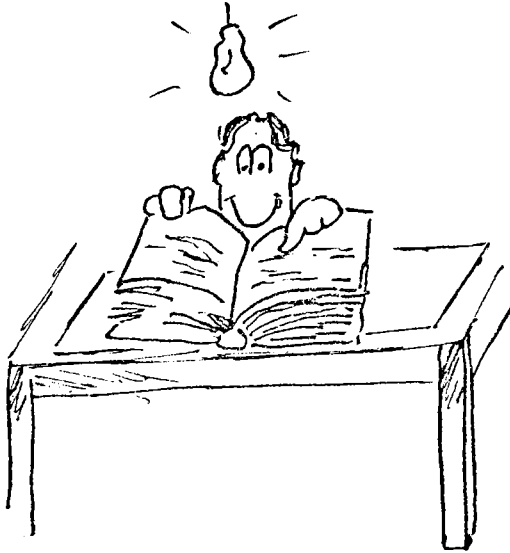


NO. 21

August 1984

**waikato
bee
notes**

- * Code of Ethics
- * Source of Lactalbumin
- * Telex Services
- * I R Department
- * Sugar feeding
- * Importing your own sugar
- * Nosema in Queen Bees
- * Acarine mite found in USA
- * Trade table (Resene paint, syrup pumps, pollen traps, queens and hive strappers)
- * Apiary staff
- * Pollination - Asian Pears and persimmons
- * Hives as sole collateral - RB
- * 1080 Jam Poisons Bees
- * Coming Events
- * Gallagher Wheel Grips



THE EDITORIAL DILEMMA

Getting out a newsletter is no joke.
If I print jokes people say I am irreverent.
If I don't, they say I am too serious.
If I clip things from other magazines I am too lazy myself.
If I don't I am stuck on my own stuff.
If I don't print every word of every contribution I "don't appreciate genius".
If I do print them "the columns are filled with junk".
If I make a change in your article, I am "too critical".
If I don't I am blamed for poor editing.
Now, as like as not, someone will say I swiped this from some other source.
I did!

BEEKEEPERS CODE OF ETHICS

Probably one of the more meritorious meetings of beekeepers was held at the Bay of Plenty Community College on 28 June 1984. This was a combined meeting of BOP and Waikato Beekeepers plus some from Auckland, held to try and thrash out the thorny problem of "apiary jumping".

It's always difficult drafting remits or anything from the floor of a meeting, but it was felt we should attempt something rather than resort to the old kiwi standby of forming a committee! It is accepted that the following code is basically a draft and suggestions for improvement or additions would be welcome. The meeting agreed to abide by the following:

- "1. We as beekeepers should respect the prior territorial rights of existing apiaries unless the said apiary site has been left vacant for a period of two consecutive seasons or more.
2. Any grouping of ten (10) or more hives shall be deemed an apiary for the purpose of this code.
3. The territorial right of any apiary shall be a distance, in radius, of 1.6 km in every direction from that apiary, and no new yard shall be located any closer than that.
4. We should make every endeavour to have all our existing apiary sites plotted accurately on the MAF apiary maps.
5. We will ensure that every apiary is clearly marked with our official identification mark as issued by the MAF.
6. In the event of any territorial or other dispute where agreement cannot be reached, we will call on advice from a mutually acceptable mediator from within the industry."

Most of the discussion centred on how far apart commercial apiaries, i.e. more than 10 hives, should be. I have always quoted that most foraging by honey bees is done within 800 m of their hive. So, at 1.6 km spacings there should be minimal competition for food.

Work done in Austria by H Pechhacker in the early 1970's showed the importance of locating apiaries as close as possible to the main nectar source especially during inclement weather.

Pechhacker placed groups of hives right in honey dew producing forests as well as 500 m, 1000 m and 1500 m away. He found that the hives in the forest averaged a 55 kg weight gain, those at 500 m averaged 42 kg, 1000 m 30 kg and at 1500 m 17 kg. The differences were even more marked if only periods of poor flying weather were considered.

So I feel that keeping apiaries 1.6 km apart is reasonable and realistic. There is a lot of forage area available within a 1.6 km radius of an apiary, as the following table from Doull shows:

Areas of forage available at different distances from hives and numbers of hives required to provide densities of 1 bee/m²

Radius From Hive	Hectares Enclosed	Density of 1 bee/m ²	
		No. of Bees	No. of Hives
100 m	3	30,000	1+
500 m	78	785,000	31
1 km	314	3 million	125
1.5km	707	7 million	283
2 km	1,257	12.5 "	502

The hives are assumed to contain strong colonies each with a field force of 25,000 bees. This would be a typical full-strength 3-4 storey hive.

Source: *Apiacta* XII (1) : 15-18 1977
Australasian Beekeeper 75 (6) : 146-147 1973

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You've heard of Murphy's Law; well, the Son of Murphy has said something similar:

"If everything is going your way, you're probably going in the wrong direction".

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LACTALBUMIN AND YEAST PATTIES

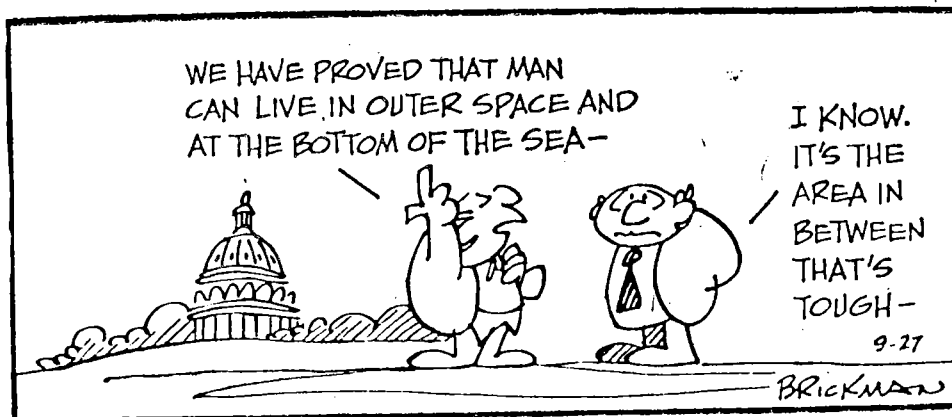
In my last newsletter I gave you some recipes for pollen substitutes and sources of supply. The Dairy Board have formed a new company called "Allico" since then, and all orders for lactalbumin now have to be made through Wellington. Here's the address:

Bill Malins, Customer Services
Phone: Wellington 723630 and make it collect.

Bill's office is on the 10th floor of Pastoral House, if any of you are in Wellington and want to visit him.

The price has also changed. Grade 1 Lactalbumin is now \$3.04/kg delivered or \$2.80/kg ex Reporoa or Opotiki.

Bill and his team are looking at marketing a ready to use substitute, but that won't be available for this season. Bill also warns beekeepers to buy only Grade 1 Lactalbumin. Some beekeepers have been buying stock food lactalbumin which may be a down-graded product or floor sweepings, both of which could contain lactose, a milk sugar toxic to bees.



TELEX SERVICES

I told you about the Telex Service the PO operates, in Newsletter No 9 August 1980, and also about their Bureaufax service (which sends photocopies of articles) in Newsletter No 19 August 1983.

Now a company calling itself "Answer Services NZ Ltd" is offering a similar telex service to that of the PO. You simply phone your message through to the company and they do the rest. Incoming messages are phoned through to you, and then a copy is mailed later. The cost in NZ is 4¢/second. For Australia and the South Pacific the charge is \$3.20/min or part thereof, the UK/USA/Canada/Japan is \$6.20/min and all other countries are \$8.00/min.

"Answer Services" are in the Manchester Unity Building, 145 Victoria Street, Telephone : 80 389 Hamilton.

INLAND REVENUE DEPARTMENT

An Inspector from the IR Department gave an interesting talk at the Conference Seminar last July. He reminded beekeepers that:

- * Records must be kept for 10 years.
- * All records must be kept, not just business transactions. Personal cheque books, receipts and family transactions not requiring stamping should also be kept.
- * Wax is a by-product and doesn't need to be recorded as stock-on-hand. It can be entered as a nil value or at cost if you wish. Obviously it must be declared as income when it is sold.
- * Honey has a value once it is in the honey house (feed honey excluded). Its value must be recorded when it is in a ready for sale form, which means in a drum or in a retail container. The value can be set at either the selling price or the cost price (either purchase or production cost).
- * The investment allowance of 20% (in the first year only) on plant and equipment is for individual items that cost over \$500 each. So, hives would not qualify even if you purchased more than \$500 worth, because individually the hives are much less than \$500. You can, however, claim the 20% first year depreciation on hives that are new to you, i.e. they may well be second-hand hives, but they are "new" to you.
- * Our man couldn't answer the question "If pollination is the main source of income, can honey be regarded as a by-product?"



"Oh, come out Sam! It's been months since you filed your income tax".

HEARD AT CONFERENCE

- * From a beekeeper "Beekeepers have to be optimistic to the point of stupidity".
- * "Our organisation is in danger of becoming so inward looking that it might disappear up its own logo!".
- * Some wit wanted to know whether the industries motto "Better beekeeping, better marketing" shouldn't be changed to BOMB, or "Bettering organising, better marketing". You might need a mirror to work that one out.

SUGAR FEEDING

In the May 1974 issue of the NZ Beekeeper, I wrote an article on sugar feeding in which I worked out that as a rule of thumb "the final weight of ripened stores in the comb is slightly less than the weight of dry sugar in the original syrup".

Many of you are using the thick syrup direct from the refinery, but there are still a lot mixing their own. Here are some of the questions I am frequently asked about sugar feeding:

- * "Is it better to feed a thick or a thin syrup?"

It is not economic to cart water around the countryside and I feel a strong solution will stimulate brood rearing just as much as a weak one. So, always feed a concentrated brew. We also know from work done by Ribbards and Wedmore in England that up to 30% more sugar is stored by bees fed a strong solution rather than a weak one. The reason is that it takes a lot of energy to evaporate the excess water. Put another way, for every 10 litres of concentrated syrup you feed, the bees will store nearly 3 kg of sugar more than if the same weight of sugar was fed as a weak syrup. In dollar terms this is around \$2.00 per 10 litres per hive.

- * "What is the correct ratio of sugar to water?"

I always recommend a 2:1, i.e. 2 sugar to one of water. However, it is usually very difficult to dissolve this amount easily; 16-18 kg sugar added to 10 litres of water is a good compromise. A 2:1 solution would be 20 kg sugar to 10 litres of water.

- * "Should I use hot or cold water?"

If you want to have a hot shower at night, use cold! Cold water is fine, but it takes a bit more stirring that's all.

- * "How can I mix large quantities of syrup?"

I have seen all sorts of contraptions from old extractors with the baskets still in them acting as paddles. I have seen outboard motors, large paint stirrers or small blades on a vertical shaft and powered by electric motors, drills, 4 stroke engines. I have seen honey creaming tanks used, as well as recirculating the sugar through a honey pump. The method that caught my fancy though was a vacuum cleaner with the hose stuck in the blow end. Two words of caution with this method - put a lid or sheet of plastic over the tank as the splash back is pretty vigorous, and invest in your own second-hand vacuum cleaner! Whenever you're mixing sugar don't let the sugar settle or stay on the bottom for too long before stirring; it becomes hard to shift.

- * "How long will a feed last?"

Well, this depends on lots of things. However, 4-5 litres of a very strong syrup could be expected to last 2-4 weeks. A 5 litre feed will contain around 3 kg of sugar, which will be equivalent to one and a bit frames of honey.

- * "I fed my bees once, but they seemed to put very little stores in the comb".

Hungry bees from a 2 storey hive can store about 1 litre of syrup in their honey stomachs alone. They will also consume more sugar to stay alive, possibly secrete wax, evaporate the water from the syrup and invert it, so its not surprising if there is not much to show for your efforts. Give them another feed.

- * I fed some nuc's after making them up, and a lot of them drowned in the feeder, why?"

Excited bees tend to do that. Either let them settle down over night or give only a $\frac{1}{4}$ of a feeder full to start, then a full feed next visit.

- * And a word on robbing. It is generally recommended to feed every hive in the yard to prevent robbing, but it is possible to feed selected hives and get no robbing. Then the next time you do that - bingo you get robbing. That's beekeeping!.

Bees used to robbing, say around a honey house, will tend to rob even if they have received a feed too. I suggest that if you want to winter nuc's around a honey house take away resident hives before you need to feed the nuc's and bring the nuc's in after you have finished extracting.

DEVALUATION AND SUGAR PRICES

Back in January of this year a snippet in the Waikato Times reported that major sugar producing countries were to discuss how they could reverse the slump in world sugar prices. Raw sugar was around \$US200/tonne at the time.

On 23 July, the Dominion reported the London price for white sugar was \$US143.5/tonne and raw was \$US118/tonne. As if that wasn't bad enough the EEC has a sugar mountain and they were paying a subsidy of nearly \$US350/tonne to exporters on 48,000 tonne. Makes you weep doesn't it.

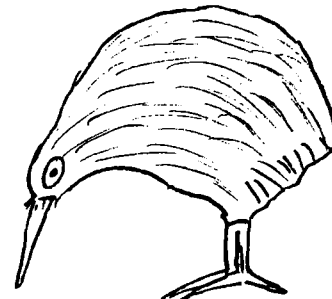
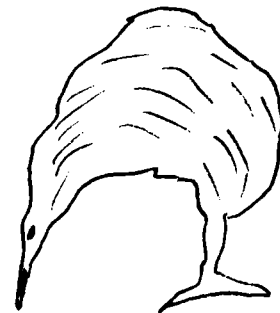
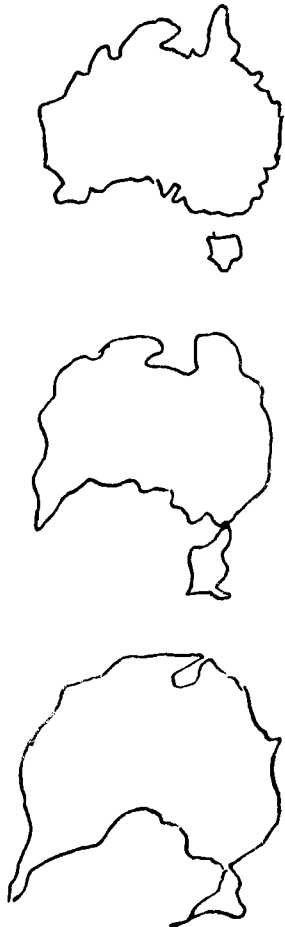
I have no idea when our prices will go up, but hopefully they will be held as long as possible.

IMPORTING YOUR OWN SUGAR

Mr Vaugh of the Trade and Industry Department in Wellington was telling me recently that individuals can import raw sugar but not white. Fiji and Australia have long term contracts with CSR but Mr Vaugh suggested Papua New Guinea may be interested in supplying small orders. They have a product called "milled white" which is bleached raw sugar so I imagine it would have the same mollasses content as raw.

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ADVANCE AUSTRALIA WHERE?



A kiwi suggestion for
the Australian Export Drive!

The Exporter - July 1983:3

AND SPEAKING OF OZ

A well known NZ personality who writes under the name of Nor'Wester in the NZ Journal of Agriculture was recently in Australia. A rather stern immigration officer asked him, "Have you got a criminal record, Sir?" to which our intrepid journalist replied, "No, I thought that was no longer necessary!".

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MORE ON NOSEMA

Nosema has been described as the "pick pocket" disease because the symptoms are not necessarily obvious. Dr Shimanuki laboured this point when he was in NZ. Nosema probably affects our honey crop more than we know.

Research has shown that early supersedure of young introduced queens is frequently due to nosema. The debatable point is did the queens arrive from the breeders already infected or did they become infected after introduction.

Work done in Czechoslovakia on commercially produced queens showed an 18.4% infection level out of 206 queens examined. So what can you do if buying expensive queens? Well, the easiest precaution is to feed a drop or two of Fumidil B in sugar solution to the queens in the cages before introduction. This has proved to be effective by researchers at Beltsville in the USA. If after doing that you still have queen supersedure problems, then the fault would probably be in your hives.

It would be nice if the queen breeders would guarantee freedom from nosema and it could be worth their charging a premium for such queens. If you don't want to feed Fumidil B to your honey producing colonies, then the least you should be doing is replacing 3-4 frames in the brood nest each year.

References: Doull, K; Australasian Beekeeper 76 (1) : 24-26 1974
Lehnert, T; J. Apic. Research 16 (3) : 163-164 1977
Loskotova, J; et al. Apidologie 11 (2) : 153-161 1980.

Hives that suffered from queen loss, queen failure or swarmed, produced 58.5% of a normal honey crop.

D Nelson, American Bee Journal, September :
636-637 1982



FROM THE BEE-LIEVE IT OR NOT
DEPARTMENT?!

The latest issue of Playboy says it can't believe it, but it still records the following ad from the Montreal Gazette:

"Retired accordion repairman wants strong girl to share newly acquired aardvark farm in New Zealand. PhD in animal husbandry as asset. Must be good mahjong player, drink beer and enjoy yodelling."

... and I didn't read that in Playboy, but our erstwhile local newspaper the Waikato Times of July 17 Page 34!.

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ACARINE MITE IN USA

These mites were found in some Texas beehives near the Mexican border on July 3 1984. APHIS (a "bee swot" team) swung into action and has begun an extensive colony search, trace back and quarantine programme. The beekeeper (where it all began) owns 3000 hives and also produces small quantities of queens and packages.

Acarine mites were discovered 4 years ago in Mexico which is very close to the present outbreak. At the moment it is proposed to quarantine the state of Texas and within the state 3 areas will be regulated. In one regulated area all bees will be killed (over 800 hives affected and no compensation has been arranged as yet); in another hive movements will be stopped and in the third area APHIS officials will work towards eradication.

The acarine mite is very tiny and lives in the air tubes of bees. Heavily infected bees are literally suffocated and the performance of the colony can be affected. It is possible to breed resistant strains of bee and UK Beekeepers don't regard the acarine mite as a particularly bad problem, although it was reputed to be the cause of many colony deaths in Britain early this century - the so called "Isle of Wight" epidemic.

Acarapis woodi is a schedule one disease in our Apiaries Act (along with Varroa, another mite) and some compensation is payable for any colonies destroyed through having this disease.

US queen breeders are anxiously waiting for a reaction from the Canadians. So far indications are that the Canadians aren't going to close the borders just yet. They will limit their purchases of queens and packages to states certified free of acarine mites. As these mites are difficult to diagnose in the field, certification will not be very easy nor even reliable.

The beekeeper whose hives had the initial infection says he didn't notice anything amiss and his hives all appeared healthy and strong.

WHO WOULD HAVE THOUGHT

In Kenya the honey bees have few diseases but many pests. One of the worst and most cunning is the honey badger.

Most hives in Kenya are suspended from trees to protect them from termites, ants, etc, but the badger learns to tip them over so the frames fall out.

They can also empty a hive of bees at night by holding their tail at the entrance. When the disturbed bees latch onto the tail the badger heads off into the bush and gets rid of the bees before going back for another load. After many such trips the hive is weakened enough to open up completely.

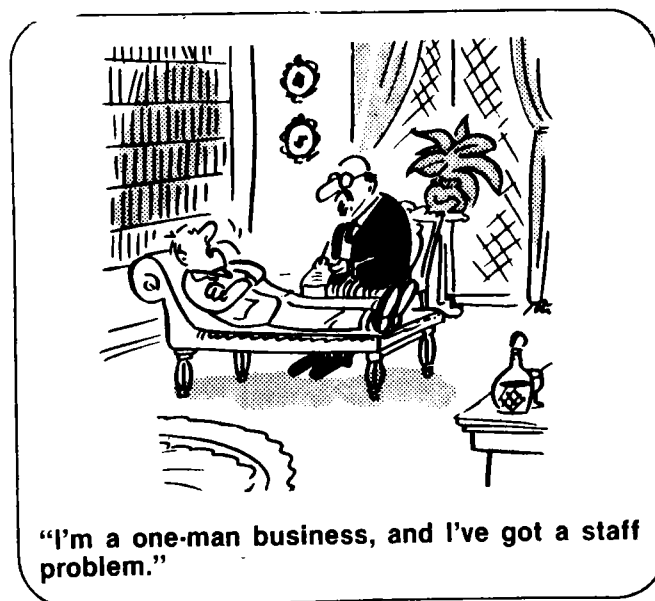
It seems they also protect themselves from stings by rolling in mud which bakes in the sun to form a protective coat!

Source: Bee World : 65 (2) : 79 1984.

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*Watching the five rings of the Olympics
reminded me of the three rings of marriage:*

*the engagement ring;
the wedding ring; and
the suffering!!!*



TRADE TABLE

- * Geracell have a new address:

24 Andromeda Crescent
East Tamaki

P O Box 58 114
Auckland

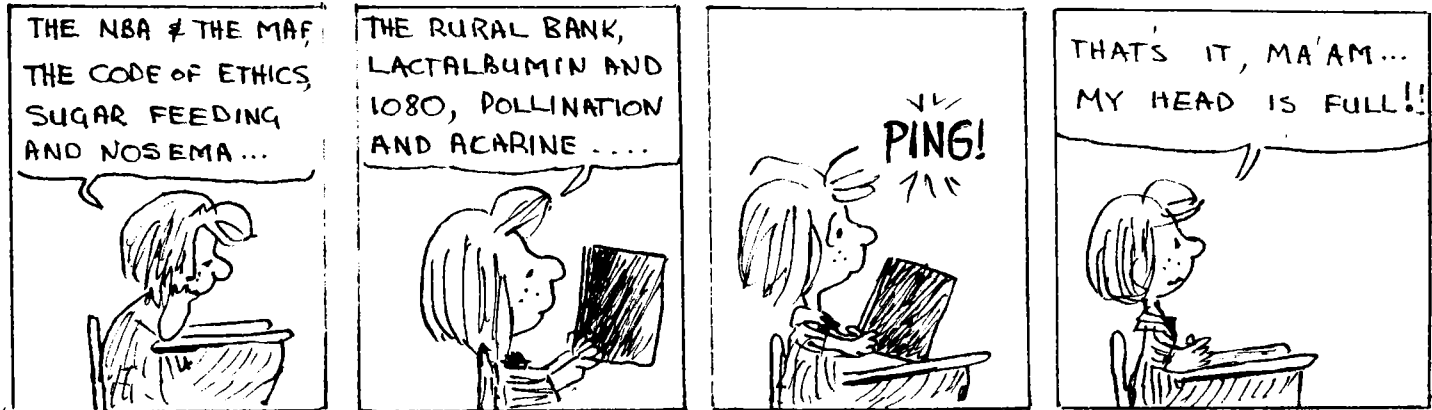
Telephone: 274 7236

- * Resene are now making a one pot vinyl butyral phenolic etch primer which is very good for steel, galvanised steel, aluminium, copper and its alloys, etc. It needs a top coat for prolonged exposure. The primer contains zinc chromate and iron oxide pigments so it is red in colour. It is touch dry in five minutes and hard in 15 minutes.
- * Asplins Supplies Ltd at Rukuhia, Phone: Hamilton 436 622 have component parts for sugar syrup pumps. Their 12 or 24 V motors are \$250 and the vane pump \$50. Asplins also supply other parts needed such as taps, check valves, pressure switches, solenoids, accumulators, etc. All up price about \$435. Most of the components are of anodised aluminium from aircraft.
- * Bryan Evans, Phone : 66 523 Hamilton, has a number of pollen traps for sale; \$10 each.
- * John and Jenny Dobson, Duff Road, Kereru, Box 1458, Hastings are entering the queen production business and are offering a \$1.00 reduction on each queen for this season.

1-9	\$7.00 each)	
10-49	\$6.00 each)	Price includes postage.
50 +	\$5.00 each)	

They are also selling polystyrene queen mating boxes at \$6.00 each (plus freight). You will need to cut top bars for the frames (no side bars needed) and a swivel entrance block too or they can do that for you for an extra \$4.00. These nuc's are excellent units and I recommend every beekeeper should have a bunch of them so you've got mated queens on hand when needed.

- * Hive strappers are available from W A Coppins and Sons, 255 High Street, Motueka, Phone, Motueka 87 296. The straps are nylon webbing and about 20 mm wide, and would be very strong and durable. A metal latch type strapper is \$3.92 and one with a quick release plastic buckle is \$3.60. Both prices include straps which are long enough to go round a 3 storey hive. I am looking at an alternative source of supply from Tauranga.
- * 200 litre drums suitable for sugar syrup are available from the Matangi Dairy Co. Call the Manager at Matangi 859; price \$8.00 each. Some of the drums have had soyabean oil in them which doesn't seem to harm the bees.



NEW APICULTURAL ADVISORY OFFICERS

There has been quite a change in our section lately. Bill Rodie from Palmerston North is retiring and Cliff van Eaton from Gore is going to transfer to Palmerston North next year. Kerry Simpson from Oamaru is teaching on a VSA project in Tuvalu and his position has been filled by Mark Shrader who was formerly a technician in the apiary section at Wallaceville. Mark will undergo his training in Nelson. Brian Milnes from Auckland is being relocated in Whangarei to be nearer the centre of his region, and a new officer, Clive Vardy, has been appointed to Gore. Clive will undergo his initial training in Tauranga. No doubt he will spend some time in our district, and I hope most of you will meet him.

BITS AND BYTES

Pascal, interface, supercalc, glitches, boot, cells and floppy disc's! This is computer goblegook and it means the apiary section has joined the computer age. Your statement of inspection forms are now prepared on computer and as usual our records are only as good as the data fed in. A computer truism still holds "rubbish in - rubbish out".



So I would ask you to make a special effort this year to give us correct and full details for your address and your apiary locations. I need initials for your farmers (I can remember trying to find an apiary on Erinshaw's property once, and there were five Erinshaw's on the one road!). I need road names, not RD numbers, plus district and county. If you don't intend using a site please cancel it. Some of you are just sending back your returns with no changes on them, and I know for a fact that in some instances apiaries haven't had any bees on them for over four years.

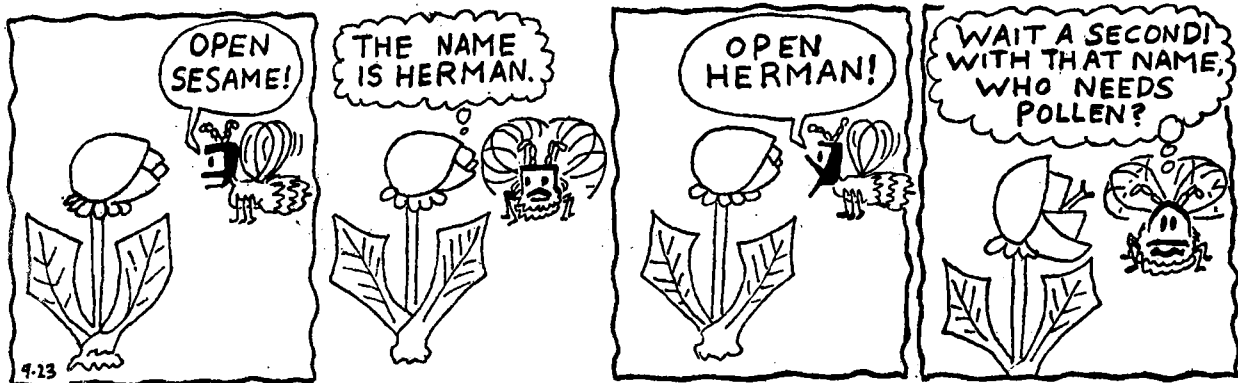
Beekeeper to new employee: "We're not very concerned with on-the-job training; we prefer on the job work!".

TREES FOR BEES AND ALL THAT

I was watching a bit of late night TV last June, June the 4th in fact, which was the day before Arbor Day. David Belami was on an advert extolling people to plant a tree for Arbor Day, and guess who was on the very next advert?

Yes, it was Sunny Bolstead, that intrepid bushman advertising Stihl Chainsaws. The ad introduced Sunny as a man who "had spent his life cutting down trees ...".

I guess I'll never know whether the scheduling of the ad's was deliberate or not.



POLLINATION - PERSIMMONS AND ASIAN PEARS (NASHI)

I have had quite a few enquiries lately from beekeepers on these two crops in particular.

Asian pears are like European pears in that they require insect pollination to ensure commercial crops and the orchardist will also need to plant different varieties for cross pollination.

Varieties your orchardist may have planted will be Nijisseiki (20th Century) Kosui, Hosui, Shinsui and Shinseiki, with some Chojuro or Okusankichi.

If a mixture of these are planted cross pollination shouldn't be a problem. Bartlet and Willian Bon Chretien pears also set Asian pears. At the moment I am recommending $\frac{1}{2}$ -1 hive to the hectare. Flowering could begin from early September.

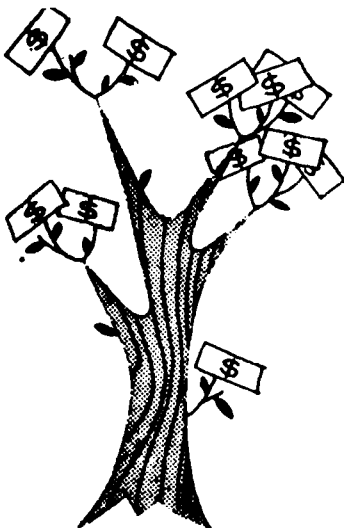
Persimmons also require cross pollination. The main varieties being planted include Fuyu, Hana Fuyu, Matsumoto, Izu and Jiro. They should flower a week or two before kiwifruit, which means early November. I haven't seen any hive recommendation rates but 1 hive/ha should be adequate.

By-the-way, the price freeze should affect early season pollination contracts, although it won't affect kiwifruit charges. BOP prices for kiwifruit being mentioned range from \$55-\$80/hive with most people talking of \$65-\$70.

The May 1984 issue of Waikato Bee Notes was incorrectly called No. 19. It should have been No. 20.

You've heard of the KISS formula - "Keep It Simple Stupid", well, Einstein said much the same thing - "Everything should be made as simple as possible, but not simpler". Beekeepers would do well to take this saying to heart.

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HIVES AS SECURITY

The Rural Bank will now accept hives as sole security, but there are some catches - aren't there always?!

- * Applicants must have 2 years full-time beekeeping experience and own at least 100 hives;
- * The proposition should be economic or potentially economic in its own right;

- * The loan is for \$10,000 or 50% of the value of the hive component parts;
- * The loan is at 7½% for 5 years.

There are other conditions regarding branding, apiary site identification etc, but these aren't too onerous. It is a start anyway.

Argentina is experiencing 20% inflation - per month that is! and their beekeepers are holding onto stocks waiting for further devaluations.

American Bee Journal - July 1984

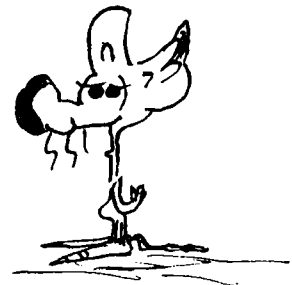
1080 JAM - BEE MORTALITIES

We experienced some bee deaths in colonies foraging on 1080 baits laid for possum control last autumn. I also experienced trouble in locating the owners of several apiaries to warn them to shift their hives out. And the reason - yes, you've guess it, no apiary registration numbers.

I have brought this problem to the attention of the Pesticides Board and the Agricultural Pest Destruction Council has been asked to notify beekeepers in areas where 1080 jam baits are to be used. I will try and keep you informed of next year's operations, but they will probably be in the Taumarunui, Te Kuiti, Western Bays and Pureora areas again.

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A beekeeper worried about approaching old age made bookings for a burial plot. "Does he have grave reservations?"



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COMING EVENTS

- * Nylex Spring World International Daffodil Show, Claudelands Showgrounds September 13-16 1984. The NBA and MAF are putting in a large beekeeping display. We have a 6 m x 3 m area to fill and will need "volunteers" to man the stand (or should it be person the stand?)
- * Pollination Management Workshop. BOP Community College - September 22 1984 - (a Saturday) 9.00 am - 4.00 pm. This is designed primarily for those who are new to the pollination business, especially kiwifruit.
- * Queen Production Workshop. Gisborne Community College - September 25 and 26.
- * Visit by Senior State Apicultural Advisers, Inspectors and Scientists from Australia. Proposed dates are November 24 - December 1 1984. The Aussies want to see chalkbrood, halfmoon disorder and kiwifruit pollination. They will probably visit Kerikeri, DSIR (Mt Albert), Hamilton and Tauranga. I will arrange meetings or a fileday for you to meet them either in Hamilton, or Tauranga, or both.

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WHEEL GRIPS

One last piece of business news. Gallagher Engineering here in Hamilton, Kahikitea Drive, Phone: 437 189 are making clip on "chains". These lock on the hub and have rigid tines. The tines have reversible bearings so they can be laid flat on the tyre surface for driving on roads. The price is \$364 plus \$55 sales tax.

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We are approaching one of the most trying times in the beekeepers calendar. I hope the spring is an easy one for all of us and always remember -

"for every solution there is always a problem!"

Bye for now

Murray

Murray Reid
Apicultural Advisory Officer