YOUR

BEEKEEPERS

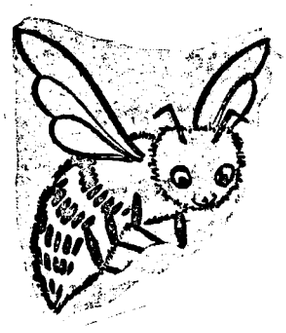
NEWSLETTER

SEPTEMBER 1976 : NO. 9

Ministry of Agriculture & Fisheries

1. Well, who would have believed that another spring has come around so quickly - hence another season looms up and before you know it you'll be sweating like made in your apiaries, and this time, I hope, dealing with a good crop of honey.

BUSY BEE



You'll remember that in the autumn there was quite some consternation about what the winter ahead might reveal in connection with the "below average" amount of winter stores on hives at that time. Well now, as it happens the winter to date has not proved to be too bad. Hives generally have come through very well - sure there has been some feeding necessary but I haven't heard of anyone who has lost a lot of hives because of starvation to this point - But listen - don't relax. From now on you'll have to watch hives pretty closely because brood rearing is now well under way.

In the 'Bay' and 'Coromandel' areas, hives are already well advanced and in some cases, very strong with up to six or more frames of brood. Would you believe it that I came across two hives on the Whangamata coast in the middle of July that had swarm cells - exceptional, sure, but I think this in a way could be a good omen. Tuck it away in the back of your mind. If it is a good omen it might mean an early season and a good one - be prepared.

2. SOLAR WAX EXTRACTOR

In my last Newsletter I mentioned that I would be attaching to this letter, the construction details of a Solar Wax Extractor - am pleased to do this. There's one thing I would like to stress - if you are to get the best results out of this piece of equipment, it must be constructed properly. Any gaps or ill fitting parts will allow the loss of heat and the function of it will suffer. If the timber used in its construction is too thin, it will also mean the loss of internal heat. The "inner tray" should not be allowed to rest on the bottom of the unit - it should be "up" on a couple of small timber runners to allow the heat to completely surround the tray that contains the material to be melted out. I've had it said to me quite often that the darned things don't work - I'm not convinced. In every case that I have followed up the result has been faulty manufacture. The unit that I have (the same as the one the construction details apply to) has shown an internal temperature when a thermometer has been placed in it of over 94°C (200° F)

3. BEESWAX

While on the subject of melting old combs, burr and brace combs, and scrapings from frames etc - have just been informed of current wax prices for July.

1st quality	lemon coloured	$2.35 per kilo
	orange coloured	$2.30 per kilo
	all other	$2.20 per kilo

Money for jam, isn't it - and yet it's surprising the number of beekeepers, commercial beekeepers included, who don't even bother to scrape their frames. Your "Solar" will more than pay for itself the first year.

4. BEE DISEASES

Like most other things, bees are not immune to diseases and disorders and by far the worst bee disease we have in New Zealand is American Foul Brood (or B.L. (Bacillus Larvae)). In most cases where an outbreak of disease occurs, it can be directly attributed to carelessness of the beekeeper rather than any fault of the colony. The reason behind the annual "inspection return" is one of protection for the beekeepers themselves and the industry as a whole. Check out all your hives as soon as possible and if you come across something you are not sure of, contact the A/I for the district - and please let me have your completed inspection return as soon as possible (i.e. of course where it applies to this apiary district). You know, sometimes Sac Brood and even Chilled Brood can cause one to wonder -

If you're not sure, give your
A/I a call

Here's a few DON'TS for you

DON'T Buy or sell any used bee equ
and a permit. Preferably get some backgroun
information about the outfit and equipment concer

DON'T expose honey or combs to robbing bees.

DON'T distribute combs from dead hives amongst healthy live colonies unless you are 101% sure as to the cause of death.

DON'T concern yourself over much with the guy over the fence. Keep your own house in order and the overall situation will take care of itself.

DON'T hesitate to contact your A/I or the Part Time Inspector if you're in doubt. Sometimes Sac Brood can be confusing .

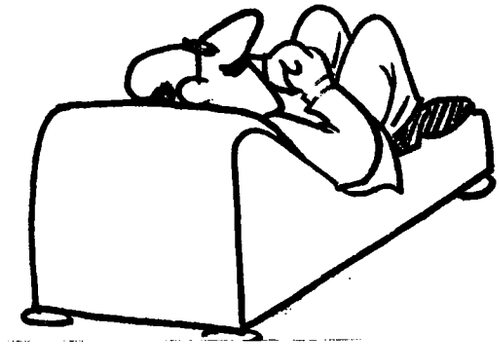
DON'T ever consider using drugs in the treatment of A.F.B. - you'll never beat it - it'll beat you.

Anyway, it's illegal under the Apiaries Act 1969 to feed drugs to bees for the purpose of controlling A.F.B.

5. RETIREMENT - ERIC SMAELLIE

I know you larger beekeepers are aware that Mr Eric Smaellie, Superintendent Beekeeping, Wellington, retired about the middle of August.

Some of you might not be aware of this - I believe that Eric and Mrs Smaellie are going to live in Australia. We can only wish them all the best in retirement. (It gets us all in the end - like the undertaker)



While we're talking on this subject - Alf Bennett, Apiary Instructor, Hamilton, is due to retire in December of this year, too. I know Alf is known to many of you.

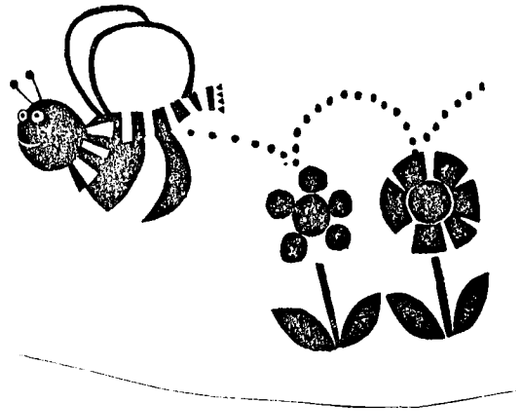
6. ROTORUA BEE CLUB

You might be interested to know that a Bee Club has been formed in Rotorua by some enthusiastic beekeepers - mainly in the domestic class. I was pleased to be at their meeting recently and I was very impressed with the zeal and progressive outlook of the group.

There were 25 present, and the evening together was an enjoyable experience.

My congratulations to you in Rotorua - and keep it going.

7. POLLINATION



The demand for hives of bees for pollination in Kiwifruit Orchards continues to grow. Last year, approximately 1600 hives were placed in orchards for this purpose in the Tauranga district. This year, the figure could be 1800 - 2000. The projected number of hives for 1980 is in the vicinity of 3000.

As this is a paid service, beekeepers interested should make sure that <u>all</u> hives used for pollination are strong in field bees.

8.

Did you know - the healing properties of honey?

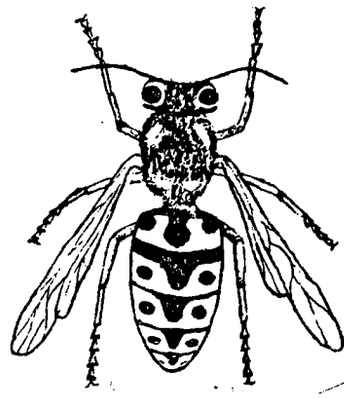
The Otago Daily Times reported this article recently :- "Wound Healed with Honey - the humble honey bee has succeeded where modern methods fail"

When a patient's leg ulcer could not be cured, gauze soaked in honey was packed into the wound twice a day. In three months the leg was completely healed. This took place in the Dunedin Hospital.

The healing properties of honey have been known to man for centuries. - Are we getting so sophisticated with our computer living that we are getting further away from nature and what makes the place tick - time to reflect don't you think?

9. STOP PRESS
STOP PRESS
STOP PRESS

One of our Rotorua Bee Club enthusiasts is working on a wasp bait or method that will 'take care' of those nests (we all hope). Could be, you know, that this might be the area that we get a break through in. Keep up the good work, Bill, we're all yelling for you.



10. MARVELLOUS NEWS !

I am at last getting some help with the Apiary Register and some associated work. Apiary lists have been sent out recently to the commercial boys for your checking, so those of you who haven't already corrected these and sent them back in, could you please shoot them back so that the Register can be brought up to date.

I'd like to introduce you to Kathy :-

KATHY by name

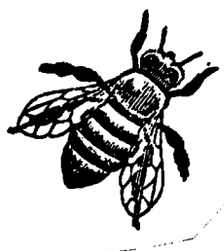
NATTY by nature

WILLIN' by disposition

(I haven't yet been able to master metrics so that part will have to wait.)

I hope now that we (she!) will be able to do something about wall maps and pins.

Kathy tells me I'm the guy that works for her - well, why not - everyone else has been telling me that for years.



11. FOR THE SEASON - Work hard - and reap the benefit.

D.A. BRISCOE
APIARY INSTRUCTOR

CONSTRUCTION OF A SOLAR WAX EXTRACTOR

D.A. Briscoe,
Apiary Instructor,
Ministry of Agriculture & Fisheries,
Tauranga

The use of solar wax extractors is once again becoming popular, particularly with beekeepers in the warmer parts of the North Island. There is nothing new in this method of obtaining beeswax from cappings and/or old combs. Solar heat is used in many different ways and this form of heating is cheap and efficient.

Beeswax has a melting point of approximately 60°C -63°C. The temperatures in a well made solar extractor will reach over 94°C in sheltered positions.

The advantage of a solar extractor is that no slumgum is present in the melted wax and also, discoloration is kept to a minimum because there is no water to be contaminated with residues and propolis from the combs and frames. Another advantage is that old or damaged combs, as well as scraping of burr combs from the tops and sides of frames, can be dealt with daily and not kept for off season handling. If old combs are kept for too long a period they become a breeding place for wax moth and eventually will be reduced to a worthless mass.

The extractor has five parts. -

1. The body
2. The lid
3. A large pan in which the cappings or combs are placed.
4. A small pan to catch the melted wax and honey.
5. A basket made of heavy gauge two, three or four-mesh hardware cloth to use in the pan when cappings are melted.

The wire mesh basket is placed in the large pan with a sufficiently large piece of muslin for straining and the cappings or combs then placed in the wire basket. As the wax melts it is strained through the muslin cloth into the large pan and then directed through an opening into the smaller pan or mould.

Directions for making the extractor are as follows :

The body and most of the lid of the extractor are made from the 3.9 m board. This board is laid out and cut into pieces as indicated in the diagram. The double lines on the drawing indicate where a saw cut should be made between the lines since the pieces on both sides of the cut are to be used.

The side pieces for the body of the extractor are fastened, with screws, on the ends of the two pieces cut to form the ends of the body. The four edges formed on the top and bottom of the box are not even because of the sloping side walls. These edges are planed until all four are level with the ends of the box.

The bottom of the extractor is made from the tongue-and-groove timber. The body of the extractor must be carefully squared before any of the boards are nailed to the bottom and must be kept square, since the lid will not fit if the body is not square.

The two long wedge-shaped pieces left over from cutting the side boards are cut off at their thin ends so they will be 545 mm long. They are nailed inside the box on the bottom.

The piece left over in cutting the narrow end of the box fits on the bottom in the space at the end of the wedges and is nailed to the ends of the two wedges.

Three small wedge-shaped pieces, each 102 mm long, are cut from the scraps. The wide end of each wedge should be 32 mm while the other end comes to a point. These pieces are also nailed to the bottom. They are intended to keep the small pan level.

The cover, or lid is made from the two pieces of glass. Four 57 mm strips should be dovetailed at the corners then nailed together to form a frame for the glass. If dovetailing is not possible two of these four pieces should be cut 655 mm long to compensate. The corners could be strengthened by corner plates if necessary.

After the frame is nailed together, one set of 12 mm^2 pieces is nailed around the inside of the frame at a distance of 14 mm from the top of the frame. Two 6 mm holes are then bored through the top and two through the bottom ends of the frame through the 12 mm^2 strips. Each hole is bored 127 mm from the centre of the frame. The holes provide ventilation between the layers of glass and reduce the condensation of water in this space. The holes are bored before the glass is placed in the frame.

The glass is held in place with the 12 mm^2 strips. Six of the strips are cut 627 mm long and six are cut 814 mm. They are cut to fit snugly inside the frame for the lid, in case a timber of a different thickness is used. One piece of glass is placed above the 12 mm^2 strips (already nailed in the frame) and is held in place with a second set of strips. The second piece of glass is placed below the 12mm^2 strips and is held in place with a third set of strips.

The extractor will last longer if the wood from which it is made is treated against rot before being assembled.

It would be desirable also to make sure that the lid fits over the body of the extractor before the glass has been placed in position. Putty may be used on the top of the cover, in the same manner as for a window sash to make it waterproof.

The legs are attached to the rear of the extractor to keep the rear end about 356 mm off the ground. The legs are made from the two 381 mm strips and are nailed to the body of the extractor after a wedge shaped piece 102 mm long is nailed to the top. The wedges keep the legs perpendicular.

The pan for the combs or cappings is made from the larger sheet of metal. It is 552 mm x 597 mm x 520 mm deep. The upper portion of the pan walls is made 19 mm wider and 12 mm longer than the bottom in order to provide slanting sides.

The lower end of the pan is cut back on both sides so that the sides are 38 mm shorter than at the centre, which when the pan is assembled, makes the front slope from the sides to the centre. This arrangement permits the melted wax to run toward the centre of the pan, through an opening, which is cut 63 mm wide, into a smaller pan placed below the larger one.

The pan in which the wax and honey from cappings collects is made from the smaller sheet of galvanised iron. This pan measures 120 mm wide by 508 mm along the top and is 82 mm deep.

It is made 12 mm narrower on the bottom than at the top of the wall. This allows the cakes of wax (when cooled) to come away freely from the pan. 12 mm of the top edges of the walls is turned out, down and then hammered flat. This pan may be too large for small quantities of wax so it would be advisable to make a second pan 102 mm wide by 254 mm long.

Cappings can be rendered more efficiently if placed on a basket made from the hardware cloth. The basket is placed on the large pan. It is made 546 mm wide x 559 mm long x 63 mm deep. A piece of fine cheesecloth is placed in the basket to strain the honey and wax before they flow into the smaller pan.

If a basket of this type is not used, the partly melted cappings have a tendency to flow down the pan and over the edges before they are entirely melted. Old combs, however, do not flow in this way so they could be placed directly on the metal tray.

The solar wax extractor should be placed in a protected location - preferably facing north and should, if possible, be away from the prevailing winds.

LIST OF MATERIALS

a) One board 19mm x 230 mm x 3.9m (well seasoned)

b) 5 m tongue and groove

c) 11 m of timber 12 mm^2

d) Two pieces of timber 19 mm x 381 mm x .6 m

e) Two pieces of glass 3 mm by approx. 813 mm x 647 mm
(The glass should be cut to fit the frame for the lid after this has been nailed and checked to make sure it is the correct size)

f) One piece of galvanised iron 679 mm x 723 mm

g) One piece of galvanised iron 324 mm x 723 mm

h) One piece of wire cloth 2 - 3 or 4 mesh 672 mm x 686 mm

i) Approx 36 50 mm No. 8 screws

j) Black paint - nails, etc.

k) Equipment for soldering the two metal trays.

DIAGRAM OF PIECES

(Measurements in Millimeters)