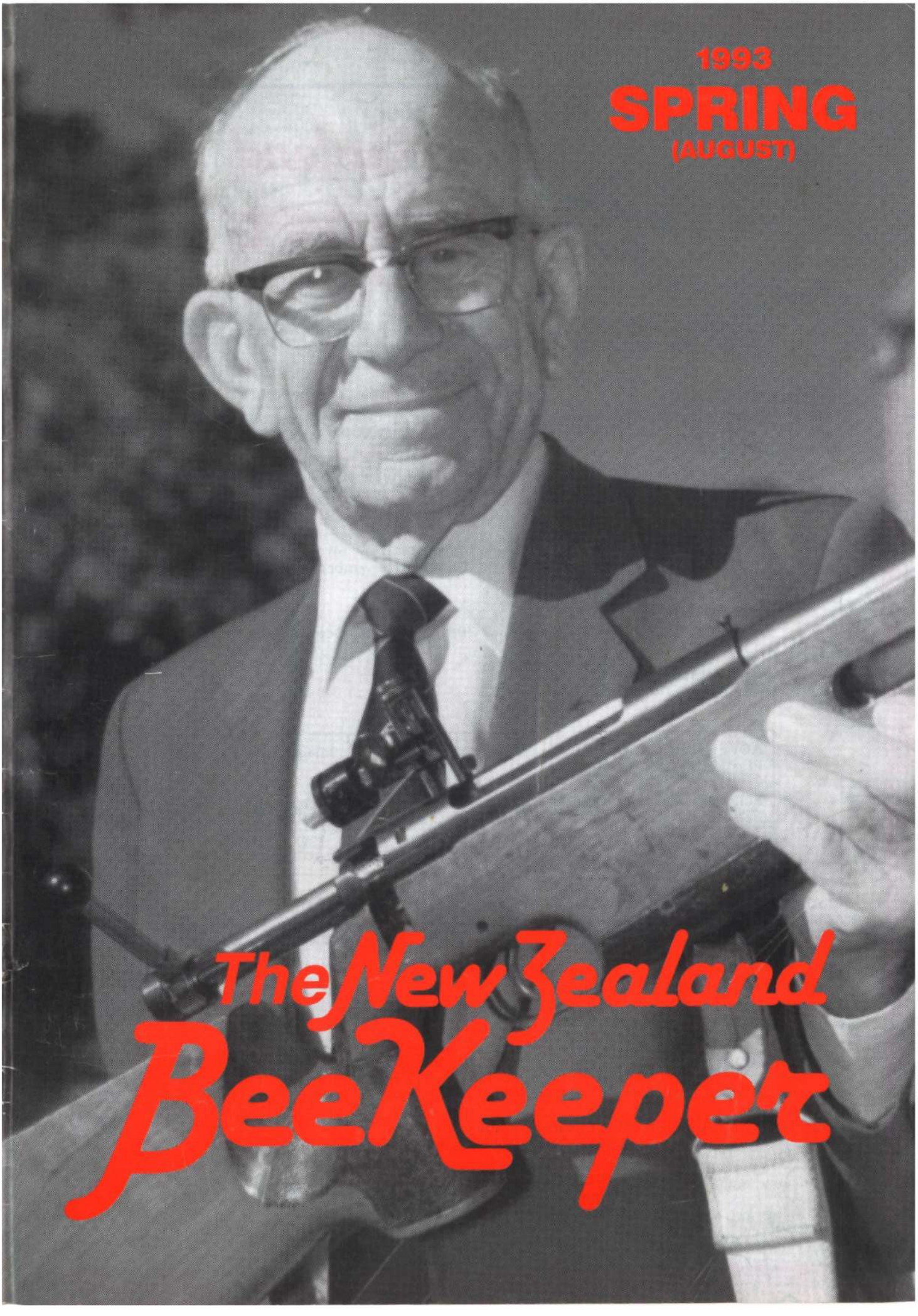

1993

SPRING

(AUGUST)

The New Zealand BeeKeeper

The New Zealand BeeKeeper

OFFICIAL PUBLICATION OF THE NATIONAL BEEKEEPERS' ASSOCIATION OF NEW ZEALAND INCORPORATED

CIRCULATION, 1,550. . .
To Members of The National Beekeepers' Association of NZ Inc. who own more than 50 hives each and so are legally subject to the annual hive levy. **THESE HIVE-LEVY PAYERS OWN APPROXIMATELY 87% OF ALL BEEHIVES IN NEW ZEALAND.**

To Beekeepers with less than 50 hives who subscribe to the journal at $33.75 a year (incl. GST) which also includes membership of the National Beekeepers' Association of NZ Inc.

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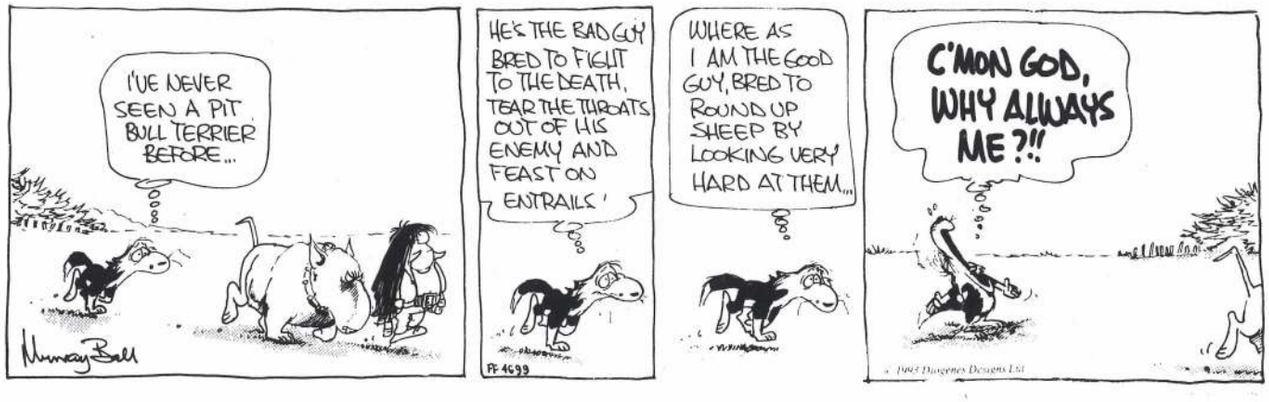

FRONT COVER: Percy Berry who targets bulleyes and bureaucracy. (See story page 13.)

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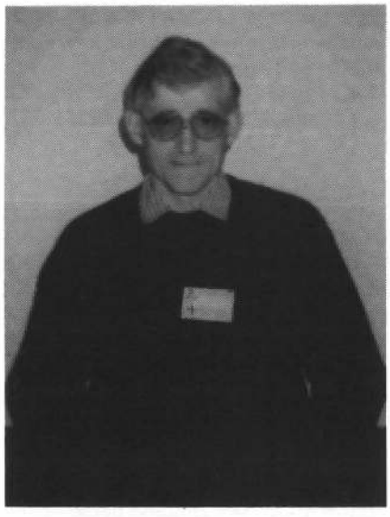
Editor: Michael Burgess. Advertising Manager: Elisabeth Burgess. Burgess Media Services Ltd., P.O. Box 2131, Wellington. Telephone (04) 478-3062, (04) 478-9316, Fax (04) 478-3062. Letters, photographs, articles should be sent to the editor. Payment for articles and photographs published is at the editor's discretion. For advertising rates see page two.

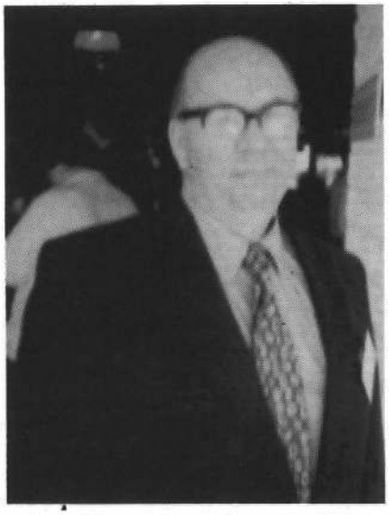
NEW EXECUTIVE MEMBERS

A more than usual number of changes took place within the Executive this year. Frances Trewby, previously Vice-President, is now President, Richard Bensemann has taken her place as Vice-President. Dudley Ward, previously President, has retired along with Executive members Michael Wraight and Nick Wallingford. New members of the Executive are:

Graham Cammell (above). Graham has served on the Auckland Branch Executive. As proprietor of Graham Cammell Ltd he is a Beekeeper, Honeypacker, and exporter.

Mervyn Cloake (centre). Mervyn has served on the Executive before. He was born into the honey business and, in fact, is a fourth generation beekeeper. He owns some 2,000 hives and is a queen breeder.





Russell Berry (above). Russell is a Director of Arataki Honey and runs that company's Rotorua Division. He is an experienced exporter of packaged bees as well as being well versed in all aspects of beekeeping.

LETTERS

Dear Sir,

In 1946 Roy Paterson, apiary instructor, in the Dept of Agriculture, Hamilton, made a momentous discovery which was of incalculable benefit to all beekeepers throughout New Zealand.

I refer to his finding the source of toxic honey.

For those beekeepers unfamiliar with the crisis facing the industry at that time, there was a serious outbreak of honey poisoning at a bush camp at Pongakawa in the eastern Bay of Plenty. Seventeen people were hospitalised. This was only one of many instances resulting in adverse publicity for the honey industry. Many nectar-bearing trees and shrubs were suspect but no proof existed until Roy spent three days camped in the bush in the Pongakawa region, and found bees collecting honey dew, derived from the exudation of the passion vine hopper Scolypapa Australis. Collecting plant material of the Tuta and the adhering sticky substance, he sent these to Maurice Sutherland, at that time a chemist at the Dominion Laboratories, Auckland, for chemical analysis.

In conjunction with J Palmer-Jones, research officer, Wallaceville, it was confirmed that the toxic substance was indeed the honey dew via the aphid sucking the juice of the Tutu shrub.

Roy Paterson's discovery was just one of his many achievements.

With his early training in engineering he designed honey clarifying units, creamers, pumping equipment, saw benches, etc, during a period of rapid expansion within the Industry.

It has been suggested that a fitting tribute would be the creation of a scholarship under the auspices of the NBA and to be known as the Roy Paterson memorial scholarship. The establishment of a fund to assist young people studying for degrees in Apiculture.

I heartily endorse this proposal and appeal to all interested persons for support.

Dudley Lorimer
Hamilton

Dear Sir,

I am writing in defence of the beekeepers of NZ who have under 50 hives. I refer to the people who Mrs Lynley March (Winter issue) would like to see pay double hive levies.

In my experience, which includes being Branch Secretary, and also visiting many apiary sites with diseasathons and field days, I have found that a lot of beekeepers with under 50 hives make really worthwhile contributions and do not have problem hives. If it is disease problems that Mrs March is referring to, figures for my part of the South Island show that the hobbyist beekeepers' hives are surprisingly free of AFB and normally are not where the problems arise.

Personally, I would be quite willing to pay my share towards the cost of keeping the hive register and on-going disease surveillance. However, I suspect that the cost of collecting the small amounts involved could easily surpass the revenue gained.

Tony Inglis
A so-called "other beekeeper"

Dear Sir,

I am a beekeeper from Switzerland and I would like to visit New Zealand. I think the best way to learn something about beekeeping in your country is to subscribe to a bee-journal (The New Zealand Beekeeper). I hope you can send me some editions.

I also would like to visit during my stay in New Zealand some bee farms and see how they work there with the bees.

Maybe you can give me some addresses of New Zealand beekeepers. Many thanks to you for your help and I look forward to hearing from you.

Urs Kienast
Rebrainstr.8
8624 Grut
Switzerland

Editor's note. Over to anyone who would care to write to Mr Kienast.

Dear Sir,

I would be very happy to renew my subscription to The NZ Beekeeper. Enclosed find my money order.

I find your magazine very professional.

A Gosselin
Ste-Marie de Beauce
Quebec
Canada

Dear Sir,

My family and I are in the process of emigrating to New Zealand, and wish to be in the country by the end of the year. Having worked for beekeepers in both RSA and in USA, I am interested in working in this line. I have also been actively involved in promoting beekeeping among the Xhosa and Zulu people.

Firstly, I would like to join your Association, so please send the necessary subscription forms.

Secondly, would it be possible to publish a request for employment in your next Journal. In order to provide details for this request, I enclose my CV.

Any one interested could write to me.

Peter H. Murless
8 McIntyre Rd
King Williams Town 5600
Republic of South Africa

Mr Murless' CV is available on request. Editor.

The team that put Conference '93 together

From left. Rear: Ross Ward, Ian Spence, Don Stedman, Michael Lee, Keith Herron. Front: Kerry Lee, Frances Trewby.

AMERICAN FOULBROOD DISEASE PART III: SPREAD

From R.M. Goodwin, J.H. Perry, P. Brown.
Apicultural Research Unit, Hort Research

To be able to control the spread of American foulbrood disease (AFB), it is important to understand how the disease spreads between colonies. A number of possible means of spread has been suggested by beekeepers. These include:

- robbing
- drift,
- transfer of brood frames,
- extracted honey supers,
- other contaminated hive parts,
- beekeeping equipment (gloves, hive tools, honey extractors etc),
- foundation,
- requeening,
- spores on flowers and the ground in front of hives,
- feeding contaminated honey and pollen.

In discussing possible sources of infection it is important to remember that although it is theoretically possible to infect a colony with a single *Bacillus larvae* spore, this probably never happens. Large numbers of spores are usually required to initiate an infection within a colony. In our studies we were able to create an infection by feeding nucleus colonies as many as 500,000 spores in sugar syrup. Infection only occurred when we increased the dose to five million spores per colony. With this in mind we can weigh up the relative importance of the suggested means by which cross infection can occur.

ROBBING

Honey bees robbing honey from an infected colony is an obvious means of spreading AFB. We were presented with a graphic case of this several years ago. A group of 80 colonies were returned from kiwifruit pollination to a dump site. Twenty of the colonies were moved to another apiary site within a couple of days. A further 20 were removed from the dump site to another apiary two weeks later. Of the remaining 40 colonies, 88% had to be destroyed over the following three months because they had contracted AFB. None of the first 20 that were removed developed the disease while 80% of the 20 colonies that were removed two weeks later had to be destroyed. At some time between the moving of the first group of hives and the second two weeks later, 85% of the colonies at the dump site developed AFB. The only reasonable explanation for this is that a large number of the colonies left on the site must have robbed an infected hive or supply of honey. The source of the infection was never found.

This example emphasises the dramatic effects that can occur with robbing. There are, however, anecodotal examples of AFB colonies being robbed without the remainder of the colonies in the apiary becoming infected. Whether this occurred because the spore levels were not high enough to create an infection or whether the robbers belonged to a neighbouring beekeeper is not known. There is no data to indicate how frequently AFB is spread by robbing.

Now to the causes of robbing. In most cases robbing is caused by the action, or inaction, of a beekeeper and not necessarily the beekeeper whose bees are doing the robbing. The beekeeper concerned may have disposed of infected material in an inappropriate manner, allowed AFB colonies to die out, or they may not have protected their hives from stock well enough so that an AFB colony gets knocked over and robbed. In some cases it may be a feral colony being robbed however we can only guess at how frequently this occurs.

DRIFT

Bees drifting between colonies is often mentioned as a major factor in the spread of AFB. Beekeepers cite examples where if one colony develops AFB the one next to it will also develop AFB, and we have seen examples of this. However, there are of course, many more examples where this does not happen, so that coincidence cannot be ruled out. It must also be remembered that the hive next to the AFB colony will usually be the next one to be worked by the beekeeper, and if hive parts are intentionally or inadvertently moved between colonies, they are mostly likely to end up in the hive next to the

one with AFB. It is therefore very difficult to be sure whether a colony developed AFB through drift or from other means.

We have been conducting trials to determine whether bees drifting from colonies with low level AFB infections are likely to spread AFB. We were particularly interested in colonies with low level infections (colonies with less than 50 larvae exhibiting clinical symptoms) because these are the type of AFB colonies that a beekeeper is most likely to miss and so leave at any apiary site.

We set up 24 pairs of colonies, each pair consisting of one hive with a light AFB infection and one uninfected colony. The colonies in each pair were facing the same way and positioned as close together as possible to maximise the level of drift. When we measured the level of drift between the colonies we estimated that the equivalent of 50% of the bees swapped colonies over a 20-day period. This may of course have been due to a smaller number of bees moving backwards and forwards between hives rather than a total of 50% of the bees swapping colonies.

We know that most bees in an AFB infected colony carry *B. larvae* spores, even those colonies with low level infections. We have tested individual bees from different parts of infected hives. The bees left on frames after the frames are shaken are on average the youngest bees, while those found on the frames before shaking are the next oldest. Bees in the honey supers are older still while foraging bees are likely to be the oldest. Bees found on the brood frames are more likely to be dealing with infected larvae and are therefore more likely to be contaminated with spores. We found that the percentage of bees carrying enough spores to be detected depends on where they there are taken from (Fig. 1). This also affects the total number of spores carried (Fig. 2).

In the experiment, no equipment was swapped between hives and all the equipment used to inspect the colonies was sterilised after each hive was managed. The pairs of colonies were together for a total time of seven years (an average of 103 days for each pair). Only two of the non infected control colonies developed AFB. They both developed AFB at the same time as 12 hives in two apiaries close by that were involved in another experiment also developed AFB so it is not possible to rule out robbing. As only 8% of the control colonies developed AFB it is possible to conclude that bees drifting from colonies with light AFB infections are not a major factor in the spread of AFB. Whether the same can be said for drift from colonies with heavy infections is unknown.

TRANSFERRING BROODFRAMES

Transferring a frame of brood from an AFB infected hive to a clean colony has to be a very effective way of spreading AFB. To put this into context, a colony may need to be fed five million *B. larvae* spores to become infected. However, one diseased larvae can contain 2,500 million spores or 500 times the number required to initiate an infection. Nevertheless, placing a diseased larvae into a hive is probably still no guarantee that the colony will develop AFB.

WET HONEY SUPERS

Honey supers are probably the pieces of equipment that are most frequently swapped between hives. The colonies that they come from are often not checked thoroughly when the honey is removed, and in some outfits not checked at all. We are currently conducting a trial to determine the importance of wet honey supers in the spread of AFB. We collected 20 supers of honey from colonies with light AFB infections. Most of the supers came from colonies with less than five larvae exhibiting clinical AFB symptoms. These are the type of infections you would be likely to miss if you were only checking three brood frames in a colony. The honey was extracted, all of which tested positive for the presence of *Bacillus larvae* spores, and the supers placed back onto AFB-free colonies in the spring. The colonies were split between two sites and situated with a further 20 AFB free colonies.

There were no obvious symptoms of robbing when we placed the supers on the colonies. However, when we tested bees from the hives two days later all

INFORMATION REGARDING LIFE MEMBERSHIP

Both the Executive Secretary and the Librarian have been asked several times for information regarding NBA members who have received Life Membership of our Association for services rendered to the beekeeping industry. Records seem to be sadly incomplete and probably incorrect. We would like to put this matter right and ask readers for their cooperation. Please peruse the following list to see if certain names are missing which should have been recorded, or if present information is not correct. We need the name, address at time when the Life Membership was bestowed, still alive, or passed on and the year in which this L.M. was received. This only concerns Life Membership of the Association not Branch Life Membership.

Please pass on your info to the Librarian, NBA Technical Library, C/ Post Shop, Milton. Your help with completing this "ROLL OF HONOUR" will be much appreciated.

J.R. Barber, Pio Pio.
A.R. Bates, Matamata.
S.F. Bartrum, Herbert.
D.A. Barrow, Tauranga.
W.B. Bray, Leeston.
H. Cloake, Timaru.
T. Chisnall, Nelson.
A.F. Chapman, Leeston.
P. Berry, Havelock North.
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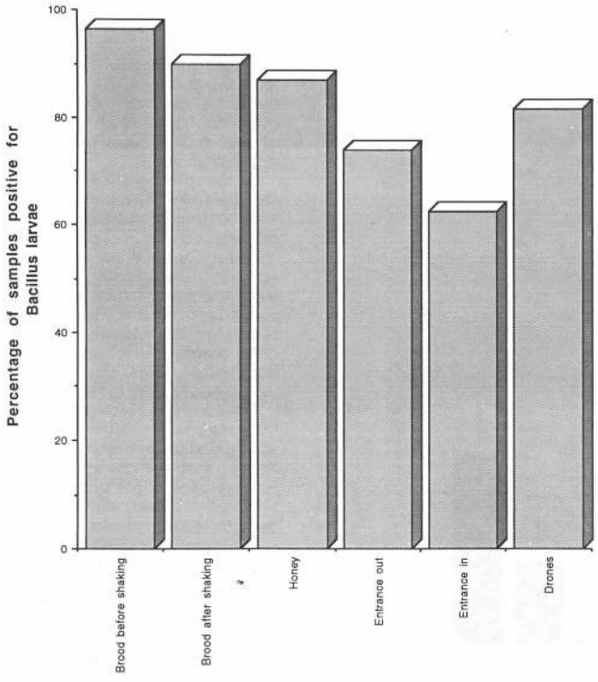
I. Berry, Havelock North.
I. Dickinson, Milton.
C. Rope, Auckland.
T. Gavin, Whangarei.

the samples tested positive even those from the colonies that did not receive AFB supers. The colonies were given a complete brood check every month. The first clinical AFB symptoms were recorded two months after the supers were put on and further clinical symptoms up to five months afterwards. The colonies are being followed to determine if any more develop AFB. It is interesting to note that some of the colonies did not develop clinical AFB symptoms for a considerable time (five months) after the wet supers were added. The effects of contaminated supers placed on hives in the spring may therefore not become fully evident till the following spring. Four (20%) of the control colonies have developed AFB to date and eight (40%) of the colonies given infected honey supers. Extracted honey supers are therefore a important factor in the spread of AFB.



OTHER HIVE PARTS

The importance of other hive parts, such as empty supers, floor boards, hive mats, division boards, and lids, in the spread of AFB is unknown. They are likely to carry less spores than brood and honey frames and so are probably less important in the spread of AFB.

BEEKEEPING EQUIPMENT

Unless you use your hive tool or the fingers of your gloves to determine if a larvae will rope then they will not generally be carrying large numbers of spores and therefore will not be a major factor in the spread of AFB. Your extractor is also unlikely to be a major factor. Infected honey may be transferred between frames during the extracting process however the amount will be insignificant compared to the amount contained on a wet AFB super. However, you should still take precautions to ensure that gloves, hive tools and extractors are not a factor at all.

FOUNDATION

At least some of the wax that is melted down for foundation must come from AFB-infected colonies. In trials conducted last year we demonstrated that cappings honey and wax from AFB hives carry many more spores than the remainder of the honey. However most of the spores will be removed by the initial melting and the later processing. Although we have

tested eight lines of foundation to date, we have yet to find any *B. larvae* spores.

QUEENS

It is theoretically possible for queens to transmit AFB. Of the eight queens we have tested from AFB colonies, two tested positive for *B. larvae* spores. It is unlikely that they would carry enough spores to create an infection.

FLOWERS AND SOIL

Bees picking up chalkbrood spores from flowers has been suggested to be a means of spread of chalkbrood. However, it must be remembered, that compared with *B. larvae,* relatively few chalkbrood spores need to be carried back to a hive to create an infection. Except where bee-collected pollen is artificially added to flowers to effect pollination, bees are unlikely to pick up enough spores picked up from the soil in front of a hive to cause a problem. One study that looked for *B. larvae* spores in the soil in the front of AFB hives was unable to find any[1].

HONEY AND POLLEN FEEDING

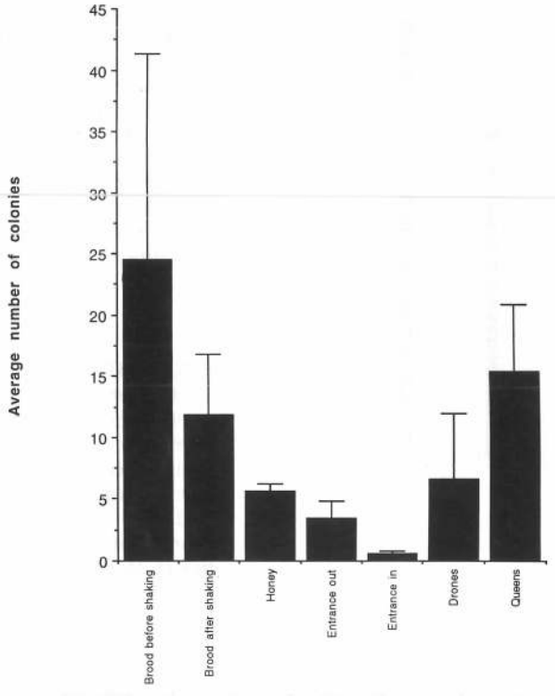
Both honey, and pollen taken from pollen traps, can contain high levels of *B. larvae* spores. If fed to a colony, both honey and pollen taken from an AFB colony could be a major source of infections.

SUMMARY

The four most important ways in which AFB probably spreads are:

- swapping brood
- robbing
- extracted honey supers
- feeding honey and pollen.

Of lesser importance will be drift and contaminated hive parts and very much in last place other beekeeping equipment (gloves, hive tools and extractors), queens, foundation and flowers.



Even though some factors are more important than others in the spread of AFB it is important to endeavour to minimise the risks involved with very beekeeping operation.

REFERENCES

1 Gochaur T.A. 1981: The distribtion of *Bacillus larvae* spores in the environs of colonies infected with American Foulbrood disease. *American Bee Journal 121:* 332 - 335.

Fig. 1 The percentage of bees taken from different places in AFB infected colonies that tested positive for the presence of *B. larvae* spores.

Fig. 2 The average number of B. larvae colonies cultured from bees taken from different places in AFB infected colonies.

Dealing with disaster

THE KEY TO SUCCESSFULLY MANAGING A CRISIS IS BEING PREPARED FOR IT.

A crisis management plan can protect your reputation and save you millions!

It's not a case of whether you'll have a crisis or not - every organisation does sooner or later - it's how you handle it that makes the difference.

The reputation of a company and its brands is a fragile thing. Public opinion is highly fickle and can switch from warm support to cold rejection overnight.

A badly managed crisis can often be the trigger for such a drastic swing in attitude. There have been numerous examples, both in New Zealand and overseas, of crises which have led to the devastation of brands and even, in extreme cases, entire organisations.

On the other hand, a well managed crisis can be shrugged off with a minimum of disruption and can even be turned to advantage if the circumstances allow it.

Perhaps one of the best-documented crises and certainly one of the most capably handled occurred when the manufacturers of Tylenol, the leading pain killer in the United States, became the victim of a deliberate poisoning campaign.

As word of the sabotage became public knowledge, sales of Tylenol plumeted and threatened to destroy the brand altogether.

The company reacted by withdrawing Tylenol from the market and re-packaging it in the first widespread use of "tamper-proof" packaging. This action, and the communication process that accompanied it, not only saved the brand from annihilation but actually improved its market share over the following years.

In addition to resolving the crisis as quickly and efficiently as possible, preserving and re-building public confidence is one of the principal objectives of any crisis management plan. From a marketing perspective this is also the most important aspect of planning.

The first step to be taken in planning is therefore to assess the potential crises that may befall the organisation. These may range from relatively minor occurrences, such as equipment failure, to more serious possibilities, such as loss of life arising from negligence or product contamination.

The next step in the plan is to determine executive responsibilities during the crisis. Usually, a crisis management team will be nominated, each with clearly defined responsibilities to be undertaken.

At this stage of planning, the various components of the crisis strategy are prepared by the personnel responsible. Developing systems for product withdrawal, testing and reintroduction are all part of this aspect of the plan.

From an image perspective, having a media strategy is essential. This will entail having a spokesperson appointed for the organisation and a clearly defined policy for informing the media of developments if the crisis is of sufficient scale to warrant public attention.

The plan will also include a strategy for rebuilding the brand or company image in the event of certain types of crisis. Preparation of this aspect of the crisis will ensure that there is no delay in beginning the recovery process and returning to normal trading.

It is an unfortunate truism that most organisations do not see the need for crisis management planning until they actually have a crisis. Regrettably, once the crisis is upon them they realise that it's too late to plan and the best they can do is react.

There have been enough highly visible instances of crises afflicting New Zealand organisations in recent times to convince even the most sceptical that planning should be an essential part of any organisation's routine activity.

WORKER BEE CELL SIZE SURVEY

By Reg Clarke

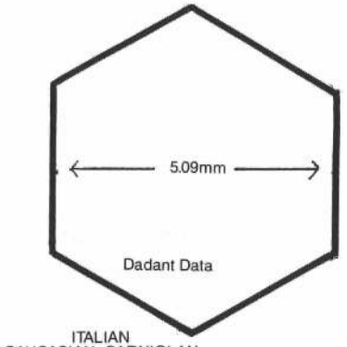
Comb foundation wax is literally the foundation of our businesses. There is good evidence that worker bee size is affected by the size of cell in which the worker bee larvae is raised. While we do not have firm evidence that bigger bees are more productive, it seems unlikely that stunting of potential development would be beneficial. So, it is very important that we use a foundation pattern of optimum size. I believe we should use a pattern slightly larger than that which the majority of hives would construct for themselves.

The limited amount of data so far gathered suggests a pattern 10% larger than is currently in use. That agrees with Harbo's conclusion after trialling three different sizes. Before we can come to a sound conclusion on this, we need a great deal more data. Natural cell size is rather variable, both between hives, and in the same hive at different times. We should also expect variations between different strains of bees, and also in response to different environments.

The large amount of data needed for reliability, together with the need to sample a wide range of bee stocks and conditions, means that your help is essential.

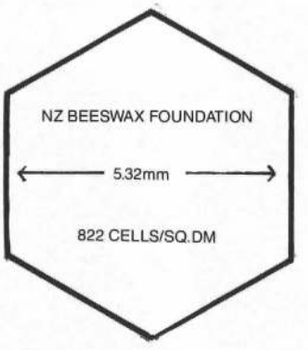
This is what you are asked to do.

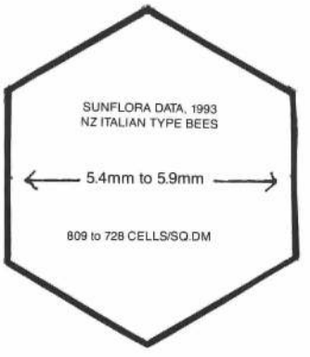
Whenever you come across a piece of naturally-drawn worker comb, save it for measuring. Choose an evenly built section without drone or mishapen cells. Measure across the width of 10 cells in all three possible directions, to an accuracy of .5mm. That will cancel out the effect of distortion or stretching which is often present. Take at least 9 measurements from each comb sample. Then total up your figures, and divide by the number of observations, so as to get a mean value for the width across 10 cells. Then fill in the form below and send it to me.

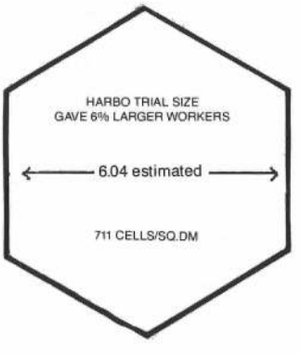


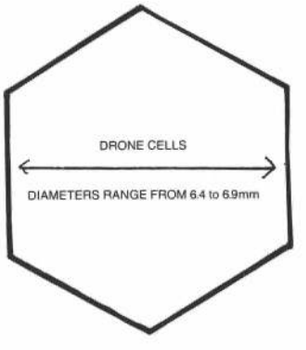
ITALIAN
CAUCASIAN, CARNIOLAN

857 CELLS/SQ.DM









EUROPEAN
BLACK BEES

897 CELLS/SQ.DM

To: Reg Clarke, Sunflora Apiaries, 699 David St, BLENHEIM

Sender: .....

Date: (If known, include date or season when comb was built)

Type of Bees: (i.e. - Haines queen, Italian, hybrid, black, feral, etc.)

Mean Cell Diameter: .....

Number of measurements taken: .....

DEATH OF LIFE MEMBER TREVOR PALMER-JONES

Trevor Palmer-Jones, noted NZ apicultural research scientist, died on 20 April 1993. He had undergone surgery for bowel cancer in October 1992, but appeared to be making a good recovery.

Trevor was born in Dunedin in 1910, where he received most of his primary education. Then the family moved to Wanganui and Trevor received his secondary education at Wanganui Boys' College. On leaving school, he attended Victoria University and then Otago with the intention of becoming a doctor. When his mother was diagnosed as having terminal cancer, he returned home to be with her. After her death he resumed his studies but forsook medicine, majoring instead in both zoology and chemistry.

There were few jobs available to scientists leaving university during the depression of the 30's and so for a time Trevor worked with a beekeeper. Then in 1936 he was appointed to undertake research on mastitis at Wallaceville Research Station in Upper Hutt. During the war he joined the RNZAF, but because of his scientific training was transferred out to assist a chemical firm.

Appointed Research Officer to Beekeeping Industry

On his return to Wallaceville in 1944 the director, recognising Trevor's beekeeping experience, appointed him research officer to the beekeeping industry. This was to be the start of a 31-year career in which he carried out a wide range of projects associated with honey bees. Among them were studies of pollen deficiency, problems associated with poisonous honey, artificial insemination of queen bees, honey bee diseases, nectar toxic to bees, and honey mead production.

In 1949, Trevor met Claire Reppen of German birth, and later that year they were married. It was a lifelong marriage.

Received International Recognition

The 1940's and 50's saw the start of the widespread use of modern agricultural chemicals - in particular weedkillers and insecticides. Trevor foresaw the potential adverse impact of these on beekeeping and undertook laboratory and field experiments to determine their effects on honey bees. In this he was a pioneer, and results from this work received international recognition and elevated him (and with him the Wallaceville Bee Laboratory) to a position of prominence in world apicultural research. Trevor further added to his reputation when he visited bee research centres in Europe and the USA.

Trevor realised that little was known of the importance of honey bees in the pollination of many agricultural and horticultural crops growing in New Zealand. He considered that because of different insect populations and climatic conditions here, it could not be assumed that the requirements were exactly the same as those overseas. So, with the assistance of Ivor Forster and others, he set about systematically investigating crops of major importance: white clover, lucerne, Montgomery red clover, apple trees, chou moellier, and sunflowers. The last crop he investigated was kiwifruit, and in general the recommendations he made almost 20 years ago, still apply today.

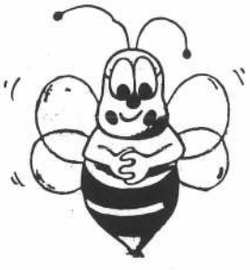
Because beekeeping is a specialised industry, much of the equipment used in its research has to be devised by its research workers. Trevor was good at this and, among other things, designed a number of different types of pollination cages. He also developed a device for taking close-up photographs of honey bees visiting flowers, and produced some outstanding pictures with it.

Trevor retired in 1975. In acknowledgement of his service to the beekeeping industry, he was elected a Life Member of the National Beekeepers' Association, an honour of which he was immensely proud.

Although Trevor was an agnostic, his attitudes were distinctly Christian. He was kind and considerate; caring and compassionate; friendly and approachable; sometimes irritated, but rarely angry. These characteristics made him a lot of good friends. It was therefore no surprise that nearly 200 gathered at Old St Paul's, Wellington to pay their last respects.

Trevor is survived by his wife Claire, to whom we extend our sincere sympathy.

Pat Clinch



LIBRARY NOTES

S. C. Ogden NZ BEE RESEARCH SUMMARIES 1991 EDITION. 12pp, 1991, NZ (next edition this year).

Ken Everett: LETTER with the life story of the late JAMES STANLEY HORN (died 2/4/93), one of Otago's pioneer beekeepers. Pioneer all right: what set-backs, struggles and hardship, but also what resilience. Nearly reached the age of 94. Mrs Horn died in 1988. They had celebrated their diamond wedding. Just two typed pages but enough as a basis for a book. If you think that you have got a hard deal read this.

From Hungary (in English)

Dr. Gyorgy Toth: COSMETIC USE OF HIVE PRODUCTS: FACTS AND PROSPECTS. 1988, Hungary.

Dr. Gyorgy Toth: THE VOLATILE COMPONENTS OF SOME HUNGARIAN HONEYS AND THEIR ANTIMICROBIAL EFFECTS. 1987 and others.

John Heineman

LIFE MEMBER PERCY BERRY

Just before his 50th birthday Percy Berry suffered a heart attack and was given about five years to live. Six years ago, aged 78, Percy Berry was named Entrepreneur of the Year by Hastings and District Chamber of Commerce. Possibly this sums up the man who controls not only the largest beekeeping business in New Zealand but one of the largest in the world.

His early days were spent on his father's bush farm in the Tararua Ranges, near Ekatahuna. Later he moved to Hastings and worked in the office of the Tomoana Freezing Works with the expressed intention of moving into full-time beekeeping. In 1944 he bought a nine-acre property in Arataki Road, hence the name of his company, Arataki Honey, and began full-time beekeeping. From that small beginning came an Empire of some 17,000 hives.

Father of five children, Percy remains in overall control of the Company but in the main concentrates on exporting. Ian, his oldest son, runs the Havelock North Division while Russell, the youngest, manages the Rotorua operation. Another son, Allan, a chartered accountant, is the Company Secretary. Two daughters, Colleen and Marion, are not involved in beekeeping, and have grown families. Sadly their mother, Mrs Beatrice Berry, died in 1986 aged 76.

Percy Berry considers his life is spanning one of the most exciting periods of the world's history. It should be noted that the tense is present because, although 84, he is adamant that he is not through yet. When he was a boy the horse was king and accounts were kept is dusty ledgers. He has watched that change to the jet engine and the computer.

'The changes in the world have been so rapid and dramatic that nationalism of the kind that spawned World War II has gone for good,' he says. He sees the age of the nation-state as finished. He expects that in the near future the world will divide into about seven loose federations; for example, North America and the European Common market could be two. All will eventually come under the banner of the United Nations.

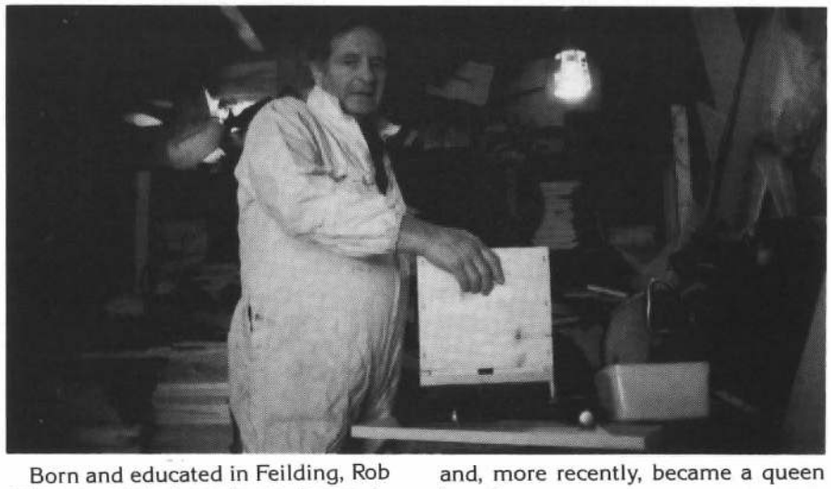
A recognised authority on exporting and marketing, he considers that every conceivable idea of organised marketing has been tried and each has turned out to be no more than a form of controlled marketing which has never worked.

'Costs', Percy says, can be reduced by reducing the costs of bureaucracy nationally and internationally. 'What is communism if it is not bureaucarcy in control?' he asks. 'For our small industry it is imperative that we keep our marketing channels free of all unnecessary impediments. Any such restrictions involving exporting in particular have a devasting affect on our much greater local market.

'While most New Zealand beekeepers have had a difficult year, they should nevertheless remember that they are better placed than most other countries in the world to market their product to advantage because a large amount of honey is used locally and because imports are banned.

'To make the best of our favoured position we need the nerve and the ability to make export sales which will not hurt our local market. Further, there is evidence of an upsurge in world demand for honey suitable for manufacturing. This more than compensates for the downturn in demand for table honey', he says.

QUEEN BREEDER ROB JOHNSON



Born and educated in Feilding, Rob Johnson started work on farms in Waituna. He there met and married his wife Beth. While working at Teherenikau he knew an old character called Charlie Gardiner who had some run-down hives. Rob showed an interest in them and so began a lifelong association with beekeeping.

Over the next 20-odd years during which he managed farms, his hive numbers gradually increased and took more and more of his spare time also spent as a platoon commander with the Territorials and as a member of the Lions.

When kiwifruit growing began in the Horowhenua, Rob split hives, bought others, and became a commercial beekeeper supplying pollination hives. He established his operation at Levin where he also began producing honey and, more recently, became a queen breeder.

With the recent downturn in pollination he now has more time to persue the goal most beekeepers aim for: the perfect queen.

Temperament is not his only goal. All his queen mothers are subjected to a rigorous programme of trialing and overwintering at Keriori, near Mount Ruapehu. This sorts out their productive capacity before being returned to the Levin mating yards. New blood lines are introduced at set periods.

Rob makes his own hives. He has a woodwork shop complete with wax dipper. All his woodwork is hot-wax-dipped and then painted while the wax is still hot. The woodware is thus sealed to last for years. His queen-rearing methods have resulted in some unique woodware.

MAF QUALITY MANAGEMENT REPORT

1.0 ORGANISATION AND PERSONNEL

David McMillan was appointed Apicultural Advisory Officer (Invermay) and took up his duties in October. David will have national responsibility for the exotic disease surveillance programme and will carry out district duties including apiary registration and export certification for the former Alexandra apiary district (North Otago, Central Otago and Southland). Matthew Sole will continue his apiary inspector role at Alexandra.

2.0 BEEKEEPING STATISTICS

2.1 Beekeepers, Apiaries and Hives

There were 5622 registered beekeepers owning 298982 hives of bees as at 30 June 1993. This represents an overall decrease of 1.9% of beekeepers and 1.7% of hives during the last 12 months (Table 1).

2.2 Honey Production and Exports

The total 1993 crop was assessed at 7086 tonnes (23.3kg per hive), down significantly from the previous year's production of 9560 tonnes (31.4kg per hive) (Table 2).

Exports of bee products to the year ending December 1992 were worth NZ$8.6 million, and involved the shipment of 2400 tonnes of bulk, retail and comb honey, honeydew and beeswax (Table 3).

2.3 Queen and Package Bees

According to Customs Department figures, New Zealand producers exported queen bees and packages of bees (including queens) worth an estimated NZ$1.7 million FOB in the 12 months to June 1993 (Table 3). MAF Quality Management issued export certificates for 38,523 queen bees and 29.082 packages of bees (including queens) in 1992-93.

3.0 AMERICAN FOULBROOD AND NBA AFB CONTROL PROGRAMME

MAF Quality Management was contracted by the NBA executive to provide an AFB control programme in 1992-93. The contract called for the inspection of 4.2% (1050) of registered apiaries by MAF personnel, the provision of inspection lists for NBA inspectors and diseasathons, publicity and extension activities, the counselling of beekeepers on bee disease issues, and the preparation of reports and disease statistics.

The MAF inspection component of this contract was exceeded, with 1062 apiaries inspected. The target average hives per apiary (6/apiary) was also exceeded, with an average of 9.3 hives per apiary inspected. A total of 31 MAF Quality Management staff and 15 contract beekeepers were used in these inspections (Table 4).

NBA branch inspections totalled 901 apiaries, or 63% of the 1450 necessary to achieve the target set by the NBA executive of 5.8% of registered apiaries. There was a variability of NBA inspection commitment throughout the country. Nevertheless, 4 of the 13 NBA branches either met or exceeded their target of district apiaries inspected. A further one branch came within 10% of achieving this target. A total of 243 warrants were issued to beekeepers who wished to assist in NBA inspections, with 110 warrants actually being used (Table 5).

MAF Quality Management inspectors (and beekeepers contracted to MAF) found 771 hives infected with American foulbrood, up 665 on the amount during the limited inspection programme in 1991-92. This increased amount of AFB found is similar to that predicted in the MAF report presented to the NBA annual conference in 1992. NBA inspectors found a further 217 hives infected with American foulbrood, a decrease of 13 from the previous year. The total number of hives infected with AFB reported by beekeepers was 1675, 1149 (41%) less than reported in 1991-92 (Table 6).

Table 1

BEEKEEPER, APIARY AND HIVE STATISTICS FOR NZ APIARY DISTRICTS AS AT 30 JUNE 1993

Apiary Register Location	Beekeepers			Apiaries			Hives		
	1993	*1992*	*% Change*	*1993*	*1992*	*% Change*	*1993*	*1992*	*% Change*
Whangarei	1264	1316	-4.0	3033	3072	-1.3	30967	32301	-4.1
Hamilton	596	627	-4.9	2985	3044	-1.9	43185	45452	-5.0
Tauranga	606	602	+0.7	3593	3573	+0.6	53043	51938	+2.1
Palmerston North	1319	1332	-0.1	3961	3927	+0.9	38446	37554	+2.4
Blenheim	484	510	-5.1	2036	2048	-0.6	22448	23941	-6.2
Lincoln	765	758	+0.9	5143	4949	+3.9	58116	59090	-1.6
Invermay*	588	585	+0.5	4373	4344	+0.7	52777	53789	-1.9
TOTAL	**5622**	**5730**	**-1.9%**	**25124**	**24957**	**+0.7%**	**298982**	**304065**	**-1.7%**

* Previously Alexandra

Table 2

NEW ZEALAND HONEY PRODUCTION, IN TONNES AS AT 30 JUNE ANNUALLY

YEAR	Northland, Auckland, Hauraki Plains	Waikato, King Country, Taupo	Bay of Plenty, Coromandel, Poverty Bay	Hawkes Bay, Taranaki Manawatu. Wairarapa	NORTH ISLAND	Marlborough Nelson, Westland	Canterbury*, North Otago	South & Central Otago Southland	SOUTH ISLAND	NEW ZEALAND	Yeild per Hive (kgs)**
1988	480	1298	976	834	3588	807	1503	1850	4160	7748	23.1
1989	379	730	401	530	2040	621	1290	1801	3712	5752	17.4
1990	660	1154	1296	894	4004	471	2774	1503	4748	8752	27.5
1991	668	1057	1470	811	4006	265	1965	1054	3284	7290	23.3
1992	1200	1068	998	1231	4497	650	2870	1543	5063	9560	31.4
1993	1033	811	958	577	3379	560	1611	1536	3707	7086	23.3
6 yr ave	**737**	**1020**	**1017**	**813**	**3586**	**562**	**2002**	**1548**	**4112**	**7698**	**24.3**

* Includes honeydew

** Total estimated production available for extraction divided by total number of registered hives

The NBA AFB Disease Control Programme therefore resulted in the inspection of 7.8% of New Zealand's apiaries (MAF: 4.2% + NBA: 3.6% = 7.8%). The target inspection level set by the NBA executive for the programme was 10% of apiaries. A total of 15,716 hives were inspected (MAF: 9888; NBA: 5828). This figure represents 5.3% of the registered bee hives in New Zealand. The overall reported disease incidence in New Zealand bee hives in 1992-93 was 0.9% of hives and 5.1% of apiaries, down 0.1% amd 0.9% respectively on the previous year (Table 7).

4.0 EXOTIC DISEASE AND PEST RESPONSE (EDPR) CAPABILITY

The Honey Bee EDPR Programme, which continues to be fully funded by central government, increased in capability during the year. A total of 45 MAF personnel received training as Field Team Leaders (FTL) and a further 15 staff received training in Emergency Headquarters (EHQ) roles. Staff in addition to those from the Apiculture Unit will be used in the EHQ to ensure that adequate human resources are available in the case of an exotic bee disease outbreak. A procedures manual has now been approved by the EDPR contractor (MAF Regulatory Authority) and will form the basis for all subsequent EDPR training, exercises, and actual emergencies.

Table 3

EXPORT FIGURES FOR HONEY, BEESWAX AND LIVE BEES*
(Honey, Beeswax - year to December 1992; Live Bees - year to June 1993)

Product	Amount	NZ$ (FOB)**	Countries	Ave. Price
Bulk Honey	1564.3 tonnes	$3,855,832	16	$2.46 kg
Retail Honey	235.7 tonnes	$1,074,080	27	$4.56 kg
Comb Honey	241.6 tonnes	$1,815,208	13	$7.51 kg
Other (including Honeydew)	174.5 tonnes	$764,483	17	$4.38 kg
Total - Honey	**2216.1 tonnes**	**$7,509,603**		**$3.39 kg**
Beeswax	183.3 tonnes	$1,088,445	10	$5.94 kg
Total - Beeswax/Honey	**2399.4 tonnes**	**$8,598,048**		
Total - Live Bees		**$1,696,099**	**8**	
TOTAL EXPORTS		**$10,294,147**		

* Source: NZ Customs

** FOB (free on board) - importer pays freight and/or insurance

A response one (initial not-negative sample) alert took place in the Waihi area in November 1992. All registered apiaries within a 3km radius of the suspect sites were inspected by MAF personnel and all other hives belonging to the beekeeper were quarantined on their sites. A subsequent culture of the original sample revealed the bacteria in question to be a "coagulase negative *Staphylococcus*", a secondary invader bacteria not known to cause mortality in honey bee larvae. Officials from MAF Quality Management have personally expressed their appreciation to the beekeeper who first brought the suspect larvae to a MAF officer's attention. The beekeeper sent the sample to MAF in response to an article requesting such samples which appeared in Buzzwords, the NBA newsletter.

5.0 SURVEILLANCE

The Honey Bee Exotic Disease Surveillance Programme, which also continues to be fully funded by central government is composed of three parts: 1) the apiary register, 2) hive sampling,

and 3) border protection (as part of the larger Border Protection Service).

5.1 Apiary Register

The maintenance of this register (in the form of a computer database) is a legal requirement of government under the current Apiaries Act. The database relies on accurate statements of inspection provided by beekeepers failed to provide such statements by the deadline of December 7. Programmes in addition to exotic disease surveillance (including the NBA AFB programme, EDPR, and export certification) depend on all beekeepers making this important statutory obligation.

Table 4

PERFORMANCE OF MAF INSPECTORS*
NBA AFB DISEASE CONTROL PROGRAMME
YEAR ENDING 30 JUNE 1993

Apiary Register Location	MAF Staff	Contract Inspectors	Apiaries Inspected		Hives Inspected	AFB Found (% Inspected)	
			Target**	Completed		Hives (%)	Apiaries (%)
Whangarei	3	3	128	132 (103.1)	1078	46 (4.3)	26 (19.7)
Hamilton	4	5	130	134 (103.1)	1198	64 (5.3)	36 (26.9)
Tauranga	4	1	149	149 (100.0)	2404	184 (7.7)	48 (32.2)
Palmerston North	3	6	165	154 (93.3)	1160	254 (21.9)	36 (23.4)
Blenheim	4	0	83	86 (103.6)	1104	63 (5.7)	26 (30.2)
Lincoln	6	0	207	222 (107.2)	1536	56 (3.6)	31 (14.0)
Invermay**	7	0	188	185 (98.4)	1408	104 (7.4)	51 (27.6)
TOTAL	**31**	**15**	**1050**	**1062 (101.1%)**	**9888 (9.3%)+**	**771 (7.8%)**	**254 (23.9%)**

* Includes beekeepers employed by MAF
** Based on programme target of 4.2% of apiaries per Apiary District
*** Previously Alexandra
+ Average hives per apiary (< 6 hives/apiary required)

A three year programme was also initiated this spring to improve the reliability of apiary location data by coding all registered apiaries to 260 series grid map references. The programme was undertaken as a result of recommendations by NBA members who took part in the Nelson Emergency Response in November 1991. Beekeepers have been very cooperative in this programme, with upwards of 50% of apiaries now coded in many districts. A spin-off from the programme is likely to be a reduction in the time required to clear apiaries for some types of export certification.

5.2 Hive Sampling

In the past twelve months MAF staff inspected 391 apiaries for the presence of exotic bee diseases and took samples for laboratory analysis for internal and external parasitic mites. Sixty-one samples were taken for EFB diagnosis and 2 samples were taken for Africanised honey bee analysis. Apiaries were sampled in "at risk" areas including seaports, garbage dumps, and areas frequented by overseas travellers. No specimens of exotic diseases/pests were found.

A further 609 samples of bees were provided by live bee exporters as part of the export certification programme. The samples were analyzed for the presence of exotic internal and external parasitic mites. This is an excellent response from this segment of the beekeeping industry and MAF Quality Management wishes to thank all those who provided samples.

5.3 Border Protection

The beekeeping industry continues to have a high profile in the work of MAF's Border Protection Service, with numerous consignments of honey and other bee products being intercepted at the borders and the disease risks to honey bees being brought to the attention of the travelling public. A further 22 Border Protection Officers were given training in assessing risks to the beekeeping industry in 1992-93.

The National Flora and Fauna Investigation Unit (NFFIU) has now been formed as part of the Border Protection Service and will in future handle all investigations concerning the illegal importation of animals, plants and associated products into New Zealand. The unit is composed primarily of ex-Criminal Investigation Bureau officers from the NZ Police.

NFFIU was involved in a suspected case of queen bee smuggling in late 1992. Air passenger and mail surveillance was carried out and a number of bee hives were sampled during the investigation. Based on the evidence, representatives of NFFIU now believe that an illegal importation **did not** in fact take place.

6. EXPORT CERTIFICATION

The split between policy and delivery for export certification of live bees and bee products was formalised this year in a written contract between MAF Regulatory Authority (the owner of the government seal and all NZ government export certificates) and MAF Quality Management (the contracted deliverer of export certification services.)

In this contract The Regulatory Authority (RA) requires the same performance criteria for the export certification of live bees and bee products that it does for all other New Zealand plant and

Table 5

PERFORMANCE OF VOLUNTEER INSPECTORS
NBA AFB DISEASE CONTROL PROGRAMME
YEAR ENDING 30 JUNE 1993

NBA Branch	Warrants Issued	Warrants Used	Apiaries Inspected		Hives Inspected	AFB Found (% Inspected)	
			Target*	Completed (%)**		Hives (%)	Apiaries (%)
Northland	30	3	88	18 (20.5)	53	2 (3.8)	2 (11.1)
Auckland	25	3	89	43 (48.3)	533	2 (0.4)	1 (2.3)
Waikato	23	0	180	0 (00.0)	0	— —	— —
Bay of Plenty	32	13	125	128 (102.4)	1222	63 (5.2)	17 (13.3)
Poverty Bay	13	11	80	80 (100.0)	732	66 (9.0)	19 (23.8)
Hawkes Bay	16	8	76	59 (77.6)	219	7 (3.2)	3 (5.1)
S'thern North Island	16	12	151	119 (78.8)	318	6 (1.9)	5 (4.2)
Marlborough	9	6	40	48 (120.0)	290	4 (1.4)	2 (4.2)
Nelson	15	5	49	31 (63.3)	111	1 (0.9)	1 (3.2)
West Coast	6	3	25	14 (56.0)	75	0 (0.0)	0 (0.0)
Canterbury	18	16	196	145 (74.0)	1081	44 (4.1)	15 (10.3)
Sth Canterbury	7	6	91	45 (49.5)	210	7 (3.3)	6 (13.3)
North Otago	4	4	54	49 (90.7)	350	4 (1.1)	2 (4.1)
Otago	15	6	136	49 (36.0)	208	6 (2.9)	5 (10.2)
Southland	14	14	70	73 (104.3)	426	5 (1.2)	3 (4.1)
TOTAL	**243**	**110**	**1450**	**901 (62.1%)**	**5828**	**217 (3.7%)**	**81 (9.0%)**

* Based on programme target of 5.8% of apiaries in Apiary Districts
** As reported to MAF by Branch Disease Control Coordinators

Table 6

APIARIES AND HIVES WITH AMERICAN FOURLBROOD
FOUND DURING NBA DISEASE CONTROL PROGRAMME OR REPORTED TO MAF BY BEEKEEPERS
TO 30 JUNE 1993
(1992 FIGURES IN BRACKETS)

MAF Apiary Register Location	Apiaries Found with AFB:				Hives Found with AFB:			
	By MAF Inspectors*	By Volunteer Inspectors**	Reported by Beekeepers	Totals	By MAF Inspectors	By Volunteer Inspectors	Reported by Beekeepers	Totals
Whangarei	26 (5)	3 (17)	115 (127)	144 (149)	46 (20)	4 (38)	250 (249)	300 (307)
Hamilton	36 (12)	0 (0)	177 (305)	213 (317)	64 (46)	0 (0)	280 (735)	344 (781)
Tauranga	48 (8)	36 (40)	191 (331)	275 (379)	184 (37)	129 (104)	405 (695)	718 (836)
Palmerston North	36 (4)	8 (1)	76 (121)	120 (126)	254 (3)	13 (6)	75 (258)	342 (267)
Blenheim	26 (0)	3 (3)	116 (166)	145 (169)	63 (0)	5 (4)	205 (374)	273 (378)
Lincoln	31 (0)	21 (15)	134 (167)	186 (182)	56 (0)	51 (77)	223 (255)	330 (332)
Invermay***	51 (0)	10 (1)	132 (165)	193 (166)	104 (0)	15 (1)	237 (258)	356 (259)
Total	**254 (29)**	**81 (77)**	**941 (1382)**	**1276 (1488)**	**771 (106)**	**217 (230)**	**1675 (2824)**	**2663 (3160)**

* Inspectors employed by MAF (including beekeepers)
** Beekeeper inspectors under MAF direction (diseasathons)
*** Previously Alexandra

Table 7

INCIDENCE OF AMERICAN FOULBROOD IN APIARY DISTRICTS TO 30 JUNE 1993 (1992 FIGURES IN BRACKETS)

MAF Apiary Register	Diseased Apiaries % of Total District Apiaries		Diseased Hives % of Total District Hives		Apiaries Inspected NBA Programme*	
Location	Number	%	Number	%	Number	%
Whangarei	144 (149)	4.7 (4.9)	300 (307)	1.0 (1.0)	193 (186)	6.4 (6.1)
Hamilton	213 (317)	7.1 (10.4)	344 (781)	0.8 (1.7)	134 (17)	4.5 (0.6)
Tauranga	275 (379)	7.7 (10.6)	718 (836)	1.4 (1.6)	357 (250)	9.9 (7.0)
Palmerston North	120 (126)	3.0 (3.2)	342 (267)	0.9 (0.7)	332 (75)	8.4 (1.9)
Blenheim**	145 (169)	7.1 (8.3)	273 (378)	1.2 (1.6)	179 (115)	8.8 (5.6)
Lincoln	186 (182)	3.6 (3.7)	330 (332)	0.6 (0.6)	412 (57)	8.0 (1.2)
Invermay***	193 (166)	4.4 (3.8)	356 (259)	0.7 (0.5)	356 (36)	8.1 (0.8)
TOTAL	1276 (1488)	5.1% (6.0%)	2663 (3160)	0.9% (1.0%)	1963 (736)	7.8% (2.9%)

* Includes both MAF and beekeeper inspectors, whether employed by MAF or under MAF direction (diseaseathons).

** Blenheim 1992 figures do not include emergency response inspections, November 1991

*** Previously Alexandra

animal exports. The criteria include the use by MAF Quality Management of an export certification quality system and the adherence to strictly auditable procedures in carrying out that certification.

What this means, in essence, is that MAF Quality Management, as the contractor, must ensure that the statements made on any export certificate which it issues are verified with supporting documentary evidence. Local knowledge and presumptions by certifying officers are no longer enough. MAF Quality Management is now subject to independent audits to check that such documentary evidence exists for all certificates.

The negotiation of protocols with governments of importing countries is one of the major roles performed by the RA. Importing country requirements which either the beekeeping industry or the NZ government believe are too stringent or unworkable can sometimes be altered as a result of these negotiations.

However, it must be realised that in all cases the initial establishment of these import requirements (and therefore the basis for the export certification) comes from the importing country, not the New Zealand government.

Mr Jim Edwards, National Advisor (Animal Exports) with the RA, who has considerable experience in this regard, carried out a number of such protocol negotiations for the industry in the past year. He has relied, from time to time, on technical advice provided on contract by Murray Reid from MAF Quality Management.

Importing country requirements are always changing, and a number of issues have recently emerged relating to several of our major makets for live bees and bee products. Some members of the beekeeping industry have also expressed concern about the design of the current export certification procedures.

National Beekeepers' Association respresentatives are now being asked by MAF officials to review these issues and come up with concrete suggestions which can be sent forward to the RA for their consideration. Provided these suggestions meet a) the negotiated requirements of the importing countries involved, and b) the performance criteria for NZ export certification systems set by the RA, there is every change of creating a certification system which both provides credible access to export markets and is acceptable to the beekeeping industry.

MARKETING GURUS SAY 1990s WILL BE 'DECADE OF THE BRAND'

The 1990s will be the decade of the brand, according to many of the marketers who determine the spending habits of millions of consumers worldwide.

The brand is a concept which has become of central importance to companies and their customers in a wide range of industrial sectors, including consumer goods such as cars, televisions, stereos, toiletries, soft drinks, foods, franchising, services and industrial products.

A brand is a simple thing: it is a trademark which through careful management, skilful promotion and wide use, in the minds of consumers comes to embrace a particular and appealing set of values and attributes. A brand represents much more than the product itself and is much more than a label.

To the consumer, it represents a whole host of attributes and a credible guarantee of quality and origin. To the brand owner it is a guarantee of future cash flows.

Branding in its current form evolved in the second half of the nineteenth century. Many of today's great brands, including Coca Cola and Kodak, owe their origins to the explosion of economic activity which resulted from the new, fast and efficient communications systems brought about by railways and steam-driven ships.

Until the advent of railways, manufacturers found it difficult to distribute their goods widely. Some trade in branded goods existed between ports and their immediate hinterlands but distribution systems were limited in scope.

This situation was radically changed by railways. In the UK, for example, in the mid-nineteenth century every village and hamlet had its own brewery distributing its products over a range of just a few miles. The introduction of the railways allowed the more powerful breweries to extend their influence. Now, leading beer brands are distributed worldwide.

Brands are increasingly being presented on company balance sheets as prized assets. They are the cause of some massive takeover bids and are now of increasing interest to directors, investors and bankers, rather than just brand managers and marketing specialists.

During the 1970's Jaguar Cars, a British luxury car manufacturer, suffered badly from changes of ownership and a serious neglect of product quality. However, the Jaguar name continued to enjoy enormous prestige, which contributed greatly to the survival of the company. Jaguar eventually recovered its market position, improved its efficiency and quality control and was bought by US giant Ford two years ago - largely because of the power of the brand.

Swiss chocolate manufacturer Nestle paid US$4.5 billion dollars, more than five times book value, to buy British based chocolate and sweets manufacturer Rowntrees in 1988. Rowntrees owns brands such as Kit Kat and Polo mints.

Consumers are highly fashion conscious. They select brands in certain product categories, often on the basis of the types of lifestyle which the brand reflects and to which the consumer aspires.

Brands can be enhanced in consumer's minds in many ways. A highly successful example of this is the system of royal warrants in Britain.

To be given a royal warrant, which allows them to display the famous royal coat of arms, warrant holders must have supplied the royal house-hold regularly for at least three years and they have to promise to be discreet.

Perhaps the most famous warrant holder is London's Harrods, one of the world's largest and most luxurious department stores. A huge royal coat of arms hangs above the entrance to Harrods, helping enhance the store's branding to millions of customers who walk through its door each year and associate Harrods products with royalty.

London Press Service

NEW ZEALAND BEEKEEPER, APIARY AND HIVE STATISTICS BY APIARY DISTRICT AS AT 30 JUNE 1993

Apiary Register Location	1-5 Hives		
	Beekeepers	Apiaries	Hives
Whangarei	926	1053	1976
Hamilton	366	426	862
Tauranga	354	412	825
Palmerston North	884	997	2069
Blenheim	317	355	661
Lincoln	494	608	1059
Invermay*	371	404	795
NEW ZEALAND	3712	4255	8247

6-50 Hives		
Beekeepers	Apiaries	Hives
278	637	3748
172	368	2576
157	358	2684
370	878	5336
117	320	2057
180	514	2776
120	289	2050
1394	3364	21227

51-250 Hives		
Beekeepers	Apiaries	Hives
30	327	3948
24	214	3070
52	467	6319
41	526	4776
25	373	3861
45	575	6435
45	586	5440
262	3068	33849

Apiary Register Location	251-500 Hives		
	Beekeepers	Apiaries	Hives
Whangarei	13	197	3633
Hamilton	11	229	3781
Tauranga	19	452	8607
Palmerston North	12	334	4326
Blenheim	15	426	6072
Lincoln	14	261	3826
Invermay*	15	379	4998
NEW ZEALAND	99	2278	35243

501-1000 Hives		
Beekeepers	Apiaries	Hives
9	360	7252
12	528	10488
10	412	6932
6	322	4872
7	310	4898
19	1182	14105
22	1123	15861
85	4237	64408

More than 1000 Hives		
Beekeepers	Apiaries	Hives
8	459	10410
11	1220	22408
14	1492	27676
6	904	17067
3	252	4899
13	2003	29915
15	1592	23633
70	7922	136008

Apiary Register Location	1-50 Hives		
	Beekeepers	Apiaries	Hives
Whangarei	1204	1690	5724
Hamilton	538	794	3438
Tauranga	511	770	3509
Palmerston North	1254	1875	7405
Blenheim	434	675	2718
Lincoln	674	1122	3835
Invermay*	491	693	2845
NEW ZEALAND	5106	7619	29474

More than 50 Hives		
Beekeepers	Apiaries	Hives
60	1343	25243
58	2191	39747
95	2823	49534
65	2086	31041
50	1361	19730
91	4021	54281
97	3680	49932
516	17505	269508

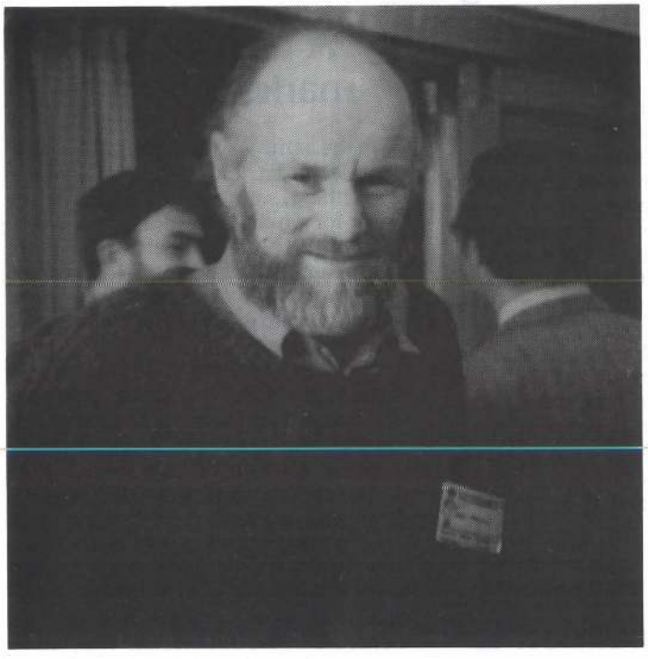
Totals		
Beekeepers	Apiaries	Hives
1264	3033	30967
596	2985	43185
606	3593	53043
1319	3961	38446
484	2036	22448
765	5143	58116
588	4373	52777
5622	25124	298982

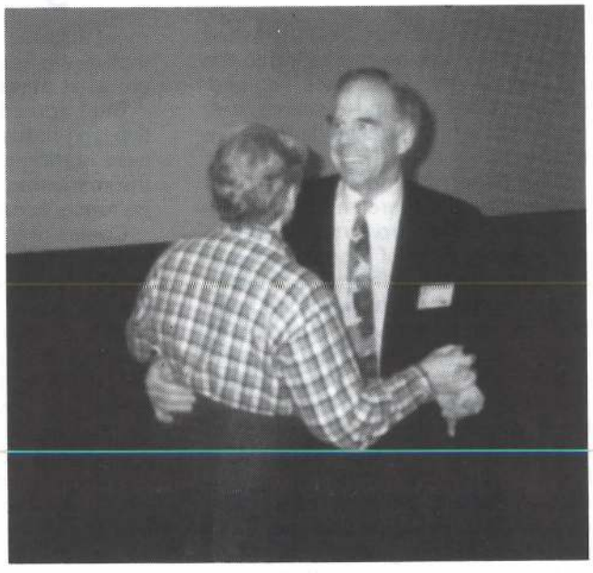
BUZZING AT

Left: Ian Spence dances with Frances Trewby.
Below: Malcolm and Pat Haines enjoying their dinner.

Below left: Richard Bensemann lining up for a refill.
Below right: Mark Goodwin, bee scientist.

CONFERENCE





Above right: Pat and Ian Berry dance to the strains of country music. Below right: Bill Floyd, marketing consultant, enjoys himself at the function. Above left: Peter Mason, a Gore beekeeper. Below left: Kerry Lee man's (woman's?) the admission desk.

MARKETING

By Bill Floyd

Two years ago Sue Jenkins asked me to give a talk on marketing to the NZ Beekeepers' Conference. I agreed, did some background research, and presented a paper called 'Is there life after toast'.

That paper was notable for a total lack of formal research and a lot of intuitive comments from me, tempered with a heavy dose of pragmatism and industry knowledge from Sue Jenkins.

In that paper, for those who remember, I remarked amongst other things on the need for differentiating and adding value to honeys, to setting quality standards, to creating a position where honey was no longer thought of as just honey, but where it was thought as a flavouring or sweetening agent that had an extra dimension to it when compared to its sugar-cane competitors. I talked about getting honey used by food manufacturers so that, in the course of promoting their own goods, they would promote honey. It was the right message at the right time and the right place.

Consequently, I began work with the industry to look at the vexed issue of marketing honey for the industry as a whole.

Marketing Plan

It has taken two years to get to the point where we now have a marketing plan. I say 'we' because I now think of myself as a member of your industry. I feel that way because my success will come from your success; you the packers and the beekeepers who individually and collectively make up your industry.

Part of my brief in this plan was to be specific in that if I said I wanted to achieve something or do something I had to show exactly how I intended to do it so that every task and every action over the next 12 months to two to three years could be agreed to by the industry through its committee and could be costed.

There had to be a total accountability for what I did, for what I spent, and for the time I took to do it.

That put constraints on me. With other clients there is normally a lot more latitude on the understanding that at the end of the day the results are what matter.

But I agreed that this was a collective-type industry and a lot of people were hurting in creating the funds for the marketing plan and so we had to be totally accountable.

Copies of this plan will go to secretaries. It will not be a light read for those who decide to read it. From my perspective it is the equivalent of an architect's comprehensive plan for a building showing the wiring diagrams, the plumbing, the construction. In fact everything down to the furnishings and the landscaping.

It is not reader-friendly, but with what had to go into it, we had no alternative but to be comprehensive and functional.

Communication is Imperative

What you should find interesting is that after some months of research and discussions, the conclusions of this marketing plan are very close to the comments and recommendations I made two years ago in 'is there life after toast?' perhaps that's why your delegates were enthusiastic about the content of my speech then.

To many, if not all of you, you knew that there were things that had to be done and the list I gave in 1991 did sum up the strengths and weaknesses of the industry. This plan will, we believe, achieve what the industry needs.

I was aware of a couple of remits at conference this year, especially the one from Southland which basically said 'scrub the marketing levy' so it is imperative that I communicate what we are doing. Or more important, (given that we had to wait until a few months ago to know what budget we would have) what we are *Planning* to do for the industry.

In developing a marketing plan for the honey industry a 'mission statement' had to be determined: this created a 'focus' for the plan .

To some of you, this may seem like unnecessary market-waffle and why don't we just get on with the work?

It's NOT a marketing waffle.

A plan is not a marketing waffle

In the same way that an athlete must have a target, must want to achieve something, we need to set the framework for what we are doing. I see our task as the need to create an environment that firstly, and you will note that the emphasis is on firstly, encourages consumers to enjoy honey, to be confident in honey.

Secondly, we talk to individual members of the NBA who can be rewarded for innovation and commitment to quality, who can be made aware of the opportunities available to them.

Thirdly, we talk about the industry as a whole.

In putting together this marketing plan we have accepted the reality that some people in the honey or beekeeping business will, for a variety of reasons, never be successful. They cannot be allowed to stop the industry from succeeding.

For those who want to be successful, and who want to achieve, then we believe that the strategies we intend to carry out will create opportunities to help them achieve their goals and improve their profitability.

So we have this vast complex plan and we have our marvellous mission statement which sounds very good and very pious, but will it really come to anything?

My major task is to communicate to you:

A. That it is necessary to have a marketing plan, and

B. It will benefit all members of the industry to have a marketing plan.

Well, perhaps not all members. Now I should like to comment on a problem that surfaced a few weeks ago. I believe it sums up virtually everything that's a marketing problem in the industry at the moment. It shows clearly the sorts of things we must do as an industry.

Marketing ethics

A few weeks ago a honey packer, called me, let's call him Mr A.

He explained that he was selling manuka honey through a major retail

food group. He had good shelf spacing, sales were going well, everyone was happy. But then the food group telephoned and said: 'Sorry, you'd better come and take your product off the shelves. We're replacing it with someone else's manuka honey.' Mr A asked why.

The food group said 'because this other chap's offering us manuka honey as good as yours, and he's prepared to let us have it at $1.00 per 500 gram unit less.' one dollar less'.

Mr A was, one, annoyed, two, horrified, and three, absolutely astounded. Wondering what the heck to do he thought let's see if this marketing levy that I'm going to contribute to will be of any value.

Mr A phoned me.

I telephoned the second honey packer, we'll call him Mr B. But I telephoned him after his honey had been examined and, insofar as modern techniques allow, we'd ascertained the actual composition of his honey.

We believe that the manuka content of his honey was around 13-16 percent.

The bulk of the honey seemed to consist of variety of things. Kamahi certainly came to the fore. So what we really had was a dark honey of very mixed breeding, masquerading as our current wonder variety and premium-price-commanding manuka.

The honey also featured a very interesting label which made reference to Dr Peter Molan, stating that Waikato's research shows that some honeys have higher levels of antibacterial activity than others, that manuka is one of these, and that the honey in this container has been tested by the department of biological science at the University of Waikato and had a medium to high level of antibacterial activity present.

Anyone reading that would be inclined to think that honey was what we now define as 'active'.

Active manuka honey is being used for clinical trials right now. Those trials may, as we know, prove that such honeys can actually cure stomach ulcers.

Not active Honey

The reality was that some of Mr B's honey certainly was tested by Waikato. It was not found to be active. It may have had antibacterial activity, of course, because much honey does through its thixatrophic nature and hydrogen peroxide levels.

To me that label would imply to any consumer that the honey in the pottle had been tested and was the new wonder stuff.

But not only that, one is left thinking that Mr B. is an absolute paragon of virtue and charity in that he's making this superb premium manuka honey available at a far lesser price than others in the industry (thereby threatening to reduce the price overall).

I spoke to Mr B. he was surprised that anyone should be upset with what he was doing, surprised to find that I was misreading his label, and surprised to learn that the following things could almost certainly happen:

ONE: That Mr A would take the issue to the Ministry of Commerce and to the Department of Health.

TWO: That the moment I discovered there was a breech of the Fair Trading Act, or the Food Labelling Act, then I would be contacting the food group chain to advise them that the honey in question was not what it was purported to be, that the labelling may be mis-

leading, and that certainly it was going to become a public matter with some adverse publicity.

From experience I believe that the food retail group will probably phone Mr B and tell him to take away his manuka honey and at the same time to take away his other honeys because of the bad publicity his brand had got, or was going to attract, and that he could cease to have a retail operation in NZ.

Mr B was very suprised, but to show what a good all round chap he was, Mr B. said that, if there was any publicity about the matter, then he would, as he went down in a screaming heap, try and take every other packer with him. He pointed out that he wasn't the only one misleading, that honey was never what packers claimed etc, etc.

I was very unhappy with Mr B.

We are waiting for the outcome of an assessment by the Ministry of Commerce and the Health Department. If I was Mr A, I should be tempted to take this issue to Fair Go, to the Holmes Show, and I would get marvellous publicity for my own brands out of it.

Consumer must be protected

So what comes out of that exercise?

Firstly, up to now, honey has been "just honey". But now people are realising there is a lot more to honeys, that there are taste, sensory, therapeutic, and even medicinal, values in it.

So, we must move very quickly to protect the consumer from either deliberate or unintentional misrepresentation by people in the honey industry.

Secondly, that at a time when we have managed to bring up the value of something like manuka honey, so that every beekeeper producing manuka honey has benefitted, the rules or lack of them, are such that anyone can trot into the playground and by putting out a product which barely, or simply doesn't justify the label, turn around and undercut the market.

The honeymoon is alive and well. That is a crazy situation.

It is important to make the following comment about pricing: It is no-one's business how much someone wants to charge for his or her honey. The fact that Mr B. was prepared to put his honey out at a far cheaper price was, and is, irrelevant to us. That's his right.

However when he appears to have produced a low price through what is perhaps ambiguous labelling, then we're not comparing apples with apples, we're seeing someone start to muck up and drag down a premium product through naivety, or worse.

So it promises to make interesting reading over the next few weeks. 'Fair Go' feeds on this sort of stuff. The Holmes Show loves It.

Industry must be protected

As an industry we have something to protect. We must protect it.

Before I move on I should like to read you a couple of paragraphs from a letter. It's from a health protection officer working for community health board in New Zealand. This letter is headed 'honey production and labelling'. The officer is concerned that the integrity of the honey industry could be adversely affected by 'unscrupulous operators'. He suggests, firstly that the honey industry should consider a code of practice which needs to address, for example, food safety. Secondly, he advises some kind certification.

He makes the point that the manuka honey issue raises an important point. 'How do we know manuka' or for that matter, other mono-floral-labelled honeys are what they purport to be?

He says that if the industry wants to make therapeutic claims for manuka honey, a unified approach to the Department of Health must be made; otherwise such claims are illegal.

He also asks: 'How do we know that manuka honeys is such? How do we know it has high activity and what is high activity?'

The good news is that within the marketing plan we have addressed all these issues and it is very clear what we must do.

One. The industry must be able to harvest specific honeys for specific purposes. I know that may mean quite a change in management techniques.

Two. The industry must be able to certify honey by batch so that when a drum of honey is tested, that drum can then be used to create retail packs of honey that are guaranteed to be what the label purports. These packs must be traceable back to the drum.

Demand for integrity

A few years ago the industry wanted outsiders to take them seriously, it wanted outsiders to realise that honey had something going for it. People are beginning to realise that the bad news is that with recognition comes a demand for integrity. We cannot have it both ways. So the honey marketing plan says first and foremost that we must address the issue of quality, that we need a system of identifying and monitoring various honeys as they go through the packing system and the retail channels.

We also say that as part of the marketing plan in the first year, a honey mark or symbol needs to be developed that can be used by packers when the honey reaches certain standards of quality, when the floral sources are identified, and when the honey is active.

For example, we need a similar system to that used with sunburn protection creams. We are all familiar with the SP8, SP15 type codes on those.

We believe that a honey mark needs to be established and that honey mark can include a number code. The number code would relate specifically to the degree of activity which that particular honey has been certified as having.

Premium honey will demand premium prices

Once honey can be qualified people will pay premium prices. Frequently prices far above anything honey packers are realising now.

I see from an article in the ODT that one company is packing active manuka in 2mg (I think it is) capsules. Based on the figures shown, that company is retailing the honey for the equivalent of $300 per kilo!

Premium prices will be paid for certain honeys.

I know I am currently putting on manuka, but it's an example of what can happen. Manuka relates to therapeutic values, but we are seeing a differentiation of honeys for their taste and sensory values. People are, and will, continue to develop the concept of buying unique floral honeys for their subtle and different flavours. In the same way people purchase different types of wines, or even jams.

This will benefit every member of the industry, not just the manuka producers. But it will only really start to happen when we as an industry have a system which guarantees integrity of production.

Quality — production is the first issue the marketing committee needs to address. At our conference meeting we recognised that it was a priority, that the cost of getting such a system

underway, of getting the mark created and registered and available for use, was a first call on the funds we have available. It means that as a committee we will have developed something which will be of value to the whole industry, not just this year, but for years to come.

It will lay the foundation for new marketing attitudes towards honey. I believe that if you are a beekeeper producing honey for an exporter, then, sooner or later, that exporter will have to bite the bullet on ISO accreditation and will have to require a system like this for the honey you supply to him or her anyway.

Incorporate honey with other foods

The next part of the plan is the strategy of having honey incorporated into other foods.

The marketing plan puts emphasis on this and it is something I have already done some work on. I have some sample products. The first is honey powder, the second is honey butter, and the third is honey liqueur.

My own company does considerable work with the dairy industry. Consequently I specifically targeted them for honey opportunities.

You will remember that at conference two years ago I showed a sample of a honey powder, but it was made with a multi-dextrose starch.

Now I have a honey powder made with milk powder. The result is quite superb. It tastes like a block of milky bar chocolate. Samples have gone to America. The American honey industry is very interested in the project, and I am sending samples to the NZ Dairy Board Company, NZ Milk Products, Middle East, where it could be the basis of some very exciting product development.

If we can get into bed, so to speak, with people like the dairy industry, then we are not talking about five or 10 or even 100 tonnes of honey. They can create opportunities to absorb vast amounts of honey.

I know this year the honey harvest was down, but notwithstanding, I still see a plethora of house brand honeys at give-away prices.

If we can create markets which will absorb large amounts of honey through food ingredient companies, then the honey supply will contract to the point where food chains cannot beat down prices.

In developing this plan I wrote to the major food manufacturers in NZ and explained that the industry was looking at the whole question of honey in other foods and that we wanted to know what kind of information they would need to be able to experiment with honey.

As a result of, initially my letter, then my discussions with her, the food technologist at one of NZ's largest companies suggested to her development group that they should try honey as an ingredient in an exercise they had been working on.

The results, I understand, have been outstanding and it could see a product released on the NZ Market that will be boosted by massive TV and other media support. All of which will promote honey as something special.

Honey-Butter

This is a new concept for NZ, but flavoured butters in America are very popular and honey-butter and apple flavoured butters sell well. We are in the process of sending honey, butter samples to a company that deals with both America and Europe and we are awaiting the outcome of those approaches.

Honey Liquer

The flavour is absolutely incredible, I believe they are saying it's NZ's answer to Drambuie.

I have believed for some time that the food ingredient industry is one of the major keys to the honey industry's success and I was very pleased to find recently that the NZ Pumpkin, they call themselves the squash industry, has imposed an annual level on itself

which produces approx. $750,000 per year.

They are employing someone to look at developing international export markets and, this is important, at increasing the use of squash as a food ingredient by manufacturers.

In other words, they have realised there is more than one market opportunity for their product and that the food ingredient industry could be a very important part of their own strategic plan.

The marketing committee had already determined that and we will be putting major emphasis on the food ingredient industry. But once again, we have a problem, and that problem is quality and reliability and what the food ingredient industry calls 'continual guaranteed functionality'.

If a company like Ernest Adams, or Watties, or Britannia, creates a product with a honey which has a certain viscosity, which has a certain sweetness, a certain taste, then we as an industry must be able to, guarantee that they will continue to get that honey 'profile' drum after drum, month after month.

Need for a system that identifies honeys

In the same way that we need a system for the likes of active manuka, we need a system that identifies honeys by their flavours and colours and tastes so that these companies can purchase from us in confidence.

In doing my research for the marketing plan the Dunedin based company Cadbury told me that they had played with a product which would have featured honey, but they had a problem with the quality of the honey they were getting.

And so they abandoned the project. It wasn't worth the hassle or the risk.

Consequently we will form and promote an organisation called the 'NZ Honey Food Technology Service' to help companies like Cadbury.

This service will flush out opportunities and then, using a tendering system, allow beekeepers who meet the quality standards to tender for them.

We have begun forming official links with the USA Honey Industry and will do the same with Australia.

We will promote the concept of students doing Masters' or Honours' degrees with honey/bee related topics.

A specific information campaign will be developed for key groups which can affect our industry.

Food writers, retail buyers, key government departments, medical and nutritional institutions, and financial groups, will be included.

The NZ Honey Cuisine Awards will be developed and integrated into one of the existing major food exhibitions.

At Conference 1984 I hope we can present the Inaugural New Zealand Honey Food Innovation Awards where we recognize NZ food manufacturers who have used honey in exciting new ways. There's a lot more than I can and would like, to say to you, although we haven't been able, but I appreciate the time constraints at this conference.

In the space available to me, I have touched on a few things only, product quality, labelling and integrity issues, and the food ingredient industries, but I believe that they raise the major issues that face us as an industry.

Firstly, we must get our act together as an industry, be able to produce a product which consumers and food ingredient manufacturers can trust and rely on.

A product that is true to label.

Everything follows from that. The publicity, the magazine articles, the cookbook recipes, the promotions, the advertising and the public relations means nothing if the industry has no foundation of quality.

Marketing is not just about promotion. Marketing is about the product itself; the pricing of the product; distribution and then promotion and publicity.

We have funds for the next 12 months, but it depends on the industry as to whether we can develop plans and strategies that can provide opportunities for beekeepers through into the year 2000 or whether the industry continues to run from feast to famine and is picked off at will by increasingly more powerful food retail groups.

NOSEMA RESEARCH REPORT 1993

From Louise Malone, Helen Giacon, Ruth Newton, and Catherine McIvor

Nosema is reported to shorten the lives of adult honey bees and to cause them to age prematurely. To investigate this in detail in New Zealand bees, we took newly-emerged bees from 10 colonies in our apiary, dosed them with nosema spores and kept them in cages in an incubator. We then recorded the times at which they died and the number of nosema spores each was carrying at the time of death. An equal number of bees were fed plain sugar syrup as controls.

We found that nosema-infected bees from six out of the ten colonies lived just as long as their healthy counterparts. We also found that some bees could tolerate heavy infections, whereas others died with only moderate nosema sport loads. As all bees received the same nutrition and were kept under controlled conditions, it is likely that the difference in their responses to nosema has a genetic basis.

We would like to expand this study to see if this is a general phenomenon by performing similar tests on bees from apiaries throughout New Zealand.

Molecular Biology of Nosema

As part of another project, we have worked out the DNA sequence of a gene (called the ribosomal RNA gene) from nosema. These genes have been sequenced for many animals but only for three other microsporidia (the group of Protozoa to which bee nosema belongs). Parts of the gene could have sequence unique to the bee nosema and so could form the basis of a new method for diagnosis of this disease (rather like genetic fingerprinting).

Spore Score Test

This is a simple, non-microscopic test for nosema that we demonstrated at Conference '92. We have written a scientific paper describing this method and also an article for "The New Zealand Beekeeper" giving details of how to do the test and where to buy the necessary (and cheap) equipment to do it.

Virus Diagnosis

We have continued with our virus diagnosis work this year.

Genetic Improvement Programme

Once again Helen assisted David Yanke with his work for the NZ Bee Genetic Improvement Programme.

QUALITY ASSURANCE, FOOD SAFETY, AND LABELLING.

By Sally Gilbert

My subject is quality assurance as it can be applied to the food industry using a very specific technique known as Hazard Analysis Critical Control Points or HACCP. This is the sort of approach that will be required when the Food Safety Regulations become law. I will begin by discussing why new regulations are necessary, spend some time discussing HACCP and finish with a brief description of labelling requirements.

Both within New Zealand and internationally it is recognised that traditional approaches to food safety - that is hygiene, protection and sanitation - have not made a significant impact in reducing foodborne diseases.

The Audit Office report of September 1988 showed that the number of reported cases in New Zealand of foodborne illnesses more than doubled over the period 1981-1987. This is not confined to New Zealand. Estimates of economic losses from foodborne disease in 1985 amounted to $4 billion in the United States and $4000 million in Canada (0.1 percent and 0.08 percent of Gross Domestic Product (GDP) respectively).

Extrapolated to New Zealand, assuming a similar magnitude, economic loss due to foodborne illness in the 1985 year could have been in the order of $36 million. Hospital admissions for the same year due to foodborne illness established an admissions cost of an estimated $942,000.

Recent surveys undertaken by Food Safety organisations and epidemiological data show that traditional methods of food safety based on inspection and structural aspects of food premises are not addressing an increasing rate of food poisoning nor new hazards associated with the rapid technological developments within the food industry.

The principle laws covering food safety in New Zealand are the Food Hygiene Regulations where were passed in 1974. These regulations place an emphasis on structural requirements

such as what the floor is covered with, whether there are changing rooms available, and how much space is available. The minimum standards are basically the same whether you are a honey house or a hospital kitchen.

There are obviously many limitations to these regulations:

1. Emphasis on inspection by environmental health officers or health protection officers, so that operators shift the responsibility for compliance to the officer. I am very familiar with phrases like "...but it was like this last time and no-one said anything", or "... but I haven't been inspected for two years - or 27!." Some operators believe that it is not their role to be familiar with their legal requirements and make sure they meet them, but rather the environmental health officer or health protection officer has to do this.
2. There is an emphasis on structural requirements (the "floors-walls-ceilings" approach) rather than on identifying factors critical to food safety.
3. Laws often contain vague terms in reference to compliance and do not prioritise.
4. Interpretations are left to the discretion of an individual officer.
5. Only part of the operation being viewed for a very short duration. Therefore, factors critical to food safety, such as food–handler conduct, are overlooked.

Food Safety Regulations:

Because of these limitations, the Ministry of Health convened a 'steering group' which included representatives from the retail food sector, some food manufacturing groups, area health boards, local authorities, food technologists, the hotel association, and the Ministry itself.

This group recommended that new regulations were needed, not just an update of the existing regulations, and that the new regulations should directly target food safety. Issues that do not impact on food safety, such as some quality issues, should not be included.

The three main factors which affect the safety of food were recognised as being:

* the process to which food is subjected
* the activities of the people who handle food
* the environment or premises where the food is handled, stored, transported, displayed.

It was proposed that the objective of safe food be achieved by the development and implementation of Food Safety Programmes. Although this would be a new concept for New Zealand food legislation, in general it is similar to the Food Safety Programmes now operational in New Zealand dairy factories.

A Food Safety Programme would provide a framework for ensuring all food operations contribute towards safe food being offered to consumers.

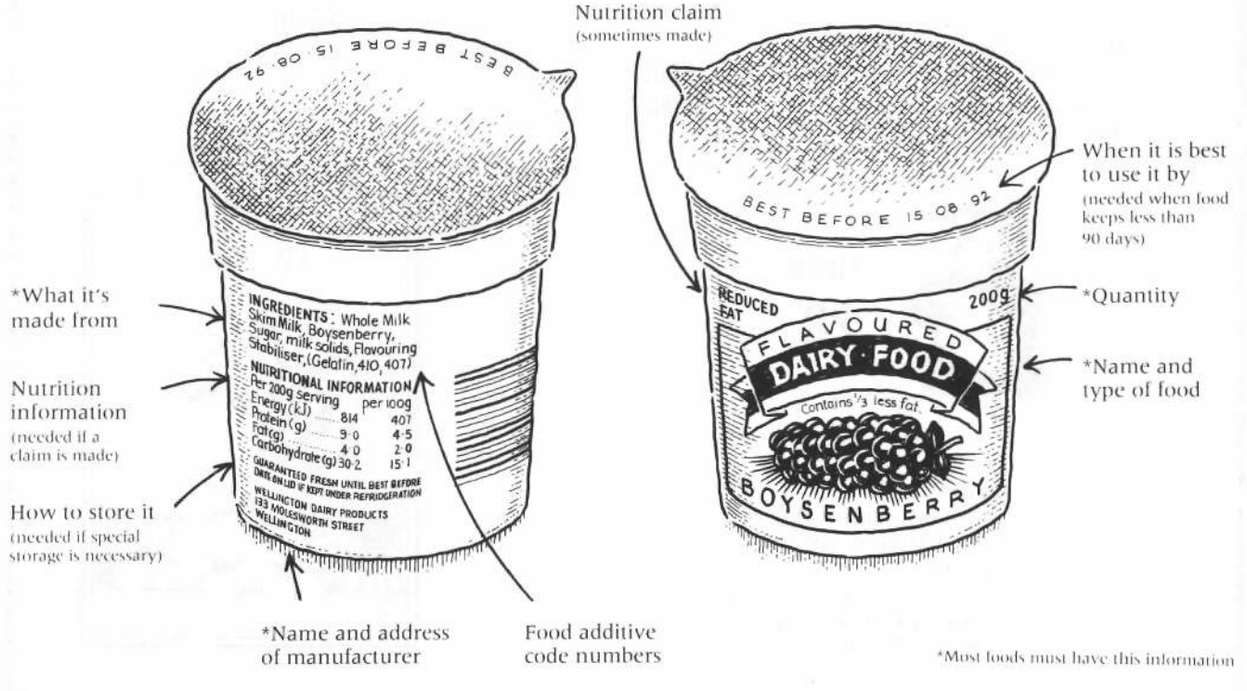
A food operation would include all activities related to food manufacture, transportation, storage, display, and sale. A Food Safety Programme for a particular food operation would be described in a document that included:

* a food safety hazard assessment
* identification of methods of control or prevention of food safety hazards
* an action plan in the event of a failure to prevent hazards
* outline of knowledge required of food handlers
* details of premises requirements.

In its outline of hazards and their prevention, a Food Safety Programme will, as appropriate to the particular industry, include reference to the following issues:

* Keeping food safe, and handling food in a manner that ensures it remains safe.

WHAT'S ON A FOOD LABEL:



* Protecting food and other ingredients from contamination, infestation, and spoilage.
* Preventing cross-examination between non-edible materials during storage by correct labelling and equipment design.
* The appropriate monitoring of the safety of all food received or sold for manufacture.
* The maintenance of areas for manufacturing, storage, and display, including equipment and food contact surfaces.
* The use of clean, non-toxic, non-contaminating materials for packaging.
* The control of harmful organisms.
* The provision of an effective cleaning schedule.
* The knowledge and training required of food handlers and identification of the person who supervises the Food Safety Programme.
* Provisions to cover the premises, equipment, vehicle, and environment throughout the food preparation cycle.

These recommendations have been accepted by the Minister of Health, and draft Food Safety Regulations are being developed which will replace the registration and inspection of your premises with the registration and audit of the food safety programme each of you will have to develop.

HACCP:

The most common system used, as part of quality assurance in the food industry, is something called HACCP.

> The initials stand for HAZARD ANALYSIS CRITICAL CONTROL POINT. It is not some new, trendy jargon, it has been in use for nearly 20 years. It was initially applied to the early US space programme and it was extended to the food industry as a result of the need to provide a safe, risk free food supply to astronauts. It began as a food safety programme concentrating on microbiological hazard and expanded into a general hazard identification and removal programme.

The American Society for Quality Control in 1986 described the process as follows:

> 'Assessment of potential hazards, prescribes for the elimination of avoidable hazards and sets tolerances for the hazards that cannot be eliminated in the processing of food. It defines the appropriate control measures, the test to be given and the criteria for product acceptable. It gives a rational systematic documented procedure which can be used for organising and implementing the entire Quality Assurance system.'

The HACCP system is a series of inter-related actions that provide a high degree of assurance of food safety during production, processing, storage and preparation operations. The HACCP System is illustrated as follows:

*** Determine hazards and assess their severities and risk**
*** Identify critical control points**
*** Institute control measures and establish criteria to ensure control**
*** Monitor critical control point(s)**
*** Take action whenever monitoring results indicate criteria are not met**
*** Verify that the system is functioning as planned.**

I will now discuss each of these in turn.

1. Hazard Analysis

A complete description of each food product must be made to assist in identifying possible hazards that may be inherent in the food, packaging materials, and so on. You also have to be familiar with the destination and usage. For example, is it going to be eaten or used by sensitive groups in the population such as babies.

Product description should include the name of the product (e.g. creamed honey), important characteristics (e.g. moisture content), how it will be used (e.g. as an ingredient), packaging, shelflife, and labelling instructions, (e.g. handling, usage).

Once you have described your food, you need to consider everything else that might be added to it. Obviously with honey, and other single ingredient

EXPORTING

The NBA has, with the assistance of its members, established an export liaison group. This group will assist members who:

a) may be considering exporting

or

b) wish to discuss an exporting matter with someone else in the industry.

The following members will be pleased to provide information for members new and inexperienced in the export of honey.

ORGANISATION	CONTACT PERSON	TELEPHONE NO.	FAX NO.
Airborne Honey	Peter Bray	(03)243569	(03)324236
Arataki Honey	Percy Berry	(06)8775400	(06)8774200
Ceracell Products	Stephen Mahon		(09)2740368
Kintail Honey	Dudley Ward	(06)3748301	(06)3748256
	James Ward	(0728)58038	
NZ Honey Producers Co-Op	Steve Lyttle	(03)6848882	(03)6884859
Southern Honey Exports	Allen McCaw	(03)4177198	(03)4177198
Waitemata Honey	Neil Stuckey	(09)4038491	(09)4738556

foods, this is relatively simple, although introducing chemicals, metals or tainting from packaging materials would come in here.

A "process flow diagram" is useful to show each step of the process from raw material to final product. It must show what happens in your process, as it is used to see where hazards may occur.

Researching background information about the products you sell is also important to find out what problems have occurred elsewhere in New Zealand and overseas. The NBA has a library which may be useful for this. The sort of information to look for is the types of hazards and likelihood they will occur, why the hazards arise, and any contributing factors.

The hazard analysis itself is based on all the information you have collected. It should identify all **physical, chemical** and **biological** hazards associated with each product you made. The sort of questions to ask are:

* could bacteria, viruses, toxins, chemicals, or foreign materials be present on or in this product/material?
* are any reworked products used (e.g. rejected comb honey)? Is there any hazard?
* does the pH or water activity of the final product affect microbial growth?
* could contaminants affect or reach the product during this processing step? (Consider dirty equipment, contaminated material, leaking valves, splashing, workers hands, and so on.)

Carrying out tests, (e.g. temperature, container closure etc), samples for analysis (e.g. moisture content), should also be conducted here. All this work is the 'hazard analysis' part of HACCP and means that when you have finished you should have a good idea of all the hazards which may make your food unsafe, whether it is foreign objects entering or chemical contamination or microorganisms growing.

2. Critical Control Points:

The second part of HACCP is 'critical control points'. Critical control points are defined as any point or procedure which prevents or reduces a hazard. A separate critical control point isn't needed for each hazard, but some action must be taken to make sure all hazards are eliminated, prevented, or reduced. Examples which may apply in producing honey would be things like:

* control of harvesting areas or times if tutu is a problem.
* flyscreens on windows and doors to prevent bees or wasps entering.
* having warranties provided by the suppliers of packaging materials (such as plastic, metal, cardboard) which guarantee the material is suitable for use with food.
* straining liquid honey to remove any foreign material.

To help you to produce a food safety programme, required when the Food Safety Regulations are passed and come into effect, these sorts of critical control points will form the basis of the programme. Most will be found in the Code of Practice when it is finished, but if you do anything unusual or differently to the code, you will have to identify hazards and develop control points for your process.

3. Monitoring:

Once the control points are established they need to be monitored to ensure they are effective in controlling the hazard. Records should be kept so you can be sure the monitoring has been carried out and the control points are working.

The best monitoring is that which is fast and simple! For example, checking flyscreens regularly for damage is a type of monitoring. Watching the honey as it is packed, as well and checking the sieve for damage, is another monitoring step. Sending samples for testing from each batch or resularly is also monitoring.

So once your controls are in place, and being monitored, you obviously need to have thought about what to do if you find something has gone wrong. It is much better to have decided what to do well in advance of any problems actually occurring.

4. Action Plan:

Corrective actions will, of course, depend on what has gone wrong, and whether the problem can be corrected. For example, if there is contamination by foreign matter because a batch of liquid honey wasn't sieved, then the only action needed would be to reprocess the honey so it was sieved. However, if the problem was due to tutu, then the honey could not be sold, and might have to be dumped.

So the action taken would depend on the severity and hazard and if any remedial steps will remove or reduce the contamination so that the food is safe to eat.

Part of planning corrective action should include being able to trace and recall your product. This means that if you discover something serious has occurred after your products have left your premises you know where they have gone and how you can quickly have them removed from sale and returned to you (or disposed of).

Thus HACCP is a system for ensuring the food you produce is safe to eat by identifying any hazards that may contaminate or affect the food and then controlling the processing to eliminate or reduce the hazard. Keeping records and developing contigency plans, including recall plans, are important parts of HACCP.

You may have noted that I have only talked about food safety in relation to HACCP. That has been deliberate. HACCP should not include food quality issues that do not affect safety such as taste, colour, consistency, or even legal requirements like labelling. Of course, these things are still very important, so HACCP is only part of your total quality assurance system. HACCP principles can be applied to address quality issues, but quality shouldn't be confused with safety.

Labelling:

Labelling is important for both quality and legal compliance reasons. The label is how your customers are introduced to your product - but marketing is not one of my areas of expertise.

What I can do, though, is tell you about the statutory requirements for labelling honey.

All foods packaged for retail sale, whether at the farm gate or at the supermarket, are supposed to have certain information shown on the label.

The information is intended to let the consumer see what they are buying and so cannot be misleading. Claims such as 'healthy' or 'additive free' are not permitted and use of other words, such as 'pure' are restricted. Even words like 'natural', 'traditional', nature's way', 'organic', 'ecological', 'biodynamic', and other similar words are restricted by the Fair Trading Act, even though the Food Act doesn't specifically prohibit or restrict them.

Claims and statements which must be shown on the label are:

(i) **Common name** - this is the name of the food e.g. honey, creamed honey, liquid honey, comb honey, etc. You may use 'pure' with honey as it is a single ingredient food with no additives. (The letters should be at least 3mm high).

(ii) **Quantity** - This is the weight or volume of the food. It must be in the same field of vision as the name of the food. (The letters should be at least 2mm high).

(iii) **Name and Address** - from 1 January 1995, the full street address of the manufacturer or packer or seller must be shown on the label. This is difficult for many honey houses as you can not use an RD number, but you can use a description or road name and locality if you do not have a street number and street name like urban food manufacturers. (Letters sizes should be 1.5mm.)

(iv) **Datemarks** - are not necessary for honey products as the shelf life is

over 90 days. (Letter sizes should be 3.0mm.)

(v) **Storage Instructions** - are also not necessary as they apply to foods which must be kept refrigerated or frozen. They can be included if you wish to, perhaps to stop granulation. (Letter sizes should be 1.5mm.)

(vi) **Ingredients List** - again is not necessary unless you are making honey products with more than just honey (like Mead perhaps). (Letter sizes should be 1.5mm.)

(vii) **Nutritional Labelling** - is necessary if any nutritional claims are made - like "fat free" - a wealth of nutritional information must be shown on the label. This is quite complex and I would advise you to discuss this with your local Health Protection Officer when you are considering making such claims on your labels.

Nutritional claims refer to specific nutrients (vitamins, minerals, energy, carbohydrate, protein, fat, etc) and also include sugar (or sugar free), slim/trim, cholestrol, etc. Claims relating to health status, such as wellbeing are considered to be health claims, not nutritional claims. Health claims can be made, provided they are not misleading, without needing any special labelling requirements.

Therapeutic claims about foods (e.g. antibiotic properties, curing cancer, reducing cholestrol levels, etc) are illegal. If you wish to make therapeutic claims, you would need to contact your local Medicines Licensing Office or the Ministry of Health Therapeutics Section in Wellington.

I would strongly recommend you to contact your local Health Protection Officer if you are having your labels reprinted or new labels developed. There are quite a number of changes coming into effect on 1 January 1995, and it would be wise to check your labels will comply before you get 10 years stock printed.

Conclusion:

In summary, I have outlined for you the principles behind the proposed Food Safety Regulations and described a quality assurance system focusing on food safety, called HACCP. I have also discussed the legal requirements for information to be provided on labels and mentioned some examples of what is not permitted. In finishing, I would invite you to contact your local Health Protection Officers for more information on food safety, labelling or other issues relating to your product quality.

NZ HONEY PACKERS' ASSOCIATION REPORT FROM PRESIDENT IAN BERRY

The New Zealand honey crop for the 92-93 season was very patchy and overall below average. Some beekeepers did not extract any honey at all while others did reasonable well. Fortunately for most packers there was some carry-over from the previous season and while supplies may be getting a bit tight by the time the next seasons honey is available it is not anticipated there will be any serious shortages. A lot will still depend on how much honey is exported during the rest of the year.

HONEY PRICES: With the short crop and further publicity about the probably medical benefits of manuka honey there has been an opportunity to lift prices on the New Zealand market. Almost all packers have lifted their manuka prices substantially. Most have either already increased the prices of the other packs or have stated their intention to do so in the near future. Comb honey is selling well on the export market owing to lack of supply but some bulk lines are difficult to sell at prices which are attractive to New Zealand beekeepers.

CONFERENCE CALLS: Three conference calls have been held since our last AGM: February 9, March 29, and May 4 this year. There was no charge by Telecom for the March 29 call owing to a fault in the system. These calls continue to be a relatively low-cost system of getting the committee and some of the members together. By making sure the members involved represent a good geographical spread throughout the country we are able to keep members up to date on how the honey crop is turning out, how sales on the New Zealand and export markets are going, and what price movements are taking place. The new system where members dial in a pin number is working well.

(cont page 32)

LIBRARY REPORT

A modest use of the library continues to be made by a variety of borrowers. It was pleasing to assist a little in the venture of bringing beekeeping interest to a group of inmates of the Hastings prison.

A set of duplicate slides has been supplied to a person in Spain and photo copies of articles on bee diseases went to an apiary advisory officer in Slovenia. Payments to recover costs and a small profit margin have been received.

The Cawthorn Institute and Mr Tony Clissold remembered the library when having a clean out resulting in the filling in of a number of gaps in magazine volumes and additions to our IBRA reprint collection.

Besides the usual supply of overseas magazines only a few research articles have come to light and nothing in the way of review copies of new publications. The library did not purchase any new items during the past year.

As the response to Mr Andrew Matheson's request for copies of early NZ beekeeping magazines for the IBRA library has been negative your Executive agreed to part with spare copies held by our library and to make photocopies of others. Besides obliging IBRA it also means a safeguard for these early and now rare publications in case something unfortunate were to happen to our collection.

The IBRA librarian has offered us a choice of the items in their catalogue to compensate for costs made. After consulting with Telford Polytechnic Institute we have requested copies of a number of video tapes covering a variety of beekeeping subjects. These include some tapes on basic beekeeping practices for which we have been on the lookout for a few years. The amount of money involved in securing these video tapes will exceed the amount we have and still will spend on the photocopying and perhaps postage but funds are adequate to meet the extra.

When the so-called "Bee Breeders Syndicate" at Gore closed its accounts members decided to pass on the balance of $157 to the library fund.

As we are holding our own pretty well financially there appears no need to increase loan fees for the present.

John Heineman
Honorary Librarian.

PESTICIDES' BOARD REPORT FROM NBA REPRESENTATIVE IAN BERRY

The Pesticide's Board continues to exist in spite of earlier predictions that it would have been phased out years ago. I have given up predicting how long it will last other than to say it doesn't appear likely it will be phased out during 1993. We have several new Board members during the past 12 months and with the present membership of the Board and Secretariat it is quite a stimulating and enjoyable experience to attend a meeting.

1080 There are some hopeful signs that 1080 poisoning of bees will soon be a thing of the past. At the March 1993 Pesticides Board meeting I stated that in the event of a satisfactory bee repellant not being used in all 1080 jam baits by 30 June 1993 I would move that the 'Toxic to bee' warnings: on 1080 relating to jam baits be changed to read as follows:

'1080 jam baits shall not be laid within a four kilometre radius of any registered apiary unless a suitable bee repellant is mixed into the baits'.

I raised the issue again this month but in view of the progress to date and the hope that the matter will soon be resolved I did not put the motion to the meeting. I did distribute background notes, kindly provided by John Bassett, and explained that if the matter was not resolved reasonably quickly I would ask for their support in increasing the distance. The board assured me that as soon as a satisfactory repellant was available they would ensure it was used in all jam baits.

There does appear to be a greater appreciation of the problem of bee poisoning by the Animal Health Board and a generally more helpful attitude is being adopted by the people in control of poisoning possums. However, a suggestion that the Animal Health Board have the right to have bees moved, because they are livestock, needs urgent investigation. In the past when it was to beekeepers advantage for bees to be classed as livestock it was ruled they were not.

CARBARYL At the March 1993 meeting I also stated I was considering bringing forward the following 'Owing to the widespread disregard of the toxic to bee warnings on the labels or carbaryl during apple blossom last Spring, and the resultant large number of poisoned bees, the Pesticides Board consider the deregistration of Carbaryl for the thinning of apples.'

This would cause major problems for apple growers and would need to be given very careful consideration by the Board. There is no wish among the beekeeping industry to cause financial problems to orchardists but I felt there was no harm in making the point that the Pesticides' Board could deregulate Carbaryl for apple thinning should the Board consider it appropriate. Widespread killing of bees by Carbaryl is not in the interest of the orchardists themselves and seems contrary to the Pesticides' Board's duty to ensure the safe and prudent use of pesticides.

IF YOU SUSPECT PESTICIDES' POISONING The Pesticides' Board have a new set up to handle cases of suspected misuse of pesticides. In serious cases of bee poisoning the procedure is:

* Phone me and discuss details.
* I may then get you to fax details to the Pesticides' Board, who, if they decide to proceed, will pass them on to an investigation officer, employed by the MAF to help enforce the laws relating to Pesticides. Depending on the details of the case and his workload the officer will visit the problem area to gather evidence and conduct interviews, then report back to the Board.
* It will then be decided whether or not there is a case for prosecution. It appears that MAF will cover at least some of the costs of the investigation. The cost of bringing a prosecution or civil claim will probably have to be borne by the beekeeper.

DEAD BEES DON'T POLLINATE For a number of years the NBA and the Pesticides' Board jointly funded the 'Dead Bees Don't Pollinate' advertisement in the NZ Orchardist. Last year the advertisement was not put in due to financial restraints. Maybe it was only coincidence but we had a lot of poisoning last spring and I would like to see the advertisement put into the October 1993 Orchardist. This cost quoted is $1085 and as I believe it is a sound investment I would suggest the various pollination groups finance this cost between them.

Once again I would like to express my appreciation for all the help given me during the past year by the Board Chairwoman, Mrs Vicky Duncan, and the other Board members. Special thanks also to the members of the MAF Regulatory Authority - Agricultural Compounds Unit, Wallaceville, who have been very helpful during the past year in spite of their heavy workload.

Honey Packers' Report cont from page 31

MEMBERSHIP: We have 46 members (44 last year). We also have 18 members (14 last year) of our Honey Exporters' Organization which is still a sector of the Packers' Association. Four members of the Exporters are not members of the Packers' Association.

FINANCE: The Association continues to be in a strong financial position with net assets of $37,055. This is an increase of $2351 over the last 12 months. Once again I see no need to alter our subscriptions of the coming year.

To conclude this report I would like to thank members for their support during the year and special thanks to Barbara our Secretary for all the good work she has done.

Putting on the pot

While we are on the subject of ice sports, I have to blow the whistle on our Maniototo correspondent, Lin McKenzie, who was closely questioned by his wife as to why he had slept all night after a particularly arduous curling match wearing his tam-o'shanter, the knitted hat curlers don to show their club allegiance. Lin was quick to point out he was due back on the ice at 8am that morning and wanted to save time dressing.

Otago Daily Times 17.6.93

SOME WINTER HONEY RECIPES

By Sue Jenkins

I enjoy cooking during winter. The season of cold days and long nights, calls for 'comfort' food. Why should we need to justify a snack from the cake tin and a small serving of dessert? Eating in moderation and plenty of variety daily from the four food groups will ensure a healthy diet. Honey is in the 'eat least' section of the Healthy Food Pyramid. A little each day is acceptable.

What I like about using honey in cooking is that each type of honey gives your recipe a different taste. And then when you adapt some of the ingredients or substitute ingredients, you create something completely new. Honey adds a certain or uncertain versatility to food preparation. It is this mystique that makes honey cooking fun.

Oriental Chicken
1 kg chicken pieces (wings or drum sticks)
2 tablespoons honey
2 tablespoons dark soy sauce
2 tablespoons sherry
½ cup orange juice
3-4 crushed garlic cloves
1 teaspoon grated ginger
1 teaspoon oregano
Combine all ingredients, except chicken, stirring well to mix the honey. Marinate chicken for 1-2 days, keeping refrigerated and turning occasionally. Drain off marinade, bake chicken at 220 C for 15-20 minutes, depending on size of chicken. Turn after 10 minutes. Good hot or cold for cocktails or as a main course.

Honey Spiced Cookies
125g butter
½ cup honey
1 egg
½ cup chopped nuts
1½ teaspoons baking powder
2 cups flour
¾ teaspoon cinnamon
¼ teaspoon nutmeg
2 tablespoons milk
Cream softened butter and honey, add egg and nuts, mix thoroughly. Add sifted dry ingredients with the milk. Drop spoonfuls on to a lightly-greased sheet. Bake at 180 C for about 10-12 minutes.

Honey Fruit Sponge
3-4 cups stewed fruit, apple, rhubarb, peaches, pears etc.
Topping:
25g butter
½ cup honey
2 eggs, beaten
½ cup self-raising flour
½ teaspoon cinnamon
1 teaspoon ginger
½ teaspoon mixed spice
Cream softened butter and honey until thick and creamy. Add eggs beat well. Fold in sifted dry ingredients. Place prepared fruit in a pie dish. Pour over the topping. Bake at 170 C for 30-35 minutes. Serve warm with custard or ice-cream.

Honey Date Cake
An easy recipe, scrumptious to eat.
1½ cups (100g) chopped dates
1 cup liquid honey
1 cup boiling water
50g butter
1 teaspoon vanilla essence
2 cups flour
4 teaspoons baking powder
Put chopped dates, honey and boiling water and butter in a saucepan. Stir over a medium heat until butter melts. Remove from the heat and leave to cool. Stir in vanilla essence. Sift flour and baking powder into the saucepan. Stir to combine. Pour mixture into a well greased and lined 20cm cake tin. Bake at 180 C for 45 minutes or until cake springs back when lightly touched. Leave for 10 minutes before turning out on to a cooling rack.

Honey Souffle
A simple and delicious souffle. Serve with fresh inseason fruit or lightly poached honey sweetened fruit. Different honey types will give different flavours.
4 eggs separated
½ cup cream
6 tablespoons honey
Separate the eggs and whip the whites until stiff. Beat the cream until it is thick. Mix the egg yolks and the honey and place in the top of a double boiler. Stir over boiling water until the mixture thickens. Do not let it boil. Allow to cool, then fold in the egg whites and the cream. Serve very cold.

Lamb and Honey Noisettes
8 lamb noisettes
1 tablespoon oil
1 tablespoon liquid honey
¼ cup lemon juice
1 tablespoon capers
1 garlic clove, crushed
1 tablespoon butter
1 tablespoon flour
1 cup dry white wine
2 medium size leeks
Secure noisettes with strong toothpicks. Combine the oil, honey, lemon juice, capers and garlic in a dish, add the lamb noisettes. Cover and marinate for at least one hour. Remove lamb from the marinade. Place on a grill tray and fan grill at 200 C on the second shelf for 15 minutes. Turn half way through cooking time. Meanwhile melt the butter in a small saucepan. Stir in the flour. Mix in the remaining marinade and wine. Bring to the boil, then reduce the heat. Trim ends of leeks, removing the green top. Wash leeks and cut into 1 cm lengths. Add to sauce, cover and simmer 8-10 minutes or until leeks are just tender. Remove toothpicks from noisettes. Serve with leek sauce.

This picture of Keith Herron was worth including

Westland

Damp mild weather during early winter had the bees confined for considerable periods, much to their detriment. But, just as predicted, real winter arrived late June with heavy snows to a low level in the Alps, followed by clearing weather with frosts and mild afternoon temperatures affording the bees an hour or so overdue flying time.

At the time of writing hives in general appear to be in reasonable condition although some are still broodrearing and consequently are becoming light on stores.

The mild early winter fooled many plants, for some pussy willows were in full bloom by the end of June, six to eight weeks early. Likewise, heather is also advanced.

Active beekeepers within the Branch appear to still be declining as members turn their hands to other means of deriving income.

Sandy Richardson

Hawkes Bay

The times they are a changing!: an appropriate saying for what's happening in our industry, and it is probably a sign of the times too. Most beekeepers are ready to adapt to changing circumstances and head their businesses in new directions. If you stand still you will soon be left behind. Now is the time for ALL commerical beekeepers to put some energy into their industry. What are you doing to help?

Involvement at a branch level, diseaseathon's, sending in submissions (it's quite easy). Articles to the beekeeper, letters to the editor, involvment in committees and sector groups. All this doesn't mean a lot of time or energy - just a committment to be involved, and after all, it is your business.

If we don't stand up and say what we want, someone else will decide for us, and if we're not prepared to do some of the work, we'll end up paying someone else to do it which, in my experience, usually costs a lot more.

Colin McLean

Otago

Since the last issue I have been involved in a head-on crash between two railway trollies in the Taieri Gorge and spent a week on a high country mustering trip. This, I know, has nothing to do with beekeeping but I thought I would tell you anyway.

Our branch had nothing to put forward in the way of a remit this year. I sometimes wonder whether remits come forward just because of a "we have to say something" syndrome. At the remit voting meeting we had just over 100 votes represented; a lot more than at the AGM or the remit submission meeting. Some misgivings were expressed over the target date of the year 2000 in remits backing up the disease committee's programme. The reality is that the barriers being erected in Europe and elsewhere to replace the ones to be (hopefully) dismantled under the GATT round are disease related and we will only achieve something by having our sights set high.

Our branch secretary, Allen McCaw, has just spent a week or two in the Solomon Islands advising their fledgling honey industry about marketing their product. He feels they will never be a threat on the world scene, rather perhaps offering a little variety to the local diet.

I would imagine it was a little warmer there than it has been here of late, although our winter has been kinder than the last couple of years. There have been no snowfalls of any consequence so far. I was curling last Sunday on five inches of natural ice (curling has not yet gone metric) and bees were flying. I stood up a hive last week and found two frames two thirds full of sealed brood, most unusal in these parts at this time of year. There are still a lot of active wasp nests around and this is most alarming.

Supermarket prices are still depressed despite reports of wholesale price increases, perhaps illustrating the control we have surrendered to these chains through house branding. There does not seem to be much activity in bulk markets despite a reported lighter crop. Late crop reports down here indicate a little more honey about than was thought earlier, but some people have very real problems this year.

Conference will have been and gone when you see this. Our next branch meeting will be at Telford Rural Polytech on Saturday August 14. In the morning the branch will discuss delegates reports from the conference and there will be a disease study session in the afternoon involving recognition, prevention, and control of bee-related diseases. There will be a diseasathon in September and a field day is planned for October 9 at Middlemarch.

Lin McKenzie

Northland

Greetings from the winterless North. Contrary to rumours, beekeeping still exists in Northland. Hopefully this year we can make a regular appearance in this column. Our election of officers at our AGM was short and sweet with Terry Gavin elected as President and Peter Smith as Secretary/Treasurer. We offer them all the support for the coming year.

The weather has been mild. We had an early winter with a reasonable amount of rain early on, and plenty of fine weather in between. Some bee work has been achieved which will ease the work load later in the spring.

Queen producers will be underway by the time this goes to print and will be hoping for some fine mating weather.

Disease checks were carried out in early winter by beekeepers in their own areas and a good overall picture has been drawn up.

John Gavin

South Canterbury

Despite a grim winter weather forecast from the met. office, we had the warmest June temperatures on record in South Canterbury, but had some severe frosts in July. Hopefully winter will not continue into spring like last year. Last season's poor crop has beekeepers doing very little winter maintenance. Only two members are going to the Gore Conference.

At branch level there is little to report, as over the last few years the branch has been held together by a handful of regulars with the large majority of beekeepers in the area showing little interest in either the branch or what goes on at National level. Certainly a different situation from a few years ago, when one can remember the "remit" meeting going past midnight, with every remit being vigourously debated.

Well, hopefully honey prices will rise towards the end of the year as we all could do with the extra money.

Peter Smyth

Auckland

Autumn and winter have been fairly kind so far. Warmer than usual temperatures do not seem to have meant rapidly consumed stores. Most hives seem to have some brood in them.

After several weeks of very wet weather the ground has dried nicely with a few frosts. Bees are working the heather, five finger, and tree lucerne.

No doubt there's plenty of rain to come.

Some companies employ 'Just in time' inventory control systems, which is jargon for keeping stock levels to a minimum and ordering just before its needed. A variation on this is having parents-in-law to stay for a week. Just in

time we had the bathroom painted. A wall dividing a couple of unfinished bedrooms was built. Just in time the extracting was finished and the front fringes of the piles of gear in the yard was pushed back a good three metres. It often seems to be we don't do this until the pressure is on.

Our branch is pleased to have Graham Cammell elected to the executive. It's a positive thing for our branch, and I'm sure Graham will have a practical and positive input.

Nigel Birse

Southern North Island

A New Executive backing the continuing Presidency of John Brandon are: Rob Johnson - Vice President, Frank Lindsay - Secretary, Mary Anne Lindsay - Treasurer.

Continuing warm weather is giving false indications to the bees. Pollen gathering is noticeable, but in many areas sugar feeding has become a necessity. Prolonged wet spells continue to plague both the bees and their keepers leading to confusion as to what's best to do next in husbandry terms.

Queen breeders were forced to nip the heads off banked queens, thus losing the expected bonus of the late queen cropping when the Hawaiian transit fiasco reared its unseemly head. Following resolution, orders arrived from Canada and our breeders were then unable to supply. Not good for our image as a supplier.

Sugar prices are again a discussion topic and the price rise in timber is causing concern to many of our members who rely on commerical suppliers.

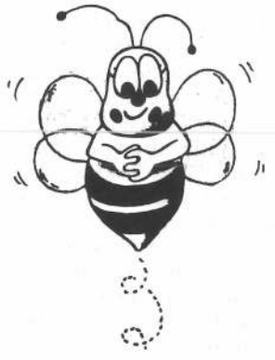
Members endorsed a supportive letter to DOC in Taranaki regarding the 1080 poison drop at Mt Egmont National Park. Taranaki members expressed confidence that no harmful effects would be seen in their bees.

Expect a good debate at Conference from Delegates John Brandon and Frank Lindsay following the excellent briefing from members at the Wanganui meeting.

Members express concern that supermarkets continue to use honey as a low price unit, knowing the honey involved was supplied by Association members. The welfare of our industry was debated and hope expressed that the Marketing Promotion scheme will help to remove these anomalies.

Next meeting: 10am Thursday, August 20. Rotary Club rooms, Palmerston North.

Next Field day: 10am Saturday October 2. A Manawatu venue to be announced.



THE QUEEN EXCLUDER

By John Heineman

Yes, it's an expensive piece of hive equipment. Priced by Ecroyd Beekeeping Supplies (autumn 1993) at $14.75 ea. including GST. That is for the wire grid and the wooden frame and assembled.

History has it that the first effective excluder for movable frame hives was made in 1865 by Abbot Colin, a Frenchman.

Here in New Zealand the 'Waldron' type, that is the one with the wire grid, is most commonly used. There are still others about, zinc sheets with punched-out slots. I doubt if these can now be bought here. But they are still available overseas and are also made from plastic. These punched out excluders are cheaper than the wire type but they have some obvious disadvantages. They form more of a barrier for the workers to move through and must also impede ventilation to a certain extent.

In some Asian countries excluders cut from wood or made with bamboo are in use (Dr Eva Crane in Bees and Beekeeping).

These Waldron type excluders must be very accurately manufactured as the width between the wires is of paramount importance. Workers must be able to pass through but the queen, whose body is somewhat wider, must stay on her side of the fence. Slight distortions will defeat this aim. Earlier on we did see excluders with the wires threaded through cross bars but now most are welded.

As we are working with one race of bees in New Zealand the openings in the excluders we use can be uniform. Queen excluders for some other races would need different openings.

It is a costly item so one wonders if the use of a queen excluder is really essential. This has always been a controversial subject among beekeepers. Some have the view that queen excluders should be called honey excluders, others would not have a hive without one. I think it is dependent on ones personal experience because of the differences in localities, climate, the character of honey flows, and the kind of management suitable under the different circumstances.

In this country we experience a pretty unpredictable climate, usually a short lived main honey flow, and we must have strong colonies to gain a crop of honey. Very different conditions indeed when compare with a warm climate where the bees can collect a dribble of nectar on most days.

What we see here, after spring arrives, is a rapid build-up in bee numbers culminating in a strong colony. Such a strong colony can then take full advantage of the honey flow, to fill their larder with next winter's need (and never mind the surplus for the beekeeper). That's nature's way in temperate or cold climates. Much in contrast to the behaviour of a colony in a warm tropical environment. There is not the urgency for the bees to provide. From what I have seen colonies don't build up to the same strength broodnests become easily congested with honey and when removing the crop it is often more a matter of replacing a number of full combs with empties than taking away full supers. A different scenario calling for different management.

So to produce these large numbers of bees we need, the queen needs heaps of comb space for despositing eggs and eggs again. If we give her empty combs above the brood nest she will soon move on to those in preference to extending the brood nest in a downwards direction. So when adding that extracting super without first placing a queen excluder over the brood nest super you know what is likely to happen. This would not be so bad if we could only be sure that all the cells will be filled with honey as soon as the brood has hatched. Then this full super would, more or less, act as a natural barrier to the queen if another super is placed on top. However when the honey flow is on, the nectar is gathered in quantity, much storage space is needed. It would not be good practice to wait to give extra supers till all the brood is hatched and the combs filled solid with ripened honey. And, then what so often happens, the weather plays up, the honey flow stops, and without that excluder the extracting supers will be half full of honey and half full of brood. You may also find the bottom brood nest box with next to nothing in it. It will certainly keep you occupied when you try to harvest the surplus and find those combs with brood where they should not be. Then there is the extra risk of losing the queen, she may be overlooked and finish up in the extractor. It has happened. This then is the most obvious point in favour of using an excluder.

When making use of escape boards for removal of a honey crop use of excluders is a must. If a queen and brood happens to be above the board it will not work. The principle of the escape board is to make the bees above it feel queenless. They will soon start running around, find the escape hole, march down the one-way street and rejoin the family. Give them a queen and some brood in that honey super and they will stay put, nothing is surer.

Some other points in favour of queen excluders I can think of. Letting the queen have a free run of the extracting supers will mean that combs become darkened to a greater or lesser extent which is not so bad for extraction as it also toughens the combs but it would make those combs useless for cut comb honey. Where a broodnest is, pollen will be stored: a commodity we really don't want in extracting supers.

A section will be spoiled if brood has been reared in it.

We make use of excluders when cell raising and queen rearing. Also when producing royal jelly. They are also handy when making up splits or when re-queening hives without wanting to search for the queen. If you plan to run a two-queen colony you cannot do without that excluder.

An excluder makes an excellent mouse guard if placed between bottom board and bottom brood box when wintering down hives.

Besides being an expensive item the excluder is also very vulnerable. It is easily damaged if abused. A hive tool put between the wires to force them off a super will cause distortion. The same will happen if a heavy super lands on it with an edge or corner. To correct such distortions can be very difficult if not impossible. So treat them with tender care. When the excluder is stuck firmly to the edge of a super, and often also to the top bars of the frames, start at a corner, loosen the excluder's rim, and when that has been freed twist it carefully around. Just ripping it away is asking for trouble. Put it against the hive out of harms way while you are working the colony, make a habit of watching out for the queen as she could adhere to the underside of the excluder. It is good practice to replace the excluder in such a way that its surfaces stay in the same position as it was before removal.

When wintering down there is nothing against leaving the excluder on top of the top super under the cover.

However you may decide to use it as a mouse guard or judge that it is high time to give it a clean up because it has become clogged with wax. A little bit of wax build up does not hurt but if really bad it will of course obstruct the passage of workers and won't improve the ventilation of the hive.

Now for the cleaning up. It is much better not to try to scrape the wax off with your hive tool or a paint scraper. Steam cleaning is ideal but a very good job can be done by dipping the excluder in very hot water. The wax will melt off and float to the top from which it is easily removed after cooling. When lifting the excluder out some odd bits may still adhere, a light tap on the edge of drum, tub or basin will dislodge these. A solar wax melter will do the cleaning job for you without any effort, a few at the time. That is if the sun co-operates.

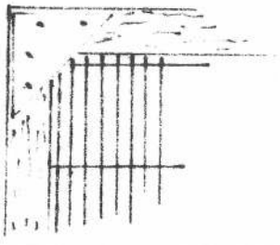
You will find that it is the wooden rim which in time needs to be replaced. It may rot or split at the corner joints. If it has become useless buy new rims or have a go at making them yourself. You have the pattern right there. When assembling the rim watch how you put in the nail or staple for they easily finish up partly in the groove and that means mid-air. A drop of good glue on the joints before putting in the nail will also help. Rim corners can be repaired or strengthened by tacking on a small triangular piece of tin or a strip of tin to the outside of the rim and folded round the corner.

It pays to treat the wooden excluder rims with some wood preservative such as Metalex or Woodlife.

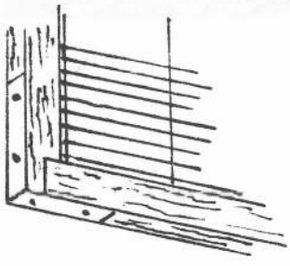
In case you are leaving an extra box of tucker on the hive when wintering down make sure to remove the excluder.

If it is left in place between the broodnest and the extra super you could lose the queen. The bees will gradually move up when their stores in the lower boxes become exhausted, the queen would be unable to pass through the wire grid, will become separated from the cluster, and that will surely spell the end for her.

When using the excluder as a mouse guard as described earlier don't place it too early. Wait till the colony has got rid of the drones. That happens every autumn and one can observe this at the front of pretty well any normal hive. For the next three or four months they would be of no use (and many of them have not contributed anything in the past) but still keep on consuming precious food. So nature is efficient, out they go. With an excluder in place above the entrance this would be impossible and their corpses would block the grid wires. Sometimes a colony will hang on to drones but that is often a sign that all is not well. It could perhaps be a queen on her last legs getting ready for supersedure, or she may already by a drone layer. There could also be an unmated virgin running around, raised too late in the season, or the hive could be queenless.



There is something not quite right about our excluders and it is caused by the rim. Our supers are designed in such a way that the tops of the frames are flush with the top edge of the super but the bottom bars don't reach to the bottom edge. So we have a bee space at the bottom. This is not universal. In other countries be bee space may be at the top. Now when we place an excluder on top of a super a bee space is created by the rim between the top bars of the frames and the wire grid. That is fine. However the same applies to the top side of the excluder, here again the thickness of the wooden rim creates a bee space. Together with the space under the bottom bars in the super above it means the space is doubled. Bees will always be tempted to fill spaces any larger than the normal bee space. Together with the space under the bottom bars in the super means the space is doubled. Bees will always be tempted to fill spaces any larger than the normal bee space. Consequently we can expect that build



up of bur comb and wax. Excluders have been turned out with steel rims. Still not the answer for the bee space above the top bars got lost. Put on your thinking cap and try to find a simple and good solution to this little problem. And please let us know about it for a light kept under the bushel benefits no one.

If well looked after and handled with due care those excluders, at least the wire grid will out-last the other hive equipment. Say 30 or 40 years and when they are used to optimum advantage the investment of nearly $15 will be justified.

You could always try to run a hive without an excluder and find out how you get on.

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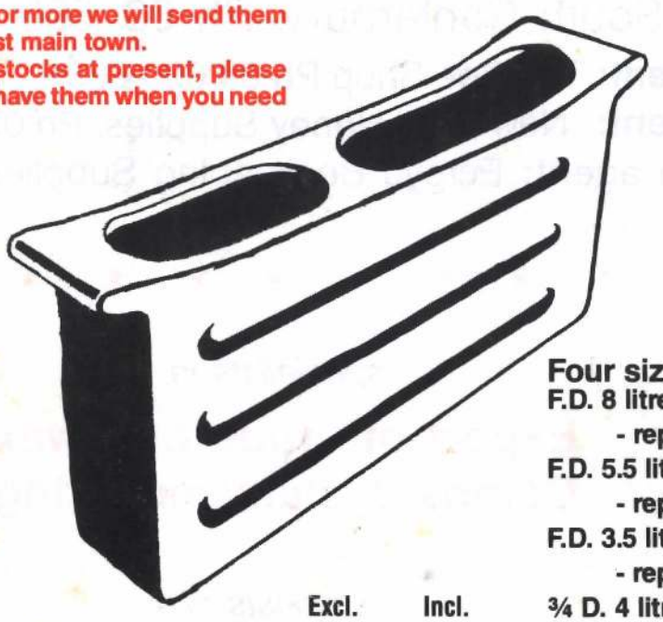

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