

THE NEW ZEALAND

# beekeeper



DECEMBER, 1975



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# THE NEW ZEALAND BEEKEEPER

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## In this issue...

NBA Notes, pages 3 & 5; Des Williams obituary, page 7; New frontiers, page 9; Dawson of Papua, page 11; Grenoble report, page 13; The Wairarapa Simmonds, page 16 (the first in a series of articles mirroring the NZ beekeeping industry); Branch news, page 19; Honey and the weather, page 23; Pollen supplementation, page 27; South Island snippets, page 31.

## Editorial

### The spirit of '39

by Trevor Walton

"We have the pleasure of announcing to the beekeepers of New Zealand that, after a lapse of some years, they now have available a journal which is published solely in their interests...."

So started the editorial in the Jan 20, 1939 edition of the NZ Beekeeper, Volume 1, No. 1, published with the intention of "keeping members informed of the general executive's activities on their behalf . . . to convey news and official information from the Internal Marketing Division and the NZ Honey Control Board . . . telling of the progress and activities of the numerous branches of which the association is comprised . . ."

The spirit was optimistic: "Beekeepers are urged to use this paper and join the association so as to ensure receiving a copy regularly. While at the present time it is not possible to publish oftener than quarterly, it is hoped shortly to commence bi-monthly issues, and that is only one step from regular monthly issues . . ."

Thirty-six years later, with increased postal and printing changes in the wind, the prospects of a monthly Beekeeping magazine are further away than ever. However, the optimistic spirit of '39 still continues.

This is the first of a new-look NZ Beekeeper, designed to make your magazine more informative, more readable and a better front window for the industry.

You are no doubt accustomed to the pocket-book sized old Beekeeper. However, by the time you have read through our first five issues (we have had that many covers and wrappers printed in advance) we hope you will have come to like the new-look Beekeeper and have come to appreciate its qualities.

In the same way, the association hopes those who make decisions which affect our liveli-

hoods will also see the new Beekeeper as a symbol of a vigorous and lively industry - certainly one not to be taken too lightly.

For production reasons, the publication dates for the Beekeeper have had to be changed. From now on the Beekeeper will be published and mailed to you in the first weeks of December, March, June and September. Deadlines for copy will be a month earlier than the publication dates and will be strictly adhered to.

Until now, the NZ Beekeeper has changed little in its first 36 years of publication. But in that time, thanks largely to developments in the media, the world has shrunk dramatically. This magazine must, if it is to be successful, compete with television, radio and other publications for your leisure time.

Larger type, the elimination of verbatim minutes and brighter layout are all designed to do this.

The NZ Beekeeper is not just a voice for the NBA executive. Heaven forbid. It is an industry magazine which should reflect the interests of all sections of the beekeeping world.

However, it is funded by producers and mainly read by producers. For this reason, it is important that producers use this magazine to air their grievances and on occasion, sing someone's praises.

So use us. The NZ Beekeeper is yours. We will edit your letters or opinion pieces if they don't make sense or are too wordy for the space available, but within the limits of good taste and the libel laws we will give you all the rope you need.

The editor and the NBA executive can only do so much to make the Beekeeper a vital publication. The rest is up to you.

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Advertising at these rates is available to bona-fide  
beekeepers advertising products or services relating  
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the appropriate rate is questioned, the decision of the  
editor will be final.

Rates: Full-page, \$50; Half-page, \$30; Quarter-page,  
\$15; \$1 a column cm. No deductions for contracts  
will apply.

### Commercial Rates

Full-page, \$80; Half-page, \$50; Quarter-page, \$25; \$2  
a column cm. \$20 per page loading for inside cover,  
outside back over and spot colour. Concessions avail-  
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### SUBSCRIPTIONS

The NZ Beekeeper is distributed free to all bee-  
keepers 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 and others who  
may wish or may not wish to join the association, will  
pay an annual subscription of \$7.50 which includes  
the cost of a subscription to the NZ Beekeeper.



**KING  
BEE**

(WHERE THE NBA SHOWS ITS STING)

### **Introductory Seminar**

A seminar entitled "Introduction to Beekeeping" is to be held at Massey University from February 13 to February 15, 1976.

The seminar, which is being organised by Massey University's agronomy department and the Ministry of Agriculture and Fisheries, will cover the following topics:

The life-cycle of the bee and the seasonal cycle of the hive; Equipment for beekeeping; Hive management and manipulation; Processing of the honey crop; Queen introduction and queen raising for beginners; Diseases, inspection and statutory regulations.

Beekeepers wishing to attend should contact their local apiary instructor, the association secretary Mr Beard, or Mr R.C.W. Zander of the Massey University Department of Extension, Box 63, Palmerston North.

### **Raw Sugar Available**

The NZ Sugar Company has advised the NBA that raw sugar will continue to be available in the future. However, for a short period the sugar will be sold in 112lb bags and then later in 35kg (77lb) bags. The price of the sugar will be unchanged at \$404.80 per ton less manufacturers' discount of 2.75 per cent.

### **Petrol Tax**

NBA members will have noted the government's decision to set up a consultative committee with representation from Federated Farmers and government departments. This committee will determine how the various farming sections can be assisted in respect of the increased petrol tax.

The NBA has formulated detailed submissions on behalf of beekeepers and these will be presented to the committee in light of the guidelines laid down by the government. It is the belief of the NBA executive that the association has one of the strongest cases for relief.

### **Vipers Bugloss**

The NBA general secretary, Graham Beard, has written to the Counties Association calling on its support to have Vipers bugloss removed from county council noxious weed schedules. Vipers bugloss is a common weed of no great agronomic threat, which also happens to be a particularly good nectar source for bees.

The executive of the NBA resolved at its September meeting that:

That a list of the names and addresses of all members of the association be made available to any beekeeper or trader at a cost to be determined from time to time by the executive.

That a copy of the list of members be supplied to each branch on a restricted release basis.

That the charge for the list of members be \$10.

### **Westland Worries**

The minister of forests has replied to a letter from the beekeepers' association expressing concern about the proposed destruction of vast areas of native forests on the West Coast and their replacement with stands of *Pinus radiata*. The minister said he noted that beekeepers were concerned about the loss of so much good bee habitat.

### **Paraffin Wax Okay**

Supplies of paraffin wax of grades suitable for use by beekeepers will continue to be available to the industry for the foreseeable future according to Mr B.A.J. Goodwin of Shell Oil (NZ) Ltd and Mr V.M. Dick of Mobil Oil NZ Ltd.

Referring to difficulties beekeepers have had getting such wax, both men say that members of the NBA should approach their local oil company depot or installation which will be able to supply the wax from stock or order it from the main port depots.

### **Sprayers On The Mat**

Ministry of Agriculture and Fisheries regional advisory officers in Dunedin and Christchurch were instructed by MAF head office in September to ensure that all parties concerned with the spraying of clover crops were made fully aware of their legal obligations with regard to the need to obtain permission for such spraying and the need to avoid damage to bees.

### **Slow Coach**

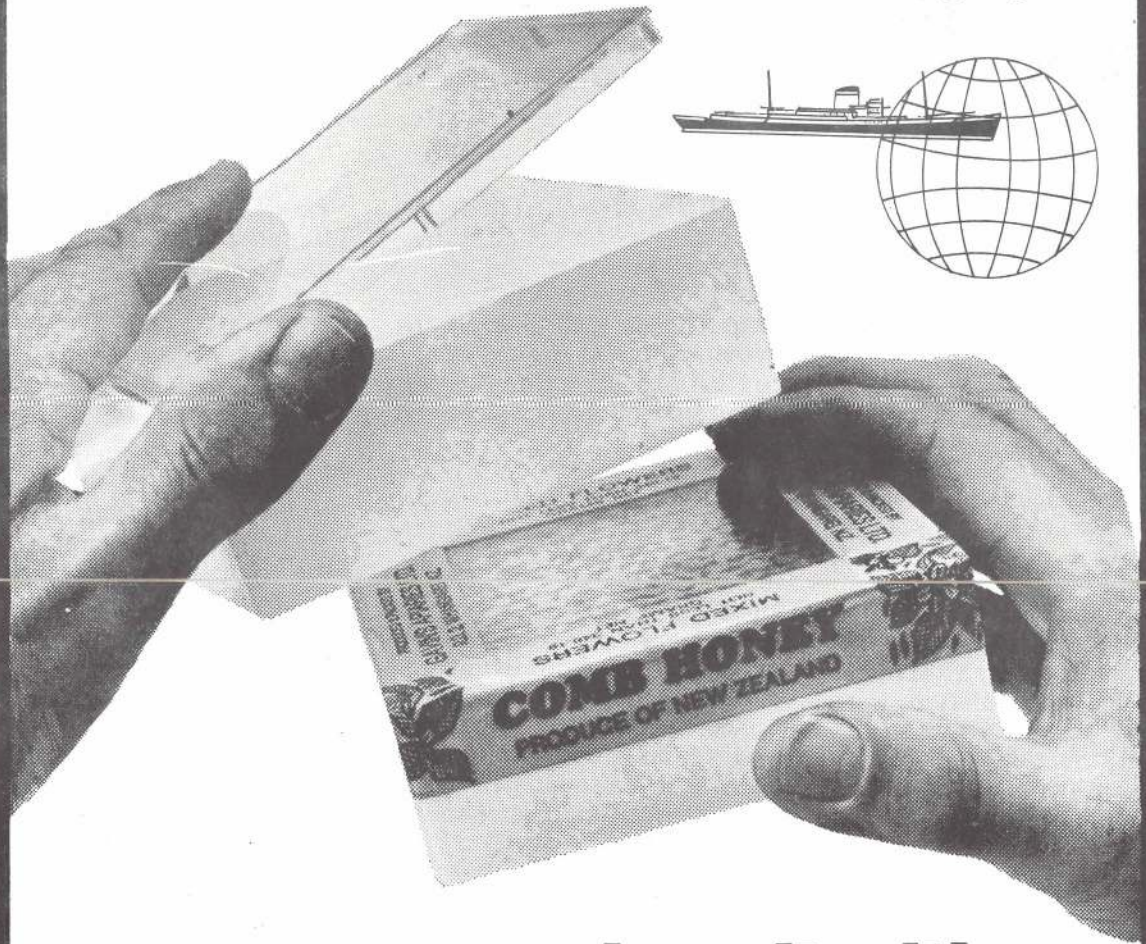
Publication of "Beekeeping in New Zealand" has been delayed again. This time the reason is the workload imposed on the government printer by the frantic closing months of the last parliamentary session.

According to Mr J.H. Watt, of the Ministry of Agriculture and Fisheries advisory services division, the bulletin would not be available before the end of November at the earliest.

### **Sugar Prices**

The NBA executive has resolved that it can see no basis on which it could develop a successful case in support of a subsidy on sugar use in the beekeeping industry.

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### **Tax Deductions**

NBA general secretary, Graham Beard, is currently investigating the anomalous situation whereby hives constructed on the apiary were eligible for tax deduction assistance, whereas hives purchased from a manufacturer were considered as capital items and not as normal operating expenditure for taxation purposes.

### **Adelaide Congress**

At the recent XXV International Apicultural Congress at Grenoble France, it was agreed to hold the next congress at Adelaide in 1977.

This biennial conference on all aspects of beekeeping will attract hundreds of apiculturists (beekeepers, extension and research workers alike) from around the world. The Adelaide Congress and its associated tours will provide a rare opportunity for New Zealand beekeepers to see, hear, and discuss apiculture with so many fellow international beekeepers.

### **In The Family Way**

The National Beekeepers' Association has become a ratified member of Apimonda, the international federation of beekeepers' associations. This decision was made by the 25th International Beekeeping Congress which met in Grenoble on September 9, this year.

In a letter to NBA general secretary, Graham Beard, the general secretary of Apimonda congratulated the association for joining the world-wide beekeepers' family. He also informed the association that on the basis of New Zealand hive numbers, it will have to pay a \$U.S.100 membership fee for 1975.

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### **BEGINNERS' NOTES**

The beginners' notes which have been a feature of past issues of the NZ Beekeeper were unable to be published in this issue because of circumstances outside the editor's control. The intention is that they should continue to be a feature of this journal.

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### **Micro-wave Melting**

Ministry of Agriculture and Fisheries research officers are currently researching the effectiveness of using infra-red and microwave heating for the melting of beeswax. The results of their research is expected to be in the hands of beekeeping superintendent Smaellie shortly.

### **No Bee-man**

Mr J H Watt, of the Ministry of Agriculture and Fisheries advisory services division, has scotched suggestions made by this year's NBA conference that an extra apiary instructor be employed by MAF so that a trained person would be available to fill a position made vacant by staff resignations.

Terming the conference suggestion as "quite unreasonable", he said that his ministry normally expects to be able to appoint staff and have them trained to replace officers when they retire, "but it has been very difficult to recruit sufficient suitable staff in the past few years."

### **Ivan Forster's Work**

The valuable work being undertaken by Mr Ivan Forster on his retirement is to be continued by ministry of agriculture officers, though according to a letter from Mr J H Watt of the ministry's advisory services division, the ministry has yet to decide which of its various divisions is to carry the can. Contenders include the advisory services and research divisions.

No clear favourite has yet emerged.

### **Export Incentives**

Officials of the Ministry of Trade and Industry are currently preparing a submission for their minister recommending that propolis and pollen be added to the schedule of products eligible for export incentive tax. Their action is the result of a 1975 conference resolution requesting action in this direction.

### **Keep On Truckin'**

Concern expressed by the 1975 Beekeepers' Conference about the 40-mile restriction on the road cartage of bulk honey has been communicated to the minister of railways. The minister has advised the NBA that the matter was currently under study by a special committee and that an early decision was unlikely.

It is expected that a decision will be likely along with the rail-freight review in early 1976.

### **Metric Flare-Up**

The principal supplier of honey cartons to the industry has expressed concern that the industry might soon standardise its retail output in 1 kg cartons. The supplier has pointed out to the NBA executive that the industry decided not so long ago to standardise on 900gm cartons and that his firm had tooled up on this basis.

Government metrication officials, the NBA executive and suppliers of honey cartons are having continuing discussions.

### **Conference 1976**

The Wairakei Hotel conference room has been booked for 28, 29 and 30 July 1976 and all other preliminary arrangements have been made for the 1976 NBA conference.

The Waikato branch of the association is now liaising with the executive in the organisation of the conference.

### **Private Exports**

The chairman and general manager of the Honey Marketing Authority are to meet with the NBA executive committee at its December meeting to discuss exports of honey by private packers.

At its September meeting the NBA executive resolved that a letter written by the packers' association to the minister of agriculture, quoting a conference resolution, was an extremely premature move and one not likely to assist in the proper evaluation of the matter.

**APIARY STATISTICS AS AT 31 MAY 1975 (DISTRICT AND DOMINION TOTALS)**

DISTRICT	1-5 Hives Beekeepers Apiaries Hives	6-50 Hives Beekeepers Apiaries Hives	51-250 Hives Beekeepers Apiaries Hives	251-500 Hives Beekeepers Apiaries Hives
NORTHLAND	348 391 688	67 158 989	10 153 1863	2 53 1090
AUCKLAND	475 548 1292	91 221 1571	15 149 2262	- 53 983
HAMILTON	213 231 492	89 181 1442	12 121 1933	11 253 4967
TAURANGA	152 169 231	58 137 1028	14 150 2451	2 113 2552
HASTINGS	102 108 218	58 129 877	8 48 942	2 39 852
PALMERSTON NORTH	285 300 634	104 231 1506	13 107 1116	1 32 253
HAWERA	133 133 289	58 98 741	12 122 1759	1 25 499
NELSON	171 175 397	69 147 850	15 166 2375	5 69 1631
CHRISTCHURCH	168 175 312	57 169 1016	24 289 3156	10 411 5266
OAMARU	78 83 155	40 113 964	17 207 2453	8 319 4256
GORE	92 73 171	49 90 748	15 182 2488	12 328 4689
DOMINION TOTALS	2217 2386 4879	740 1674 11732	155 1694 22798	54 1695 27038
DISTRICT	501-1000 Hives Beekeepers Apiaries Hives	1-50 Hives Beekeepers Apiaries Hives	51+ Hives Beekeepers Apiaries Hives	District Totals Beekeepers Apiaries Hives
NORTHLAND	6 271 3323	415 549 1677	21 758 11452	436 1307 13129
AUCKLAND	1 - -	566 769 2863	17 202 3245	583 971 6108
HAMILTON	8 398 8720	302 412 1934	43 1482 32335	345 1894 34269
TAURANGA	5 210 5740	210 306 1259	23 783 18592	233 1089 19851
HASTINGS	5 192 4056	160 237 1095	17 666 13126	177 903 14221
PALMERSTON NORTH	3 130 2244	389 531 2140	22 575 8823	411 1106 10963
HAWERA	2 47 821	191 231 1030	17 356 6346	208 587 7376
NELSON	2 250 4683	240 322 1247	25 566 11095	265 888 12342
CHRISTCHURCH	6 422 4222	225 244 1328	50 2133 24966	275 2477 26294
OAMARU	7 375 5001	118 196 1119	42 2142 29851	160 2338 30970
GORE	10 531 9138	141 163 919	46 1673 27749	187 1836 28668
DOMINION TOTALS	55 2826 47948	2957 4060 16611	323 11336 187580	3280 15396 204191



# Restricted area committee formalised

Two local beekeepers have been appointed to the Coromandel/Bay of Plenty Restricted Area Advisory Committee. They are Messrs B. Forsyth and D. Barrow.

The appointments were made following receipt by the NBA executive of a letter from the under-secretary for agriculture, Bruce Barclay, suggesting that one member of the committee be a member of the NBA executive and that two beekeepers be appointed from an area adjacent to or likely to be affected by a restriction order.

The president, vice-president and general secretary of the association then met with Mr Barclay before making recommendations to the September meeting of the NBA executive.

The committee then made recommendations to Mr Barclay,

who appointed Mr E.R. Robinson as the nominee of the NBA executive committee and Messrs Barrow and Forsyth as local beekeeper representatives.

The question of the basis on which a decision to declare an area to be a restricted area for beekeeping was fully discussed by the executive committee before the president, vice-president and general secretary met with Mr Barclay and officers of the ministry and health department.

It was accepted as policy that restrictions should apply to comb honey.

The discussion with Mr Barclay revealed that in respect of extracted honey it could well be difficult to detect toxin and/or determine the level of toxicity in a sample of extracted honey. However, it was clear that the Apiaries Act did give the minister

of agriculture an unqualified right to declare any area a restricted area if he thought it was likely to be a source of toxic honey.

On returning to the meeting, the question of further association action was fully discussed and considered. It was recognised that a much deeper appraisal of extracted honey produced in the areas in question was desirable and it was duly resolved:

*"That the Ministry of Agriculture and Fisheries be requested to set up colonies of bees on a commercial basis in the restricted area, and extract the resulting honey in one honey shed, so that the monitoring of the extracted honey produced in the area can be arranged on a basis likely to give a more reliable indication of the significance of any toxicity."*

## OBITUARY

from J.R. Barber  
Pio Pio

### A tribute to a good friend who passed away

Many of the middle-aged and older beekeepers will be saddened to hear of the passing of a good friend, Des Williams. He was a former president of the National Beekeepers' Association, a member of the national executive, and for many years one of a well-known partnership, Otway and Williams, which was probably the leading New Zealand honey producer for a very long time, and an example and inspiration for all of us.

As a young man of 23 I once went into the I.M.D. depot under George Court's store in Karanga-hape Road Auckland, and was amazed to see a huge pile of 640 cases of honey, one consignment from Otway and Williams. Later Des told me it was the dark portion of their crop. They concentrated on bulk production of honey and were always strong

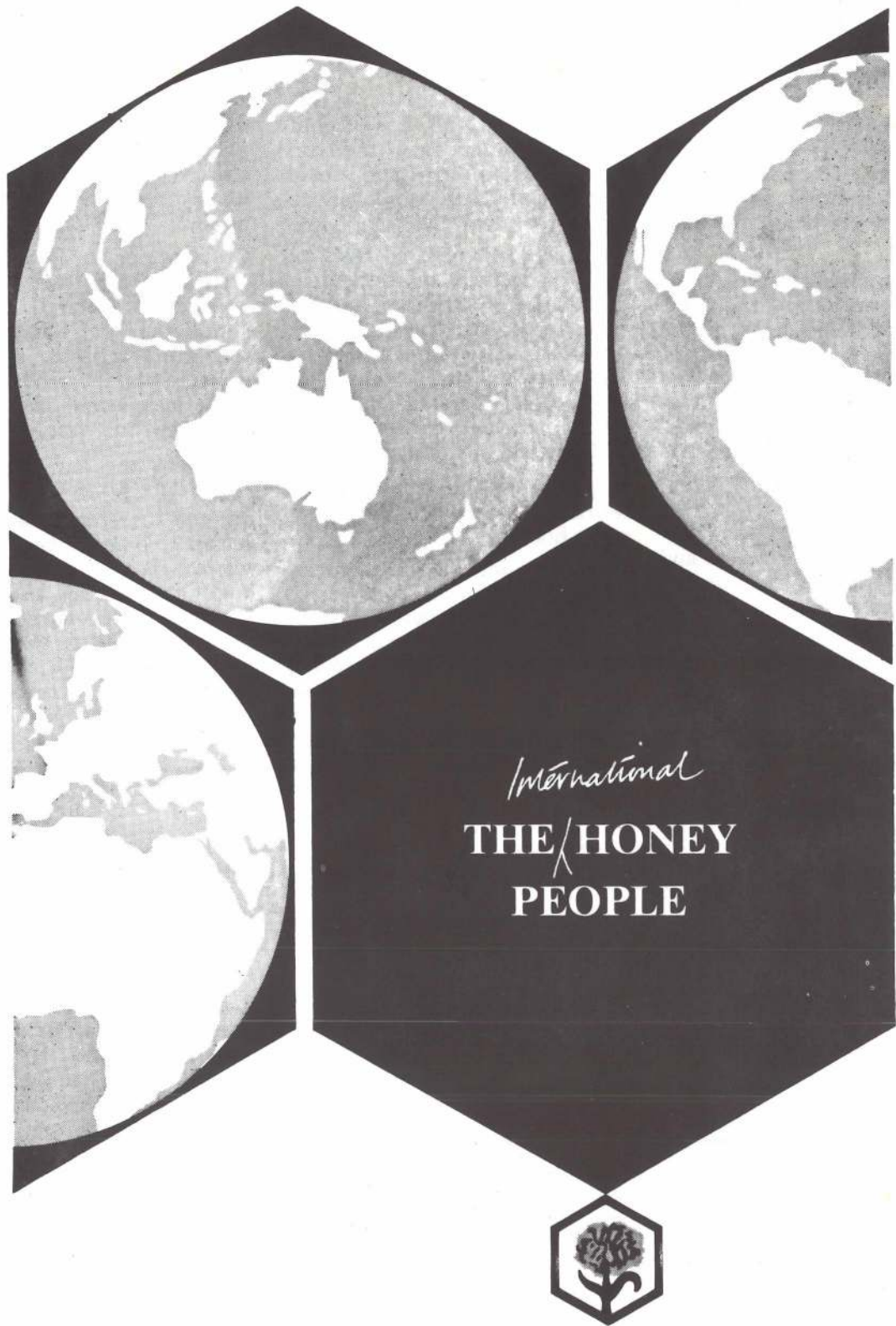
supporters of an organisation for co-operative marketing.

Des was a member of the expeditionary forces of the First World War. His medical studies were interrupted by this, and he and Otway became cadets for an Englishman operating around Te Awamutu. B.L. became a problem and the two cadets took over ownership. With characteristic fairness and modesty Des gave much credit for their success to a most excellent foreman, H. Barnhill. However as well as that factor Des appeared to have an inherited level-headed outlook and extraordinary business ability. He had many well-placed relatives, being descended from the Williams family, well-known in New Zealand history as missionary pioneers who came to New Zealand in the early 1800's. In addition,

he was a very pleasant companion with an unusual and fine sense of humour.

It was a very great pleasure to meet him, as I often did, at the important cricket matches at Eden Park. He had an intelligent appreciation of the game, played golf, and rarely missed attending important sporting fixtures. He was also interested in racing, a cousin being a leading breeder and owner of the Trelawney stud. He was also a keen Rotarian.

I last saw Des at Eden Park, dark glasses, obviously a very ill man, and I lost the chance to speak to him. There will be many throughout New Zealand who will regret the passing of their very good friend, but who will remember the hours spent with him with very great pleasure.



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## Racial discrimination

Various criteria are used to identify the race to which colonies of honey bees belong. Body colour and hair, measurement of specific structures, country of origin, behavioural characteristics - any or all of these may be cited as evidence of race. If the aim is to prove a political point, the criteria are handy enough, but any of them taken alone can prove treacherous as a basis for objective assessment.

In many species of bees, the immature forms must be studied in order to clarify phylogenetic (racial) groupings. And Drs P.F. and D.M. Torchio in Utah have just published a report on the larvae of *Apis* which may teach us a few salutary lessons on the race question in honeybees.

There have been very few previous descriptions of immature honeybees, and none of other *Apis* species than *mellifera*. Indeed there is much to be resolved on the whole question of the systematics of *Apis*.

The Torchios obtained specimens of all four *Apis* species. Of 134 characters, 77 were found to

be common to all species and 57 showed differences from which the following conclusions were drawn:

The species *mellifera* and *cerana* are more closely related to each other than either is to *dorsata* or *florea*; *mellifera* and *florea* are less closely related to each other than either is to *cerana* or *dorsata*; *cerana* is more closely related to *dorsata* than to *florea*; *florea* and *dorsata* are closer to each other than either is to *mellifera*. These results are not unexpected.

What is notable is that the amount of variation between larvae from different geographical areas was not significantly greater than the amount of variation between larvae from the same area. The authors concluded that "sufficient evidence is presented to reject continued usage of subspecies names". If, as these authors maintain, even subspecific names should be abandoned because of inadequate differentiation of morphological characters, what then of

races within what has been regarded as a single subspecies?

The findings do not imply that all honey bees are alike. Much other recent research has indeed demonstrated that differences can arise between colonies kept in different environments. What they do imply is that the concept of separate, identifiable subspecies and races of honey bees is not valid and that there is a continuous spectrum of variation of any one character, rather than a series of discrete or separable spectra for so-called subspecies and races.

One cannot help but wonder what the results of a study such as the Torchios' would have been, on bees collected toward the end of the Ice Ages - or even, say, up to AD 1500 - before man started moving honeybees much further than they would have migrated without his influence.

Adapted from an article in Vol. 36, No. 3, of "Bee World".

## A mighty threat

The parasitic honeybee brood mite, *Varroa jacobsoni*, was first discovered in 1904 infesting the Indian honeybee, *Apis cerana indica*, in Java. In 1951 the same mite was found on Singapore Island and has subsequently been discovered on the European honeybee, *Apis mellifera*.

The mode of parasitism of *V. jacobsoni* is as follows: The female mite enters the cell of a late larval honeybee instar before it is capped. Eggs are laid

inside the cell where the nymphal stages of the mite feed on the haemolymph of the larval and pupal bee. The adult mites attach themselves to the emerging adult bee and in this way the mite is spread throughout the colony. It can kill the bee brood, but many infested bee larvae live to become deformed adults.

The mite is present in most countries of both South and South-East Asia. While South-East Asia is believed to be its

geographical origin, it has been reported from areas which indicate that it can survive in subtropical and temperate climates.

Considering the distribution and behaviour of adult mites, it is evident that *V. jacobsoni* could pose a serious problem in beekeeping areas throughout Europe, Africa, Australasia and the Western Hemisphere.

Adapted from an article in Vol. 36, No.3 of "Bee World".



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3 Garlands Road, Woolston, Christchurch. Phone 897-091

The potential of Papua New Guinea as a honey-producing country is unlimited according to Chris Dawson a well known Timaru apiarist. In early September Mr Dawson returned from his third visit to the country where he was teaching beekeeping techniques and demonstrating queen bee rearing methods.

"Small apiaries have been established during the last two years in isolated villages from the sea coast up to the highlands at 8000ft and nearly all are thriving," he said. "Bees have been observed collecting nectar from clover at 9500ft above sea level.

"As soon as there is sufficient light, the bees rush from their hives to collect nectar from a wide variety of flowering trees and meadow plants. They work until the rain becomes heavy which, in some parts, is every day from noon onwards. Temperatures rarely drop low enough to stop the bees from flying and strong winds never blow in some localities.

"An increasing number of villagers are able to see beekeeping being done and they are losing their fear of working with bees. Several natives, who have received instruction, can now work bees without protective clothing.

"It is hoped that early next year one of the most promising of these students, Mr Peter Kodubu, of Mt Hagen, will be able to go to Hawkesbury College in New South Wales for a course in beekeeping.

"New Zealanders have been entrusted with a leading part in promoting beekeeping in the Papua New Guinea Highlands.

"The University of Papua New Guinea made a grant available to Mrs Lyndsey Kidd, formerly of Tauranga, and now a tutor at the university, to enable her to study the feasibility of beekeeping in the Highlands of Papua New Guinea." She has collected a sheaf of information on the history of bees in the area and has also gathered many samples of honey and pollen for classification. She is now engaged in



## 'Honey-producing potential unlimited'

weighing the honey gathered by test colonies spread over a wide area.

"Mr John Swincer, an Australian on the staff of the administration has been engaged full time during the last year in establishing trial beehives over a

wide area. He is assisting potential beekeepers to become established and is compiling records of performance from test hives," he said.

Mr Dawson has been visiting beekeepers and potential beekeepers and he has been able to solve many problems faced by these people by teaching modern methods of honey production.

The instructional apiary established last year at the Christian Leaders Training College at Banz, in the Western Highlands, is in charge of Mr Laurie Williams, an Auckland.

"This apiary is expected to double in numbers this year and already students are managing beehives with little supervision," said Mr Dawson.

"The honey that has been harvested is mild in flavour medium in colour, and very popular within the College.

"New Zealand queen bees have been introduced into several apiaries in the Highlands, with the result that the former bad temper of these colonies has been completely changed.

"This progress has been recognised by the Papua New Guinea Government and they now realise the potential value of beekeeping as a village industry, and the possibility of honey as an export commodity. Funds have been made available for further research and promotion.

"Approaches have been made to the Foreign Aid Programme of the New Zealand Government with a request that consideration be given to the establishment of a bee industry project.

"To enable a survey and assessment to be made, the New Zealand Government is sending one of its leading Apicultural officers to prepare a report," said Mr Dawson.

Mr Vincent Cook, the Apicultural adviser for the MAF South Canterbury-North Otago area, has since left for Papua, New Guinea.

reprinted from *The Timaru Herald*, Saturday, September 13, 1975.



# MARKETING NOTES

## Standard Drums

Requests have recently been received by the Honey Marketing Authority from importers of bulk honey to standardise to 200-litre (44 gal.) drums.

The HMA board is currently considering a method whereby they can adhere to the customers' request and encourage beekeepers to accurately pre-weigh honey.

One of the incentives has been a specially negotiated price of \$383 for a set of scales converted

specifically for the beekeeping industry.

The offer is open for a limited time only and interested producers are advised to enquire or place orders with the manager of the authority as soon as possible.

## Gift Success

The Honey Marketing Authority has been advertising honey and overseas gift parcels by special arrangements through television and print media.

The response has been very good, to date over 6000 parcels have been sent to 53 countries.

## New Markets

Partly as a result of devaluation, the HMA was able to substantially reduce last season's stocks and has extended its area of supply by negotiating sales of clover honey into the United States. In addition to converting stock to money, it has also opened opportunities to a new and promising market.



# CORRESPONDENTS

## CONGRATULATIONS

Dear Sir,  
I would like to express my sincere thanks to all those who supported me in the election, to Mr Berry and Mr Poole, my congratulations on being elected and to Mr Forsyth, although not returned to the authority, my congratulations on polling so well and his term on the board for the past years.  
Yours,

Ivan J. Dickinson,  
Milton

## RETIREMENT WISHES

Dear Sir,  
Barbara and I wish to express our gratitude for the many messages of goodwill received on the occasion of my retirement, for the consideration of the many people who gathered in Oamaru to wish us well and for the presentation of the fine silver tray and goblets.

We greatly appreciate the honour of life membership of the National Beekeepers' Association recently bestowed upon me.

We are keenly aware of the consideration and kindnesses received from so many people over the years and for these we say a very sincere, "thank you",  
Yours,

Ivor Forster,  
Oamaru

## ELECTION THANKS

Dear Sir,  
I wish to thank those who elected me to the Honey Marketing Authority in the recent election. This should enable me to assist in co-ordinating industry affairs.

During the past few years satisfactory solutions have been found for some of our basic problems. I am convinced that satis-

factory solutions to our marketing problems can now be established. Prices more favourably related to world market values can be achieved for all our beekeepers. I feel this is long overdue,  
Yours,  
Percy Berry,  
Havelock North

## THANK YOU

Dear Sir,  
The gift toward my personal expenses while working in Papua-New Guinea given by beekeepers at the annual conference was deeply appreciated. Your interest in the project and your good wishes have been an inspiration. Thank you very much,  
Yours,

Chris Dawson,  
Timaru

Beekeeper and managing director of Alliance Bee Supplies, Mr Kevin Ecroyd has recently returned from a world tour which included a week in Grenoble representing the National Beekeepers' Association at the Apimonda world beekeeping congress.

"The congress was the most efficient state of chaos you have ever seen in your life," he told the NZ Beekeeper on his return. "If you tried for five years you couldn't achieve such a magnificent state of chaos."

Nevertheless, Mr Ecroyd found his visit to the congress and his world trip well worthwhile.

"I certainly will be attending the next Apimonda congress to be held in Adelaide in two years time," he said. "It will be worth every successful commercial beekeeper making the effort to attend.

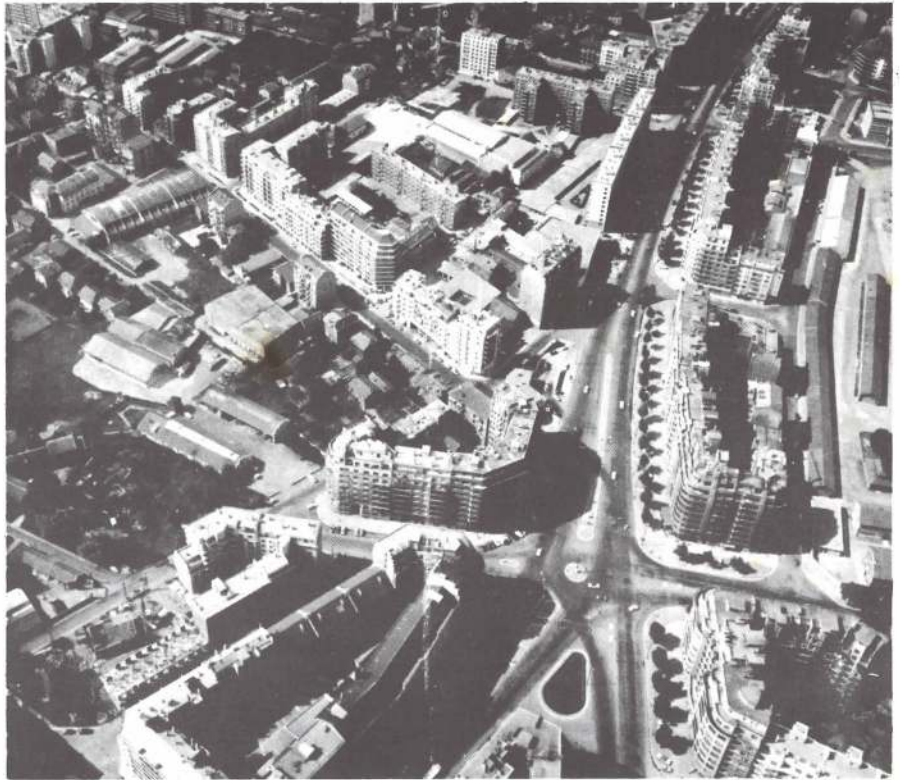
"You can never measure the worth of a function like a congress....it's just an impression you get. Despite all the things which went wrong in Grenoble, for instance, the trip was worth it from the point of view of meeting so many beekeepers from other parts of the world.

"Even if I couldn't speak to all the Italians and French and so on, there must have been at least 500 or so English or American speaking beekeepers to share experiences and problems with.

"The displays of equipment were immense - if you know Canterbury Court, where they hold the Christchurch Industries Fair, well the displays of equipment were at least as large as all of that, perhaps 20,000 square feet, but without the side-shows.

"From what I saw both at the congress and my trip, I discovered that the beekeepers of New Zealand, America and Australia lead the world with their apiary equipment.

"We are so far out in front with our uncapping machines and extraction equipment, in particular, that many of these other countries are using the equivalent



## In the heart of Grenoble - chaos

of equipment that we threw out 30 or 40 years ago.

"Not only that, I discovered that New Zealand beekeepers get by a long way the cheapest comb foundations and wooden ware of any country in the world. We are paying about 25 per cent of what Europeans have to pay and 60 per cent of what the Australians pay.

"So if anyone dares to tell me that I am selling equipment too dearly, I'll be quite happy to tell him to go and suck eggs."

In contrast to discoveries such as this, the Grenoble congress was somewhat less than an overwhelming success. The failure of a congress official to meet Mr Ecroyd at the airport as pre-arranged and the similar failure of the organisers to provide him with conference papers and assist him with his registration meant

that New Zealand's official representative at the congress did not take his place until the final session.

"However, I wasn't the worst off," he mused. "A British delegation of 20 which had pre-paid their registrations in a block four months in advance had to sleep on a bus."

Mr Ecroyd said the congress was dominated by the communist delegates, who through their Rumanian president-for-life refused to accept debate on subjects which did not please the chair and during voting only ever asked for the ayes and never the nos.

However, with the next congress planned for Adelaide in 1977, the chances of such a situation occurring are remote. Especially, as Mr Ecroyd pointed out, with Waite Research Institute's practical minded Keith Doull the probable session chairman.

# QUEEN BEES

Place orders  
for  
autumn queens  
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Each queen has her strain marked to enable you to compare. We feel the extra production from our queens will recover their cost.

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## US Indemnity Change

Effective July 15, the US Department of Agriculture (USDA) will no longer make Beekeeper Indemnity Programme payments on queen bee nuclei losses which occur between August 15 and December 31 each year. Current provisions of the programme permit payments on queen nuclei losses up to October 1.

USDA has also changed the final date for adjusting the degree of loss on bee colonies from November 1 to October 1.

The Beekeeper Indemnity Programme provides payments to beekeepers who have suffered losses as a result of the use of insecticides which have been registered and approved for use by the federal government.

On April 28, USDA issued a notice of proposed rule-making regarding changes in the programme regulations, inviting interested persons to submit comments and suggestions. Persons responding to the notice indi-

cated that the main shipping season for queen bees occurs between March and July each year, although some queen bee breeders maintain their operations longer into the year.

The October 1 deadline date for changes in the degree of loss does not prohibit a payment on a loss of bees that occurs after that date, but only a deadline for adjustments of losses that occurred before October 1. The change will not significantly affect the payments to beekeepers, but will improve the administration of the programme.

## Banana Egg Nog

2 cups milk  
3 ripe bananas  
2 to 3 tablespoons honey  
1 egg  
nutmeg or cinnamon

Combine all ingredients except spice in blender or electric mixer. Blend or mix at high speed until egg nog is smooth and frothy. Pour into four glasses; top with spice and serve.

—The Scottish Bee Journal

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## BETWEEN THE COMBS

### Ecroyd's Make Mark

A. Ecroyd & Son Ltd, represented by Mr Kevin Ecroyd, were fortunate in being, we understand, the first New Zealanders to win a gold medal for equipment at an Apimonda International Bee Congress. The gold medal was awarded for the well-known Penrose Uncapper which was displayed by this company at the congress and which is now being marketed throughout the world.

As the only New Zealander attending the 25th International Congress of Apimonda in Grenoble, France, early in September, Mr Ecroyd was the official representative of the National Beekeepers' Association which has recently joined this organisation. At the request of the National Beekeepers' Association executive he supported the holding of the next Congress in Adelaide in October, 1977 and this resolution was passed by the official delegates at the congress.

### When To Extract

It has often been said by experienced beekeepers that it pays to extract honey half way through the season and replace the wet supers on the hive, because the bees seem to work even more eagerly in them. Recent work by two Indian scientists, reported in the Indian Bee Journal, seems to confirm this. They found that, for a number of colonies over a three year period, over 40 per cent more honey was obtained from stocks when the supers were extracted as soon as filled (presumably sealed also) and returned to the hives. Both sets of colonies were re-queened annually and provided with pollen or syrup during periods of dearth and were in all aspects equal at the beginning of the season.

One group of colonies was provided with a number of supers, which were removed only once, at the end of the season.

Another group of colonies was provided with two supers, which were extracted when these were full and then the supers replaced.

—Beekeeping

### Honey Moves The Mind

Medical science is never assertive of specific actions of any product. Honey does not get unqualified accolades in some areas. However recent research on food and its effect on brain performance turns up some interesting insights into the influence of carbohydrates in feeding nerve tissues via the blood sugar circuit.

Briefly put, the brain needs continuous chemical feeding. Honey will help it make more of its nerve-impulse transmitter element serotonin. This is a mensamine found in the neurons of the brain stem which is fed from the control nervous system.

Experiments in Massachusetts have shown that fluctuations in the composition of the blood following the consumption of various foods have a definite relationship with the rate that the brain synthesizes the neurotransmitter serotonin, which itself affects other neurons and secretory cells outside the brain after a short time lapse.

The original carrier is attributed to the carbohydrates in the previous meal. We all know that honey is an ideal carbohydrate partly pre-enzymised to facilitate its more immediate digestive acceptance.

The lesson is to feed the need at breakfast time when the morning rush is on and take steps to counteract brain starvation which coffee and sugar only momentar-

ily pacifies. Dieticians agree that breakfast should be the most important meal of the day. A low blood sugar content reduces the body's resistance to virus, infections and the moods are more depressing. White, devitalized sugar is but a temporary palliative so there is an increasing demand, to which honey would appear to be the solution.

—The Australian Beekeeper

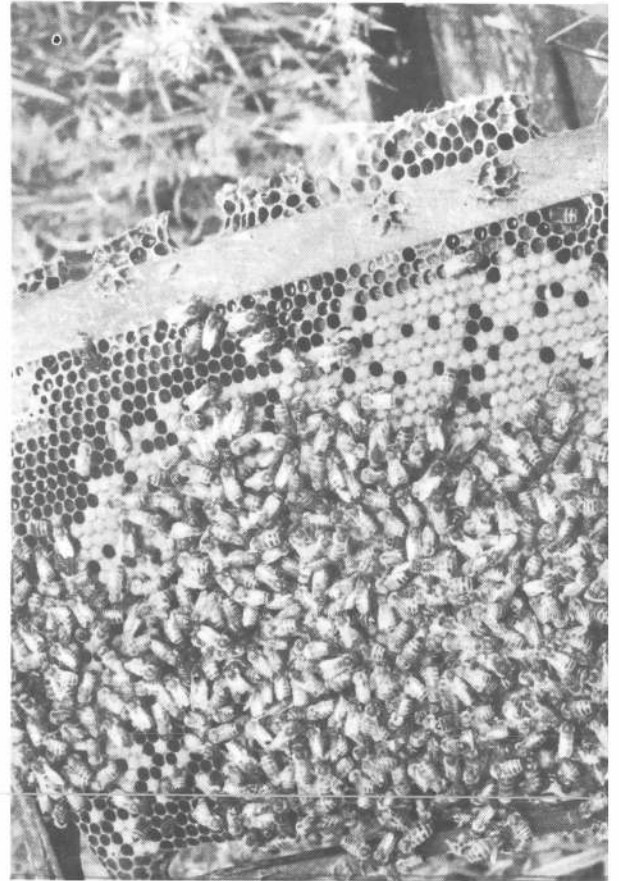
### Genetic Tricks in Dixie

Geneticists at Louisiana Agricultural Experiment Station, Louisiana State University (LSU), hope to find a new method for developing pure lines to be used in honey bee breeding under a cooperative agreement with the US Department of Agriculture.

The method will make use of gynandromorphic — or part male, part female — bees, as a way to establish pure lines with superior types of bee chromosomes. Chromosomes are the bearers of inherited factors in cells. There have been no major breakthroughs in honey bee genetics comparable to those which led to the development of hybrid corn, USDA scientists say. There are only about half a dozen major bee genetics centres in the world, one each in West Germany, Brazil and Poland, and three in the United States.

USDA's Agricultural Research Service (ARS) will provide \$14,200 for the two-year study to be led by Dr William R. Lee, LSU Department of Zoology.

The geneticists will study the feasibility of developing bee embryos containing paternal chromosomes through artificial insemination. This will be carried through several generations. The scientists have a stock of gynandromorphic honey bees to begin the study..



## 45 YEARS IN BEES

### Learning not to get your fingers burnt

Kay Simmonds can tell a yarn with the best of them. And when you get him talking about bees he's talking first-hand. For Kay Simmonds has been calling himself a beekeeper for 45 years, though these days he only has a handful of hives of his own.

"My father and grandfather were beekeepers before me," he says, telling of the days when his grandfather was an English brewer, with 50 hives on the side to keep a line of honey mead on the market.

"So I guess there were bees in my blood."

As soon as he left school, Kay bought himself his first three hives and things started from there.

"For the first 15 years I couldn't work out how people couldn't make money out of beekeeping," he recalls. "But then we had two years with no honey crop at all.

"I had to buy 10,000lb of sugar just to keep the hives going. I had a wife and young family to

support at the time and I nearly went bankrupt. It was terrible.

"Anyway, I learnt my lesson — that's to have another living besides bees — and I just managed to scrape together enough money to buy myself a dairy farm."

Over the years, despite the demands of his dairy farm, Kay's bee operation became bigger.

In a situation which Kay watched develop time after time, Kay saw the hives of hobby beekeepers grow until they could no longer handle the work involved. Some just became overworked, others allowed their hives to become infested with foulbrood, some went bankrupt.

By buying out many of these people, Kay Simmonds became the only apiarist of any consequence in the southern Wairarapa some 10 years ago.

Son Alan comments: "The hives, spare equipment and so on which Dad bought from each of these smaller apiaries has probably given us an unrealistic profit over the years.

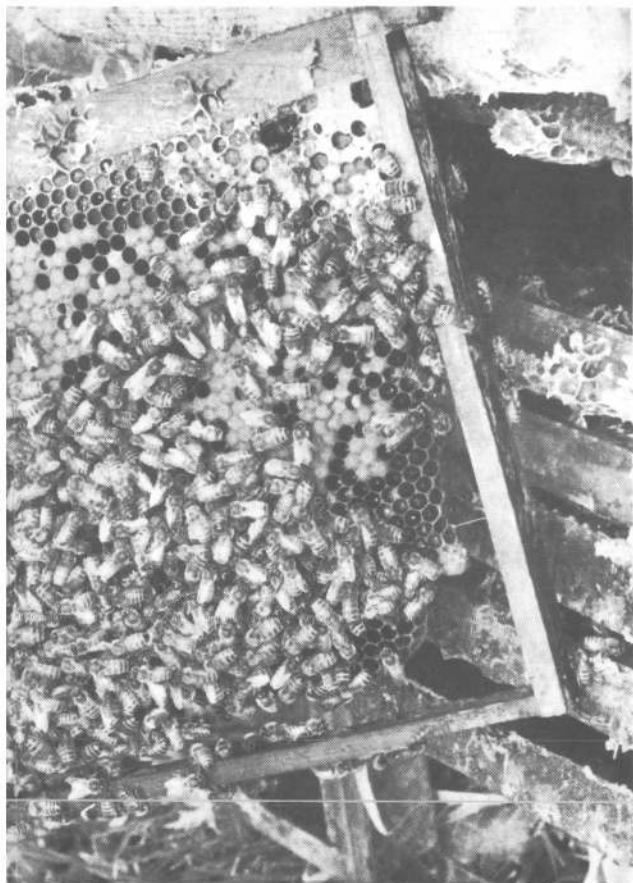
"We've now got to the stage where many of our older hives and frames need replacing and there are not many spares left in the shed."

With Kay now living on an urban section in Masterton and his sons farming at Pihautea in the southern Wairarapa, the Simmonds apiary and hives are now in the hands of sons George and Alan.

Both are dairy farmers in their own right. The beekeeping enterprise is a partnership arrangement, with the apiary stationed on Alan's 180-acre, 150-cow dairy farm. George lives a few miles away on a similar-sized farm.

Together they look after 1000 hives, stretched out between Pirinoa in the south and Masterton in the north. Three years ago they boasted 1500 hives.

"We've got the maximum number of hives we can handle now," says George. "We're in a situation where we can't handle more and yet the hives won't support a man to look after them properly."



*From left: Kay and Alan Simmonds inspect a hive for foulbrood; a close look shows that all is healthy; George Simmonds at work in the honey room.*

George describes much of their operation as slip-shod. He says that even though the Wairarapa is not good bee country, they could do better if they had the time or if there was the financial reward.

He points to all the gleaming stainless steel equipment in the honey shed and while conceding that it's not slip-shod by any strength of imagination, if he had to replace it all now, he reckons the bees could not support it.

Kay points out that in their best years they have managed to produce 2 tonnes of honey for every 100 hives — about half of what beekeepers in many other districts would call average. For the last two or three years, the average has been a lot lower than this — perhaps only about 15 tonnes a year from the 1000 hives.

Looking ahead to the future, Alan doesn't think the situation is a good one. "We're trying to get the best profit we can from

the system we've got," he says. "Ideally, we would both put sharemilkers on our dairy farms and devote all our time to making a good job of the bees. But then again, we can't really assume that dairy prices are going to remain okay indefinitely."

George is a little more philosophical: "We've got lots of sons coming up and we can land the problem on them. In general, we don't like looking back at our past performances, they're too demoralising, though when we do look back, we can remember the year about three years ago when we got nothing, quite distinctly.

"But beekeepers are an optimistic lot. We see lots of good years ahead."

What does Kay think after 45 years of successful beekeeping?

"I think the boys are doing the right thing," he says. "For the sake of security they have to have regular alternative income coming in, from something other than the bees. If that means

they're not the world's best beekeepers, too bad."

George goes to great pains to point out, however, that their low labour input beekeeping system is not slip-shod in one particular area: "Even if we are slip-shod about everything else, we are careful about disease."

So much so, that he doesn't recall seeing any foulbrood this year. If he does, nevertheless, it will face the tried and true formula of burning the disease out. There's nothing else for it, he says.

There's another area where the Simmonds also excel. That's in the area of marketing. It's a job they enjoy as they reap the benefits of the work their father has done over the years developing a market for their home brand in the Wairarapa.

"It's the extra 5c or so a pound you get from marketing your own honey which makes beekeeping financially worthwhile," says Alan.

"When Dad first started out, he had to sell our honey at a discount, because it is so dark, even when blended with light honey from our clover hives. But now it has got to the stage where people have acquired a taste for amber honey and they are quite prepared to pay the normal price to get it."

But to buy their honey, their public has to go to one of the Wairarapa or Wellington supermarkets. George describes them as hard people to deal with, though he points out that he doesn't interfere in the way they do their business any more than they would interfere in the way they run their apiary.

"With a supermarket, they might be able to get through dozens of cartons in a week with a special. Dairies are not worth dealing with, selling in ones and twos."

As honey packers, the Simmonds are thrilled that the new hive levy has come into operation after years of forking out for the seals levy. They say that under the new system they only have to pay about half of that demanded by the seals levy system.

They think the new system is far more fair, rewarding the efficient producer by taxing hives rather than production. They are also all for a system which they say treats everyone equally.

Quality control is not a problem. Nearly all their equipment is up-to-date, stainless steel and clean. Their honey room is insect-proof and well-lined.

At some stage in the distant past a bee drowned in a honey pot before sealing but other than that slip-up, there has been nothing to sully the Simmonds product name.

One of the biggest problems Kay Simmonds has faced in years gone by has been finance for development. It's a big factor in the family reliance on another source of income to meet the inevitable bad years.

He says there were many years when he would have been bankrupted if it had not been for his dairy herd.

"The problem is that most lenders or bank managers will not advance you money against the security of your hives. Never mind that they are one of the few investments which can more than recoup their worth in a single year. To a bank manager, the hives are scattered to the wind, impossible to inspect and all on someone else's property.

"I discovered this attitude a few years back when I had spent thousands of pounds building up my hives, only to strike a bad year and a tough bank manager."

The other factor in the family's formula for income security is geographic spread of hives.

The Simmonds hives are spread over an oblong-shaped piece of the Wairarapa valley nearly 40 miles long and 20 miles wide: "If it's a bad season in one part of the valley," says George, "the chances are that it will be good in another.

"It's a matter of spreading your risks, I guess."

George says that they don't try and chase nectar sources around the place with their hives because of the short and unpredictable nature of flowering seasons. And although the Greytown fruitbowl is in the middle of their territory, they only shift one lot of hives into the grounds of an orchardist, on his request, to pollinate his crop.

However, like beekeepers throughout the country, the Simmonds are reliant on the goodwill of the farmers who allow them to station their hives on their farms.

Their recognition of the need to farm bees which don't attack their friendly farmer every time he comes into the paddock largely motivates their breeding programme.

Using frames which have just come out of the extractor and are still fairly rich with honey, the brothers split up hives with desirable queens and breed them up with the aid of the occasional pure-bred Italian queen from outside.

Out in the field, the selection process is more of a matter of destroying those queens which are considered to be too dark or otherwise undesirable, rather than actively repopulating hives with pure-breds from outside.

These days Kay Simmonds is no longer a professional beekeeper in his own right. He's nominally retired, though according to George and Alan, he can't keep his nose out of their hives. . . a practice which they would be the last to complain about.

He says he loves bees, claiming that an hour working on the hives only seems like 10 minutes to him. For the brothers, time is a slightly more scarce commodity and while they both profess a liking for bees, they are forced to admit that the beekeeping venture is primarily work for them and they don't get the pleasure from their work that they should otherwise expect.

For young people going into bees, Kay is somewhat pessimistic. He considers that several years with a commercial beekeeper learning the trade and getting to know the district would be essential requirements.

Once out on his own, Kay says working up to 300 hives would not be too much trouble for a new beekeeper. But at the 300 — 350 mark, problems start, he says.

"At that point," says Kay, "you have more than enough work to handle part-time, but not enough income coming in from the hives to make a living. It becomes impossible then for many would-be full-time beekeepers to make the next step."

Nevertheless, with some hefty risk-taking and lots of hard work, Kay managed to both make it himself and set up livelihoods for two sons. With this sort of background he would be loath to warn off an enthusiastic newcomer.

And the last to let yet another newcomer get burnt.





# FROM THE COLONIES

## WEST COAST

Once again the busy season is upon us West Coasters, and as always, we are hoping for a rata year. Some say this comes every third year, and some every seventh, so one must be wrong. I think both could be and expect a good year the first season after a severe winter.

A spell of excellent weather earlier set the bees rearing brood flat out, before there was any natural food supplies available, with the exception of some riverbed lichen, fuschia and willow.

A dramatic change to continued cold wet conditions has caused a drain on stores and those that rely on sugar feeding are busy, and at the same time hoping for fine weather and some kamahi blossom to save their precious sugar.

Those that rely on leaving enough natural stores have had to resort to robbing "Peter to save Paul", at the same time hoping for a honeyflow to save both.

Today, October 30, is fine and an early species of kamahi is starting to flower, lawyer is flowering profusely as, also, is wineberry. All we now want is continued warm fine weather.

The past policies of the forestry that have caused some beekeepers in the north Westland to seek new sites for their hives, is being noticed here in the south. But it is not likely to be as serious because of the proximity of National Parks, reserves, and steep mountains that would cause massive erosion if their natural cover was allowed to be removed.

In spite of the fact that the Forest Service is now inclined to show some consideration to the beekeeper, it still rankles to see nectar producing trees, such as rata, clearfelled or removed from selective logged areas for firewood.

One can well imagine the reaction of the saw-millers and Forestry if beekeepers controlled the forest, and sacrificed all the millable timber trees, which are of little use to beekeepers, without considering their interests.

Peter Lucas,  
Harihari

## SOUTHLAND

Condition of hives in Southland could generally be described as 'light', with some exceptions, and many have suffered from nosema. A good willow flow in some areas induced heavy breeding, but patchy weather since has dramatically lowered the level of stores.

Heavy sugar feeding has been necessary for many and a distinct pollen shortage also prevails in some areas. New spring queens have been in short supply. B.L. disease incidence has been higher than last year, with some major outbreaks.

Pasture conditions are later than normal, but on the other hand, the wonderful thing about all this is that a bumper season could be on the way.

At a branch meeting, instructor Trevor Bryant was welcomed back after his six months overseas trip and he entertained with an interesting talk on his travels. Trevor has since organised a discussion group which met and discussed the problems associated with 'dry' honey. In attendance was Murray Reid, who clearly described the operation and value of refractometers in dealing with this honey.

Our field day will be on February 7, 1976, at M. Ballantyne's (ex J. de Wit) at Woodlands. Everyone welcome. Bring your lunch and sunhat.

Alan Ward,  
Gore.

## NORTH OTAGO

Despite cold windy weather, bees have built up stronger than average. This has been probably due to an abundant supply of fresh pollen from willows and dandelion. Rainfall has been adequate to produce good pasture growth, white clover already is starting to show. So at this early stage of the season, prospects look good.

The retirement dinner for Ivor and Mrs Forster drew an enthusiastic response.

Some 80 beekeepers and their wives from many parts of the South Island gathered at the Haere Mai Restaurant, Oamaru, to express their appreciation to Ivor for his services to the industry.

Ivor was engaged for some 30 years in advisory and research work. It is to be hoped that the ministry will carry on with this important work.

R.M. McCallum,  
Herbert,  
North Otago

## NORTHLAND

To start off on a bright note, Northland is having the worst spring in 20 years as far as weather goes. In a lot of areas hives usually keep themselves going in honey at least, sometimes even getting quite an excess.

This year however, hives have used all their stores, and most beekeepers are feeding considerable

amounts of sugar to keep their hives alive. A lot of hives will have starved.

All is not lost however, beekeepers being an optimistic lot generally, they hope to have a good summer and make up lost ground.

The branch is active in many fields such as agricultural chemicals, tree planting, discussion groups and Federated Farmers. We realise beekeepers must work with the farmers, or farming would fail.

Peter Smith,  
R.D. 9,  
Whangarei

### BAY OF PLENTY

Our branch has not been very active lately. Many of our older members have retired from beekeeping.

Honey production from parts of the Bay of Plenty is steadily declining due to fewer sources of spring build-up nectar. Many Barberry hedges are cut every year, and patches of bush and scrub are burnt.

Twenty years ago beekeepers could get a super of honey off the pussy willow swamp, but the yield has steadily gone down to about one frame of honey. It has been suggested that chemical accumulation from the farms and orchards may be responsible.

October with its spring feed problems is a depressing time of the year for beekeepers in this area, but later on as soon as the honey starts coming in we are happy again.

Ron Mossop,  
Tauriko,  
Tauranga

## BEEKEEPERS TECHNICAL LIBRARY

BOX 423, TIMARU  
BOOKS DONATED

From foundation life member, Wm. H. Adamson: "A complete guide to beekeeping" by Roger A. Morse, 1974, 220 pages.

From foundation life member, Geo. F.R. Gordon: "A bee is born" by Harald Doering, 1973, 96 pages.

**Librarian's note:** One enquirer for books wrote his or her name indistinctly. My letter in reply was returned by the Post Office, marked "Not known". Please write again.

Library books are available to NBA members from Box 423, Timaru.. A catalogue of books and a list of rules will be sent on request.

Chris Dawson,  
Hon. Librarian

### HAWKES BAY

Hawkes Bay beekeepers have hired out about 700 hives for orchard pollination this spring. Prices range from \$7.30 to \$10.00 a hive depending on the number required. In order of importance, the fruit trees requiring pollination have been: Plums, pears, apples, peaches and cherries.

Although the weather has been indifferent, most of the hives have fed themselves and built up reasonably well during the period when the hives were in the orchards.

The season so far in the Hawkes Bay has not been an easy one and the prospects are for a somewhat later than normal start to the main flow. We could have the makings of a good season ahead of us, but only time will tell.

Ian Berry,  
Havelock North.

### CANTERBURY

Last season broke the five-year drought in Canterbury and so far this season looks equally promising.

Heavy winter rains have kept the water table high and regular spring rain has kept the top soil wet. Access to some apiaries in the spring was rather difficult and a snig chain and mud grips were standard equipment - rather a different story to those drought years when we all wondered whether we would ever see a decent crop of honey again in Canterbury.

The hurricane force winds of August 1 did a lot of damage to the area. Hay barns, farm buildings, power lines and shelter breaks suffered severe damage and the devastation which was apparent as beekeepers worked over the weekend to collect their hives, was almost unbelievable in some areas.

Luckily only minor damage to hives was reported, and compared to the rest of the farming community we got off very lightly indeed.

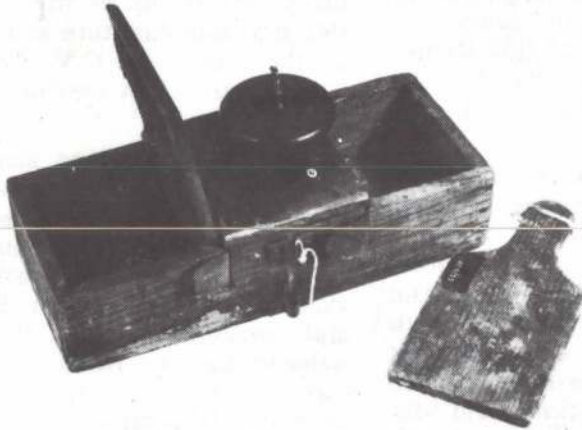
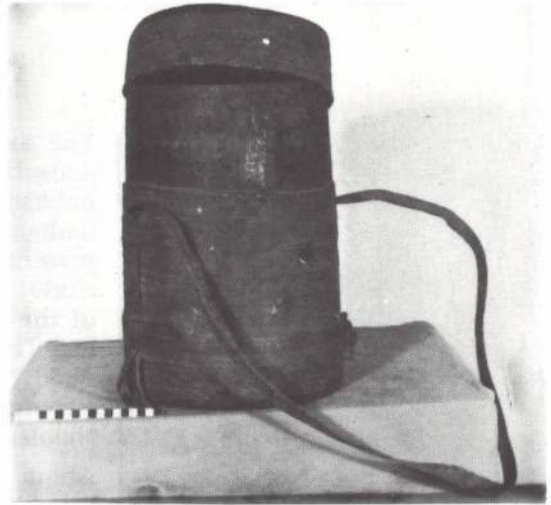
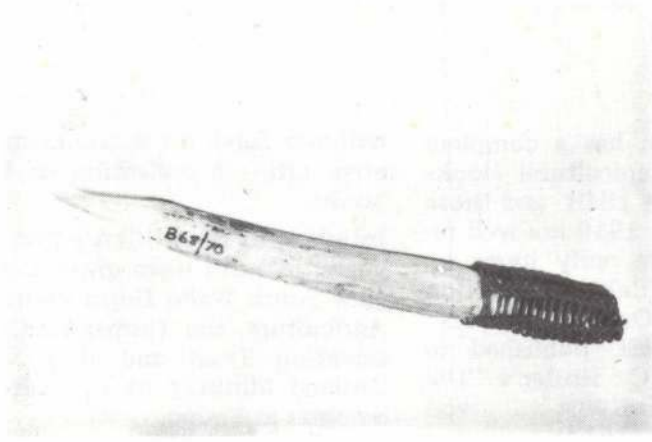
The high winds in August, although not as severe, have continued, and on some days it has been virtually impossible to remove a frame from a hive without losing most of the bees in a strong gust.

The willow flow was good in most areas and a very good flowering of dandelion was most welcome for its abundant pollen supply. The hives generally were very patchy when opened up - some with only a handful of bees while others were extremely strong with two bores of bees and seven or eight frames of brood.

However, with a lot of equalisation and the judicious use of tops, all hives are now poised for what could be a reasonable season.

I must admit that these branch notes were prompted by our new editor's timely telegram - we all wish him well and hope that he gets all the support that a good keen man deserves.

David Penrose,  
Christchurch



**Top Left:** *Early Dutch queen-introduction cage.* **Bottom left:** *Bee hunter's box presented by Albert Allen, who used it for "hunting" 250 bee trees in Massachusetts, United States of America, between 1915 and 1953.* **Top right:** *Honey barrel of leather and wood, used in collecting honey from trees by the Tharaka tribe in Kenya and made by the grandfather of the donor, Mukire.* **Bottom right:** *Romano-British honey jar AD 150-200.*

## A BEE'S LIFE IS NOT ALL HONEY

by Terry Crawford

Bees are carefully nurtured because they produce a precious food substance - honey. But they make an even bigger indirect contribution to the world's food supply.

Many of the herbaceous food crops, including crucifers and legumes - especially important now for the developing countries - depend mainly on bees for pollination.

The expansion of higher yielding crops also relies on bees to bring about the cross pollination of parent plants.

Beekeeping, with particular emphasis on crop pollination, is therefore a research topic that must be taken very seriously when food problems are considered. An organisation which plays a key part in this is

Britain's Bee Research Association (BRA) which offers a scientific information service for apiculture. Until its formation on a voluntary basis in 1949, bee scientists and ordinary beekeepers worked more or less in isolation, with little exchange of data.

Today, from its headquarters in Gerrards Cross, 30 kilometres north of London, the association, under its director, Dr Eva Crane, collects and maintains reference material, publishes three journals and deals with enquiries from all over the world.

BRA's official organ, "Bee World", includes authoritative accounts of recent research on practical, scientific and historical beekeeping. It also guides readers of all levels to literature on special topics.

Since its first edition in 1950, "Apicultural Abstracts" has reported 17,000 publications from 59 countries. Today the essential information is transferred on magnetic tape to a computer, where it is integrated with previous material so that it can be retrieved by subject or author on a cross-index basis.

BRA's "Journal of Apicultural Research" publishes advanced scientific papers describing original research from all parts of the world and so far has described about 300 investigations.

Also published are books on scientific aspects of apiculture. BRA's current list gives 100 titles, including the multilingual "Dictionary of Beekeeping Terms", at present covering 15 languages.

## New association rules . . .

The National Beekeepers' Association executive at its last meeting considered the first draft of proposals for new rules for the association. As a result, a second draft was prepared and is now with the association branches for consideration and comment.

It is the executive's intention to consider branch submissions at its December meeting. The resulting draft will then be forwarded to the association's legal adviser for final drafting.

It is intended to circulate the final draft in February and convene a special meeting of association branch delegates to coincide with the March executive meeting.

This meeting will have as its major agenda item, the consideration of the new rules.

The most important changes envisaged in the rules are the creation of two classes of membership. Ordinary members will be those who have fewer than 50 hives. Commercial members will be those who pay the hive levy.

The other important change is relative to the election by postal ballot of members of the executive committee. The new term of office for executive members will be two years, with two from one island and one from the other coming forward for re-election each year.

One of the objectives in the re-drafting has been the production of a much more simplified set of rules for the association.

The association has a complete collection of apicultural books published since 1949, and those dating back to 1919 are well represented. Rare early items include "A Profitable Instruction of the Perfect Ordering of Bees" by Thomas Hill, published in 1608, and M.C. Hofler's "Die Rechte Bienen Kunst . . . von Nicolao Jacob" (1614).

About 1440 unpublished English translations and typescripts of works in other languages are kept and a picture library contains more than 11,000 items - believed to be the largest collection of beekeeping pictures in existence.

The BRA collection of historical and contemporary beekeeping equipment, which has more than 1000 items, is mainly housed at Reading University, about 40 kilometres from Gerrards Cross. It traces the development of beekeeping worldwide and shares the inventions and discoveries of many lands. British exhibits include many types of primitive and modern hives.

To gain firsthand knowledge of beekeeping Dr Crane has travelled widely. In 1967 she toured Australia at the invitation of the country's Honey Research Advisory Committee, because Australian honey producers were eager to learn how to apply knowledge gained in other countries and information available from BRA to their own work.

Dr Francis G. Smith, director of the National Parks Board of Western Australia, said that Dr Crane's help and advice concerning Western Australia's honey industry funds had been invaluable. He added that the BRA, its library and its facilities "remain a foundation on which one can build whenever a new problem or situation arises in the beekeeping world."

### A Gift For Hillary

One of BRA's first vice presidents was Sir Edmund Hillary, himself a beekeeper. After the New Zealander had conquered Mount Everest with Sherpa Tensing, the BRA opened an inter-

national fund for a commemorative gift - a collection of bee books.

In 1974, to mark BRA's first 25 years, lectures were given at the New South Wales Department of Agriculture, the Tasmanian Conservation Trust and at a New Zealand Ministry of Agriculture Seminar at Taupo.

In 1967 Dr Crane visited India and Hong Kong. Following her Indian visit a BRA branch library was set up at the Central Bee Research Institute at Poona, in the charge of C.V. Thakar, who is also BRA representative for India.

In 1974 Shri Thakar arranged four lectures and a radio talk to mark BRA's first 25 years and last November the chairman of BRA, Professor G.F. Townsend, visited the institute in Poona and research apiaries at Mahabaleshwar and the Khadi and Village Industries Commission in Bombay. Discussions held there promised well for the future, especially in view of the importance of the Indian honeybee *Apis cerana indica* - a different species from the European *Apis mellifera*.

As the need for more intensive agriculture and food production grows, it is expected that the work of BRA will become even more important. Expansion might take place in a number of ways, one being an evaluation of the world's plant honey sources, which could then be organised with the aid of specialists.

Computer development has extended the usefulness of the BRA information bank and it is proposed to publish a complete subject and author index to the world's research on bees and hive products from 1950 to 1972.

It may be possible for developing countries to receive apicultural information through a distribution centre on each continent - perhaps through a microfilm system. Such a service might serve as a model for developed countries and provide other sciences with a pattern which they might wish to follow.



Beekeeping is perhaps the most susceptible of all our agricultural pursuits to the influences of the environment.

In contrast to some indoor agricultural occupations, such as glasshouse horticulture and egg production, which can provide the producer with a reasonable degree of control over the inputs of the operations, beekeepers have little control over the production of honey. To obtain a

honey crop a beekeeper must rely on bees that he cannot direct or tame, on floral sources that he does not own or cultivate, and on meteorological factors that he cannot predict or control.

Three main factors in combination determine a good honey crop:

1. honey plants providing an abundance of nectar

2. strong population of bees at the time of the nectar-flow
3. foraging and storing instincts of bees

Day to day and seasonal weather conditions have an over-riding influence on all three factors. In this article which has been adapted from a paper given by Mr Grahame Walton, Apicultural Advisory Officer, Palmerston North, to the 1975 Meteorological conference, each of these factors are examined in turn.

## Meteorology and honey production

### Nectar Production

The actual secretion of nectar into the nectaries of a plant is just one step in a process that involves plant growth, flowering and the synthesis of the nectar constituents. Environmental factors associated with the weather and soil probably influence most stages in the production of nectar.

Data on the factors influencing nectar production of the more important nectar-bearing plants is almost non-existent in New Zealand. Some information from overseas provides us with an outline of the more important meteorological factors, but even so our basic understanding of nectar secretion is limited.

A close relationship has been found between solar radiation and nectar yields for a number of plants including lucerne, red clover and alsike clover. Variation in nectar yield with irradiation may be in the order of several hundred per cent.

The relationship between radiation and nectar production is not always immediate. For many

orchard trees where flowering and nectar secretion occurs before the production of leaves, most of the nectar is derived from storage carbohydrates. In this case, the amount of sunlight received during the previous season may be more significant than sunlight during the secretory period.

Although air temperature has received more attention than any other factor there is a marked conflict as to its importance. Perhaps one reason for this is the difficulty in separating the effects of temperature and sunlight in field studies.

Many reports indicate that there is a favourable temperature range varying with plant species, above and below which nectar production is adversely affected. It is reasonable to assume that threshold temperatures represent activation temperatures for enzyme systems involved in nectar secretion.

There is little evidence to suggest that atmospheric humidity and pressure affect the amount of sugar secreted.

Many factors associated with the soil are known to affect nectar production.

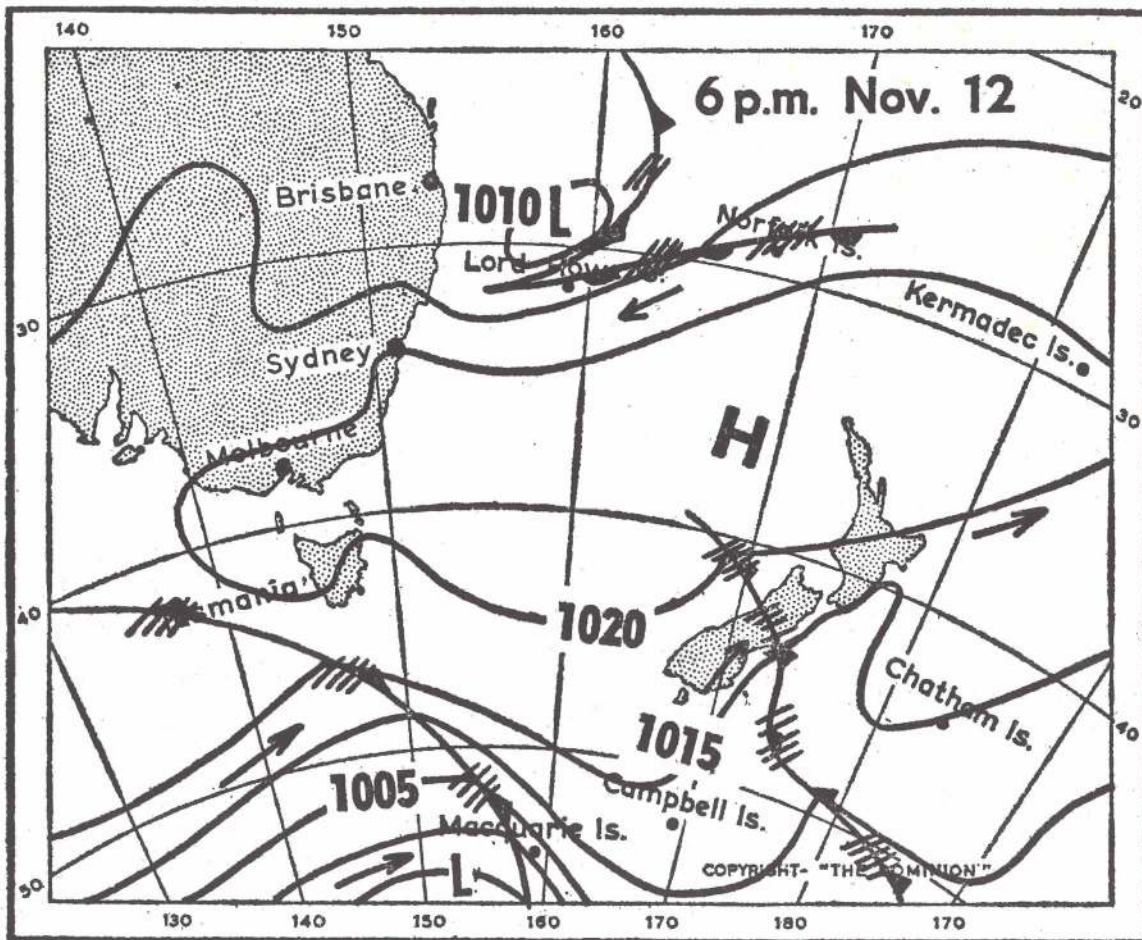
Soil moisture is vital, particularly during the growing season. One American researcher who examined honey production records for a 30-year period concluded that the best honey seasons in Iowa were slightly wetter than average and were preceded by periods of more than average precipitation.

Indications are that a similar situation prevails in New Zealand for the clover honey flow.

Another American researcher stated that, in the case of perennials, a rainfall above normal for the two years preceding the nectar secretion period is of prime importance in conditioning plants for the nectar secretion process. From our own observations this rule of thumb is not very accurate for a number of New Zealand perennials, including manuka, rata and pohutukawa.

*Honey yielded by a hive depends upon the nectar produced by the flower, the colony strength and the bees' foraging instincts - all greatly influenced by meteorological factors. Photo - J.C. Muirhead*





### Population Strength

It is obvious that a colony with a large field-force of worker bees is more likely to yield a larger crop of honey than a smaller colony. A colony headed by a young vigorous queen can expect to produce a population of 60,000 workers at the peak of her laying cycle. A colony of this strength would have a field-force of almost 40,000 bees, the remainder would be tending to the requirements within the hive. A weaker colony has proportionately fewer foraging bees, more emphasis being directed to the production of young bees within the hive (Table I).

**Table I.**  
Effect of Population Size  
on Number of Foraging Bees  
(U.S.D.A. Madison, Wisconsin)

Total colony population	Number of foragers	Percentage of foragers
60,000	39,000	66%
45,000	25,000	55%
30,000	12,000	40%
15,000	2,250	15%

Among other things, the strength of a colony depends upon: The age and egg-laying vigour of the queen, the supply of proteins (pollen) carbohydrates (honey) and other nutrients, ample expansion room within the hive, and freedom from disease and disturbance.

Meteorological factors can significantly affect the growth of a colony. A queen's egg-laying rate appears to be related to day length. Weather conditions have some bearing on the effectiveness of queen-drone matings, for these take place in the air well away from the hive.

An air temperature of approximately 20°C is required before a queen will leave the hive on a mating flight. Within the brood nest of a colony a temperature of 34± 1°C is maintained independently of outside temperatures. However, the rate of honey consumption required to maintain this temperature is dependent upon external temperatures.

Extended periods of inclement weather may interfere with bee flight, leading to stress conditions within the colony. Under such conditions bees become more susceptible to certain diseases.

The major objective in colony management by commercial beekeepers is to obtain maximum hive population strengths at the commencement of the major nectar flow. A beekeeper can achieve this by regular queen-bee replacement, providing adequate food and room for expansion, and by defusing the swarming impulse.

### Foraging Behaviour

Foraging patterns established by bees in seeking, collecting and returning to the hive with a crop is the third broad area likely to influence the size of the honey crop.

Despite the presence of ample quantities of nectar, bees find

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some flowers relatively unattractive. The concentration of sugars in the nectar is one explanation for this. Other reasons for the attractiveness/unattractiveness of a flower may be associated with a flower's size, shape, colour, movement and structure.

The nectar concentration varies at different stages of the flowering process and at different stages of the day. Environmental factors such as wind, rain, temperature and relative humidity are known to influence the concentration of the nectar. Microclimates within the flower itself may be significant with respect to concentration.

Whereas the concentration of the nectar appears to determine the floral preference by the bees the quantity of nectar available appears to determine the size of the foraging field force. The floral preference by bees may create some problems for beekeepers and fruit-growers.

The pollination of kiwi fruit and some varieties of pears may be made more difficult by the presence of competing flowers. Honeybees have been known to fly across two miles of prime clover pasture to forage on manuka honey.

Foraging honeybees can communicate to other bees the distance and direction of the floral source from the hive, together with an indication as to the type and concentration of that source. This is done by means of the bee-dance, touch and food sharing communications within the hive.

A newly discovered attractive source can result in an exponential increase in foragers within a very short time. The angle made by the sun and the food source in relation to the hive is conveyed in the bee-dance and indicates the direction of the source from the hive. Even when the sun is obscured by dense cloud, bees can orientate to the polarised light patterns of the sky.

The actual process of flight is affected by a number of meteorological factors. Wind can

seriously interfere with bee flight. Little foraging takes place when surface winds exceed 25 kilometers an hour (above 4 on the Beaufort scale).

It has recently been demonstrated that an airflow of 10 metres per second across the hive entrance was adequate to prevent bees leaving the hive. Evidence also suggests that wind direction may influence the direction in which the bee will choose to fly on leaving the hive.

Bees are reluctant to fly with air temperatures below 10°C; the number of foragers rapidly increase above this point. Excessive temperatures, above 40°C, are also likely to inhibit foraging; however this is seldom a problem in New Zealand.

Other factors, including radiation, light intensity, rainfall, and electro-magnetic disturbances also affect honeybee flight.

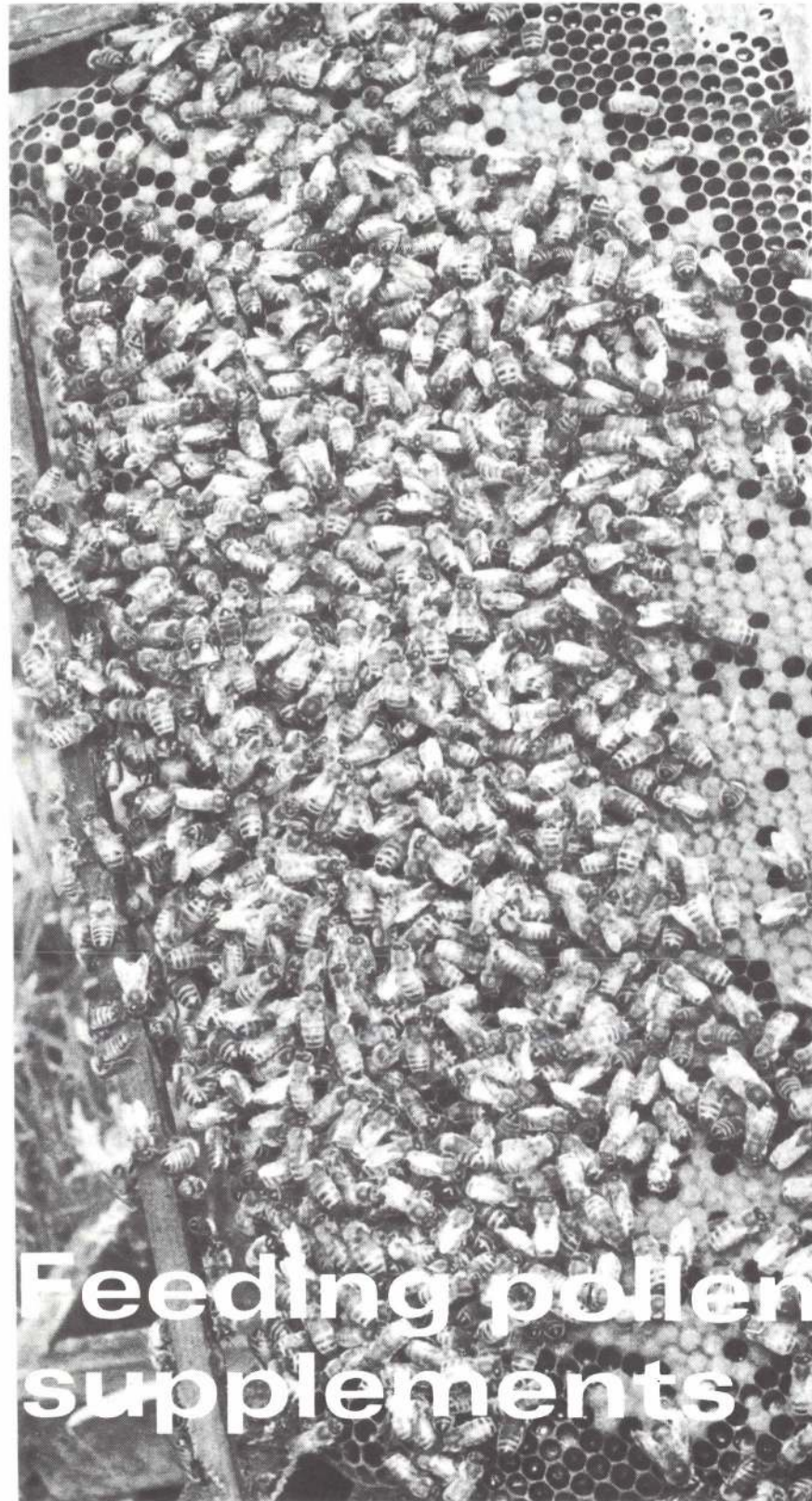
In New Zealand very little quantitative information is available as to the effects of seasonal weather patterns on nectar yields. One beekeeper, Mr R. Powell of Wallacetown, Southland, has kept day by day weight gains over the last nine seasons for a scale hive during the clover nectar flow.

Mr Powell has kindly made these records available to the Ministry of Agriculture and Fisheries for analysis. A preliminary examination of the yields over the last three seasons shows a direct relationship between daily weight gains and the meteorological criteria of solar radiation, maximum daily temperature, wind force and barometric pressure.

This study is continuing and together with other research may well give some insight into the links between weather patterns and honey production which so greatly influence the livelihoods of New Zealand beekeepers.



This article is the second in a three-part series dealing with the use of pollen supplements in beekeeping. The first article was published in the August 1975 issue of the NZ Beekeeper.



There are three main methods of providing honeybee colonies with protein foods to supplement inadequate supplies of natural pollen.

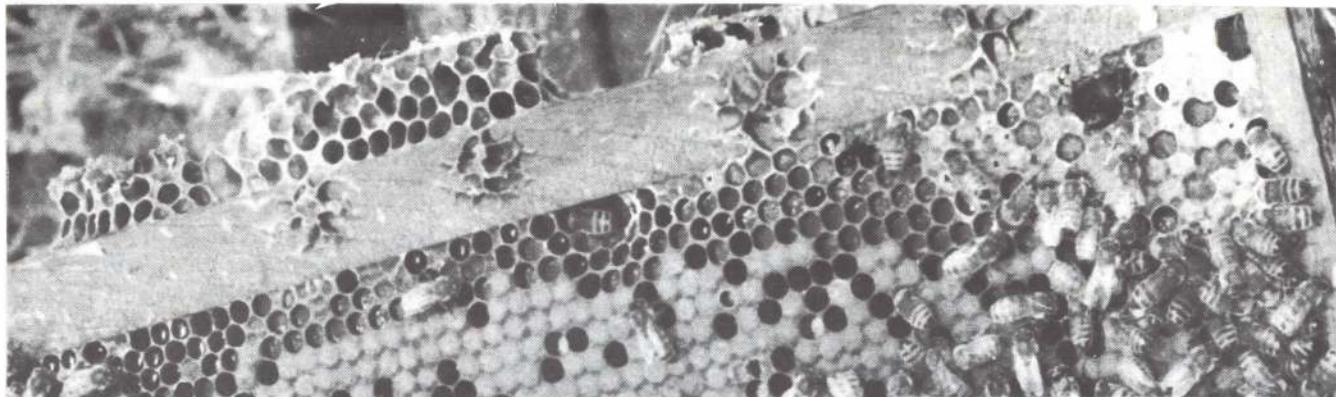
The oldest and indeed the original method is to place the dry food in open containers in the apiary. Foraging bees will collect the supplement in the same way as they collect pollen, and will carry it back to the hive where it is stored in the combs.

In a method more widely used today, the pollen supplement is mixed with sugar and water to form a candy or paste similar in consistency to pollen as it is stored in the combs. This is wrapped in waxed paper and placed inside the hive.

Finally, a soluble proteinaceous food, such as skim milk powder is often added to the sugar syrup that is provided as supplementary or stimulative food.

Various aspects of these practices are discussed by Keith M. Doull, Waite Agricultural Research Institute, University of Adelaide, Australia.

The feeding of dry pollen supplements would appear to be the most natural method of pollen supplementation since bees foraging on dry pollen supplements and carrying them back to the hive would seem to be exhibiting typical foraging behaviour. However, this may not be the case.



When a shortage of pollen develops in colonies that are rearing brood, the bees are exposed to exceptionally strong stimuli for the collection of pollen. Under these conditions they will collect pollen from many flowers that they normally neglect - for instance those of pine trees, corn and grasses.

In extreme conditions they will collect and carry back to the hive various materials such as coal dust, fine sawdust and fungus spores. Obviously, such materials cannot have any nutritive value, and it would seem that these foraging bees have lost any ability to "assess the quality" of the food they are taking back to the hive. It is not unreasonable to suggest that the foraging for pollen only may be regarded as atypical foraging behaviour.

This atypical behaviour is the result of bees responding to very strong stimuli from the colony in conditions that prevent them from exhibiting their normal responses. It continues only as long as the bees are presented with strong stimuli resulting from the presence of substantial numbers of larvae and a gross deficiency of pollen.

The rates of broodrearing in honeybee colonies vary constantly to conform with the amount of nectar and pollen available. When pollen is scarce, the proportion of larvae that survive beyond the first few hours of larval life declines, and after about three days the rate of oviposition also declines. The strength of the stimulus present-

ed to foraging bees is then reduced and the intensity of foraging on dry pollen supplements declines.

Thus the use of dry pollen supplements can provide only short term relief for colonies that are faced with extreme deficiencies of pollen. Bees from colonies that have access to some pollen and nectar will continue to collect dry supplements. However, once the supply of pollen becomes sufficient to meet the day-to-day needs of the colony, fewer bees will collect the dry supplement even though the amount of pollen available may be insufficient to allow for adequate increases in the rate of broodrearing.

If active pollen collection is regarded as atypical foraging behaviour, it follows that the collection of both nectar and pollen on the same foraging flight must be regarded as typical foraging behaviour. Then the addition of volatile chemicals or of pollen supplements would be unlikely to result in any great increases in the efficiency of dry pollen supplements.

For, once nectar and pollen become available in the field, the atypical type of foraging would decline and the dry pollen supplements would be neglected.

There must inevitably be some wastage of dry supplements, and this is one of the less desirable aspects of this practice. While pollen grains are sticky and so are readily retained among the body hairs of the bees, particles of pollen supplement are fine and dry and are not retained so

readily. Thus when the bees fly from the container, a high proportion of the material they have gathered is blown away before they can pack it into their pollen baskets.

A further source of loss is the clumping together of particles of the supplement into aggregates that are too large to remain on the bodies of the bees. This occurs particularly when the air is damp.

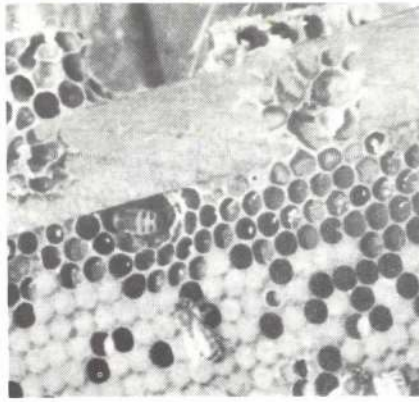
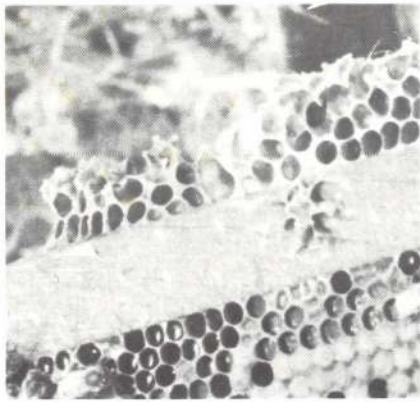
Furthermore, although the supplement may be taken back to the hive and stored in the combs, it will not necessarily be eaten by the bees in the hive. It is not uncommon to see these pollen supplements remaining in the combs for long periods and eventually being discarded by the bees.

An overall loss of 50 per cent of dry pollen supplements may be expected from these causes.

#### **Pollen Supplement Candies**

Pollen supplement candies contain sugar and water as well as other nutrient elements. When they are provided inside the hive, they most nearly approach the natural state of pollen stored in the combs. As with pollen, the candy-type supplements are eaten by bees only as they are required, and the rate of consumption always varies in direct relationship to the rate of broodrearing.

Consumption of pollen supplement candies is not influenced by weather conditions except in so far as these conditions interfere with the collection of nectar and pollen. They are particu-



larly useful for weak colonies that are less likely to make full use of dry pollen supplements.

A major virtue of supplement candies is that they may be placed in the hives ahead of time when they are most likely to be required, and there is little wastage. It is important, however, that supplement candies should maintain their consistency and biological quality over long periods. The warm moist conditions in the hive are conducive to fermentation, and only inactive yeasts should be used as the base material or as a source of vitamins.

Amounts of sugar and water in the supplement should produce a product that is similar in consistency to pollen as it is stored in the comb. The supplement should be wrapped in waxed paper to prevent it from drying out or absorbing moisture and becoming too thin.

If the food is completely wrapped in waxed paper and placed on top of the brood combs, the bees will remove the paper to expose new feeding surfaces as required, and very often most of the top paper remains until nearly all the pack has been used. The paper is taken out of the hive by the bees, and there is normally no residue of the package left in the hive.

Plastic wrapping presents some problems. Bees find it difficult to remove plastic, and tend to feed inside the packs. As the food is eaten the plastic collapses, and often covers the exposed surfaces so that the candy is less accessible to the bees. Since the bees cannot easily dis-

pose of the plastic, the majority of the wrapping remains in the hive. Where large numbers of packs are used, this presents a disposal problem for beekeepers.

#### Skim Milk Powder

The addition of skim milk powder to sugar syrup can be regarded simply as a means of "force-feeding" protein to bees. As they feed on enriched sugar syrup or on the "honey" produced from it they unavoidably consume a certain amount of the protein. This will assist in the maintenance of the body tissues of older bees and will prolong their lives, but the processes by which the skim milk powder technique assists broodrearing are not clear.

The cost of this practice is a minimal addition to the cost of the syrup. It is not necessarily beneficial when the sugar syrup is designed for storage as maintenance food, but may be beneficial when sugar syrup is provided to stimulate broodrearing.

#### Conclusions

Dry pollen supplements are the easiest and simplest means of providing supplementary protein foods for honeybees. There is little labour involved, the materials are relatively cheap and there is no need to open any hives. They are inefficient in that there is a high wastage, and they are least effective where colonies are weak and unable to forage actively.

The rate at which dry supplements are used is directly influenced by weather conditions, and they are naturally ineffective when flight is inhibited for any length of time. This occurs particularly in spring when the need

for supplementary feeding is greatest.

The efficiency of dry pollen supplements and the rate at which they are consumed is also dependent directly upon the amount of pollen available in the hives. Once this reaches the level at which it is sufficient to meet the day-to-day requirements of the colony, the collection of dry pollen supplements will always decline.

Candy-type supplements provide the most efficient method of supplementary feeding. They approach more closely the natural situation where pollen is stored in the combs of the brood nest. The rate at which they are used is not influenced by weather conditions except insofar as these prevent the bees from providing the pollen and nectar needed to meet the day-to-day requirements of the colony. Candy-type supplements are most effective for weak colonies since they ensure that the bees will be adequately fed, provided they are able to gather enough pollen.

Candy supplements are more expensive than dry supplements, since it is necessary to feed each colony separately. Against this, however, it is possible to give each colony enough food at one time to sustain it for three to four weeks.

The cost of adding soluble protein to sugar syrup is a minimal addition to expenditure already planned. There is no information on the efficiency of this technique, which must be regarded simply as a means of forcing bees to consume additional protein.

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## How to keep bees and sell honey by Kelley

Would the beekeeper who wrote to association librarian, Chris Dawson, asking to borrow this book, please write again. Your address has been mislaid.

## A case for venom therapy for bee sting

Immunization with honeybee venom holds promise for patients who have anaphylactic reactions to hymenoptera sting and do not become desensitized adequately with conventional therapy.

About 0.4 per cent to 0.8 per cent of various population samples have a history of anaphylactic reactions after stings by bees, wasps and hornets. Currently favoured therapy for hymenoptera sensitivity is immunization with whole-body extracts, usually a mixture obtained from honeybee, yellow jacket, hornet and wasp. The objective of such treatment is to increase the number of protective IgG 'blocking' antibodies against the allergens. However, in 60 serum samples from patients treated with up to 60 micrograms of whole-body extracts for one to 10 years, the highest titres of blocking antibodies developed against whole honeybee venom and its major antigen, phospholipase A, were about 1 per cent of those found in the serums of 10 beekeepers. The results negated the suggestion that antigens in whole-body extracts are common to those in the venom. Apparently, few commercially available whole-body extracts contain enough allergenically active material for adequate protection. However, even if they contain such material, the injection of large amounts of irrelevant antigen is hardly desirable.

**Case Report** - Detailed study of a child of a commercial beekeeper suggested the potential efficacy of immunization with honeybee venom. After an anaphylactic reaction to a honeybee sting, the boy underwent standard therapy with whole-body extract for nine months. Stung once again, the child suffered another severe systemic reaction. The family, who had lost one child in similar circumstances, agreed to a trial of immunization with honeybee venom.

Gradually increased subcutaneous injections of venom caused systemic reaction but at no time did the patient experience laryngeal oedema, severe respiratory distress or hypotension. The total dose of venom during this course of treatment was 1.4 micrograms. The last two doses (100 micrograms each) were equivalent to two bee stings. In two months' time, immunization caused a marked increase in the blocking (IgG) antibody level, about 300 times greater than that occurring after immunization with whole-body extract. The venom immunization also coincided with a decrease in cell sensitivity (the concentration of honeybee venom required for 50 per cent basophil histamine release). After venom immunization, the patient tolerated a honeybee sting without reaction. Although there was good reason to believe that this change was caused by immunization, this speculation could not be considered definite.

LAWRENCE M. LICHTENSTEIN, M.D., MARTIN D. VALENTINE, M.D. and ANNE K. SOBOTKA, Johns Hopkins University at the Good Samaritan Hospital, Baltimore, Md. A case for venom treatment in anaphylactic sensitivity to hymenoptera sting. *N. Engl. J. Med.* 290:1223-1227, 1974.





## South Island Snippets

by Murray Reid, Apicultural Advisory Officer, Christchurch

### WASP SURVEY

As part of a nationwide survey to try and establish the economic effects of wasps on the beekeeping industry, questionnaires have been sent to all beekeepers in the South Island. At the time of writing over a third of the forms have been returned and it is pleasing to see that beekeepers have taken the time to accurately assess, in dollars and cents, the losses suffered by them through wasp activity.

### TASMANIAN BEEKEEPERS VISIT

At least three Tasmanian beekeepers, Messrs Jones, Osting and Parker, have toured New Zealand in recent months. They left us with samples of their leatherwood honey, along with a colourful leaflet published by their association.

### FARMING A SMALL BLOCK

A 50-page booklet on "Farming a Small Block", which contains a section on beekeeping, has been written by members of the MAF (Christchurch region), Pork Industry Council and NZ Forest Service.

It was undertaken in response to the tremendous number of enquiries received from owners or potential owners of "10-acre" farms who want to know what they can do with their land.

### PEPPERMINT HONEY

I reported collecting a pure sample of peppermint honey in the May 1974 issue of the NZ Beekeeper. At that stage the honey was over a year old and was still liquid.

At the moment a fine layer of very fine crystals has formed at the base of the glass jar, but otherwise the honey is still liquid. The honey hasn't been heated at all; it was scraped off foundation comb, and has remained at room temperature for the past two years and nine months.

TV2 made this bulletin the subject of a programme shown several weeks ago and among the people interviewed was Barry Smith, an apiarist, from Rangiora, some 29km from Christchurch.

### MAF EXPERIMENTAL APIARIES

Fifty eight hives that were under Ivor Forster's care in Oamaru were transported to Canterbury several weeks ago and have now been set up on two sites at Templeton experimental farm and Ashley Forest - on the honeydew.

Mervyn Cloake of Cloakes Honey Ltd supplied a helping hand and a large truck so all the hives plus 20 or so supers and other equipment were transported in one shift.

### RURAL BANKERS MEET BEEKEEPERS

The number of loans made to beekeepers, as well as applications processed by the Rural Banking and Finance Corporation, has risen markedly in the last year or so.

To help the bank appraisers gain further understanding of the apicultural industry, the apiary instructor for Christchurch, John Smith, and I recently took them on a guided tour of extracting and packing plants.

This "meet the beekeeper" tour culminated in an evening meeting with selected commercial and semi-commercial operators. After three or four hours of amicable and very open discussion, both parties now have a clearer picture of the problems the other is facing. (See NZ Beekeeper, Nov. 1974.)

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**OTHER PUBLICATIONS**

**BEE CRAFT** - The official (month-ly) magazine of the British Beekeepers' Association, contains interesting articles. Annual subscriptions: £2 (Post paid).

Write: The Secretary, 21 West Way, Cophthorne Bank, Sussex, England.

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**GRUMBLES**

write  
to the  
**Editor,**  
**NZ Beekeeper**

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## FUMIDIL B

We are pleased to announce that we have been appointed New Zealand agents for Fumidil B by Abbott Laboratories (N.Z.) Ltd., and reasonable stocks are at present on hand. In future all enquiries regarding this product should be directed to us. To enable us to protect the industry for their full requirements would you please let us have an indication of your requirements as early as possible.

## SEASONAL RUSH

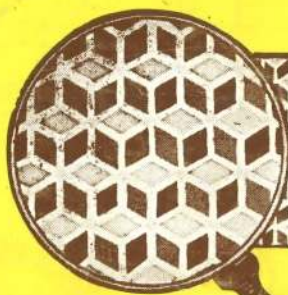
It is regretted that some delays have occurred this spring in the execution of orders, but more than ever before a large proportion of beekeepers, who must surely have known of their development plans months ago, have left it to the last minute to place substantial orders. Whilst in our off-season we stock-pile, this has its limitations for liquidity and storage reasons and so we make this plea for beekeepers who plan expansion next year to place their orders as early as possible so that we can give prompt delivery as has always been our desire. A significant increase in the number of domestic beekeepers has placed pressure on our stocks of imported materials, many limited by import control, resulting in a shortage of some of these items. Early ordering of imported items will provide us with the necessary evidence to secure an increase in Import Licences if justified.

## BEESWAX

At the time this copy went forward the beeswax market appeared to be firm and overseas prices had made some significant improvements. To ensure the best possible price for your surplus beeswax send it to us, the company with the reputation of paying the best possible price at all times in relation to current world market values. If preferred secure our firm offer by mail or telegram prior to despatch.

## COMB FOUNDATION

The earlier you can get your beeswax to us, even though you may not require delivery until next spring, the easier it will be for us to satisfy everyone's delivery requirements.



**ACORN**  
**WAX PROCESS**  
**COMB FOUNDATION**