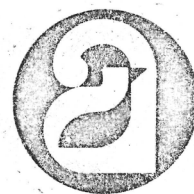
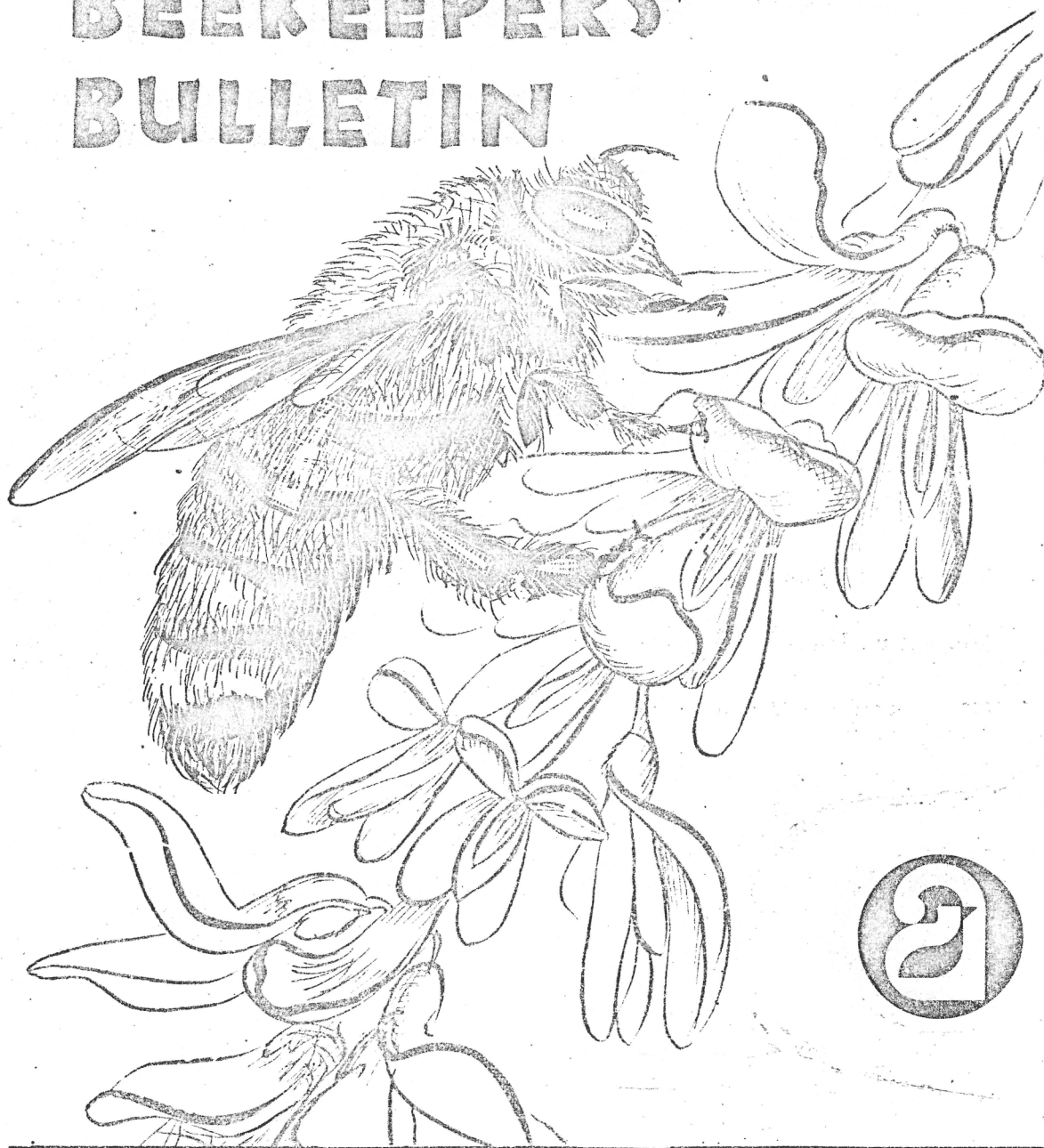


THE BEEKEEPERS' BULLETIN



A.G. Matheson
Apicultural Advisory Officer
Ministry of Agriculture and Fisheries
Private Bag
NELSON

Volume 3 number 1
August 1981

Telephone: 81 069 (Work)
83 406 (Home)



Here's some winter reading for you - although after a winter like this you shouldn't be inside reading, but outside keeping bees alive. For those of you who are up to date with all of that, or anyone who likes sitting in front of a fire in an evening, then there should be plenty here to interest you.

There's the usual pot-pourri of district news and items that should be of general interest. Product news - electric bee blowers, a revolutionary new way of getting mains power into your out apiaries (no, I don't mean 20 miles of electric flex), devices for saving your back, and sources of hive equipment.

Regional development money (again), what to do with the taxman (no, not that!), research reports, mystery bugs and so on.

oooooooo000oooooooo

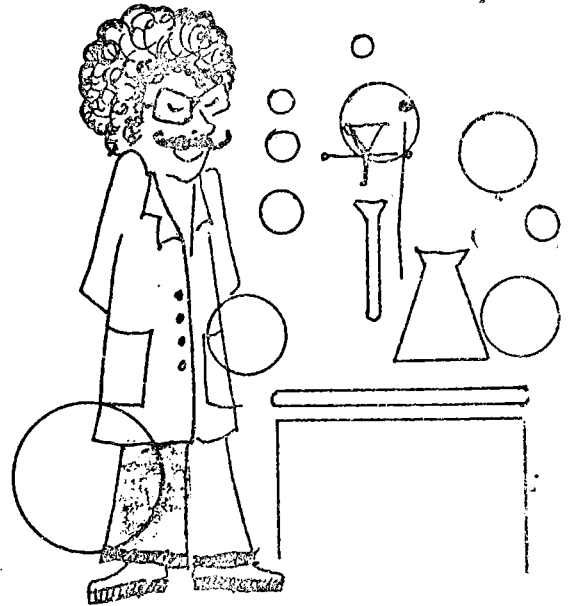
RESEARCH REPORT

A Canadian worker, T A Gochnauer, has done some interesting work on the numbers and distribution of Bacillus larvae spores in honey bee colonies infected with American foulbrood. *

Most of the spores are concentrated in the honey (average 24 million per gram), with lesser amounts in wax and pollen (collected in a trap). Surprisingly "few" spores could be scraped off the inside of the box - 1/3 million from a 10 x 10 cm area. (It's worth remembering though, that a bee larva can be fatally infected by an initial dose of fewer than 10 spores).

Interestingly enough, the soil in front of infected colonies yielded no spores. Separate tests showed that B.L. spores are leached relatively quickly through soil by rain. Samples of commercial foundation contained no spores.

Healthy colonies and their honey yielded no spores which is not surprising, but it does shatter the old myth about "almost all honey containing B.L. spores".



* Gochnauer, T.A. 1981. The distribution of Bacillus larvae spores in the environs of colonies infected with American foulbrood disease. American Bee Journal 121 (5): 332-335.

ELECTRIC BEE BLOWERS

Quite a few people have been asking me about these, so I've been hunting around for some information. As far as I can determine, there are three types of "shop blowers" on the market.

Hitachi PB-20 blower/extractor
 air pressure 400 mm (16 in) water
 air volume 2.3 m³/min (80 ft³/min)
 power input 335 W
 no load speed 13 000 rpm
 prices: retail \$144, trade \$117

Cory-Wright & Salmon in Nelson sell these.

Wolf 8793 blower
 air volume 1.9 m³/min
 nozzle velocity 112 m/s (22 000 ft/min)
 power input 800 W (full load)
 price: retail \$181 + 10% tax

Kidd Garrett, Nelson.

Makita blower
 air pressure 300 mm
 air volume 2.3 m³/min
 no load speed 12 500 rpm
 weight 2.2 kg
 price: retail approx. \$150

Neale and Haddow, Nelson.

The actual choice of model will depend largely on availability and back-up service, as the three models are fairly much of a muchness.

Electric blowers are fine of course, especially for people who don't care for the "quiet murmur" of a petrol-driven blower in their ears all day long. Usually the electric blower is held in the hand which gets a little tiring, although I can see no reason why it couldn't be mounted and an extra-long flexible nozzle provided.

You have to provide power for the thing of course, and for about \$700 you can be the proud owner of a portable generator with enough power to run a blower. This can be located at a distance from the apiary for quietness, and most are wet-proofed for use in rain.

An interesting alternative to a generator is the 'Redi-line motor generator', made by Honeywell of the USA. It runs off a battery, and converts DC to mains AC. Though portable, it is easiest to locate it on the truck near the battery. A female three pin socket is provided for running any appliances.

There are various models of Redi-line, but the smallest (DA 3179) is sufficient for powering blowers. It has a continuous (24 hour) rating of 400 W. For intermittent use its output is 600 W, and it can provide "bursts" of up to 1 200 W for driving heavier appliances in 30 second bursts (30 sec on and 15 sec off for extended periods).

Nelson contact for the Redi-line is A & T Burt Ltd in Collingwood Street. Price is \$425 plus freight from Auckland.

One Waikato beekeeper is using a Redi-line to power his electric blower. He is changing his truck battery to a 90 amp-hour model and will carry a spare until he finds out how well that goes. It seems to be O.K. so far.

* * * * *

DISCLAIMER

Mention of any proprietary brand or product does not constitute endorsement by the Ministry of Agriculture and Fisheries, nor recommendation over other products not mentioned.

TOXIC HONEY

An article in the local gardening page last month mentioned that a Motueka reader has had a plant identified as Cape Honey Flower (Melianthus major). Apparently it produces toxic nectar, although the article was a little confused about whether this was toxic to bees or people.

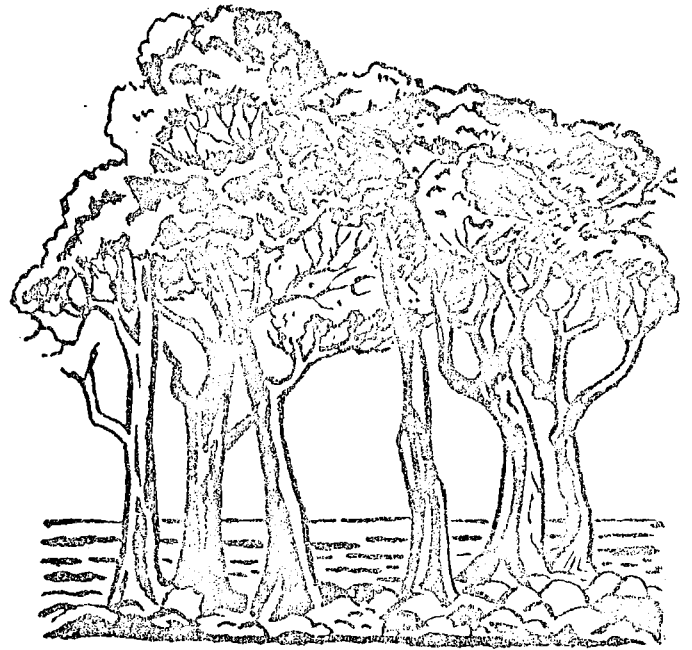
The plant is a large shrubby perennial and grows wild in some parts of the North Island. I don't know it, and can't find any reference to it. Can anybody help?

There's sometimes confusion about reports which suggest that Tilia trees (lime, linden or basswood, depending on where you come from) produce nectar which is toxic to bees.

The production of toxic nectar from Tilia trees is variable, and depends on weather, soil type and so on.

The only species which are known to produce toxic nectar are T. oliveri, T. petiolaris, and T. orbicularis (a T. petiolaris cross).

The grand Tilia trees which adorn many of Nelson's streets and parks are mainly T. europaea with some T. cordata. There is a short but very intense nectar flow beginning mid December, producing honey which is amber and has a distinctive "medicinal" flavour.

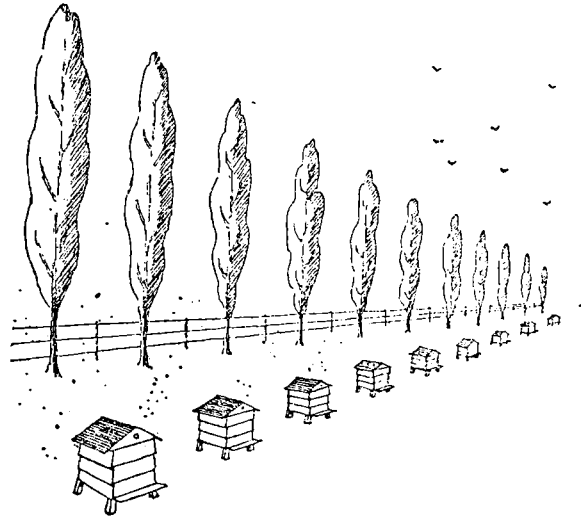


DISTRICT APIARY STATISTICS

At 31 May 1981 the hive holdings for the Nelson apiary district were:

473 beekeepers 1,430 apiaries 14,870 hives

Since I came to the district I've seen the figures increase by 43%, 35% and 22% respectively.



--ooo000ooo--

Zymurgy's Law of Evolving Systems Dynamics:

"Once you open a can of worms, the only way to re-can them is to use a larger can."

--ooo000ooo--

BEEKEEPING COURSES

A business management course was held in the first week of June at MAF's Telford Farm Training Institute, near Balclutha. There was a full house of commercial and intending-commercial beekeepers, three apicultural and one farming adviser and five guest speakers. Classroom sessions and the field trip were very worthwhile and generated a lot of enthusiasm and discussion.

I will be away from the office during the week 10-14 August, at the "Expanding into Commercial Beekeeping" course at Telford.

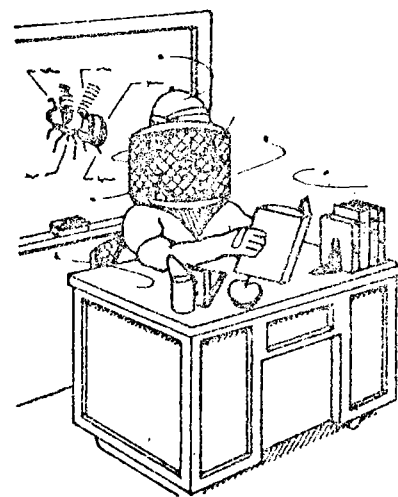
There will be a third beekeeping course at Telford this year, for beginners. "Introduction to Beekeeping" will be held at Telford from Monday 2 November - Thursday 5 November.

Enrolments to:
The Registrar
Telford Farm Training Institute
Private Bag
Balclutha

Phone: 81 550 Balclutha

Beginners courses will also be held in the Nelson area by the Nelson Polytechnic.

There is an evening course running at the Polytechnic at the moment, and weekend courses will be held at Motueka (probably in September) and Takaka (perhaps).



If you know of a beginner who might be interested then be sure to let them know. The courses will be advertised in the paper; for other information contact me or:

Course Supervisor
Applied Science Department
Nelson Polytechnic
Private Bag
Nelson.

Thoughts for Telford courses in 1982 include a queen rearing course in mid April, and another "Expanding into Commercial Beekeeping" in August if many people have to be turned away from this year's (which seems likely).

-ooo000ooo000ooo-

AG WHAT??? - AGLINK

Aglink is MAF's series of information leaflets, intended to cover all aspects of agriculture and horticulture. They come in single or double A4 sheets (the size of the page you're reading now).

Aglinks are punched for filing, and are already sorted into headings. Basically, there are three types of Aglink:

- Farm Production and Practice (or FPP to use the jargon)
- Horticultural Production and Practice (HPP)
- New Zealand Agriculture (NZA)

The first two headings are fairly self-explanatory, while the third is a fairly general series for public relations and handouts for school projects etc. It describes farming and horticulture in various parts of the country, MAF research stations, etc.

There are over 600 Aglink titles so far, and these are continually being revised and added to. What's this got to do with beekeeping? You might ask. Well, actually there are only five which relate to beekeeping. One is a general introduction for handling public enquiries, and there is one on dealing with swarms and feral hives. The other three are on beekeeping pests and diseases; wasps, B.L., and some overseas diseases which we don't have in New Zealand.



As I've mentioned in this Bulletin before, there are three of us producing a series of 20 or so beekeeping Aglinks which are intended mainly for the hobbyist. Although some of these are with the printers now, it could be a while before they appear. Aglinks on "commercial" beekeeping subjects might be produced in the future.. Your suggestions on suitable subjects would be useful.

Many of you are involved in other farming activities than beekeeping, and Aglink might help you there. Try beef cattle, dairy beef, dairy cattle, deer, geese, goats, pigs, poultry, rabbits, sheep or turkeys. Or their diseases and pests. Field crops and pastures, horticultural crops, home orchard and gardens, shelter, fencing, business management - the list goes on.

How do you get hold of these Aglinks?

One way is to go along to your nearest MAF office and ask for particular titles. A much easier way is to become a subscriber.

Becoming a subscriber will cost you the grand sum of \$3.50 per year (no, that's not a misprint) and for this you receive a consolidated index in January, and 5 supplementary indices (for new titles) through the year.

You're entitled to single copies of 100 Aglinks per year - any duplicates or copies above the 100 per year limit are charged at 5¢ each. You get your copies by sending off a stamped addressed envelope.

All this is explained more fully in a small pamphlet "Aglink rates and subscription information", which you can get from any MAF office or by writing to Media Services, MAF, Private Bag, Wellington.

I'll be carrying an index and some of these pamphlets with me over the next few months, so you can have a look at the range of titles in more detail if you wish.

--ooo000ooo--

For the majority of farmers a plan is not a complete solution - only a basis for their modifications.

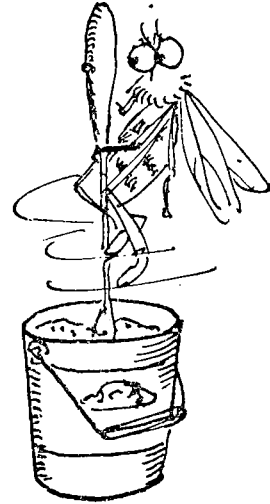
--ooo000ooo--

ADULTERATED HONEY

The problem of honey being adulterated with corn syrup is an increasing one in the States, and we can be thankful that it hasn't reared its ugly head here.

In a recent case in Ohio, "100% honey" was actually 90% corn syrup.

The investigation had all the drama of an American TV programme, with pistols being pulled and court injunctions taken out.



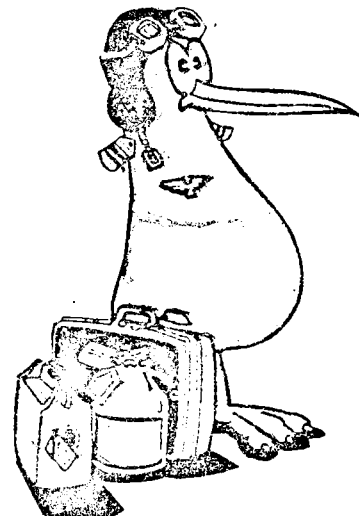
---ooo000ooo---

BEEKEEPERS' STUDY TOUR

Landmark Travel, who have organised two beekeepers' study tours to New Zealand, are now organising one to Australia, for Kiwi beekeepers.

The tour will be about 15-17 days in length, in late March 1982.

A palatable mixture of beekeeping and sightseeing is planned, with technical arrangements in Australia being organised by Bruce White of the New South Wales Department of Agriculture. It is possible that a MAF adviser will be tour escort from N.Z. Early bookings would help with finalising arrangements.



oooooooo000oooooooo

AND VISITORS FROM OVERSEAS ...

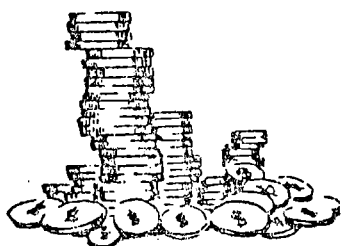
Paul Pawlowski, manager of the Alberta Honey Producers' Co-op is to visit New Zealand in January-February 1982.

There is a possibility of a North American beekeepers tour of this country in February/March 1982 or 1983.

** * ** *

AND NOW, A WORD FROM OUR TAXMAN

The Inland Revenue Department has been examining more closely the question of "when does a hobby become a business?" Basically, their verdict is that an undertaking is a business if it is carried out with the intention of making a profit.



Obviously a loss (or losses) are expected in the first year or two while developing, and in occasional bad years thereafter. However if a wage or salary earner has a sideline which consistently makes a loss, then the Department is likely to rule that it is a "hobby".

If you intend expanding your hive holdings to a point where the IRD would regard your operation as a business, then you are entitled to offset initial losses against taxable income.

For more information see the tax department's 'Public Information Bulletin' No. 105.

AND MORE TAX

Still on bookeeping for the part-timers. Normally vehicle running costs are deducted from income before assessing tax using actual expenditure (less an allowance for private running).

A claim based on public service mileage rates will be accepted for the first year of a business, where records are incomplete. Another case where this would be allowed is where business running is only a very small proportion of total annual running and the keeping of separate records is not justified. See Public Information Bulletin No. 106.

* * * * *

ELECTRIC TRUCK HOIST

Kerry Simpson has let me know about an electric/hydraulic truck hoist which has been developed by an Amberley firm. It runs off the truck battery and can comfortably lift 600 kg. They say that there's never been a time when they've been unable to start the truck after using the crane.

The firm have one mounted on a 1.5 tonne truck in such a way that they can load a trailer too. The loader was developed for the firm's own use, but they plan to manufacture and sell it in kitset form (to save cost and freight).

At \$2 500 - \$3 500 this hoist could be promising for the small/medium beekeeper with limited resources but who wants to save his back. It could be worth checking out to see if this hoist is suitable for hive work, or adaptable to be so. North Canterbury Equipment Co., Amberley (Phone 48213).
Manager: Mr W M Suckling.

* * * * *

TIMBER PRESERVATION

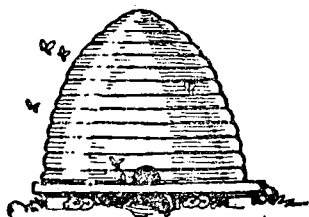
Another form of green copper naphthenate (i.e. Metallex) is marketed as "Protectex" by Dimet, P O Box 38 242, Petone. They also market copper naphthenate mixed with a timber stain as "Barnex". You can now have your hives in "Charcoal" or "Colonial Brown"!

* * * * *

BEEKEEPING EQUIPMENT

There are quite a few joinery firms in the country who are now starting to make hive woodware. Some of them have circulated beekeepers with prices and terms, and others have approached beekeepers individually with offers.

It is always healthy to have competition in the market place, and the existence of other bee supply firms may help reduce hefty freight bills for some beekeepers.



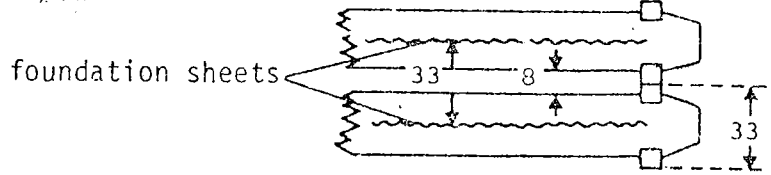
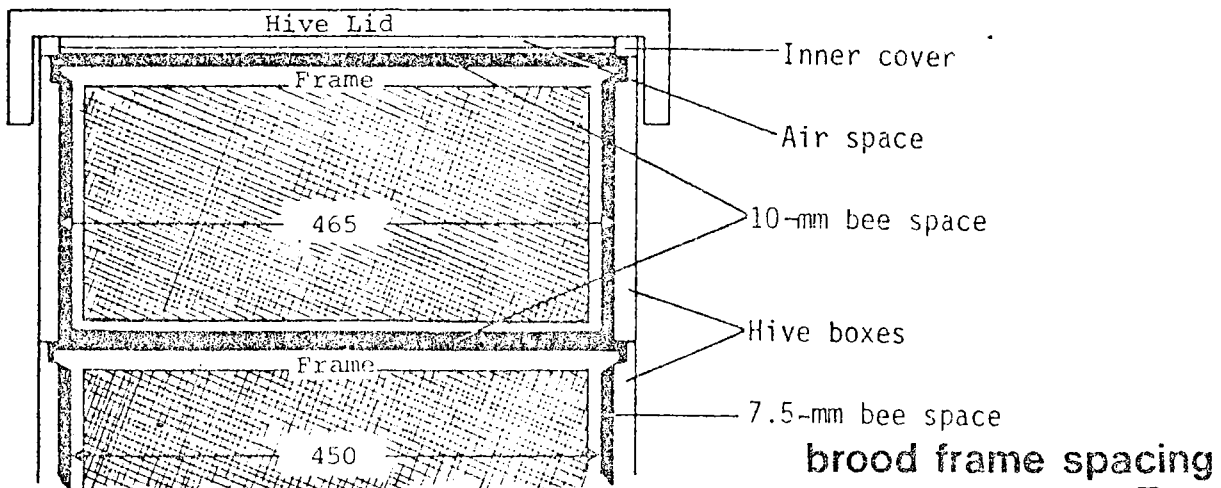
If you are working with a joiner who is interested in making hive equipment, show him boxes and frames by all means but don't let him use them as a pattern. It's easy for mistakes to get perpetuated and enlarged in that way (just like the party game where a message gets garbled if repeated often enough).

The standard hive dimensions are shown on the next page, and it's wise to ensure that these are adhered to.

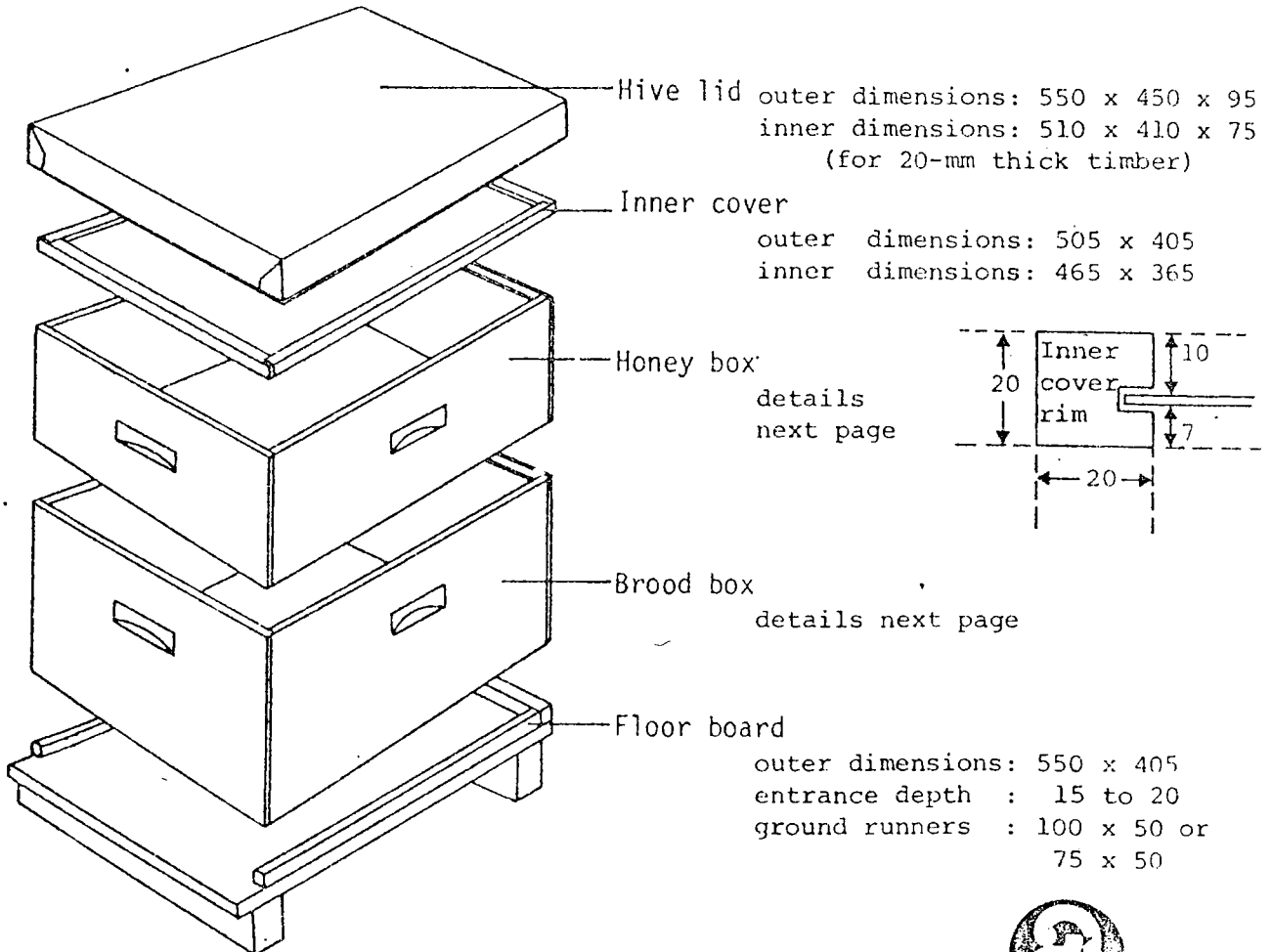
The hive

(all measurements in millimetres)

Bee spacing



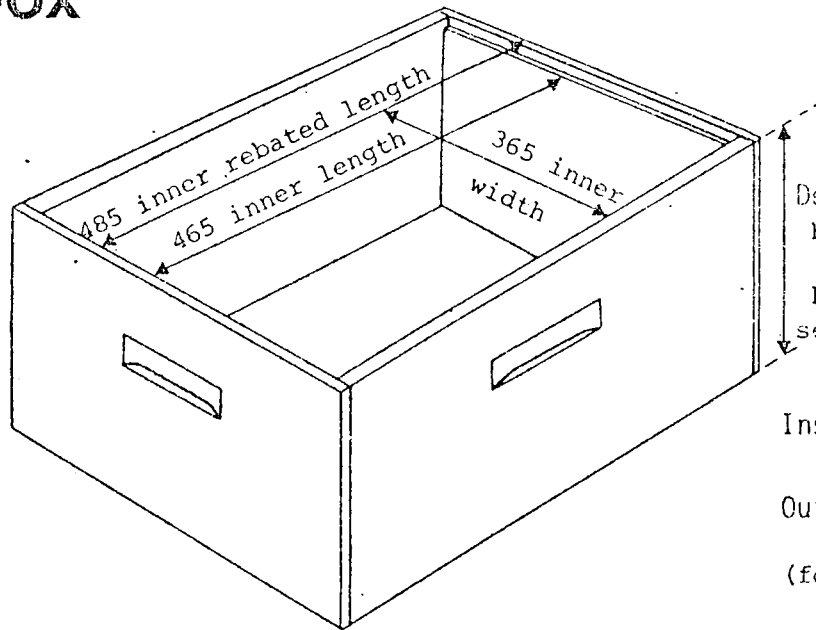
Hive parts



Hive measurements

(all measurements in millimetres)

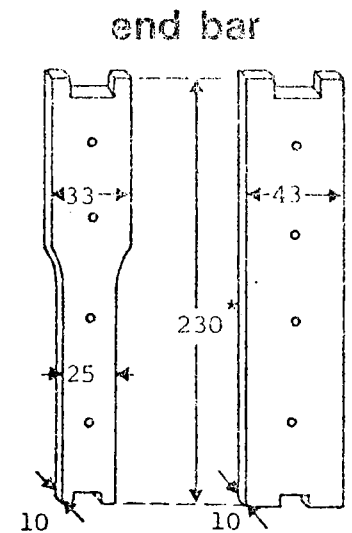
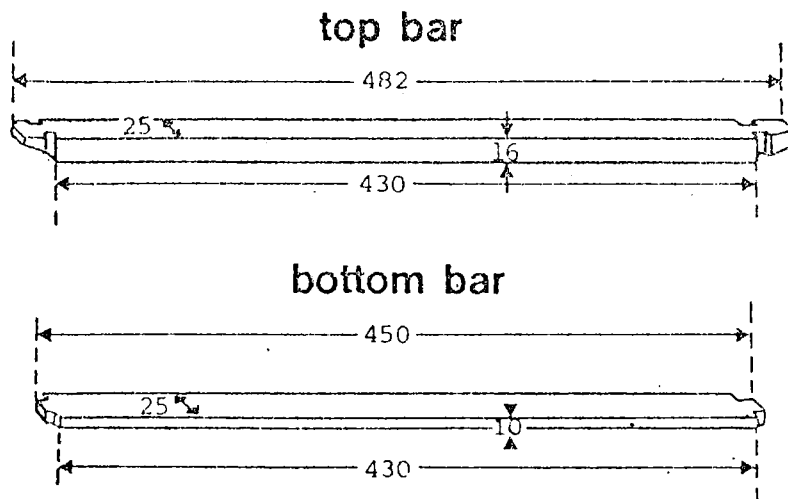
Hive box



Depth:
 brood box (full depth) 240
 honey box ($\frac{3}{4}$ depth) 185
 section box ($\frac{1}{2}$ depth) 133

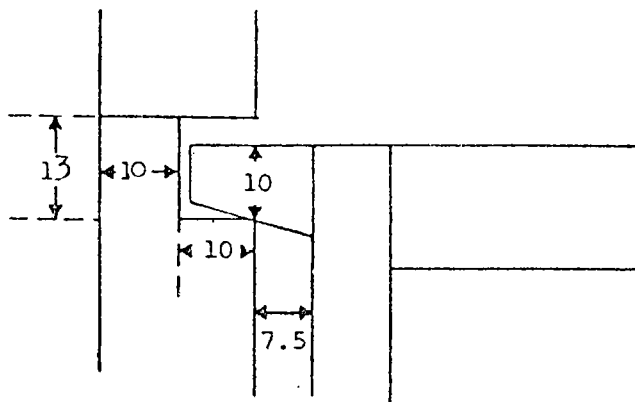
Inside measurements:
 465 x 365
 Outside measurements
 505 x 405
 (for 20 mm-thick timber)

Frame



*175 for the $\frac{3}{4}$ depth box

Rebate



Another local joiner who's started to make bee supplies is George Bell, whose workshop is at 25A Waimea Road, Nelson (Phone 80 321).

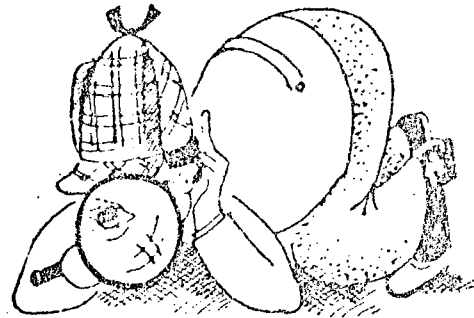
-ooooo000ooooo-

MYSTERIOUS "DISEASE"

Over the past few years, strange brood symptoms have been appearing in hives in the Waikato. I saw one case of this "condition" when I was in Hamilton, but in the past three seasons it has become quite common up there.

Although I have been looking for "it", I hadn't found any signs in this district until last autumn.

It has been given the name "half moon disease" or "half moon disorder".



Symptoms include:-

- Larvae die mainly at the 4 day old stage, when they are uncapped and lie in a "C" shape in the cell.
- Dead larvae turn cream-yellow and coil around the mouth of the cell, rather than in their normal position at the base of the cell.
- Ultimately the remains dry out to a scale which lies in a half moon, crescent or sickle shape around the mouth of the cell.
- Larval contents are not ropey, and retain their segmentation.
- Some larvae die out after they have stretched out along the length of the cell. These may spiral up the wall of the cell in an un-natural position.

Samples sent from the Waikato to Wallaceville and Rothamstead in the UK show that the "disease" does not appear to be bacterial. There is no sign of a virus causing the symptoms, although this may be the case.

The samples that I sent away have similarly showed no sign of EFB when examined under the microscope. We don't know at this stage if the symptoms are in fact a "disease", or whether they result from something like nutritional/climatic stress or poisoning.

Meanwhile, keep an eye out for brook abnormalities. If you see anything like this half moon "disease", then let me know or else send me a frame.

-ooo000ooo-

Did you hear about the guru who was having a tooth extracted but wouldn't let his dentist use Novocaine?

- he wanted to transcend dental medication!



-ooo000ooo-

TELEPHONE ENQUIRIES

I think that I've said it before, but it seems necessary to say it again - don't blame me if you can't get hold of me and you haven't left a message at the office.

My home phone number is on the front of this magazine, and while I can appreciate that some of you may be reluctant to call me at home, if you do phone the office please leave a message that you have been trying to contact me.



I often call into the office to deal with these messages and the mail, even if the phone operator has been told I'm out all day, or away for several days.

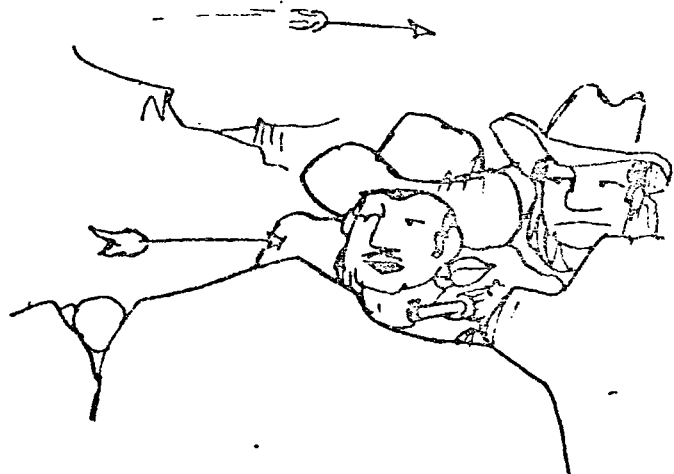
* * * * *

REFLECTIONS UPON KICKING OFF THE FIRST HIVE LID IN SPRING

Hail sky bright blue, no sign of rain!
Just wait till the willows flower again.
Dreaming of flows that never stop
So I forget that last year's crop.
When levering out stuck frames I hope
Grubs will not be brown and rope.
Lots of brood and not much feed,
We cater for their every need
With overdraft or hard earned loot.
Don't spill the syrup down your boot.
To orchards then. with straps of iron
And carbaryl and gusathion.
Ere summer comes we shift them back
On rainy nights with aching back.
Dull November starves some bees,
While others hang about in trees.
But later on, no time to play,
We'll gather honey while we may.
Those rotten lugs, I curse them so
When heavy frames fall on my toe.
Tons of drums, but all's not well, it
Still remains a job to sell it.

Though beekeeping be full of strife
We have, at least, OUR WAY OF LIFE.

Thanks to Kerry Simpson for that little ditty.



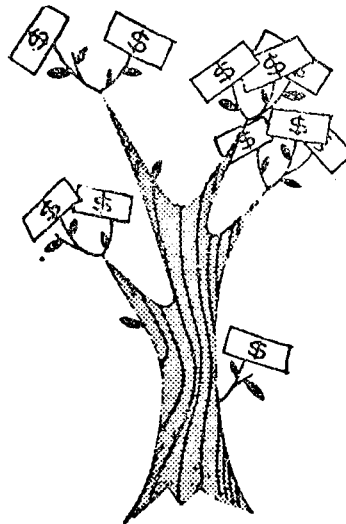
"It must be acupuncture! My toothache is gone."

REGIONAL DEVELOPMENT ASSISTANCE FOR BEEKEEPERS

Since my article on this in one of last year's Bulletins, several beekeepers have obtained regional development grants. Just a few points for those thinking about using the scheme.

It is imperative that you make contact with the Executive Officer of your local Regional Development Council before you start on your project. Likewise it's probably not the best thing if the first he knows of you is when an application lands on his desk. Phone up and make an appointment to see him or, better still, write a "letter of intent" setting out a few details of yourself and your proposal, asking for an appointment once again.

When making your application, do put a lot of care and thought into it. It is at this stage that I can be useful in assisting with working out your development programme and writing it up. Alternatively, you could perhaps consider getting your accountant to type it up for you, if you have some money to spare, that is.



--ooo000ooo--

HONEY HOUSE FLOORS

An omission from the article about floor coatings in the June issue.

Carbolene Coatings Ltd's address is P O Box 76 104, Manukau City, Auckland.

--ooo000ooo--

AUSTRALIAN HONEY BOARD

The annual report of this organisation makes interesting reading. They take a levy of 1.8¢/kg on domestic honey sales and 0.5¢/kg on exports. But with that money they do some worthwhile things, like promotion of Australian honey on local and export markets, and the funding of beekeeping research.

Projects receiving funding this year include a virus survey of Australia, several bee breeding projects, the role of nutrition in Nosema infection, pollination, reducing pesticide losses by using repellents, and techniques for diagnosing and controlling European foulbrood infections.

--ooo000ooo--ooo000ooo--

NEW REGISTRATION SYSTEM

From this season you will be getting a different style of hive inspection form to complete each spring. This has come about because a uniform procedure has been developed for use in all apiary districts.

Calling all Beekeepers

The main change is that you will receive a photocopied list of all your apiary sites; you simply have to make any alterations to this, note any disease, and return it.

Many of you have been doing just that for three years with the photocopied lists I have been sending out. The date for completion of the statement has been extended by a month to the end of December.

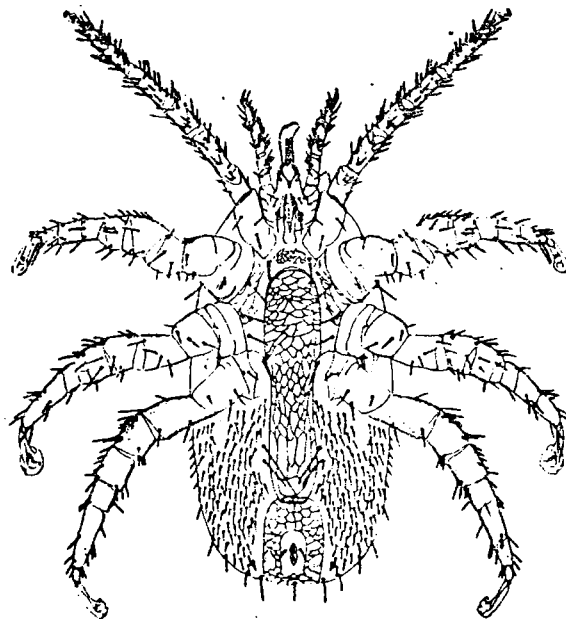
Another change in this department has been the appointment of one of the clerical staff as Registrar of Apiaries. Any simple procedural matters like registering or cancelling an apiary should be addressed to him, although I am still handling permits.

The changeover to the new registration system has involved these people in a lot of work - please be tolerant of any gremlins that creep in. Remember also that the people handling the paperwork aren't familiar with the field situation.

* * * * *

MORE MENACING MITES

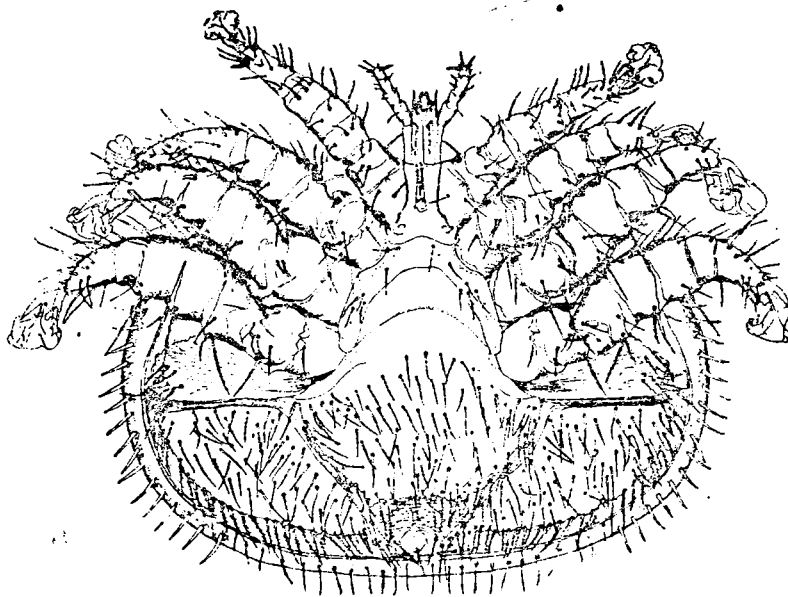
At risk of being labelled a "doom-monger", I'll tell you about another mite which is parasitic on bees. It doesn't have an easily-pronounced name like Varroa, but rather is known by the handful of Tropilaelaps clareae (pronounced trope-i-lie-laps).



Line drawing of adult female Tropilaelaps clareae, ventral aspect (x150).

It is native to south-east Asia and, unlike Varroa, hasn't been transported outside that area.

A recent visitor from a Thai university, Dr Yongyoot Waikakul, was of the opinion that in his country at least, Tropilaelaps is a greater threat to the beekeeping industry than Varroa.



Line drawing of adult female Varroa jacobsonii, ventral aspect (×100).

Tropilaelaps was first described to science 20 years ago, but not much is known about its biology, because it hasn't become a "star" like Varroa. However, it would seem to be rather like that species. Immature mites (called "nymphs", believe it or not) attack honey bee brood in their cells, feeding off them. 50% of the brood may be killed at this stage.

If the bee reaches adulthood it is deformed, and often cannot fly. Adults crawl about like bees infected with paralysis or acarine, so the nature of their condition might not be obvious. If carefully examined, however, the mites (now adults) can be seen.

Fortunately, the mite does not appear to have been transported to other parts of the globe. Following the recent amendment to the Apiaries Act, Tropilaelaps is now included in the third schedule, along with pests and diseases such as wax moth, Nosema, paralysis and other viruses.

--ooooo000ooooo--

ON THE DOMESTIC FRONT

Winter brood-rearing trials in the home apiary were concluded successfully on 20th July with the production of a nucleus weighing 3.89 kg. It became evident that the breeder queen had turned into a drone-layer.



"It might be a temper tantrum; on the other hand, there could be a bee in his pants!"

--ooooo000ooooo--

Andrew Matheson.

A G MATHESON
APICULTURAL ADVISORY OFFICER