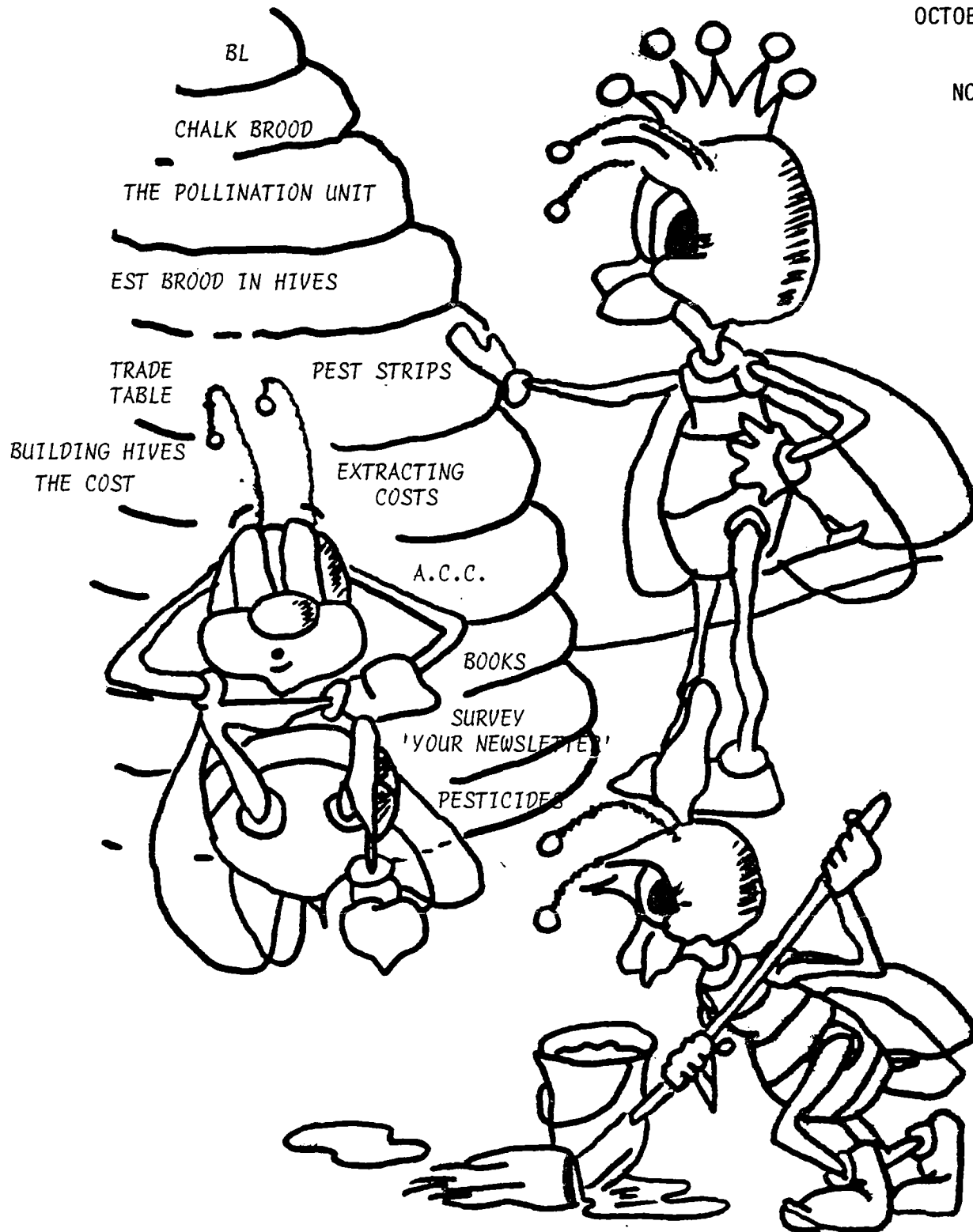


YOUR NEWSLETTER

21/10/85
OCTOBER 1985

NO. 36



Ministry of Agriculture & Fisheries
Private Bag
Tauranga

Telephone: 82 069

T G Bryant
Apicultural Advisory Officer

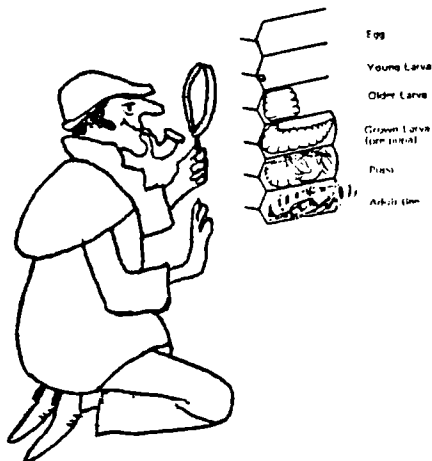
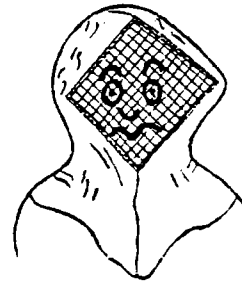
Telephone: 65 962 Private



CHALK BROOD (CB)

A number of beekeepers have reported CB to the MAF, in many cases no link can be established between the infections and bees or queens from North of Auckland.

There is very little beekeepers can do to eradicate this disease once it is established. To brush up on CB and find some of the answers to help reduce its impact, refer to your Newsletter 1984 (32) 1,3-9



REMINDER!

Beekeepers are reminded that while CB is not a notifiable disease under the Apiaries Act (being 3rd Schedule), Section 19 of the Act gives the MAF the power to take (or direct the beekeeper) any action deemed necessary to eradicate the disease or remove the infection, ie, can be treated same as BL.

To prevent a repeat of the Northland outbreak, all beekeepers should not

use any hives or hives from apiaries where CB is present for pollination. If CB infected hives were to be moved into orchards the spread of the disease could not be prevented.

You are further reminded that many countries require health certificates issued by MAF certifying that the honey is from disease free apiaries (including CB). Should CB become widespread in the BOP district, considerable difficulty would be experienced in providing the necessary certificates for the export of honey.

If you have CB take the necessary steps NOW to eradicate the disease. This may mean destroying the infected colonies, at the very least isolating them well away from other healthy apiaries.

Already some beekeepers have expressed concern over the possible influx of diseased colonies into kiwifruit orchards, one beekeeper has taken the drastic action of staying away. The MAF will take a hard line should diseased hives be found in orchards, it may be a third schedule disease, but it can be treated under the Act as a second schedule disease, the hives quarantined or even destroyed.

It is in the interests of all beekeepers to act responsibly for the sake of the whole industry and those industries which rely on bees for the pollination of their crops.

Get the Apiaries Act 1969 (and its amendments) out of the closet and swat up the relevant sections on your obligations as a beekeeper and take the necessary steps to keep CB out of the Bay.

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THE POLLINATION UNIT

Apiary advisors have been boning up on the subject of the pollination unit for some time now. After reviewing all the literature, especially the work of Pat Clinch, Wallaceville, the experiences of commercial beekeepers and our own observations, experiences and results of 3 years trial, here in Tauranga, we recommend that the ideal pollination unit is/has

- * *A young vigorous queen*
- * *More than 30,000 bees*
- * *Four full, full depth frames of brood (7100 cm²) or equivalent*
- * *Three - five frames of honey*
- * *Some pollen stores*
- * *Be an expanding colony*
- * *Be disease free*

PLUS

- * *All brood in bottom brood box (or as much as possible)*
- * *Be well sited*
- * *Moved on to the target crop at the right time.*

TO ACHIEVE THE ABOVE REQUIRES PLANNING IN ADVANCE

As mentioned earlier, Andrew Matheson has done a comprehensive literature review on the subject, Pat Clinch had independently gone through a similar exercise and I had also.

The above recipe is a synopsis of that review with one slight variation.

The overseas literature (research) showed that maximum pollen collection was achieved when total sealed and unsealed brood reached an area of about 5200 cm² or approximately 3.3 full-size frames. However, the results of Pat's research shows that colonies with 4 frames of brood (7100 cm²) collected significantly more kiwifruit pollen than those with 3 frames of brood. His data agrees with the results we here in Tauranga found after 3 years trial work. Hence the recommendation given:

- 1) *Bryant T G, 1985, Kiwifruit pollination by honey bees, the pollination unit, unpublished.*
- 2) *Clinch P G, 1984, Honey bee management for kiwifruit pollination, to be published.*
- 3) *Matheson A G, Factors determining the pollinating ability of Honey bee colonies, August 85, unpublished.*

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ESTABLISHING COLONY SUITABILITY FOR POLLINATION

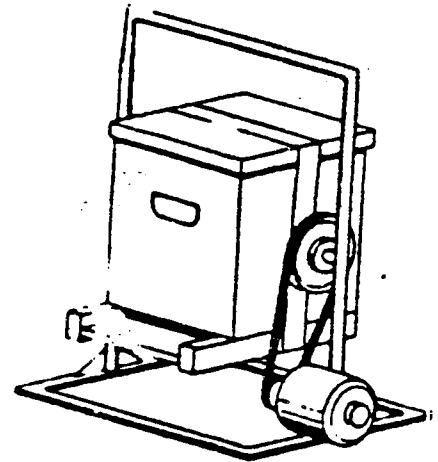
With good winter and spring conditions there should be no problems providing suitable colonies for pollination this year. Of major concern to most beekeepers is keeping colonies in the right condition.

Don't worry too much about colony population - the 30,000 bees is a minimum, of real importance is the amount of brood, its placement in the hive and that the hive be expanding.

An analysis of data from the survey in 1984 gave the following results:

<u>HIVE POPULATION</u>	<u>BROOD AREA (cm²)</u>	<u>No. FRAMES BROOD (AV.)</u>
8 - 10000	1125 - 5000	4 - 6
10 - 15000	4250 - 5250	6
15 - 20000	4250 - 6500	7 - 9
20 - 25000	4400 - 8250	7 -10
25 - 30000	4975 - 6425	7 -10
30 - 35000	6200 -10675	7 -11
35 - 40000	8275 - 9675	7 -11

The average frame of brood = 778 cm² or 44% of comb area. Those colonies with more than 10000 cm² brood or 1060 cm² or 60% of comb area.



"World's First Motorized Beehive?"



MY GOSH.. BREAK DANCING!

Since 1984 it has been found not only by myself but by other advisers that beekeepers, regardless of how experienced they are, consistently over estimate the actual amount of brood in a beehive.

This is not a criticism of the commercial industry and its practitioners, rather a statement of fact. Visual assessments can be extremely misleading and all those put to the test have consistently over-estimated the actual (real) amount of brood in hives.



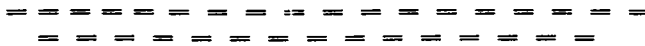
PEST STRIPS

You have been warned before, DO NOT use these killers anywhere where bees, queens, combs, boxes of combs, wax, honey are to be stored or are stored.

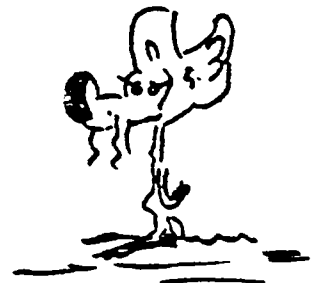
The chemical given off by the strips (Dichlorvos) is highly toxic to bees, and can be absorbed by wax etc. Combs exposed to pest strips cannot be used on hives, nor can they be melted out for recycling.

Despite repeated warnings in numerous publications, a pest strip was found in a beekeeper's shed where he had combs and feed honey combs stored.

It certainly took care of the wax moth problem but it also rendered everything else useless.



Siegers Law: "You will always have the same amount of money left at the end of the month, no matter how many honey sales, windfalls or bonuses occur during the month".



COST OF EXTRACTING THE HONEY CROP

(Revised figures published NZ Beekeeper Dec 1978)

One man unit, 59 supers/day

Ext cost \$1.27 super, 0.08c/kg

Two man unit, 12 supers/hr.

Ext cost \$1.57 super, 0.11c/kg

When fixed costs are added, ie, annual cost of buildings and plant (interest, depreciation, repairs and maintenance)

Extraction Cost/tonne (35 t crop)

One man unit \$462/tonne; 0.46c/kg

Two man unit \$492/tonne; 0.49c kg

My appraisal of these figures would lead me to question the economics of extracting one's own crop, particularly where there is a plant handy to do the job for you.

JETAWAY POWER WASHER

The Pacific Jetaway Gun is a hand gun attachment that hooks up to a standard air compressor of 1 hp or greater (needs 80 psi minimum) and a water tap. It uses 12.5 litres of water per minute at 680 km per hour and weighs just over a kilogram.

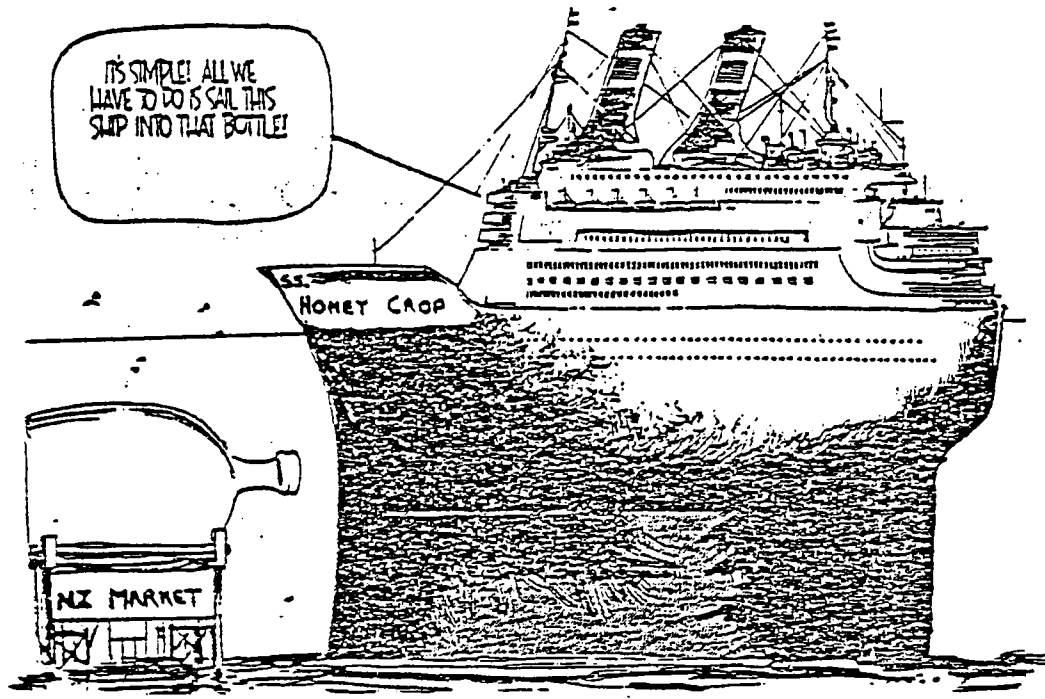
It can squirt cold water or hot water up to 60°C. It can be used as an air jet or with detergents, herbicides, disinfectants, degreasers and so on.

The unit costs \$330.00 nett sales tax included. Contact Roger Malcolm, Sales Manager, Pacific Pump Co, 78 Kerwyn Avenue, East Tamaki Auckland, Box 58105, phone 274-5772.

HALF MOON DISORDER OR SYNDROME, THE ANSWER!!

Dr Shimanuki has tentatively identified the causative agent as Bacillus coagulans. B.coagulans is found in many countries where bees are kept commercially.

* * * * * * * * * * * *



A.C.C. COMPENSATION SCHEMES

With the number of accidents occurring within the beekeeping fraternity, it is pertinent to look at schemes available.

In the past, self employed people have felt "left out" as the Corporation always took business book profit (not personal drawings) as your relevant earnings. This has caused problems for all primary producers but more especially beekeepers, because profits can fluctuate widely due to climatic reasons, and are often set artificially low for tax purposes. The problem is that when you minimise taxable income you minimise compensation too.

The A.C.C. has two schemes designed to solve this.

- 1) **Minimum Relevant Earnings Scheme**, a scheme which sets a wage at \$100 per week for the full time self employed (over 30 hrs/week). In the event of temporary incapacity, 80% (\$80.00) of that wage is paid.
- 2) **Optional Scheme**, you have the option of choosing to join a scheme where compensation is paid at a figure determined each year by the A.C.C. This figure is based on the average weekly wage currently set at \$14768/year or \$284.00/week. Should you elect to join this scheme (the best in my view, Ed.) you are levied on the basis of this amount (\$113.98/yr) but if you are incapacitated compensation will be based on \$284/week, not your taxable income.

To join the scheme you must

- * apply annually to stay in the scheme no later than March 7 regardless of your balance date.
- * the application is incorporated in your IR3 tax return form which your accountant should complete for you.
- * the scheme is not open to those of you who trade through a company - you are deemed to be an employee of that company and the company should be paying the normal levy rate on your earnings.

ACC receives 17 000-20 000 claims for back injuries each year!

BEE BOOKS

A recent addition in my library is Queen Rearing, Ed. Prof. F Ruttner, available from IBRA, N.Z. rep T Bryant, Tauranga, A Matheson, Nelson.

This book is a must for those beekeepers wanting to raise their own queen bees. It is technical, certainly, but always practical and will provide many of the answers to those questions which often bug you. Current prices \$64.00.



NEWSLETTER SURVEY - SOME SELECTED RESULTS

return 33%

Question 1. Where do you get most of your information about beekeeping (This means information, not scandals or gossip) (1 being most important)

RESULT (%)	1	2	3	4	5	TOTAL
Newsletter	31	27	20	8	6	92
Apiarist	1	11	21	9	14	56
NZ Beekeeper	15	14	13	16	15	74

COSTS TO BUILD 100 4-BOX HIVES

		(Change from '83)
400 storeys @ \$7.85 each	3,140.00	(.38)
100 lids with iron @ \$11.94 each	1,194.00	(.21)
100 queen excluders @ \$8.35 each	835.00	(.33)
100 bases @ \$586.95 per 1000	692.00	(.27)
3 600 frames @ \$586.95 per 1 000	2,13.02	(.35)
206 kg foundation @ \$11.04 per kg	2,274.24	(.35)
3.6 reels frame wire @ \$20.65 per reel	74.34	(.38)
8.3 kg frame nails @ \$4.05 per kg	33.61	(.35)
28.6 kg super nails @ \$90.43 per 25 kg	103.45	(.35)
Preservative at 40¢ per unit (600 units)	240.00	(.31)
Waxing at 8¢ per unit (600 units)	48.00	(-)
Paint at 53¢ per unit (500 units)	265.00	(.51)

11,012.66 (.31)

Labour

8 hours per hive @ \$6.25 per hour 5,000 (.25)

Sugar

16,012.66 (.30)

1 800 kg sugar to draw 3 600 standard sheets of foundation at 79¢ per kg 1,422 (.06)

17,434.66 (.27)

(List compiled by Cliff van Eaton AAO Whangarei)

* * * * *

Heard at a conference: "Do you want an extension of speaking time?" "Oh yes, I could go on for a long time yet!"

Well, I could too but, I must close here and here's hoping the spring treats us all kindly. And remember:

"Work is the greatest thing in the world, you should always save some for tomorrow."

TTTTTTTTTTTTTTTTTTTT

ALL THE VERY BEST FOR THE 1985/86 SEASON

TREVOR

TO: ADVISORY SERVICES DIVISION ADMINISTRATION SUPPORT
MAF
PRIVATE BAG
TAURANGA

* Please enrol me as a subscriber to
"Your Newsletter" for 1986

* I have enclosed the amount indicated; cheque
payable to MAF (Advisory Services Division)

Payment for 1986 by January 31st

My name and address :-

signed

Date