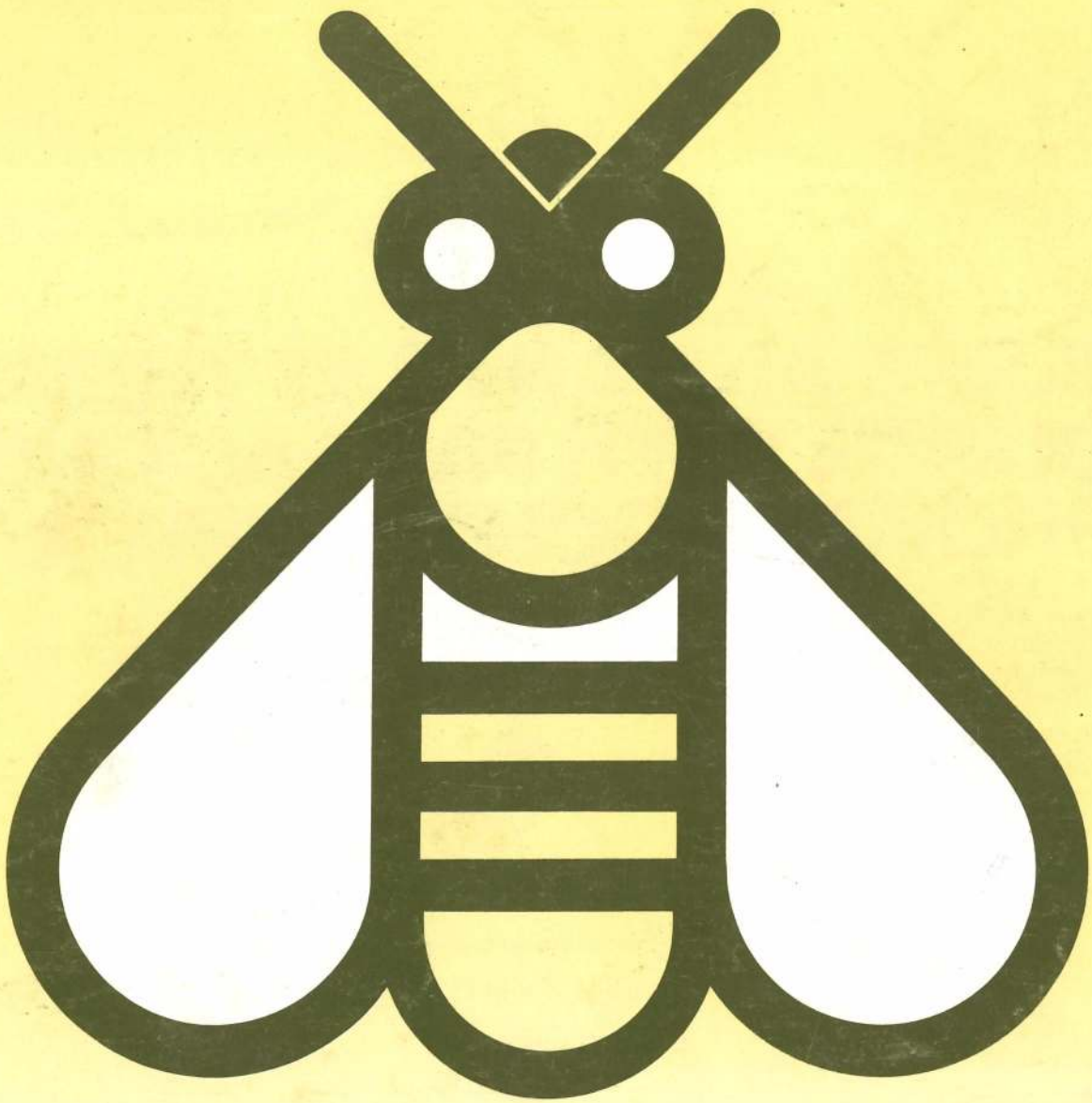
THE NEW ZEALAND beekeeper



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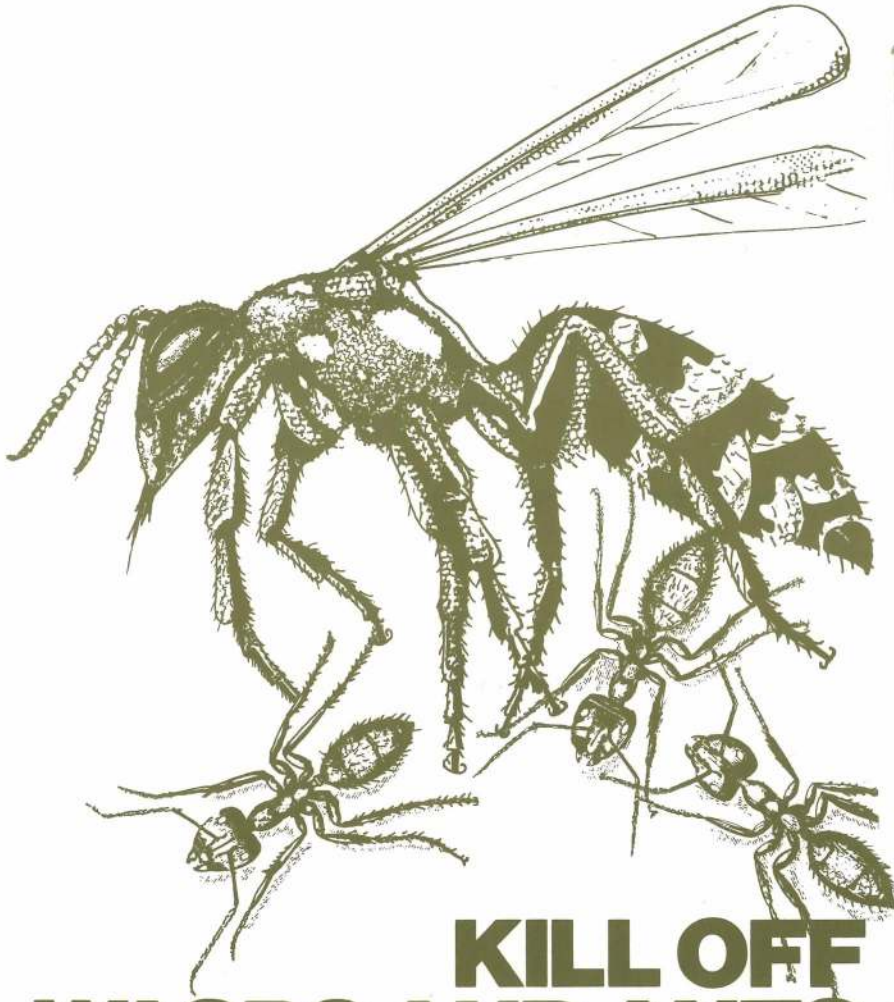

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THE NEW ZEALAND BEEKEEPER

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No room for apathy

THIS YEAR'S beekeepers' conference in Christchurch will discuss changes in voting procedures for the Honey Marketing Authority. It's the sort of constitutional matter which many beekeepers find boring.

However, the decisions the conference makes will be extremely important. They will influence the future of the industry and indirectly the livelihood of all beekeepers.

For this reason constitutional apathy is no excuse. If you haven't considered the issues involved, please read the article on page eight of this issue and then make your views known at your branch remit meeting.

That the Minister of Agriculture has made suggestions for change is no accident. There has been considerable pressure put on his office by individuals and groups over the years, their concern being brought to the fore by the situation last year when the government appointee on the board had the casting vote because the four producer representatives were evenly divided.

There would be few beekeepers who would want this situation to continue. But just who the additional board member should be will be contentious. There are three alternatives – another beekeeper, a representative of HMA suppliers, or an informed outsider.

Even more contentious will be the minister's proposal to prune back the current weighted voting system – a method by which the bigger beekeepers could, by collusion, use to stack the voting system in their favour. We have no hard evidence that this has happened in the past, but the small number of large operators certainly makes it technically possible.

A third matter relating to voting is almost certain to be raised. This is the requirement that voters must vote for the number of candidates for which there are contested vacancies; that a vote may not be withheld.

The reason for this rule is that if a producer only votes for one candidate of three standing for two seats, his withheld vote has the effect of being a vote against the other two.

If that sounds crazy, work it out on paper. It's the sort of issue which has a lot to do with democracy and for that reason, is deserving of your time.

NATIONAL BEEKEEPERS' ASSOCIATION

OF N.Z. INCORPORATED

President:
Michael Stuckey, P.O. Box 35-233
Browns Bay, Auckland
Phone 4781-284 (home)
4781-133 (business).

Vice-President:
P. Marshall, 1 Bracken St., Napier
Phone 58-348.

Executive:
Ivan Dickinson, Phone 8239,
P.O. Box 55, Milton, Otago.

M.D. Cloake,
Fairview R.D., Timaru.

Percy Berry, P.O. Box 16, Havelock North. Phone 775-400 and 777-300 (business) and 777-843 (home).

Tony Clissold,
No.5 R.D., Gore
Phone 866, Willowbank.

General Secretary:
Graham Beard, Level 14
Pastoral House, P.O. Box 4048,
Wellington. Phone 721-541.

Hon. Librarian:
Chris Dawson, P.O. Box 423,
Timaru. Phone 80-339, Timaru.

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Commercial Rates (per insertion)

Full page $120 (4 insertions $100), Half page $65 (4 insertions $55), Quarter page $35 (4 insertions $30), 1/8 page $20. Special locations $20 extra. Colour $60 extra. Production charges will be made for all new advertisements where special production work is needed. Classifieds $5 a col./cm.

Beekeeper rates

Advertising at these rates is available to registered beekeepers advertising products or services directly relating to their beekeeping enterprise only. In cases where the appropriate rate is in doubt, the editor's decision will be final.

Full page $90, Half page $50, Quarter page $25, 1/8 page $15, $2.50 col./cm. Production charges will be made for single insertions of a minimum of $5. (This does not apply to classified advertisements.) No deduction for contracts. Colour extra.

Subscriptions

The NZ Beekeeper is distributed free to all beekeepers owning more than 49 hives who, after paying their compulsory hive levy, automatically become members of the National Beekeepers' Association of New Zealand (Inc).

Beekeepers owning less than 50 hives, will pay an annual subscription of $9.00 which includes the cost of a subscription of the NZ Beekeeper.

CORRESPONDENTS

AUTHORITY IN THE GUN

Dear Sir,

Surely the time has come when a serious evaluation of the N.Z. Honey Marketing Authority should be undertaken.

It appears the authority is so unwieldy and indefinable in its day to day functions that even the board members can not obtain sufficient information to ensure its efficiency of operation. This fact was certainly born out in an address by a board member at the April Waikato NBA branch meeting.

I wish to make a brief resume of the address in which he made some rather incredible statements, and if proved true, will be very damning indictment of his organisation.

The authority performance is now subject to separate evaluation by two separate accountancy firms. The first evaluation completed has shown that the total net realisations for last year's intake stood at 66 cents per kg, compared with the payout of 81 cents per kg. This meant approximately $190 000 from reserves.

He suspects the authority does not know how to cost its retail packs, and possibly never has. He used the 500 g glass pack in relation to the cardboard equivalent as an example of bad costing procedure.

Further gross inefficiency appeared to be taking place in honey packaging, with special reference to the liquid packs, and the hand glueing and application of labels, necessitating excessive staff levels.

The authority is unable to pay its suppliers for much of this year's intake and with further reduction in overdraft facilities in May, doesn't know when payments can be made. He suggests suppliers endeavour to obtain extra overdraft from their banks.

He further believes, within six months there will be a move to establish a seals levy on all honey to enable the HMA to continue in existence.

I personally believe this industry will have little future until the above issues are honestly and openly dealt with.

Further, I am convinced the authority cannot and never has served this industry well in spite of its good intentions. It has proved unwieldy, inefficient, unprofitable and virtually indefinable as to understanding its many complex workings, to the extent that I believe the majority of board members never really understand its operation.

Because it does not include a profit margin, or as it appears obtains a full recovery of costs in it's retail packaging, it effectively, as the price fixing body, forces this industry to heavily subsidise the consumer, both inside and outside of N.Z. This alone has cost hundreds of thousands of dollars over recent years to every section of this industry.

This concept, and establishment of the authority has dealt a devastating blow to private initiative and enterprise since its inception, and will only be rectified by its complete dismantling. It has, in fact, become little more than a tool of government to manipulate and regulate the Honey Industry to its own ends.

To conclude, I see the basic problem with this industry, and in this we are not unique, as having abrogated individual responsibility of decision making and captiancy of our own ship, to a statutory board.

I believe the degree of prosperity in this industry will always be related to its degree of freedom, at present we have precious little of either.

Yours,

R.L. Jansen
Taupo

COMVITA REPLIES

Dear Sir,

In answer to Mr Wallingford's letter in the last New Zealand Beekeeper concerning advertising disease-resistant queens. We claimed disease resistance because we have proved it. Further to this I make the following comments:

If you take a swab of your own mouth, you will find bacteria of almost all diseases known to man. Do you see every man diseased? Are we not all resistant to disease in one form or another provided we obey mother nature – disease is nature telling us we are doing wrong.

The more in-breeding that is done, the more genetic break-down will develop and diseases will develop quickly. Nature has a way to get rid of weak and unhealthy plants.

A North Island apiarist who was in a big way for 30 years some years ago had an apiary near a diseased site of American Foul Brood and his hives (40-odd) robbed the diseased hives. Ultimately 14 of his hives developed Foul Brood, and later several more hives showed disease signs. While others did not become infected, it would be certain that all hives in his apiary participated in robbing.

Some 50 years ago when working with Tom Cropp in Nelson district, with whom I learnt beekeeping, we were asked to inspect an apiary of a transferred apiary inspector. On entering the gate, we smelt the AFB odour distinctly. We found 100 per cent diseased hives, the worst I have ever seen in my life, some hives dead, some nearly and a few medium to strong, but all badly infected 80 per cent to 90 per cent cells diseased. The bees were Golden Italian of the extremely docile type, no smoker or veil needed most of the time working the hives.

When beekeeping in Kaitaia in 1968, I had an apiary at Peria and someone robbed a tree half a mile from my hives (10) and nine hives became badly infected with AFB. The other hive never developed any disease and we raised several hundred queens from that hive, and none have ever developed any disease, they were outstanding workers and produced much more than other hives.

In 1975 I was called to collect a swarm from a property from Pongakawa and the owner said there was a couple of hives over in the blackberry bush and said they had been there six to seven years. He said a man bought the hives for orchard pollination, but had never returned – I was unable to find out the person's name.

I took the swarm home and hived it on partly drawn combs, and in three weeks it covered 20 frames. I then returned properly armed with slasher and fresh hive and frames, stand and lid and cleared the blackberry away. I found one hive dead and the one which had swarmed pushed into the ground, as a tractor had at some time run over it.

Five frames were broken down two inches and the bees had built comb above this. Five combs had brood in them and four capped queen cells which I saved. I transferred the hive to a new box and stand and it gave five frames of honey, a drawn comb and a super. The hives produced 90 lb of honey that season and the swarm 50 lb – obviously a good bee. We bred many queens from her and no disease

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Fifty years of organised beekeeping in North Otago

Branch members with dominion president L. to R: Mr W. Irving, B. O'Neill, M. Stuckey, S. Winslade, R. McCallum, M. Lory, R. Irving, B. Mackie.

ABOUT SIXTY people gathered in Oamaru recently to celebrate the 50th Anniversary of the founding of the North Otago branch of the National Beekeepers Association of New Zealand. The North Otago branch was formed in the Coquet Street hall on October 3, 1928.

Mr R. McCallum, branch president, welcomed visitors from as far as Auckland, Blackball and Rangiora. Mr P. Wylie, son of the first president and Mr M. Stuckey, dominion president, were among the guests.

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NBA 1979 Dominion conference and seminar at Christchurch

Programme:
Tuesday July 24: Ministry of Agriculture and Fisheries Seminar followed by an informal welcome function in the evening.

Wednesday 25 to Friday 27: National Beekeepers Association Conference. There will be a social function on Thursday evening.

Venue:
The Russley Hotel, Roydvale Avenue, (3 km from airport off Memorial Ave).

Accommodation:
Block booking has been made for all rooms at the Russley and members are requested to confirm their bookings direct to the hotel by the booking deadline of June 23, after which there is no guarantee of accommodation.

Another motor inn in the area is fully booked for the conference period.

Tariffs as at May 1979.

MOTELS

(Within 100 m of Russley)

Kendal Lodge Motels. 105 Roydvale Ave. Christchurch 5. Ph. 585-119.

12 units. $21.00 per night (double). $19.00 per night (single). Extra adult $5.00.

Aarburg Motel. 94 Roydvale Ave. Christchurch 5. Ph. 588-122.

7 units. $20.00 per night (double). $18.00 per night (single). Extra adults $6.00.

Middlepark Motel. *(5 km from Russley).* 120 Main South Rd. Christchurch 4. Ph. 487-320, 487-247.

18 units. Double and single, $18/night. $5/extra adult.

HOTELS

Russley Hotel. Roydvale Ave. Christchurch 5. Ph. 588-289.

$31.00 per night (single). $37.00 per night (double). Breakfast $3.75. Luncheon $5.75. Dinner A La Carte.

White Heron Travel-lodge. Memorial Ave. Christchurch 5. Ph. 583-139

$33.00 per night (single). $40.00 per night (double). Breakfast $3.00 and $4.50. Luncheon $4.50. Dinner A La Carte.

Reservations:
Members are requested to book direct with the motel or hotel of their choice. As previously mentioned the Russley Hotel will hold all rooms until June 23 only.

Registration Fee:
A fee of $10 per person has been set to cover conference catering and to subsidise social events.

Ladies:
During conference business sessions, ladies can be shown around Christchurch; i.e. shopping, golf or sightseeing, by wives of Canterbury Branch members. Visiting ladies are requested to state their preferences when registering so that forward arrangements can be made.

Social Functions:
A pre-conference get-together will be held at the Russley Hotel on Tuesday July 24 at 8 pm following the Ministry of Agriculture and Fisheries Seminar.

A dinner dance will be held on Thursday July 26. Tickets will be made available at conference from the Branch Secretary.

Registration:
In order to plan for numbers attending, please forward your registration fee or notify the Branch Secretary, as soon as possible: A.J. Scott, 124 Main South Road, Christchurch 4.

The Canterbury Branch look forward to being hosts for this year's conference, and trust that year's stay in Christchurch will be an enjoyable one.

A.D. Hill
President, Canterbury Branch

CANTERBURY CONFERENCE REGISTRATION

Mail to:

A.J. Scott, 124 Main South Rd., Christchurch 4.

Name . . . . . .

Address . . . . . .

. . . . . .

Signed . . . . . .

I/we will be attending Conference and enclose herewith a cheque/money order for $. . . . . made payable to Canterbury Branch NBA.

for

Registration fee @ $10.00 per person.

Ladies preferences for guided outings.

KING BEE

(WHERE THE NBA HAS ITS STING)

Diploma in the balance

The NBA executive will meet with the secretary of the Institute of Horticulture when they attend the Beekeepers Conference in Christchurch in July. The purpose of the meeting is to discuss the future of the diploma in Apiculture which is organised by the institute.

The executive discussed the diploma at their April meeting and Mr Marshall suggested that the course should include a section on workshop safety.

Hubodometer refunds okay

Beekeepers with hubodometers on the trucks should keep an accurate diary of off-road running if they wish to obtain refunds from the ministry of Transport for road tax. The executive secretary of the NBA Mr Graham Beard told the April meeting of the executive that the refund system was now well established and beekeepers should not have any difficulty with it.

Weed no longer noxious

Vipers Bugloss is no longer included in the schedule of noxious weeds. Vipers Bugloss is an important honey plant in some districts and beekeepers have long lobbied for its removal from the noxious weeds schedule. The change is the result of new regulations effective from April 1 1979.

Talbot for bees

The NBA has been informed by the ministry of Agriculture that all matters relating to beekeeping will be handled by the under secretary for Agriculture, Mr R.L.G. Talbot.

Librarian retires

The NBA Librarian, Mr Chris Dawson, has tendered his resignation. However as a parting gesture Mr Dawson has told the NBA executive that he is willing to carry on with a cassette library which is just being established.

The new cassette library has been given an auspicious start with the donation of $100 by an anonymous beekeeper. The executive has agreed to meet this donation with an allocation of $100 from association funds.

The executive will be seeking Mr Dawson's advice as to his replacement. Applications have been called for and the matter will be further discussed at the July meeting of the executive.

Hobbyists participation

The executive secretary of the NBA has been asked to inquire from the association solicitor whether an incorporated bee club can be a member of the NBA. The reason for the inquiry is concern that many hobbyists have little contact with the association and do not subscribe to the N.Z. Beekeeper magazine.

It was pointed out at the April meeting of the association that a bee club could become a branch of the association but only if all its members were also members of the NBA.

No Honeydew monopoly

The HMA has informed the NBA that it has no wish to involve itself in the export marketing of honeydew honey. However the authority did advise that it would consider purchasing honeydew honey if it should be offered by producers.

Ag Chem Board membership

NBA membership on the agricultural chemicals board may be in some doubt. This impression was gained by executive members who were present at a select committee hearing at Parliament considering the Pesticides Bill.

The NBA particularly values its membership on the board, but with the legislation on pesticides being reviewed and tremendous pressure being applied by environmental organisations its future could be in doubt.

Honey regulations delayed

Ministry of Agriculture apicultural advisory officer, Mr G. Walton, has advised the NBA executive that mooted amendments to the honey export regulations are unlikely to be enacted this year. The draft regulations were keenly discussed by the executive at its April meeting. Special attention was paid to obtaining second opinions on grading, the place of industrial honey and the fumigation of comb honey.

Mr Walton told the executive that there was a strong trend in government toward questioning the need for various regulations. In response the NBA executive firmly endorsed the need to have up to date and workable honey export regulations.

NEW EDITORIAL ADDRESS

The Agricultural Press Co Ltd, contract editors and publishers of the "NZ Beekeeper" have recently moved their offices to Masterton. The new offices are on the corner of Chapel Street and Lincoln Road.

The new address for all editorial and advertising material for the "NZ Beekeeper" is:

"NZ Beekeeper"
P.O. Box 594
Masterton
Phone 81-039

Beekeepers are small farmers

The NBA is likely to obtain membership of a new section council of Federated Farmers. The Council will include among its members representatives of organisations representing smaller or specialist interest farming groups.

Currently the NBA has membership of Federated Farmers Dominion Council and this membership would lapse if the new section council is established. The new small farmers section of Federated Farmers would probably meet on a fairly informal basis twice a year.

Voting rule change

The NBA solicitor has advised that it will be necessary to change the association's rules to allow members attending conference to carry their votes with them. This will formalise a practice which is already well established among some delegates.

In order that an appropriate rule change can be made a special general meeting of the NBA will be convened. This will be held before the NBA conference, but as the change will not have been registered and approved by the registrar of incorporated societies it will not apply at this year's association conference.

No advisor for Hastings

The Ministry of Agriculture has informed NBA vice-president Paul Marshall that there is no intention of basing an apicultural advisory officer in Hastings. There has been considerable agitation from Hawkes Bay beekeepers that an apicultural advisory officer should be established there.

Re-sampling and re-grading

The NBA executive have expressed its concern to Mr Grahame Walton that beekeepers should be entitled to ask for a resampling when they are unsatisfied with their official honey grade. In the past new beekeepers have been concerned that when they have asked for a regrading, their original honey sample has been used for that purpose.

Mr Walton told the executive that he agreed for the need for resampling in principle. He pointed out that in some instances this may not be practicable. He will investigate the matter further and report back to the executive.

Disaster relief for Southland and Otago

As a result of strong NBA lobbying, the Rural Bank has agreed to make available low interest loans to beekeepers harshly effected by a bad honey crop in Southland and Otago this season. There has been some question, however, as to whether these measures have been as adequate as those provided grain growers in the South Island who have had a similar bad season this year.

The matter is being investigated in detail by executive secretary Graham Beard.

Executive retirements

Of the three NBA executive members who come up for election by rotation this year, two have announced their retirement. Messrs Berry and Dickinson, both former presidents of the association, have advised that they will not be seeking re-election this year.

President Michael Stuckey, the third member whose position comes up for re-election this year, has announced that he intends to stand once again.

Voting changes get support

THREE OUT of four NBA branches who have replied to a circular on HMA voting believe that the present system of weighted voting should be changed. The matter is being discussed by the industry at the instigation of the minister of agriculture, Duncan Mac Intyre.

The association at its December meeting endorsed the minister's views on the voting system and it has since sent a copy of the minister's letter to all branches and hive levy payers along with some comments made at the December meeting.

Mr MacIntyre has suggested to the NBA that the current HMA voting system unduly favours the large operator. He suggests that the present requirement for a beekeeper to have 2500 hive before he is entitled to a maximum of 100 votes may be too high.

Three of the four branches which have replied to the NBA circular on the topic agree with Mr MacIntyre. However the same level of support is not forthcoming from individual members who have replied.

Of the six individual members who have replied, only two indicate their support for the changes. One member suggests in his letter that maximising at 1200 hives would give an unfair advantage to smaller operators. Another member who suggests that the voting entitlement should begin at a minimum of 800 hives, would prefer to leave the voting system alone.

In his letter to the NBA, the minister of agriculture also suggested that there could be room for another member on the HMA board. He suggested that there should be a further producers' representative on the present board to make a total of five.

This number would ensure that the government representative was not in the position of having a deciding vote in the event of an evenly divided board as has occurred over the last year or so.

The HMA executive did not entirely endorse the minister's views on HMA board size. In its circular to branches and hive levy payers it said it would prefer that a fifth member should be drawn from outside the industry.

Replies to the suggestion indicate that there is widespread concern in the industry that producer suppliers to the HMA are inadequately represented on the HMA board already. Thus while all four branches agreed to an increase in membership of the HMA board, three of the branches suggested that the additional member should either be a supplier to the HMA or at very least someone from inside the industry.

The six individual members who replied to the circular are evenly divided on the question of board size. Three did not support the proposal to increase the size of the board, one suggesting the proposed changes were a type of ministerial interference in industry affairs.

Of the three who support an extra member on the HMA board, one believes that the newcomer should come from within the industry, another writer will support an additional member providing the voting is amended and only one respondent supports the addition of an extra member without any conditions.

At its April meeting the NBA executive discussed the matter further and expressed the wish that all branches should give the matter full consideration before the association AGM in July. To this end the executive has ensured that the matter will be on the conference agenda.

Honey grading and certification changes on the way

New Zealand export honey has been graded traditionally for colour, flavour and condition. The comments of industry leaders at annual conferences over the last few decades provide clear evidence as to the value of the ministry's grading service and how it has served to New Zealand's advantage in establishing and maintaining a high quality and purity standard for exported honey.

However, in the light of the many changes that have taken place internationally and nationally a new approach to honey certification is required. This article by MAF chief advisory officer (apiculture), Mr Grahame Walton, briefly examines these changes, the need for a new approach, and the likely effect on the beekeeping industry.

ALL HONEY exported from New Zealand is graded and certified by the Ministry of Agriculture and Fisheries in terms of the Honey Export Regulations 1950. In brief, these regulations establish classes and set export limits for the colour, flavour and condition of honey. Honeys with a darker colour or stronger flavour are at a grading disadvantage to those with a lighter colour or delicate flavour.

Although the 1950 regulations still reflect to some degree the current international standard for honey, overseas legislation now pays greater emphasis to the condition of honey; that is its purity, wholesomeness and nature.

Most of the countries which import New Zealand honey have adopted new honey legislation in recent years. This has mainly been prompted by the 1974 EEC Honey Directive and the recommendations of the Codex Alimentarius Commission. Many countries share a common standard in respect to the definition for honey, its classification, chemical composition, purity and labelling description.

In reviewing our existing honey export legislation the ministry has given due emphasis to the general requirements of importing countries. A draft of the proposed revision of the Honey Export Regulations 1950 was sent to beekeeping organisations in November 1978 for their comments. The replies are now receiving consideration.

The new regulations as proposed will recognise the internationally accepted definitions and subdefinitions for honey, together with the general provisions regarding the purity and description of the product. All exported honey will be certified for these general provisions.

A number of requirements contained in the existing 1950 regulations have been removed from the new draft. Such aspects as grading honey for colour and flavour categories and the specifying of container sizes are matters now considered to be more appropriately the domain of the buyers and sellers of honey and not matters for legislation.

As a result of these and other proposed changes a simplification of current exporting procedures could be anticipated.

Definition of honeydew

Under existing New Zealand law, honeydew has been defined as a separate product to honey. In contrast, most overseas countries recognise honeydew as a type of honey; i.e. honeydew honey. It is proposed to amend the definition for honey under the Apiaries Act 1969 to include honeydew, and thus will reflect the internationally accepted definition. The details of this proposed amendment and the reasons for it were sent to industry groups for comment last year.

An amendment to the Apiaries Act will be required before the revised quality standards for honey can be promulgated in its proposed form.

Other Export Documentation

Essentially it is the responsibility of the exporter to determine and to meet the specific requirements of importing countries and buyers. Exporters should fully ascertain these requirements before exporting.

It is with increasing frequency that ministry staff have been asked to provide documents assumed by exporters to be the requirements of importing clients. In some cases the honey had been exported before the request for an additional certificate had been received. The ministry cannot respond to such impromptu requests.

Notwithstanding these comments, the ministry is prepared to consider issuing export documents, in addition to the Export Grade Certificate for Honey, to assist exporters meet the requirements of importing countries.

The ministry will do so provided that these requirements of importing countries have been clearly determined, that they are relevant, and that these could be accurately verified within the limitations imposed by staff, facilities, cost and time.

Grading of HMA honey

Most of the ministry's honey grading

responsibilities have involved the Honey Marketing Authority – the major exporter of New Zealand honey.

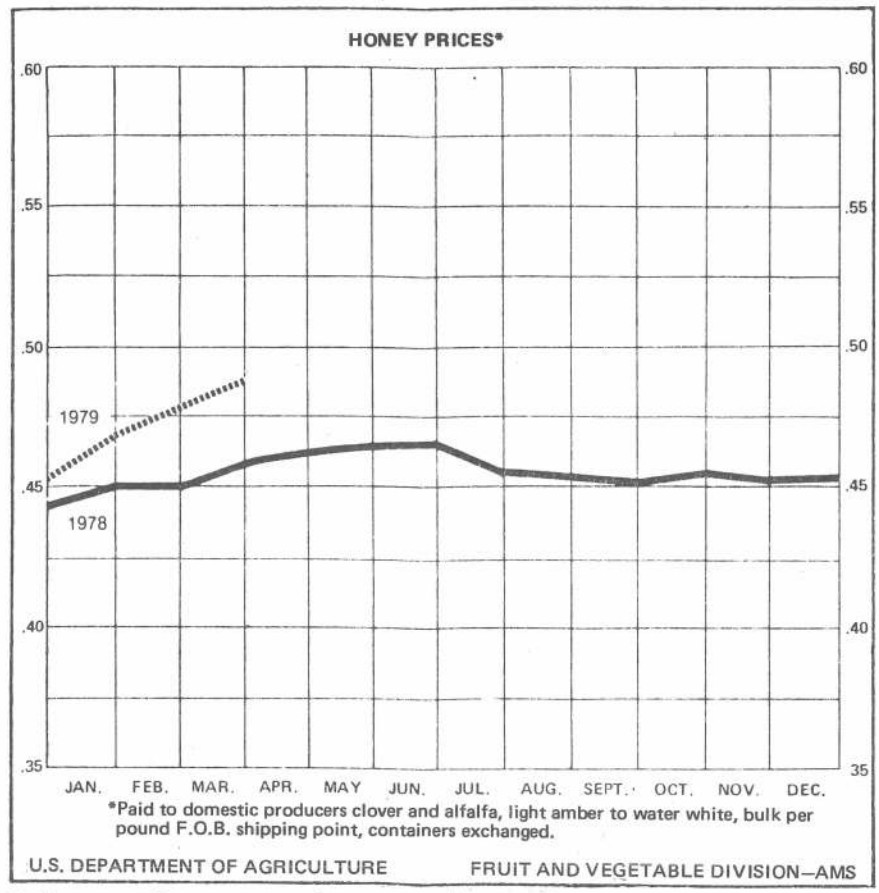
In addition to its export-grading role, the ministry has for many years provided the HMA, and its suppliers, with a free grading service which has guided the HMA in setting a purchasing price for its intake honey.

The HMA and the ministry have recently discussed the ministry's grading role in the light of changing international circumstances; in particular the increased volumes handled by the HMA and the changing market patterns. These changes have placed some strain on the ministry's ability to provide a continuing comprehensive grading service.

As a result of the discussions a formal working arrangement has been agreed to between the ministry and the HMA in respect to the sampling, grading and certifying of HMA honey.

The ministry will cease grading of HMA – intake honey by the end of the 1980 honey season. The ministry welcomes the recent move by the HMA to appoint its own grader, and has offered its services during the transition period to train HMA staff in the techniques of honey grading.

MARKETING NOTES



Northern hemisphere emerges from winter

Earlier spells of severe cold weather were quickly forgotten in **America** this spring when a dramatic change in the weather allowed bee flights and heavy swarming.

Though the spring flush erased many memories, the winter weather had taken a heavy toll on bee numbers, especially in the colder areas in the North. Canadian beekeepers were telling of between 10 per cent and 15 per cent losses.

Much of the trouble encountered was a result of the build-up of snow which covered bottom entrances where higher escapes were not allowed for. In other areas the snow completely covered the hives – in many of these areas, such as the Manitoba district in Canada, wintering of the hives has had to be carried out indoors.

Some beekeepers now fear that the fast build-up now occurring may cause colonies to use up remaining winter stocks before adequate flow begins. Package bee and queen companies in the south (Texas) report a better build-up than last year. Most American beekeepers are planning expansion for this year, in contrast to last when colony figures dropped by 6 per cent. Beekeepers will this year again hope for as good a result as last year, when each colony averaged 56.4 pounds.

In **Australia** the total crop seems to be about on par with last year. Many of the expected flows did not eventuate in such scale, but these were compensated by others.

Argentina reports exportable surplus of 15 000 tonnes, compared with a 30 000 tonne surplus last year. Neither **West Germany** or **Japan** are willing to pay the high prices. However a few sales to Japan have been made since they can no longer buy white honey from neighbouring China.

Honey production from **Brazil** is increasing now that the African bee is being controlled, although the abundance of rain lowered the honey crops in much of the country.

In the South American countries production has been slightly above last year's figures. **Chile** though, had a disastrous season when dry weather dried the land out giving a return only half of last year's crop. Losses of bees to pesticides have been a problem in several American countries.

A severe winter in **Europe** has helped increase honey consumption. However, bulk honey supplies were adequate and new buying was limited to Mexico and China. Varroa mites threaten **West Germany's** bees. One source said that by killing 4 000 to 5 000 colonies, infestation may be eliminated. Good conditions in **Greece** have raised hopes for a bumper season, bees have fed off tree heath and wild pear trees during the winter and the mild spring weather has helped citrus tree development.

Good money from good honey – in what is reported to be a good year in **Kenya**. Warm sunny weather has left colonies and honey plants in prime condition. Local honey is retailing at US $2 for a 500gm jar.

Varroa mites are also causing great colony loss in **Turkey**. Honey demand is very good and prices continue to rise.

Young Canadians seek work

The following letter is from a group of young (their ages vary from 20 to 26) beekeeping students seeking employment in New Zealand. If anyone is interested in placing them, they should write direct to the address given. There is also a short letter from each individual which is available from the Editor at Box 594, Masterton.

The article following the letter is reprinted from the Fairview newspaper "Open House". It describes a beekeeping study course for which there may be a need in this country.

Dear Mr Walton:

We are a group of beekeeping students at Fairview Agricultural College. Fairview is in the heart of the Peace River Country, which is known as one of the prime honey producing areas of the world.

The course, designed to provide experienced, skilled workers for the commercial beekeeping industry, is the first of its kind in Canada. Divided into three segments, the course runs for nine months.

The first six weeks consist of classroom theory, field trips and talks by guest speakers. We have discussed the history of beekeeping, the anatomy, genetics and breeding of the honeybee, the importance of bees in pollination, the effects of pesticides and herbicides and proper lifting techniques. Films and slides on various subjects have been viewed.

A wide variety of topics were discussed by guest speakers: Various management methods, disease recognition, prevention and control, queen rearing in California, Mexico and Australia, swarm control, wintering, predator control, and harvesting, processing and marketing the crop.

Field trips to large and small commercial beekeeping operations, a beekeeping equipment building shop, indoor and outdoor wintered yards and a wax processing plant have been very interesting and educational.

In the carpentry shop we have built jigs for nailing boxes, stapling frames, wiring and embedding. We assembled boxes, frames and a few observation hives.

For the College's Open House we constructed a display which stresses the importance of honeybees in pollination, the methods and equipment used by beekeepers and honey as a natural food.

The snow is melting fast here and the lorry drivers are leaving to pick up the first bee packages from California. April brings the start of the second phase of the course. We are anxious to start our six month placement with a commercial beekeeper.

In mid-October we return to College for four weeks of class to share the knowledge we have gained during the season.

We would like to experience a season of beekeeping in New Zealand and see your country. We have heard much of the expertise of New Zealand beekeepers and would like to learn the methods of managing bees used by them. All the wonderful things we have heard and read about your beautiful country have us fascinated.

If anyone reading this letter can help us find placements or is interested in hiring one of us, please write. We are sincerely interested in working, learning and experiencing life in New Zealand.

Sincerely,

Steve Allen
Teresa Cagne
Morgan Smith
Sharon Boutwell
Penny Hawkings
P.O. Box 444,
Girouxville, Alberta – *March 29, 1979*

UNIQUE BEEKEEPING COURSE

A programme designed to teach the basics of the beekeeping industry is in its sixth week at Fairview College. The Beekeeper Technology Programme, developed by an Advisory Committee of local beekeepers and government apiculture specialists in co-operation with Fairview College's Programme Development Department, was organised to meet the chronic shortage of skilled workers.

According to several industry spokesmen, "a course of this nature has been long overdue in Canada." Beekeepers in Western Canada have long suffered for the lack of competent, qualified assistants. One Alberta honey producer, for example, is planning to abandon half of his 1800 hives for this reason.

The choice of Fairview College as the site for the Beekeeper Technician Programme, unique in Canada, and unlike any offered in North America, is a natural. Already the centre of Canadian honey production, the Peace River region has the potential for phenomenal growth in the industry.

Twenty students, seven women and 13 men, from across Alberta, Canada and as far away as England and Trinidad have enrolled in the programme. Some have come to train as field workers, others to develop resources for a more self-sufficient lifestyle. Several small, independent operators are also enrolled.

The first of the programme's three parts, a six-week classroom session, has been devoted to concentrated instruction on the fundamentals of the beekeeping industry. Subjects taught have included: beekeeping equipment, bee biology, all aspects of honey production and extraction, diseases, and public relations with landowners.

Classroom instruction has been supplemented by several field trips to local beekeeping operations, a tour of Honey Dew Apiaries and by visits from industry experts.

Most students have found these field trips to be the key to the quality of the course so far. Ray Witt, an independent operator taking the course to expand his knowledge of his business commented, "When you add up the experience of the people we have visited, you find that we are getting well over 100 years of knowledge in one semester."

Another reason for the success of the Beekeeping Programme has been the choice of an instructor from the local beekeeping industry. Dennis McKenna from Rycroft was hired on the recom-

mendation of the Advisory Committee. His students have greatly appreciated his ability to relate theoretical course work to specific practical problems. They have also become infected by his enthusiasm for the industry.

Mr McKenna, on the other hand, prefers to cite the involvement of other local beekeepers. "If the students had to listen to my lectures for a full six weeks, they would have left long ago," he maintains. "It has been the active involvement and help of local people in the industry that has really made the course take off."

The work of such individuals as Dave Tegart and Ed Nowek of Fairview, and Fred Smith, a beekeeper from Hines Creek, were singled out for particular praise. Mr Smith, for example, "put himself out-of-pocket by allowing students to work on his farm for a day, letting them take apart some of his winter hives, and providing them with the help of his hired man."

Mr McKenna had also found the programme to be a tremendous learning experience. He emphasised the lectures of Roger Topping, the Provincial Bee Inspector, and Harvey Lerer of the Beaverlodge Research Station, on bee diseases. "Disease is a very real concern to the Alberta Beekeeping industry and the more people who become aware of the problem, the better.

Another subject which has been closely studied is the wintering of bees. As student Morgan Smith put it, "The industry is looking forward to the time when it can be more self-sufficient." While it is still economically more feasible to import packaged bees from California, extensive research is being conducted on the wintering of bees as it is felt that this will give greater independence and quality-control.

On April 1 the students begin the second part of the course – a six month field session. Several of them will be applying their new knowledge to their own independent operations while most will be working with registered beekeepers.

During this summer session, each student will be visited by Mr McKenna and will be subject to an evaluation by his or her employer. Each trainee will also be required to complete a special study project over the summer, the results of which are to be presented in the fall session.

During the four-week October session, the students will return to Fairview College to integrate the previous theoretical course – work with the summer's practical experience. Students will have the opportunity of sharing each other's experiences before finishing on October 26.

After the session is completed, the Beekeeper Technician Programme will be evaluated with the hope of making it a permanent facet of Fairview College's agricultural studies.

OBITUARY

Herman van Pufflen

HERMAN DIED peacefully in his sleep at his sister's residence on May 10. Well respected in Otago and Southland as a beekeeper and student of apiculture, he will be keenly missed. His concern for fellow beekeepers, the beekeeping industry, and his neighbours and the public at large can best be illustrated in the amount of work he did with schools, other organisations and groups showing slides, talking bees and beekeeping.

Herman was an ardent supporter of the Honey Marketing Authority who believed in it's role as an agent for the small beekeeper.

A native of Holland, Herman took up commercial beekeeping at Waitahuma in partnership with his brother during the mid 50's. The partnership broke up in the early 60's and Herman worked on his own with the help of many young men from his district. While managing to operate a bulk honey business and raising his own queens, he still found time to study bees and over the years made up a fine slide collection which is known to many people in Southland and Otago. His slide collection is bequeathed to the Ministry of Agriculture and Fisheries, Gore to be used in the educational field. His other interests included astrology, the alternative life style, organic farming, botany, and he took a keen interest in the local community where he was highly regarded and will be keenly missed.

A sad loss to the beekeeping industry of Otago and Southland and our condolences are extended to his family.

T.G. Bryant

STRANGERS IN PARADISE

Queen bees prefer to mate with drones from another apiary – at least on islands. Dr R.H. Anderson moved an apiary of African bees to Robben Island off Cape Town, South Africa. When he raised queens there, they seemed reluctant to mate and stayed ". . . happily in the hives for five or six weeks and more." The bees made no effort to replace the queens, and the populations of their colonies dwindled. In desperation, Anderson took two nuclei with virgin queens to an area remote from the established apiary. These queens quickly mated and began to lay. Now that there are two apiaries on the island, no further problems with mating have occurred.

Dr Anderson noted that a similar problem was reported in Germany. Queens did not mate successfully on an island until a second apiary was established 5 km away. We did not know how queens differentiate between the local and "foreign" drones nor how these observations relate to our knowledge of drone congregation areas.

– E.R. Jaycox University of Illinois

HONEY BEES HAVE STOMACH ACHES

The honey stomach of the bee is usually thought of as a storage organ in which no absorption of the contents takes place. When the contents include insecticides, however, there is a serious hazard because those compounds often have an affinity for fats.

That affinity enables them to penetrate the tissue of the honey stomach and enter the hemolymph or blood. Honey bees and other insects have enzymes that can break down or detoxify some insecticides. These enzymes are found most commonly in the midgut where digestion takes place. For this reason, the honey bee is particularly vulnerable to insecticides taken in with nectar because such insecticides pass into the blood and may kill the bee before it has a chance to break them down in its digestive system.

The toxicity of the insecticide Sevin is reduced as much as two-thirds if the bee consumes it in a concentrated sugar solution rather than in a more-diluted solution. Differences in the sugar concentration in nectar being collected may, therefore, be important in determining whether foraging bees will be killed. More information on this subject is given in a 1978 article by W.E. Conner *et al.* in Volume 9 of *Pesticide Biochemistry and Physiology*, Pages 131-139.

– E.R. Jaycox, University of Illinois

An expert finger points out the queen.

Checking nucleus boxes.

Ngaumu Forest with Arthur Elliot

by Jeremy Howden

ARTHUR ELLIOT'S family have been in the beekeeping trade for three generations, Arthur personally has been in the trade since 1935.

My editor asked me to visit Arthur and to learn as much about beekeeping as possible. Like most agricultural journalists I was strong on sheep and weak on bees. No matter that the two are interdependent.

"The best way to learn is to watch and listen, and if the weather clears up we will go out and see some bees," Arthur said to me. In the meantime there was time to be shown the processing of the honey. "Has present day beekeeping developed with this modern machinery?" I said pointing to an array of centrifuges and copper pipes. "Well," he said, "that one was made before the 2nd World War, and parts of it I inherited from my father."

With the season only just over, the crop was being processed and stored. The sweet smell of the honey was heavy in the air.

"Did you know that in the days gone by, a person who visited a village for the first time could tell the professions of each man by their smell" he said, "and there was no better smell than that of a beekeeper."

Fortunately the next day was fine and Arthur was going out to his nucleus boxes, in the Ngaumu forest where the bees are living off the pines and heather.

For me it was an opportunity to get first-hand experience with bees. For Arthur it was a chance to help a newcomer. It was also a way to get some help with a job he would otherwise have had to do by himself.

Bees with characters were strange to me. But although Arthur curses his fighting Wairarapa bees he also knows which bees are his best. The effort of looking after 350 nucleus boxes has not gone without noticing the individuals.

"A good idea this shifting the boxes into shelters, gives them cover from the southerly that rips through here in the winter."

The bee at this stage hasn't much pollen to gather and is living off stored honey. "When winter has set in, I will have to make a syrup to bring out and feed them. These boxes are a good idea," he says again, "I hang syrup coated felt on the top and they can come out and drink from it."

In certain boxes the bees have already curled up and are slowly dying with the cold weather. "A good feed on syrup will set these right again," Arthur says.

Bees that are weakened by hunger are an easy steal for predating wasps. "It's impossible to combat – I tried to follow them one day but when they split up and headed different ways well, what could you do about it? They nest around here in places that are impossible to get at."

The nuclei provide Arthur with a source of young queens in spring. "At least when you breed your own queens there is some guarantee that they will be fertile, not like some I have bought from breeders," he complained.

The job of putting the boxes into the shelters has been done but Arthur worries about how well they will do. "Wish I could do more for the bleeders stuck out here in the cold, nothing to eat and with wasps always ready to take over, oh well," he sighs, "it's not too different as to how the H.M.A. has been treating its members anyway."

The journey back into Masterton is an opportune time to look at new spots for hives. The gullies which have been retired to combat erosion are ideal and Arthur checks the trees that have been planted.

"All this farmland would be good for bees," Arthur says, "but there isn't a hive for miles on either side of this road. It's a shame but I can't do a scrap more. I am working 10 hours a day as it is."

As a journalist scrambling along behind, the bees were fascinating animals, which without the help of Arthur Elliot, I might never have had the opportunity to experience.

A day in the life of a guinea pig or how Customwood killed my bees!

by Andrew Matheson, MAF Apicultural Advisory Officer and John Smith, MAF Apiary Instructor

NEW ZEALAND beekeepers are generally a fairly inventive lot, always making and testing new pieces of equipment. Recently a Canterbury beekeeper wanted to make some new nucleus hives and to make the job easier and cheaper, thought that he would use 'Customwood' instead of conventional timber. 'Customwood' is a type of compressed fibreboard made by Canterbury Timber Products at Rangiora.

About 100 quad nucs were made from the fibreboard earlier this year. They were dipped in hot parraffin wax and painted on the outside. However, after a short time the beekeeper found increased supercedure of the queens, and excessive mortality of workers.

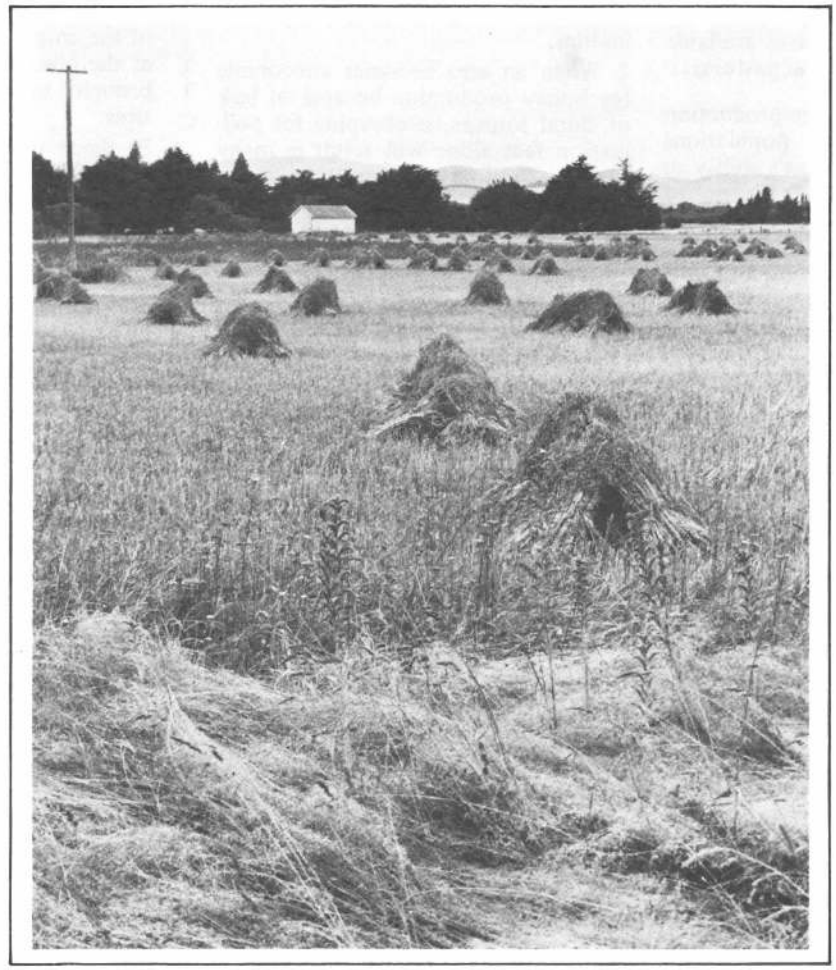
In April the authors investigated the problem. Possible solutions appeared to include an insecticide added to the fibreboard to prevent damage from wood-boring insects, or some other component of the fibreboard which was incidentally toxic to the bees. A slight chemical smell in the nucs was an indication that something of this nature might be happening.

A visit to the chemist at Canterbury Timber Products Ltd produced the information that no insecticide is added to the fibreboard, but it is bonded together with a urea/formaldehyde resin. Most of the formaldehyde is consumed in a chemical reaction, but an appreciable amount remains in the board and is slowly released over a period of time. (Formalin, which is a solution of formaldehyde in water, is the chemical most commonly used for killing and preserving insects for study.)

The makers of 'Customwood' are unsure of how long the fibreboard would continue to give off formaldehyde fumes, but it is likely to be some time. Wax dipping will not prevent this, as paraffin is permeable to formaldehyde fumes. In any case, the manufacturers recommend their product for interior use only, and think that it lacks the durability required even for nucs.

Incidentally, it is probably unwise to use any type of particle board for the same reasons.

The beekeeper knew that he was using a product that was untried in the beekeeping world but, in his own words he was quite prepared to be a guinea pig. Painting inside of the nucs should seal in the formaldehyde – if not, there only remains the prospect of whiling away the winter nights in front of a fire of fibreboard.



The nature of apiculture in a changing agriculture

by Nick Wallingford

Bees are necessary to agriculture as pollinators. As the bees' traditional forage sources are eliminated, areas that still provide nectar and pollen from well-chosen plantings being made today will still have a viable honey production potential. Other areas may need to depend upon hives hired for pollination service to ensure adequate pollinator numbers.

THE TENDENCIES of modern agriculture methods in many areas have been to the disadvantage of the beekeeper. At one time bees could gather a considerable crop from roadside flora and from weeds growing within established crops and pastures. Dandelion (*Taraxacum officinale*) has traditionally provided nectar and pollen over a period of time in the spring when it is especially needed in the hive. Though it is not a high grade pollen, lacking one essential amino acid, it helps in the colony's spring build-up as long as other pollens are available to complement it. With improved selective herbicides and different methods, however, this important source and others such as buttercup (family *ranunculaceae*) have been cut back in many localities.

Another plant being eliminated because of its noxious qualities is gorse (*Ulex europaeus*). As old established hedgerows of gorse give way to high tensile wire on the Canterbury Plains, beekeepers there have encountered pollen shortages of a magnitude to inhibit their hives' ability to rear healthy young bees in the spring. They have been forced at times to either shift hives near to the river beds where diverse sources are still available, or else attempt to supply pollen substitutes to the bees. Either of these involves expense to the beekeeper and will be reflected in the price of honey. Though Canterbury is well suited to produce large crops of desirable white clover (*Trifolium repens*) honey, this early spring pollen shortage makes beekeeping somewhat unpredictable.

Blackberry (*Rubus* spp.) and thistles (*Cirsium* spp.) are other noxious weeds which provide forage for bees. Their suppression has contributed to smaller honey crops only offset by increased efficiency in management and transportation, making hive-shifting economically feasible.

Bees are an integral and necessary part of agriculture and horticulture, and beekeeping in some form must remain a viable occupation. Feral, or wild, colonies of honey bees are not sufficient to support the increasingly intensive pollination demands of modern agriculture, and the expansion into the presently marginal lands will further reduce their numbers. There are two main directions that beekeeping in the

future will have to take to maintain or increase the number of hives available for pollination of crops and pastures:

1. If beekeeping for honey production remains economic, bee populations will generally relect an area's ability to supply pollen and nectar. As mentioned above, however, the 'clean' nature of modern management has and will seriously limit honey production for profit in some areas of the country unless some action is taken.

The choice of plantings today will greatly influence the nectar and pollen available to the hives in the future. Shelter trees, amenity plantings, and other significant plantings can and should bc sclected so as to provide a variety of forage for bees while still meeting other criteria. The use of willows (*Salix* spp.) by farmers and Catchment Boards for erosion control is one of the very few examples of this on a large scale. In many areas of the country riverbeds lined with these willows are actively sought by beekeeprs, and this assurance of large bee populations for the nearby areas of farm, orchard, or horticulture land should be a lesson to us all.

Large scale plantings of trees attractive to bees will induce beekeepers to bring hives to an era with resulting increases in yields of crops needing insect pollination.

2. When an area becomes uneconmic for honey production because of lack of floral sources, beekeeping for pollination fees alone will result in many cases. In California, for example, many beekeepers anticipate no honey crop at all, depending entirely upon charges to the grower. Charging such pollination fees for bringing beehives onto a crop, particularly apples (*Malus pumila*) and kiwifruit (*Actinidia chinensis*) but occasionally others such as clover for seed, is much more common than in the past. Several factors influence these charges.

- Access to sites, especially in the orchards in the spring, is often difficult. Since the majority of hive shifting is done at night and is very labour intensive, it is just one more activity on top of a normally full schedule and must be compensated for accordingly.
- It has been shown that shifting hives can adversely affect the hives' ability to gather a later crop. Since in most cases hives would continue their spring build-up better on other sites, the shift into and out of the pollination site will result in a smaller harvest later in the season. Though hives will gather nectar from many of the crops they pollinate, in general the hives could have been better brought up in strength on other sites.
- Pesticide usage can be a constant worry to a beekeeper, even when a grower is aware of the risks, and plants his spraying programme with the bees' welfare as well as his own crop's in mind. Since bees may forage up to several miles from the hives, indiscriminate or inadviseable application on neighbouring crops can pose a threat even with the best of precautions. Approximately 20 per cent of the colonies in California are lost to agricultural chemical usage each year.

The presence of bees as pollination agents will enhance the crop grower's returns many times over with certain crops. Charges to bring hives onto the site are recovered by the grower through this increased yield, and beekeepers are repaid for their labour and loss of production. If adequate foresight in providing future nectar and pollen sources is used now, such charges will remain modest, but if in the future a beekeeper must rely to a greater extent upon this revenue due to decreasing honey crops, the charges will most likely rise.

Bay of Plenty fieldday a humming success

THE INFLEXIBILITY of publishing means that this unofficial report will appear inappropriately late, but what was probably the largest gathering of Bay of Plenty beekeepers ever must not be allowed to pass unnoticed.

The day: Saturday, February 10th.

The place: Bruce Stanley's new honey house/queen rearing laboratory at Taneatua.

The excuse: The first fieldday for the newly-formed Whakatane club.

Those attending: Approximately 170 commercial and amateur beekeepers and wives and families from throughout the Bay of Plenty, including busloads from Tauranga and Rotorua.

The day was hot, bright and clear as we converged on Bruce's new site. A good many among us wouldn't mind making him an offer for his 100 acres 3 km out of Taneatua, only a short distance back from the sea, and in some of the nicest bee country going, in spite of Bruce claiming this the poorest honey season in years.

The day was opened with BOP Branch President Arthur Edwards disclaiming any claim to fame because of his title, welcoming all present, and introducing Bruce – who certainly needs no introduction to many of us.

Shaded from the hot summer sun by a grove of aspen, Bruce started the ball rolling by describing what he labelled as 'a simplified cell raising system based on the Alley method – suitable for the domestic beekeeper'.

Listening to him gave everybody a chance to settle down and for latecomers to arrive before Bruce led on from this to his own queen-rearing system, a development of the Rice method originating in Australia, by which he produces some 4 000 queens a year for New Zealand and overseas.

He uses five queen-right brood chambers inside his queen-rearing room, with hive entrances through the outside wall and automatic feeding from a top tank.

The queen is confined in a one-frame compartment in the centre and the only contact between this compartment and the rest of the brood chamber is by a half-length segment of plastic queen excluder in the base. Auxiliary half depth supers may be used on top.

The sequence with brood combs is that every third day the one in which the queen is presently laying is removed from the central compartment and replaced with a frame of hatching brood from the exterior halves, onto which the queen is transferred as it goes in.

The system works, says Bruce, because of minimal contact between queen, in the centre, and cell building bees, either side.

Bruce uses wax cell cups, 16 per bar, up to four bars per frame (the cups made, he says, at slave labour rates by the children), and these are primed with a dab of 50/50 mixture of royal jelly and water, the royal jelly kept in the frig until needed and then warmed to an appropriate temperature.

Grafting is done in a warm, damp room, under good light, using a No. 1 sable brush and 18 hours old larvae, picked up from the cell and floated off onto the primer with a slight rotary movement of the hand.

Acceptance is from two-thirds up (the bars we saw were way above this) and on the 12th day the cells go out to the mating yard where they are inserted in ¼ size nucs for emergence, mating, and to have laying pattern checked before sale.

After a relaxed lunch Doug Briscoe, popular Apicultural Advisory Officer at Tauranga, introduced the subject of design and efficiency of honey houses – particularly appropriate as he stood in front of Bruce's new $14 000 honey house to do so.

Bruce tends to use units of 24, or multiples of 24 hives, honey producing, because his Ford Falcon will just draw a trailer with 24 full supers on.

He uses ¾ depth Manley frames as recommended by Doug to:

- reduce weight per super, particularly looking forward to the time when he has to employ labour and:
- to keep honey frames separate from brood frames, which will remain full-depth Hoffman.

Bruce has just changed to an 8-frame extractor and finds both it and the honey house work well.

The formal part of the day gave way to an auction of donated items to swell the funds of the Whakatane club, and the fieldday concluded with a well-earned vote of thanks to all concerned.

I think we all learned something from the visit as well as having an enjoyable day out. Good of Bruce to give up a day in the middle of the busy season for a bunch of tourists!

–D.W.

Euan Cameron of Edgecumbe (left) and Robert Hale, Bay of Plenty Branch Secretary (right).

Murray Reid, Apicultural advisory officer Hamilton, who was a tutor at both the courses, demonstrates to Telford participants the use of the microscope to check for nosema disease.

BALL IN QUEEN'S COURT

by Kerry Simpson, MAF Apicultural Advisory Officer, Hamilton

DURING LATE January and early February two courses for commercial queen breeders and those considering queen breeding were held at Flock House and Telford Farm Training Institutes near Bulls and Balclutha respectively. The aim was to inform the participants of some of the main aspects of queen breeding with special emphasis on the keeping of records, selection of breeding stock and the use of artificial insemination. Fortunately several of the participants were able and willing to share their considerable practical experience in artificial insemination. Much of the value of the course was in the informal discussion of various topics, either after hours or over the ample and excellent institute meals.

Special thanks should be given to Dr Toge Johannsen from New York City University who not only spoke on selection of breeding stock but who answered most of the queries from course members on a very wide range of apicultural and genetic topics. Dylise Roberts, from Christichurch, was able to utilise her considerable practical experience at drone semen collection and AI of queens for the benefit of less experienced operators and helped towards the successful running of the workshop sessions.

John Smith, MAF Apiary Instructor of Christchurch shared some of his experiences of queen breeding in Poland as well as stimulating some lively discussion during the classroom sessions.

A summary of feelings at the end of the courses were that although there is a tremendous amount that we do not know about queen breeding, there is considerable potential within the New Zealand Honeybee gene pool. This can be exploited for the benefit of the industry without the appalling risks associated with importing queens.

from page 3

has ever shown in these hives.

In 1976 I collected a Black Swarm in Bush Road and subsequently found it was full of American Foul Brood with about 40 per cent of the cells diseased. I killed the queen and got a queen from the hive which I considered disease-resistant. I introduced her and strapped up the hive and a week later took it to an isolated site.

On inspecting the hive three months later I found it to be completely free of disease and very strong with five frames three-quarters full of healthy brood. The hive is still with us and has never developed a trace of AFB or any other disease.

We have never had any disease in any of our hives, other than what we have found in hives we have purchased, and these have been returned or destroyed.

The selection of breeding stock for disease resistance is a must if New Zealand Beekeepers are to survive.

Yours,

Claude A. Stratford,
Comvita Apiaries

WASP WORRIES

Dear Sir,

My committee has asked me to write of our concern over the wasp menace.

We read Mr Donovan's report, "No Joy for Wasp Killers" in the March issue of our New Zealand Beekeeper.

The news of possible trials in this country of a parasitic wasp to be introduced from England offers a small ray of hope. He goes on to say Mr G. Walton, Chief Advisory Officer of the Ministry of Agriculture and Fisheries says that attempts to introduce biological control of the German Wasp would have much greater significance than work on possible disease transmission.

It would appear that Mr Walton did not hear the discussion on Remit 19 at last year's conference. It was suggested that conclusive proof that wasps help the spread of Bacillus Larvae would add significant weight in having the wasp declared an official pest.

We would then receive help in our battle against the wasp which at the moment we appear to be losing.

To date we have neither seen nor heard of any report as called for by the Hastings Conference (passed by a clear majority) from either the DSIR, or the MAF. We ask, has any work at all been done on this report?

We are concerned that perhaps a department of "our" government has failed to give our association the cc-operation they, our government, are constantly assuring us we will receive.

Yours,

G. Richards,
Secretary,
Northland Branch NBA.

Mr Grahame Walton replies:

It is a pity Mr Richards did not check with his national executive before writing the above. The facts are:

- *Remit 19 passed at the 1978 industry conference stated "That the appropriate branch of the DSIR be requested to determine by tests the probability of the german wasp (Vespula germanica) being involved in the distribution of Bacillus larva spores."*
- *In actioning this remit on behalf of the association, the NBA executive secretary wrote on August 8, 1978, to the Director-General MAF indicating that "the Executive Committee resolved that the matter (Remit 19) should as a first step be referred to you for comment. If the topic should be more properly in the province of the DSIR please advise".*
- *In my reply of August 16, 1978 for the ministry I said that "this remit should be referred to the director, Entomology Division DSIR". I expressed the opinion that DSIR work on biological control agents would probably be of greater significance to the beekeeping industry than the work requested in Remit 19. I note that Dr B.J. Donovan of the DSIR in the March issue of the N.Z. Beekeeper agrees with this comment.*

I also said "I am mindful of a point raised by Mr Bartrum in the discussion on this remit when he said that the drifting of bees between hives presents a far greater disease risk than the possible transfer of spores by the German wasp".

These points establish that the ministry did co-operate by promptly responding to the association's request for comments, and that I personally had heard at least some of the discussion on Remit 19.

FROM THE COLONIES

HAWKES BAY

The season has finished with most beekeepers having washed out the extractor and hung up the uncapping knife. Altogether the crop was perhaps not as bad as first thought, and the district will finish up with an average crop for the year.

Main branch activity over the next month is to be a field day being held at Arataki Honey Ltd, Havelock North on May 12, followed later by remit meetings. The Annual General meeting was held on the last day of April and resulted in the elections of Ian Berry to Branch President, and Walter Watts of Napier the new Secretary.

Our thoughts are with the Canterbury Branch who are this year host to the NBA Conference, and we would like to take this opportunity to wish them every success.

Paul Marshall
Napier

NORTHLAND

The season here has been a disappointing one. Manuka and other spring sources flowered well but the nectar yield was well below average. Conditions then became very dry towards Christmas and the clover produced little or no flower in most areas. Honey gathered was generally of a darker colour than usual.

Rains fell from mid February right through March and subsequent autumn pasture growth has been the best here for many years.

Autumn has produced a net loss of stores to colonies in most areas and starvation could be a real problem this winter. However to look on the bright side, members are hoping to stage a winter fieldday and discussion group.

Graham Richards
Whangarei

WEST COAST

Probably the best way to describe the season just past is to say, 'Rain, rain and more rain'. Although this may be exaggerating a little, there has been more than enough water fallen to dampen the spirits of many beekeepers.

It has certainly been the most cantankerous, unpredictable, and frustrating season and is sure to cause dire concern to all coast beekeepers, especially those that took even a small crop off, expecting, as in normal seasons, that the bees would bring in another, plus winter stores; but as has eventuated, the bees did neither, and by the end of April many hives had already starved to death. Many more would have, had not urgent feeding taken place.

The problem is being treated in different ways. Some are going to endeavour to keep all hives possible alive by feeding, and some are going to concentrate on the strong hives only, leaving the rest to survive or not, then put extra effort into earlier queen-rearing and replace the lost hives with nucs from the strong ones.

The theory behind this is that it is going to be better to spend some of the considerable sum that would be necessary to keep the weak hives going in extra stores on the stronger hives to provide a better source for nucs in the spring.

Strange as it may seem, it was the strong hives that had already provided a crop that were the first to perish. When their crop was taken their brood nest would have been loaded with food and pollen and little stores.

When a long spell of adverse weather set in soon after robbing, the nectar supply was cut off, and didn't revive, so the bees and the apiarist were caught empty-handed. Reports, so far, indicate that one apiarist may have lost as many as 100 hives, and others varying numbers.

No matter what the problems, optimism prevails, and a good rata year is anticipated next season to put matters right.

A very learned gentleman from the U.S.A. addressed a meeting of our branch in the supper room of the Soldiers Hall, Hokitika, and showed slides which were very interesting. Owing to the poor acoustics of the room, only some of what was an informative lecture could be heard. A visit later to a beekeeper in natural surroundings where his words of wisdom could be easily heard, showed what great value he could be. One interesting point he had noted in the States was that there was a noticeable swing of honey customers to the preference of the stronger-flavoured honeys, and he suspected that the

MINISTRY OF AGRICULTURE AND FISHERIES PRE-CONFERENCE SEMINAR

A PRE-CONFERENCE seminar has been planned for Tuesday July 14, 1979 at the Russley Hotel, Christchurch, starting at 10.30 a.m. the day before conference.

The morning sessions will be taken with various aspects of nectar and pollen sources with speakers from the New Zealand Tree Crop Association, discussing their role in helping Apiarists.

The afternoon sessions will be on diseases of honey bees, and problems the possible arrival of some diseases into New Zealand could cause.

Bruce White, the Assistant Principal Livestock Officer (Apiculture) from New South Wales who will be known to many New Zealand Beekeepers, has been invited to lead these discussions and talk on the recent outbreak of European Foul Brood in Australia.

What Bruce has to say could be important to all New Zealand Beekeepers, and the small cost of attending this seminar may well be the best investment you have made since buying your first hive.

BEEKEEPING BUSINESS MANAGEMENT COURSE

FLOCK HOUSE
2 – 5 JULY 1979

Course content

Apiary management and recording
Book-keeping
Accounting
Budgeting
Taxation

The programme is designed to give all beekeepers a greater understanding of the financial management and how taxation effects the business.

Application to:–

Flock House or by writing to T. Bryant, MAF. Box 20, Gore.

Applications close Friday, 22 June, 1979.

same could happen here.

A local trend in this direction has already been noted, and judicious advertising in the right places could accelerate this greatly to the advantage of our kamahi honeys.

Wishing all beekeepers a good and bounteous golden harvest next year.

Peter Lucas
Hari Hari

CANTERBURY

Clover crops on the plains and foot hills have varied from being very good in some areas of mid Canterbury to poor in the early drought areas of North Canterbury.

Extracting is generally being completed, however some beekeepers have expressed concern over long delays in grading results.

The honeydew crop for autumn has been below average to poor in some areas due to the general lack of warm weather and sunshine, along with a very wet March which stopped queens laying and hampered wintering-down activities.

Some beekeepers are moving hives from the higher bush areas to lower sheltered areas in anticipation of a long winter and pollen shortages.

Warning: Don't use particle board to build nucs. The fumes from the glue used in this board reacts with heat and consequently affect the bees. One Canterbury beekeeper learnt the hard way; after building 100 nucs including a paraffin wax dip, he lost most of his new queens including the bees in the nucs. He found out why, thanks to John Smith and the chemist at the Particle Board Factory.

Any suggestions on what to do with the 100 nucs would be welcome.

A long-standing member of the Canterbury Branch, Mr Clarry Hill of Shepherd and Hill, Rangiora, died recently. The branch extends its sympathy to Mrs Hill and family. Mr Hill contributed greatly to beekeeping and the Canterbury Branch over the years. He is survived by his son Allan who was recently elected president of the Branch.

Arrangements are being finalised for Conference and Canterbury members are looking forward to being hosts to a good turn-out.

Please assist us by registering early and booking accommodation. As Christchurch is the venue for many conferences, it would be embarrassing if a conference accommodation shortage eventuated.

Tony Scott
Christchurch

SOUTH WESTERN

With most of the extracting now completed throughout our district, it looks as though the honey crop has been disappointingly light.

In some areas where feed honey is usually gathered, a super of clover was taken, while in others the colour was darker than usual.

Since the last Journal publication, there has been a fieldday in Taihape, and our A.G.M. was also held recently in Wanganui. Trevor and Phillip were re-elected for another term as chairman and secretary respectively. Much of the time was spent discussing proposed remits for the forthcoming conference.

There was a good muster here for the fieldday in spite of the long distances involved, and a warm, sunny day made it very pleasant.

Concern was expressed at the Wanganui meeting at the extremely heavy burden of freight costs that has been heaped onto the shoulders of the more distant suppliers to the H.M.A. Often these suppliers are well away from the more lucrative city markets, and are very dependant on the Auckland depot.

All freight should be paid by the H.M.A. and if there is not enough in kitty to do this, our elected members should seek a price rise just as

SPECIAL NOTICE

THE BEEKEEPERS Technical Library was established at Annual Conference in Oamaru in 1963. Mr Chris Dawson was appointed Honorary Librarian and Secretary to the Library Committee and has served in this capacity ever since. He now wishes to relinquish this position and applications are invited from persons who would like to continue this service to Members of the National Beekeepers Association.

The main work of the Librarian is in recording the movement of about 100 books per year. Up to fifty feet of shelf storage space will be needed. A wall area of forty square feet will accommodate all the books.

A Library Committee of three persons is appointed annually and the Librarian works under this Committee.

Applications: Those interested should write to The Library Committee, P.O. Box 423, Timaru. Further information may be obtained on request from the Honorary Librarian.

Cassette Tape Library

An anonymous donor has generously presented $100 towards the establishment of a Cassette Tape Library. The N.B.A. has given a further $100 to launch the scheme. Mr Chris Dawson will, in the meantime, be responsible (under the Committee) for establishing and administering the Tape Library.

Beekeepers Technical Library books are available to Members of N.B.A. Send stamped addressed envelope for catalogue of books and copy of rules to the Hon. Librarian, P.O. Box 423, Timaru.

manufacturers do or the FOL goes after a wage increase. After all, we are entitled to a living.

The pollination service that these beekeepers provide is just as important in far away Wairarapa or in the hills of Taihape as alongside the big population centres.

Distribution of petrol, sugar, and even the dairy factory pickup freight costs are shared by all.

With a top price of only 81 cents/kg and an added cost of $50 plus per tonne to get the honey to Auckland is just not on.

One of our members was most irate recently, after having helped out a packer in another province with much needed supplies, he had his new containers returned in a dirty and damaged condition. With the cost of containers today, this is not a recommended way to win friends or to ensure further supplies of honey next year.

Hoping to see many of you at our next meeting which is to be held in Palmerston North.

Stuart Tweedale
Taihape

OTAGO

Here we are once again with greetings from the south and to let you know that we are still alive and kicking, but only just. What else can one expect after a season such as the one we have just behind us. For many it has been very trying indeed. But we have not got that on our own. Southland too in general has not much to write home about. There have been a few brighter spots further inland and on the lighter dirt. However, there is always next year.

A mini fielday was held at our branch apiary on April 21. Very well attended by about 50 people from round about Dunedin. The idea was to take honey from the four hives for extracting. There was none to take and indeed an extra super with good full combs would not have gone amiss.

We have changed secretaries. And this is a good opportunity to thank John Garraway for all the work he has done over the years. Thanks a lot John on behalf of all branch members. We do appreciate your efforts. And to Neil Walker, our new scribe, the best of luck.

We will hold the Annual Otago and Southland Convention on the Tuesday after Queens Birthday Weekend. It will be held in the Pioneer Women's Building, Moray Place. The afternoon meeting will be at 2 pm and the evening gathering at 8 pm. We hope to see a good number of our friends from Southland, North Otago and from near at home, of course. Any others from near or far are welcome.

M.J. Heineman
Milton

CENTRAL HAWKES BAY

Now that the 78-79 season is over, we can look back over our records and thoughts, and say it wasn't such a bad year after all.

With one of the most text-book-like springs ever seen, with good dry conditions underfoot, queen mating twice as good as normal and a good willow flow, one couldn't believe it was happening. The honey flow started slow, with an average manuka flow, but was soon to build into a heavy clover flow at the beginning of January, remaining steady until the end of the month.

There was very little autumn flow, which has meant, more of the coming springs feed honey has had to be used in wintering down.

A very wet end of March, beginning of April left autumn queen rearing percentages 50 per cent down on the normal which has meant rather a few too many old queens have had to be wintered over with hopes of another good spring this coming season.

Number of the branch members attended a very interesting fielday at Arataki's honey plant in Havelock North on May 12, which catered well for both commercial and hobbyist beekeepers.

James Ward
Takapau

FAR NORTH

With very unreliable spring weather followed by drought, cool nights in February and a wet and humid March, the crop for this season has been patchy to say the least.

A fielday was held in March to extract honey from the new club hive. A modest crop was obtained, a secondary aspect to the main reason for establishing a club hive, which was the teaching of good beekeeping practices and solving of problems for hobbyists.

In April two fieldays were held. One was in the garden of Mr Jack Ward, one of Kaitaia's earliest hobbyist beekeepers and Northland's mead expert, to learn of methods and recipes for making honey mead, various fruit wines and liqueurs. Time passed very pleasantly indeed, punctuated by sampling.

A visit was made to Magic Meadows Apiaries to have a look at Harry Cook's new honey house, built in hexagonal shape to exemplify the shape of a cell of honeycomb. Harry was generous in his help and thoughtful consideration of all questions asked. As he stated, one always feels oneself to be at only the beginning of learning about a very complex and intricate system of nature.

We as a club are attempting to revive the beekeepers' section in the Mangonui A and P Show. The Far North Branch are very grateful to Mr Colin Rope for making the journey to the Far North to give help and advice on the techniques and points in entering exhibits. A honey show was held at this meeting in May where members exhibited samples from this year's crop and Colin tasted, offered valuable information and criticism. Thank you very much indeed, Colin; this visit gave the club a tremendous boost. We hope it isn't another 20 years before we see you up here again.

Wendy Macpherson

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from page 5

The guest speaker, Mr Ivor Forster, traced the history of the branch, explaining how it had provided a rallying point for people with a common interest.

Mr Michael Stuckey, dominion president, congratulated the branch on it's record and proposed the toast for the next fifty years.

Senior members gather for a commemorative photo.

Ray Robinson's robbing room reaps reward

by Kerry Simpson, MAF Apicultural Advisory Officer, Hamilton.

ON A COLD windy day late in April, I was driven into the small settlement of Waihou near Te Aroha and was warmly welcomed to the top beekeeping establishment in New Zealand. This cheerful welcome by Waikato beekeeper Ray Robinson was only the start to a very pleasant and interesting two days working holiday as guest of Ray and his wife Barbara. Ray's business is somewhat different from many others as his 700 hives are all in 12 frame macrocarpa boxes of daunting size and weight. One of Ray's devices for handling these boxes, a hydraulic lift for supers in the extracting room, featured in the September 1978 edition of the NZ Beekeeper.

The problem of storing supers of combs over the winter is common to all beekeepers, whatever the size of their boxes. There are several basic strategies for successful storage depending on whether the combs are first cleared out by the bees either on or off hives, or left wet, and also if they are stored open to the air or kept closed. If supers are stored closed then in most of the warmer parts of the country, fumigation with paradichlorobenzene or the highly toxic methyl bromide will be needed to control wax moth. With plenty of cold draughts through supers stored open to the air, wax moths seem unable to survive long enough to cause serious damage.

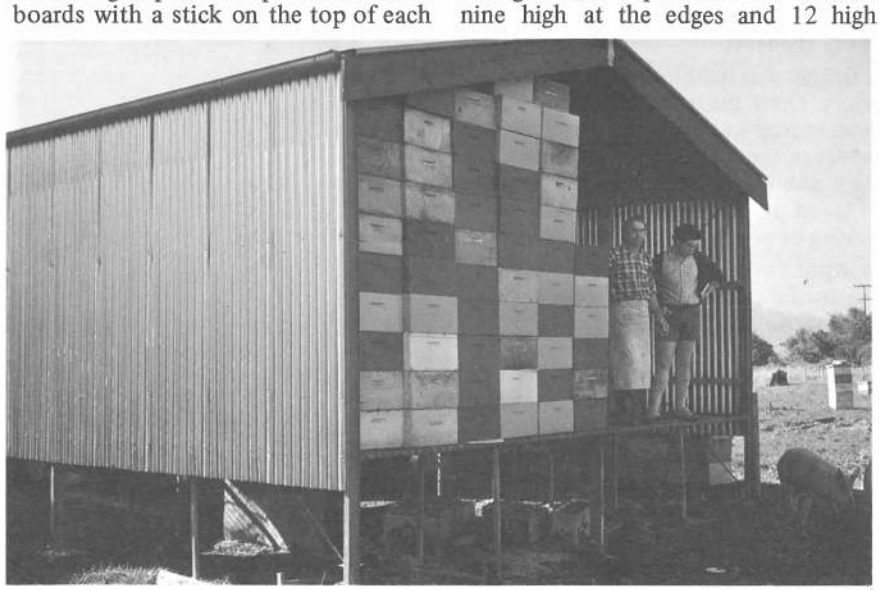
Ray was not at all satisfied with his previous method of open air storage. He arranged piles of supers on wooden boards with a stick on the top of each stack to prop up the lid. Dampness was a major problem and lids could come adrift quite easily. Supers were also exposed to the weather.

So the solution was to invest in a comb barn with a raised mesh floor. Boxes could now be barrowed out directly after extracting and stored under shelter over the winter.

Ray chose a RSJ modular haybarn manufactured by a Te Aroha firm. The basic barn consisted of two steel framed bays with long run iron on the roof. The erected price of this unit was $800 (1977/78). An important addition was a floor raised to the same level as his honey house 0.9 m from ground level. The floor is constructed of heavy duty 7 cm square reinforcing mesh supported by square section steel pillars concreted into the ground. The mesh was treated with a 50/50 mixture of Fisholene and Steelite roof paint to give it resistance to rusting. This raised floor added another $800 to the total cost.

The second addition to the basic haybarn was 100 x 50 mm timber framing and corrugated iron sides down to the level of the raised floor. Both ends of the barn were completely open. The $480 for the sides raised the total price to somewhat over $2000.

A central wooden walkway leads over a short bridge to a door in the honey house. This walkway will take the weight of honey drums if space is needed in the barn for temporary storage. The supers can be stacked nine high at the edges and 12 high near the ridge. The total capacity is 1200 of Ray's giant supers or about 1400 standard boxes.



Ray Robinson "supporting" one corner of his comb barn.

After being extracted, the wet supers are barrowed out and stacked in the barn. Bees in the home yard are allowed to rob them dry. A caution from Ray; bees should be trained to expect the boxes by putting out a few bait combs for several days ahead of the main run. Failure to carry out this initial training could lead to the local inhabitants being somewhat upset by robbing bees. If it were possible, it would be better to have the colonies over 100 m from the wet combs so the bees could indicate direction to other foragers and treat the pile of boxes as a honey flow, with a consequent reduction of robbing behaviour.

Ray spins his cappings fairly dry of honey and then they too go out in the barn on a large chicken mesh screen over a big tank to be robbed dry. This certainly cleans the cappings. The total burnt honey from Ray's cappings melter for last season was about 26 kg compared with over 400 kg previously.

Needless to say, there have been some problems with the barn, although these have been remedied. It was erected initially during Ray's absence, hard up against the honey house and the contractors had quite a job to reposition it in its correct location. During dry weather, sheep and Ray's beautiful sow Delores, walking underneath raised enough dust to dirty the bottom boxes in the stacks, it would be better fenced from livestock. Also, Ray thinks that there was quite a wastage of wax flakes falling on the ground during robbing, and is working on a mobile tray to catch these.

The cold draught kept wax moths and mice well at bay but some combs were damaged by rats. Another tip from Ray is that plastic sachets of rat poison must be punctured before baiting or the vermin take no interest in them.

Ray has developed a simple direct system which eliminated the multiple handling of boxes in many other storage systems and which integrates well with his method of processing cappings. However, this system can only work without disastrous consequences if hives are rigorously checked for *Bacillus larvae* disease as the honey crop is removed. This needs to be kept in mind by any beekeeper contemplating or already using such a method.

Dr Tage Johanssen visits

by Murray Reid,
Apicultural Advisory Officer, Hamilton

MANY NEW Zealand beekeepers and MAF advisory staff now know the delightful personality behind the name so familiar on beekeeping articles in overseas bee journals; and who could ever forget the laugh? Beekeepers had great fun trying to remember Dr Johanssen's christian name. The correct pronunciation was something like Taar-gah with a rise in tone on the -gah. To keep things simple he asked to be called Toge; but he got everything from Toge, Yobie, Tobie to Yogie. He didn't mind.

Toge flew into Auckland last January for a 45 day visit. During that time he travelled from Auckland to Invercargill and back again with numerous diversions on the way.

He spoke at many meetings and fieldays and participated in the two queen production and artificial insemination workshops at Flock House and Telford.

He also visited a number of beekeeping outfits in the company of MAF apiary staff and in a recent letter he expressed his appreciation for the kindness shown to him. "I did enjoy meeting and exchanging ideas with the many sharp, interesting and friendly Kiwi beekeepers. They were very kind and generous to me."

He goes on to say that "The New Zealand beekeepers are very fortunate to have such a close knit group of advisers who very obviously do work together for the best interest of the industry."

"In the USA, California and New York with populations of 16 million each, have only one apiculturist to service a whole state! They are partly paid by federal funds and now the policy for the extension service is to do more research and less extension."

Toge continues, "Thank you for the hospitality and generosity you extended to me during this unforgettable tour of New Zealand. I wish I had been able to make some explicit contribution in exchange for the benefits that accrued to me."

I'm sure that those of you who met Toge Johanssen would agree with me that he gave as good as he received.

Giving a helping hand

LAST WINTER Tony Clissold of Gore had a disastrous fire which destroyed practically all his supers, buildings and plant. Both Tony and his wife were from South Canterbury, Tony having learned his beekeeping from the late George Gumbrell of Geraldine and Fred Bartrum of Pleasant Point. Aware of this and knowing Tony well, the beekeepers in South Canterbury decided to give Tony some practical assistance.

Nailing jigs, staple guns and compressors, and wiring jigs were assembled and fourteen local beekeepers gave up two days of their time to make up five hundred supers and five thousand frames. The supers were dipped in preservative, waxed and given two coats of paint while the frames were wired.

Quite an effort but while this operation gave Tony much needed practical help it also brought together a group of beekeepers working together for a common cause in a spirit of co-operation and fellowship which will have lasting effects making for a better future for all concerned.

Comb foundation - are we using enough?

by Elbert Jaycox, "Bees and Honey", University of Illinois

COMB foundation, a sheet of beeswax embossed with the shape of the cells, serves beekeepers in a number of ways. For example, it will soon be time to install package bees in hives containing frames of foundation. Beginning beekeepers who buy nucs (small colonies) will probably fill out the hive with frames of foundation. Established beekeepers often place foundation in their hives to produce needed new combs and to help reduce the threat of swarming by their colonies. As the colonies grow and the nectar flows begin, beekeepers use frames of foundation in the honey supers when they have no completed or 'drawn' combs and when they need additional new ones.

When we use comb foundation, we worry about whether the bees will accept it and make good combs from it: Combs without drone cells, holes, and odd comb structures that don't belong. We need to learn more about getting the bees to consistently build the best possible combs from the foundation because we have invested a considerable amount of money and labour in the process and because good combs are the basis of movable-frame beekeeping. However, it may be even more important for us to learn whether foundation is a management tool which, if used in greater quantities, will help us to make more honey and profit from our bees. Let's discuss both aspects: Using more foundation and how best to get it made into good combs.

The traditions for using comb foundation are not the same in Europe and in the United States. Europeans use far more foundation than Americans because they believe that old, dark brood combs are a detriment to the colony. They maintain that such combs are possible reservoirs for organisms which cause adult and larval diseases. European beekeepers believe this because the cells of combs used continually for brood rearing gradually fill with layers of cocoons and larval feces. Brood comb rapidly darkens in colour and becomes black in a few years. At the same time, the cells become smaller in diameter and are then lengthened by the bees. Adult bees reared in old combs are smaller than ones reared in new combs.

To offset these changes, European beekeepers regularly replace their brood combs with foundation as soon as the combs will not transmit light or after three or four years of use. Paul Fiegl, a master beekeeper in Solden, Austria, gives his colonies as much foundation as they will willingly draw out in the spring, or about 1 kg for every three colonies. He says that this practice causes people to comment on how large his bees are. At Miel Carlota, a large Mexican honey company with a European background, half the combs in the brood chambers are replaced each year. An East European beekeeping textbook recommends adding five to eight frames of foundation annually to each colony.

In the United States, we generally replace combs only as they become damaged, moldy, or otherwise unusable. Although we have finally realised that dark combs discolour honey stored in them, we have not generally accepted the idea that old, black combs should be replaced routinely with new sheets of foundation.

The value of using more foundation may be hidden by an overemphasis on the 'uncleanliness' of old, black combs and the size of the bees that are reared in them. We should give more consideration to the possible benefits of improving our management by using more foundation. For example, at Miel Carlota they compared the incidence of swarming in two groups of 100 colonies each. One group received five sheets of foundation in place of old brood combs; the other none. Only one colony made swarm preparation among the treated hives while 23 did so when no foundation was given.

Dr John Free of the Rothamstead Experimental Station in England has studied the behaviour of queens and worker bees in relation to new and old comb. He expected to find that bees rear more brood in used combs than in new ones. Instead, he discovered that they sometimes reared less brood and that the queens showed no preference between new and old combs for egg-laying.

The worker bees definitely favoured used comb when storing honey, in laboratory experiments as well as in outdoor colonies. Free believes that this behaviour causes natural, or 'wild', colonies to store food (nectar and pollen) in old combs that were formerly in the brood nest. Brood-rearing is then forced onto recently built comb. In Free's experiments, the bees also preferred to store food in combs previously used for storage rather than in new comb.

Free concluded that our beekeeping management tends to frustrate the desires of the bees to store food in the old brood area of their nest and to transfer their brood-rearing to newer combs. But the bees, in turn, frustrate us by filling the old combs in the brood nest with honey, leaving little room for the queen to lay. This behaviour which may help to trigger swarming, is probably accentuated when there is an excluder above the brood nest.

Free's results clearly suggest that we should be renewing our combs in the brood nest regularly. The queen would lay as willingly in the new combs as in the old. The workers would be less attracted to store honey in the new combs, preferring to put it in the old brood – or honey-combs above the brood nest.

There is one snag in using more foundation. The bees do not always produce good combs from the foundation we provide them. In April and early May,

1978, we made strong nucleus colonies, or 'divides', and gave each one six or seven drawn combs and two or three frames of foundation. We also fed them sugar syrup for several weeks. The bees generally did a poor job of making comb from the foundation, building large numbers of drone cells. According to our past experience and to a study by Dr Free of comb-building, the small, eagar colonies should have built all worker combs. I don't know why they failed to do so.

The bees generally make the best combs from foundation placed in the second brood chamber or above the brood nest, either during a nectar flow or while the bees are being fed. The foundation should be placed at the edges of the brood, between the outer brood combs and the storage combs. The bees are less liable to misuse the foundation if there are 10 frames in a hive body or if the frames are pushed close together.

You can attract bees into a full super of foundation by exchanging a couple of frames for completed combs from the lower hive body, preferably ones containing some unsealed honey. When adding supers of foundation during a nectar flow, place them beneath the partially filled supers. Honey bees vary in their willingness to draw foundation. If you find a colony that does it well and quickly, you can exploit it to make extra combs for use on other colonies. Strong colonies will usually build good, new combs from foundation during the spring nectar flow from fruit and dandelion bloom.

The cost of using more foundation for managing bees may be prohibitive, at least until we are certain that it pays off. The wax obtained from the increased number of combs rendered can help offset such costs. Beeswax is currently valued at about $1.80 per pound and can be exchanged for foundation and wooden goods. Without low-priced labour or discounted labour costs, however, we may find that the use of more foundation is not feasible if based only on the direct returns from the practice.

The cost of using more foundation for managing bees may be prohibitive, at least until we are certain that it pays off. The wax obtained from the increased number of combs rendered can help offset such costs. Beeswax is currently valued at about $1.80 per pound and can be exchanged for foundation and wooden goods. Without low-priced labour or discounted labour costs, however, we may find that the use of more foundation is not feasible if based only on the direct returns from the practice.

BETWEEN THE COMBS

ON A SOBERING NOTE

Bacillus larvae is, and always will be with us. Tracking down BL is like putting a jig saw together, but you need all the pieces. Most beekeepers are always ready to blame their neighbouring beekeepers or wild swarms. In some cases they are warranted in doing this. But frequently they develop a mistrust of their neighbour that is unjustified.

I've sent two suspicious brood samples to Wallaceville recently for diagnosis. They showed all the symptoms of European Foul Brood that I knew in Canada. However, Wallaceville couldn't find any EFB spores. So they sent the samples to Rothamstead in England. No joy there either. Several other apiary staff have also sent in samples suspecting EFB.

It is to be hoped we don't confirm this one here. Australia has a high incidence rate of this disease in some states and it hasn't responded to drug treatment. So let your local apiary advisor know of any suspicious diseased brood.

– Murray Reid, MAF, Hamilton

HYGIENE LEAFLET OUT

The NBA has just published a brochure outlining the application of the Food Hygiene Regulations to Honey Houses. This brochure is being mailed to all commercial members of the association. For additional copies please write to Mrs Norton, NBA, Box 4048, Wellington.

SIMPLE CIDER

2 kilos apples
1½ cups honey
1½ cups raisins
5 litres water

Use only good parts of apples but mince skins, cores and all.
Add water and honey.
Allow to stand one day in covered bowl or bucket.
Add raisins.
Leave covered one week, stirring daily.
Strain.
Leave one day.
Siphon off, leaving sediment behind.
Bottle and cap or cork securely.
Keep in cool safe place.
May explode or blow cork out.
Store at least two weeks.
Good luck.

– D.W.

BUREAUCRATIC BROMIDE

The bureaucratic gnomes are ready to strike again! This time it could be to limit the use of Methyl Bromide to licensed operators. There's nothing to stop a beekeeper from becoming a licensed operator. But he would no doubt have to undergo a course of instruction on the correct use and dangers of this odourless, colourless and tasteless gas, and the safety procedures.

Some beekeepers I know do not treat this very deadly gas with the precaution it deserves. Maybe controlling its use will be a good thing.

– Murray Reid, MAF, Hamilton

IBRA CATALOGUES PUBLISHED

The International Bee Research Association has just issued two new catalogues, both with full descriptions of each entry.

List 1: *Publications of the International Bee Research Association* has over 100 items, including visual aids.

List 2: *Book Selection of the International Bee Research Association* describes 90 publications and visual aids on beekeeping topics, issued by other publishers throughout the world. IBRA stocks these publications for sale.

Copies of List 1 and List 2 may be obtained from the International Bee Research Association, Hill House, Gerrards Cross, Bucks SL9 ONR, England, for 25p or $0.50. There is no charge to members of the association. A copy of each is also held by the NBA library, Box 423, Timaru.

Bees being shaken off brood combs

Pt. 4: Queen rearing for amateurs

by David Williams, our hobbyist adviser

MOST COMMERCIAL queen breeders use a system whereby grafted larvae are nurtured in a queen-right colony. This system is used because wax cups are easy to make or plastic ones to buy, and other systems are too slow and damaging to combs.

The cells are removed before emergence, allowing the virgin out in some form of nuc – often four nucs in a quartered brood chamber, in one case only ¾ deep, or in individual nucs. The virgin is allowed to mate and lay from here until a pattern of laying and assurance of worker brood is established.

It is then removed and sold and the whole thing done again, usually continuously, during the spring, summer and autumn.

During the process the hives are dosed with fumagillin to knock Nosema, because export orders must have clearance certificate.

You could't do this, and for your purposes wouldn't want to.

Introduction

To prepare a colony for raising queen cells, either: Find a queen on one frame and remove that frame, then shake all other bees in front of the hive, removing all brood of any kind and leaving stores.

Put queen (if you want to save her – if not, kill her and treat frame like the rest) in a separate brood chamber, with stores, and use other brood to add to other hives, remembering that this makes those hives extra strong and so more likely to plan to swarm.

In the original hive, leave space for the one or two frames of cells in the centre of the box – one should be enough for most amateurs, and pack stores combs on either side of this space. Fill up outsides with spare empty combs as the bees will need to put anything they bring in into these, as they have no brood to feed.

Don't worry if you find yourself having to use two brood chambers – the bees won't mind, and you leave your frame space top dead centre where its nice and warm.

OR

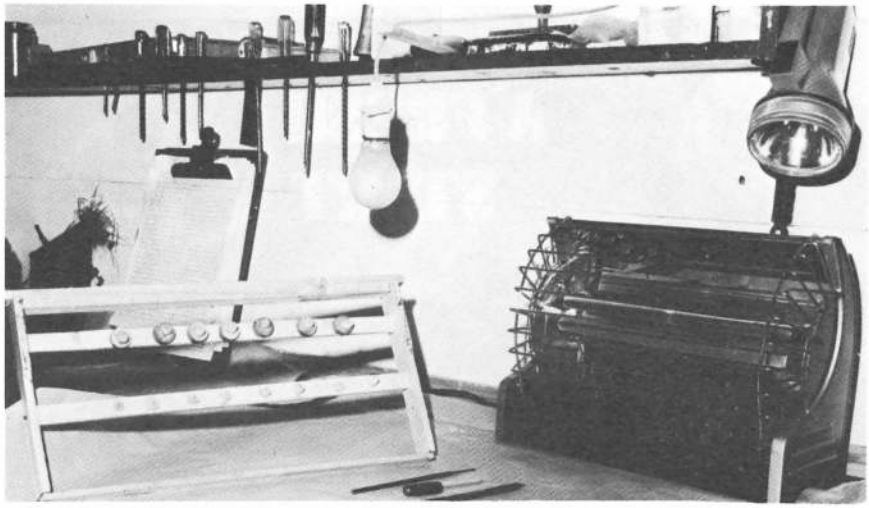
If you feel shaking a full hive of bees off frame by frame, compromise. Regard the hive as three separate categories of frames – stores, wholly sealed brood and unsealed brood. The first is divided, the second goes in with cells, the third goes with the queen.

Do this the day before your queen rearing proper begins, then check next day that you didn't miss anything and they aren't making queen cells themselves – if they are, destroy them.

The last grafting/punching/stripping I did – mainly to get photographs for these articles – was on my garage bench. The bench was covered with brown paper (much easier to throw away than to try and clean the bench). One bar of an electric heater kept everything warm, the garage doors were closed while actually operating ("Nurse, pass the scalpel") and a 100 watt bulb was suspended from a strut 30 cm above the frame. It worked well enough.

To get the frame, I sorted through my selected breeder hive, picked the best frame, made sure the queen was not on it, gave a very gentle shake (onto my entrance ramp, naturally) which got rid of 95 per cent of the bees attached, brushed the rest off with my new 75 mm wide paint brush, and rushed into my garage 30 m away – any further and I would have used a nuc box with a hot water bottle in the bottom.

I could use such a well-used frame for both grafting from, by removing larvae with my grafting splinter, or for punching them out, although this frame was just a bit tough to be ideal for that. It could not be stripped.



Grafting bench

Always remember that larvae alongside eggs are likely to be perfect for your purposes. If they aren't, they will be obviously so.

Everywhere I look these days there seems to be articles on queen rearing, and very good ones too, although not all applicable to the amateur.

At this stage certain things must be said: Contrary to any impression you may have got, queen rearing is not easy. The professionals make it look easy and it is easy for them, they do it all the time. You will never reach that level. Accept this.

Also accept that you must allow for at least a 50 per cent failure rate – in other words, if you process 10 cells by any method, count on getting less than five.

Always wear old clothes and remember that, as in extracting, a damp cloth is your best friend!

The next three articles will be on the actual queen rearing methods. These will be the strip method, grafting, and the punch.

Now, to get down to our level, I think I'll start with some sort of short summary just to get the ball rolling, and then repeat the points more mildly in the text. Let's call it:

FROM BIG to small

- Choose the simplest techniques and keep them simple. Remember that every time you add, you raise the odds against.
- Count on the 50 per cent failure rate on your first attempts – this may seem excessive but is by no means unusual.
- Ask an expert to supervise if possible.
- Operate in warm, damp conditions as quickly as possible.
- Feed the hives for at least four days before starting and don't be fooled by textbooks that say you feed 'to get big, fat larvae that are easy to pick up' – you feed, and then choose the very smallest. This is best achieved by putting a clean, drawn comb in the middle of the brood chamber and placing the queen down in it four days before you need it, whatever system you use.

Cell removal vs. larva removal

I don't want to spend too much time on this, but would just like to say that there are two basic methods – whatever the techniques used – of queen-cell raising. One is where the cell in which the larva is is used, the other is where this larva is removed from that cell and used elsewhere.

Which is best? Obviously that which works best ie. that which suits the beekeeper and which produces an acceptable number of quality queens.

This may be a difficult decision for the amateur. As an amateur – and a very amateurish one at that – if I am going to raise queens (which I prefer not to do), I am going to use a system whereby the larvae are subjected to the least trauma.

This means taking cell and all. One advantage is, of course, that the larva is undisturbed. It is not subjected to abrupt changes of temperature, it is not poked, prodded or rolled, it is not dumped in an alien cell, it is not removed from its own sea of brood food and deposited in or on material which may be significantly different from that it has left.

In other words it is a simple removal of cells from one site to another with a minimum of disturbance and the least possibility of damage.

The frame(s)

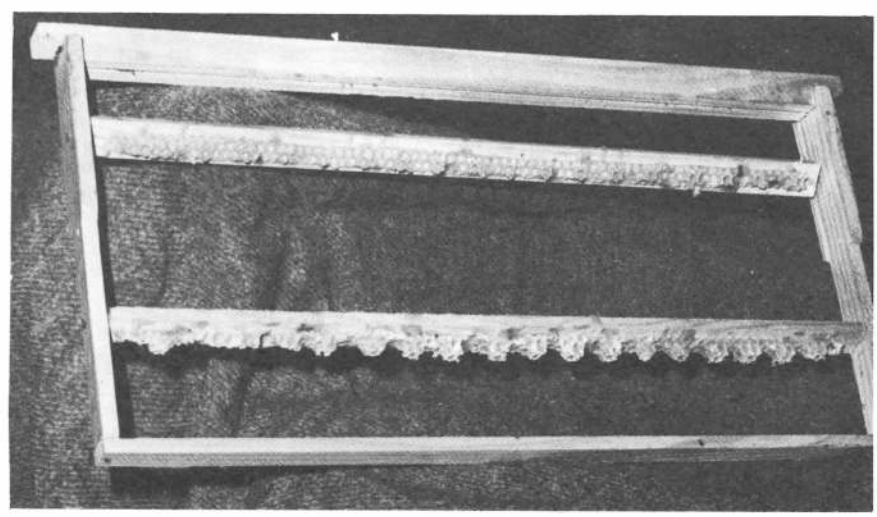
As I am writing specifically for the small-scale amateur, one frame should be enough.

To prepare it for taking cell-raising pieces (ie. strip or cell cup, and even an alternative in the punch, though I'll talk of that in that specific article) it has to have a few extra bars across the inside. Don't think you have to sacrifice good bottom bars – any old bit of wood will do.

I use bottom bars because I make them myself, but the bees don't really care. One acquaintance used strips of hardboard left over from a home-repair job when he was in a hurry and didn't have anything else and reports they worked equally well.

Whatever you use, they have to be cut down to fit between the end bars comfortably, without being too loose or too tight.

Now, where do you place them? I find there isn't quite enough room above/below if you use the wire holes in the ends of the bars (and I am, of course, assuming you are using normal Hoffman frames). As I'm only interested in a few cells I use the top wire holes and



Strips of comb on bars

make an extra pair half way between the second and the third, and use only the two bars. This will easily give you space for 20 or more cells.

If you want more, move the top one up and space others out down the sides. The commercial types get four cross-bars in quite satisfactorily.

I cut 25 mm nails down to 12 mm or less, pre-drill a little hole in each end of each cut down bar, and put the nails in place. I say put in place rather than hammer because my nails are finger tight and no more.

Incidentally, it is better to use one frame and more bars than go over to two frames – the bees prefer it that way.

The cross-bars will now swivel very happily and may be used for the next 50 years. And that is the frame.

The strip

For the strip system, you really need a once-used comb or a last year's extracted frame. Put this into the centre of the brood nest for the queen to lay in, then check it's ready for use four days later i.e. that it is fairly well crammed with newly hatched larvae. It's difficult to get long, straight rows of even-aged larvae without this preparation.

So, having got your nice frame with lots of lovely little larvae (and prepared your cell-raising colony the day before, of course) you remove the frame from the hive, brush the bees off, rush to your pre-warmed operations room, and operate.

- With a small paint brush in a jar of melted wax at the ready, and with the bar frame lying there flat, with bars swivelled ready to take strips, decide which side of the frame you are going to use.
- Turn the frame over and scrape back down to mid-rib, at least over the area you are going to remove, and turn back, lay flat, and make a final check of strip area.
- With a sharp, slightly-warmed knife (I use a curved lino knife), cut the strip out by slicing through middle of cells either side (naturally I mean across the frame, not up and down!). You now have a certain length of strip.
- With the paint brush, put a layer of melted wax on one of the bars and immediately dip the brush back in the hot wax and put the second layer on.
- Very quickly place the strip on the wax and press down firmly at intervals along strip – don't worry about the damage, just make sure you leave at least one cell in every four unmashed – that gives plenty of room to press. Repeat the whole thing if you need to – remember not to go wholesale or get carried away with enthusiasm – you only need a few or you shouldn't be reading these amateur notes.
- Quickly remove three out of four cells – I use a scalpel – cut, scrape sideways each way to the centre leaving fourth cells sticking up like snaggle teeth.
- Stand the frame up, turn bars down, rush out to the prepared hive, place in, mat on, lid on.
- Race back to the operations room, turn the heater off under the wax, rush mutilated frame back to donor hive and put in. Then keep your fingers crossed for success.

Some authorities recommend cutting cells down in height. This adds to time taken, is tricky to do neatly, and doesn't seem to aid acceptance much – the bees usually make things right for you.

And that is the strip method of raising queens cells, adapted for the complete amateur. What you do with the cells once you have them will, unfortunately, have to wait until all cell raising techniques have been covered. If you really can't wait that long, please write and I will reply personally.

Remember that with all these methods, the first time is the most difficult, so have a trial run and don't be too disappointed – you can only improve from then on.

The strip method touched on here is in all the books – cutting out appropriate strips of comb containing the smallest of unsealed larvae, one cell wide, by cutting through the cells either side of them, the strips being made one-sided by having the back layer of cells scraped off, then glued or fastened to bars in the frame in some way, often with molten beeswax. Three out of every four cells are then scraped out leaving every fourth (sometimes every third) standing proud.

I am quite sure the system will work, and work well, but it never has for me. My fault, of course, but I find I never seem to get the necessary straight rows of even-aged larvae for my purposes even when using a frame especially put in for the purpose. It is also a messy business cutting 'em out and fixing the strips on satisfactorily is less easy than it should be.

I also prefer a system where queen cells can be handled individually – in other words I want them singly, and on some sort of base that can be removed and placed in nuc or hive.

Perhaps, again, others would be kind enough to tell us of their experiences with this?

UNCAPPED HONEY

I AM sometimes asked what should be done with 'unripe' honey at the end of the season, by which the questioners mean uncapped honey in the comb.

The mere fact that the bees have been slow to cap the last of the honeyflow does not necessarily mean that it has a high moisture content.

Certainly if you take and extract unsealed combs at the height of the flow rather than at the end of it, these are likely to contain a proportion of nectar rather than honey and so be liable to fermentation and other chemical changes, but this is not so later in the year.

I am of the opinion that the bees prefer to save themselves unnecessary labour – as do we all – and, because they plan to use any unsealed areas, first, evaporate the nectar down to honey but leave it uncapped.

One very simple and very old test for nectar/honey is to gently shake the comb about. If droplets fly out, it is not yet in a fit state to be stored away by the bees or extracted by the beekeeper.

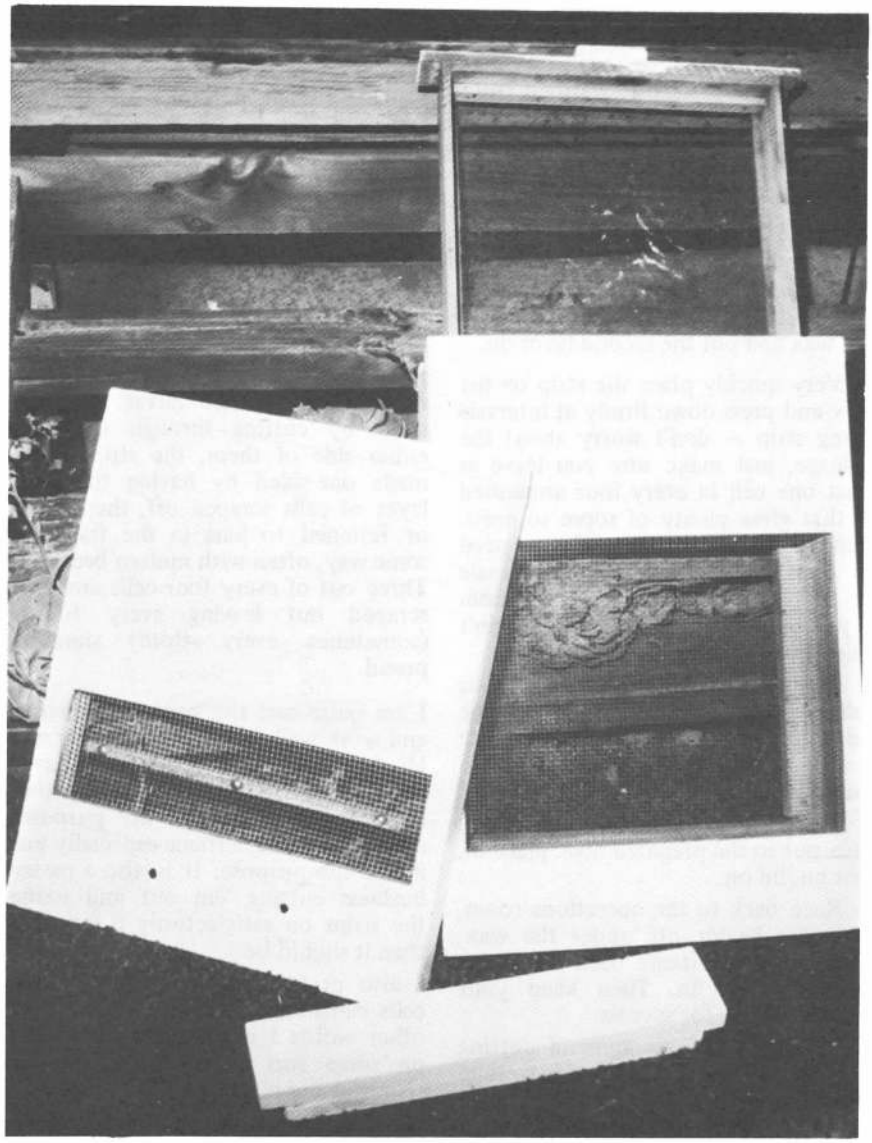
If, however, nothing much happens, the probability is that it is honey, and may be extracted quite normally along with honey uncapped by the apiarist.

This is particularly so where the uncapped areas are adjacent to capped portions of comb. Bees naturally like to work from the top centre of combs, which means that the bottom and edges of frames are often the last filled and the last capped.

If honey is still unripe, little is lost by leaving it in the hive until the bees get round to ripening it. If it is ripe, nothing is lost by extracting it along with the bulk of the crop.

The only thing I have noticed in storing feed combs through the winter is that the uncapped areas tend to crystallise somewhat – hardly a serious fault.

POLLEN TRAPS



The parts of the pollen trap.

Story by David Williams, photo by Alan Warren

THE BASIS of all pollen traps is that the bees should pass through some restricted entrance that will detach the pollen bundles from the corbiculae and allow them to fall into a trough of some sort, leaving a very puzzled bee to explain away his failure to come up with the goods to the sergeant-major on guard duty.

The ' restricted entrance ' may be of many kinds. One usual method is to have an entrance of woven wire mesh forming squares some 4mm wide. Another is to have holes, smooth and circular, in some sort of plate through which the bees have to pass. A third is to have 'guards' as a grill at the entrance, the body passing through but the pollen being pulled off.

In most cases the pollen trap is used as an additional floorboard at the base of the hive. Photographs from overseas show that the entrance is sometimes located at the side, the front, or the top of the hive.

The trough into which the pollen lumps fall may be either solid or, more usually, is itself provided with a further, finer, screen to catch the lumps and allow finer debris and dust to fall to the bottom.

This has the added advantage that it allows air circulation around the pollen. Pollen is most apt to go mouldy in a very short time and any drying or air movement around it helps to keep it purer for longer.

Some troughs have wire mesh to catch the pollen but allow the rubbish to fall directly onto the ground below. This is not to be recommended.

In most cases New Zealanders use the floorboard model, where the pollen trap is inserted as a false bottom, the bees entering and passing up through wire mesh, usually in the centre or toward the rear of the hive, the pollen falling into a tray arrangement below.

The trap usually has a second entrance by which the bees may be allowed to enter without passing through the trap.

Pollen should be removed from the trap every day or, at the latest, every second day. Pollen collected by insects is sticky, sweet, and has a high moisture content. Gathering into lumps and then gathering into trays provides ideal conditions for mycelial development.

The bees counter this by sealing it in with honey, reducing the moisture content, and through good housekeeping.

Once gathered, the pollen must be dried. This may be done by spreading on trays at 25-27 deg C in an oven or kiln for 2 - 3 days, by placing in a sheltered room until dry and crumbly, or on trays in the sun, etc. Avoid extremes of temperature, protect from insects and other contamination, and maintain the highest standards of hygiene at all times.

After drying, the pollen is usually packed into airtight containers where it may be safe for some months although, as with all natural products, the sooner it is used, the better.

It is also possible to store pollen in a refrigerator or a deep freeze.

It must be emphasised that pollen trapping has a traumatic effect on the hive. Pollen is vital to the development of the young bees and to allow them to produce the protein-rich brood food on which the larvae are fed.

Here in Rotorua the pollen supply is only just adequate to keep up with demand and attempts at pollen trapping have resulted in a complete cessation of brood rearing within three days. This is a locality effect.

In other areas conditions may be more suitable. Down at the coast, for example, no such problems are reported, but it would still pay to keep a close eye on hives to see just what effect this reduction in intake is having.

Drones

The pollen trap is, in effect if not in intention, a queen excluder and hence a drone excluder also, so that some provision must be made for their exit and re-entry unless the beekeeper wants a mass of dead drones cluttering up the hive.

In many cases, a couple of holes are drilled through a wooden portion of the mesh tray to allow drones to exit, while some beekeepers rely on releasing drones at their daily visits, or on having a non-pollen-trap day every two or three days. Drones are one factor that must be taken into account in planning your system. Merely letting them out means that the pollen mesh fills with drones who get out, but not in again!

There is mention of drone traps in the literature and they can be made or bought, and several thousand drones per hive removed in this way. I never mind drones myself, limiting them only by culling combs with too much drone cell; the bees do seem to like having them around, and the bees will only replace them if you carry out the massacre. Better tolerate them a little!

Share your experiences

The above is only a very brief summary of the situation. Let us have your news, views, opinions and experiences on the subject, so that we may all finish up wiser, better, and better-informed beekeepers.

The beekeeper

As for the queen and colony, so for the beekeeper himself. The good beekeeper has all the characteristics of a good husband – kindness, gentleness, a precise sense of timing (women may forgive a man for being wrong but never for being right at the wrong time), dependability, intelligence, and common sense (which do not always go together, and of the two, common sense is to be preferred if you have to settle for one or the other).

The good beekeeper (like the good husband) will always be aware of what is going on but may not always choose to show his awareness. He will know when to take appropriate action and when to let events follow their natural course.

He will be reluctant to interfere unnecessarily, but ruthless when action is imperative and decisive in that action. He will be positive in his approach, looking for ways and means of ensuring steady progress with a constant and continuing improvement in whatever is under his benevolent control.

This is the ideal, but there seems no reason to regard it as an unattainable ideal, rather one that should be worked for.

Remember the Peter Principle – 'Every man rises to the level of his incompetence' – and that this applies to beekeeping as to all else.

The wise beekeeper is the one who realises this, reaches that level, and retreats from it.

CUT COMB

Records and research

There are certain things that are going to be repeated time and time again.

May I once again make a plea for good record keeping? In beekeeping every man (and woman) is a one man (or woman!) research team.

Remember Tinbergen's dictum that: 'Contempt for simple observation is a lethal trait in any science.'

And remember that memory is faulty to a fault. Whatever your observations or record, write it down on the spot, at the time, whatever it is – some interesting fact, some detail of technique that worked or didn't work (remember that a negative result is equally valuable in research; someone has said that the trouble with scientists is that they only report their successes), some adaptation, some deviation in bee or beekeeper – write it down. That way it is preserved for you and for generations to come.

Leakey's luck

In 1971 anthropologist Louis Leakey, of Olduvai Gorge fame, was sitting quietly in the shade down at Gedi on the Kenya coast when he was attacked by hundreds of African bees. He claimed he was stung by eight hundred (his biographer claims that this 'was certainly an exaggeration') and his right arm was paralysed. He also became 'quiet and docile', which he certainly had not been before.

A few years later Louis had a medical check: The medics found a skull fracture, removed two blood clots from the brain, and he eventually got back some use in his arm as well as his pepperiness of temper.

It turned out that in trying to escape from the bees he had fallen, cracked his skull, and received concussion, although nobody realised it at the time.

You can't blame the bees for everything!

Cut comb and sections

Had a letter from an A.H. Hunter (I think – sorry, Mr Hunter – no address and an artistic but difficult signature leave it a little obscure) who chides me for advocating sections rather than cut-comb honey production.

Cut comb, he says, is easier for the bees to produce and for the producer to handle, as witness the thriving export market in it.

Very true. I have seen, at Arataki and elsewhere, a very nice production line in cut-comb – the wires pulled out, the comb divided up, drained and packed, all very hygienically and neatly, and a very saleable product at the end. Certainly few commercial operators would bother with sections.

BUT the reverse is the case with us amateurs. We have neither the equipment nor the inclination to break down full frames of honey. We certainly could do so if we wanted to, and perhaps put each segment of comb on a separate plate, or in a jar, but it would be a messy operation.

By using small, discrete wooden sections we can store them easily and use them easily. In use we get a neat, convenient slab which, cut out of the thin wooden frame, drops easily onto a small plate or preferably a simple dessert dish.

Such a slab does not take long to eat – we get through a section routinely in three to four days in our household and visiting families often wolf one at a sitting because of the novelty – and the plate washed and replenished with a new one.

Cut comb by itself in a jar looks a bit messy as the honey drains to the bottom. Certainly the jar may be filled with liquid honey and then looks nice – unless it crystallised before being eaten, when it doesn't – but this is an extra operation and, often an inconvenient one.

Better the simple, sealed section. The bees don't really mind making them if the advice given in the Beekeeper a couple of issues ago is followed, and people certainly don't mind eating them. The little extra trouble and expense to get them is well worth it.

JUSTICE FOR AMATEURS

I must say I was disappointed with the response to my small 'Justice For Amateurs' note in the March issue. I expected at the very least some outbreak of hostility from Mr Muldoon, plus threats to burn down my house from the commercial sector, plus notifications that I was now off their Christmas card lists from the MAF. Instead — nothing. A real damp squib.

However, just in case there is a delayed reaction, would you please note I am fleeing the country for a few months and that David Bagnall, 300 Old Taupo Road, Rotorua, phone Rotorua 82885, has kindly agreed to answer reader's queries. Please contact him if you have any problem and he will do everything possible to help.

— David Williams

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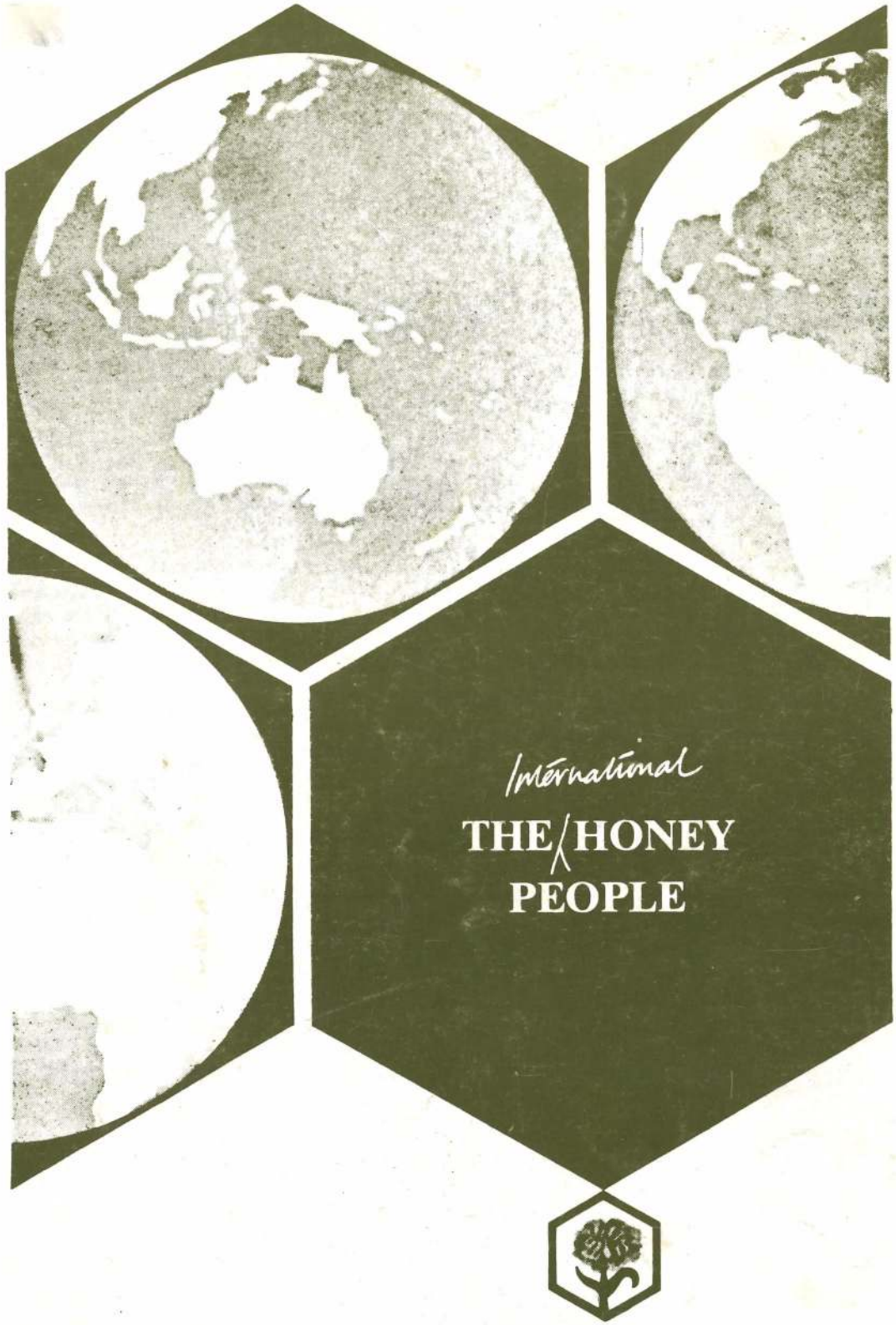

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