November 2010, Volume 18 No. 10

# The NEW ZEALAND BeeKeeper

## Government needs to rebuild trust

- Japanese market in delicate balance
- Concise explanation of CCD
- Making nucleus/swarm boxes

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Front cover: Many new beekeepers received their first introduction to beekeeping at a recent hobby day at Ohariu Valley, Wellington. Photo: Frank Lindsay.

# Government needs to rebuild trust

By Frans Laas, NBA President

In the October journal you will have seen a survey form concerning colony losses in New Zealand. It is important that beekeepers take a look at this seriously.

Evidence clearly suggests that hives are being lost or significantly weakened. Industry and government agencies should be taking urgent notice of the problem.

Colony losses due to the usual causes such as starvation, stock damage, queen failure and poor varroa management are an inevitable component of beekeeping. However, colony losses and weakening after going into pollination or exposure to unknown adverse events are becoming increasingly common. To quote one beekeeper, "Bee losses from poisoning have been quite bad this year. Not many dead bees out the front like with carbaryl but just a lot of bees missing from hive and a real smattering of dead and dying brood. I wonder what new chemical they are using". The continual comments from beekeepers that their hives are being affected by going into pollination can't be ignored forever.

It is interesting to note that the Minister of Agriculture believes that the bee industry is in good shape and expanding. This is based on the numbers of hives reported to the Management Agency (MA). But not everything is as it seems at first glance —and officials should not confuse increasing hive numbers with a growth in the size of the industry.

Since 2007 the Management Agency has undertaken some increased enforcement activities in the form of helicopter surveillance and successful court cases. Also, the requirement by the NZFSA for stringent traceability has resulted in the increased reporting of apiaries and hive numbers. The recently published growth curve in reported apiary/hive numbers is biologically unlikely, considering what is currently happening in the industry at the moment. As an example, a beekeeper who has been a thorn in the side of the MA for many years has finally come clean and his reported hive numbers have increased by 200%. Was there an actual gain in hive numbers? I think not.

The reality is that bee colonies in New Zealand are in real net decline. The North Island feral population has been all but eliminated and this process will continue in the South Island over the next few years. The growth in beekeeper numbers is almost entirely in the hobby sector, and with a median number of hives being owned by beekeepers being four colonies, it would suggest that the increase in hobby beekeepers is providing no real change in bee colonies in this country. The continuing loss of feral colonies more than cancels out this inconsequential gain.

## *Nosema ceranae* update

With the recent discovery of *Nosema ceranae* in the Coromandel the industry has another problem to deal with. MAF has decided not to properly investigate what really happened, choosing instead to abandon any more work on the subject. They have made some rather interesting statements indicating that the organism is widespread throughout the country, without any evidence to support such a conclusion. In fact, the evidence they do have supports the fact that the disease is present only in the Coromandel region. This would indicate a recent incursion into the country. If it is a recent incursion, it indicates another failure in MAF's border systems. This raises a host of questions and concerns about the integrity of the proposed Government Industry Agreements.

MAF's decision to abandon the *N. ceranae* issue has raised the hackles of the bee industry representatives. Our suggestion that we undertake some surveillance in the South Island to determine if *N.c.* was present, even if we were prepared to pay for some of the work, was met with a blank refusal. Basically, the decision to do nothing was carried out at a high level before any industry/government dialogue had even occurred. Clearly the attitude by MAF to the recent exotic disease incursions has incensed the Federated Farmers group as a whole.

The bee industry has been trying to establish a culture of mutual cooperation with MAF and other government departments to work together to deal with issues of the day. Their current actions, which in some quarters have been stated as being "arrogant", have clearly severely strained that relationship.

The current willingness of this industry and other primary industries to engage in the GIA process has been undermined by this action. MAF needs to begin to rebuild this culture of trust and cooperation; otherwise they will encourage a return to the unproductive and acrimonious relationships of the past, which does no one any good.

## Pauline replaces Gemma

Some members have been enquiring about the absence of Gemma Collier from the scene. She resigned from Four Winds Communications some months ago to move to Auckland with her partner and take up some different opportunities. I note that I have not mentioned this in previous reports and I must apologise to Gemma for this oversight. She was a very valuable member of the team and I was personally saddened that she left our organisation. We wish her well in her new role and hope she will come back to the industry in the future.

Gemma has been ably replaced at FWC by Pauline Downie who is working closely with Daniel and our Secretary, Jessica. Pauline has a passion for the industry and is very quickly coming up to speed with all of the issues currently on the industry's plate. Any members visiting or phoning FWC's offices will very likely end up talking to Pauline. Welcome aboard!

the splits to a new apiary to stop the field bees returning to the original hives and putting a 10-day-old queen cell into each. Splitting a hive will reduce the probably of hives swarming; plus the splits can be used to make increases or to requeen hives once the new queens are laying.

Most hives will have been partly disrupted by the weather but the job has to be done. Queen cells are more resilient than you think. One queen breeder once left a bar of queen cells on top of a hive overnight, during which time it rained. He put the bar in an incubator and to his surprise, all queens emerged.

Ian Oakley told us of a trick he used with queen cells. He was late putting the cells into hives and the queens started chewing at the cappings, so he popped them into the deep freeze for 20 minutes or so (checking every five minutes) until they went quiet. He then put them in the fridge (4°C) for about four hours while he set up nucs to take them. Later that day he took them out to the apiary and by the time they were being introduced, they started chewing their way out again.

### Things to do this month

Check feed, check pollen. During October the bees brought in quite a lot of nectar and pollen, which has been turned into bees. November in some areas has a period of dearth of nectar and/or pollen and unless hives are fed with sugar syrup and pollen supplement, they will go backwards. If there is a brood break at this time of the season, it can affect the number of bees in the field during the main honey flow, so watch hives closely and don't let them run out of reserves.

Check hives for AFB. Raise queen cells, super hives (put on another as soon as the bees are covering three frames). Undertake swarm control: do a quick check by splitting the hive and tilting the supers back, looking along the bottom bars of the second super for queen cell buds with eggs or young larvae in them. Once queen cells have started, the hive should be split—continually removing queen cells is not the answer! Remove old dark frames or those with a lot of drone brood: move them to the outside if they contain sealed worker brood for removal on the next round. Replace with foundation frames in the second super interspaced with frames of brood. Fit foundation into comb honey supers. Monitor varroa mite levels. Plan on getting your strips out just before the main honey flow starts next month.



# Bees attracted by certain flowers

Researchers have found that gardeners can attract more bumble bees for pollination by growing red flowers and flowers with stripes.

The observation was recorded by the Biotechnology and Biological Sciences Research Council in Britain, with help from the New Zealand Institute for Plant & Food Research.

The research showed that red flowers and those with stripes following the veins of the flower were visited more than white or pink flowers.

Professor Cathie Martin from the British centre says stripes provide a visual guide for bees, directing them to the entrance to the flower as a central landing platform.

### Source

 (2010, October 17). Bees found to be attracted by certain flowers. Retrieved October 18, 2010, from http://www.radionz.co.nz/news/national/59746/bees-found-to-be-attracted-by-certain-flowers

# 100-year ticket to ride

By Blanton Smith, *Taranaki Daily News*

Leslie Retter was reunited with his pride and joy—a 1965 Rover 3L saloon—as a treat for his 100th birthday yesterday.

"I want to buy it back," the birthday boy, better known as Les, said after a quick trip around the block.

The car's new owner, Roger Newland, who bought the saloon for $7000 in 2002, made a special trip to New Plymouth for the big day.

"I drove nine hours from Whangamata just to take him for a ride on his birthday," Mr Newland said.

Mr Retter bought the car brand new and kept it in immaculate condition for the 35-plus years he owned it.

"He took real good care of that car. He had seat covers and then a blanket on top of that for protection.

"If it was wet he would wipe the car down straight away," friend Ian Gundesen said.

A beekeeper for most of his life, Mr Retter says he doesn't know the secret to longevity but it could have something to do with staying in the same job for years and avoiding World War II.

"I didn't have to go to the war.

"I guess I was busy with the bees," he said.

Having not received his letter from the Queen yet, Mr Retter says he was happy to share a piece of cake and a glass of wine with his friends and fellow Renaissance Resthome residents.

Life gets more simple with age, said Mr Retter, who likes nothing more than sitting in the sunshine and sleeping.

"I do, I sleep a lot these days," he said.

### Source

Smith, B. (2010, October 15). 100-year ticket to ride. Taranaki Daily News. Retrieved October 18, 2010, from http://www.stuff.co.nz/taranaki-daily-news/news/4235655/100-year-ticket-to-ride. Reprinted with permission.

and another of pollen and honey. I released a virgin queen on to the top of the frames and she immediately went down into the bees.

Newly emerged virgin queens do not have any scent, so are accepted by any hive. They can be dropped into the top of a hive or smoked into the entrance. Provided they get past the guards, they will go up on to the honey and pollen frames and have a feed before they seek out any other queens.

The beekeepers hunted around the apiary and vehicles gathering up old queen cages so I could put the remaining virgin queens in. The cages were plugged with beeswax and a smear of pollen and honey was put on the outside of the cage for the queen to eat. If a newly emerged queen does not have a feed within an hour of emerging, she will die.

Just as we finished with that hive, another at the end of the row started to swarm. I blocked it off with grass but judged there weren't enough bees in the air to make a nuc, so I lifted the roof of the hive (which had a queen excluder underneath) and let a few more out so the air was full of bees. The queen excluder prevented the hive's queen from escaping from the hive. These bees didn't exactly go to plan as they settled on another hive further down the row of hives, but they collected on frames of brood when presented with them. These bees were also put into a box and a virgin added. There is no need to remove these nucs to another apiary, as after bees have swarmed they will generally stay put when settled into a box.

*The swarm bees nicely settled into a super after returning to the hive.*

## Collecting swarms

Collecting swarms can also be a problem. First off, a small swarm can often indicate that it's a second cast so will probably be headed by a virgin queen. You can hive them but next day they will be gone. The solution is to put a frame of young brood in the super with the swarm. Bees will not generally leave brood so this will generally hold the swarm.

I have also gone to collect a swarm on a bush or post and the bees will immediately take to the air and fly off to parts unknown. I now carry a small spray bottle with water in it and spray the bees lightly before touching them. The water spray settles them down and they are less flighty.

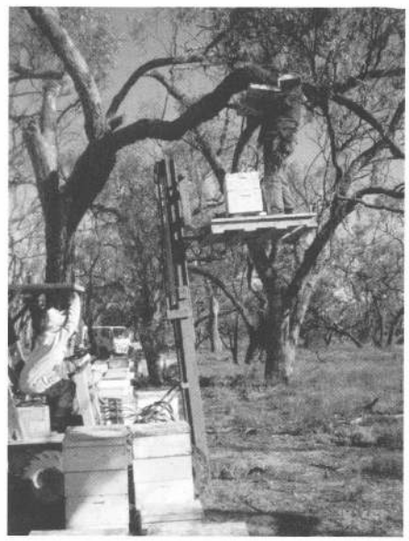
I like to hive a swarm late into the evening to stop them taking off again, so use a fold-up cat carrying cage in which to catch the swarms. The cage has nylon mesh on two sides and the top, which provides plenty of ventilation and also allows those bees still in the air something to settle on to. These cages come free as a promotion once or twice a year with 20 kg of cat food from your local vet.

Collecting swarms off solid surfaces, fence posts, walls etc., is easy. Just scoop them up but you then need to smoke the site heavily to disguise the queen's pheromones, otherwise the bees will start reassembling back on to the object again.

## Is there a queen?

Another factor after a hive has swarmed is to ascertain whether it has a new queen. Most of the brood has emerged, and when you smoke the hive the bees buzz just like a queenless hive, so what do you do? First off, you have to determine whether or not you have a virgin queen in the hive. It takes a skilled eye going over every frame to check and in most cases you will miss her as she moves so fast. A skilled beekeeper will check the middle frames of the brood nest and can establish whether the hive is queenless or not. When a hive is queenless, the bees put pollen and nectar haphazardly in the cells. But when there is a new queen, the bees prepare the cells for her to lay in by moving the honey out. They then begin polishing the cells in the middle of the frames, about the size of your hand.

An easy way for a new beekeeper to find out if the hive has a queen is to put in a frame of brood that contains very young larvae and eggs. If the hive is queenless, within a day the bees will have deposited royal jelly under five or six young larvae so they are literally swimming in royal jelly. This is a clear sign



*Ian Oakley hiving a swarm the easy way.*

that the hive is queenless. It's best to order a new mated queen as it will take another 60 days for the queen to develop, mate and the first generation of bees to emerge.

If all the larvae have an even amount of royal jelly (brood food) under them, the hive has a queen. Leave the frame in the hive, as the young bees will help feed the next generation of bees. You then have to wait for a fine, calm day when the temperature reaches 20°C for her to take a mating flight. Check seven days later and if all has gone well, there will be eggs in the middle frames.

*A young queen but what happened to her wings? Was she in a fight when coming back to the hive after mating?*

## Queen cells

In October most commercial beekeepers were running around splitting hives, taking

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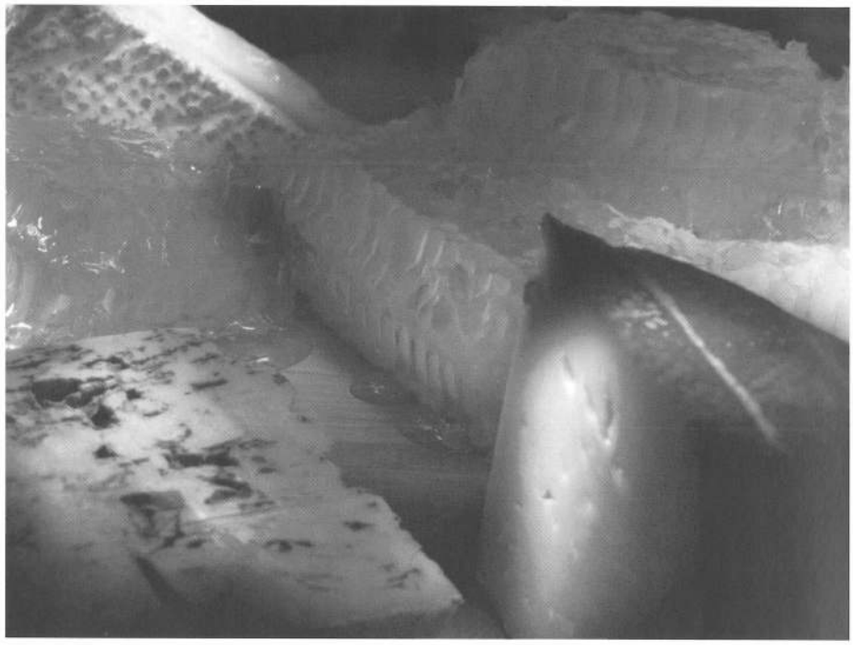
# Japanese market in delicate balance

By Steve Lyttle

## The Japanese market for New Zealand honey hangs in the balance as exporters continue to push the limits of credibility surrounding bioactive manuka honey.



*Adding significant value can be as simple as a good photo. Photo supplied by Steve Lyttle.*

This market is becoming increasingly confused as a number of existing and new exporters seek to expand their market presence by marketing manuka honey as Active Manuka based on its Total Peroxide Activity (TPA) content. Now we all know that the "Molan Magic" of manuka honey is based on the Non-Peroxide Activity (NPA) content. We also know that when the average international consumer sees a manuka honey label with letters or figures beside the word manuka, they expect the honey to have the "Molan Magic". Sadly this is not the case. In simple terms, the honey testing positive for NPA (the Molan Magic) will kill bugs as per Dr Molan's research, and the honey tested positive for only TPA will not.

So why would exporters suddenly want to start expanding their sales based on the TPA test? I believe it's simply a way to piggyback on the reputation of NPA and duping the unsuspecting consuming public for profit. What else could it be? I have never seen any concrete evidence that honey with TPA has the same properties as honey tested with the Molan NPA test method.

Over the past twelve months we have seen an increasing shortage of NPA manuka honey testing above 16+ and it would seem the increased presence of TPA honey in the Japanese and other international markets has coincided with this.

Japan presently imports around 28,000 tonne of honey, with China being the main supplier at 24,000 tonne. New Zealand supplies around 400 to 600 tonne and most of this is high added-value product based on the country of origin.

I believe New Zealand has the potential to double honey sales to the various premium markets in Japan, provided we do it in a professional and credible way. If we continue down the present path, we will devalue New Zealand honey in the eyes of consumers and become no more than another supplier of honey. Once this happens we will be competing on price against China for market share, and returns to New Zealand beekeepers could fall by up to 60%.

As an exporter I would prefer to have a 15% margin on a high value product as opposed to a low value one. The confusion in the Japanese market is a good example of why we need robust standards and audits for all New Zealand honey.

## Tips for cell bars

For those that haven't done this before, here is a jig for hold cell cups. Set it up so they hold the cells very lightly. Dip the bar in beeswax several times to build up a coating of wax on the bar, then press the bar firmly on to the cups. Dribble a little wax along the sides of the cells to hold them on more firmly.

Next, dip the tips of the cells just into the wax to form a wax coating for the bees to build the cells down on. Quickly shake well to remove any wax across the cell mouth. This is easily removed when the wax is cool. (Tips courtesy of Ian Oakley, Carwarp, Victoria, Australia.)

# When things go wrong

By Frank Lindsay, NBA Life Member

Not everything is sweet and rosy when it comes to bees. Just when you think things are going well, a patch of cold weather will confine the bees and get them building queen cells.

Swarms are a nuisance to a commercial beekeeper but for a hobbyist, they are free bees. A commercial beekeeper is not interested in picking up a swarm unless it's still hanging in the apiary, whereas a hobbyist will travel to pick them up.

The main thing with swarms is to ask the right questions of the person reporting it. A huge swarm to a non-beekeeper's eye is the size of a grapefruit—the residue of a swarm that has moved on. Best to ask how many 'footballs' it is in size. I also ask if anything has been done to the swarm. It's not much use going to recover a swarm that has already been sprayed with insecticide or hosed with water.

*A nice-sized swarm*

I always ask how high it is: more than three metres off the ground requires a harness. Ladders can be unstable at times and I have fallen off a ladder but luckily landed in a sand pit. Now I secure everything with rope. I have also done my share of tree climbing but now prefer to throw a rope over a tall branch. A quick pull on the swarm at dusk will see the bees settle on the ground (rather than back up on a higher branch) and therefore can be lightly smoked to encourage them into a box. Bees that swarm into a house can only be encouraged out with smoke if they have been in there for an hour or so.

Using a smoker in an old building is dangerous. After a while that cool smoke is not so cool and in a 100-year-old cottage roof, timbers are very dry and will easily start to smoulder. Believe me, it's very difficult to scrape out the seat of a possible fire with a hive tool. In this instance, the fellow introduced me to Glayva (a whisky liqueur) and it was only after a drink that I owned up to nearly setting the cottage on fire.

I also ask how long the bees have been there. With each day the amount of nectar in the bees' bodies diminishes and the bees get more defensive.

## Beware of public demonstrations

Before varroa I would look at the bees and if they were dark, I would put on a bee suit as crossbred bees can't be trusted. That said, I was collecting a swarm off a brick warehouse wall, standing on a forklift with a good number of staff present to watch. "Yellow bees, no problem," I thought, and put my bare hands into the swarm to pick them up and put them into a box. What a surprise when I was immediately stung at least 10 times. I quickly backed off and geared up. It wasn't until I had collected them that I discovered that these bees were trying to take over a hive of black bees that were already established in the wall. These bees weren't very happy, stinging everything on the outside, including my hands.

Generally once bees are in a building, it's a pest destruction problem unless you can get at the swarm easily and put one-way bee escapes across the entrance. You then need a nuc box with at least a frame of brood and eggs. Set it up over the entrance to attract the field bees returning to the hive. These bees will raise a new queen and after a month, the majority of field bees will be in the nuc box along with a new laying queen. Several 10-second bursts of fly spray will generally kill off the remaining bees in the building. Get the owner to seal up the hole with a foam spray.

## Virgin queens and swarming

A swarm can issue at any time after the fifth day right up to just before the virgin queens emerge. Recently I was in Australia looking at EFB and while observing those working in the apiary, a hive in the apiary started to swarm. As the bees took to the air, I asked Ian Oakley (our beekeeping host in Victoria) if they were going to do anything about it. He said he had tried smoking them as the bees started pouring out, but nothing would stop them swarming. I asked if I could try so went to the hive and blocked the entrance with a hive tool. From my experience in trying to catch a queen as she emerges from a swarming hive, the bees force her out fairly late in the piece, so I concluded that she would be still in the hive.

> "Newly emerged virgin queens do not have any scent, so are accepted by any hive."

Blocking the hive entrance stopped the bees from coming out and as there were thousands in the air, I got two frames of brood and put them in front of the hive entrance. Without a queen, the bees started returning and not being able to get into the hive, they started gathering on the frames. Half an hour later I removed the hive tool and a few bees came out to protect the entrance. They had completely lost the urge to swarm. I opened the hive and started checking the hive for queen cells. There were half a dozen and several were emerging as I examined them, so I quickly placed the frames in front of the hive in a box with one frame of honey

we decided the easiest way to clean up is as we get to it each day. What used to take 20 minutes to load up now takes a couple of hours to sort through, then another hour or so in the evening doing the disposal and wash-out work. It's all more difficult without power on site and still using a generator. The upside is that it will be completed in another month.

We were very lucky that the quake was in September as we pretty much only had feed honey in the sheds. It would have been a total disaster if it had struck in February, when we could have easily have had our whole crop sitting on pallets waiting to be extracted. I have included a couple of photos of frames that were shattered in their boxes: if you look closely you can see that the shaking was enough to snap the wires. If it had happened in February I think my insurance cover would have been found wanting. Something for everyone to consider; that said, this is not an everyday occurrence!


*Shattered frames. Photos: Brian Lancaster.*

- Brian Lancaster, Branch President

# Earthquakes and bee behaviour

By Amanda Macrae

## Having hives in the backyard five metres from your bedroom window is something I absolutely love.

Most evenings Don Simm and I sit next to the hives, watching the bees bring back the pollen and observing their behaviour.

About three weeks ago I was sitting by the hives just before an earthquake occurred in the Gisborne region. I think it measured 5.7ish. It was very noticeable that the bees' behaviour changed at least three minutes or more before the earthquake hit. (Excuse the non-beekeeper explanation of what I noticed.)

The bees seemed to be flying in slow motion, not really wanting to go into the hive. There were quite a few flying out and hardly any flying in. It almost seemed like they were hovering. I explained it to Don as they looked like they were full and did not feel like working. About one minute before the earthquake hit, a pheasant called out and then me, the seat and the hives all swayed a few times and it was over. The bees went into fast-forward compared to what they had been doing before the earthquake, and all was back to normal. For a novice in beekeeping like me, it was extremely noticeable that the bees and even the pheasant were aware of what was about to occur before it did.

I have a background in neurological work and have had firsthand experience of dogs that sense the chemical and electrical changes in people with epilepsy before a seizure occurs. These dogs are trained to sense the seizure activity before the client realises what is about to occur. Thus far, neurologists cannot explain how a dog senses this change: some even dispute whether this is possible until they see it with their own eyes. It goes to show that we humans are not as evolved as we like to think we are and all cannot be proved by science. Could bees be the future indicators to us for earthquake warnings?

I would be really interested in hearing from anyone else that has experienced viewing hive behaviour during an earthquake. You can email me at manutukeherbs@clear.net.nz or phone 06 868 1321.

# A more concise explanation of CCD

By James Fischer (james.fischer@gmail.com) for *The American Bee Journal*
http://www.americanbeejournal.com

A multi-institutional team of researchers sifted through the ever-growing zoo of new invasive, exotic pathogens of bees, and consistently found the same two disease organisms in beehives suffering from Colony Collapse Disorder (CCD) in samples collected from 2006 to 2009.

They discovered a new virus never seen before in North America, and found a well-known invasive variant of the intestinal bee disease Nosema. The overlooked virus may explain why prior studies presented mutually contradictory findings. This new evidence could create a basis for consensus among research teams who to date, lacked common ground in their conclusions.

Their paper appeared in the journal *PLoS ONE* http://dx.plos.org/10.1371/journal.pone.0013181 It reports on a multi-year study of Colony Collapse Disorder. Researchers used new technology and techniques to detect and unambiguously identify every pathogen in collapsing bee hives, rather than the smaller subset of possible pathogens detectable via other means.

An Invertebrate Iridescent Virus ("IIV"), newly-found in North America, in combination with *Nosema ceranae*, which arrived from overseas less recently, was found in *"Virtually all of the bees from CCD colonies"* sampled from widely dispersed USA hives from 2006 through 2009.

IIV was not found in bees from packages imported from Australia nor in bees from an isolated nonmigratory commercial bee operation in Montana, both sites confirmed free of CCD-like symptoms.

Additionally, the researchers *"observed the progression of CCD in a collapsing colony... taking bee samples... over a three month period, ending when only a queen and four workers remained."*

Further still, some bees were inoculated with Nosema ceranae, while other bees were inoculated with the "IIV-6" strain of the IIV virus. Their mortality was then compared to bees inoculated with both pathogens, and a control group given a placebo. The results *"strongly suggest that the combination of N. ceranae and IIV is associated with increased bee mortality."*

Yet even further, the effort discovered two additional invasive exotic bee viruses never before detected in North America, but determined that they were not involved in CCD. The viruses found are "Varroa Destructor-1 Virus" and "Kakugo Virus", both native to Asia.

Dr. Jerry Bromenshenk of U Montana outlined the next steps *"We have a proposal pending to isolate, characterize, and then inoculate bees with the specific iridescent virus that occurs in USA bees. This is a critical step, since the virus does not appear to be any of the world's known iridescent viruses. Once we have the actual virus, we can complete the inoculation trials that are needed to test whether we've truly found the cause of CCD."*

## Proteomics – a brief summary

The technology used in this study seems ideal for addressing the ever-growing list of pathogens carried across oceans by the globalization of trade. It can detect disease pathogens that need not be identical to any known pathogen. This describes the needs of beekeepers clearly, given the number of invasives that came to plague honey bees in the USA since the early 1980s.

"Mass Spectrometry-Based Proteomics" (MSP) starts with about 60 bees tossed in a blender, and mixed until homogenous, then filtered. Cells are chemically burst, and proteins are isolated from the mix and "digested", breaking them down to peptides. The resulting peptides are run through a device called a "Liquid Chromatograph" to separate them by density, which allows their structure and sequence to be determined by another set of devices, "Tandem Mass Spectrometers".

Each peptide sequence is then compared to the NIH National Center for Biotechnology (NCBI) database of peptide sequences. The database used is a collection of the peptides unique to specific organisms. This means that each match of a peptide sequence is a unique match to a single organism. Any peptide used in more than one organism would not be in the database.

Dr. Charles Wick of the US Army Edgewood Chemical Biological Center explained the level of certainty with which the virus was detected in colonies showing CCD symptoms: *"IIV has 18,900 unique peptides... When we detect a few of these, say 50-100, we have enough evidence for an unambiguous identification."*

But how did they make what Dr. Wick called an *"unambiguous identification"* of a virus that was said by Dr. Bromenshenk to not be *"any of the world's known iridescent viruses"?* How can anyone find what's never even been detected or identified before? The answer is that the unknown organism will match the closest organism in the database, which narrows things down to at least the "family" or "genus" level, if not "species". So, even without having sequenced the specific strain of IIV of interest, enough peptides matched the IIV strain in the database to confirm that what was found was a strain of IIV.

As an example of the wide net cast by this technique, *Nosema* was not well-represented in the NCBI database, so there was some ambiguity in the identification of the *Nosema* via proteomics alone, matching only the genus *Nosema*. The species and strain was confirmed as *Nosema ceranae* using Polymerase Chain Reaction (PCR) techniques.

# FROM THE COLONIES

## Bay of Plenty Branch

It's mid-spring as I write this report and there is now a lot of activity in the Bay of Plenty, judging by the number of beekeepers' trucks on the road. Many kiwifruit Hort16A (Gold) orchards are now in full bloom, avocado flowering is as usual very spread out and the general view is that Hayward (Green) kiwifruit flowering will be later than last year.

The weather conditions in September can best be described as 'unforgiving' with few foraging days, and wet conditions making it difficult getting onto some sites. I don't think I was alone in having some hives depleting all food stores and promptly requiring additional feeding. I am always amazed how quickly these hives recover after having a feed and a few warm clear days in early October. From those I have spoken to, and given the difficult spring conditions, hive strength is generally good or very good in the Western Bay. Hive losses in the area have not been quantified, but anecdotally, losses vary widely from apiary to apiary. Barbara Pimm has had reports in the Eastern Bay of Plenty of 10–40% hive losses from varroa.

There has been good dialogue between Zespri, orchardists and beekeepers about hive standards and strengths through the pollination seminars and email updates. According to Shane Max of Zespri:

"ZESPRI is fielding calls on the appropriateness of beekeepers supplying orchardists with one box hives instead of two box hives for Hort16A pollination.

This practice is acceptable so long as the equivalent number of bees and brood are supplied as per the standard two-box pollination hive. That is, two one-box hives are believed to be as equally as good as one two-box hives so long as the two smaller hives carry at least half the industry minimum standard requirements, and there are twice as many of them."

Pollination agreements between orchardists and beekeepers are being promoted by Zespri and have been in use by an increasing number of beekeepers. The pollination agreement is an effective communication tool that clearly outlines the responsibilities and exceptions of both parties. A template pollination agreement document can be obtained from Zespri.

**- Greg Wagstaff**

## Hawke's Bay Branch

It seems churlish to complain about the weather; it has been awful but nowhere near as bad as some places. Actually we have just had two weeks of rather nice spring weather but as I write this it is snowing in the hinterland and hail has damaged some orchards. Hives in general have come through remarkably well, considering there was over a month when the bees could not leave the hive.

We will be running our annual diseaseathon on Saturday, 30 October but we are having trouble getting enough AP2 personnel to do the job. Recent changes to the criteria required for AP2 inspectors saw most of our 14 inspectors become not eligible to inspect until they could complete a large amount of paperwork. After a lot of work by the AFB Pest Management Manager Rex Baynes and Byron Taylor from AsureQuality Limited, temporary permits have had to be issued to see our branch over this difficult patch.

We always like to invite non-AP2 members along to have the opportunity to gain experience and to help out where possible.

AP2 personnel, like volunteer firemen and volunteers for search and rescue, are mostly volunteers doing what they do for the good of us all. The ever-increasing amount of paperwork, training and bureaucracy mean that while some of us have upskilled slightly, more and more people are dropping out because it is just too time consuming. It is also a bit rich when we are told we have to jump through all the regulatory hoops when MAF refused to prosecute under the same legislation we have to work under. All things in life need balance.

**- John Berry, Branch President and Mary-Anne Thomason, Branch Secretary**

## Nelson Branch

As the wettest September on record ends (according to Colin the Cocky up the road), we look forward to putting away our syrup tanks and raincoats and enjoying some sunshine on our backs as we work the bees.

Pollination has been about 10 days late this year, with 4x4 vehicles being a necessity on a lot of orchards.

Early queen picking appears to be better than expected with the queens having poked their noses out on the few fine days that we have had.

A valuable lesson learnt on pollination: no matter how tired or rushed you are, always check your load before you drive away! We learnt this lesson the hard way after losing two hives off the back of the truck on the main road the other night. What a mess: bees and syrup and smashed-up frames all over the place!

The local cop happened to pass just after it happened and was happy to sit in his vehicle with lights flashing while we cleaned up. Luckily he wasn't interested in opening his window and getting details for writing a ticket for an insecure load!

Roll on honey season.

**- Gareth Ayers**

## Canterbury Branch

Spring finally arrived for a few days after a very long wet spell, albeit not as cold as it could have been. The few dry days we have had very quickly dried out the ground, and we will need consistent rain over the next month if the ground is to maintain moisture and prevent significant cracking. In my experience, this pretty much means the end of the growth season.

The warm spell has luckily coincided with the very late flowering of the crack willow and the early arrival of the dandelion flows (I know, go figure that one out!). Colonies have been able to gather a surplus if they are exposed to a feed source, which is always welcome. The consensus is that colonies are in good condition for this time of year and that swarming is going to be a problem next month if not sooner; however, this is not my personal experience. In my case maybe the formic acid mite treatments are taking their toll, but who knows unless one looks for oneself?

It is hard to believe but the Canterbury earthquake is more than a month behind us and the cleanup slowly continues. Being short of space as most beekeepers are, →

1. The guidelines are general in nature and you may need to seek professional advice regarding your specific situation.
2. The Employment Relations Act 2000 requires employers to meet standards of behaviour and, therefore, this brochure cannot be viewed as a 'definitive' set of rules.

More detailed information is available in A Guide to Employment Relationships and in Guidelines for Employers: Disciplinary Action, Dismissal, Redundancy and Ill-health. You can also contact us on 0800 20 90 20 or visit our website www.ers.dol.govt.nz

*[Source: Department of Labour website, http://www.dol.govt.nz/publications/big6/index.asp, http://www.dol.govt.nz/publications/big6/healthandsafety.asp, http://www.dol.govt.nz/publications/big6/recruiting.asp. Accessed 20 August 2010.]*





# LAND INFORMATION NEW ZEALAND PEST PLANT CONTROL PROGRAMME 2010/11

Property owners, recreational and other users of the riverbeds and lakes in the Canterbury Region are advised that herbicide spraying (glyphosate, triclopyr and picloram, along with added surfactant compounds) is scheduled to be undertaken by helicopter and/or ground application for the control of woody weeds, including gorse, broom, lupin and old man's beard. The work to be carried out will commence no earlier than 11 October 2010 and will continue intermittently as weather permits until 30 April 2011. No control works will be carried out on public holidays, weekends which immediately precede or follow public holidays or during the period from 20 December 2010 to 10 January 2011 inclusive.

The control works will be carried out by:

- ground spraying by either gun and hose, knapsack, mistblowers or using handtools.
- aerial spot and/or boom spraying
- ground and aerial.

Copies of the full Land Information New Zealand annual control works programme are available at www.linz.govt.nz and further information is available from Boffa Miskell Ltd during office hours by phoning 0800 638 943, writing to PO Box 110, Christchurch 8140, or emailing marcus.girvan@boffamiskell.co.nz

*[Editor's note: this notice has been abridged. Go to the LINZ website for a list of the areas involved in the herbicide spraying programme. The full notice will also be posted on the NBA website, and the Canterbury Branch also has a copy.]*

## The claims in Spain can mainly be explained

Research led by Mariano Higes of the Bee Pathology Laboratory, Centro Apícola Regional in Marchamalo, Spain has repeatedly pointed to Nosema ceranae as the sole proximate cause of rapid colony collapse. This seemed unlikely to researchers in the USA and elsewhere, as Nosema has not appeared to be as virulent outside of Spain. But this new work provides an explanation that could support the Higes work with nothing more than the addition of the newly-detected IIV.

As in previous US studies, no one in Spain would have had reason to suspect that a DNA virus like IIV would be involved, as the bulk of bee viruses are RNA viruses. So they've yet to look for IIV in Spain, and they have not had the wider net of MSP to find what was not being sought. The good news is that Dr. Higes has historical samples frozen. Dr. Jerry Bromenshenk reports that the Higes team is willing to engage in a joint effort to screen the Spanish samples using MSP.

## Does this explain CCD in the USA?

The samples analyzed in this study showed a wide range of pathogens, including Nosema, Invertebrate Iridescent Virus ("IIV"), Black Queen Cell Virus, Acute Bee Paralysis Virus, Israeli Acute Paralysis Virus, Deformed Wing Virus, Sac Brood Virus, Kashmir Bee Virus, Varroa Destructor-1 Virus, and Kakugo Virus. None of the suspect pathogens named by other research efforts were missed, two new and novel pathogens were found, and the use of MSP implies that no pathogens were overlooked. Even a new, unknown, and unnamed pathogen would have resulted in a partial peptide match to some other living thing.

So, while the counts or mix of pathogens might have been skewed by an insufficient number of samples, or collecting samples from an insufficient number of operations, it is difficult to imagine that there are additional pathogens yet to be found that could be implicated in CCD.

## Insecurity about biosecurity

Since the 1980s, "Globalization" has increasingly consisted of shipments of goods from Asian ports to Western shores. This research connects the dots by consistently finding specific bee pathogens native to Asia, unknown to USA beekeepers in the early 1980s, but that have since become far too familiar to everyone in beekeeping, including the authors of the paper: *"We know that in the Asian honey bee, Apis ceranae, a combination of parasites and pathogens co-exist, including: (1) Nosema ceranae, (2) an iridescent virus, (3) parasitic and predacious mites, and (4) two other RNA-type viruses, Kashmir bee virus and a Sacbrood virus. We have had both Kashmir bee virus and Nosema ceranae in North America going back a decade or more. We need to see how similar the CCD strain of iridescent virus is to the IIV-24 strain from Apis ceranae. It is possible that US bees acquired IIV from the Apis ceranae along with Nosema ceranae and Kashmir bee virus."*

While unsubstantiated "fringe" explanations for CCD abound, ranging from cell phones to pesticides to GMO crops, the common factor is that pathogens previously found only in Asia have spread to countries lacking effective biosecurity, such as the USA, but not to countries with more robust approaches to biosecurity, such as New Zealand. The research team suggests *"Standard quarantine practices such as testing of imported bees before they are added to colonies, and disinfection of equipment would likely help."*

## Practical implications for beekeepers

The team has two suggestions of interest to beekeepers:

1) *"Most IIVs replicate at about 21 C (70 F) and do not replicate above 30-32 C (86 – 89 F). Higher temperatures may suppress the virus by halting replication, whereas cool weather and damp conditions may speed up replication of both IIV and Nosema. Many instances of CCD have occurred following extended periods of cool, damp weather. Several beekeepers have reported to us that they have more problems with bees in areas with frequent fog or in hill areas where the weather is cooler. Placing bees in warm, sunny locations appears to help."*
2) *"Varroa may act as a vector for the dispersal of IIV among bee colonies. Varroa is known to increase damage caused by other viruses, and beekeepers who fail to control varroa levels are likely to sustain high colony losses."*

This may not sound like much, but it is a vast improvement over the usual vague platitudes we've been handed over and over about "maintaining strong colonies" and "minimizing stress". It also ups the ante in the age-old debate among beekeepers over placing hives in sun versus placing hives in shade.

## Reference

"Iridovirus and Microsporidian Linked to Honey Bee Colony Decline"
Jerry J. Bromenshenk, Colin B. Henderson, Charles H. Wick, Michael F. Stanford, Alan W. Zulich, Rabih E. Jabbour, Samir V. Deshpande, Patrick E. McCubbin, Robert A. Seccomb, Phillip M. Welch, Trevor Williams, David R. Firth, Evan Skowronski, Margaret M. Lehmann, Shan L. Bilimoria, Joanna Gress, Kevin W. Wanner, Robert A. Cramer Jr. (2010) PLoS ONE 5(10): e13181. doi:10.1371/journal.pone.0013181

*Jim Fischer keeps bees in Manhattan, Brooklyn, and the Bronx, and hopes to raise queens in Queens. He teaches the free 16-week full-semester urban beekeeping class in New York's Central Park for the 846-member non-profit NYC Beekeeping Group (http://meetup.com/nyc-beekeeping) and helps run the Gotham City Honey Co-Op (http://GothamCityBees.com).*

*[Editor's note: The full title of this article is* 'A more concise explanation of CCD – Iridescent Virus and Nosema ceranae'. *It appeared in* ABJ Extra, *10/06/2010* (http://bee-quick.com/reprints/concise_CCD.pdf), *and is reprinted with the kind permission of James Fischer. He informs that his article will be printed in the 1 Nov 2010 edition of* The American Bee Journal.*]*

Drone trapping using the hive splitting method is a highly effective way to reduce mite populations during the production season.

*Source:* Control of Varroa: A guide for New Zealand beekeepers *(revised edition), by Mark Goodwin & Michelle Taylor, page 92.*

# Paris—queen bee of the urban apiary world

By Hugh Schofield (BBC News, Paris)

## Tourists are not the only ones swarming down the Champs-Elysees and through the Luxembourg gardens this summer.

Thanks to a renewed interest in apiaries, Paris is fast becoming the urban bee-keeping capital of the world.

The city now boasts some 400 hives and the number is growing steadily. Some are on the balconies of family apartments, others in public parks or on the roofs of famous buildings.

Cultivation of a private honey store is now de rigueur for some of the top hotels and restaurants. The famous Tour d'Argent restaurant opposite Notre Dame Cathedral has just installed hives on its roof-top, as has The Westin hotel on the Rue de Rivoli.

Driving the trend is growing public awareness of the crisis in rural bee-keeping caused by the collapse in bee numbers. Oddly, city bees are not just immune to the health problems facing their country cousins - they are also far more productive.

According to Guillaume Charlot of the association L'Abeille de Grand Paris (The Bee of Greater Paris), a metropolitan hive produces 50kg (110lb) of honey in an average year, and up to 80kg in a bumper season. "A country bee-keeper is happy if he gets 30," he said.

For the past 10 years the French capital has been officially a pesticide-free zone, which may partly explain its advantage. The warmth of the city environment also promotes early breeding.

But paradoxically, the main reason for the success of urban bees is the variety of flora in the city compared with what is now present in much of the countryside.

"City people like flowers. We have parks, we have balconies, we have roadside verges, we have gardens—and we are planting them all year round with lots of different species to ensure year-round colour," said Simonpierre Delorme, who keeps bees by a railway-line in the 14th arrondissement.

"In the countryside, by contrast, these days there is often just one crop dominating an entire area. When that has finished blossoming, there is no more nectar for the local bees," he said.

### Worrying decline

By early August most rural pollination is long over, but in Paris many streets are lined with non-native Sophora trees which have just started to blossom—allowing bees to keep producing honey much later in the year.

> "It is an unwelcome paradox that city bees do better than country bees. I wish it was not the case..."

Like other countries in Europe and the Americas, France has seen a worrying decline in bee numbers in recent years. Since 1995, 100,000 French hives have been lost and the amount of honey produced has fallen from 32,000 tonnes to 20,000. Bee mortality is three times what is considered normal.

Most experts believe a variety of factors lie behind the crisis, from the dreaded varroa mite to pesticides, diminishing biodiversity and maybe even mobile phones.

In Britain, the National Environment Research Council recently announced a £10m ($15.6m) research project into the decline, which could have severe effects on crop production. *[Editor's note: about $21.5m NZ]*

A century ago, there were more than 1,000 hives in Paris, but they almost totally disappeared in the decades after World War II. Among the first of the new generation was the hive installed 15 years ago on the roof of the Paris Opera, which today makes honey sold at the luxury goods shop Fauchon.

Other colonies now live on the roof of the Grand Palais and on a skyscraper in La Defense business area. For ordinary home-owners, the rules are simple: hives must be registered with the veterinary authority and be more than 25 metres (82ft) from a school or hospital.

According to Mr Charlot, the most commonly-used breed of bee is docile by temperament and stings are rare.

"We did an analysis of the honey we made here in Paris and discovered that it contained more than 250 different pollens. In the countryside there can be as few as 15 or 20 pollens," said Olivier Darne, who styles himself as an "artist and urban apiarist".

As part of his "Honey Bank" project, Darne creates bee-related art installations and organises street-tastings from his many hives—all to raise awareness about the decline of rural biodiversity.

"It is an unwelcome paradox that city bees do better than country bees. I wish it was not the case. But if you exhaust your resources, you end up with nothing—and this is what the bees are telling us," he said.

### Source

Scofield, H. (2010, August 14). *Paris fast becoming queen bee of the urban world.* Retrieved from http://www.bbc.co.uk/news/world-europe-10942618

*Photo: by Greyman, from Stock.xchng. http://www.sxc.hu/photo/873598*

# The rest of the Big 6 (part 2)

Information from the Department of Labour

In September we ran the first three components of the Department of Labour's 'Big 6', which provides information to employers about six important workplace matters.

Here's an abridged version of the final three elements of the Big 6. You can find more information at http://www.dol.govt.nz/publications/big6/index.asp

## What you need to know about: 4. Holidays and leave

### Who should read this?

Employers dealing with holidays and leave for staff, whether they are full-time, part-time, permanent, casual or fixed-term employees.

### Why is it important?

- To ensure employees receive the leave they are entitled to
- To ensure employees have time to rest and attend to personal and family matters
- To assist employees who are sick or have suffered a bereavement
- To ensure a more productive workplace
- To foster employee loyalty and reduce labour turnover.

### What you need to do

There are five main steps involved in managing leave for your employees:

1. understanding leave entitlements
2. calculating leave entitlements
3. responding to leave applications
4. paying leave
5. keeping accurate records.

This brochure provides checklists of the key tasks involved with each step. More detailed information is available in the *Holidays and Leave – A Guide for Employers* booklet [pdf 332KB]. You can also contact us on 0800 20 90 20 or visit our website www.ers.dol.govt.nz

## What you need to know about: 5. Performance management

### Who should read this?

Employers with full-time, part-time, casual or fixed-term employees.

### Why is it important?

- To ensure employees have clear targets and perform to agreed standards, both in terms of what is expected and how the results are achieved.
- Ensuring employees understand what is expected of them and deliver to agreed targets will enhance their contribution to your business, helping you to achieve your business targets. It is also more likely to result in higher productivity and motivation through increased job satisfaction.
- Managing performance in a fair and clearly defined manner can also help avoid problems later if an employee is not meeting agreed standards.

### What you need to do

Performance management is an ongoing process, with a formal review at agreed intervals during the year. The degree of formality will vary depending on your workplace, but it's important to ensure employees clearly understand what is expected of them. This is best done through regular discussion about their performance. There are four main steps involved:

1. planning
2. monitoring and coaching
3. reviewing performance
4. managing outcomes of performance review, either:
   - managing poor performance, or
   - rewarding and recognising good performance

This brochure provides checklists of the key tasks involved with each step. The Employment Relations Act 2000 requires employers to act in good faith and follow fair and reasonable processes.

This brochure cannot be viewed as a definitive set of rules. However, it provides a guide to good practice behaviour in performance management that will help you establish strong employment relationships.

More information on performance management can be found in *An Employer's Guide to Employment Relationships*. You can contact us with specific queries on 0800 20 90 20 or visit our website www.ers.dol.govt.nz

## What you need to know about: 6. Ending employment relationships

### Who should read this?

Employers dealing with the end of an employment relationship by way of:

- resignation
- retirement
- restructuring & redundancy
- dismissal for
  poor performance
  misconduct

### Why is it important?

To ensure employer/employee relationships are ended fairly by following the correct processes and avoiding costly mistakes.

### What you need to do

You have a core requirement to act in good faith, to follow a fair and reasonable process and have an open mind when dealing with problems, ensuring outcomes are not pre-determined. Failing to do so may lead to an employee taking a personal grievance. This brochure provides checklists of the key tasks involved with each of the above endings. It provides a guide to good practice behaviour in ending an employment relationship, but: →

# Beekeeping in the UK

By Gary Jeffery

I was privileged to recently spend a month in the UK looking at beekeeping there.

I was also accompanied by one of my granddaughters who is castle mad, so she was in her element. You have to be fit, as it is a land of steps and stairs (and sirens).

The beekeepers made us very welcome and we learnt many things new to me in spite of a few years' experience in Northern Ireland. One beekeeper had his hives in some of the castle and palace grounds, which has had numbers of big honey-yielding trees such as lime and sycamore. Being a drought year the bees were doing very well in London, although the drought affected yields in other areas.

Another beekeeper we visited kept snakes as a hobby. My granddaughter ended up with a necklace of snakes, one measuring several metres in length and weighing 16 kg. I doubt if our biosecurity officials would be too happy about these in New Zealand.

One privilege we experienced was visiting Lambeth Palace, the residence of the Archbishop of Canterbury. While strolling through the palace grounds we could see people in the top of double-decker buses wondering who we were. A few days later we also travelled in a double-decker bus and didn't see us at all when we looked over the wall.

Generally the beekeeping was quite good. We saw some very nice black bees in our travels and they behaved quite well, but a honey flow probably helped. Apparently they can be quite different when the flow stops in some instances. The Buckfast black bee seems to be reasonable in most conditions.

In London, most beekeepers like our type of bee as it can coexist with people passing close by. One place we saw had the bees just metres away from a mesh fence, putting their flight path towards the nearby path which had a constant stream of people going by. Nasty bees would have soon seen a different response from those passing by. I didn't get in to see the hives at Buckingham Palace as it takes several weeks of vetting to get permission to go onto the island where the bees are kept. It was, however, open day at the palace and we left suitably impressed. Gold must have been very plentiful in the past.

"I had the chance to spend time at Her Majesty's Pleasure on one occasion."

I had the chance to spend time at Her Majesty's Pleasure on one occasion. I was visiting a beekeepers' meeting at one of the apiaries right in the centre of London. They wanted to see how a wasp trap could be made out of a plastic drink bottle, so gave me a bottle and a blunt carving knife. I said my knife was sharper and pulled my pocket knife out of my pocket. You would have thought that I had stabbed someone, by the look on their faces. Apparently possessing a knife could give you two years' gaol and/or a £4,000 fine. I watched a police programme on TV. A person was stopped because he did not have insurance on his car. The police saw that he had a knife in the car (an ordinary pocket knife). Not on his person, and he got four months in gaol, so no wonder I received the shocked looks.

After London we travelled gradually toward Devon, even reaching Dartmoor looking at

*Honey house.*

*London hives.*

the heather country there, with more visiting on the way. We saw a really nice honey shed. It was three storeys on the inside with old-fashioned woodware included. It would have upset NZFSA even though everything was spotless. On the outside it looked like an old country cottage, although only 10 or so years old. They had built a similar aged-looking house where we stayed a night. The various fittings, etc., were rescued from old churches and other buildings, so look authentic.

I was very taken with the countryside. As in most areas, trees were nearly overhanging the roads in many places. These hedgerows were the main sources of honey and had a wide variety of trees and shrubs in them. There appeared to be tolerance of plants like blackberry, which obviously contributed a lot of honey.

One plant I was very impressed with is fireweed (Rose Bay Willow Herb, *Epilobium angustifolium*). It seemed to grow all over the place and apparently occupied open ground. It gives a lot of white honey, and has pink flowers on about one-metre-high stems. Apparently after London was bombed during the war, the vacant ground was colonised by fireweed which softened the effect of the bombing.

Some towns like Tavistock had a real old-fashioned charm; well worth a visit. Then on to Wales where we spent time with

*London hives. Photos: Gary Jeffery.*

one of the few really commercial outfits we came across. Most were in the 40 or so hive regions. We then went to York, which was worth visiting to see the town and all its history. Then we gradually moved back towards London and finally reached Hastings for the last of our destinations and added more to our knowledge.

The main limitation to beekeeping in the UK is that they operate at least four different types of hive that are not interchangeable. What a good idea that we have stuck to the Langstroth hive with variation in super depth, the only modification to suit individual needs. Perhaps the only problem with our hives is having the bee space between supers at the bottom instead of the top, but to change now would create more problems than it would solve.

European Foulbrood disease is a problem in the UK but they have 50 full-time bee inspectors to help control it. Registration is not compulsory, but you must report disease as soon as you find it, and a bee inspector will arrive at your apiary the next working day to help you solve the problem. The Scottish authorities did not believe they had a disease problem (EFB). They had very few inspectors, who inspected very few hives. A group of visiting English bee inspectors on holiday found a lot of disease and now the Scottish authorities realise they have a major problem.

We actually expected cold weather in the UK so took jerseys, etc., but ended up sleeping on top of the blankets nearly all month. Global warming has its advantages, weatherwise, and also gives better crops. As Ivor Forster used to say (he was an apiculturist for those who did not know him), more crops are lost through wet weather than are ever lost through drought.

Overall, it was a great way to spend a month. The UK is a great place for a holiday if you have time to spare next July (and a small bottom for the plane seat).

# Visit to the Luxembourg Gardens, Paris

**By Maureen Maxwell, Northern Ward representative**

## I recently visited Paris, and after a 30-hour flight my first stop was the Luxembourg Gardens beekeeping school.

The *ruches* (beehives) have been in the gardens since 1856, and the apiary school created by the Société Centrale d' Apiculture in the Senate Estate Gardens celebrated its 150th anniversary in 2006. They have a glass theatre in which they give public bee viewings, run a training school and sell the honey from this very lovely garden right in the middle of the city. Are they not some of the prettiest hives you've ever seen?

I was lucky enough to be staying just across the road from the school. Although this was not my first visit to these hives, I sat in on a bee demonstration and honey tasting back in 1978 and a little flame of desire to have a hive of my own was kindled at that time.

*Luxembourg gardens beekeeping school, Paris. Photo by Maureen Maxwell.*

There are also famous hives on the Paris Opera roof.

For some more interesting urban hive photos, check out www.thehoneygatherers.com and open the photo library for 'city bees Paris' or 'Luxembourg Garden beehives Paris'. I really like the 'floating hive' suspended between two trees four metres off the ground!

# Honey and avocado face mask

By Maureen Maxwell, Executive Council member, Northern Ward

When the weather turns from guacamole to custard, so to speak, and you can't work your bees, try this simple face mask.

Guaranteed good for both body and soul—when the laughter settles, it leaves your skin feeling incredibly soft, vibrant and fresh. (Health warning: yes, you too can do this at home! It may become addictive.)

Blend half a ripe avocado with one heaped teaspoon of raw honey. Mash together thoroughly with a fork or for best results, use a stick blender. Smooth the mask over clean dry skin on face and neck, avoiding eye area. Place a cucumber slice or cooled teabag over the eyes and relax a while. Wash off with warm water. (Optional extra: for a richer, more moisturising mask, a teaspoon of fresh cream, yoghurt or homemade mayonnaise can be added.)

*Chef's note:* This also tastes finger-licking great. I mixed some extra avocado and honey blend with hokey pokey ice cream for a scrummy 'Avocado and Honeycomb Iced Treat'. Great for a glamorous dinner party or just for getting the 5-plus a day into the family!

*Photo note:* This is easier to do when someone else is at home ... the photo, not the relaxing!

# Making nucleus/swarm boxes

By Anne Hulme

The Wanganui Beekeepers' Club had the final lesson for last season's novices recently when they made their own nucleus/swarm boxes out of donated Corflute board.

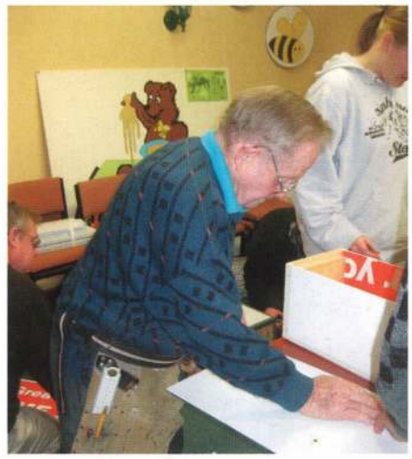
They had become confident hobbyists ready to make their own decisions on beehive management, and were keen to get their equipment ready for the new season.

The previous week Alf had planed and rebated the pairs of wooden ends (donated by Neil and Gavin) and had prepared the used real estate advertising boards to the correct measurements, for five frames.

Then the rush was on as the members arrived with their own hammers, rulers, cutting knives and rolls of duct tape. The chairs were pushed back and the trestle tables erected in the centre of the room.

*Margaret was the first to get started, copying the sample on her table.*

Forty-five minutes was the time limit before everyone else would arrive for the monthly meeting, and David was late.



*Alf gets David started.*

First the Corflute board was carefully scored and folded to form the bottom and sides and then tacked to the rebated wooden ends.

*Anne and Lyn know exactly what they have to do.*

The prepared handles were screwed on to the wooden ends, with the front handle forming a landing board just below the entrance hole.

*Amy and Sid race to make their lids and crown boards. Photos: Graham Pearson.*

The next step was to measure, cut, and fold the lid before applying the sticky tape for extra strength. Then a crown board was cut out of Corflute to use inside the lid to stop the bees from propolising the lid down. A piece of mesh for aeration was fitted into a hole cut into the floor and attached with tape. The last job was to screw wooden feet on to the floor.

Everyone succeeded in making a very useful lightweight box that could be used for holding a swarm while in quarantine, or starting a nucleus or even just a carry box.

All boxes were finished just as this season's new beginning beekeepers arrived to see what they would be making in 12 months' time, even though some of them said that they didn't really understand what the boxes would be used for.

*[Editor's note: Anne Hulme will be taking a break from writing this column. We thank her for her great work. Watch this space for the next column from a new hobby correspondent.]*

## New hobby club for Nelson

The Nelson Beekeeping Club was formed recently and elected Rae Butler as its president. Rae organised the New and Small Beekeepers' Forum held in conjunction with the NBA conference in late June.

The club already has received strong interest from area hobbyists, and was the subject of a news story in *The Nelson Mail*.

The club held a field day on 30 October at Philip Cropp's Nelson honey premises, followed by a NBA members' meeting.

For more information about the club, contact tasmanbees@gmail.com.