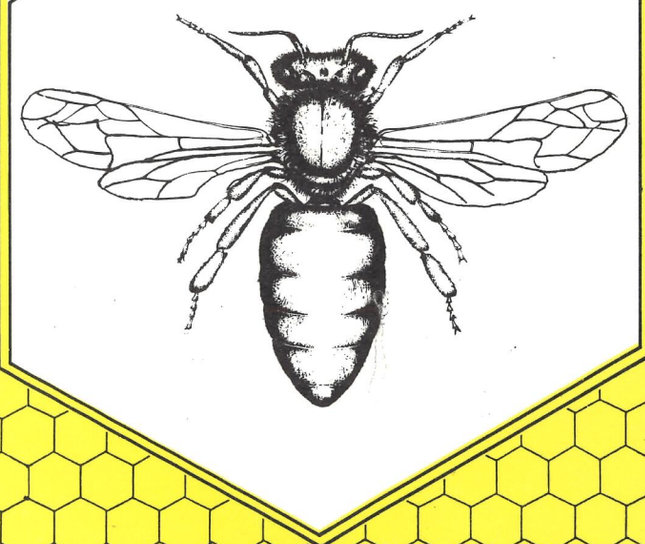

beelines

Number 34 February 1988

MAF Tauranga Andrew Matheson Apicultural Consultant

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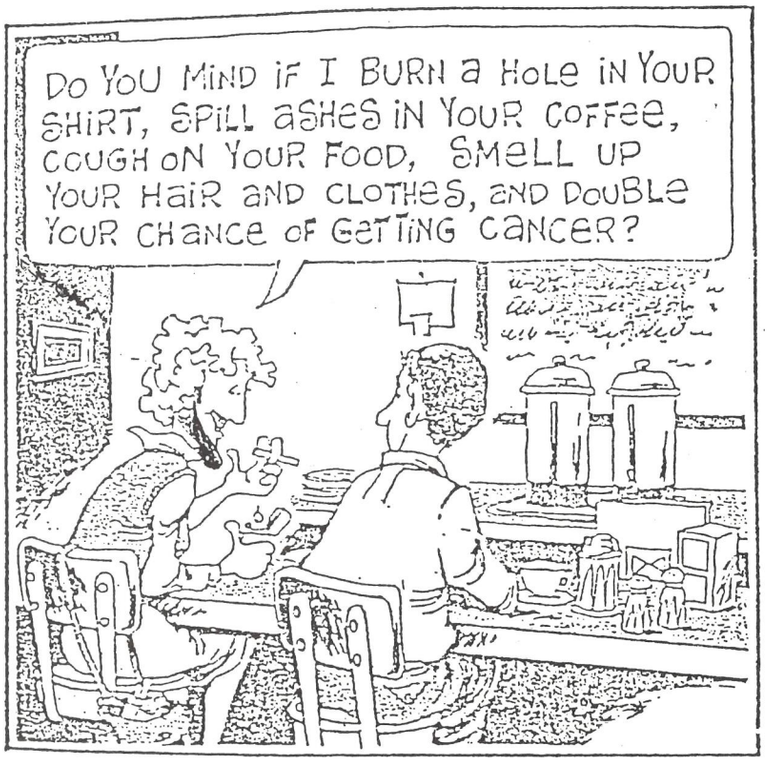


OVER THE HORIZON

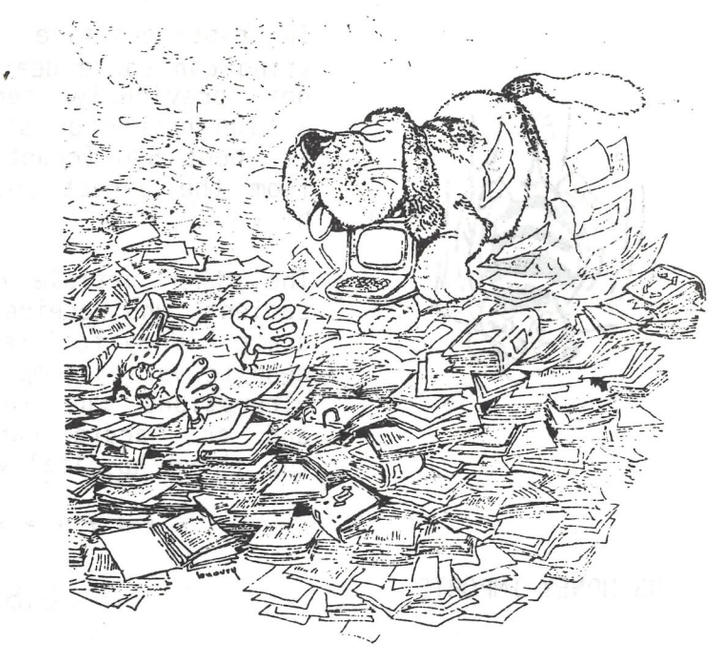
The export bee scene is, as the politicians would say, "in a state of constant flux". This means that what I'm writing now may well be outdated by the time it gets to you, but here goes anyway.

Varroa's arrival in the USA has resulted in the Canadian border being closed to bee imports from that country. An immediate and short-term closure was first put in place, then later a ban until the end of 1989 was brought in. That covers the next two shipping seasons.

A big debate is currently raging on what to do about Varroa. When the tracheal mite was found in the US thousands of colonies were "depopulated" (that's Newspeak for "killed"), and most beekeepers now agree that regulatory agencies did more damage than the mite itself.

There's now a reluctance to move in and start trying to eradicate Varroa, lest the same thing happen. That seems fairly sensible, as that mite has been found in a number of states from the top to the bottom of the country.

Now Varroa in packages might not have much effect on honey production in the short life of the colony, provided mite levels are reasonably low to begin with (and some chemical controls may be developed to allow that). So Varroa may not worry a Canadian beekeeper who uses only packages.



Many Canadian beekeepers are overwintering more colonies, and Varroa will be serious for them. The move toward overwintering is being hastened by lower profitability in the Canadian industry, and a recognized need for self-sufficiency from both Varroa and the Africanized honey bee.

What does all this mean for our exports? We should have the next two years for packages, though it's not 100% certain that the border closure will remain effectively in force for that long. The prospects for queen exports, of course, are much better in the long term.

WAITING IN THE WINGS

When the Americans have learnt to live with Varroa and accepted the tracheal mite, they'll have to start all over again with the Africanized honey bee. Much information about the effect of these bees is from the pulp press, and so it can be hard to decide what's really going to happen when the AHB arrives.

I've just read a couple of interesting articles from medical journals, looking at the human health problems of the AHB's stinging behaviour.

One uses Venezuela as as example - before AHBs arrived in this country of 14 million people and 35,000 beehives stinging incidents and deaths were virtually unknown. In the three years after Africanization at least 70 people died: on one large construction site stingings were almost a daily occurrence. Two aspects of the Venezuelan experience are important. Most of the serious stinging incidents took place in only two areas, where there were both a high number of feral colonies and high human density. Secondly, the number of incidents peaked 3-4 years after AHB arrived and then declined, probably as the number of feral colonies settled down and people became more wary of bees.

In hypersensitive ("allergic") people even a single sting can cause death due to anaphylactic shock. People not previously sensitized ("normal") can withstand a high number of stings: the potentially lethal number is about 500 (count them), where death probably results from the direct poisoning effect of the venom in the body.

The other article reported the case histories of five patients who received over 1 000 stings each and suffered acute kidney failure. One died, and the others recovered despite varied complaints such as kidney failure, corneal ulcerations due to bee stings, various haemorrhages and an "acute manic-depressive psychotic crisis in the third hospital week" (I don't blame the poor soul).

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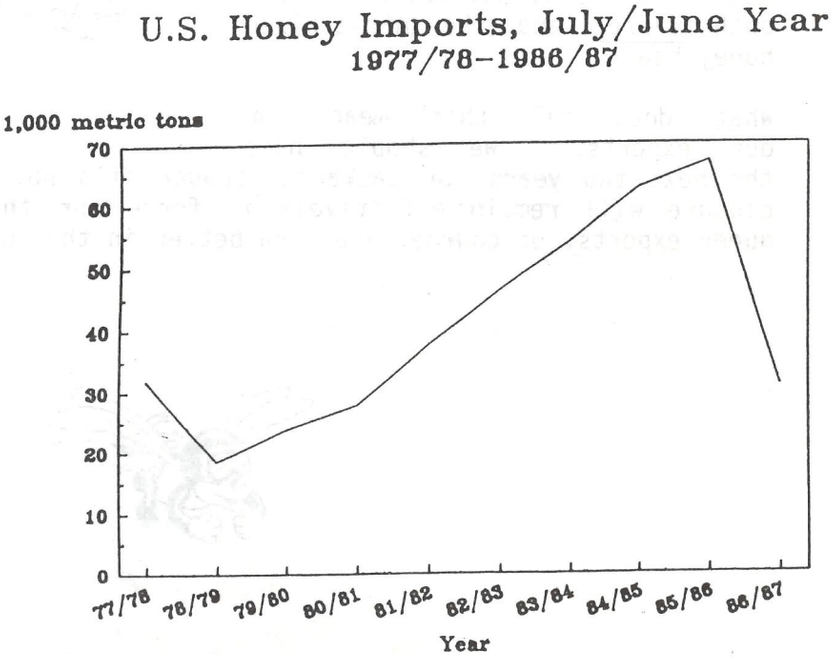
US HONEY IMPORTS

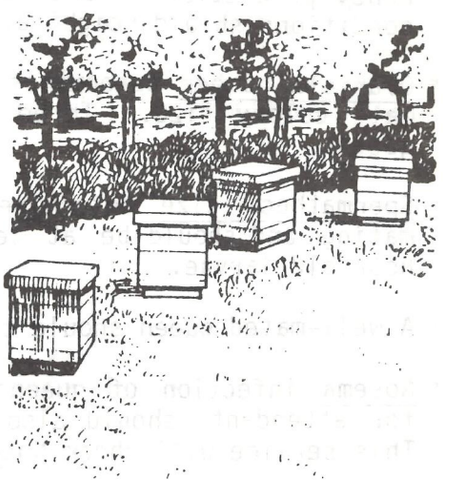
This graph shows quite dramatically what's happening in the North American honey market. Since the cut in the US buy-back price the amount of honey going into the States has been more than halved - from 67 000 tonnes to 31 000.

(Source: US Department of Commerce)



HIVE THEFTS

I've had several reports of hive thefts over the summer, from just before pollination onwards. None of the gear was recovered. Late last year two beekeepers were in the Taupo district court on a charge of stealing 35 hives, shifting them and painting over the ID numbers. Each got three months PD.



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POMMY HUMOUR

* On a hot-air hand dryer in a House of Commons gents a wag has placed a notice: "Press here for a message from your MP".

* Presumably to help those with limited intelligence, British Rail has a notice at Blackfriars station in London which says: "The Underground is down the stairs".

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HOW GOOD ARE YOUR QUEENS?

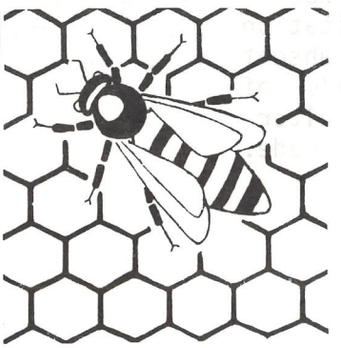
Queen breeders: Are you satisfied that your queens meet both your own quality standards and market requirements?

Beekeepers: Do you have some hives that just don't perform? Poor quality queens could be the reason.

Exporters: Does your market require that queens meet certain quality standards? Can you assure this without testing and certification?

Now you can answer questions about your queen bees. Knowing that a queen is fat and has six legs doesn't tell you much about her potential. Queen quality has to be measured in a more scientific way.

MAF now has a new service which will enable you to tell how well a queen has been reared, and what her potential is. Derek Bettesworth of MAF in Whangarei will be doing the assessments, using the same method as Cliff Van Eaton did in his 1985 queen quality survey.



Six important factors can be checked:

* Queen weight is highly correlated with colony population and subsequent honey production. Queen produced from young larvae and reared under optimal conditions should weight at least 200 mg.

* Ovariole number determines a queen's maximum daily egg laying rate and ultimate colony size. Three hundred ovarioles is a standard for good quality queens.

* Spermatheca size determines the amount of sperm a queen can retain after mating and should be at least 1 cubic millimetre in queens raised from 24 hour old larvae.

* A well-mated queen should carry about 3 million sperm.

* Nosema infection of queens is a major cause of supersedure. Workers used for attendants should also be free of this disease to avoid queen infection. This service will check Nosema levels in both queens and attendants.

We can also provide export documentation based on assessment of a number of randomly-selected queens.

This service could be worth a lot to you, whether you are a producer, exporter or buyer of queens. The full service costs only $12 per queen, and it's pretty obvious the information gained can be worth a lot more than that.

Contact me for a submission form and information sheet, or get in touch directly with Derek Bettesworth, MAF, PO Box 943, Whangarei. Telephone (089) 487 179 at work or (089) 61 777 at home.

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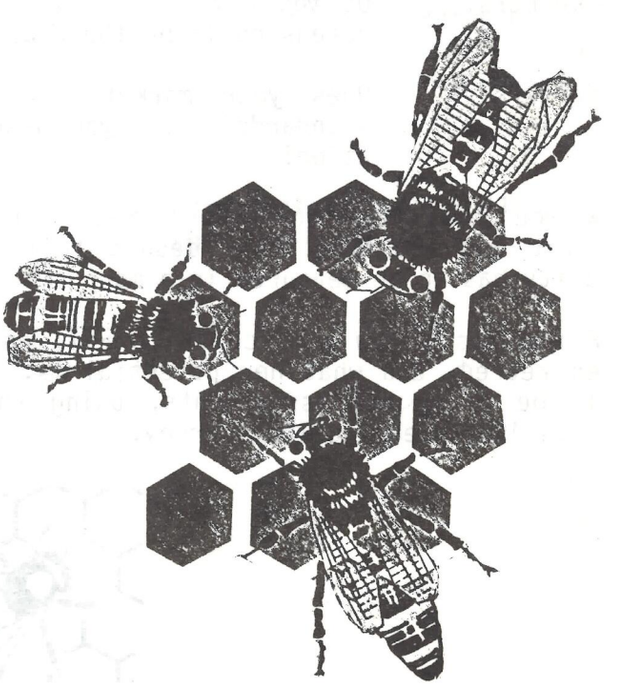
QUEEN EXPORT CERTIFICATES

Before we can issue queen export certificates we must get certain information and declarations from the exporter. To save delays I have drawn up an application form which ensures that we have everything in plenty of time.

If you're going to be exporting get hold of some application forms now. And help us to help you - send me the information as soon as possible before export. I will be handling all certification personally, except when absent from the office for periods of several days or more when alternative arrangements will be made.



US TRANSSHIPMENT

The USDA has just confirmed that transshipment permits will be needed for bees passing through US territory. Airlines will be given blanket permits at the beginning of the season, and must inform the USDA of each shipment so quarantine personnel can be on hand at the appropriate airport. You should check that the airline you use has this permit, especially for the first shipment of the year.

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ACROSS THE TASMAN

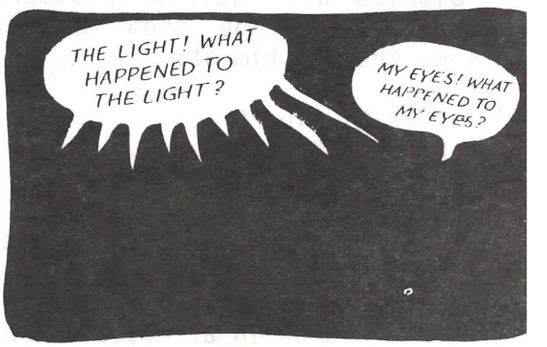
* The Aussies have got the German wasp for keeps. Just look at the numbers of nests destroyed in New South Wales since it was first found:

Year	Nests
1978	13
1979	5
1980	4
1981	4
1982	13
1983	74
1984	164
1985	325
1986	225
1987	211
	to end of April

* They have a lovely little piece of legislation called the Farm Produce Act, which requires that honey (and other farm produce) is paid for within 30 days of the end of the month of delivery. I read that "prior to the act some beekeepers were not being paid in full for honey delivery for six months". Wow!

* Bruce White of the NSW Department of Agriculture tells of several beekeepers who just hadn't got the message on AFB. One exhibited a queen bee and progeny at an agricultural show - on a frame of AFB. Another requeened a hive with AFB. The third beekeeper teaches beekeeping classes, but didn't know his own hives had AFB. Bruce - you're not the only one to have these problems.

One person at this party is a hypochondriac. To find out who it is, switch off the light.



* The Aussie government is proposing a new regulation on manual handling. No, this isn't designed to stop sexual harassment in the office, but rather is to cut down on heavy lifting in the workplace. It seems that this would put a 16 kg limit on loads, but whether this is just for employees or extends to the self-employed I don't know.

  Absolutely plugged-out boxes weigh 27 kg (three-quarter depth) and 39 kg (full-depth).

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FOR YOUR DIARY

The international bee congress in Surfers Paradise is being held on 21-26 July 1988. For further information contact the conference secretary, GPO Box 1402, Brisbane, Queensland 4001, Australia.

SECOND AUSTRALIAN AND INTERNATIONAL BEE CONGRESS

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HALF-MOON DISORDER

Denis Anderson is looking for more queens from colonies with half-moon disorder. If you have any please cage them up with attendants and send them to him at:

DSIR Mt Albert
Private Bag
Auckland

This important research needs your support.

Remember the four symptoms of HMD, all or most of which show in affected colonies:

- mulitple eggs, often stuck together, anywhere in the cell;

- patchy brood pattern;

- drone brood in worker cells

- larvae dying and drying out in a sickle or crescent moon shape at the mouth of the cell.

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Seen on a bumper sticker in the USA:

"Skydivers are good to the last drop".

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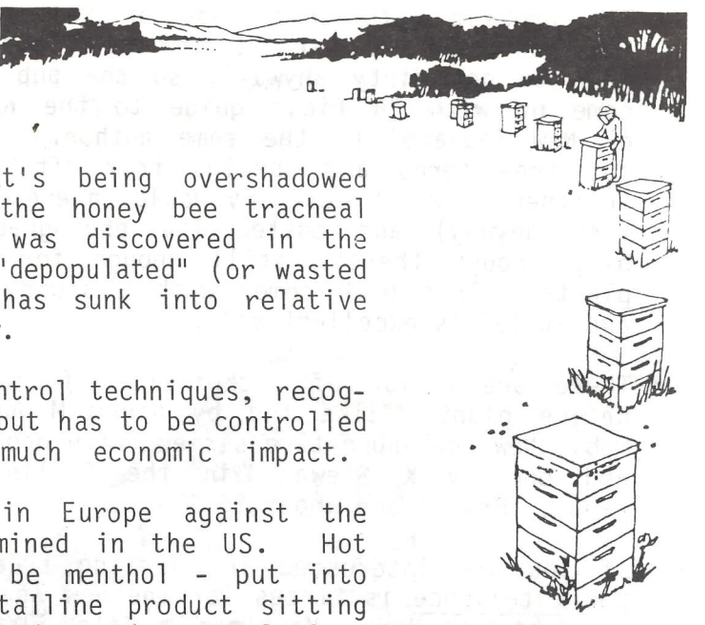

MORE MITES

The "other" mite - the one that's being overshadowed by its evil cousin Varroa - is the honey bee tracheal mite (or acarine). Remember it was discovered in the USA and thousands of colonies got "depopulated" (or wasted to use the Hollywood term), but has sunk into relative obscurity since the Varroa discovery.

Scientists are still working on control techniques, recognising that it can't be eradicated but has to be controlled to levels where it won't have much economic impact.

Many chemicals have been tried in Europe against the tracheal mite, and are being examined in the US. Hot favourite at the moment seems to be menthol - put into the hive as a flat cake of crystalline product sitting on the top bars. Menthol does reduce mite populations significantly, but studies have so far not shown that brood area, bee numbers or honey crop increase as a consequence. Problems with menthol are that it won't vaporize from the block if the outside air temperature is below about 21°. Also menthol residues do end up in the honey, but honey from untreated hives can still contain this substance if the bees forage on Mentha species (such as pennyroyal or peppermint).

Another way of tackling mite control is to use systemic pesticides, fed to bees in syrup and passed on to mites when they feed on their hosts. Apitol is a systemic acaricide which works against the tracheal mite, though some damage to the bees can result.

So it looks like tracheal mite can be lived with. No-one yet knows what effect the mite has if left alone, or what levels of infestation are necessary to make chemical control worthwhile. But with the increased sensitivity all round the

world to chemical residues in honey, I'm glad that in New Zealand we can keep the "pure and natural" image for our product.

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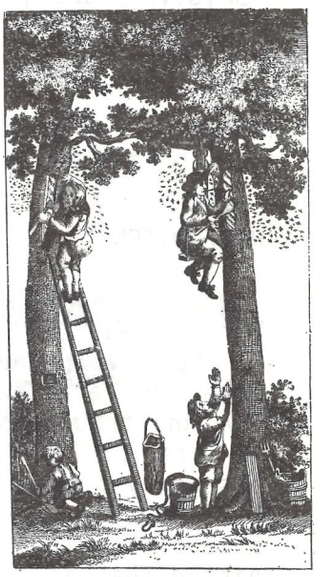
TREES AND THINGS

Knowing your trees and shrubs is pretty important for beekeepers, and most develop quite an interest in New Zealand's flora. A visit to any good bookshop will show you there's a lot of glossy books on the subject. The following notes give you details of a few.



* The "el supremo" book on native flora is "Native trees of New Zealand" by J T Salmon. It has entries on 220 species, and the 1 500 colour photos make identification easy. The price may seem steep at $90 but this is a book to treasure.

* The problem with this book of Salmon's is that you can't easily use it in the field (it's too good to get dirty anyway), so the publishers have come up with "A field guide to the native trees of New Zealand" by the same author. They've cut out tree ferns and species from offshore islands (neither of which category would interest beekeepers much anyway) and edited the photographs down a bit, though there's still enough for recognizing plants. This book comes with a sturdy hard cover and at $33 is excellent value.

* There are a lot of pocket-sized field guides to native plants, like two by Nancy M Adams in the Mobil New Zealand nature series (with good paintings), and one by K Stewart in the Collins handguide range. Prices are about $6-$15.

* If you are interested in planting trees (and not just natives), the book par excellence is "Trees for the New Zealand countryside - a planter's guide" by John and Bunny Mortimer. It's just been reprinted and sells for $70.

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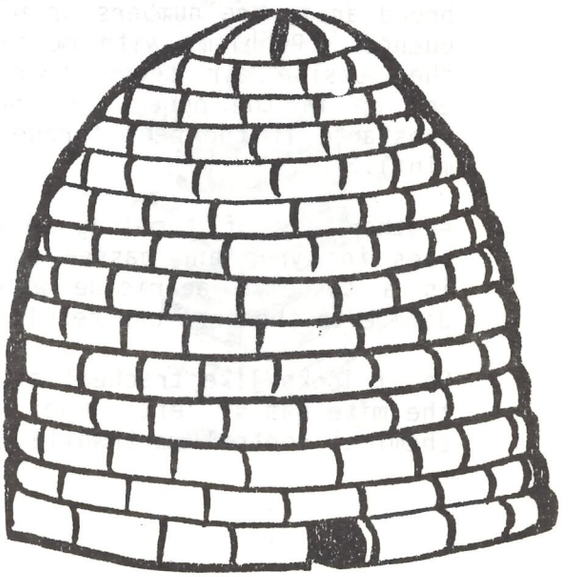
SUGAR PRICES



Beekeepers in the UK are trying to get some cheap sugar to feed their bees, after a couple of bad winters. All they want to do is buy it at the world market price of £169/tonne (about $470), instead of the EEC's "intervention price" of £400-450/tonne (about $1,110-1,250).

Seems they'd be doing the community a favour if the sugar was fed to bees, with 1.7 million tonnes of it in store. There it sits, along with 1,500 million litres of wine, 1.5 million tonnes of butter and over 16 million tonnes of grain. Of the EEC's total budget of £21,000 million two-thirds is spent on agriculture, and a cool £7,000 million a year is spent on storage for these commodity mountains. So says a writer in the latest "UK Beekeepers Quarterly".

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IMAGE

In the December 1987 "Gleanings in Bee Culture" one author comments that:

"You could tell if a 19th century physician was successful by the amount of blood on his gown - the more blood, the better the doctor. People didn't respect a doctor with clean hands and equipment because it indicated his lack of experience ... Some beekeepers are still living in the 19th century - I for one used to think that only the novice beekeeper had a shiny hive tool or clean bee suit."

The writer goes on to recommend cleaning hands, gloves, hive tool and outside of smoker before leaving each yard. This guards against spread of disease and keeps your equipment clean and professional looking.

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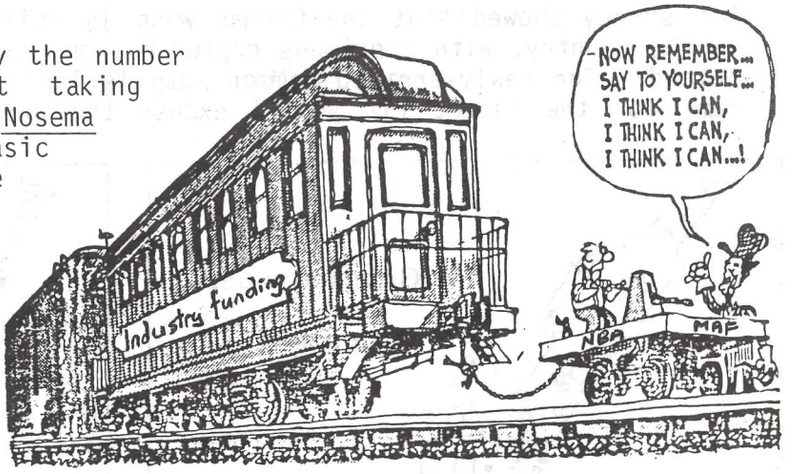
NOSEMA AGAIN



I guess I'm still surprised by the number of queen bee producers not taking adequate steps to control Nosema levels. There are certain basic steps that really must be carried out, even though there may be debate about how many other precautions need to be taken.

At least two recent shipments of queens to Israel were destroyed on arrival because of high Nosema levels in attendants. I know you might think it's silly worrying about Nosema when every country has it, but this is a fact of life so you have to take precautions.

What I think is essential:

For colonies providing attendant workers

* a heavy comb replacement programme;

* feeding Fumidil-B in syrup for 2-3 months before caging;

* arranging hives in an anti-drift layout to prevent woggy workers wandering into your medicated colonies.

For queen banks

* the same.

For caged queens

* feeding Fumidil-B in syrup once per week. (The rate is 125 mg (a quarter of a small bottle) to 4.5 litres of 2:1 syrup);

* replacing all escorts when the first one dies, or at least weekly.

For mating nucs

* including Fumidil-B to any syrup that is fed.

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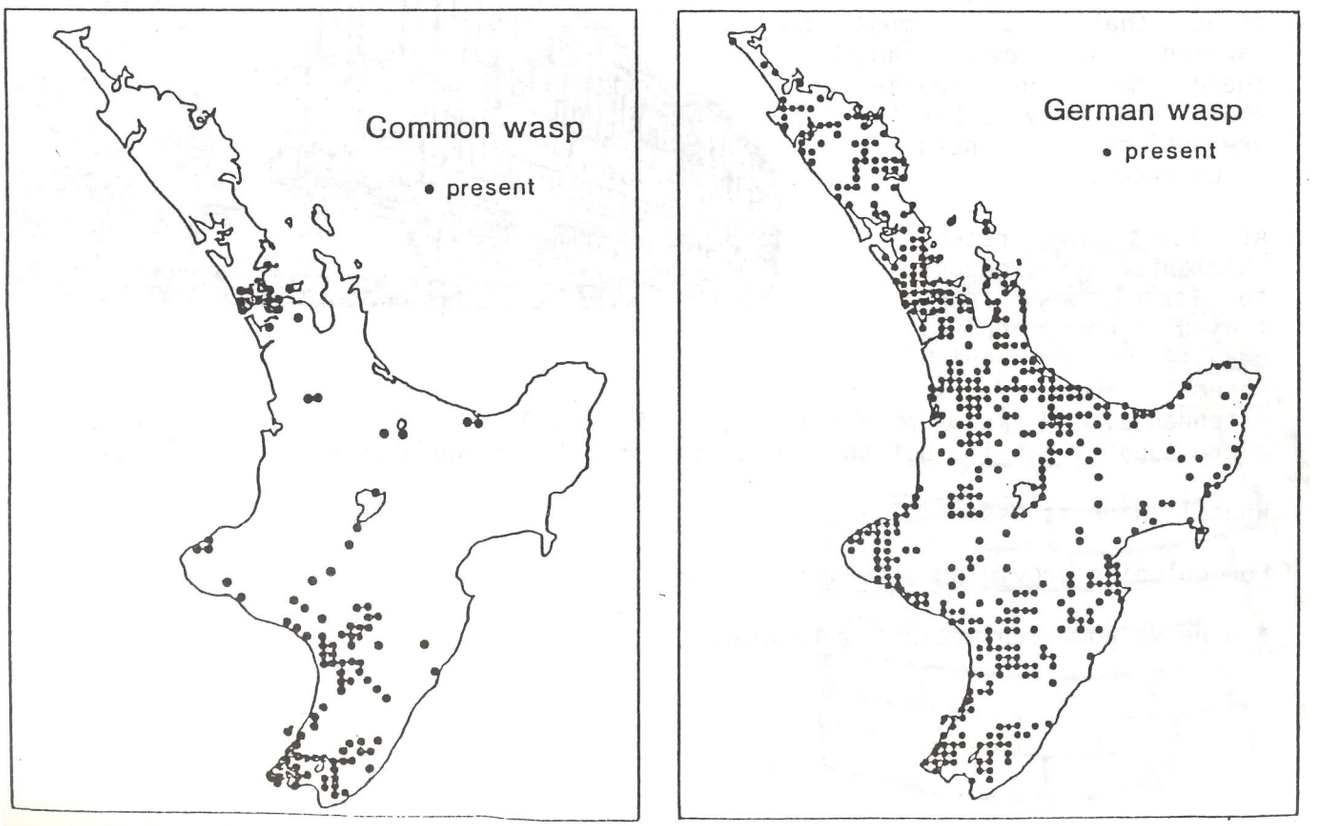
THE GREAT WASP SURVEY

Last year DSIR in Nelson asked the public to send in samples of wasps, and thousands of people responded. Wasps must be a hot topic with the average Kiwi.

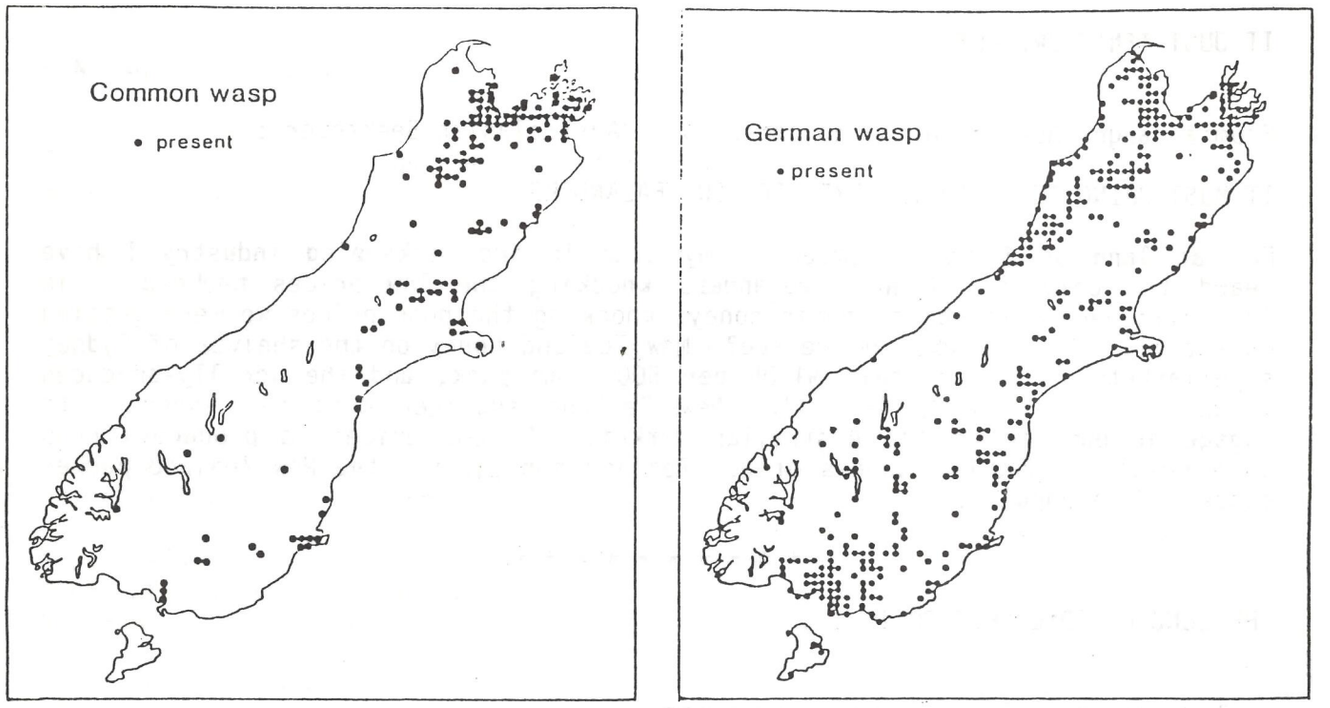
The survey showed that the German wasp is still the most abundant social wasp in the country, with specimens captured from North Cape to the bottom of Stewart Island. The newly-arrived common wasp is less frequent: the standard "common" name for the insect (if you'll excuse the pun) comes from overseas too. As



Areas in the North Island where common wasps and German wasps were collected.

you can see from the map this species is found mainly in the lower North Island and upper South Island. There are plenty of isolated records from towns (such as Hamilton, Rotorua, Whakatane), which suggests human involvement in their dispersal. The common wasp will probably spread out from these centres in the future.

Common wasps have been recorded foraging in beehives (as I reported in "Beelines" number 31). So far there have been no sightings of overwintering nests.



Areas in the South Island where common wasps and German wasps were collected.

The other part of the wasp survey was a special study of the effect of wasp predation on beekeeping. The response from beekeepers was disappointing, which could be interpreted to mean that wasps don't have as much effect on the industry as some people claim. At the moment we are working on the questionnaires that have come in, and will publish results later this year.

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AND CLOSER TO HOME

Yes, Varroa has been found in Australia, but only at a quarantine station. The mites were found on escort bees being examined at the bee quarantine station at Eastern Creek, near Sydney.

It's a good news/bad news story I suppose. The good thing about it is that the mites were found - this is precisely why the station was set up.

The bad news is that this importation of queens was perfectly legal and organized by a recognised queen bee producer, and yet the mites still managed to hitch a ride. How much more likely is it for Varroa to arrive on a run-of-the-mill queen smuggled in by some misguided beekeeper?

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IT JUST ISN'T CRICKET

From an angry Aussie in the November 1987 "Australasian Beekeeper":

IT MUST BRING TEARS TO THE EYES OF NEW ZEALANDERS

For as long as I can remember in my time in the beekeeping industry I have heard the comments of New Zealanders knocking the low prices beekeepers in Australia were getting for their honey, knocking the poor prices we were getting on export. But now what do we see? New Zealand honey on the shelves of Sydney supermarkets for a princely $1.05 per 500 gram pack, and the locally-produced product selling for $1.46. The New Zealand supplier must be desperate to engage in dumping on the Australian market. If our prices to producers drop as a result of 300-600 tonnes of New Zealand honey won't the New Zealand packer concerned be popular.

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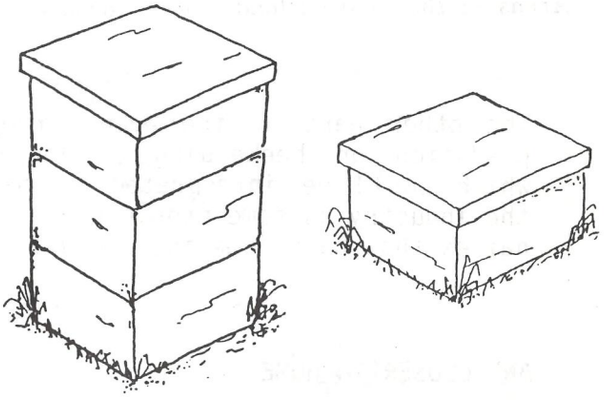
THE LENGTHS SOME BEES GO TO ...

In the August 1987 "Beelines" I reviewed some facts about queen mating. I've since read of an amazing experiment in Canada which has shown how far some bees are prepared to go. Is this material for the "Guiness Book of Records"?



Tibor Szabo of Beaverlodge Research Station in Alberta set up an unusual queen mating yard. He established an apiary of 10 drone colonies, and at intervals of 2 km along a road from the drone apiary he put dumps of five mating nucs, each with a virgin queen and workers but no drones.

The experiment was carried out in two successive years. The first year he put mating nucs for 20 km up the road, and in the second year increased the distance to 30 km.

This trial was done in forest 700-900 m above sea level, at least 20 km from any known apiaries in an area free of feral colonies.

The results? In the first year of the trial queens were mated as far as 20 km from the drone apiary. In the next year the furthest mating was 13 km from base.

That's very interesting, but not much use to beekeepers who wouldn't normally attempt matings (for bees) at 20 km anyway. But Szabo came up with some pretty useful data. The further mating nucs were from the drone apiaries, the longer it took for them to lay and the fewer sperm they had in their spermatheca.

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RUNNING IN THE RAIN

This little piece caught my eye during pollination, when it was especially appropriate.

If you are caught in the rain is it better to run for shelter, or would you still get just as wet as if you strolled casually for cover?

Most of us don't think in such a situation - we run. But there is a superficially appealling argument to do with the density of raindrops and the volume of air swept out by a moving person, which suggests that instinct is wrong. Now, however, that argument has been knocked on the head.

Apparently a university physics department has gone to the trouble of calculating the interaction between falling raindrops and a moving person.

It turns out that for vertical rain, someone moving at a brisk walk (3 metres per second) will get 10% wetter than a world champion runner sprinting at 10 metres per second.

Now all you have to do is decide if all that effort is worth the bother!!!

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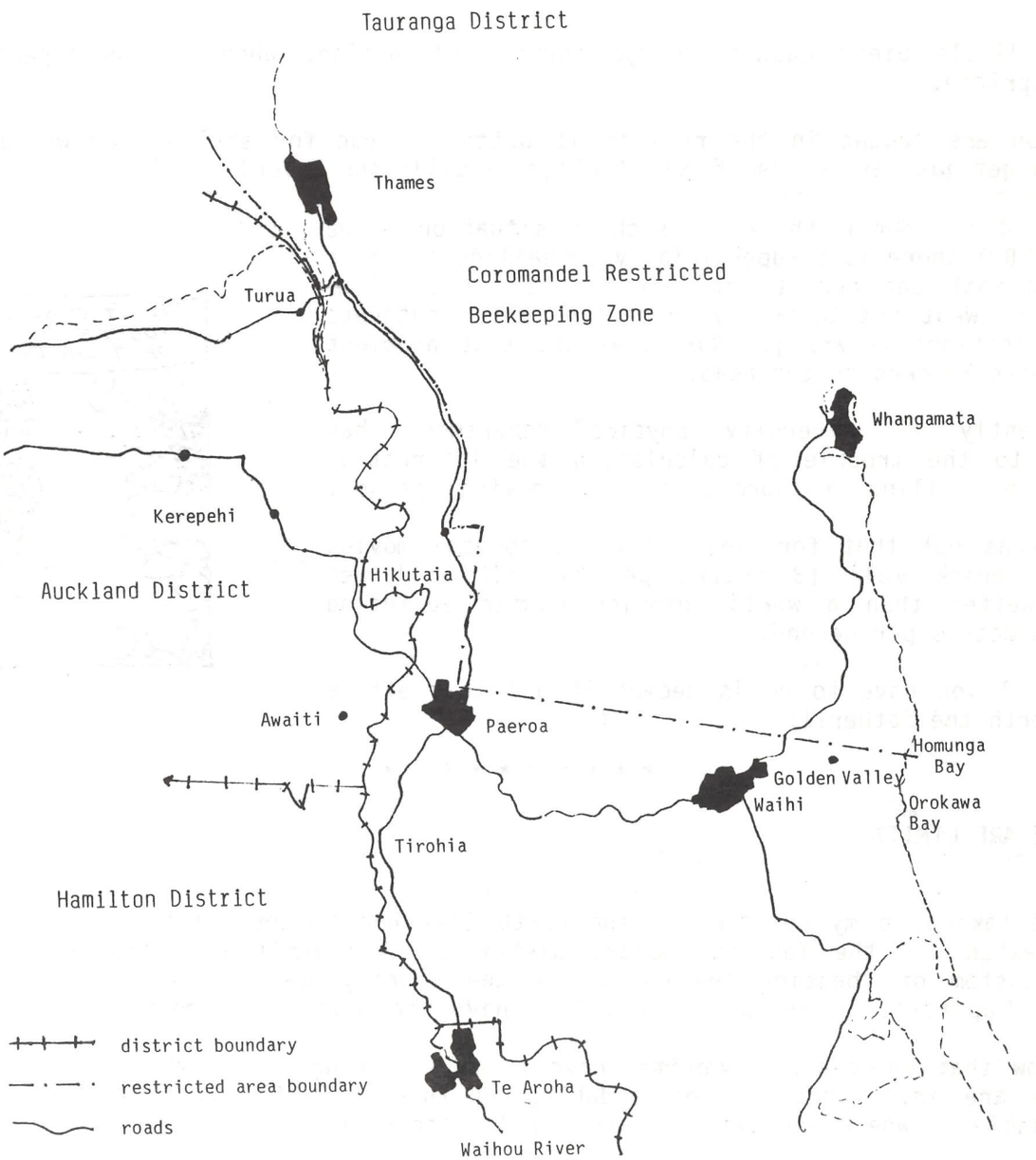
THERE ARE LIMITS!

Since taking up my position in the north I've had to spend some time learning the extent of the Tauranga apiary district. I haven't yet resorted to the old custom of "beating the bounds" - the countryside is familiar from when I lived up here. I think that now I do have the boundaries pretty well sussed.

I know that beekeepers sometimes have trouble working out which district their sites are in. That's understandable, as there's little written information available on where one patch finishes and another starts. To try and help I've

set out below a description and sketch of part of the district where a lot of hives do cross the border. I will follow this up in later issues of "Beelines" with similar commentaries for other areas.

In the Hauraki Plains/Thames Valley area the boundary of the Tauranga apiary district is pretty simple - it follows the Waihou river up from the sea to Tui Pa just north of Te Aroha township. It then goes straight up into the bush just north of the Te Aroha Mountain Road and follows the top of the Kaimai range southwards. This is the western boundary of the Thames-Coromandel District and Ohinemuri county.



The northern part of the plains (Ngatea, Turua, Kerepehi, Netherton, Awaiti, Patetonga) is under the jurisdiction of MAF Auckland. To register apiary sites there contact Colin Rope, MAF Lynfield, PO Box 41, Auckland ((09) 676 026).

Below Tirohia and Tahuna is in the Hamilton apiary district. Contact Murray Reid, MAF, Private Bag, Hamilton ((071) 81 949).

The boundary of the Coromandel restricted beekeeping area is a little more complicated than the district boundaries. It too starts at the mouth of the Waihou River, but only follows that up as far as the Kopu bridge. Then it follows State Highway 25 eastwards to Kopu, and then SH 26 (the Thames-Paeroa road) southwards as far as Hikutaia.

It's at Hikutaia that things get a little more tricky. The edge of the restricted area follows the Old Maratoto Road up for about 2.5 km until it comes close to the Hikutaia River, then goes due south to the outskirts of Paeroa just west of SH 26. This means that the main road between Hikutaia and Komata is outside the restricted area, but from Komata to Paeroa is inside it.

From the northern edge of Paeroa the boundary goes in a straight line eastwards to Homunga Bay, just north of Orokawa Bay which in turn is just north of Waihi Beach. So Waitekauri Road from Waikino to Waitekauri is not restricted, but Golden Cross Road north of Waitekauri is. The boundary crosses SH 25 (Waihi-Whangamata) about the junction of Willows Road.

I can give you the legal description of the restricted area if you'd like to plot it on cadastral maps.

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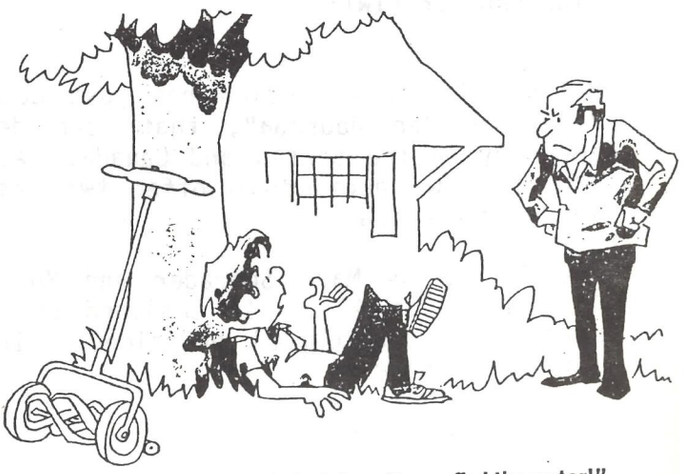
HONEY SOAP RECIPE

I haven't tried this one but it sounds interesting. You need:

* 1 cup diced scraps of old soap
* 1 cup of water
* 1 tablespoon of glycerine
* 2/3 cup of rolled oats

Soak all these ingredients overnight then add one teaspoon of honey and simmer until the soap melts, stirring with a wooden spoon. Pour into moulds and leave to set. The longer you can leave the soap drying the better it will be.



"I can't start it, Dad...In fact, I can't even find the motor!"

TRADE TABLE

* Hives for sale: 100, 2 box, three-quarter depth, new queens. Contact Peter Lamb, 297 Stout Street, Gisborne. Phone (079) 83 145.

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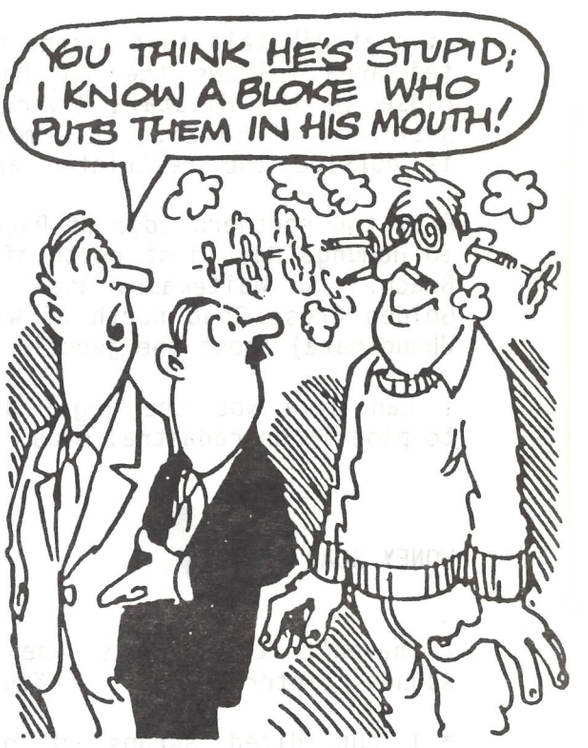
SAYING FOR THE MONTH

Laugh at your troubles: that way you'll never run out of things to laugh at.



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BOTULISM

Some exporters are still being asked for certificates which declare their product to be botulism-free. MAF's lab at Lynfield can now do the analyses and supply the certificates. Contact Colin Rope at:

MAF
PO Box 41
Auckland

Phone (09) 676 026
Fax (09) 674 172

For background on the botulism/honey controversy, read the article in the last issue of "Beelines".

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HIGH PROFILE KIWIS

MAF's apiculture section has just completed a series of two articles in the "American Bee Journal", that were designed to increase the profile of our industry in the States and Canada. As part of our apiculture group's planning programme we decided to offer two articles to a prestigious industry journal in North America.

The first, by Mark Schrader and Murray Reid, was published in the November 1986 issue of ABJ. It outlined our system for apiary registration, disease monitoring and control practices. It also described which diseases we have (and don't have).

The second article was a description of our queen and package bee production by Cliff Van Eaton. It featured on as a cover story in the November 1987 issue, under the heading "New Zealand package bee and queen industry growing".

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SALE OF HIVES

Recently I've been coming across a number of new beekeepers who have bought hives from established apiarists, and no permit has been isued for the sale. What worries me is the number of new beekeepers who don't bother to contact us, and whose hives escape from the system.

Some of these cases have involved people I would have expected to be more careful. Please let us know when you sell hives, so we can make sure the new owner registers.

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APICULTURAL SLUMS

That was the eyecatching headline in an Aussie magazine I read recently. It's a pretty good description of a few apiaries I've seen. The writer went on to say that "the condition into which a few apairists permit their hives to descend is a credit neither to themselves nor to the industry. The sight of some of these apiaries is enough to put the beholder off eating honey for life. Such apiaries may be seen by forest workers and by motorists who are enjoying the countryside over the weekend. Some of the offensive apiaries are sited even in full view of the road. It is high time that those apiarists made a drastic improvement in this matter".

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TALL TALES AND TRUE

And then there was the poor chap who discovered that he was severely allergic to propolis, but unfortunately he found out only after he had applied a 10% solution of it to a certain part of his body in an attempt to cure genital herpes. He suffered intense oedema (swelling caused by fluid buildup under the skin), inflamation and blistering. This was disclosed in a recent report from Italy in the journal "Contact Dermatitis".

IS YOUR REFRACTORMETER CALIBRATED PROPERLY?

The refractometer can be a useful tool if adjusted correctly, but equally misleading if not used carefully. Some points about using and calibrating this piece of equipment.

Using the refractometer

- Before sampling any honey look at the thermometer on the side, read off the correction factor and write it down somewhere. The heat from your hand will alter it and give a false reading once you start gripping the refractometer.

- When taking a moisture reading with the refractometer, wait a few minutes after loading the sample so that the instrument and honey can reach the same temperature. The moisture content of the honey is indicated where the border line between the light and dark fields passes through the calibrated scale. Remember to add or subtract the correction factor noted down before.

Calibrating the instrument

Each refractometer is supplied with a small bottle of monobromonapthalene and a small glass test piece. The test piece is enscribed with either 19.2% or 1.5095. The 19.2% refers to that reading on the refractometer scale while the 1.5095 refers to the calibration line under the scale. Refractometers also are supplied with a small screw driver.

Calibrate the refractometer this way:

1. Place a small drop of monobromonapthalene on the open prism and place the test piece as shown in figure 1.

2. View through the eyepiece and adjust the instrument as in taking a honey sample. If the 19.2% test piece is used, the border line between light and dark should be seen at 19.2 on the scale. If the 1.5095 test piece is used, the line should pass through the 1.5095 line under the scale. If the border line does not pass through the point indicated on the test piece, the refractometer needs adjusting.

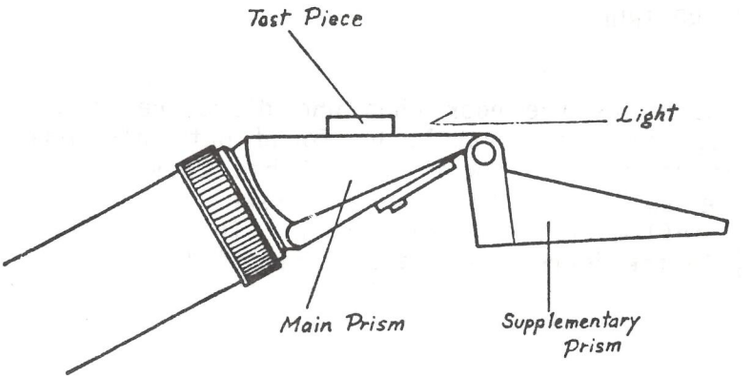

Figure 1. Open refractometer with test piece.

3. Refer to figure 2. By turning the scale adjusting screw (c) with the screw driver, the scale is moved up or down. Adjust the scale so that the border line passes exactly through the place indicated on the test piece. Note that the reading must be adjusted depending on the temperature as indicated by the thermometer on the side of the instrument.

4. When in doubt refer to your instruction manual.

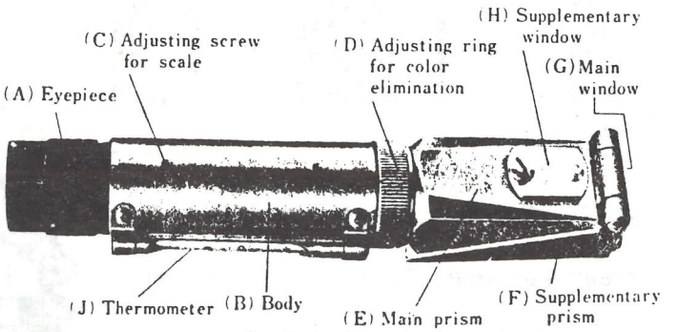

Figure 2. Honey Refractometer.

GO BEE GO

The product "Bee Go" is finding a few users here in the honey season. It's used on fume boards in the same way as benzaldehyde is. Compared with benzaldehyde, "Bee Go" is more effective, more offensive and more expensive.

A few safety pointers for "Bee Go" are worth noting. The chemical involved (butyric anhydride) causes burns, so use with caution and eye protection. In case of contact immediately flush eyes or skin with plenty of water for at least 15 minutes, while removing contaminated clothing. Beware of inhaling vapour.

In case of fire use an extinguisher, as the chemical reacts with water.

"This is it, Jenkins. ... Indisputable proof that the Ice Age caught these people completely off guard."

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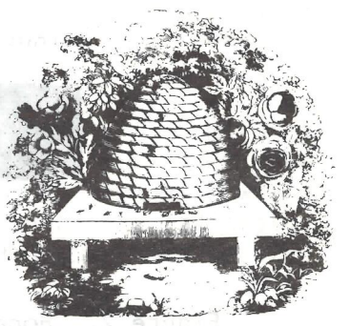
NEW ZEALAND HONEY EXPORTS

Honey and beeswax leaving New Zealand for the half year July-December 1987.

	Tonnes	Value fob	$/tonne
Bulk honey (floral)	567	$1,043,855	$1,840
Retail packs (floral)	224	$ 689,112	$3,077
Comb honey	144	$ 740,465	$5,146
Honeydew	78	$ 165,696	$2,116
Beeswax	49	$ 242,937	$4,920

(Source: Statistics Department)



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Inflation in Mexico last year was over 130%.

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THIS IS IT!

At last: a comprehensive booklet on bee diseases, with excellent colour photos, a good description of each disease, and an affordable price tag.

The book is simply called "Honey bee diseases and pests', and is produced by the Canadian Association of Professional Apiculturalists (or CAPA to its friends). A number of CAPA members have contributed to the book (including Cam Jay, known to many of you).

Subjects covered include: normal honey bee development, AFB, EFB, chalkbrood, sacbrood, nosema diseases, wax moths, mites and minor colony abnormalities.

There are some excellent colour photos of disease symptoms. Every beekeeper needs a copy of this book - in the truck or with equipment you take into the field, not on the bookshelf. At $3 each (yes, $3 post free) these books are a steal. Order them from me at:

Andrew Matheson
197B Grange Road
Tauranga

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NASHI POLLINATION

Pollination of nashi will become increasingly important in this area over the next few years. Nashi is a high-value crop, and good pollination is needed to ensure the right size and shape. A fruit without a full complement of seeds ends up misshapen, because seeds produce growth hormones which induce the fruit to expand.

Good pollination of nashi requires:

- the right sort of pollen

- available at the right time

- with the right agent to transfer pollen between flowers

The "right" pollen is important. Pollen of one variety will generally not pollinate other flowers of the same variety: they are mostly self-incompatible. (Kosui and Nijisseiki are partly self-compatible). In addition to that, Kosui and Shinsui are cross-incompatible. The table sets this out:

	POLLEN SOURCE				
Cultivar	Hosui	Kosui	Nijisseiki	Shinseiki	Shinsui
Hosui	(Nil)	Good	Good	Good	Good
Kosui	Good	(Poor)	Good	Good	(Nil)
Nijisseiki	Good	Good	(Poor)	Good	Good
Shinseiki	Good	Good	Good	(Nil)	Good
Shinsui	Good	(Poor)	Good	Good	(Nil)

Cultivar incompatibility indicated in crosses shown in brackets.

The next requirement is the timing of different varieties: pollinizers must flower at the same time as the variety being pollinated. There will be some differences between districts on flowering sequences, but in the Waikato Shinsui, Hosui and Shinseiki flower close enough for cross pollination, as do Shinseiki, Kosui and Nijisseiki.

Pollen production also varies with cultivar. Both Hosui and Shinseiki produce high numbers of viable pollen, so Hosui is a good pollinizer for early varieties, and Shinseiki for both early and late cultivars.

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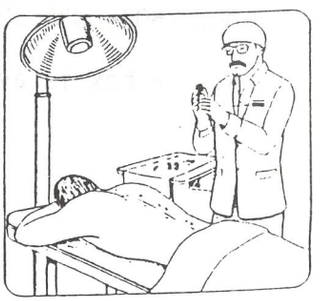
DON'T PUT THEM IN THE GLOVEBOX



Glove boxes are handy places to store things - but don't put your queens there when going out to the apiary. A recent report in the 'American Pharmacy" magazine gives the results of a study showing temperature variations in cars. Glove compartments can be as much as 20°C higher than outdoor temperatures, while down on the floor out of direct sunlight things were only 8°C warmer than outside.

The message is clear: don't put queens in the glovebox (or on the dashboard). Down on the floor and out of sunlight is safest.

And why should the "American Pharmacy" be concerned about how warm it is inside cars? They're advising on where to store medicines: in a hot place like the glove box drugs will deteriorate quickly.

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FOR SALE

1 000 hives, plant, honey house, trucks, house, land: $330,000. Contact Les Spriggs, RD1, Rangiora.

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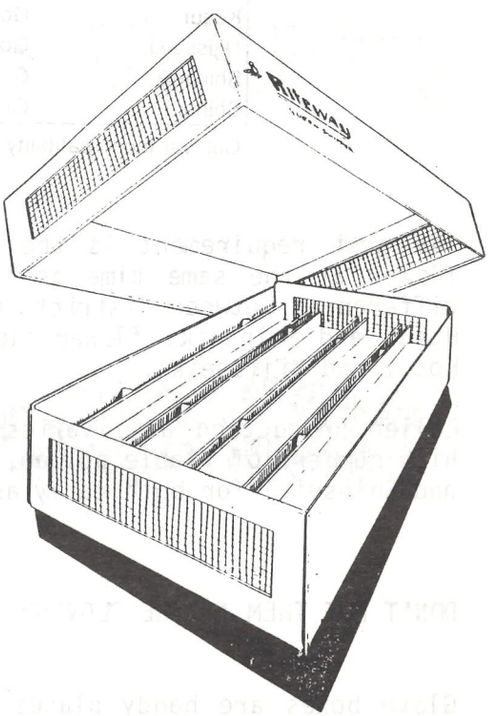
NEW QUEEN SHIPPING BOX

Two beekeepers in the USA have developed a new way of shipping queen bees - in a cardboard box which acts as a queen bank. The caged queens are held in a ventilated box with a shake of bees, and the mobile bank can be shipped through the post.

Advantages claimed for the system include savings in labour, freight costs and improvements in queen quality.

There are two sizes of shipping box - holding 56 or 104 cages. Queens are caged without escorts and placed in rows inside the box where they have access to candy. Between 250 g and 350 g of bees are added as escorts. The carton is then sealed with tape and despatched.

On arrival the queens can be held in the carton and watered regularly.



For further information contact:

Riteway queen shipper
PO Box 44
Amity
Oregon 97101
United States of America
Phone (503) 835 5300

A sample box is available for $US6

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INDUSTRY PLANNING

The NBA executive met recently with MAF and industry representatives to review your industry plan. A lot of knotty problems were addressed - the most important (and "knottiest") of which was how to secure MAF's continued involvement with bee disease control.

The meeting formulated a proposal which, if accepted by the Minister, will guarantee that MAF continues to operate apiary registers and bee disease monitoring programmes under the supervision of AAOs.

Hive levy payers will soon be getting more details from Allen McCaw in a newsletter. I guess that hobbyists and commercial beekeepers (and even MAF) might point the finger at other groups and say they're not carrying "their fair share". A lot of factors have to be balanced up, though, like who gets most disease, who has the most to lose (or gain), and simply the mechanics of administering different ways of collecting revenue.

Maybe the Chinese are right when they say that "A business deal is fair when neither party is completely satisfied". It's time for all beekeepers to support their executive in trying to strike the best deal for the whole industry, and not get caught up in pushing any sectional interests.

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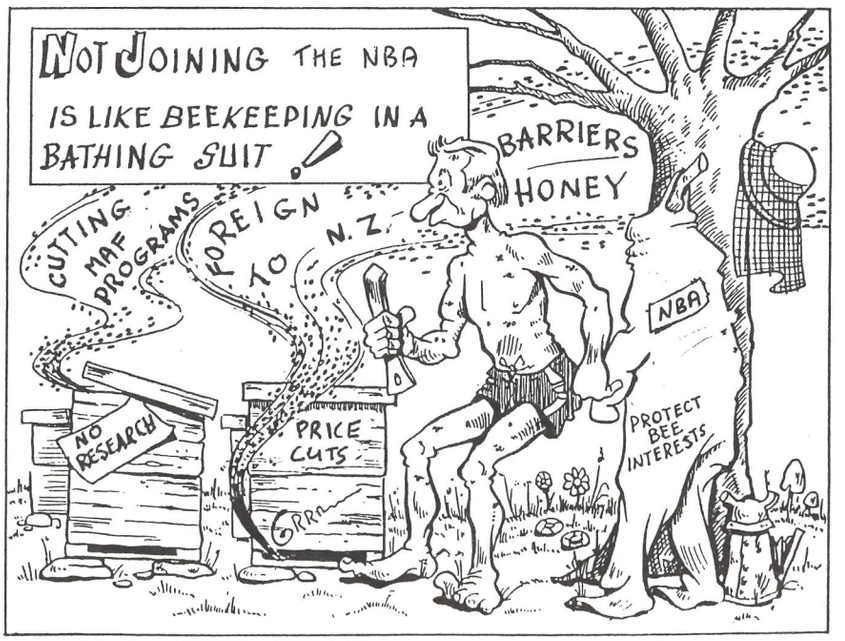
Bye for now.

Andrew

Andrew Matheson



PESTICIDES AND BEE TOXICITY WARNINGS

The safe use of pesticides toxic to bees is controlled under the Pesticides Regulations 1983. These Regulations make it an offence to use a pesticide contrary to any Bee Toxicity Warning on the label.

These Warning Statements and the relevant pesticides are listed below.

(a) TOXIC TO BEES. Spray must not contact plants in flower if they are likely to be visited by bees.

Pesticides
AZINPHOS-ETHYL
AZINPHOS-METHYL
CARBARYL
CARBOPHENOTHION
CHLOPRYRIFOS
CYFLUTHRIN
CYPERMETHRIN
DDT (not pellets)
DELTAMETHRIN
DIALIFOS
DIAZINON (not pellets)
ETRIMFOS
FENITROTHION (not pellets)
FENVALERATE
LINDANE (not pellets)
MALDISON (not pellets)
METHIDATHION
METHIOCARB (not baits)
PARATHION-METHYL
PARATHION (not pellets)
PHOSMET
PERMETHRIN
PROTHIOFOS
PIRIMIPHOS-METHYL
TRIAZOPHOS

(b) TOXIC TO BEES. Do not apply to strawberry or autumn raspberry plants in flower except in the evening. Spray must not contact other plants in flower if they are likely to be visited by bees.

Pesticides
NALED

(c) TOXIC TO BEES. Do not apply to leguminous plants in flower except in the evening and spray must not contact other plants in flower if they are likely to be visited by bees.

Pesticides
BROMOPHOS

(d) TOXIC TO BEES. Do not apply to strawberry, autumn raspberries or leguminous plants in flower except in the evening. Spray must not contact other plants in flower if they are likely to be visited by bees.

Pesticides
DICHLORVOS

(e) TOXIC TO BEES. Do not apply to autumn raspberry or leguminous plants in flower except in the evening. Spray must not contact other plants in flower if they are likely to be visited by bees.

Pesticides
ENDOSULFAN

(f) TOXIC TO BEES. Spray must not contact plants in flower while bees are present.

Pesticides
BIOALLETHRIN
BIORESMETHRIN
DINOSEB
PYRETHRUM
ROTENONE

(g) TOXIC TO BEES. Spray must not contact plants from "X" days before flowering to petal fall if the plants are likely to be visited by bees.

Pesticides	Days
ACEPHATE	7
CARBOFURAN (not pellets)	7
DEMETON-S-METHYL	7
DICROTOPHOS	7
DIMETHOATE	7
METHAMIDOPHOS	7
MEVINPHOS	3
OMETHOATE	7
OXAMYL (not pellets)	10
PYRAZOPHOS	3
THIOMETON	7

(h) TOXIC TO BEES. Do not apply to autumn raspberry plants in flower except in the evening. Spray must not contact other plants from "X" days before flowering to petal fall if the plants are likely to be visited by bees.

Pesticides	Days
METHOMYL	10

(i) TOXIC TO BEES. Spray must not contact plants in flower if they are likely to be visited by bees except in the evening when the bees have stopped working.

Pesticides
PIRIMICARB

(j) TOXIC TO BEES. Do not lay baits within 400 metres of beehives.

Pesticides
SODIUM FLUOROACETATE (paste only)

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Ministry of Agriculture and Fisheries
Private Bag
Tauranga
New Zealand
Telephone (075) 82-069