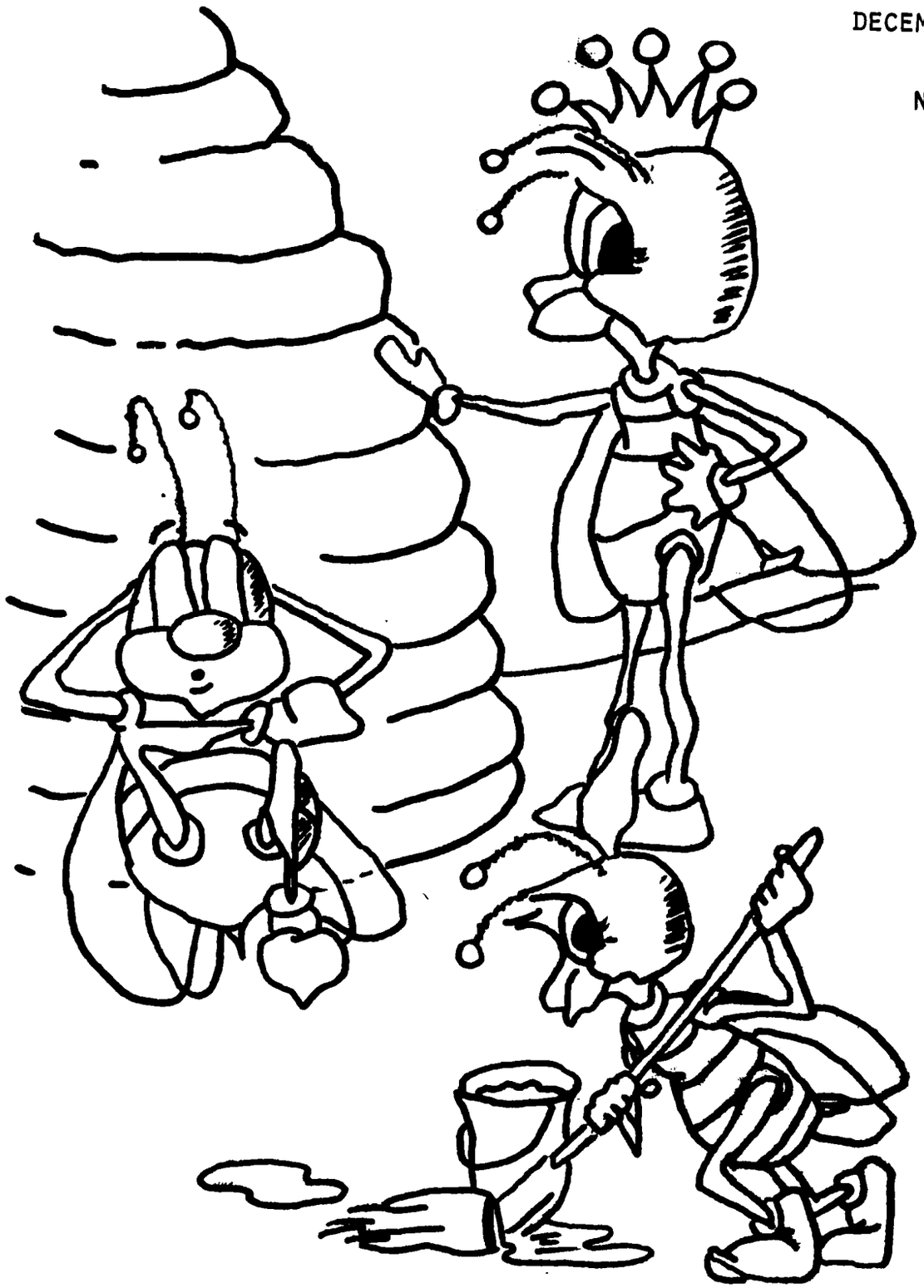
YOUR NEWSLETTER

DECEMBER 1984

NO. 33



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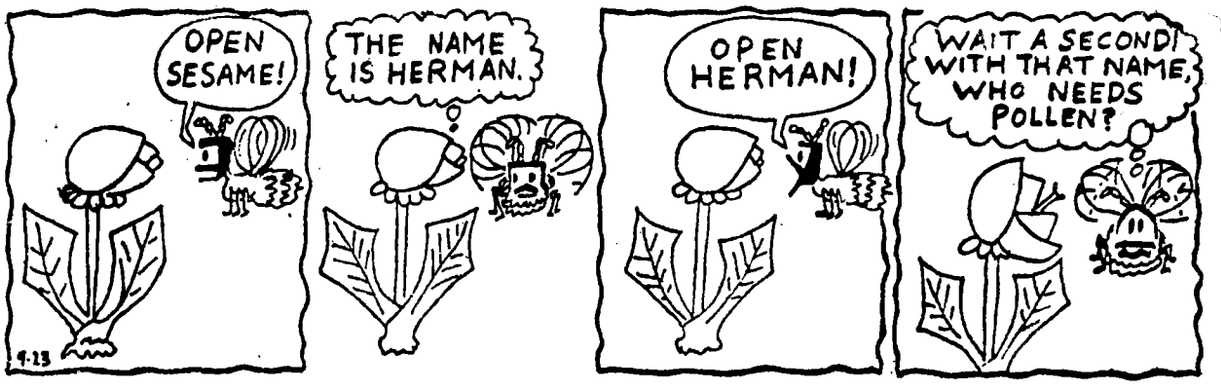
The season to date has been one of many highs and lows.

In the Poverty Bay hives have suffered because of poor wintering down and losses from starvation have been extremely high - many that survived were considerably weakened because of poor nutrition while others have prospered.

Here in the Bay of Plenty this spring has been one of the best on record and most beekeepers have had problems keeping their bees down to provide the ideal pollination units. Most beekeepers who tried the lactalbumin yeast diet have been more than happy with the results which should enable many to take advantage of early season crops as hives built up quickly in the spring.



Prospects look good for pollination and the chance to take a crop post pollination. The dark clouds over the area are disturbing, AFB reports are at an all time high and statistics for the region will not make for good reading this year. Then there was the incident involving the importation of the Beltsville Bee Diet from the USA and its distribution throughout the country. It is ironical that this product was imported when one of the major components of the diet (Lactalbumin) more than likely came from New Zealand, that beekeepers were making a similar product from locally produced products and that the New Zealand Dairy Board is investigating the possibility of producing it locally.

I cannot help but feel many beekeepers still think 'if it comes from overseas, it must be better than the local product', even though we have been consistently told by many overseas experts that we here in New Zealand rank as among the best in the world - Shimanuki, Jay, Johansen, Johansson et al. I include in the above comment New Zealand bees and their potential, yet there are those who still believe that bees overseas are better than ours without first genuinely evaluating our own stocks and putting in place a bee improvement programme at the regional/ national level.

The high level of AFB here in the Bay, and I'm told it is becoming more than a minor problem in other parts of the country, is rather symptomatic of a general malaise that seems to be creeping into the industry.

I would remind you all that you, the beekeeper, are responsible for the control of AFB in your own business, you are required to report all AFB forthwith to MAF and all hives found to be diseased must be destroyed by fire.

It is no good being half hearted about it - history has a habit of repeating itself, you as beekeepers must also remember you have a commitment not only to yourself, your family and your business, but to the beekeeping industry and the horticulture industry to whom you provide a vital service.

A gentle reminder. The essentials to successful beekeeping are:

(1) *Good queens*
(2) *Food - protein and carbohydrate*
(3) *Disease free*
(4) *Combs*
(5) *Timing (management)*
(6) *Commitment*

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THE BEEKEEPERS CODE OF ETHICS

The general principle of the code has been reasonably well accepted by the industry although it will take some time before it really has an impact. It is to be hoped that the code is given time to be effective and that beekeepers are guided by it.

There are still many imponderables, particularly when the question of stocking rates is raised. Remember, it is a guide only, the reality of any situation may be quite different and the real purpose is to bring people together to discuss grievances; without communication nothing can succeed.

As a matter of interest the table reproduced from a paper by K D Doull may help beekeepers more fully exploit the resource available to their bees.

TABLE 1 : AREAS OF FORAGE AVAILABLE AT DIFFERENT DISTANCES FROM HIVES REQUIRED TO PROVIDE DENSITIES OF 1 AND 5 BEES PER m²

Radius from Hive	*Area Included (hectares)*	*Density = 1 bee/m²*		*Density = 5 bees/m²*	
		No of Bees	*No of Hives*	*No of Bees*	*No of Hives*
100 m	*3*	*31,000*	*1+*	*150,000*	*6*
250 m	*17.6*	*176,000*	*7*	*880,000*	*32*
500 m	*78.5*	*785,000*	*31*	*4 million*	*157*
1 km	*314*	*3 million*	*126*	*16 million*	*628*
1½ km	*707*	*7 million*	*283*	*35 million*	*1414*
2 km	*1256.6*	*12.5 million*	*502*	*63 million*	*2513*

Ref: Doull K M (1973) Biological and Technical Factors Affecting Profitability in Beekeeping

A REVIEW

Practical Beekeeping in New Zealand
by Andrew Matheson
Published by P D Hasselberg
Government Printer, Wellington, NZ, 1984

More books, scientific papers and articles are written about bees and beekeeping than practically any other single discipline within agriculture, and this book must be ranked in the top few for explanation of a complex subject.

One's first impression on flicking through the book is that it is well laid out, the illustrations are good although it is a pity the drawings on bee brood diseases could not have been in colour. The illustration of the well dressed beekeeper fell short as he forgot his gloves and as with all books, you turn over a few pages and there is someone working bees without overalls, wearing a watch and in shorts - very confusing to the beginner.

I also would have liked to see some diagrammatic drawings on honey bee communication, especially as there appears to be plenty of unused paper in the book with perhaps a few photographs depicting aspects of bee behaviour.

On reading through the text I found it well thought out, without the frills so apparent in other books of a similar nature. It provides sufficient information as to the whys and wherefores for the beginner, yet lots of technical data for the professional to produce a better product, be it bees or honey.

There was also a nice subtle touch of humour on page 77 depicting the beekeeper's quietest time of the year.

The technical content is of a very high standard as one would expect from the author's background but two practices I disagree with were noted.

When moving bees in hives it is preferable to use bottom ventilation rather than top ventilation and when a beekeeper takes delivery of a package of bees the queen is held in a cage without candy and should be released directly into the hive after the bees are removed from the package, and not as the author suggests. Minor criticisms, but to follow the book's directions here could prove disastrous to an amateur.

The book is a worthy replacement of 'Beekeeping in NZ', Bulletin 267 by T S Winters. It will tittilate the taste buds of all beekeepers, large or small and should be in every beekeeper's library. The opportunity should not be lost on exploiting the overseas market as it is written in such a way as to be readily translated into a Northern Hemisphere timetable.

The only chapter of no value to beekeepers in other countries is the chapter on New Zealand nectar and pollen sources but will no doubt be of interest to them as it does give a very good picture of our wide range of bee pasturage and possible honey types.

It was indeed a pleasure to read a book that has been well proof read as I did not find one spelling mistake or grammatical error.

T G Bryant
Apicultural Advisory Officer

THE DISEASE SITUATION

Major outbreaks have been dealt with in Rotorua (Ngongotaha and Waikite Valley), Te Puke, Katikati and Waihi. To date MAF staff have destroyed in excess of 3000 boxes - not good.

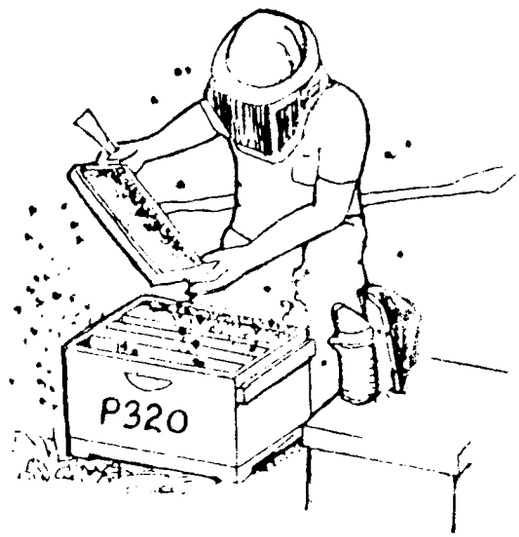
Of major concern is the number of hives being sold and MAF not being informed; hives with disease being sold; hives/sites not being registered; disease not being reported; hives being moved between districts without permits; statements of inspection not being returned; apiaries not marked with identification numbers. The main offenders are commercial beekeepers who should know better and is a scathing indictment on the industry.

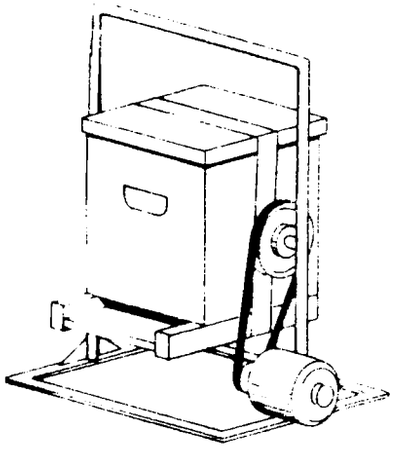
At a time when many in the industry are calling for increased MAF input, it, (the industry), is doing precious little to help itself. It is also becoming increasingly obvious to MAF staff throughout the country that this situation cannot continue and that we (MAF) may have to rethink our priorities and where we put our resources.

STATEMENT OF INSPECTION

You have all received your computer print-out albeit rather late. Remember they should be returned to MAF Tauranga by 7 December 1984. Please be sure to:

i) Correct any mistakes.
ii) Update your registrations giving full details; eg land owner's name and initials, road, RD number (if any), district and where possible a map grid reference, number of hives, disease (if any) etc.





"World's First
Motorized Beehive?"

Should there be mistakes on the print-out don't worry, it may be our fault or perhaps the register has not been updated. It is hoped that by putting in the right information now there will be little call for concern later.

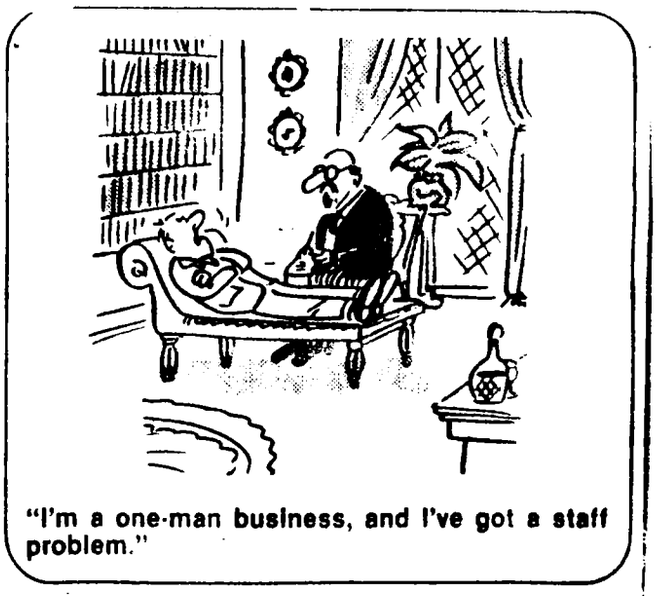
As they often say - 'rubbish in is rubbish out'!

QUEEN BEES - A GROUP BREEDING SCHEME

At a recent discussion group meeting it was proposed that beekeepers in the Tauranga area should pool their potential breeding stock for evaluation and selection.

The concept has been designed to take out variables such as climate, drifting, preferential treatment etc. Hives will be pitted against one another, hoarding tests carried out, disease resistance recorded and a number of other characteristics measured.

Participating beekeepers will be able to select breeding stock for their own use, the genetic pool will be added to periodically, and artificial insemination used to mate specific lines. The aim is to improve the quality of bees in the Bay of Plenty through selective breeding; the goal - to increase per hive productivity. It is intended to have all hives brought together in March so a start can be made in 1985.



"I'm a one-man business, and I've got a staff problem."

AUTUMN QUEENS

Now is the time to start thinking ahead to 1985/86, within a few short weeks a start will need to be made on preparations for autumn queen raising. When I think of autumn queens I mean February, not March/April.

Queens raised at this time of the year give a number of advantages over spring raised queens.

(1) NUTRITION - Top priority, as the best selection programme in the world is no good if queens are raised on an inferior diet. Queen bee larvae are fed royal jelly exclusively so you need lots of young bees with active hypopharyngeal glands; bees (nurses) in this phase of life consume vast quantities of pollen to produce royal jelly, which must be placed close to the brood as bees do not transport this food around the hive.

(2) SELECTION - Select only the best and provide or make provision for selected drone stock near mating apiaries.

(3) MATING - Weather is a critical factor and is more settled in the autumn, giving better mating results and much quicker; 21 days virgin to laying queen is the average for spring, 12-15 days in the autumn.

(4) AGE OF LARVAE (Grafting) - The age of larvae to be transferred to a queen cell cup will determine the end result.

TABLE 2 : AGE OF BROOD

Queen	*Egg*	*1 day*	*2 day*	*3 day*	*4 day*
Weight (mg)	*209*	*189*	*172*	*147*	*119*
No. of Ovarides (potential 400)	*317*	*308*	*292*	*272*	*224*
Diameter Spermatheca	*1.310*	*1.276*	*1.212*	*1.159*	*1.033*
Volume of Spermatheca	*1.182*	*1.093*	*0.936*	*0.821*	*0.586*
No. Sperms (millions)	*6.133*	*5.737*	*5.026*	*3.942*	*1.520*

NB: *Table graphically illustrates performance of queen and her potential. If a graft of 4 day old larvae was taken her potential is only 1/6th that of a queen raised from an egg. If you require (and you should) longevity with fecundity then use a system which enables you to raise queens from eggs to 24 hour old larvae.*

Don't be fooled by the above into thinking pauper splits will produce superior queens. To the contrary, bees in an emergency situation will attempt to raise queens from eggs and larvae. The oldest will emerge first, the result is the best possible queen is destroyed by the virgin.

PS: *What is a pauper split? It is a hive divided into two, the queenless portion being left to raise its own queen.*

PPS: *Think of time also - 10-16 days for a queen to appear, in the spring 21 days (autumn 10-12) before the queen is laying, 21 days before you have brood emerging. An awfully long time before a pauper split is up and running.*

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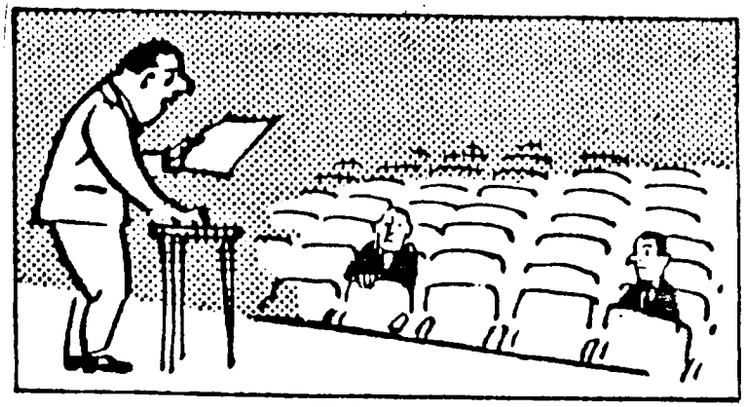

Now to get your reactions to this topic, I will ask the audience to divide into Buzz Groups.

TRADE TABLE

C H Bell manufactures new hive components. Prices:

	FD	3/4
Frames, assembled, wired and wax (per 20)	$30.40	$27.04
Full hive - 2 stories, floor, lid, frames (wired etc), metalexed, iron roof, runners	$67.50	$58.80
Hive - without frames	$37.46	$31.46

For full details contact: C H Bell
52 Paine St
Tauranga Phone: 87 619

FOR SALE - *after pollination - 100 hives of bees.*

Contact: *D Sawden*
5 Lumsden St
Tauranga

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A NOTE FROM CANADA

The Canadian crop is estimated at a record 100 million lb. The trade is offering a bulk price of 40¢/lb to the beekeeper.

LACTALBUMIN - PROTEIN FOR PATTIES

The days of calling at the dairy factory are over - to obtain lactalbumin it must now be ordered through a new company formed by the Dairy Board.

Don't worry, I have discovered they are extremely efficient and will arrange delivery to your door of one bag or more anywhere in New Zealand, but for a small discount you can arrange to pick it up yourself from the factory. The address:

Mr B Nalins, Customer Services
NZ Dairy Board, Allico
10th Floor, Pastoral House
Wellington

or Phone: 723 630 Wellington and make it collect.

The last price I had quoted - Grade I Lactalbumin $3.04/kg delivered or $2.80/kg ex Reporoa or Opotiki.

As a matter of interest, the company is investigating the possibility of marketing a ready-to-use product next year. This should prove a boon to those who experienced difficulties mixing the various ingredients in the past.

While on the subject of protein patties, enclosed (looseleaf) is a form we in MAF would like you to fill in and return to us just as soon as possible. It is self explanatory and will provide us with information which may enable us to improve the product and ascertain the potential market here in New Zealand and overseas.

TIT BITS

* *Ceracell have a new address:*

24 Andromeda Crescent
East Tamaki

PO Box 58 114
Auckland

Phone: 274 7236

* Hive strappers are available from Bay Textiles, 64-8th Avenue, Tauranga. There are two types of buckles which are easy to release (price 48¢ and 71¢), and nylon webbing, very strong and convenient to use.

* *Queen cell cups, custom-made holder available from S Bozi, Kowhai Apiaries, 11 River Road, Rangiora (Phone: 8121).*

* From MAF staff, Tauranga in particular, D Sawden, R Bell (Opotiki), M Thompson (Gisborne) and myself - all the very best for the 1984/85 season and for a prosperous Xmas and New Year.

T G Bryant
Apicultural Advisory Officer