THE NEW ZEALAND beekeeper

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THE NEW ZEALAND BEEKEEPER

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Making the NZ Beekeeper work for you

THE NZ BEEKEEPER is a magazine edited and published for beekeepers by non-beekeepers. We're a pretty smart team nevertheless and have a reasonable working knowledge of how hives are managed and the work which makes up a beekeeper's year.

The staff members listed at the top of the page are contracted to edit and publish and while they do write articles on matters of political interest to the industry, they depend on articles from elsewhere if there is to be a lively, interesting magazine produced.

This means that if copy doesn't come in from farm advisers, scientists or other contributors, there's a problem. We of course prompt and push people to write about things they're involved in, but we can only do this if we are informed that something is happening.

Which means if you as a beekeeper want to learn about something – either let us know or get someone who can write to drop us a line. We've never rejected an article from a commercial beekeeper or MAF adviser yet – a few have gone back after re-writing for the author's approval, but that's fair enough. After all, we're the writers. You're the beekeepers.

Only our hobbyist adviser, David Williams, who – bless his heart – would fill every issue with his prose, seems to have more to say than we have space to print.

It's a question of drawing a balance between hobbyist and commercial readers. In producing a magazine for both we run the risk of doing neither task well, but it is a task which must be attempted, because there just aren't enough commercial or hobbyist beekeepers in New Zealand to justify a quality publication just to meet the needs of each group.

Magazine production is expensive. Even with most articles contributed and about eight pages of advertising in each 32-page issue, we still need to budget on $12.50 a subscription to break even on costs. Nevertheless, we are steadily growing, with subscriptions now standing at more than 1300, compared with a few more than 1000 when Agpress took over the editorship in 1975.

In the last year we've run two full colour covers. We would like to run more and know a lot of beekeepers who feel the same way. Unfortunately, the cost of running full colour ($350 for plates alone) is such that it can only be justified if we have two or three spot colour or a single four colour advertisement in each issue.

While our advertising manager is a good operator who gets around New Zealand agencies at least once a year, she can only do so much. You can help next time you buy something expensive for your beekeeping operation by giving the salesperson an arm-twist and saying, "It's time you advertised in the NZ Beekeeper'.

All these things need to be said because this magazine is a co-operative venture. It should serve your needs as a beekeeper and cost you as little as possible for the service.

If you can help us help you, let us know. We need feedback and support if we are to continue producing the Southern Hemisphere's most widely-quoted beekeeping journal.

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Production charges
Advertisements should be provided in a camera-ready form or as photolitho negatives. Where copy has to be typeset, or where film work or bromides are required, these will be charged to the advertiser on a time and cost basis. Minimum charge $10.

Beekeeper rates
Registered beekeepers selling queen bees, used hives, used plant and other used apiary equipment are eligible for an advertising discount of 20 per cent of the appropriate commercial rate. The same concession applies to situations vacant and situations wanted advertisements. Where the appropriate rate is in doubt, the editor's decision will be final.

Production charges only apply to single insertion beekeeper advertisements or where special artwork, filmwork or bromides are required.

Classifieds
Available only to registered beekeepers and those seeking work in the industry. $5 a column cm. No discounts apply. No production charge. Maximum size: 1/6 page.

SUBSCRIPTIONS

Commercial beekeepers: The NZ Beekeeper is distributed free-of-charge to beekeepers with 50 or more hives, subject to payment of hive levy.

Others: Beekeepers with fewer than 50 hives and other subscribers: $12.50 a year. This includes (for New Zealand subscribers only) membership of National Beekeepers Association of New Zealand (Inc).

NBA needs big boost if industry is to be heard.

Official prod to NBA to get an active PR programme underway.

THE BEEKEEPING industry must recognise the need to strengthen the National Beekeepers Association if beekeepers are to be adequately represented at a political level.

This was the message of government HMA board member Mike Gould, speaking on behalf of under-secretary of agriculture Mr Rex Austin at the National Beekeepers Association Conference in Waitangi.

"You as beekeepers are now in full control of your own affairs, with all that that means," he said. "A strong professional effective organisation will be needed if the industry is to make its fullest contribution.

"In some part the financial side has been looked after by our levy not being split between two organisations, it all now goes to the NBA. In giving his consent to this move, the minister made mention of the need for the association to pick up much of the industry work previously carried out by the authority."

The loss of the authority, said Mr Gould, has left a very big gap in the scheme of things. The most obviously apparent function has been honey pricing guidelines.

Pricing

"It must be very difficult for smaller honey producers to know what price to ask for their crop without the information previously supplied by the HMA. To some extent this role has been taken over by the new co-operative but not entirely.

"The price of honey is notoriously volatile, and one can only imagine the pandemonium which could be created if, in the event of an oversupplied market, ill-informed, weak sellers begin to chase each other down in price to quit product at almost any cost," said Mr Gould.

Public relations

With the government having a member on the HMA, there was also a direct route between the beekeeping industry and the minister of agriculture. As a result, said Mr Gould, the authority was able to provide a reasonably strong political lobby for the industry.

This public relations effort will need to be picked up by the NBA, emphasised Mr Gould. The NBA would now also have to establish how it was going to represent the interests of both small and large producers.

Pollination

Mr Gould drew attention to the increasing importance of pollination services to the beekeeping industry, pointing out that this development would continue to grow in importance to both beekeepers and the country as the explosion in horticultural development continued.

However, the development, he said, would not be without its problems and would provide an important role for a strengthened NBA.

Large numbers of pollinators will be required for short periods of time, which must raise the problem of what to do with the bees once their pollinating job has been done.

"Will this mean too much pressure on other nectar sources, leading to over-competitive situations developing in local areas? Will the basic management systems you have developed for honey production be able to cope with this new situation?

"If these are real problems then you as beekeepers are going to have some interesting times ahead, until they are sorted out. Your association undoubtedly plays an important role in providing a national forum for this sorting out to be done.

"It was these two points, pollinators and industry politics, that I wished to highlight. I know many of you would have expected me to spend time on the details of the burial of the HMA. Personally I do not think that would be very profitable.

"Suffice to say that apart from a few technical details, which seem to take an extraordinarily long time to wrap up, that saga is over. For better or for worse, the destiny of your industry is largely in your hands, with a minimum of government involvement. I wish you well with it."

High country legume and pollination workshop

by Kerry Simpson

RAPID LAND development, especially in Otago tussock country, has led to pressure on beekeepers to provide more beehives for legume pollination. Beekeeping has not had the recent financial subsidies given to land owners and the demand for bees is not always being met.

Because of this pressure, beekeepers in Otago requested a workshop, held on July 6, where scientists, advisors, beekeepers and farmers were able to get together and pool knowledge on pollination and reseeding requirements.

A second day was spent exploring the ways by which more beekeeping could be encouraged in this area and the economics of the venture was discussed. Beekeeper/farmer liaison and understanding was seen to be an area for increased effort.

Day one started with a review of the current situation of the demand for hives, the potential for increased honey production from the high country and a look at the many problems that must be overcome if this potential is to be realised.

Scientists from the Ministry of Agriculture and Fisheries, Ministry of Works and Development and DSIR gave accounts of the biology and reproduction of the three main pasture legumes: White and alsike clover and Maku Lotus. They also explained the work being done on other plant species for the high country and reviewed what is known about insect damage to seedlings and bees and pollination levels.

Mr Gordon Cossens, a senior agronomist from Invermay Agricultural Re- ▷

search Station, explained the research work planned and in progress in this area. It included investigations into the disappearance of clover from both lowland and high country pastures under some systems of grazing management.

Group discussions at the end of the session identified the following for further study and action:

- How much reseeding is necessary in hill and high country?
- How much pollination is needed to achieve this level of reseeding?
- If beekeeping is not economic in some areas and reseeding is required then there are two choices for the farmer: He can hire bees which will give seed set and a pool of hard seed (slow germination over many years), or he can aerial oversow which will give a burst of new seedlings that year from machine dressed, scarified seed.
- The role of other plants for pollen and nectar, soil conservation and stock forage should continue to be investigated and suitable species promoted for more general planting.

Day two looked into sharekeeping agreements in some detail as well as other ways in which a farmer could get bees on his property. Two farmers who have run their own bees spoke of the problems of fitting in spring bee work with the running of a busy farm. It seems that this option is not highly recommended even by those who do it.

Mr Ivan Dickinson, an established beekeeper in South Otago, who also runs several hundred hives in hill country in the Middlemarch area led a session on beekeeper/farmer relationships.

Economic and other reasons for establishing bees in the back country were also discussed. A summary of group discussions came up with these points in common:

- Farmers generally lack understanding of beekeepers difficulties in this area.
- Each area is different in its climate topography and needs.
- Value of pollination service needs to be quantified.
- There is a shortage of suitable beekeepers and training facilities for beekeepers.
- There should be greater apicultural input into agricultural short courses and degree courses.

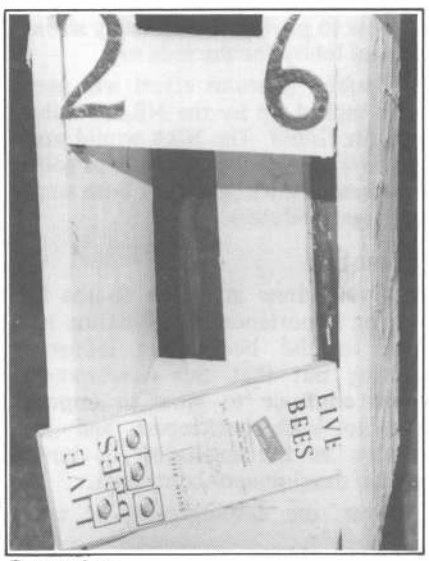
For the 41 people who helped make this workshop a success, the work does not end here, there is a lot of follow up to be done. The papers presented and summaries of discussion are being compiled and should be available soon from the author at Ministry of Agriculture and Fisheries, P.O. Box 96, Oamaru.

Queen prices to be linked

by Nick Wallingford

A MEETING of the NZ Queen Breeders Association held in conjunction with the NBA Conference at Waitangi discussed the cost of queen bees relative to the value of honey, world market prices for queens, and how to provide the service expected by the beekeeping industry.

The group agreed that a queen's cost could be related to the value of a given amount of honey. For many years this has been accepted as the HMA's payout price for ten pounds of honey. An equivalent price equal to the Co-op's payout for 4.5 kg of honey was recommended as a figure to consider when determining prices for queens.



Queen bee
Worth 4.5 kg of co-op honey.

This enables a relativity to be maintained as the costs involved in the production of queens and honey are similar. By linking the two, the price of queens would not tend to rise above a level in keeping with their immediate value to a beekeeper. Thinking of the cost of a queen as equal to two frames of honey is a graphic image, one that can be easily remembered and justified. The increase in a hive's honey production through introducing a new queen can easily be far more than two frames of honey.

Queen breeders would like to see the market prices for queens in New Zealand reflect the prices obtained on the world markets. Honey producers have sought to achieve the same thing for their product. This is a healthy attitude for any agricultural primary producer to have.

By relating the cost of a queen to that of the overseas markets and to the prices obtained for honey in New Zealand, queens will remain at a price that is reasonable and can be easily understood by the beekeeping industry.

The queen breeder's responsibility to the beekeeping industry for stock improvement and bee breeding was recognised. No major programmes funded by the industry or the government are anticipated by the breeders; any selection and breeding work will have to be done as a private effort. This service to the beekeeping industry was acknowledged as necessary and important. Co-operative effort between breeders and beekeepers is essential for stock improvement programmes.

The problems of early spring supply of queens was discussed. Queens for September delivery are generally raised the previous autumn and over-wintered by the queen breeder. The demand for such "early spring" queens and the uncertainty of their reliable supply are well known. If beekeepers could be encouraged to utilise more summer and autumn-reared queens the industry could be better supplied.

Discounts for queens in the December-January period could take the pressure off the early September demand; a surcharge for queens delivered in September would better reflect the costs of over-wintering them. This would hopefully lead to the development of management systems that could make better use of the high quality queens produced in summer and autumn.

Autumn splits headed by these queens can become ideal pollination units for kiwifruit or other fruit the following spring. Swarming will be greatly reduced, and as the units are rapidly expanding and will not have large pollen stores, they will readily gather pollen from the crops involved. Production of queens in this period of the year can give the beekeeper the best queens and a more reliable delivery date as well.

Beekeepers were urged to keep breeders informed of any projected needs for queens both for expansion and requeening so that breeders can better plan their production schedules. If you can plan your queen requirements in advance and keep the breeder aware of any changes it helps him to help you.

Price freeze catches some packers

THE INTRODUCTION of the 12 month price freeze on June 22, 1982, caught a few honey packers with their prices down. Most packers had lifted their prices some five to ten per cent during the March-June 1982 period, and it is to be hoped that those who are left out in the cold are able to obtain permission to lift their prices to the level being obtained by others.

From the information received from a number of packers who had increased their prices before the freeze, it would appear the main pack of honey sold through retail outlets in New Zealand, that is the 500g cardboard pottle containing granulated or creamed honey, is being delivered into wholesalers' warehouses at prices ranging from around $14.09 to $15.48 per dozen.

As the maximum allowable markup between the price to wholesaler and the price to retailer is 15 per cent to which the retailer can add a maximum of 25 per cent when selling to the consumer, the price to the consumer could be around $1.69 to $1.85 per pottle. In practice, the supermarket chains normally buy at a price to wholesaler and often sell at heavily reduced markups. Occasionally, even selling honey on a limited quantity per customer basis at prices up to ten cents per pottle below the price they paid for the honey.

Some of the other main packs of honey are being charged to the wholesaler at around the following prices: 250g pottles $7.62 to $7.94 per dozen, 500g glass jars $16.72 to $16.87 per dozen, 900g pottles $25.22 to $26.42 per dozen, 2 kg plastic $56.00 to $58.00 per dozen, 2 kg tins $58.25 to $60.65 per dozen and 6 kg plastic pack $13.50 to $14.70 each.

Many beekeepers fill customers own containers direct from their honey tanks and prices for this honey appears to be about $2.10 to $2.40 per kilogram.

Honey stocks in New Zealand are moving well, and it would appear there will be little carryover of honey into the 1983 season.

New northern co-op on drawing board

THE TE AWAMUTU NBA discussion group is to investigate the establishment of a loose-knit honey marketing co-op. The main aim will be the export of packed honey.

The group decided to go ahead with the investigation after discussing honey marketing with an exporter. It was agreed that there was good potential for beekeepers to pack honey for possible export orders, drawing from stocks which would otherwise be held over for sale on the local market later in the season.

As some honey is normally stored for long periods before sale, there would be few extra costs to participants. Only when contract packing begins to meet an export order will any significant costs arise.

In a special newsletter, Waikato NBA president Bryon Clements lists a number of suggestions as to how the proposed Central Waikato Co-op would operate.

A basic principle of the co-op is that members would commit a proportion of their crop for export marketing, subject to certain pre-arranged export prices being met. This commitment would be for a fixed minimum period of, say, six months.

If at the end of the period the honey was unsold, the beekeeper would be free to sell privately as he thought fit, or it could be signed on for a further period. The aim being to have 10 or 15 members with between 100 and 200 tonnes of honey on offer for packed sale at any one time.

Grading would be done by two or three elected members of the group. With markets in mind, selected honey – both dark and light – would be graded in the beekeeper's shed and the drums marked.

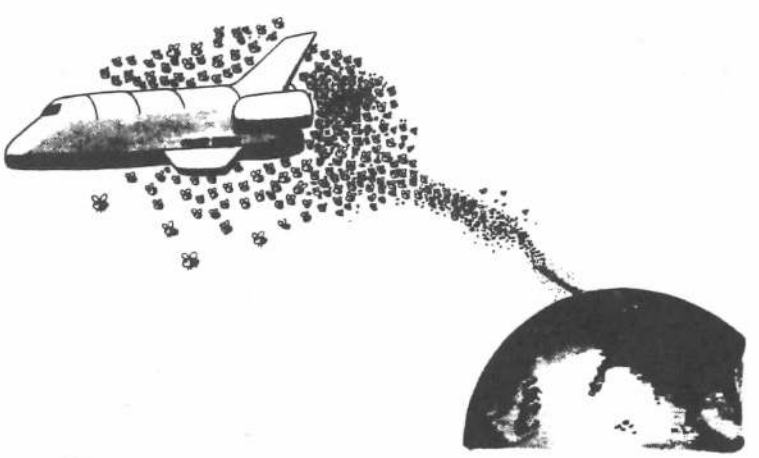
Interestingly, the proposed co-op would avoid the accumulation of fixed assets. In line with this, members would own their own drums, would have no shares of tradeable value and there would be no inactive members.

While group packing could be undertaken for the New Zealand market, this would only be a last resort, with members under normal circumstances responsible for the marketing of their own honey within New Zealand.

"I firmly believe," says Mr Clements, "that independent beekeepers should own their own drums and that packers and co-ops should not discourage this practice by refusing to pay extra for honey in a beekeeper drum.

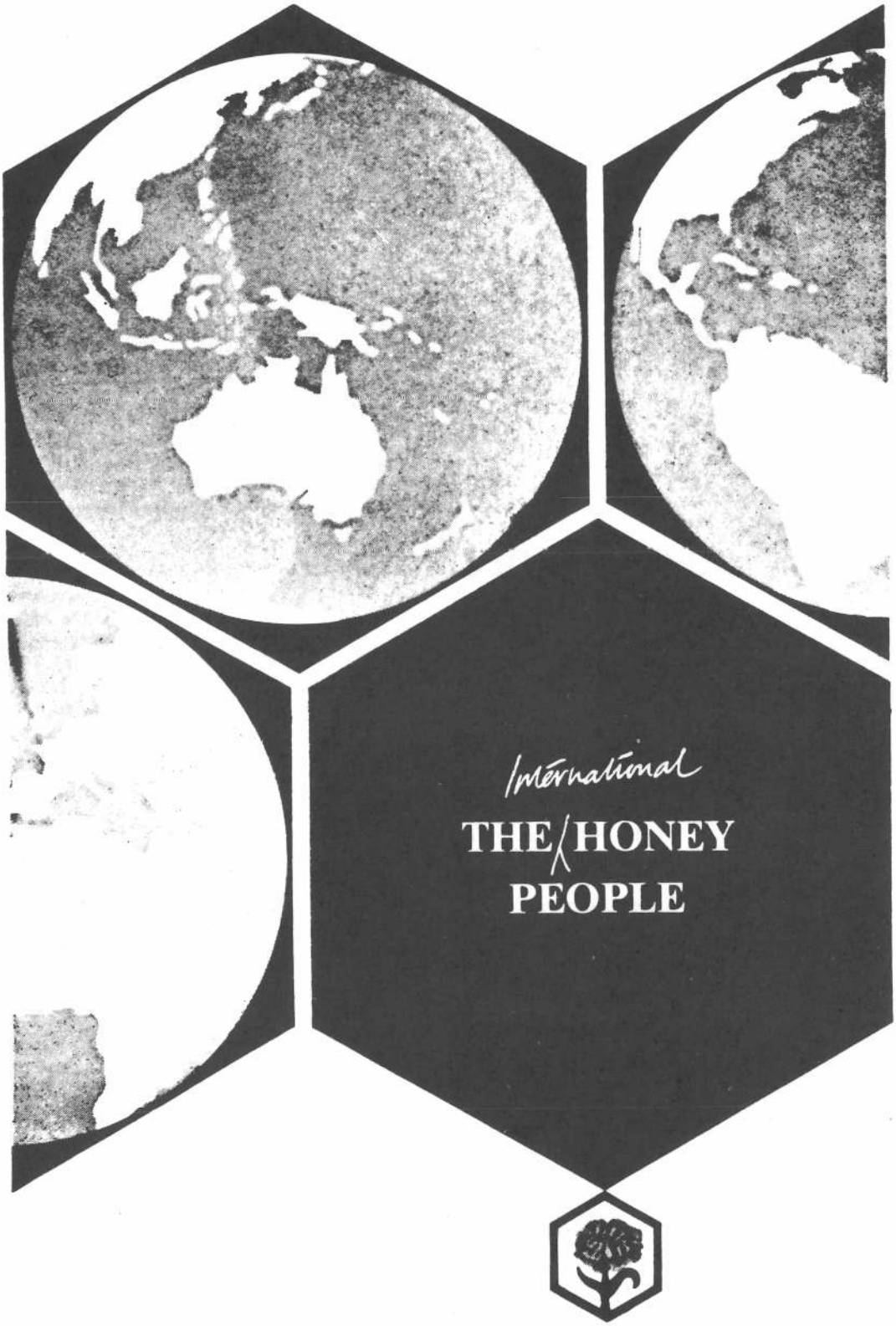
"Suggestions are requested from the industry as to how we can make work the principle of low overheads plus honey equalling best export prices."

For working capital, the co-op plans to make an application for NBA trust funds.



'Mission control . . . this is Columbia. One of these honeybees aboard is a queen!'

– Jacksonville, Florida Times-Union, Mar. 23, 1982



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CORRESPONDENTS

FROM ONE HOBBYIST . . .

Dear Sir,

Could you pass on my congratulations to Andy Matheson and Kerry Simpson on their "Shedding the Hobbyist Mentality" last issue? Just what needs to be said – very loudly!

Yours,

David Williams
Rotorua

MOVABLE FRAMES ONLY

Dear Sir,

I hope that anyone reading W.T. Stewart's article "A different honey and wax system" in the last issue, also looked a few pages further on. There in Nick Wallingford's article "We lead the world", they would have found a very compelling reason for not adopting Mr Stewart's system.

The scourge of foulbrood became an epidemic throughout the country and caused a "dreary, disheartening period" up until 1905. Only through serious measures, including abolishing box hives, was beekeeping again put on a viable basis. I trust that Mr Stewart does not desire a return to that dark period of our history.

The law is quite plain on the question of fixed comb hives: "No person shall keep any bees except in movable frame hives". There is little room for interpretation! An inspector has some tolerance in the time he can give a beekeeper to transfer bees into a frame hive.

This tolerance, might for example, be exercised when a beekeeper faced with a bumper crop runs out of frames and is forced to use frameless supers. There is no way the ministry could tolerate the system, such as that advocated by Mr Stewart, being used on a routine basis.

There are also very good technical reasons for not adopting this system. As most beekeepers know, bees working virgin foundation store less honey than those provided with drawn combs, except perhaps in an exceptional honey flow. Bees not even provided with foundation store less again.

The amount of honey that bees use to produce wax varies with conditions (not with the bias of experts, as Mr Stewart would have us believe), and figures reported vary from 3:1 to over 30:1.

Recent research shows that the often-quoted 8:1 is likely to be on the conservative side, and probably 10:1 is more accurate.

Studies done at Beaver Lodge also indicate that colonies given foundation store up to 25 per cent less honey than those given drawn comb, while those given only starter strips store 50 per cent less.

I believe that I am the so called "apiary instructor" who Mr Stewart said had encouraged him to continue with his experiments. I did not. I did, however express interest in his ideas and practice, and discussed honey/wax ratios with him at some length in an attempt to point out technical reasons for not proceeding with the experiments.

I see little potential for his system in the Third World, particularly in tropical countries whose long but weak nectar flows would mitigate against its success. I see no potential whatsoever for it in New Zealand, if we are to maintain the viability of our beekeeping industry.

Yours,

A.G.Matheson
Apicultural Advisory Officer,
Nelson.

REPORT SPRAY DAMAGE

Dear Sir,

It appears likely that the changeover from the Agricultural Chemicals Board to the Pesticides Board will be made in the near future. When this move is made, Paul Marshall who has served the industry so well for about four years will be retiring and I have agreed to represent the beekeepers on the new board.

During Paul's report to conference in July 1982 he mentioned that there had been no cases reported to the board of bees being spray poisoned during the year. As there had definitely been some poisoning during the year, it was apparent that there had been a breakdown in communications somewhere along the line.

If beekeepers find what they feel is spray damage to their bees, the first thing to do is to report it promptly to the MAF who can arrange for samples to be tested. It would help me to serve the industry if details of cases of spray damage could be reported to me as well, so I can check that the information is reaching the board. It would also help me to keep the information up to the industry as to how much spray poisoning of bees is going on.

With the continued co-operation of all concerned, we can hopefully keep spray damage to bees at the lowest possible level.

Yours,

Ian Berry
P.O. Box 16
Havelock North

BRITTLE PANE PAINS

Dear Sir,

In reference to my article on providing bee exits through honey house windows and David William's comments in the June 1982 issue. The glass drill I have in my workshop is a tungsten tipped drill manufactured by Cintride Limited, Sheffield, United Kingdom, specifically for glass or ceramics.

The tip of the drill is not unlike a masonry drill and is used with turpentine or kerosene as a lubricant. It has a cutting angle of 90 degrees. The recommended cutting speed for my 5/16" drill is 425 r.p.m.

I must admit I have only drilled holes in bottles. Window panes become very brittle with age and I can appreciate you may have problems drilling holes in old glass.

Yours,

G.M. Reid,
Apicultural Advisory Officer
Hamilton.

YOUR VIEWS ARE IMPORTANT!

You may not be a leading light in the NBA – you may not have made it to conference. But if you have a bee in your bonnet, you can still let everyone know by writing to the Editor, Box 594, Masterton.

Big hive potential limited by access and land tenure

by Haikai Tane, planning consultant and bee farmer, Twizel.

The following article is a summary of research by the author in Marlborough during 1978-1982. It is based on extensive field surveys and information gathered from beekeepers throughout Marlborough. A fuller version was presented to the first annual general meeting of the Marlborough Beekeepers' Association on March 30, 1982.

The range of landscapes, climatic types and floristic zones in Marlborough is equal to if not greater than elsewhere in New Zealand. The opportunities for apiculture are equally diverse.

Apicultural Zones of Marlborough

A. High Country
B. Hill Country
C. Downlands, Plains
D. Marlborough Sounds

MOST PEOPLE are familiar with Marlborough's high country honeys, especially those from Molesworth and inland Kaikoura. These are high quality, light amber honeys from vipers bugloss (Echium vulgare), clovers, and numerous high country herbs, shrubs and lianes. They are sold as speciality honeys throughout New Zealand and exported overseas.

Under intensive hive management practices (6 to 9 hive visits per annum) yields average up to 100 kg. Even under minimal management (3 to 4 hive visits per annum) these areas produce profitable honey crops.

The cool temperate climates in the high country have weather extremes that require locally bred and acclimatised bees for successful commercial operation. It is estimated the Molesworth-Clarence-Awatere high country has a permanent carrying capacity of 10 000 to 12 000 hives, though it is unlikely this level will be reached until beekeepers are permitted to settle in the high country.

The hill country of Marlborough is a belt of low mountains separated by narrow valleys, situated between the high country and downlands. The floristic resources of this zone are highly variable and contain large numbers of different plants useful to honeybees.

Native bush, woodlands, shrublands and pasture create complex landscape mosaics which are reliable beekeeping areas. In this zone feral bees (and wasps) are very numerous pointing to the prime beekeeping potential.

The present numbers of hives in the hill country are well below the estimated carrying capacity which is calculated at 8 000 to 10 000 hives. Reliable average yields around 50 to 60 kg per annum can be expected with intensive management. Honeys are mostly light to medium amber though they show considerable seasonal variation depending on weather conditions.

The valleys, plains and downlands stretch from Wairau to Ward. They are mostly closely settled farmlands containing crops, pasture and mixed woodland floras. Grassland and arable farming, horticulture, suburban development, river beds of willow and wattle, and parks and reserves all contribute to floral resources for bees. Yields are variable both in quantity and quality, and in some seasons hives may fail to produce a surplus honey crop.

The horticultural boom in Marlborough is concentrated in this zone and indications are that large scale pollination services will be needed in future. Of all the floristic zones, this is the most difficult to evaluate. However, it is ▷

Marlborough Beekeepers' Association president, Mr Reg Clarke, leads a workshop at the combined meeting of Marlborough-Nelson-Wellington beekeepers in February 1982.

probable that the carrying capacity is in the range of 3 000 to 5 000 hives, with average yields 30 to 50 kg per annum.

The Marlborough Sounds is a broken landscape of steep mountains, maritime valleys and shorelines. The vegetation cover is predominantly forests and woodlands, with regenerating shrublands containing a rich mixture of native and exotic species.

Pastures comprise only a small proportion overall, though they are undoubtedly significant for summer honey flows. Generally, the ready availability of alternative, abundant nectar sources from trees and shrubs ensures darker, fuller flavoured honeys.

The potential for honey dew production and mixed bush honeys seems enormous at first glance. However, problems with developing access, apiary sites and commercial territorial networks remain barriers effectively limiting the total carrying capacity to as few as 3 000 hives.

Yields are generally reliable if hive management encompasses the spring and autumn flows. Once management techniques for this zone are perfected average yields around 50 to 60 kg per annum can be expected under intensive management.

Present potential

Altogether the landscapes of Marlborough comprise four apicultural zones, each with its own climatic, floristic and road network characteristics. Hive management practices in each region need to take these into account if reliable commercial operations are to be developed.

The potential for beekeeping in Marlborough far exceeds present levels of operation which is less than half the estimated carrying capacity of 20 000 plus hives. The greatest untapped potential is in the hill and high country zones which also have the most reliable and highest average yields.

A substantial proportion of the potential honey crop is being harvested by feral bee colonies which occur in large numbers. It is commonly believed that some of these feral colonies harbour brood disease which they pass onto domestic hives. If this is so, and until shown otherwise it should not be discounted, then the large populations of European wasps also found in Marlborough may be providing a useful service in wiping out diseased hives when they weaken.

To counteract the wasp problem to domestic hives, locally bred bees with strong hive defence instincts and an ability to work in colder, wetter climates are preferred.

There are a number of impediments to the growth and development of beekeeping in Marlborough. First and foremost is access to undeveloped territories and a place to live near them. This is most marked in the hill and high country where pastoral land tenures discriminate against beekeeping and other land use.

At present, the average beekeeper using intensive hive management practices, for optimum production, is likely to find the transport costs of commuting to hill and high country territories a limiting factor in developing or maintaining a commercial beekeeping enterprise.

In view of rising transport costs, the location of apiaries, the networks they form, and the strategic location of the beekeeper's residence, home apiary and honey house need to be carefully planned to ensure economic operations.

Major changes to the flora in some zones can be expected. Land clearing and pasture development in the hill country, irrigation for arable farming and horticulture in the lowlands, and exotic forestry in the Marlborough Sounds are proceeding apace.

While the prospects for beekeepers might improve in some instances, generally there is a loss of bee flora which is aggravated by 'weed' control programs. A study of plants listed in the Marlborough County Council's noxious weed schedule, established that 75 per cent of the species listed are valuable bee flora.

Another problem worthy of note is the indiscriminate choice of tree species for shelter belts, woodlots, farm forests and general amenity plantings. Some species popular for their beauty, notably Azaleas and Laurels are reported to produce toxic honeys under certain conditions. Others, including most Eucalypts, impart a characteristic flavour to honeys and while they may be prolific producers, there is a danger of contaminating and downgrading local honeys having fine bouquets and flavours.

Bureaucratic hindrances such as the duplication of registering and licensing beekeeping and apiary sites by various government bodies (already evident in Marlborough) are likely to impede the progress and development of beekeeping. While the degree of regulation in beekeeping may be modest by comparison to some primary industries, this is beginning to change.

Conventional informal tenures and ad hoc licensing of apiary sites is a system full of pitfalls for a growing industry. It is an unsound basis for developing commercial beekeeping to optimum potential in Marlborough.

Marlborough branch of the NBA

Formation of the Marlborough Beekeepers' Association and its affiliation as a branch of the NBA, reflects the upsurge in beekeeping and growing recognition of commercial prospects. On October 29, 1980, a meeting of beekeepers was convened by Craig Deans and Haikai Tane to form a local branch of the NBA. The meeting was attended by 40 people who were addressed by the local MAF apicultural advisory officer, Andrew Matheson.

Andrew spoke of his advisory role and disease inspection responsibilities. In the discussion that followed a wide range of topics were considered, including the production of honey, beeswax, pollen, propolis, royal jelly, queen raising, pollination services, producing nucleus hives, honey dew, toxic honeys, bee plants, the importance of pastoral 'weeds', chemical spraying of honey production areas, insecticides, brood disease, and land tenures discriminating against beekeeping in the hill and high country.

The meeting resolved to convene a Marlborough branch of the National Beekeepers' Association. At the inaugural meeting held on November 25, 1980 a constitution modelled on the NBA's was formally adopted. The office bearers elected included: President – H. Tane, vice-president – E. Tiffin, secretary/treasurer – C. Deans. Management Committee; R. Clarke, T. Goddard, D. Jennings, J. Lafferty, B. Manson, J. McNabb, P. Rainbird, T. Stewart and R. Leahy.

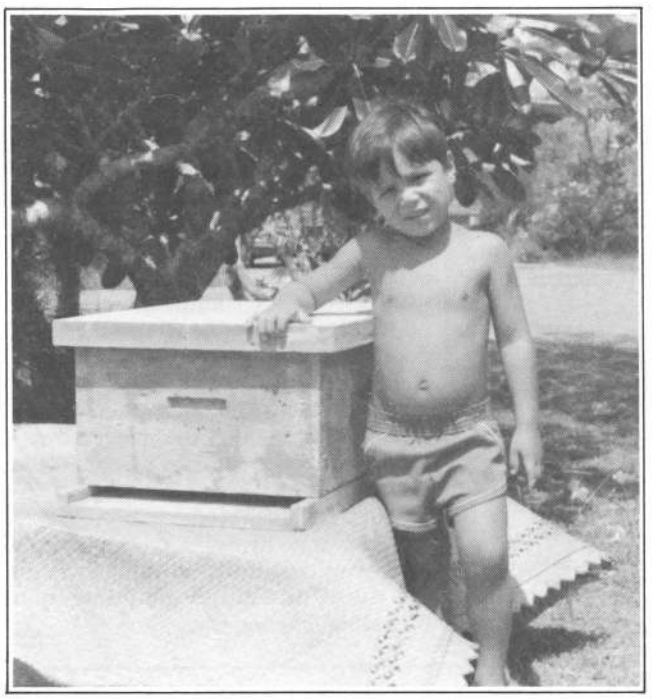
Field days quickly became the main activity being held almost every month, with business meetings, workshops and public displays conducted as required.

Perhaps the highlight of the first full year of operation was the combined regional meeting and weekend workshops with Nelson and Wellington branches held in February 1982. Over 50 beekeepers, their families and friends visited Marlborough for field days in the Marlborough Sounds and Inland Marlborough.

The Marlborough Beekeepers' Association has entered its second year as an actively growing and financially established society. The events of 1980-81 have demonstrated there is a deep and sustained interest in beekeeping with growing numbers of commercial, semi-commercial and hobbyist beekeepers supporting the local branch of the NBA.

Close liaison with MAF has been maintained and hobbyists are being assisted to develop commercial enterprises. The prospects for beekeeping in Marlborough are now recognised and the industry is developing with beekeepers working together through the Marlborough Beekeepers' Association.

Concrete hives have role to play in tropical islands



Complete ferroconcrete beehive ready for use.

Ferroconcrete beehive components – body, top and bottom.

by J. Victor Hobson, Jr., Saipan

THERE ARE certain equipment maintenance and depreciation problems associated with beekeeping on small tropical islands in the Southwestern Pacific which are not realised to such a great extent in temperate zones of the world.

In particular, the longevity of wooden beehive parts is shortened considerably by dry rot and termite infestation, and in those island areas where tropical storms and typhoons are seasonal phenomena modern wooden beehives, which are usually low in honey stores and consequently light in weight during the rainy season, are often blown or otherwise damaged by flying debris. Hives which are moved to the ground level to avoid being blown over are often flooded and the bees viciously preyed upon by toads, lizards and ants.

Many of the islands in the typhoon belt also have pronounced dry seasons during which brush fires are common and can destroy or damage wooden beehives. Colonies which do survive the wind, rain, predators and occasional fires are usually so decimated that it requires considerable nursing to bring them back to strength in time to take full advantage of the main seasonal honey flow.

On those islands where suitable lumber, equipment and skilled labour are available for making wooden hive parts, the problem of replacing deteriorated and damaged apiary equipment does not pose an extensive economic hurdle. However, there are a number of small islands in the Southwestern Pacific where modern beekeeping has been introduced and where the resources required for building beehives and other hive parts economically do not exist. The small beekeeping industries established on Guam, the Northern Mariana Islands, and the Republic of Palau rely mainly on imported wooden beehives and other hive parts.

Several beekeepers in the Northern Mariana Islands have imported plastic beehives and while the plastic hives with plastic frames solve the problems of dry rot and termite infestation, the threat of wind damage during the tropical storm season, particularly in those areas which lie in the typhoon belt (i.e. Guam and the Northern Mariana Islands), still remains, and of course damage by fire during the dry season is always possible.

A major disadvantage in establishing apiaries with all plastic hive components is the cost of initial purchase which in the Southwestern Pacific includes exorbitant shipping costs. Such expenditures are prohibitive for small beekeeping industries being established in the developing island nations of the Southwestern Pacific.

An inexpensive innovation which seems to have solved the problems of dry rot, termite infestation, storm and even to a great extent fire damage is a ferroconcrete hive. Ferroconcrete beehive units designed and built locally by the author have been used successfully for the past 15 years in Palau of the Western Caroline Islands and on Saipan in the Northern Mariana Islands.

The materials required to construct ferroconcrete beehives (cement, sand and wire mesh) are available in most island district business or trading cen- ▷

▷tres and the necessary forms can be easily made from scrap lumber using basic carpentry hand tools. The wooden forms can be constructed so that they are reusable thus further reducing the overall cost of constructing the ferroconcrete beehive components.

Currently, on Saipan in the Northern Mariana Islands one sack (approximately 43 kg) of cement costs $US6.95 and is sufficient to make three complete standard 10-frame ferroconcrete beehives including bottom boards and telescoping tops. There are a variety of types of wire mesh which can be used and which are generally available and relatively inexpensive.

Presently on Saipan enough half inch wire mesh to make three complete hives costs approximately $US9.00 and if purchased in large quantities is much cheaper. Sand, of course, is readily available (usually at no cost) on most tropical islands. Paint is not really necessary particularly if the hives are established in shaded locations, however, a single coat of white latex paint suitable for masonary surfaces does make the ferroconcrete beehives more attractive and cooler if they are not shaded.

Once the necessary materials are purchased and collected one has only to carefully construct a wooden form following the standard dimensions of a modern 10-frame beehive, fit in the wire mesh, mix and pour the concrete (two parts sand to one part cement and enough water to get a mixture that will pour into the form). After several days the forms are carefully removed and the hive is ready for use. The forms can be cleaned and reused a number of times which of course reduces the significance of the initial expenditure in materials, time and labour involved in making them.

The advantages of ferroconcrete beehive components over wood and plastic for use in beekeeping industries on small islands in the Southwestern Pacific are:

☐ The problem of dry rot is eliminated.

☐ The problem of termite infestation is eliminated.

☐ Damage and destruction to hives caused by high winds and rain during tropical storms and typhoons is practically eliminated.

☐ The cost of constructing beehive components is significantly reduced.

☐ The need to import beehives and supers is eliminated.

☐ The possibility of damage to the hive, combs and bees by fire is greatly reduced.

☐ The ferroconcrete hive components will virtually last forever without requiring maintenance or painting.

☐ The ferroconcrete hive components can withstand high temperatures, fumigation and caustic treatment if necessary to clean or control and eliminate disease.

☐ Honey Bees (Apis mellifera) readily accept ferroconcrete hives and produce just as well as bees kept in wooden or plastic hives on tropical islands in the Southwestern Pacific.

The only real disadvantage that has been realised by the author in utilising ferroconcrete beehives in the Western Caroline Islands and the Northern Mariana Islands over the past 15 years is the weight. An empty standard 10-frame hive body made of ferroconcrete weighs approximately 18 kg.

However, on the small islands of the Western Carolines, the Northern Mariana Islands and in fact all of Micronesia, once an apiary is established, hives usually remain in the same location indefinitely. Because of the weight of the ferroconcrete hive bodies, it is advisable to use medium-depth supers of ferroconcrete. These weigh about 13 kg empty and are manageable for one man when full of honey. Considering the great advantages over other types of hives and the fact that most island beekeeping industries are small, ferroconcrete seems like the way to go to greatly reduce initial capitalisation costs and eliminate the threat of damage and destruction by natural phenomena.

Tony Clissold, president N.B.A.

TONY CLISSOLD : PRESIDENTIAL ADDRESS

LOOKING BACK over the last 12 months, beekeepers have seen significant changes in their industry. Changes which I hope will benefit all of us and help our industry to become more united in the future.

The lifting of the Court injunction on the Honey Marketing Authority assets last year allowed the winding up of the Authority to proceed and we have since seen the HMA cease its trading operations. Soon the Honey Marketing Authority will become a part of the history of New Zealand beekeeping.

I feel that now is the time for all of us to thank those who served on the Board of the HMA. Some have passed on, some I know vaguely and some I know well. They all worked hard for the industry, often with few thanks and a lot of criticism, and our thanks to those people who were prepared to serve the industry should be recorded. During the 50s through to the early 70s I believe the HMA was the best organisation for the industry, but as time passes changes must be made. With the abolition of the HMA and the start of the Co-operative we must look forward into the 80s with confidence. Beekeepers must now work together to help ourselves and our industry to develop its maximum potential to ensure bright and prosperous years ahead.

When the HMA stopped its trading activities the export control on honey was lifted so that now we may export our own honey if we so wish. But remember we should look after our home markets first. I would hate to see a shortage of honey in New Zealand. The possibility of honey being imported into New Zealand for local sales could be potentially dangerous to the industry from a disease point of view and I trust it will never happen. Only honey which is not needed for the New Zealand market should be exported.

One of the major events of the year has been the preparation and setting up of trust deeds for the HMA assets. In conjunction with the HMA Board, Mr David Kay, the Authority's adviser, and the NBA executive, the trust deeds have been written and agreed to and (hopefully) approved by the government solicitors. The trustees have been appointed in accordance with the wish of last year's conference at Queenstown. The independent chairman is Mr David Kay who will have a yearly appointment. The North Island trustee is Mr Russell Berry. The South Island trustee is Mr Ivan Dickinson.

There will be two Trusts established. Firstly the Honey Industry General Trust Fund. This will be the major fund which the NZ Honey Producers' Co-operative will initially have first call upon in accordance with the arbitrator's report, but this is not to say that other beekeepers will not have access to the fund in the future.

Secondly, the Honey Industry Charitable Trust. This fund will be the one in which the trustees and the industry will be more involved. Although small in assets, its income is not taxable if used for education or charitable uses.

I do hope that when these Trusts become activated all of us will be able to benefit from the industry funds.

Over the past few years, beekeepers in the kiwifruit growing areas have had the added bonus of kiwifruit pollination. If the expected expansion of the kiwifruit industry occurs, beekeepers in a number of areas will see major changes in the industry.

By 1990 another 50 000 hives may be required for pollination. It could cost in overseas revenue at least $234 million per annum if kiwifruit is not pollinated. If however, these extra hives are set up purely for pollination, the honey crop per hive in those areas will be greatly reduced, with the beekeeper becoming dependent on the pollination charges for his hive maintenance and for his living.

What will happen to the beekeeper who has increased hives to meet the pollination demand if an artificial pollinator is introduced? It would not only affect the beekeepers in the kiwifruit-producing areas but would have a roll-on effect throughout New Zealand.

It is essential for our industry's stability for the beekeeper and kiwifruit grower to get together and co-operate in their co-ordination of hive increases to meet the requirements. If bees are only required in the relatively short term as pollinators then the charge for pollination may have to be increased to cover the capital outlay.

Associated with the large increase in hive numbers in relatively small areas plus a lot of migratory beekeeping, it will be most important that the Ministry of Agriculture and Fisheries maintain an adequate staff to keep up with hive inspection and disease control. A closer liaison will have to be maintained between beekeepers and Ministry staff to ensure that disease control measures are kept at a high standard. If necessary more staff should be employed.

At the end of this conference, Mr Paul Marshall retires as a member of the NBA executive. I would like to thank Paul for the work he has done for the industry. Paul was president of this association for two most difficult years. Years when the industry was going through a major change, when various factions of the industry had to be brought together around the table to agree on solutions for the long term benefit of the industry. This Paul achieved. Paul, you did a grand job, thank you for your unselfish effort on our behalf. I wish you the best of luck in your future endeavours whereever that might be.

Paul was also on the Agricultural Chemicals Board but with changes to this body early this year the executive appointed

Mr Ian Berry to represent beekeepers on the new Pesticides Board. I am sure that Ian will carry on the good work.

It saddens me to see the complacency in this industry. In spite of the knowledge by all members that Paul Marshall was not standing for re-election to the executive committee, not one name was put forward for the vacancy. The same situation occurred in the South Island where no one stood against Mervyn Cloake or myself. There are good men in this industry. Please let your name go forward for election to the executive committee. An election should take place each year to ensure that the majority viewpoint is being expressed around the committee table.

The executive has in accordance with Rule 14c appointed Tony Lorimer as the North Island Executive Committee member.

Owing to pressure of work, Mr David Dobson handed over the secretaryship to Mr Len Jones, an accountant with the Pork Industry Council. Unfortunately for us his stay was short-lived and he is now employed elsewhere. Thank you, Len, for the work you did for us in the NBA. We welcome David back with us again until such time as a suitable person is appointed to the position of secretary.

In all, it has been a very interesting year. A year when the NZ Honey Producers' Co-operative took over from the Honey Marketing Authority. A year when the export control of honey was lifted. A year when some beekeepers in the South Island found it easier to buy honey from a shop shelf than to produce it from a hive. A year when Mr Rex Austin become Under-Secretary to the Minister of Agriculture with beekeeping part of his portfolio. I have found Mr Austin to be a very approachable man and we look forward to seeing more of him. A year when conference went from Queenstown in the South to Waitangi in the North. It is very nice to be able to come to places like this but I think that now is the time to decide that conferences should be held in the main centres of New Zealand so that travel can be kept to a minimum.

I would like to thank the Executive Committee, Mr David Dobson, our Secretary, and his able assistant, Mrs James, for all the work and support they have given me throughout the year.

KING BEE

County reviews

The failure of some County Schemes Schemes to make allowance for beekeeping as a predominant land use in rural areas is of continuing concern to the National Beekeepers Association. At a recent meeting, it was decided that executive committee members should forward the secretary details of specific problem areas and their solutions so that a suitable letter could be sent to all counties.

Dobson returns

Back in the secretary's chair at the recent NBA conference was former secretary David Dobson. His return follows the resignation of the association's new secretary Len Jones.

Secretarial services are provided to the NBA by the Pork Industry Council in Wellington under direction of the Pork Industry Council chief executive David Dobson. Following the resignation of Mr Jones from council staff, Mr Dobson has stepped in to fill the gap until a successor can be appointed.

Insurance confusion

While the New Zealand Insurance Group believes that only very few beekeepers have availed themselves of the Beesurance scheme, the NBA executive has reason to believe that their information is incorrect.

At a recent NBA executive meeting, a letter from the New Zealand Insurance Group claimed that the premium generated under this scheme had been less than $2000. However two executive members revealed that between them they had paid more than $5000 in premiums.

The matter is being raised with the New Zealand Insurance Group in the hope that there will be some clarification.

HMA members live on

Mr Rex Austin, parliamentary under-secretary to the minister of agriculture, has agreed to defer the election of members to the Honey Marketing Authority Board until 1984. It is expected that this time will allow all outstanding HMA matters to be wound up.

Lorimer appointed

Waikato beekeeper Tony Lorimer has been appointed to the executive committee of the National Beekeepers Association. His appointment follows the failure of any beekeepers to put their names forward for election as North Island members of the committee following the resignation of Mr Paul Marshall.

Auckland branch reactivated

The Auckland branch of the National Beekeepers Association is likely to come out of mothballs after five years in recess. The upsurge of interest in beekeeping has been particularly noticeable in the Auckland area where there are a large number of hobbyists and semi-commercial operators.

Roadside flowers

NBA executive secretary David Dobson is to write to the Tourist and Publicity Department to find out more about the Landscape Enhancement Commission. In line with opinions expressed at the 1982 conference, the association will seek representation on the commission and endeavour to ascertain the likely reaction of the department with regard to financial contributions from the NBA trust for the planting programme.

Better disease control

The Ministry of Agriculture and Fisheries is to be informed about the concern of the NBA conference about the lack of apiary inspectors in some districts for long periods. The NBA executive secretary is to inform them that the concern is based around the need for an ongoing disease inspection service, as well as export documentations.

Apimondia in Hungary

The NBA executive has recently been informed that the next Apimondia conference will be held in Hungary from August 25 to 31, 1983. However, with this news came this advice that the annual subscription to this august organisation had increased 40 per cent and was now $US280 instead of $US200.

With the value of membership in some doubt, the "NZ Beekeeper" would welcome any letters which express strong views one way or another about the worth of Apimondia.

Report from the Apiculture Section, Wallaceville Animal Research Centre to the 1982 Conference of the National Beekeepers' Association of New Zealand. By Pat Clinch, Section Leader.

STAFF

The section now consists of Mr Pat Clinch (scientist, section leader) and Mr Mark Schrader (technician). Mark, a graduate with amateur beekeeping experience, replaces Miss Trudy Visser who resigned in May.

Government restrictions preclude the recruitment of additional staff, but because of the importance of some of our work, the apiculture section is to be given the part-time assistance of other staff at Wallaceville. One of the biggest problems we've had has been the lack of staff which has made it difficult to do all the work asked of the section. The need to be away from home for three months at a time, for instance, doesn't fit into everyone's idea of family life and was one of the reasons for the loss of our technician.

KIWIFRUIT

Fungicides applied during blossom: To reduce the risk of serious deterioration of fruit during storage, plantations producing kiwifruit for export must be sprayed with fungicides during the blossom period. For the second season, observations in plantations under study in the Tauranga district indicated that these sprays caused no adverse effects on honey bee colonies when at least one and possibly two sprays of fungicide were applied.

With insecticides, we know they are harmful, so the problem is to keep bees away while spraying is being done. With the co-operative system being operated in the Bay of Plenty, there have been only minor bee losses, but until azinphos methyl is replaced, small losses will continue.

Where a kiwifruit monoculture is being practised, such as in parts of the Bay of Plenty, spray losses are less likely to be a problem than in districts where a variety of crops with differing spray requirements are being grown.

Pollination: In the 1981–82 season, there were fewer flowers per vine than in the previous season in the kiwifruit plantations under study in the Tauranga and Te Puke districts. Although there was much rain during blossoming, and, in some plantations, heavy competition from other pollen sources, honey bee visitation to kiwifruit flowers was satisfactory. Fruit size was, in general, excellent.

Because of the bad weather, which tends to encourage bees to forage close to their hives, and bad blossom rot in some areas, some orchardists reduced the number of hives in their kiwifruit and still achieved good pollination.

Fruit weight of kiwifruit is correlated with seed numbers (the more seeds, the bigger the fruit). We have found, however, that the number of seeds required for a fruit to reach minimum export weight (72 g) can vary from season to season. Thus, even if pollination is satisfactory, the percentage of fruit reaching export size may differ from season to season also.

Work has continued in our bid to improve the effectiveness of honey bee colonies used for pollinating kiwifruit. We have observed that it is often impossible to detect differences between colonies that work kiwifruit well and those that work it poorly. You can have two hives side by side and one will collect 100 per cent kiwifruit pollen and the other 100 per cent clover. Next season we will be investigating the possible reasons for this.

We have been using low efficiency pollen traps – thanks to Arataki and Russell Berry – to find out what bees are doing in the pollination period. It appears traps do help pollination under certain circumstances, though there is a problem that the pollen collected may well be contaminated with fungicides which are sprayed on the flowers. These don't harm bees but may present a problem for human consumption.

DIAGNOSIS OF BROOD DISEASES

Further samples from colonies showing signs of unusual brood conditions have been examined microscopically at Wallaceville. Because New Zealand lacks the expertise for further examination, sub-samples have also been sent overseas. None was infected with European Brood Disease.

If there is to be a chance of eradicating a disease before it becomes widespread, a fast diagnostic service is essential. Because the apiculture section is away from Wallaceville for long periods in the summer, it cannot give a rapid service. Last year I requested that a search be made for an alternative group to be able to undertake the work, and it is expected that we will be handing over the diagnostic service in the near future.

TOXIC HONEY

There has been further testing of honey samples from experimental hives in the restricted areas. The tests are undertaken to determine the risk of toxic honey formation in these areas.

The method of detecting honey toxins by intracerebral injection of the mouse has now been discontinued and replaced by a gas chromatographic technique of similar sensitivity. Thin-layer chromatography is still used as a confirmatory test, and positive results from both tests are required before a sample is classified as positive.

REPLACEMENT FOR CYANOGAS

We were asked to develop a fumigant to replace Cyanogas which has become unavailable. Cyanogas produces the gas hydrogen cyanide (HCN) when exposed to damp air. This very quickly inactivates bees and leaves no toxic residues in the hive.

After investigating possible alternatives it became apparent that none was likely to be as satisfactory as HCN. With the help of a chemist Mr Mike Clear, an HCN generator has now been developed. This uses relatively safe and easily available materials. Initial tests have been very promising, and we hope to have the generators under field trial in the near future.

The generator seems to be a relatively cheap method of killing hives, but you can't do 20 hives at once – it's a one at a time system. It's not necessarily better than Cyanogas, rather we developed the system because Cyanogas is no longer available.

OVERSEAS VISITS

In October, I visited (at my own expense) the Bee Laboratory at the University of California, Riverside, and Apimondia Congress in Mexico.

PAT CLINCH, MAF, WALLACEVILLE

Advisory Services Division report to the annual conference of the National Beekeepers' Association of New Zealand (Inc), Waitangi, July 28-29, 1982. Presented by Grahame Walton, chief apicultural advisory officer.

ORGANISATION AND STAFFING

During the past year a number of staff changes have occurred within the Advisory Services Division.

Mr D.A. (Doug) Briscoe, apicultural advisory officer, Tauranga has retired after 35 years valuable service with the ministry, 28 years as apicultural officer to the Tauranga district. Among many other responsibilities, Doug has had the challenging task of administering beekeeping in the restricted areas of the Bay of Plenty and Coromandel where toxic honey can be produced.

Mr T.G. Bryant, apicultural advisory officer, has been transferred from Gore to Tauranga, which left a vacancy at Gore. The division has now received the necessary approvals to confirm the appointment of Mr C. van Eaton, of Canada, to the position of apicultural advisory officer, Gore. Mr van Eaton was employed temporarily as an apiary officer in Southland during 1980/81 whilst the then apicultural advisory officer was on a year-long overseas exchange scheme. Mr van Eaton will take up his Gore posting in mid-October at the end of his Canadian contract.

Mr G.M. Walton, chief advisory officer (apiculture) has been appointed recently to the position of chief advisory officer (extension) within this division. He will have divisional responsibilities for publications, communications and staff development. Mr Walton will be leaving apiculture after more than 16 years service, four years as chief advisory officer to the beekeeping industry.

From August, Mr Murray Reid will take over supervisory responsibilities for advisory services division beekeeping activities. He will continue to have advisory responsibilities and will be based in Hamilton.

In the time that Mr Walton has been at head office many aspects related to the ministry's servicing of the beekeeping industry have been reviewed and improvements made. The Apiaries Act of 1969 has been amended, which among other things now strengthens the ministry's and industry's prospects of controlling the introduction of diseases and pests conveyed by bee products. The Apiaries Act amendment also paved the way for the introduction of the 1980 Honey Export Certification Regulations which revamped the ministry's role regarding honey export certification. The ministry no longer controls honey exports and grades honey for colour and flavour, rather it provides a verification and certification of particular importing countries.

A number of changes have occurred, or developments are underway in other areas. Apiary registration is in the process of being computerised and this should assist the ministry and beekeepers in regard to registration and the processing of the annual statement of hive inspection. There are changes in train which will strengthen the legislative provisions regarding the application of pesticides toxic to bees. Beekeeping restricted area policies have also been reviewed, with the assistance and guidance of the Apiaries Advisory Committee, and this has led to increased opportunities for beekeeping use of the declared toxic honey areas.

While the above developments were underway, there was clear justification in maintaining the senior apicultural position in Wellington. However, as a result of Mr Walton's new appointment, the director has reviewed the need to continue to station the senior apicultural officer in Wellington. The division's most important role is to assist with the development of agricultural and horticultural industries at the producer level.

The director believes that apiculture, like a number of other sectors in agriculture, can be adequately serviced and led from locations outside Wellington. With this in mind Mr G.M. Reid, apicultural advisory officer, Hamilton has been appointed the ministry officer with national responsibilities for apiculture. He will take over these responsibilities in August.

The division's servicing of the beekeeping industry, traditionally provided by full-time advisers, has been complemented in recent years by the use of field officers, livestock officers and clerical officers. These officers have assisted with bee disease check inspections, export certification and apiary registration. Beekeepers can also call upon horticultural advisory officers and farm advisory officers for advice regarding pollination, agricultural engineering and other matters.

Advisory Services Division continues to employ beekeepers as part-time inspectors, and their assistance has been much appreciated.

BEEKEEPING STATISTICS

Beekeepers, apiaries and hives: As at 31 May 1982 there were over 6 000 New Zealand beekeepers maintaining 21 000 registered apiaries and owning a quarter of a million hives (see Table 1). This is a record number of hives and apiaries, and the greatest number of beekeepers for almost 30 years.

Table 1: Growth in numbers of registered beekeepers

Hives Owned	Beekeepers	Apiaries	Hives
1–50	5568 (3372)	7755 (4589)	30249 (19616)
51–500	347 (217)	4490 (3345)	60553 (45583)
500+	137 (120)	8774 (8329)	162803 (142038)
	6052 (3709)	21019 (16263)	253605 (207237)

(1977 figures in brackets)

In the last five years, since 1977, the number of productive units, beehives, have increased at an average rate of 4.2 per cent per annum, a growth rate exceeding that of most other areas of agriculture. The greatest growth has occurred in the Tauranga, Hamilton, Nelson and Canterbury apiary districts.

The increase in the number of registered beekeepers continues to maintain the 12 to 13 per cent annual growth pattern of recent years. Most of this growth has occurred in the hobbyist (one to 50 hive holding) sector, with more than 400 new beekeepers this past year. The number of beekeepers with more than 500 hives (commercial beekeepers) shows a healthy 2.6 per cent per annum growth since 1977. Even more significant is the 12 per cent per annum increase

GRAHAME WALTON, ADVISORY SERVICES, MAF

in the number of beekeepers with 251 to 500 hives (semi-commercial or commercial beekeepers) which is often a stepping stone development stage on the way to larger hive holdings.

Honeycrop: The surplus honeycrop for the 1981/82 season was assessed at 6 495 tonnes, which was slightly below the average of recent years. The North Island yield of 4 215 tonnes, was the best since 1978; whereas the 2 280 tonne South Island crop was the lowest since 1967.

American Brood Disease: The level of ABD *(Bacillus larvae)* shows further decline from the peak reached in the 1978/79 season. During 1981/82 there were 713 apiaries (3.4 per cent) and 1 451 hives (0.5 per cent) found to be infected with ABD.

The prime responsibility for disease control resides with the beekeeping industry. Beekeepers last year reported 540 apiaries, 1 096 hives, infected with ABD. In this same period the division increased its monitoring of bee diseases. Inspectors examined 2 483 apiaries, 16 814 hives, and detected 173 diseased apiaries, 355 diseased hives.

Table 2: American Brood Disease levels in apiary districts 1981/82

Apiary District	Diseased apiaries Number	%	Diseased hives Number	%
Auckland	137	3.9	306	1.23
Hamilton	71	2.7	110	0.27
Tauranga	57	2.5	108	0.36
Palmerston Nth	86	2.6	134	0.36
Nelson	125	7.3	220	1.25
Christchurch	35	1.3	103	0.29
Oamaru	121	4.5	261	0.73
Gore	81	4.2	209	0.72
Total	**713**	**3.4**	**1451**	**0.58**

A disorder of bee brood, and affecting young larvae, has been observed and reported in a number of New Zealand beekeeping districts in recent years. Until such time as the cause has been clearly determined, it has been given the label "half-moon disorder".

The disorder displays many of the signs and symptoms of European Brood Disease. It appears to be stress-related and is more noticeable in weaker queen-breeding units. The re-queening of the colony results in an improvement in most cases.

Hundreds of analyses have been made on suspect samples both in New Zealand and overseas. In none of these tests has the causative organism of EBD, *Streptococcus pluton*, been identified and nor has any serious bee virus been isolated. Further overseas testing is currently underway.

THE BEEKEEPING RESTRICTED AREAS

The declared toxic honey areas of the Bay of Plenty and the Coromandel has, until recent years, been closed to beekeeping use during the period when tutu, *Coriaria arborea*, honeydew honey can be produced. Beekeepers were generally required to remove their hives during the period of high risk.

Arising out of the recommendations of the Apiaries Advisory Committee, a number of ministry policy decisions have been made in the last few years which has led to greater beekeeping use of the toxic honey areas in ways which do not lead to the production and marketing of toxic honey.

Hive management programmes submitted by beekeepers for queen rearing, nuclei production, pollen production and hive division have been approved by the ministry and adopted by beekeepers.

ADVISORY ACTIVITIES

The division directs its major advisory efforts to agricultural and horticultural industries which offer New Zealand continued favourable growth, particularly in the export sector, or industries which can greatly assist other industries achieve increased production. Beekeeping clearly falls into both categories.

Advisory efforts are primarily focused on commercial beekeepers, or those beekeepers who have demonstrated their intent to expand into commercial beekeeping. Increased production can best be achieved in the commercial sector by encouraging the adoption of more intensive systems of management, increasing production per hive unit, and helping facilitate an effective pollinating service to agriculture and horticulture.

Unlike most other business commitments, beekeeping offers an intending commercial producer a stepping stone development programme which can be expanded or contracted to suit the situation. Table 1 shows the high proportionate growth of the semi-commercial sector. Many of these beekeepers have made the decision to expand towards commercial operating levels and their individual advisory requirements from the ministry are high, particularly in regard to advice regarding business development and management techniques.

To a lesser extent advice is given to the hobbyist sector, particularly in the areas of bee disease detection, disease control, and beekeeper responsibilities under the Apiaries Act. Some encouragement is given to the formation of hobbyist clubs and help given towards making these clubs self-sustaining.

Apicultural staff have again held a small number of beekeeper short courses at the ministry's farm training institutes, and judging from the feedback from participants these have been very successful.

There is a rapid increase in requests for advice regarding pollination management, from beekeepers as well as growers, not only in respect of kiwifruit but for other horticultural crops and for high country and new development pasture pollination.

Also on the increase is advice sought on marketing matters now that individuals have the necessary approvals to export bulk and retail honey on their own behalf.

GRAHAME WALTON LEAVES TOP APICULTURAL JOB

Following presentation of this report, NBA vice-president Mike Stuckey moved a vote of thanks to Mr Walton for his service to the industry, which was carried by acclamation. Mr Walton thanked the industry for their help during the last 16 years and said that in the future his only connection with the industry would be through a few hives of his own.

GRAHAME WALTON, ADVISORY SERVICES, MAF

Sixty beekeepers try to cope with some unexpected sunlight at the 1982 Waitangi Conference

HIGHWAY BEAUTIFICATION

Remit No.1 **Nelson**

That this conference recommends that the executive makes a submission to the Landscape Enhancement Commission, that a significant proportion of the trees planted under the beautiful New Zealand scheme be nectar and pollen sources for bees.

White/Stanley

Before this remit was discussed, Mr Dobson secretary of the NBA read out a letter from the Tourist and Publicity Department which confirmed that the planning committee charged by the government with establishing the commission had given considerable recognition of the needs of beekeepers in preceding with its report. This letter had been written in response to an NBA letter which had requested that the needs of beekeepers for nectar and pollen source trees be incorporated into the scheme.

Moving the remit, Mr Stanley suggested that beekeepers should be represented on the Landscape and Enhancement Commission, or alternatively should be consulted when planting programmes were drawn up for various districts. He said that beekeepers had a better idea of local requirements and were also aware whether certain trees were toxic to bees or not.

This motion was amended, Hunt/Stanley, as follows:

That this conference recommends that the executive endeavour to have a representative on the Landscape and Enhancement Commission with a view to having a significant proportion of the trees planted under the Highway Beautification Scheme as nectar and pollen sources for bees.

The amendment was carried 8:0.

The amended motion was carried unanimously.

Remit No.2 **Waikato**

That NBA representation be made to the Ministry of Works to ask them to include substantial quantities of nectar and pollen source trees in the coming Highway Beautification Scheme.

Note: There are many species available that produce nectar and pollen as well as filling the requirements of shade, shelter or beautification. We should encourage their use whenever possible.

Clements/Stuckey

This remit was carried with little debate. ▷

REMITS

Remit No.3 **S.W. Districts**

That conference endorse the government's roadside shrub and tree planting scheme and encourage the department involved to plant nectar and pollen producing varieties.

Young/Brommell

In moving the motion, Mr Brommell argued that it would not cost the government any more to plant nectar and pollen trees, but this would be of great benefit to beekeepers. An attempt by Messrs Heineman and Dickinson to amend the remit so that the department planted a minimum of 40 per cent nectar and pollen bearing trees was decisively lost with delegates arguing that by stating a percentage the remit would be limited too much.

Another amendment, moved by Jansen, requesting the NBA executive to approach the government with trust finance to assist in the planting scheme was also decisively lost. While Mr Jansen suggested that the government would respect the industries wishes if it came to the party with finance, Mr Glynn successfully argued that the programme was already planned and budgetted for by government and the Beekeepers Association would only be saving the government more money without any benefit to beekeepers. Mr Lyttle also pointed out that the sum available from the trust in its first year would only be $20 000 and that this was not the time to commit these funds.

The unamended original remit was carried 10 votes to 0.

STOP UNNECESSARY SPRAYING

Remit No.4 **Canterbury**

That the executive urgently pursue a policy of education of farmers, nurserymen, catchment boards, orchardists, the Ministry of Agriculture and Fisheries and local bodies into the necessity to encourage the preservation of nectar and pollen bearing trees and shrubs.

Note: Indiscriminate spraying of riverbeds by local catchment boards has had a sizeable effect on Canterbury Plains pollen availability.

Hunt/Ecroyd

Mr Hunt said that many farmers don't understand why it was important for beekeepers to have pollen sources and that the preservation of existing sources was in their interest too.

Mervyn Cloake said that in South Canterbury that their local branch had already made approaches to local bodies such as catchment boards recommending suitable willow species for planting. He said in many places several species of willows were quite suitable for planting for erosion control purposes, but of these species one or two might be ideally suited for beekeepers needs.

In reply to a suggestion that the Canterbury branch should be doing more at a local level Mr Hunt said that this was already being done with liaison with each of these groups, he said however, that there was a need for further executive action at national level. Because of the contact the NBA has with magazines and so on.

Carried unanimously.

Remit No.5 **Waikato**

That NBA make representation to Federated Farmers and the Noxious Weeds Council to adopt policies that will encourage farmers to avoid blanket spraying of thistles where possible.

Note: Blanket-spraying of thistles has proved largely ineffective, very costly and highly injurious to the clover content of the pasture. Greater benefit could well be obtained by concentrating on spot spraying to minimise thistles and adopting management techniques that promote rather than retard the effect of clover in the pasture. The results would be beneficial to both farmers and beekeepers.

Clements/Stuckey

Moving the remit, Mr Clements said that with the loss of hedges, manuka and gorse, which had been cut and sprayed out, clover was much more important to the economy of beekeepers. In recent years he pointed out clover was not yielding as well as it had in the past and while the reason was not known for sure, blanket thistle spraying was thought to be the culprit.

Mr Stuckey said that this was a very difficult remit to frame, because he had no intention of trying to tell farmers how to do their farming, but that in the interest of both beekeepers and farmers something had to be done to ensure that clover remained a major component of pastures.

Carried unanimously.

LACK OF ADVISERS

Remit No.6 **Southland**

That the NBA conference view with concern the lack of an apiary instructor for long periods of time. Southland beekeepers ask for conference support for the executive to urge the apiary section of MAF to appoint an apiary instructor to the Southland/Otago area as soon as possible, before the forthcoming beekeeping season.

Herron/Glynn

Mr Herron said that while the conference had had an assurance from Mr Grahame Walton that an apiary instructor was coming to Southland, he was reluctant to withdraw the remit. This, he said, was because of the ever present threat of disease introduction. "You can't afford to be without people who can recognise disease when they see it. With large scale migratory beekeeping underway we could have a disease spread from one end of the country to the other."

Mr Stanley said that Southland's point had been made and recognised, but since a new adviser had been appointed their remit should be withdrawn.

Mr Stuckey moved that the remit should be amended as follows:

That this conference of the NBA view with concern the lack of apiary instructors for long periods of time.

The amendment was carried 9 votes to 1 and was put to the vote as the motion and carried unanimously.

EXPERIENCE BEFORE INTELLECT

Remit No.7 **South Canterbury**

That this conference recommends that in future appointments to the apiary staff of the Ministry of Agriculture and Fisheries, preference be given to people with beekeeping experience rather than inexperienced people holding degrees. Any inexperienced degree holder should not be on a higher pay scale than experienced apiary staff not having a degree.

Note: Since the introduction of only degree staff to the MAF there has been a marked deterioration in the service to this industry. Many of the degree holders appear to have one aim in life and this is the proliferation of hobbyist beekeepers.

This remit was withdrawn.

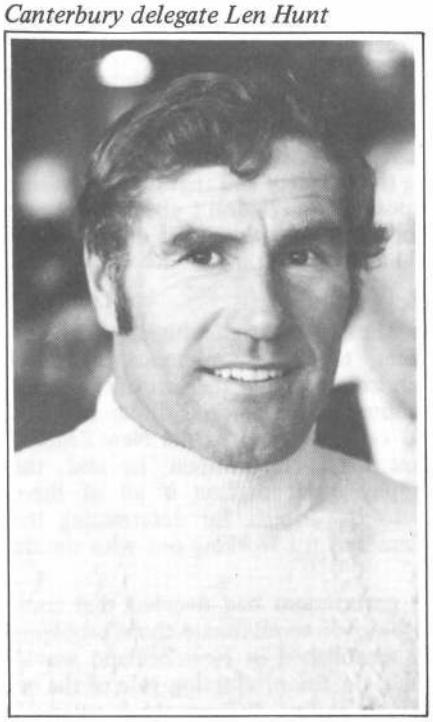
FOREST FLOWERS

Remit No.8 **Waikato**

That NBA representation be made to DSIR, MAF, and NZFS to encourage the specific study of nectar and pollen yields likely to be gained from eucalyptus and other timber species currently being planted on a large scale for forestry purposes.

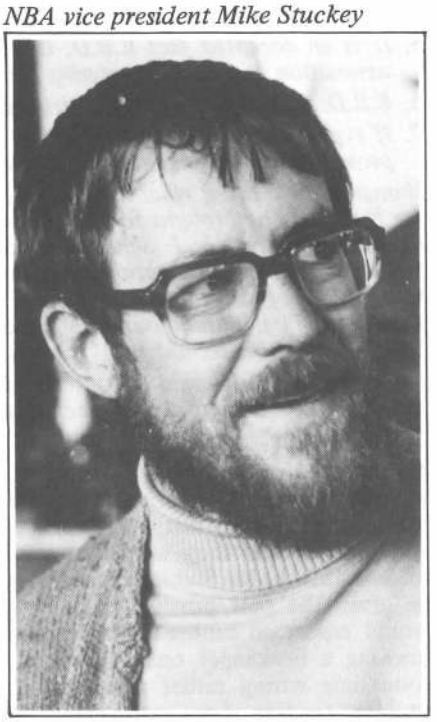
Note: This is a subject that could well be researched by a scientist or student as a thesis and could also be financially assisted by the NBA Trust Fund. The long-term significance

Canterbury delegate Len Hunt



Waikato delegate Bryon Clements

NBA vice president Mike Stuckey



of the honey crop from forestry services needs an in-depth study which is beyond the scope of individual beekeepers.

Clements/Stuckey

Mr Clements said that there was a tremendous amount of forestry planting going on and if the NBA could get into the act from an early stage, it could influence planting policies so the right trees were planted in areas which were suitable for beekeeping purposes.

Mr Stuckey said the NBA already supported other research work and that this particular project had great potential to bring beekeepers in a return.

Carried unanimously.

HIGH COUNTRY CLOVER POLLINATION

Remit No.9 **Southland**

That MAF carry out a research programme on the advantages and/or disadvantages of bees in the high country in relation to the developer and beekeeper.

Herron/Glynn

Mr Herron said that a lot of fertiliser and seed was being spread on the high country of Southland and Otago but that nobody knew how many bees were needed to ensure effective pollination and seed set of clover. At a recent workshop at Invermay he said it was indicated that it might be cheaper for farmers to fly on seed every couple of years, rather than try to put bees into these high country areas.

He said that self-sown clover seed was not scarified and the hard seed which resulted enabled the clover plants to survive over hard summers and winters with fresh germinations of hard seeds occurring season after season following one year of good seed set.

Mr Herron concluded that there was a need for a lot of answers as a tremendous amount of public money was being spent without the necessary trial work being done.

Mr Mervyn Cloake (in jest) described this as being a worthwhile remit as he stood to benefit. The field of research needed to be widened as there could be strains of clover that could do the high country job better.

Mr Cloake said he had spoken to runholders who had put clover and Maku lotus above 3 000 feet in areas where it was impossible to get access for hives. "We need to know how high bees will fly from a flat up to a high country area. Can they use updrafts? We also need to know the locations where hives can be placed and whether it is worth farmers flying on seed rather than getting in hives."

Mr Jansen questioned the merits of asking MAF to conduct further research. "Where is the money going to come from?" he asked.

Mr Herron said a lot of government money was being used to encourage high country development, but that now they were finding clover was fading out over two to three years. "The need now is to spend more dollars to back up what the government has already spent," he said.

Mr Blair commented that the government should pay for this research because of the increased exports which result. He also added that the predominant purpose of the research would be to aid pastoral farming.

The remit was carried unanimously.

FIRST SCHEDULE FOR E.B.D.

Remit No.10 **Bay of Plenty**

That E.F.B. be placed in Schedule 1 of the Apiaries Act until it is considered so well established that it cannot be eradicated.

Note: The letter of B.R. White of 12.8.81. attached is in response to the B.O.P. Branch's endeavours to obtain first hand information on the status of E.B.D. in Australia. This letter should be critically analysed. From all the information the B.O.P. Branch has, based mainly on recent findings, we conclude the following:

1. *E.B.D. is economically a very serious disease. (We consider it more serious than A.F.B.). There are questions to be asked about European Brood Disease. In the United Kingdom we understand it is not seen as being very important even though it is quite widespread, yet Bruce White reports that it is extremely serious in Australia.*
2. *E.B.D. spreads through an apiary very rapidly and more easily than A.F.B. (Seemingly at a much earlier stage of its development than does A.F.B.)*
3. *E.B.D. appears to be harder to detect at earlier stages of its development than A.F.B. When first discovered, it can vary from 10 per cent to 100 per cent apiary infection.*
4. *As with A.F.B., E.B.D. may be latent in a hive, showing* ▷

up 6 months to two years after infection.

5. *It is an accepted fact E.B.D. is transmitted from contamination at common watering places.*
6. *E.B.D. is transferred through drifting of bees.*
7. *If ever E.B.D. enters New Zealand, it can be eradicated, providing it is located at an early stage.*

Human nature being what it is, we feel the only real chance for E.B.D. to be brought to light at an early stage is by its inclusion in Schedule 1. Schedule 1 status for E.B.D. combined with positive educational programmes to assist in our recognition of all diseases and pests not present in New Zealand, will maintain our now recognised position as a "High Bee Health" country.

Points 5 and 6 should most concern those engaged in migratory or concentrated beekeeping practices.

Stanley/White

Mr Stanley argued that there were good and bad beekeepers but there were some people who would not report disease if they felt they would not get compensation for their hives if they were destroyed. By placing E.B.D. in Schedule 1, Mr Stanley argued that the industry would be given the best possible chance that these beekeepers would report an outbreak. It was the difference between drawing a beekeeper out and encouraging him to report something wrong rather than encouraging him to hide a problem for fear of not getting compensation.

Mr Wallingford said that he had seen remits along these lines at conference for the last three or four years. He asked whether compensation could be paid for Schedule 2 diseases as he understood there were some circumstances where this could be done. He said he was also told that MAF would do everything possible to control the disease even if it was not in the First Schedule. "Also, aren't we just banging our heads against a brick wall?"

Mr Clements said that he believed that they could be hitting their heads against a brick wall. He said that there was also a feeling by using drugs to control or suppress disease it might in the long run make beekeeping simpler. "There is, however, merit in going forward and continuing to argue one's case if one believes it to be right. I don't think we should just lie down because we have been told to. We should try and try again."

Ian Berry commented that the first thing the industry had to do was to try and keep E.B.D. out of the country and that the executive had already promoted a number of measures to ensure that all possible barriers were placed against the disease. Second, he said if the disease did come, it was important that it was got rid of. Third, if this was unsuccessful and the disease got out of hand it would be necessary to learn to live with it. The only difference between First and Second Schedule was the compensation and the industry needed an assurance that beekeepers wouldn't be financially ruined for reporting the disease.

David Warr said that he supported the motion because the present act didn't have enough teeth to combat E.B.D. "Under Schedule Two of the Act a hive can be shifted two months after its detection in the district, but Bruce White mentions that the disease can stay in a hive dormant for more than a year."

It was most important, argued Mr Warr, that the conference gave the executive the incentive to push for quick action especially where hives are required for pollination. "It is not only our industry which is at stake in this regard," he said.

"I presume that the National Beekeepers Association may not be strong enough as a pressure group to change it on its own behalf," he said, "but we may be able to get our horticultural friends in behind us."

Malcolm Haines said the case must be well researched, because if the disease is found in New Zealand there will be huge problems with honey and queen bee exports. It could close down huge areas of the country – very much like a foot and mouth scare.

Mervyn Cloake said that if E.B.D. came to New Zealand it would be disaster no matter what, so very positive steps had to be taken to ensure that it didn't arrive. He said it was his belief that Schedule 1 would make no difference to the problems facing the industry and that he saw making changes to be an impossibility. "I don't give up because something is impossible, but in this case I don't believe changing the Act would achieve anything."

Official E.B.D. policy

Grahame Walton, the Ministry of Agriculture's chief apicultural advisory officer, told the conference that New Zealand was very much isolated from the rest of the world and that there were thousands of noxious diseases, plants and pests which could cause damage to the New Zealand economy if they came here. Nevertheless, he said, the government wouldn't pay compensation if all of them came in – there had to be criteria for determining the seriousness of a problem and for working out who should get compensation.

Basically, he said, the government had decided that compensation should only be given to eliminate those problems which if they become established in New Zealand would have an intolerable effect on the production side of the industry or on its ability to export. "Given these criteria," said Mr Walton, "we in MAF had to compare E.B.D., with the other diseases in Schedule One, such as varroa and acarine, and other disease in Schedule Two such as A.B.D. We didn't honestly feel that E.B.D. could be described as having an intolerable effect on the production side of the beekeeping or on its ability to export. In contrast, varroa and acarine would very definitely be intolerable."

Mr Walton went on to say that he agreed that there was a need to try and eradicate E.B.D. if it arrived in New Zealand and that all effort would be made to achieve this end. He said that in this regard the only difference between Schedule One and Schedule Two of the Apiaries Act lay in compensation. "In fact, I believe that there is more power under the Act to control the disease under Schedule Two."

He explained that under Section 14 for the control of First Schedule diseases, an inspector had the power to get a beekeeper to act or to himself destroy an infected hive. But to do so, the area must first be declared an infected area and the disease must be positively found and identified.

In contrast, he said, under the powers given to control Section Two diseases, an inspector had the power to destroy hives "where they were likely to be infected or become infected." He also added that the two month freeze of movement of hives in an infected area was extended to three months in 1980. The Ministry of Agriculture and Fisheries would have liked this freeze to have been extended further, but the NBA had requested otherwise, he said. Three months was a political compromise.

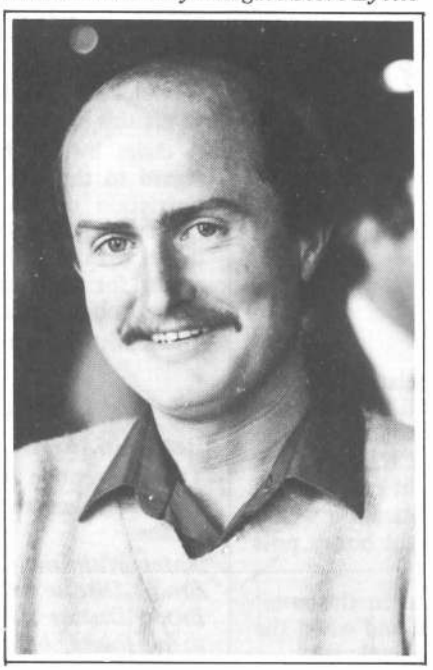
Mr Walton said there was some provision under the government's emergency powers for a beekeeper to be given compensation for the destruction of his hives, but that this was on an individual basis. There is no compensation provided for in the Apiaries Act for hives destroyed in the process of the control of Schedule Two diseases, he said.

In response to a suggestion from Mike Stuckey that the Act should be looked at again, Mr Walton agreed, saying that it was probably time for the Apiaries Act to be brought in line with the noxious concepts which had been introduced with the Plants Act. He explained that this Act allowed for much greater flexibility in the control of a noxious problem.

In his right of reply, Bruce Stanley said that it was probably time for the Act to be reviewed so that the grey areas revealed by Mr Walton and by other speakers could be eliminated. He said it was a little strange that under Schedule One

Hawkes Bay delegate Gary Ward

South Canterbury delegate Steve Lyttle



Northland delegate Malcolm Haines

you had to positively identify the disease before you could take control measures, whereas under Schedule Two you only had to suspect presence before action could be taken.

The remit was carried 9 votes to 1.

TRUST FUND POLICY

Remit No.11 **Waikato**

That the industry discuss guidelines for the utilisation of Industry Trust Funds at its Annual Conference.

Clements/R.Berry

Mr Clements said that he felt that the industry needed to give trustees guidelines as to what it would want done with funds in the trust accounts. This would not, he said, detract from their responsibilities as trustees.

The chairman suggested that this would be an ideal topic for a workshop group after the remits had been discussed at each conference.

The remit was carried 9 votes to 1.

WATCH FOR CER IMPORTS

Remit No.12 **Bay of Plenty**

That in the light of the adoption of CER, the NBA be alert for any attempts to relax present stringent controls on importation of bees, honey and pollen.

Warr/McNab

Mr Warr said that while he had confidence in existing controls on imports, he would like to sound a warning note that there should be no relaxations in these controls.

Mr McNab said that licensed allocations under CER would start at $90 000 and that there was a group of products which included honey in one of the licensed categories. He added that he had seen royal jelly on shop shelves and was concerned that this was the thin edge of the wedge and could result in more suspect products coming into the country.

Mr Grahame Walton explained that there was a difference between government trade policy and health restrictions. He said that at the last conference it was possible to import honey and other bee products from certain Australian states, but now that further information had been provided on their disease status, all bee products from Australia were now prohibited.

He went on to say that while the ban existed on almost all countries, it could not be regarded as a blanket prohibition because each product was judged on its own merits. New products such as honey-based skin emollients and small ampoules of royal jelly were permitted entry to New Zealand, whereas things like powdered jelly which could be reconstituted by beekeepers to prime queen cells were not.

Mr Clements said that all that Mr Walton had said was okay, until you found out how the transport and warehouse industry operated. He said that they work on a partial breakage system so that the boys get to take home some partially damaged products. This, he said, could include the Quantas honey packs for use on their flights in and out of New Zealand. These were held in a bond store at one of the airports.

Mr Blair commented that he had had dealings with bond stores and that while they were very secure for people they certainly were not secure for bees or other insects coming in and robbing damaged produce.

Ian Berry commented that if E.B.D. came to New Zealand, Australia would then be open to export its honey to New Zealand as this was the only disease preventing imports at the moment. "I am not suggesting that they would do so," he said, "but it is a pretty strong incentive for someone to illegally introduce the disease."

In response to a query, Grahame Walton explained that Streptococcus pluto, the bacteria in E.B.D., could be controlled by a time and temperature combination. Any honey treated in this manner would be very much caramelised and would be unsuitable for anything other than industrial purposes. He said that his ministry had declined an application from Australia for the importation of such treated honey where it was coming from one state, but had an origin in another. With the differing regulatory authorities in each of the states, he said, it was difficult to have confidence that the honey had been adequately treated or that it was indeed the honey which had been certified as being treated.

The remit was carried 9 votes to 1.

BEE PRODUCTS ON CUSTOMS FORMS

Remit No.13 **Bay of Plenty**

That bees, honey, pollen and beekeeping equipment be

included on the Declaration Form that is signed by all persons entering the country.

Note: At present a passenger information guide contains information about the non-importation of bees, honey and pollen. We consider that this information is not complete and also does not necessarily reach all incoming travellers. Inclusion of all the above Remit items in the Declaration Form covers all items of concern to the Industry and automatically brings these to the attention of all incoming travellers. New beekeeping equipment would be declared but still allowed entry.

Office Note: It is assumed that the remit refers to used beekeeping equipment.

Stanley/White

Mr Stanley said that by having honey and related products included on the declaration form which had to be signed, the onus was strongly on the individual traveller to declare anything he might be carrying with him. Mr Warr spoke of small pots of honey coming in with in-flight catering. He said that the presence of honey on the declaration would discourage people from pocketing the in-flight honey pots as small gifts.

Mr Walton said that the recommendation as in the remit was accepted by the Ministry of Agriculture and when the declaration form was next revised it would be included.

The remit was carried unanimously.

EXPORT INCENTIVES

Remit No.14 **Hawkes Bay**

That conference recommend to the NBA executive that it examines the various categories of bees and bee products in relation to Export Tax Incentives and seeks any appropriate changes.

Note:

1. *There is no incentive on live Queen Bee exports.*
2. *There is no incentive on propolis.*
3. *There is a very small incentive on pollen.*
4. *There is no incentive on Bulk Honey.*
5. *There is a very small incentive on comb honey and bees wax.*

Ward/I. Berry

There was some confusion in the debate relating to this remit, as Mr Jansen challenged a claim by Mr Stuckey that an exporter requiring an incentive required a minimum of $100 000 worth of product to be exported in a single year. Mr Jansen said he had no trouble obtaining export incentives and that he had not had to face the intensive paperwork which had been demanded of Mr Stuckey.

Mr Ian Berry pointed out that it would be necessary for the NBA to be involved in any such submission because the bee product incentives were all getting smaller each year and would phase out entirely in a years time.

The remit was carried 9-0.

RESTRICTIVE PACK SIZES

Remit No.15 **Waikato**

That this conference requests the Department of Weights and Measures to discontinue its regulations requiring honey to be packed in specific weights.

Clements/Jansen

Mr Clements said the current law restricts packaging innovation, preventing the use of tubes and other containers designed for other products. Naming teddy bears and squeeze packs as examples, he said it was time that the weights and measures people allowed beekeepers to show a little marketing initiative.

Mr Jansen said that change along these lines would give beekeepers access to a vast range of alternative sizes.

Mr Dickinson pointed out that it was possible for beekeepers to apply for exemption for novelty packs and Mr Clissold said the only real restriction was the requirement that all those 1 kg or above must be in multiples of 1 kg. He said that he believed that it would be very difficult to get this basic consumer requirement altered.

A claim by Mr Jansen that there was an anomaly with regard to the treatment of clear plastic and glass, with no restriction on the weight of glass packs, Mr Dickinson queried whether the restrictions applied only to blown rather than moulded glass. Mr Clissold then asked whether asking for clarification from the Department might create more problems than already existed.

The remit was carried 8 votes to 2.

RADIATION THERAPY?

Remit No.16 **Otago**

That Executive investigate the economic feasibility of sterilizing beekeeping equipment by radiation or other means.

Note: With the possibility of an outbreak of European Brood Disease and the continual presence of American Brood Disease some means of sterilizing equipment needs to be found, because of the ever increasing costs of hives and equipment. Sterilizing equipment by radiation is becoming common practice in parts of Canada. The initial cost of setting up a plant of this kind may be high, but with the use of surplus Honey Marketing Authority funds, the savings which would be shared by all beekeepers would in time off-set this cost.

Heineman/Dickinson

Mr Stanley told the conference that beekeeping adviser Trevor Bryant had informed the Bay of Plenty branch that radiation could be used to kill BL spore, but the bulk of the equipment and cost of radiating made the method prohibitively expensive. Even with a vastly greater problem of BL infection in Canada, sterilisation by radiation was still not economic.

Mr Stanley went on to say that a new system was being introduced in Canada based on gas sterilisation, with a plant costing about $275 000. Mr Clements warned of the damage of having centralised plants for treatment with beekeepers carrying dirty equipment long distances and spreading more diseases than they in fact eliminated.

The remit was carried 8 votes to 2.

CYANOGAS NEEDED

Remit No.17 **Otago**

That Conference request executive to seek ways and means to import and make available to beekeepers an adequate supply of Cyanogas in granulated form and packed in the familiar sized (5 lb?) tin.

Note: As stocks of Cyanogas available to beekeepers have now run out and a suitable and satisfactory substitute has apparently still not been found, an effort should be made to once again enable beekeepers to procure this well proven substance. The unavailability is greatly felt by those who have to deal with wild hives and diseased colonies. The gas in granulated form is the best to use if handled with due care. It certainly will cause no greater risks than many chemicals in common use today. To our knowledge, after the gas has dissipated, no harmful residue is left behind.

Heineman/Dickinson

Mr Heineman suggested that there was a greater risk from the new generator system developed by Pat Clinch, which involved the beekeeper having to mix chemicals by himself on the site. He said the old system was quite simple and very effective.

After little discussion the remit was carried 7-2.

HONEY PRICING POLICY

Remit No.18 **S.W.Districts**

That the advisory board be set up within the NBA Executive to recommend current (internal) packed honey prices to members as previously undertaken by the HMA.

Note: As a guide only, this would give packers the basis to set prices relative to the rest of the industry.

Young/Brommell

Mr Stanley said there was some mixed feeling in his branch about this remit, but he said it was generally felt that in the last years of the HMA it had become a leader in price setting for packed honey – setting a good upward trend. "That reference point has been eliminated and needs to be re-established," he said.

Mr Russell Berry commented that the industry did not need an advisory board as this job could be done quite well by the Packers Association or the NBA. Mr Jansen also voiced a warning that setting up a pricing board could run into trouble with the Department of Trade and Industry because it would be seen as a form of price fixing.

Mr Stuckey advised the meeting the remit as it read was illegal. He said it was better for beekeepers to send in their price lists for the executive secretary so that they could be included in a minimum, maximum and average price list published in the NZ Beekeeper.

One speaker said he was particularly concerned that a clear price should be set because many hobbyists were undercutting the market for a three month period in the autumn as they all scrambled to get sales.

At this point an amendment was moved Heineman/Stanley.

That the NBA publish current internal honey prices for members as previously undertaken by the HMA.

This amendment was lost 1-9.

A second amendment was then moved Ian Berry/Ward.

That the NBA executive committee be asked to continue and improve their present policy of publishing market information to beekeepers.

This amendment was carried 9-1.

The amended motion was carried 9-1.

CHANGING CONFERENCE

Remit No.19 **Canterbury**

That in order to improve the attractiveness of Conference and to stimulate interest at Branch level, the following procedure be adopted:

1. **Remits to Conference as at present.**
2. **Remits referred back to branches but no delegates appointed.**
3. **Conference would be held in a similar manner to present arrangements where all remits would be discussed and/or debated, but no vote would need to be taken.**
4. **Within a predetermined period of time, all branches would have their Post-conference meetings where members attending conference would have the opportunity of reporting on the debates and at this point the branch would vote in the present manner.**

Ecroyd/Hunt

This remit was rejected by the conference basically because of the difficulty the executive would have in implementing it.

The president, Mr Clissold, pointed out to the conference that there would be great difficulties in this concept if the executive had to wait for a number of months each year to find out what the views were of each individual association branch before knowing what the national policy should be.

The remit was lost 3 votes to 7.

DON'T TRAVEL SO FAR

Remit No.20 **South Canterbury**

That this conference recommend to the NBA that future conferences and annual meetings be held at venues between Auckland in the North Island and Dunedin in the South Island.

Cloake/Lyttle

Mervyn Cloake said that there was a growing awareness in recent years that everything had a cost. The hive levy, paid for by all beekeepers, had to carry the cost of servicing all beekeeper needs and this included conferences. He said he wanted to hear the arguments presented in favour of moving the conference around the country. He said he had done a number of calculations and the cheapest place to hold a conference would be Wellington or Christchurch with conferences in Dunedin or Auckland costing an additional $500 a year to the NBA or in Invercargill an additional $1 000 a year to the NBA.

Mr Herron said he would not support a move along the lines suggested, a view which conflicted with that expressed by Mr Clissold who said that given the concern about costs, it would be sensible to restrict the conference to the main centres of each island.

The president's argument cut little ice with the conference with Mr Heineman stating that other ways of economising should be considered. Mr Warr told the conference that the Northland branch had been given a considerable shot in the arm from having the conference in its area and that the practice should continue because it encouraged young beekeepers to become involved in their national organisation. "By going to outlying areas," said Mr Jansen, "we strengthen beekeeping in New Zealand and the various districts."

The remit was lost 9 votes to nil.

Notice of Motion No.1.

That the conference request the NBA to find ways of involving the honey industry in the government's proposed national tree planting programme.

Jansen/Herron.

Mr Jansen said that existing tree planting programmes in local areas were of great benefit to the industry, but that we now have a great advantage of a national programme getting under way from which there would be spin off for virtually all beekeepers.

He told the conference that it would probably be more sensible to spend some of the trust fund capital to help the progress of this scheme because every dollar of capital spent was non-taxable, whereas all income to the trust was taxable at 45 cents in the $1. "Trees planted keep on earning for beekeepers for up to 50 years."

Mr Ron Walker said that this was an ideal public relations opportunity for the beekeeping industry to make the public far more aware of bees and the beekeeping industry. Mr Warr suggested that the Jaycees could be involved as well.

The remit was carried unanimously.

Notice of Motion No.2.

That the 1983 conference be held in Nelson.

Whyte/Lyttle

Gavin Whyte told the conference that Nelson was keen to host the next conference; that Nelson was close to the centre of New Zealand; that those flying would be eligible for 50 per cent epic air fares and that sunshine in Nelson was always guaranteed.

This remit was carried unanimously.

Tanging the swarm.
"The Beekeeper Book".

All that solitary brooding

by Nick Wallingford

ATTENDING THE annual conference of the National Beekeepers' Association has always been an exciting event for me. It is one of the best ways I have found for keeping up with old beekeeping friendships and making new ones. When conference is held in conjunction with a seminar on some beekeeping topic a full range of politics, marketing and just plain old beekeeping is evident.

Though the first national conference was held back in the 1880s and organised by Isaac Hopkins, our present organisation is not nearly so old. Thanks to the present editor of the New Zealand Beekeeper, Trevor Walton, I have had the chance to go back through some of the old issues, and they make interesting reading. I will be drawing more material for this column from them. Back in Volume 1 Number 3 on July, 1939, mention was made of the twenty-sixth annual conference in Hastings, which would place the first one back in about 1913. Our most recent must have been the sixty-ninth.

In many ways reading the coverage of the conferences of the 1940s is not much different than reading about the ones today. Many of the same topics are discussed: Problems with disease control, differences in marketing opinions and a long series of remits calling for action. The content of many of the remits from 40 years ago is frighteningly similar to the ones still being debated and voted on now.

Another obvious similarity is in the names involved then and now. If first names and initials are ignored, it becomes clear how much of a tradition beekeeping within some families is. The names of Bray, Robins, Cloake, Pearson and Berry have been with us for many years, and it seems a very encouraging sign that such families have chosen to stick with beekeeping for a living even through the rough times. Our beekeeping history is certainly fuller because of this continuity.

I recently had a short talk with Jim Barber at the remits meeting of the Waikato branch and got a few short stories of what conferences were like 40 and 50 years ago. The first conference he attended was in 1932. He was elected president of the NBA when he was only 26 and served for many years in that position. He admits that the ones today are very tame in comparison.

One story he told involved W.B. "Billie" Bray who was active in the industry as far back as early in the century, when he was appointed inspector for the South Island. In the many years he was involved as a beekeeper in Canterbury he was a very vocal and, some say, argumentative representative at conferences.

Jim Barber related that one of the NBA presidents of the day who knew he would have to repeatedly deal with Bray came up with a solution to his plight. By drawing Bray into needless argument over minor details of procedure early in the meeting he would manage to hopefully get most of the delegates on his side. Later when important issues arose the president found it much easier to get the meeting to back his rulings over Bray's protests.

Stories are told of physical struggles on the conference floor during those days. Though today's arguments are more refined I can easily see how feelings could have been inflamed to the point of violence.

It must be remembered that then, even more than now, beekeeping was a solitary occupation. Most men worked alone throughout the year and when they got to the annual conference, watch out! All that solitary brooding over the issues of the day would just try to force itself out over just a few days. Frustration and attempts to persuade, coupled with naturally volatile personalities, would have led to some real fireworks.

At the recent conference held at Waitangi, things were much more relaxed, and though the anger in debate may have been subdued the feelings of importance of the discussions was not. With a new marketing scheme in the form of the Co-op now operating, most of the major arguments of the last ten years have been put aside.

I caution against thinking that we now have a final solution to the marketing of honey and that the industry can now look forward to few real issues on these lines at future conferences. Going back to the third year of this magazine's publication, 1941, is the headline "New Marketing Scheme" which came as a result of a meeting of some of the large Canterbury honey producers. Sound familiar?

Rather than expect the formation of a new organisation to solve our problems automatically, we must be prepared rather to use it more as a framework to work out the issues as they arise. I expect even major differences to appear over marketing issues but expect beekeepers to be capable of reason and sound judgement to deal with them.

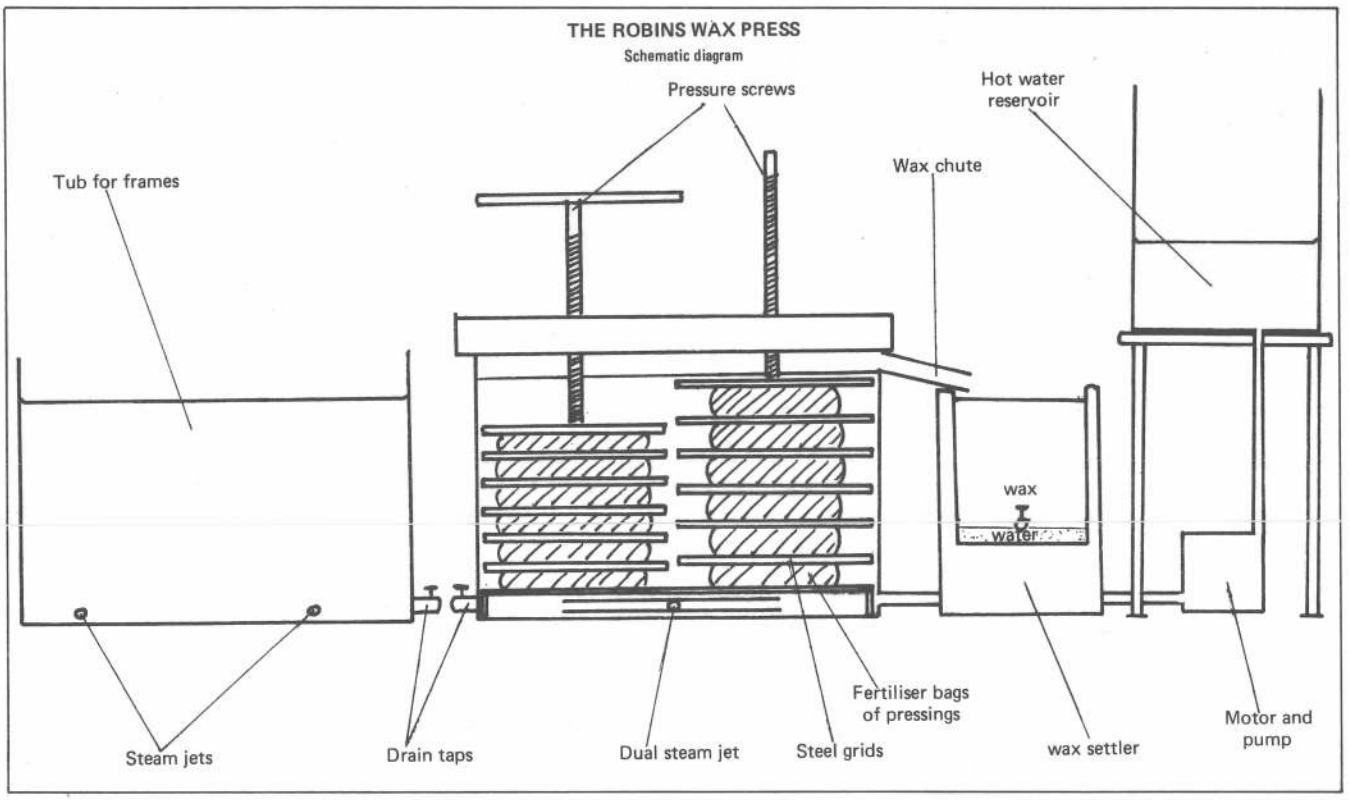
Our industry has been remarkably resiliant when faced with difficulties, and I feel this is due to individualism of thought and collectivity of action. Problems that arise can be thoroughly discussed at forums such as annual conference giving every person a chance to influence the decisions.

So I'll keep going to the conferences. Holding them in various places throughout the country enables people to attend, even if only occasionally, and see first-hand the workings of our national association.

On a more personal note I look forward to such events of the last few years such as Russell Poole's string bass playing, Peter Pegram's stories and Keith Herron's innovative suggestions for apiary inspectors.

The conference proper can always be counted on to provide thought provoking discussion; the hours outside the hall are always a highlight of the year to me.

As promised in our last issue, Kerry Simpson, MAF Oamaru apicultural adviser, has looked at the Robins wax processing system described in an article by Harry Cloake.



The Robins wax processing system

THE WAX SYSTEM used by Steve Robins of Pleasant Point has a long and involved history. The original press made by his father was described in the Journal of Agriculture, January 1955, by Ivor Forster, then apiary instructor in Oamaru. This same press is still in use but forms only part of a complete wax processing system that Steve is still working on to improve.

The original press took only four large bags of wax/slumgum mixture and had the wax goose necked off the top of the press. The hot water of each pressing was run to waste and the next load had to be heated from cold.

The present system is much more sophisticated, retrieves more wax and is quicker to use, but Steve is still working on a project to produce an even better process.

The system in use today has five main parts:

- A large water tub used to melt out the combs. Two live steam jets heat this tub. One corner is partitioned off to provide a wax/slum free area to wash the frames.
- The original press fitted with removable steel grids which enable twelve smaller bags of wax to be pressed (which enhances the wax recovery of the original four bag system). A dual steam jet heats the press, one under each pile of bags and grids. The wax is floated off the top by raising the water level.
- A heated and lagged wax settling tank with a tap from which the wax is run off into moulds.
- A raised hot water reservoir. Water from the press can be rapidly pumped out of the press and held while the press is emptied. Water can gravitate back into the press as required by opening a valve.
- A boiler fired by a diesel gun burner that uses about a gallon of fuel per hour.

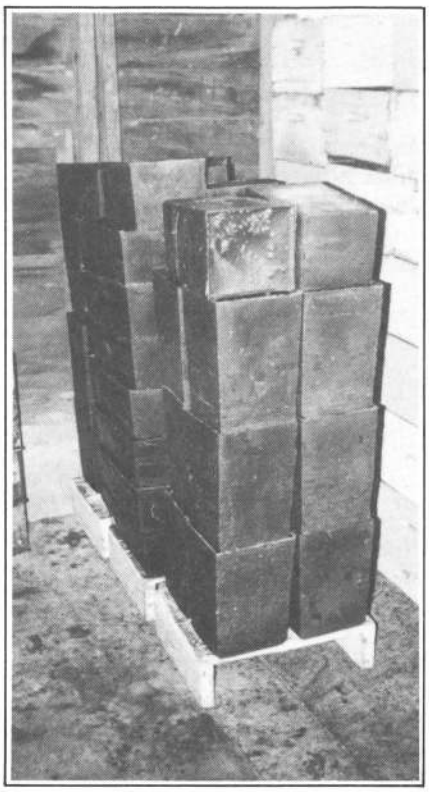
This set up is not only used for processing Steve's own wax, several other beekeepers bring boxes of old combs, scrapings, and slumgum for processing. This gives several weeks work over the winter months. The charges too, are very reasonable and are nowhere near the level of about half the wax recovered that most other processors charge.

The method of use for old comb rendering starts with the tub being filled with old frames of black comb and the steam turned on to heat the water. When the combs loosen they are broken out and the frame washed in the clear water in the corner partition. The frames come out in good condition with clean grooves. Good frames are put back in boxes for reuse, broken ones are dumped. When all the frames are removed a mixture of wax and slumgum is left floating on the surface of the tub water.

Synthetic fertiliser bags are charged with two buckets (three gallons) of this mixture and put in the empty press alternately with steel grid separators. The hot water from the reservoir runs back into the press during the filling operation.

When loaded and full, the steam is turned on under the press. Live steam has been found by experience to be the most effective source of heat.

The Steve Robins wax press, settling tank and reservoir. On right, the end result, blocks of beeswax, one man can manage two boxes in an eight hour day, a total of 50 boxes of comb.



▷ The press is left about half an hour to heat and then the screws are wound down until firm resistance is felt. Too much pressure must not be used at once to avoid burst bags (a rare occurrence with skilled operators). As the wax oozes out the pressure can be increased over about the next hour.

From load to load the pressing takes about two hours. One man can manage two presses in an eight hour day, a total of 50 boxes of comb.

After pressing, the steam is turned off to allow the wax to settle on the top. More hot water is then allowed in from the reservoir to float the wax over the chute into the settling tank. The press water is then rapidly pumped into the reservoir.

Residual wax and slumgum is left with a bit of water under the bottom grid. This is emptied at the end of each day. Two buckets of hot water are used to rinse any good wax left on the bags and grids before they are removed from the press.

The settling tank is primed with hot water to just below the tap. One pressing just about fills the tank which is left warmed by a steam jacket until the operator has time to run the wax into moulds.

Several factors combine to determine the amount of wax recovered, the type of comb being the most important. On average 2.04 kg wax per box of dark combs is recovered. Steve notes that the grade of foundation used has a marked effect on the yield, which can be higher than the average for some heavy combs.

The present Robins system is a very good unit of its type, and could be considered by larger beekeepers or a group of beekeepers who want to co-operate with a high yielding plant.

However, it will be interesting to see if Steve's ideas on a continuous wax processing system supercede his current plant and provide the basis for an article by a future apiary officer. One thing is sure, only continual experimentation by innovative beekeepers will lead to better, more efficient plant.

Harry Cloake's description of some wax processors as being "Heath Robinson", draws a response . . .

"We haven't been taking half our wax to the dump"

An open letter to Harry Cloake from Stuart Tweeddale, Taihape

Congratulations, Harry on having such an efficient method of wax recovery. Any system that can recover over two kilograms of wax per super has to be good.

Over the years there have been many excellent articles and illustrations of interest in our journal, but I cannot remember any that have received such harsh criticism as this recovery unit of ours. I know you are a straight talker Harry, but there are limits, especially when you haven't all the facts.

When an article appeared above your name in the journal some years ago, telling of the mighty great pit you were digging to accommodate the huge crops you get down there, I could not see it working, but did not start jumping up and down, and rushing off into print about it. If it was a success, I hope you have had it fenced in since then.

Since the more prosperous times of the post 'Kimpton era', when much needed replacement and repair work has been carried out, we have put through this system of ours fifty or sixty thousand old frames and we can assure you that we have not been taking half our wax to the dump.

Perhaps we could come to some sort of compromise, with us reducing 120 frames down to about one third of a drum of scalding slum-gum in one and a half hours, and then you could move in with your big powerful press and squeeze out the last few grams.

Somehow I think you might be wasting your time, as two other experienced beekeepers up here, have already done this, and both have admitted that they didn't get pay dirt.

Also some of us take the view, that you can no longer put a man into the wax room just to get him out of sight and out of mind as they used to, or you may find all the profit going down the road on pay-day.

Anyway, we do hope to see you up this way sometime Harry, and perhaps we could show you how a reasonably efficient North Island unit is run.

Steam rendering of wax - some actual figures

by K.W. Simpson, AAO, Ministry of Agriculture & Fisheries, Oamaru, and A.G. Matheson, AAO, Ministry of Agriculture & Fisheries, Nelson.

TWO BRIEF articles on simple wax processing without pressing were criticised in the June 1982 issue of the NZ Beekeeper. The articles did not pretend to be a full economic analysis of wax rendering systems, but neither is Mr Cloake's critique. It is easy to show that slumgum contains wax, but more care needs to be taken in deciding whether its recovery is economic.

For those interested in pursuing this subject further, there are two interesting articles available. Kevin Ecroyd spoke on "The efficient salvaging and handling of beeswax" at the 1969 Ruakura beekeepers' seminar, and this talk was reported in the November 1970 "New Zealand Beekeeper". Vince Cook conducted a small survey on the economics of comb replacement, which was written up in the proceedings of the 1970 apiary staff conference.

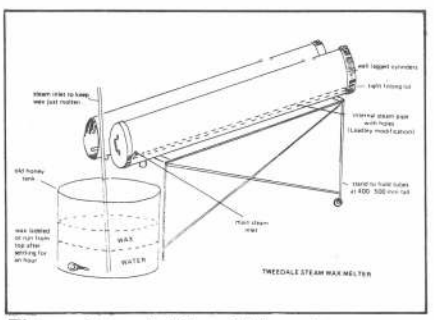
Their figures need adjusting for inflation, but they do provide a starting point for detailed analysis. It must also be remembered that wax prices to beekeepers have not moved in line with inflation, no doubt a reflection of the overseas market. Costs such as power, wages and capital have increased with inflation while the dollar returns for wax have stagnated, and this will also alter the economic analysis.

Sandy Richardson's unit was the first to be discussed in the articles. Mr Cloake claims that its efficiency on old comb and slumgum "beggars description", and that a potential user would be better off sending his old combs "to the experts". He also says that air-operated presses are extremely efficient and would be a sound investment.

To see how true this claim was, one of us tested 19.1 kg of slumgum that was left over from the rendering of old combs in this vat. A modern air-operated press was used. After the equipment was cleaned and set up, two people spent two hours very carefully pressing the slumgum, and recovering every last piece of wax.

The result? 1.2 kg of the lowest grade wax (worth $5.64 at today's prices), and a heap of good, garden-grade slumgum. Most people won't take long to decide whether the 6 per cent of wax that the slumgum contains is worth recovering, or spreading on the garden.

The figures given in Mr Cloake's article for wax recovery with the Robins press were the high, not the average figures, and were from combs fitted with extra heavy foundation (which gives 0.2 kg advantage over medium brood per box). Figures from V.A. Cook's survey on seven pressing systems yielded 1.6 to 2.0 kg with an average 1.7 kg per box of 10 combs. These figures may be taken as nearer to real average values actually obtained in the normal running of wax presses.



The controversial Tweeddale melter.

Of the systems surveyed, the most economic was a copper and hatch press. The big presses returned more wax, but were not more efficient economically (when capital, running costs, etc were considered). Since Vince Cook's survey, the beekeeper with the most efficient system has changed to a steam rendering set up, as it is easier and less messy. People do not make decisions on economic grounds alone.

Mr Cloake's analysis of *the Tweeddale system* should be corrected with the actual figures from this winter's usage at the Tweeddales':

☐ The unit holds 120 frames, and steam out time is one and a half hours.

☐ Over 700 frames are processed a day, (many light simplicity type with little wax are culled because the frame type is no longer wanted).

☐ Wax recovery is 1.6 kg/10 combs (fitted with medium brood).

☐ Boiler uses half a gallon of diesel an hour.

☐ Spun dry cappings from 70 tonnes of honey were processed in three and a half days.

Stuart Tweeddale also asks the valid question "When does it become uneconomic to extract the last few grams of wax, given the cost of wages and high capital cost of presses?"

It is worth concluding with a quote from V.A. Cook's survey: "Costly, complex wax salvaging plants are only worthwhile if they are more efficient than simple, cheap plants." And to work out efficiency, actual data, accurate costings and thoughtful planning are required. Dismissing alternative plant as totally useless is not helpful. There are few problems in beekeeping, or in life, that have only one right answer.

Acknowledgements.

Grateful thanks are due to several beekeepers who supplied information for this article and made their equipment available for tests, especially Stuart Tweeddale and John Bush.

The Robinson/Tweeddale/Jansen melter

IT APPEARS that the controversial wax processor described in the NZ Beekeeper as the "Tweeddale unit" was misnamed. Taupo Honey Centre managing director Robyn Jansen tells us that the unit described in the article in the March NZ Beekeeper and criticised by Harry Cloake in the June NZ Beekeeper was in fact developed by him in the late 1960s.

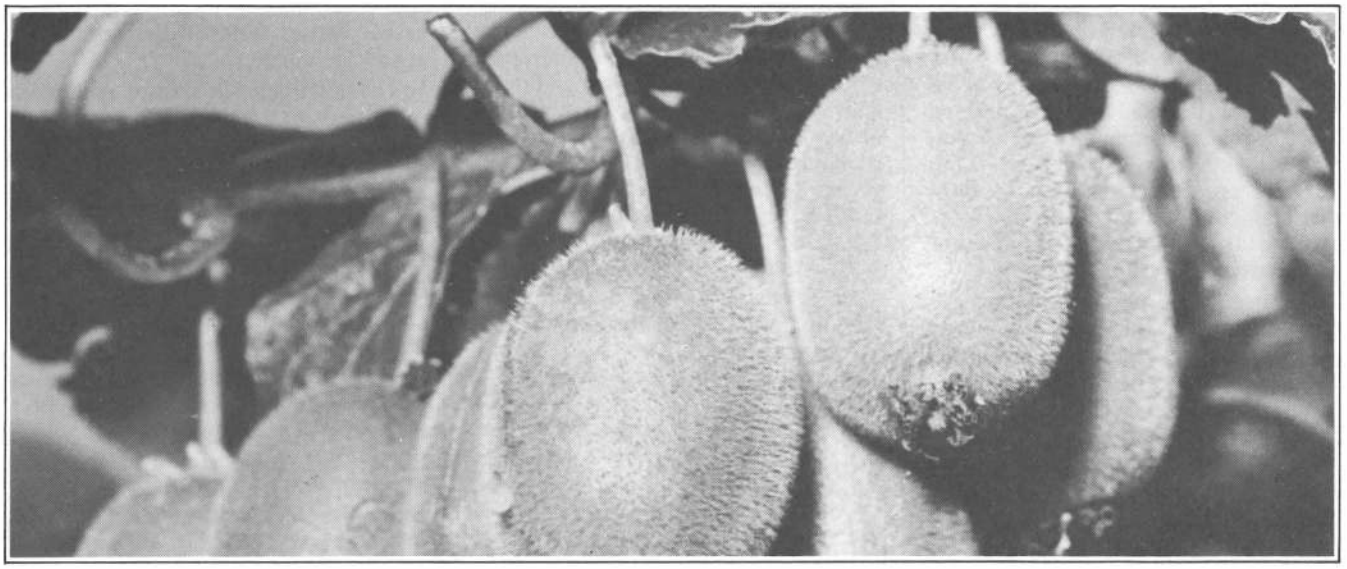
"Unless Mr Tweeddale has developed a new model, the unit described was one he purchased from me in the late 1970s. We never, in fact, used it as we subsequently went on to develop a far more efficient unit based on the same system. This newer unit will render a 44 gallon drum of cappings to a dry slumgum stage in 10 minutes."

While Robyn has no objection to his obsolete unit being the topic of debate, he would like it acknowledged that it was originally a Jansen development which has long ago been superseded by a more efficient model.

Robyn also informs us that he doesn't know the Mr Robinson described in Harry Cloake's article, but he certainly acknowledges his bees gather honey and wax from heath bushes.

This article has been adapted from a paper presented by Russell Berry of Arataki Honey Ltd., to the conference seminar organised by the Northland Branch of the National Beekeepers' Association.

Arataki Honey Ltd., has been involved in pip and stone fruit pollination for over 30 years and kiwifruit pollination for seven years. Last year they put into the kiwifruit orchards 3 300 hives for the purposes of pollination.



No long term commitment by kiwifruit barons

SHOULD WE join Mr Muldoon and some civil servants and "Think Big" with the hive numbers required for kiwifruit pollination? Or should we take a more cautious, rational, flexible approach, to the numbers of beehives that may be required for kiwifruit pollination?

Many statements that we have seen published recently are based on eight hives/hectare, plus very large future plantings. Right now, in mature densely-planted kiwifruit areas, we are putting in an average of five hives/ha.

Using five hives/ha in mature orchards, and providing the kiwifruit industry does not go the same way as the boysenberry industry and dig out their vines, in 1985 we may require 25 000 hives of bees for kiwifruit pollination purposes, through New Zealand.

From here on, the suggested number of beehives to be used for kiwifruit pollination are only guestimates.

Some of the things that may influence hive numbers are profitability of growing kiwifruit; the price received for, and the amount of kiwifruit able to be sold; the profitability of using the land for other horticulture or farming purposes, and the changing of the minds of the kiwifruit orchardists of the number of hives required per hectare for pollination by artificial pollination, scientific research, increased density of orchards and lessening of competing nectar sources, and the availability of bees and their price.

As beekeepers it is up to us to have some knowledge of how kiwifruit orchardists can help themselves to get good reasonably priced pollination.

Think pollination before planting your orchards. Do not plant vines near other horticultural interests, which may put bees at spray poisoning risk because of the conflict of the spraying programme.

The position of your orchard will greatly affect the number of hives you'll require for your orchard pollination (competing nectar sources).

Keep access into and around your orchard as easy as possible for trucks and take care that what you plant in the shelter belts will not put bees at risk from spray poisoning at any time of the year.

Hives are often placed in at night by people who do not know your orchard. **Think safety!** Wires, pipes, wind shelter material above tracks can be very dangerous in the dark. I know people who've been knocked off the back of trucks by wires they couldn't see in the dark.

Kiwifruit only

Some problems some orchardists may have with the owning of their own hives are:

- Getting involved in a very demanding business, in which you may have great difficulty in employing a sufficiently experienced beekeeper, to assure you of good pollination of your kiwifruit.
- Owning sufficient beehives to be assured of enough good hives for pollination, when things have gone wrong, due to adverse weather conditions or farming techniques.
- The controlling of disease. If diseased hives get shifted into orchards, commercial beekeepers will be at grave risk of their beehives becoming diseased as well. They may become reluctant to place their beehives into the orchards.

If you are considering offering your hives for kiwifruit pollination, here are some of the costs involved: Learning how to do kiwifruit pollination; visiting orchardists and arranging orders; making your hives and your sites so that they are easily shifted out in all weather conditions.

Purchasing the necessary vehicles and plant for kiwifruit pollination, also arranging for back-up in case of breakdowns; the employing of extra staff that will be required for pollin-

ation work and back-up in case of illness; the additional farming of hives; shifting costs; consumption and loss of crop during pollination period; the effect on crop after pollination and the likely effect on other hives because of your commitment to pollination.

And too, the stress factor must be considered of having to commit yourself 100 per cent to the demands of kiwifruit, even to the extent of possibly starving other hives in your outfit.

But there are benefits involved: An income even in a bad honey producing year and having more trucks and more staff the rest of the year.

Horticulture's effect on all beekeepers

It will be essential to get the continued co-operation of horticulturalists, as they spread throughout New Zealand not only to see that no bees get put at risk from toxic sprays during the flowering period when bees are in the orchards, but also for the rest of the year, because in future, horticulture is always going to be only a short distance away from our bee hives in many parts of New Zealand.

In some areas there will be difficulty with overstocking of beehives during the summer period for efficient honey production because of the proximity to large horticultural areas requiring pollination at other times of the year.

Kiwifruit pollination is going to greatly increase the number of queens required from our queen breeders.

But remember, the orchardists have made no commitment to use our hives for pollination in the future, so do not build your business assuming that they will be required. Keep your options open, be able to supply large numbers of hives if required but also have an economic business with very little pollination. Think of the effects if artificial pollination becomes practicable in a few years.

It is essential to have good communication between beekeepers and all horticulturalists to give them the very best pollination service possible, which they are happy to pay us for. And remember, the cost of pollination is a cost of producing fruit, not a cost of producing honey.

Finally, if you are going to become involved in putting many hives into kiwifruit (and it involves long hours of night work), you may become difficult to live with, so a very tolerant, understanding wife (or a large dog box) is essential!

Arataki 1981 Estimated Costs Involved Per Beehive For Kiwifruit Pollination

1.	Extra farming cost per hive.	4.00
2.	Extra feed used – sugar or honey.	5.00
3.	S.1. 100 hives to depot.	3.50
4.	S.I. to orchards.	3.50
5.	S.0. from orchards to depot.	3.00
6.	S.0. from depots back to bee yards.	3.50
7.	Arranging location hives, sending out accounts, administration, overheads.	5.00
8.	Loss of 20 kg production at $1.25 per kg on hive.	25.00
	$	52.50

ARATAKI LETTER TO KIWIFRUIT GROWERS

September 14, 1981

Just a friendly reminder re SPRAYS

Dear Sir,

We do not wish to interfere with your economic farming of kiwifruit, but if you do choose to spray during the flowering period, we ask that you use extreme care in the protection of the bees.

We would recommend that spraying be done only when the bees are not flying, such as at night. And please – never ever – allow insecticide to be accidentally or intentionally, mixed with these fungicidal sprays during the flowering period. The results can be disastrous, not only for our beehives and other beehives in the area, but also to your kiwifruit crop and to your neighbour's crop, as there would be practically no field bees left in the hives to pollinate the remaining kiwifruit flowers.

I am sure that you will all co-operate in this, but the element of danger does still exist. Sprays might be applied to kiwifruit or surrounding crops in a manner that would kill bees and affect our later honey production. Charges at the moment do not cover this.

Beekeepers are the only ones who can estimate the cost to a beekeeper, of spray damage. If some hives in one area are damaged, all orchardists in that area will be charged more for hives:

Minor Bee Losses – The following year an additional increased charge to cover last year's spray damage.

Major Bee Losses – Increased charge this year on all hives in the area, to cover our losses.

A satisfactory outcome of this will determine whether we or other beekeepers can afford to put bees back into that area next year.

As I understand it, the Fruitgrowers Federation and Kiwifruit Growers will again be setting up a map which will indicate when hives are put in and when hives are taken out of the orchards, thus helping you to determine when it is safe to spray with a spray that may be toxic to bees. This, I am sure, will help to overcome any spray damage to our hives.

Please help us to keep pollination costs reasonable.

Thanks for your co-operation last year.

Russell Berry

R.A. BERRY.

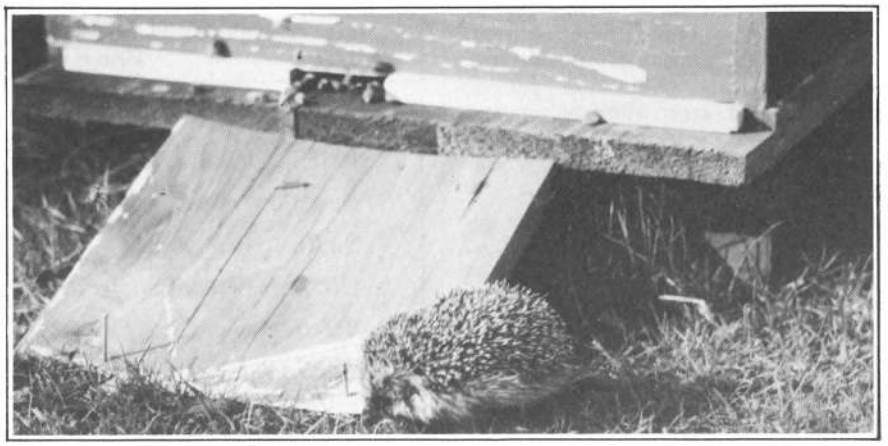
Hedgehogs and humans

Story David Williams, photo Alan Warren

SOME MONTHS back John Smith, apicultural advisory officer, Christchurch, pointed out that a sudden increase in dead bees in front of hives may not represent any real increase in mortality, but rather the sudden absence of the local hedgehog. Hedgehogs do an excellent sanitation job in this way, operating discreetly under cover of darkness.

Those who think of them as shy, retiring little animals, however, have never been kept awake by a mating couple as they romp exuberantly around the lawn snorting at the tops of their voices. They have to be heard to be believed. They also scurry along surprisingly fast on their narrow legs.

The photograph is of Porky, short for porcupine, who joined my family for a few weeks in May, well before their hibernation period. He was spotted crunching up bees at 3 p.m. outside the hives so my daughter rushed out with a saucer of bread and milk. Naturally he curled up and took a few minutes to unravel himself again before enjoying the largesse. The next day he was still a little cautious but didn't bother to curl, the third day he practically leapt into the saucer as it was put down.



We were a little worried about his daylight performance. It seemed absurd for him to be phototropic rather than photophobic but the book, when consulted, said it appears quite a normal habit for young hedgehogs to visit around in daylight. Certainly Porky's visits got later and later until we only saw him at dusk then not at all, but the bread and milk still disappeared from the saucer placed under one of the hives where it was placed to keep it safe from birds and rain.

As for his bee-eating habits, he visited each hive in turn, crunching up dead bees quite audibly and with obvious relish, perhaps six to eight per hive before moving on to the next, visiting three to four hives on each occasion.

He was really an ugly little beast when examined in detail, with bat-like leather ears and a sly expression, but he still had charm. It is pleasant to remember that we met, briefly, one autumn.

BURRCOMB

Frank White's virgins

In paying homage to leading queen breeder Frank White, government HMA representative Mike Gould told the NBA conference of a visit by the police vice squad to Frank's home.

According to the story, flatfoots had arrived in response to a Post Office query about one of Frank's telegrams to a client. The telegram read, "Sorry we don't supply virgins."

Mike commented that it is one of the great mysteries of life that the Post Office should still not understand beekeeper terms considering the business that queen breeders put their way.

ABD Queen cells

Kerry Simpson had a very timely warning in the March 1982 issue of NZ Beekeeper of how easy it is to spread American Brood Disease (ABD). In this case the culprit was a sugar feeder that squirted syrup into drawn combs. A diseased comb had been used and the excess syrup that ran out of this contaminated comb had infected the rest of the syrup in the tank.

Hamilton adviser, Murray Reid, now has another warning of how easy ABD can spread. This time the culprit was probably a plastic queen cell cup. These cups are being adopted by more and more beekeepers and are usually removed from hives or nuclei, scraped clean and re-used.

And there lies the danger. So often the cell cups are removed from the hives without doing a proper disease check. It only takes one of these infected cell cups to be 'recycled' through a starter hive and up to 90 or more queen cells could be infected too.

So the message is, don't remove plastic queen cups from colonies until you have checked the brood thoroughly. If you rear your own cells then check the brood of your starter hives with every batch of cells you put in. It was on one of these 'accidental' checks that two cells of ABD were found in a starter hive containing about 90 developing queen cells. It was more than likely that the initial infection had come from a contaminated and recycled queen cell. You can't be too careful with this disease.

Beeswax sincerity?

Sculptors in ancient times used bleached beeswax to disguise flaws in marble sculptures. Those who produced flawless works would stand them in the full heat of the sun to show that they were 'sine cera' (without beeswax). So the word sincere was coined.

A discussion of betting, on the radio, informs us that if tax on betting is increased there is likely to be an upsurge in street betting. The cockney slang for such betting with no tax is 'no beeswax'. Will tax avoidance now become sincere?

From The Scottish Beekeeper 6–81.

Varroa info

For those interested in bee diseases and the varroa mite, the International Bee Research Association has just published three reprints from Bee World:

'Varroa disease of the honeybee *Apis Mellifera*' (M106) by Professor W. Ritter (1981), an up-to-date survey of the mite and its effect on bees and the colony, treatment and control methods. It is documented with 46 references to other publications.

'World distribution of the mite *Varroa Jacobsoni,* a parasite of honeybees' (M107) by Dr D.A. Griffiths and C.E. Bowman (1981), the first world survey of the mite carried out by acarologists.

'Preliminary world maps of honeybee diseases and parasites' (M108) by Margaret Nixon (1982), which presents and discusses the first world maps of important bee diseases and parasites.

All three reprints can be purchased direct from the International Bee Research Association, Hill House, Gerrards Cross, Bucks. SL9 ONR, England. Copies are also available on loan from the NBA Library, P.O. Box 112, Milton, Otago.

Keep David busy

While our hobbyists' adviser David Williams is currently in Australia on a research exchange, he would still like interested readers to continue sending in their queries and notes on their experiences. It's a good way to keep the column alive and to ensure it keeps on answering the needs of hobbyists and those just starting out on a beekeeping venture.

Don't forget his address: 26 Otonga Street, Rotorua.

Bee quotes

To show that no classic is complete without the bees, from 'Brideshead Revisited', the Penguin paper-back edition, $6.95, page 118: "The fortnight at Venice passed quickly and sweetly – perhaps too sweetly; I was drowning in honey, stingless."

And page 379: "When the summer comes," said Lord Marchmain, oblivious of the deep corn and swelling fruit and the surfeited bees who slowly sought their hives in the heavy afternoon sunlight outside his window . . ."

SOCIAL DISEASE?

I have this little trouble
It's called a social disease
It kind of burst my bubble
And my wife it didn't please
I haven't sought a cure yet
But I do not feel ashamed
You see I am not sure yet
Which female should be blamed
For thirty years I've suffered
Though as yet I haven't lost
But I'm sure I would be scuppered
If I stopped to count the cost
This pain I have, this dread disease
Is one I've caught from loving bees

Don Gibbons

HMA story still hasn't ended

In our last issue we apologised for what seemed a long drawn out saga regarding the windup of the HMA. Well, the saga continues.

The initial sale of the HMA's Parnell property, reported in the last issue, fell through so it still belongs in beekeeper hands. Fortunately, however, another purchaser has given an unconditional offer and this will be settled on October 24.

Best news of all in this area is a recent Crown Law Office decision which said that the HMA has power to set up the trusts which will handle its assets. After an initial government approval for the establishment of these trusts, doubt was placed on the legal powers available to the authority. After much toing and froing by HMA, NBA, MAF and Crown Law Office staff, Mike Gould of the Ministry of Agriculture and Fisheries was able to announce the favourable decision at the NBA conference.

Perhaps next issue the remaining HMA debris will be very minor.

Wasp nest gremlins

Nick Wallingford's article in the June issue of the NZ Beekeeper fell foul of gremlins – not the ones belonging to the insect kingdom either. If you are seeking to kill a wasp nest, please follow his recommendations, but don't waste 300 grams of carbaryl on each nest. 30 grams will do the trick.

Paul's option open

Paul Marshall made a big impact as NBA president during those demanding years which saw the removal of the HMA as a major force in the marketing of New Zealand honey. His resignation from the presidency in 1981 and now his loss from the executive in 1982 was recognised by many at this year's conference who are aware of his skills as a chairman and as a communicator.

Thankfully, all is not lost, however. Paul said that his new life away from the beekeeping whirl in the bowels of a restaurant is not exactly in line with his long term ambitions.

Beekeeping is still in Paul's blood, so don't be surprised, Mr Glynn, if one spring day you see a truck load of hives being driven by a familiar face on their way to the clover fields at the top of those 3000 ft oversown mountains Keith Herron knows so much about.

President Mu-Sheng Li?

President Carter and his peanuts. President Reagan and his jelly beans. So why not President Mu-Sheng Li and his bees?

Quite a character this would-be occupant of the White House. We figure his reference to the Queen Bee in Chicago must be Mayor Jane Byrne. But why the flag on coconut isle? Perhaps it's a reference to the old Melanesian saying, "Beekeeper who sleep under palm tree – wake up strange after coconut fall."

Consider yourself on the "outer" if you didn't get a personal card. If you were fortunate, it may be worth a dollar when he's trumps at the election.

6-25-82

Dear Sir,

Under Reaganomic policy, I cannot purchase a large quantity of foreign honey. However we can import a small amount of free samples.

You as a beekeeper lost a queen bee in Chicago, and stored some "sweet" honey in the Senate. However I did not get a job in Chicago, and I never did get a dollar (honey) from the Senate.

One more news: The plums are smaller than usual around here. Please send some beekeepers to cure this problem.

Sincerely,

Mu Sheng Li

P.S. Please tell your american friends to support me for 1984 presidential election. Thanks!

This article has been adapted from a paper presented by Malcolm Haines of Haines Bee Breeders Ltd to the conference seminar organised by the Northland Branch of the National Beekeepers' Association.

Queen introduction

Failures are the result of an incorrect understanding of basic principles

THE INTRODUCTION of a queen to a colony is a simple operation, though the method may mean the acceptance or failure of the queen. There seem to be some apiarists with many years of experience who regularly have poor queen acceptance. Then there is the person starting into commercial beekeeping with minimal experience who gets a large lot of queens, splits hives and has good queen acceptance. No matter what the outcome – good or bad – the queen breeder is considered to be responsible.

Queen breeders put a lot of work into raising good queens, freighting them all over New Zealand and around the world with good reports on performance coming back. Why then do New Zealand beekeepers have so many problems?

A lot can be done by the person receiving the queens to ensure the breeders work and the purchasers money is not wasted. The queens should be kept out of sunlight at average room temperature not in the hot water cupboard where dehydration is probable. Two drops of sugar syrup per cage as soon as the queens arrive is important, repeated daily if placing queens in colonies is delayed.

The proper method of introducing queens is a much discussed subject. There are many methods used, most of them working under certain conditions and failing under others.

The failures are likely due to an incorrect understanding of the basis for successful introduction. According to the theory of colony balance in relation to queen introduction the queen to be introduced must be in about the same condition with respect to egg laying as the queen which is to be removed. This appears to be the requirement for ready acceptance of new queens, and when this balance is provided introduction is easy by almost any method. If the balance between the two queens is not equal, introduction will usually fail.

In the natural processes of brood rearing, the colony will have little brood in the spring, and as the colony grows the amount of brood increases until it reaches a large amount just before or in the beginning of the honeyflow. Brood rearing will taper off between flows, and in the autumn it is at a low point. Young queens, therefore, may be introduced easily in a nectarflow in the spring or in the late autumn when egg laying is at a minimum without any special attention being paid to whether the new queens may have begun their egg laying. The queen of the colony and the young queen are approximately in balance with respect to their egg-laying condition.

Malcolm Haines:

If a queen must be introduced when there is considerable brood in the colony, and the queen of the colony is daily depositing eggs to the best of her ability, then the young queen to be introduced should also be laying eggs daily to be in balance with the queen in the colony. Thus, the new queen must begin her egg laying elsewhere before introduction. This may be accomplished by first introducing the queen into a nucleus where she may be kept until she is laying well.

The queen also may be placed in a reservoir while still confined in her cage where she is fed by the worker bees and stimulated to fitness. A reservoir for conditioning queens and for holding them until they can be used in requeening can be made by establishing a nucleus of several combs of brood and bees without a queen in a convenient hive.

A colony of bees also may be used as a reservoir without removing the queen. An excluder should be placed on the body, making certain the queen is below. Then the body containing the queens to be reservoired, combs of honey, pollen, and emerging brood, and ample young bees should be put above the excluder.

Whether using the queenless nucleus or the queenright colony for a reservoir, the attendant bees are removed from the cages containing the new queens and the cages placed in a frame adapted for the purpose of holding them. One should make sure that the candy compartments are protected so that the bees will not eat their way into the queen cages.

During confinement, the new queens will be fed by the bees, and they will increase in size and may begin to lay eggs inside their cages. The queens may be kept in the reservoir a week or two before they are used, and the reservoir should be kept in condition by frequent additions of brood and bees. The reservoir can be carried from one yard to another when requeening, and brought home each night.

When the time comes to introduce the new queen into the colony to be requeened, the introduction ordinarily is made by using the shipping cage containing the young queen, whether she is introduced directly upon receipt from the breeder or taken from a reservoir or nucleus.

First, remove the old queen from the colony that is to be requeened. The safest plan when using the queen-mailing cage is to remove the attendant bees, providing this already has not been done, and to remove the cork over the candy hole of the queen cage. The cage then is inserted between two brood combs in the colony. If the weather is cool, the bees will cluster about the cage and the queen will not be chilled. In time, the worker bees will eat through the candy and release the queen.

The behaviour of the queen when she is released by the bees influences the conduct of the bees toward her. If she is rapid in motion, she may not be accepted as readily as a queen that is quiet and slow in movement, ready to lay at once and eager for food. ▷

▷Many beekeepers are overly anxious to determine whether or not the queens have been accepted after their introduction. Frequent examination of the colony, or examination in inclement weather, may result in the loss of the new queen through being balled by the worker bees. Balling occurs when the worker bees cluster tightly about the queen and pull at her legs and wings until she is badly injured and frequently killed.

When a colony is examined to make sure the new queen has been accepted, if eggs are seen, the queen is there. The hive should be closed and the colony left alone.

One of the best methods I know of to introduce a queen, is to make a newspaper bag of one thickness of newsprint approximately 15cm x 30cm and scoop up 50 to 100 bees into the bag. I prefer bees off the brood but other apiarists have no problems with just any bees.

The queen is then released into the bag. The top is then folded over and the important step of gently shaking the bees and queen in the bag is undertaken. The bag is then placed between the brood combs. Fold down so the combs will hold the top shut. The queen will set up her court and be released in one to four hours. Laying beginning very soon after.

I must emphasise this is one method that is used by us and many other Northland apiarists. If you have a method that works and you consider it the best for you, use it by all means.

One area where I feel a problem may occur is in splitting hives where a strong colony has an excluder placed between the brood boxes sometimes days before the queens arrive. This is the method by which we raise cells by the supercedure method and I feel this places the colony in a wrong mood to accept a queen. I feel that divisions should be made and the queen introduced as quickly and with as little disturbance and distruption to the colony as possible. Going back to check to see if a queen has been accepted can also cause balling and a premature supercedure. I feel 10 days is not too long to leave a hive that has been requeened before checking for acceptance.

Robbing is another problem that plays a big part in non acceptance of queens. I don't mean only the furor of an all out robbing match, more the subtle sneak robber that follows the smoker about the yard.

Care of queen bees before introduction

by Nick Wallingford

SPECIAL CARE needs to be taken with queen bees during the time between their arrival from the breeder and their introduction by the beekeeper. Precautions by the beekeeper can minimise losses before introduction and lessen the risk of premature supercedure by the hive.

Forster (1971) investigated the effects of air or surface mailing of queen bees, and found more supercedure during the first season by hives headed by queens transported by air or surface when compared to local queens. He listed the following risks: *Nosema* from confinement with worker bees; improperly made candy; harmful jolting before the ovaries had contracted; changes in atmospheric pressure during air transport; temperature fluctuations, and the sudden cessation of egg laying.

Ashby et. al. (1980) determined parameters for temperature, CO_2 and humidity for caged queens and escorts, and concluded that there was a good chance of bees encountering dangerous temperatures and mishandling during surface and air shipments.

Many queens are transported around the country each year. When the beekeeper expects to receive queens through the post or by road services, the local Post Office mail room or bus depot should be notified. If your phone number is on the package they can ring you enabling prompt pickup.

From this point on, every effort should be made to avoid jolting the queens, extremes of temperature and exposure to direct sunlight.

Woodrow (1941) found the availability of water a major factor for longevity of queens and workers in cages. Immediately upon delivery and several times each day until introduction, each cage should be given a drop of pure water (rain water in preference to chlorinated) or a dilute sugar syrup. This can be done with an eye-dropper, taking care to keep the liquid on the gauze or openings of the cage for the bees to take as needed.

Accidental exposure to insecticides can cause sudden drastic losses of queens and escorts. Any use of sprays near the bees should be avoided. The plastic impregnated-type pest strips are particularly lethal to bees and the caged queens should never be allowed anywhere near them.

If the queens are to be introduced to hives within a few days they should be kept in a dark cupboard at room temperature. Placing them in the hot water cupboard is not a good idea. Bees can tolerate cool temperatures much better than warm and the low humidity of the hot water cupboard is not good for them.

If escorts die in the cages they should be removed. Do this either in front of a closed window or else hold the cage within a plastic bag so that the queen cannot accidentally escape. These methods are also useful for removing all of the escorts prior to introduction. The presence of many foreign bees makes successful introduction more difficult.

By following the above methods queens can be kept seven to ten days with general success. If they must be stored longer a queen bank will be necessary. Reid (1975) described the preparation of queen banks and their use in a very detailed article that covers storage of queen cells, virgins and mated queens.

Harp (1969) and Griffin (1963) also described methods of banking queens but it would be preferable to get them into hives promptly.

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FROM THE COLONIES

WEST COAST

The winter nearly past, hopefully, has for the first time in years eventuated at the right time of the year and performed in a manner that we used to expect – clear windless days, quite mild in the middle of the day and heavy frosts at night. These conditions can have a profound effect on the performance of nectar producing plants in the summer.

There is much conjecture as to whether or not next season, or should I say this season, will be a rata year or not. Some say it won't be but if the idea of a good rata year every third year is maintained, then it should be. From past experience I would expect a good flowering because there always appeared to be a prolific display of the scarlet blooms after a cold dry winter. Other species could be similarily affected.

What could affect our crop is the clear felling of some forests, and judging by the amount of rata fire wood in evidence, the poor old rata must be copping the lot. The beekeeper will therefore suffer some loss, or resite his outyards to the vicinity of steep mountains, on which logging is prohibited, or near scenic reserves and national parks.

Association meetings, field days etc are the activities for later in August, the results of which may be included in the next notes.

Peter Lucas
Harihari

NORTH OTAGO

The last few months most beekeepers will have been having a spell from the normal chores of beekeeping. But with the prolonged dry and fine spell of weather we have been having, we will soon have to gird our loins and do battle again.

Although we can do with rain if this fine spell continues, we can look forward to a good spring flow and I would imagine it would be early, as the willows are already in bud. Also, because of the good weather it will be advisable to inspect hives early this year as queens are on the lay and hives in favoured positions, already have a larger amount of brood than usual.

Once again we are expecting that big crop this season, but we still have to get about 430 mm of rain for our usual yearly quota and providing this is well spread and not all at once, as we did last year, our prospects should be good.

George Winslade
Oamaru

SOUTH CANTERBURY

Well the drought continues, the longest dry spell on record and as I write this we have a glorious hot day more in keeping with summer. The bees are flying, gathering pollen, and a quick look at a few hives shows that brood rearing is well under way. Just what is in store for we beekeepers this spring is anybody's guess.

The last serious drought comparable to this was in the season 1969/70, when the drought broke on Christmas day, and generally most local beekeepers finished up with a fairly good honey crop.

Meteorologists are unable to predict the weather, but it has been observed that as records have already been broken, it would be most unusual if rain did not fall in sufficient quantity in time to alleviate the serious drought now upon us. We do live in hope and not only beekeepers, it is pathetic to see the dry conditions on the Canterbury plains.

As usual the winter passed with the two normal branch meetings, one to allow remits for conference to be put forward and the other to consider those remits put forward. It was most interesting to note the lack of remits this year, an indication now that marketing is no longer a moot point that there will be some change in conference format.

Recently I was able to attend a farm forestry field day, and it was most heartening to see the interest now being taken in planting trees not only for shelter but to be useful to beekeeping. The local branch has, since the days of the late George Gumbrell, taken an active interest in the planting of trees suitable for nectar and pollen and this interest is paying off.

It is recommended that all branches of the National Beekeepers Association take a more active interest in their local scene instead of wanting the National Executive to do this for them.

Here is hoping that by the time this appears in print we will have had that long awaited drenching rain and so raise our hopes for a jolly good season.

Harry Cloake
Timaru

BAY OF PLENTY

The winter has been hard but kind, the heaviest frosts for some years have continued through the winter. Although this has been hard on stores, hives are coming out into the early spring period with excellent strength. The normal and expected cold driving wind and rains did not materialise resulting in good dry hive conditions.

Hives on warm sites with good shelter and close to heath, tree lucerne, brush wattle or five finger are doing well and have three-brood frames at early August. It's a bit soon to predict, but the season is shaping up to be an early one.

As predicted last May, rewa rewa has not budded up well, so we're unlikely to see any large crops off this main source early November. Anyway, the pine tree gangs have been cutting and burning this source by the thousands of acre. A very sorry sight for some affected beekeepers. Good migratory gear is certainly going to be a key for future success in chasing this source further from home or perhaps chasing alternative sources.

The branch field day early winter at Comvita Laboratories was a complete success. Trevor Bryant, Murray Reid, Jim Courtney and Rod Walker led the discussion, mainly on ▷

▷ pollen trapping, miscellaneous hive products and hive preservation methods.

Trevor Bryant has just finished a series of group evening discussion sessions on disease identification. Trevor has travelled the district, Gisborne to Waihi, with an excellent slide presentation of real value to commercial and hobbyists alike. We would highly recommend this type of educational programme to other branches.

It was pleasing to see a good turnout of Waikato members at a recent pollination committee meeting. They praised the committee for its forthright effort in keeping beekeepers and orchardists aware of the pollination service work.

Most significantly, committee members were concerned about the non-beekeeper sourced negative media statements of recent times. Most importantly there was exception taken to the generalised statement of 'poor pollination' blame for what in fact has been a series of climatic and fruit disease problems.

Honey bee pollination continues to give excellent results where pollinating conditions allow. Near 100 per cent pollination can be achieved using honey bees.

Furthermore members were concerned about, in our opinion, the over-emphasised and harmful statements about future hive number deficiencies. No one has yet asked the beekeepers to comment on this matter.

My own summation of the situation is that as far as it is prudent to look into the future, I see no urgent or acute problem of hive shortages. I believe this is the general view held by my fellow beekeepers and there are some good practical reasons emerging for making this assessment.

We look to the beekeeping season ahead with typical Bay of Plenty optimism.

Bruce Stanley
Whakatane

HAWKES BAY

Most beekeepers have already been out doing early spring inspection, the days have been really warm.

The branch has not had too much activity apart from the usual pre-conference meetings, and one other with Mr D. Pufflet, who is employed by Federated Farmers as an educational officer.

David is producing a book for people entering beekeeping as a career – it is along the lines of a cadet farmer scheme and will enable young beekeepers and employers to relate to the beekeepers rate of learning in the craft.

The Community College scheme is progressing very well with some very keen men and women in the class. Another class for this years beginners is starting September.

A mini field day will be held at the Community College on September 18 (if raining, September 25) at 10 a.m., the subject being queens and splits.

Better beekeeping.

Keith Leadly
Hastings

WAIKATO

First the branch would like to pay tribute to Mr Cliff Bird who has contributed branch notes for many years. Thank you Cliff, your effort was greatly appreciated.

The Waikato winter has been the driest and coldest for many years. Drains are dry which in a normal winter would be flowing steadily, and falling ground water levels are causing concern. Many frosts of six degrees Celsius, heavy for our area, have burnt citrus fruit and they are rotting on the trees.

We congratulate our branch secretary, Tony Lorimer, who was appointed to fill the North Island vacancy on the NBA executive and also got married on July 31, a real tiger for the fun things in life, our Tony.

We also congratulate our advisory officer, Murray Reid, who has taken Grahame Walton's position and assumes national responsibilities for apiculture. Those sunspots have sure had a magical influence for Murray. We're pleased he's staying in Hamilton.

With no HMA politics, branch meetings are very harmonious affairs. Our post-conference meeting finished early so three hours quickly passed while we talked about starting cells and introducing them to two queen hives. It is always interesting to hear of the problems people have and the suggestions others make to solve them. A very interesting topic and no doubt future meetings will be run along the same lines.

Spring is here, let's hope hives have wintered well and early sources help build up to a first class season.

Ray Robinson
Waihou

POVERTY BAY

At the time of writing the Gisborne area is still largely in the grip of winter and the only visible signs of the spring coming are the flowering wattles, tree lucerne and some ornamental plums. In the bush the five finger is in flower and providing the bees with some nectar.

In another three to four weeks things should be away once the willow gets into full flower. In the meantime the hives here seem to have generally wintered well apart from the usual wasp problems.

Coming events are the association's AGM with the August monthly meeting and in October a pollination seminar will be held in Gisborne chaired by MAF. The annual A & P show is to be held in Gisborne in October and the association will again put an exhibit in.

B.J. Foster
Gisborne

OTAGO

As far as the winter is concerned here in South Otago we cannot complain. Some hard frosts with glorious days following, some wet and rough days but not too bad. A bit of snow here and there. Different story further inland and higher up. Hard frosts, days of fog and in places heavy snow fall. But those hardy people from central are used to that. Bees will come through it alright as long as they have enough tucker, the colony is of sufficient strength and conditions inside the hive are dry.

On June 8, Otago and Southland beekeepers gathered at the Federated Farmers building in Dunedin for their annual convention. The afternoon main dish was business economy with speakers from the Business Development Corporation and from the Rural Bank.

The evening was filled with a talk and slides from Derrek Crawford who spent a season in Canada with a beekeeping outfit. Entertaining and interesting.

This was followed by another talk with slides by Kerry Simpson, AAO, Oamaru. Educational and humoristic. Closed the day with supper and chatting. The last being very important.

Branch meetings to discuss remits. Conference so far away and so costly won't see too many from us but we will be represented. We are planning a spring field day in early October and hope to attract as many non-branch members as possible, for the good of beekeeping and beekeepers, full timers, part timers, hobbyists or just interested.

John Heineman
Milton

LIBRARY NEWS

Yes, our collection has grown again. We received "Mastering the Art of Beekeeping" by Ormond and Harry Aebi, the sequel to their other book "The Art and Adventure of Beekeeping", mentioned in the previous issue of this journal. It is along the same lines and style. Will give you pleasant and informative reading.

The Otago Branch presented the library with "Contemporary Queen Rearing" by Harry H. Laidlaw Jr. An updated edition of a very well known work on this subject. Thank you Otago Branch. "Garden Plants Valuable to Bees", an IBRA book that should be consulted by every beekeeper who also has a garden. Gives a lot of information on those shrubs and flowers we really want from the beekeepers point of view.

We now have quite a handful of IBRA reprints. Small booklets on various topics. Very worthwhile.

M 66 Beekeeping with Alfalfa Leafcutter Bees in Canada. G.A. Hobbs.

M 72 Methods for Rearing Queens. T. and M. Johansson.

M 75 Honeybee Spermatozoa and their survival in the Queen's Spermatheca. L.R. Verma.

M 86 Pollen and its Harvesting.

M 91 Feeding Honeybees Pollen and Pollen Substitutes. T. and M. Johansson.

M 96 Control of Wax Moth: Physical, Chemical and Biological Methods. H.D. Burges.

M 98 The Process of Queen-Worker Differentation in the Honeybee. J. Beetsma.

M 99 Propolis: A Review. E.L. Ghisalberti.

M 101 The Honeybee Colony in Winter. T. and M. Johansson.

M 102 The Scope of Tropical Apiculture. Eva Crane.

M 103 Bees-Wax: Composition and Analysis. A.P. Tulloch.

M 106 Varoa Disease of the Honey Bee. W. Ritter.

M 107 World Distribution of the Mite Varroa Jac. Griffith and Bowman.

M 108 Prelim. World Maps of Honey Bee Diseases and Parasites. Margaret Nixon.

M 57 Establishing and Using Nuclei. T. and M. Johansson.

M 92 Feeding Sugar to Bees. T. and M. Johansson.

You must admit, it is a far sized list. Up to you to make use of it.

LIBRARY REPORT TO THE 1982 CONFERENCE

Slowly but surely the number of items in our Beekeepers' Library is growing. The allocation for the library given two years ago has now been spent, I hope wisely.

We purchased a number of books and a portion of that money has gone into a number of IBRA reprints so assuring the best value for what we had available. We still have some money left over from a donation received from Mr New, Invercargill. No doubt we can make good use of it in the near future.

Book donations were received during the year from Prof. Jaycox, U.S.A., Mr W. Houston, Dunedin, the Otago Branch, the Development Finance Corporation, Mr Peter Jackson, Nelson, and Telford Course notes from the MAF. Thanks for their generosity and thoughtfulness.

The $3 we request initially from borrowers seems to be just adequate to cover loan fees and postage for an average parcel. Three books from Milton to Auckland or Gisborne now usually cost $2.10. This rise in costs may have some bearing on the fact that the number of requests for books has dropped somewhat in comparison with last year.

Besides the normal routine lending to beekeepers, the library has given some assistance outside our own little circle. The Hawkes Bay Community College and the Broadcasting Corporation have been among our customers. At times the librarian seems to be thought of as the beacon of knowledge and some awkward questions are asked or requests made. I do my best, but finish up referring persons to advisory officers or the DSIR.

I hope to find some time during the next 12 months to compile a more comprehensive catalogue of what the library has to offer to take the place of the now somewhat haphazard list of books available at present. No doubt the library is a source of beekeeping knowledge and experience that should be used and shared to a far greater extent.

It is up to beekeepers and would-be beekeepers to make it work for them.

John Heineman,
Beekeepers' Technical Library,
P.O. Box 112
Milton, Otago.

Honey sales for the amateur

Story David Williams, photo Alan Warren

I TALKED BRIEFLY last issue on taking off the honey crop and storage before extraction. Now follow a few words on the sale of surplus honey by amateurs. These remarks apply only to them, not to semi-professionals.

The jungle

There are legal, hygiene, social and Inland Revenue implications in this. Ignore them. This is more realistic than attempting to be needlessly honest. Your financial enterprise will be too small to justify official interference. If you try and weave your way through the red tape jungle there are bureaucratic tigers there who can eat you for breakfast and swallow the bones.

Remember that in fighting these tigers Williams' 13th Law states 'The system always wins', which means you lose. The most the professional can do is to maintain an uneasy temporary truce and then it requires expert support from accountants, solicitors, financiers, advisory officers, and wives. The hobbyist must keep outside the system and adopt a very low profile.

Selling know-how

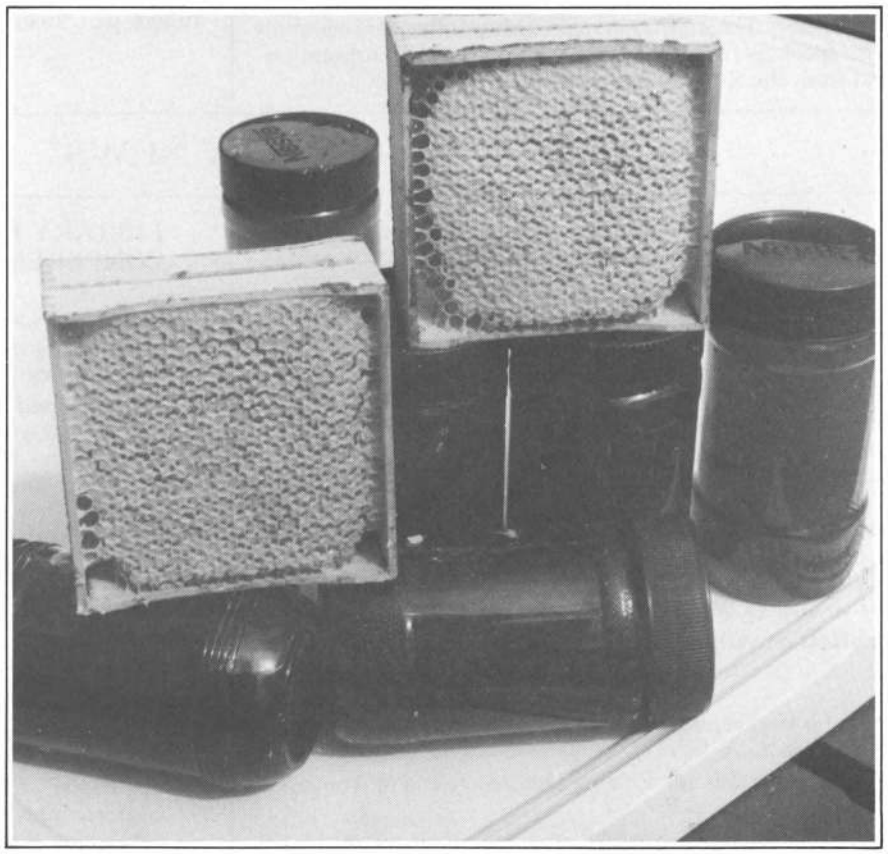
If I had surplus honey from my few hives, extracted it in my own amateur honey house, dumped it in my own 44 gallon drum to let air bubbles and debris float to the top for three days or more, ready to remove through the bottom tap, how would I sell it?

Have a simple set of scales, preferably one that can be zeroed to take off the weight of the container before filling – even bathroom scales will do.

The first customers are obviously friends, relatives, and workmates so get them to bring their own jars or buckets. And don't be surprised by the buckets – there have been customers who turn up with clean plastic dustbins for their annual supply.

Set a price per kg and stick to it – people like you to be definite on this. I won't give a possible price here; go to the local supermarket and then charge a little less than they do. For sections or rounds I wouldn't sell at under $2.50 each for the trouble involved, but that is my opinion.

Customers will think your honey healthier and closer to nature than shop honey; they like personal contact, they like liquid honey.



Honey sells itself if properly presented.

Pass the word around that you will happily accept donations of glass jars *with lids* at any time of year. Wash these and store carefully away, preferably in large plastic bags – this will give you convenient storage for your own needs.

Don't worry if you don't sell the full crop in the first few days – your first customers will soon be back for more and send you new ones; don't worry if you don't get rid of the full crop anyway – the bees will happily accept it back as spring feed. Don't try keeping it to sell in the second season, recycle.

Honey will crystallise sooner or later in a barrel or out – I have had it soupy in less than a week – so it pays to keep an eye on it and get it into containers when convenient. Any attempt to strain honey gives maximum mess for minimum result. When I get down to the foam layer I empty this out, scrape out the barrel, and feed this back to the bees as described in earlier articles.

If you feel the need to justify getting a little pocket money in this way, remember the cost of beginning with bees, remember time, trouble and equipment since, think of books and journals you can buy to improve your beekeeping.

Remember to keep everything clean and spotless at all times, remember that a damp cloth should be available at all times – otherwise honey gets everywhere – even places like doorknobs and clothes as well as floor and walls, and remember that you are not just planning for this year but for the next fifty years.

Summary

Keep your processing simple; sell from your own premises by word of mouth and personal recommendation.

Use the customer's containers at unit price for unit weight. Sell as rapidly as possible, and explain that all honey will crystallise and should be kept in a fridge of cool place for best results.

Shedding the hobbyist mentality (part 2)

by Andrew Matheson, MAF, Nelson and Kerry Simpson, MAF, Oamaru.

HOBBYIST BEEKEEPERS are not necessarily interested in getting a honey crop. Fiddling about with bees is such good fun, and anyway, a big crop is just extra work and inconvenience. One of the main problems in building up a commercial beekeeping business from scratch is to stop thinking like a hobbyist, and start thinking like a person whose livelihood depends on good beekeeping management. That's called shedding the hobbyist mentality.

Considerable efficiencies can be made by thinking seriously about what's in your apiaries. People cry out for scientific advances in beekeeping, yet it's been more than 130 years since Langstroth invented his hive and there are still people who haven't caught on to a concept as basic as bee spacing.

Some advisers have warned about joinery firms making bee boxes without realising how critical bee spacing really is, and that bee equipment is precision joinery. But this still didn't stop one firm from supplying a beekeeper with 1 000 boxes that were 5 mm too shallow. The bee spacing on those boxes is totally ruined. Perhaps the beekeeper will be propelled into having three-quarter depth gear sooner than he thought.

All beekeepers who start out should be going into three-quarter depth gear right from the start – people with hundreds of hives are breaking their necks to change, and some with a hundred or two in full-depth gear are swapping over before it's too late. If you're still unconvinced – go and work for a beekeeper taking off honey (in full-depth gear).

While it's essential that hives are standard, it is not essential that they are pretty, ornate, attractive, or marvels of joinery skill. There was the beekeeper who was working deep into the night, carefully putting the hand-carved lintel over the retractable fully-cantilevered landing platform on his examples of master-craftsmanship, which he called floorboards. Meanwhile the bees were desperate for extra supers during a honey flow, but the floorboards for autumn increases had to be "just-so".

Fiddling around with elaborate equipment is great fun for the hobbyist and does no harm, but simple effective design is more appropriate. Anything that does the job correctly is OK for a commercial business. The rough gear might even be better beekeeping – have you ever wondered why bees winter better in old hives with "automatic top ventilation" than they do in nice new, tight gear?

Winter is the time for making up gear – any beekeeping equipment stockist will tell you of the hordes of people who order gear as it is needed, not months in advance. And we've seen plenty of people nailing up supers and wiring frames during the honey flow. Adequate forward planning is vital for success.

One of the strongest bastions of hobbyist mentality is found in honey sheds – even in their existence. Do you really need a honey house at all? People run hundreds or even thousands of hives without owning one. And if you really must, do you need a Rolls-Royce honey shed if you've only got 50 hives and a hundred nucs?

If you do need one, it's wise to build as big as possible to start with, as luxuries like lining and other finishing work can come later. Second hand equipment also represents a sound investment – you can buy bigger for the same price. It's not worth having an extractor which holds less than eight frames in a "commercial" shed, and these can be bought second hand for less than the price of a brand-spanking two or three frame. Get the basic shed up that will last you for a long time – worry about filling it up with fancy gear later on.

One man with knife, hot top, and eight-frame can do one and a half tonnes a day. For three or four people to match the efficiency per person, about $50 000 worth of plant is needed.

A lot of beekeepers drawing up a development programme forget that making increase is done at the expense of honey crops. You can't have your cake and eat it too. Just because you got two boxes from each of your 50 hives doesn't mean that you'll do the same with 500, and even though you took four nucs off one hive once, you won't be able to turn 50 into 250 in ▷

Hive equipment need not be pretty, ornate, or marvels of joinery skill. Anything that does the job correctly is OK for a commercial business.

▷one season. And you certainly can't do both at once.

Budding beekeepers applying to the Rural Bank can make big fools of themselves by presenting "Alice in Wonderland" budgets like that. Mind you, it could be better than no budget at all – we see so many beekeepers go into the Rural Bank with their five year plan on the back of an envelope or even inside their heads, and they wonder why they get shown the door so quickly.

Be realistic about making increase – by far the quickest, easiest and most practical way is to buy in bees, rather than continually thrashing your own hives for nucs and trying to get enough combs drawn out. That's like trying to swim upstream. Second hand hives give a quick return on capital (if you manage them properly), and even bought nucs are a good head start. Packages can also be useful if you know how to drive them:

☐ They must have drawn combs to start with (they are not a swarm).

☐ Feeding must be adequate (they are not a swarm).

☐ Hive them in small yards.

☐ Lay out the hives so that drift is minimised, and of course make sure that they're painted different colours.

These brief articles do not pretend to tell you all you need to know, nor do they list all the pitfalls in the transition from hobbyist to commercial beekeeper. However, if they make you stop and rethink what you are doing, and encourage sound forward planning for a completely new bee game, they will have achieved their aim.

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The Scottish Beekeeper. Magazine of the Scottish Beekeepers' Association, International in appeal. Scottish in character. Membership terms from A.J. Davidson, 19 Drumblair Crescent, Inverness, Scotland. Sample copy sent, price 20 pence or equivalent.

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