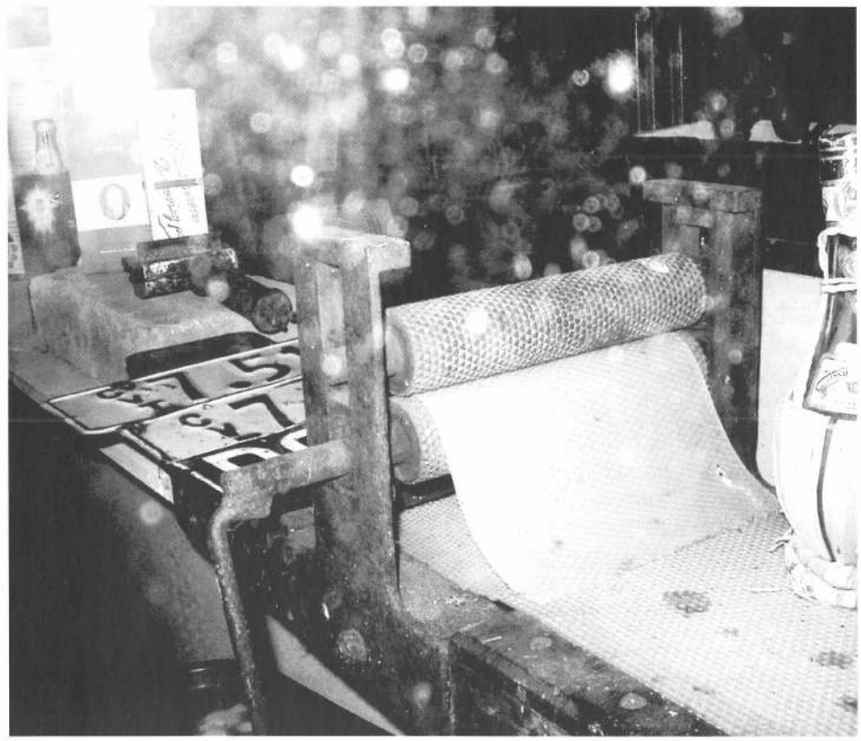
If beeswax is accidentally spilled on a wooden surface, scrape off as much as possible, then heat the area using a hair dryer on low. Once the wax liquefies, wipe the surface clean with a soft dry cloth.

Removing beeswax from carpet or linen

To remove beeswax from carpet or fabric, take off as much as possible by hand (putting in the freezer for a short time may help), then place a piece of kitchen paper towel or brown paper over the area. Apply a warm iron, moving over the wax as it soaks into the paper. Apply with care as some fabrics may be too delicate or scald with ironing.

Source

Fleetwood, Jenni. 2009. *Honey*. Lorenz Books, www.lorenzbooks.com



A wax press from the honey shop and museum of Geoff and Robyn Ernst, south of Tirau (photo from 2006, taken behind glass). Photo: Fiona O'Brien.

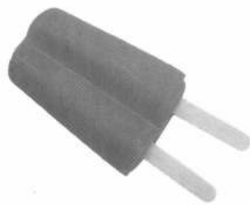
Honey & fresh fruit ice block

By Maureen Maxwell, Northern Ward representative

Here's a simple healthy honey recipe for the hot months ... something to keep the whole team cool.

2 cups water or juice
1/2 cup honey (to taste)
3 cups of fresh summer fruit, roughly chopped

Blend all till smooth and freeze in ice block or paper cup moulds with a stick inserted.



All the summer fruits are great—apricots, peaches, berries and more. Just use what's fresh and plentiful.

Chef's tip: For variation, or maybe a two-tone special effect, add some yoghurt to the blend. Taste and adjust flavour with honey if desired. Freeze in one solid block or freeze one flavour and then top with a second variation for fancy effect.

April issue deadlines

The April issue of *The New Zealand BeeKeeper* goes to all registered beekeepers in New Zealand. The deadline for articles and advertising is 7 March 2011.

Material received after 15 March may not be published.

See page 3 for further information and contact details.

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

Lower South Island Ward

Frans Laas (President)
Wildlife Solutions Ltd
102 Gladstone Road
Mosgiel 9007
Ph: 03 489 4597
Email: f-laas@xtra.co.nz

East Coast Ward

Barry Foster (Vice President)
Tawari Apiaries Ltd
695 Aberdeen Road
Gisborne 4041
Ph: 06 867 4591
Fax: 06 867 4508
Mobile: 027 449 7131
Email: bjfoster@xtra.co.nz

Northern Ward

Maureen Maxwell
BeesOnline/Wild Forage Ltd
97 Taylor Road, Waimauku
Auckland 0882
Ph: 09 411 7065 (h)
Mobile: 021 956 349
Email: maureen@beesonline.co.nz

Waikato Ward

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

Bay of Plenty Ward

Neil Mossop
Mossop's Honey
1064 State Highway 29
RD 1, Tauranga 3171
Ph: 07 543 0971
Email: neil@mossopshoney.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

Upper South Island Ward

Kerry Gentleman
Ward-Holmes Road
RD2, Takaka
Ph: 03 525 7571
Fax: 03 525 7569
Email: frazer.kerry@clear.net.nz

Central South Island Ward

Trevor Corbett
PO Box 20
Waipara, North Canterbury 7447
Ph: 027 450 4567
Email: beeworks@xtra.co.nz

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

NORTHLAND

Sarah Peacey
Wairua Apiaries
76 Malone Road
RD 9, Whangarei 0179
Ph: 09 434 6344
Mobile: 021 031 9129
Email: sandspeacey@gmail.com

Simon Peacey
Wairua Apiaries
76 Malone Road
RD 9, Whangarei 0179
Ph: 09 434 6344
Mobile: 021 858 648

AUCKLAND

Ian Browning
1824 Great South Rd
RD 3, Drury 2579
Ph: 09 236 0764

Bob Russell
101 Kern Rd
RD 3, Drury 2579
Home Ph: 09 294 8656
Work Mobile: 027 284 8951
Email: bobrussell@kol.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.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

Don Simm
CMB35, Manutuke
Gisborne 4010
Mobile: 021 150 3041
Email: manutukeherbs@clear.net.nz

Barry Foster
695 Aberdeen Road
Gisborne 4041
Ph: 06 867 4591
Fax: 06 867 4508
Email: bjfoster@xtra.co.nz

HAWKE'S BAY

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

Mary-Anne Thomason
15 Sydney Tce, Takapau
Hawkes Bay 4203
Ph: 06 855 8038
Email: kintail_honey@xtra.co.nz

SOUTHERN NORTH ISLAND

Peter Ferris
PO Box 255
Masterton 5840
Ph: 06 378 7632
Email: happy.ferris@xtra.co.nz

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

NELSON

Frazer Wilson
Ward-Holmes Road
RD2, Takaka
Ph: 03 525 7571
Fax: 03 525 7569
Email: frazer.kerry@clear.net.nz

Michael Wraight
15 Titoki Place
Motueka 7120
Ph/Fax: 03 528 6010
Email: wraight@xtra.co.nz

CANTERBURY

Brian Lancaster
1195 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

Allen McCaw
Milburn Apiaries
RD 2, Milton 9291
South Otago
Ph: 03 417 7198
Email: amccaw@clear.net.nz

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

SOUTHLAND

Carne Clissold
Glass Brothers Ltd
RD 5
Gore 9775
Ph: 03 207 1866
Email: carne@glassbrothers.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

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 the NBA website.