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THE MEW ZEALAND BEEKEEPER

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Editor: Trevor Walton. Box 176, Carterton, phone 8348. Advertising manager, Alyson Mackey, Box 9734, Wellington, phone 722-476. Advertising and editorial copy deadline for September issue: 8.8.77. Advert booking deadline: 1.8.77.

In this issue, we

... re-introduce a marketing feature and learn apiary instructor J. Smith is to visit Dr Woyke at NBA expense (both reports p. 4); include conference booking forms on p. 8; reveal the plight of Southland beekeepers on p. 9; discover what it's like to bee (or not to bee) on p. 25; and on p. 26 launch into an in-depth look at the marvellous honey bee. Also, don't forget our letters to the editor, a real swag of regional reports, and many other interesting features.

Editorial

Come south young man, come south

THERE IS something about southern hospitality which always makes a trip to Otago or Southland worthwhile.

Perhaps it's just the heritage of a harsher climate which gives southern personalities their fire-side warmth. Whatever the reason, you can decide for yourself for this year the NBA's annual conference is to be held in Dunedin. And it is to be hoped that not only the official voting delegates make the trip.

The conference is going to have to grapple with one or two major issues and come up with some sensible decisions. These issues are controversial and are going to require a good deal more industry understanding and give and take than has sometimes been the case in the past. A little southern understanding will come in handy.

Not surprisingly, the NBA executive has been unable to come up with a definitive recommendation on the HMA and NBA merger proposal from its four meetings a year and it will be up to the conference to work out what it wants from its servicing organisations.

Before talking about any merger proposals, beekeepers must get rid of the mental block which states that the HMA only represents the interests of those beekeepers who supply it. Since its prime function is to stabilise the domestic honey market by regulating exports, its operations—especially during periods of world market downturns—benefit all beekeepers.

For this reason there is good ground for both organisations to be more closely associated than they are today. Whether this close association should be through merger, or via the NBA executive and HMA board having a common producer membership is for the industry to decide.

Closer liaison between the two organisations, or an outright merger, would make better use of the limited number of people with the time, experience and ability to adequately represent beekeepers' interests. If the packers' association and the comb honey producers were also brought in as standing committees of the NBA, the beekeepers of New Zealand could really speak with one voice.

The inability of the industry to stand united behind one organisation is costly in administrative expenses and makes many initiatives by the various organisations extremely ineffective.

The pricing of honey sold on the domestic market is a case in point. There is no clear cut policy in this area and as a result the government runs rough-shod over the industry.

Since the price for New Zealand honey started soaring in the markets of the world, there has been a cry for honey sold on the domestic market to fully reflect the price of that sold overseas. With retailers and distributors' mark-ups included that would probably mean a retail cost of about \$1.00 a 500 g pack.

Who then would buy the honey? What would be the effect on local sales? What would happen if the overseas price slumped, or if trade or political barriers knocked our export prices tumbling. Would today's "world market price" exponents still want it then.

There is obviously a need for some sort of formula to balance domestic and export prices unless beekeepers wish to stand unprotected in the harsh winds of international competition. Protection from these winds is demanded by the consumer and hence the government. Failure to recognise this is only going to result in a continuation of the present unsatisfactory situation.

Because commercial beekeeping is becoming more capital intensive, because it is influenced by farm management practices, weed and pest control policies, government health restrictions, town planning requirements and many other outside influences, your involvement is vital.

Try to make it to Dunedin. It will be worth it.

NATIONAL BEEKEEPERS' ASSOCIATION

OF N.Z. INCORPORATED

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N.Z. BEEKEEPER ADVERTISING RATES

Beekeeper Rates

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

Rates: Full-page, \$60; Half-page, \$40; Quarter-page, \$20; \$2 a column cm. No deductions for contracts will apply.

Commercial Rates

Full-page, \$80; Half-page, \$50; Quarter-page, \$25; \$3 a column cm. \$20 per page loading for inside cover, outside back over and spot colour. Concessions available for contracts.

SUBSCRIPTIONS

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

Beekeepers owning less than 50 hives 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 BBB

(WHERE THE NBA SHOWS ITS STING)

Who said no mead?

When the NBA executive secretary, Graham Beard, found a bottle of commercially produced honey mead on his desk, what more proof was needed? Yes, that's right, the executive and "Beekeeper" were wrong when they said in the last issue that there was no way that honey mead could be produced commercially in New Zealand. It is being produced commercially now, though it is not included in the Sale of Liquor Act 1976. Commercially produced mead only has to comply with the Food and Drug Regulations and the Food Hygiene Regulations.

No Poole

Mr R.F. Poole has informed the NBA executive that he has no wish to serve as a temporary member of the executive. The executive has therefore acted on its decision to leave the vacancy unfilled until the next election.

Far North membership drive

The executive secretary of the NBA is working on a list of potential members of the association in the Far North region. Unless some or all of these beekeepers can be encouraged to join the association, the NBA will cease to have a Northland branch and the beekeepers of Northland will be deprived of their regional voice.

Sweetening the price

A senior executive of the NZ Sugar Company, Mr G.W. Hutchinson, has approached the NBA executive offering his services as a speaker at the 1977 industry conference. The executive has accepted his offer with thanks.

Graham Beard hospitalised

The executive secretary of the NBA, Graham Beard, has recently been released from Wellington Public Hospital following a sudden illness. At the time of publication it was expected he would spend several weeks convalescing at his home in Tawa.

Quit those imperial cartons

Beekeepers holding stocks of imperial weight honey cartons should quit them as fast as possible. A cut-off date for their use is likely to be set soon.

After the cut-off date, however, it will still be possible to use imperial weight cartons so long as both the metric and imperial weights are stamped on them. If metric weight cartons are used, only the metric weight should appear and the cartons should be one of the approved metric sizes: 500 g, 900 g, 2 kg etc.

The NBA executive has approached the HMA and the Honey Packers' Association to get their support

for a joint approach to the Department of Labour to have honey packs set in multiples of 1 kg above the approved 2 kg pack. The executive has also advised the Metric Advisory Board that beekeepers in some regions still held substantial imperial carton stocks because of a poor season.

Annual Report available

The 1976 annual report of the association has been mailed to all branches and commercial members of the NBA. Other members requiring a copy should write to Mrs Norton, Box 4048, Wellington and a copy will be provided free of charge.

Immigrant support

The NBA executive has given its support to a move by Jasper Bray to have beekeeping added to the list of immigrants from North America.

No merger proposal

The NBA executive is to prepare a paper on a possible merger of the NHA and NBA as a basis of further discussion by branches and the annual conference. Although the executive has been asked by the 1976 conference to prepare recommendations on a merger in time for the 1977 conference, there was little agreement among executive members on the topic and more time was needed to evaluate the topic more fully.

1977 Executive elections

NBA president Percy Berry and vice-president Micheal Stuckey both come up for re-election this year as part of the rotational retirement system. They have both indicated that they wish to stand again.

In the South Island, former president Ivan Dickinson also comes up for re-election and when this issue went to press it was uncertain whether he wished to stand again. An extraodinary vacancy arising from the retirement of Gavin McKenzie will be held concurrently with the principal election.

Coromandel fracas

The NBA executive, in the absence of the president Percy Berry, resolved at its April meeting to offer to act as arbitrators between the Ministry of Agriculture and Fisheries and Araraki Honey. On advice from the counsel for Araraki, the executive felt that it was in the interests of the industry as a whole that the issues involved in the litigation between the two parties should be resolved outside the arena of the courts. The executive also agreed that Mr Berry should not be involved in any negotiation discussions.



MARKETING NOTES

PROVIDED BY THE NZ HONEY MARKETING AUTHORITY

THE INTERNATIONAL honey market is still somewhat sensitive, and there are some differences between buyers' offer and sellers' asking price.

The Canton Fair in China, which is a bi-annual market where honey parcels are transacted, is causing further uncertainty and our early advice suggests that prices are about 4 per cent to 8 per cent up, but that offerings are low.

The United Kingdom buyers are endeavouring to get as much honey into the country on or before June 30, 1977 as possible, because at the final stage of the European Economic Council 27 per cent Tariff becomes effective. In Europe the interest is more in the E.L.A. to Amber honeys, varieties of which we had only small offerings. It is reported that most honey packers are holding reasonable stocks and are obtaining small quantities of honey from Southern American areas.

Argentine honey prices have firmed, and are reported to be a

little higher than earlier in the year when sales were made to Europe. Sales made into Japan have provided stock and forward order cover to meet requirements to the end of July.

China offerings are falling and prices for Milkvetch have climbed a little up a c. & f. price of about US\$1 100. The quantity of honey offered is still unknown, but Chinese sources report that they expect that it will be a somewhat smaller offering.

Japanese honey traders are reported to be very quiet and buyers are adopting a 'wait and see' attitude, particularly as it applies to "the second wave of honey price hikes" from producing countries.

It appears that producing countries — Argentina, Australia and New Zealand are facing crop shortage, and Argentina's last price to Japan has climbed up as high as US\$1 000 c. & f.

Imports to Japan for the year ended 1976 amounted to 24 000 tonnes, of which 4 000 tonnes

were carried over into 1977, and it now seems that honey purchases made in the early part of this year, will carry packers and users in Japan through until the end of July. Traders are adopting a 'wait and see' attitude to see how the prices will develop in the next immediate weeks.

An international market reports that with the development of supermarkets and hyper-markets, the fierce competition is creating a situation of smaller margins, thus as packers and retailers are being squeezed, their profits can only be achieved by substantially increased turnover.

New Zealand is still selling at the top of the market, a market of specialist honey, or to a packer who is using good quality New Zealand honey to blend with cheaper honeys obtained from other countries.

There appears to be a substantial demand for comb honey and for bees wax, and the prices are reported to be climbing quite considerably.

Smith to visit Woyke

MINISTRY OF Agriculture and Fisheries apiary instructor, Mr J Smith, is to visit Poland and Finland to evaluate queen bee artificial insemination techniques under Professor Woyke. The National Beekeepers' Association is sponsoring his return air fares at a cost of some \$1800.

Both the Honey Marketing Authority and the NBA were approached for sponsorship, but the NBA executive felt they were the appropriate body to provide the sponsorship as the benefit of Mr Smith's studies would apply to the industry as a whole.

The HMA had indicated to the NBA that it was prepared to meet the cost if the association was unable to support the proposal.

The need for industry sponsorship was a result of MAF budget restraints. The ministry was able to cover Mr Smith's salary while he was overseas, but did not have the resources to cover his air fare. The NBA executive has formally agreed to sponsor Mr Smith's trip and has informed the HMA that if it wishes to further assist with Mr Smith's expenses this would be welcome.

In accepting the responsibility for Mr Smith's air fares, the association has informed the ministry that it expects them to meet all reasonable costs in the dissemination of Mr Smith's study and that a copy of this report should be made available to the association.

CORRESPONDENTS



ARE WE QUITE MAD?

Dear Sir,

Our honey grading system appears quite beyond belief.

Honey of Hymettos, one of the world's greatest honeys, is mostly wild thyme. In this country it receives the lowest grade of all.

Another gourmet's honey comes from Scottish heather. A dark honey, how does it grade at the H.M.A.?

I sell manuka honey and a light mixture mostly clover and black-berry. My latest count shows that I sold 80 jars of manuka to three of the light honey. My customers ask me "What do they add to shop honey, lard or icing-sugar?" I point out that we all sell pure honey in New Zealand, that any customer finding lard in his honey wouldn't come back for a second jar and that, at 60c./lb, icing sugar would make a very expensive honey spread. They don't believe me and I don't blame them. Shop honey does look like lard and tastes like sugar and water.

Honey should look like honey and taste like honey.

Yours.

George Nichols, Hokianga.

EDITORIAL BUNKUM

Dear Sir

Because of the very privileged position an editor has in writing what he likes in his editorials, it is of the utmost importance that the facts are 100 per cent correct. This was not so in the March edition of the N.Z. Beekeeper.

To imply that the authority is pursuing a policy of marketing recommended by Mr Berry is totally incorrect and in fact the opposite applies. If the authority had been unwise enough to follow Mr Berry's recommendations, suppliers to the authority would have been very heavy losers financially.

Having been on the board with Mr Berry I was amazed at how little he knew about marketing.

There are two main reasons for the good price of honey at the present time. One being a world shortage of honey and the second is because of the exceptional selling ability of our general manager, Mr Curtis Wicht. Mr Editor please give credit where

Mr Editor please give credit where credit is due and do not be influenced by persons who sing their own praises the loudest.

Yours.

F.A. Bartrum, Pleasant Point, South Canterbury.

As an editor of a number of reputable publications in the agricultural field and as a writer for many others, I am fully aware of the responsibilities of an editor. The editorial in the March issue was in fact the text of a press release prepared by me on behalf of the association at the president's request.

The matter was raised at the March meeting of the NBA executive and the following facts emerged:

- The editorial was based on a press release made at the president's request, in order to help influence an increase in the domestic price for honey.
- The president is fully entitled to make press releases at any time on any subject.
- Mr Berry has, in fact, had a measure of influence on the marketing policies of the HMA. In fact, as an HMA board member that is his job.
- 4. Both Reuters Economic Service and the United States Department of Agriculture Crop Reporting Service both confirm the factual basis of the editorial: That the price for NZ honey overseas has increased markedly in the last year despite a stable to weak world market.
- 5. A number of people in the industry were upset by the editorial on account of the personalities involved and of open wounds from past battles. Ivan Dickinson, in particular felt that because of these attitudes the editorial was unnecessarily divisive.

As editor, I must to a point be aware of industry prejudices for fear of inflaming them. If beyond that point people wish to read things into editorials which are not there, the problem must lie in the eye of the beholder.

There is a tendency in the NZ honey industry for disputes between its various sectors to degenerate into assaults on the personalities rather than the issues involved. It is time that participants recognised that people with personalities or backgrounds different to their own may have a worthwhile contribution to make to its future.

POLITICAL MANIPULATION

Dear Sir,

It is patently obvious that successive governments are using the Honey Marketing Authority to achieve one result—that is cheap honey for the New Zealand consumer regardless of the effect on the honey industry. The government's existing policy of ministerial direction in setting a base price for honey handled by the HMA is putting the whole industry in a strait-jacket.

Apparently the HMA is forced to base its pricing for retail packing on the NZ market on the low base price for honey fixed by ministerial direction and not by actual export earnings, which are substantially higher. Further, it is not possible for the HMA to build a profit margin into its pricing structure, which further mitigates against its packing for the NZ market.

It is justly claimed that the authority, being the recognised price setter for the industry is effectively devaluing the major portion of the NZ honey crop sold on the local market.

The effect of creating reserves only from honey exports is resulting directly in the devaluation of some 75 per cent of the honey crop sold locally. While I agree with having reserves, I still believe much less harm would ensue for the industry if a levy was struck on all honey sold, or, alternatively, by increasing the hive levy to meet this need.

It could be argued that the opposite situation applies when overseas returns fall below those obtained from the local market, but many involved in our industry can claim that overseas prices have been consistently higher on lighter grades of honey over many years, while our methods of marketing our exports have often proved inefficient and cumbersome.

The net effect of devaluing the honey sold in New Zealand, say 4000 tonnes to the tune of a conservative 20c. per kg. below export realisations, would, in any one year, effectively deny the industry \$900,000. I believe it is time we questioned very closely the role of the HMA in our industry since any inefficiency in its operations will serve to devalue the whole of the honey crop. To this end, it could well be appropriate to ask whether or not private enterprise could do a better job in both the marketing of honey in and outside of New Zealand.

There is ample evidence of the industry becoming more and more mature with the advent of larger and more efficient production and packaging units, which, I believe, are capable of giving this industry the initiative and enterprise which it needs so much. The mere fact that many producers are endeavouring to by-pass the authority by producing comb honey and honey-dew etc. adds weight to the argument that the industry is being stifled by excessive control. In conclusion, it is my firm belief that we need a fresh approach to the marketing of our honey production - private enterprise is proving in many ways to be the superior means of achieving the best results.

Yours.

R.L. Jansen, Taupo Honey Centre.

PAID TO BE STUNG

Dear Sir.

My company manufactures and distributes a well-established treatment for bee and wasp stings, namely Waspeze. We are constantly in need of well-documented information on efficiency and lean heavily on beekeepers to provide us with this information. You can well imagine how difficult it is to obtain volunteers to be stung and then try the product, whereas the majority of beekeepers collect a number of stings each year during the course of their work. In addition, we are anxious to improve the formulation of the product, and for these test purposes we like to have

the formulation of the product, and for these test purposes we like to have a bank of volunteers. If you think your readers would be interested in a Wasp-eze trial during 1977, I should be obliged if you could make mention of the product and our aims in your editorial columns.

The procedure is quite painless. We provide the product and ask the beekeeper to fill in a simple questionnaire each time he is stung and uses Waspeze. There are no costs involved for the respondent; in fact, at the end of the trial we usually provide a small gift.

D.F. Wills, Marketing Director, Potter and Clarke Ltd, 44a The Green, Warlingham, Surrey, CR3 9YS, Britain. Readers wishing to be involved in these trials should write direct to Mr Wills at the above address.

PERSONALITY CULT

Dear Sir.

I can't help but comment that the "NZ Beekeeper" is becoming a very "I say" and "I am" publication on the part of the editor. The first page of each issue is taken up with his mindless ravings.

What right has he to make learned pronouncements about weighty industry matters when he has so little experience in the bee world? What right has he to patronise people who have been in the industry for generations? In my humble opinion, the editorial should be done away with entirely. The editor could then get down to that which he knows best - editing articles by the experts and preparing attractive layouts and so on. The new "Beekeeper" is a vast improvement on the old, both in looks and content, but the editorial turns the honey in my hives to salt.

Yours, Brigid Grant, Willow Creek.



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Book now for the big southern conference

THE OTAGO branch of the National Beekeepers Association of New Zealand cordially invites all beekeepers and their wives to attend the association's annual conference to be held in Dunedin on 28, 29 and 30 July.

The venue is the Northern Oaks, Gt. King Street, Dunedin, two blocks north of the main shopping

Accommodation:

Our booking agents NAC, have

reserved a limited number of beds as can be seen on the accommodation application. The association's Executive and HMA have been accommodated at Cherry Court. Cherry Court have a restaurant attached. The three listed accommodation places on the form are within two minutes walking of the conference venue.

Other motels and hotels in the vicinity of Northern Oaks are listed in the panel.

your registration fee. The ladies will have a bus trip arranged and the cost of this is subject to the patronage it receives, but it is estimated to be around \$1 to \$1.50. If you are interested please indicate on the registration

Every effort has been made to keep the costs at a minimum to encourage as many as possible to come and sayour the hospitality and comforts of the Edinburgh of the south.

MOTELS	Single	Double	
Dunedin Motels 624 George St Dunedin.	\$15	\$17	
Owens Motel 745 George St Dunedin	\$15	\$17	
George St Tourist Court 842 George St Dunedin	n \$16	\$18	
Gardens Motel 745 George St Dunedin	\$15	\$17	
Argyle Court Motel Cnr. George & Duke St Dune	\$16		
HOTELS	B. & BB	Single Rate	
Bowling Green Hotel 71 Frederick St Dunedin	\$12	"	

HOTELS	B. & BB	Single Rate
Bowling Green Hotel 71 Frederick St Dunedin	\$12	"
European Hotel 62 George St Dunedin	\$13	"
Law Courts Hotel 65 Stuart St Dunedin	\$18	"
Leviathan Hotel 65 Lwr. High St Dunedin	\$21	"

Prices as at beginning of May, and could be subject to increase.

MAKE RESERVATIONS EARLY FOR THIS ACCOMMODATION.

There is a National Party Conference on the weekend before ours and a rugby football match on the Saturday after conference.

If your require transport from your point of arrival to your accommodation please ring the conference secretary phone 214-244.

In both cases they are listed by the distance they are from the conference venue. If you prefer to book accommodation at any place other than the places listed on the accommodation application form this must be done by you.

Registration Fee:

The registration fee for conference has been set at \$5 a person. This covers the Tuesday evening function, morning and afternoon teas, and other incidentals to make your stay a pleasant one.

Other Costs:

The Thursday Evening Social will have a charge of \$5 a person. Admission only by ticket holders. A mid-day luncheon will be available on the three days of conference at the conference venue at a cost of \$2.50 per meal per person. Please order when paying the Thursday evening cabaret.

Social Functions:

On the Tuesday evening there will be a pre-conference get-together, a time for a chat and meeting of friends before the hard debate of conference. Drinks and supper will be served. The evening will conclude at 11pm.

On the Thursday evening, a social, cabaret-style, will be held commencing at 8pm. Admission by ticket only. This evening will have something for all young and old and we feel sure you will all enjoy it. Be sure to order your ticket with your registration.

The conference venue, "Northern Oaks" is of recent construction and is in a setting of playing fields surrounded by large oak trees located adjacent to the Otago Museum. Parking should not be too big a problem in as much as there are few meters at that end of the town.

Conference registration Thursday night cabaret, and luncheon orders should be paid to the conference secretary, Mr Bill Ross, by way of the attached form as soon as possible to assist in having catering details available as soon as possible. Don't delay. do it now. Only ticket holders will obtain morning and afternoon teas, luncheon, and admission to

ACCOMMODATION APPLICATION						
Name:						
Address						
I require twin/single accommodation at: (please indicate)						
Alcala Motels \$20.00 (twin per night)						
Farrys Motels \$18.00 (twin per night)						
Cherry Court Lodge \$21.00 (twin per night) (please tick panel for your preference)						
I will be arriving on by(car/NAC/train)						
at and departing on (date)						
and require accommodation for this period. If twin accommodation required please show name of other person						
sharing unit						
Please return this form to:						
Mr R.D. Wilson, National Airways, P.O. Box 934, DUNEDIN.						
Confirmation of your accommodation will be forwarded to you.						
OTAGO CONFERENCE REGISTRATION Mr Bill Ross, No 2 R.D., Brighton, DUNEDIN.						
Name						
Address						
I/we will be attending conference and enclose herewith payment for \$ to the Otago Branch N.B.A., to cover the costs of:						
Registration Fee @.\$5.00 per person \$						
Social Function @ \$5.00 per person \$						
Luncheon Wednesday @ \$2.50 per person \$						

@ \$2.50 per person \$ _

@ \$2.50 per person \$ __

Total

Signed......

Remember if you require accommodation at any place other than the Cherry Court Lodge, Alcala Motels, Farrys Motel, this must be booked by you. If you are not sure on any details regarding conference please do not hesitate to contact the conference secretary, Mr Bill Ross.

On behalf of the Otago Branch, we look forward to meeting you in July at conference and we will do our utmost to make your stay an enjoyable one.

I.J. Dickinson. President, Otago Branch, NBA.

ITALIAN QUEENS

1977-78

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Luncheon Thursday

Luncheon Friday

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This article is the first of two based on the findings of T.G. Bryant, apiary instructor, Gore and P.J. Hook, senior farm advisory officer, Gore, who have been conducting a financial survey of beekeepers in Southland.

MAF survey shows Southland apiarists sinking

THE AVERAGE Southland beekeeper is in a disastrous financial situation. This is evident from the provisional findings of a Ministry of Agriculture and Fisheries survey which shows that the 10 commercial beekeepers surveyed have seen their cash surplus/colony decline from nearly \$4 in 1974/75 to \$2.74 in 1976/66. Budgets for this year show a loss of \$6.55 a hive.

While a disastrous season is to blame for the projected losses this season, the four year trend is one of greater efficiency in terms of hives per man being outstripped by increasing production costs.

In their report, the authors say it is very disturbing to note that few beekeepers actually realise how much money they have tied up in capital equipment, most which is used for only a very short period of the year.

"Those surveyed will also, in the near future, have to undertake major capital expenditure to bring buildings and plant up to Health Department standards. Many of the group do not have the cash reserves or profitability to warrant such expenditure. Alternatives such as central extracting plants, either syndicates or cooperatives, will have to be considered," they say.

"The high capital investment, for example Mr Average Honey Producer's \$98 per hive, will also exclude many young beekeepers from purchasing an existing business as a going concern. The industry must consider alternatives to encourage young men into the industry and carry it on. Examples are crop sharing agreements, leasing with right of purchase, partnership or similar agreements as the 50/50 share milkers in the dairying industry.' The survey of the beekeeping industry in Southland was undertaken:

- To establish a breakdown of suitable headings to enable beekeepers to utilise their books as a business and management tool.
- To create awareness of the industry as to its present financial position.
- To show beekeepers how to look at the financial side of the beekeeping business.
- To establish criteria for a standard budgeting form which could be utilised by the ministry, the Rural Bank, other banking institutions and beekeepers, for financial assistance, financial awareness, development loans and advisory, planning and management.
- To provide information which can be of assistance to indi-

MR AVERAGE HONEY PRODUCER

=	1974/75	1975/76	1976/77 Budget	Revised Budget 1976/77	Reasons
Number of Colonies	1092.5	974.6	1054		7,
Labour units	1.75	1.4	1.5		
Colonies/Labour	624.29	696.14	702.67		
Total Capital	109537.25	95600.9	98514.8		
Capital/Colony	100.26	98.09	93.47	-	
Total Production	45168kg	40294kg	45000kg	26350kg	poor season
Production/Colony	41.34kg	41.34kg	42.69kg	25kg	
Honey Income	27946	24691	27262	18445	at 70c /kg
Non Honey Income	1468.5	2668.4	2607	2607	
Total Income	29414.25	27359.8	29869	21052	
Income/Colony	26.92	28.07	28.34	19.97	
Administration	497.75	387	412		
/Colony	.46	.40	.39		
Crop Expenses	3276	3704	4004	4984	extra 2
Wiles - 20					t sugar
/Colony	2.99	3.80	3.80	4.73	
Packing Expenses	271.75	204	150		
/Colony	.25	.21	.14		
Wages	3924.75	2511	3500		
/Colony	3.59	2.58	3.32		
Venicle	2014.5	2438	2420		
/Colony	1.84	2.50	2.30		
Other Expenses	4857.86	5721	5065.4		
/Colony	4.45	5.87	4.81		
Total Expenses	14741.37	14965	15551.4	16531.4	
/Colony	13.49	15.36	14.75	15.68	
Surplus	14672.85	12395	14317.6	4520.6	
/Colony	13.43	12.72	13.58	4.29	
Standing Charges	1430	1621	2047.8		extra 2
/Colony	1.31	1.66	1.94		t sugar
Personal Expenses	8915.13	7534	9379.8		*
/Colony	8.16	7.73	8.90		
Cash Surplus	4327.73	3773.8	2889.2	-6907.00	[
/Colony	3.96	3.87	2.74	-6.55	
Colony	3.90	3.07	2.74	-0.55	

would be less.

less taxation and personal drawings because of poor season, but still a deficit.

vidual beekeepers when purchasing a business, when starting development projects, in times of crop failure and when budgeting and forecasting.

The 10 beekeepers surveyed were divided into three groups:

- 1 The packer producer One who sells the bulk of his honey on the local market
- 2 The producer packer One who sells less than 50 per cent of his crop on the local market
- 3 The honey producer One who sells less than 5 per cent of his crop on the local market.

For reporting purposes, we have taken Mr Average Honey Producer and Mr Average of the 10 beekeepers. The expenses were itemised in the survey but many have been lumped together for this article, for example:

Crop expenses: Sugar and queens. Vehicle expenses: Fuel and Oil, repairs and maintenance, insurances.

Other expenses: Fencing, rates, hive levy, repairs and maintenance to buildings, electricity, freight, other insurances, depreciation.

Administration expenses: Accountancy, telephone, postage, subscriptions and travelling.

Standing charges: Long term, short term, current account, principal.

Personal expenses: All drawings made by the beekeeper or company directors.

The 10 beekeepers were visited personally by Mr Peter Hook, senior farm advisory officer, Gore, and Mr Trevor Bryant, apiary instructor, Gore.

End of year financial statements were used and, to give effective breakdowns, receipts, invoices, cheque butts and bank statements were scrutinised. All information given by the individual is strictly confidential and only averages are reported.

The biggest problem was with the end of year financial statements. These included insufficient information, poor layout and smudge items.

Different balance dates were encountered — March, June, September and October. And there was a marked lack of filing systems. In one case a box in the back room was the only file.

Variations in accounting were numerous and while the end result may have been the same, no two sets of books were alike even where the same accountant was used, and beekeepers were unable to understand the accounts or how the accountant had arrived at the figures presented.

For the purpose of this exercise capital is the probable market value as at October 1976. This figure remained constant other than additions or subtractions for additional hives operated in any of the three years. Hives were valued at \$45 each.

Many beekeepers questioned the inclusion of the family home and property in the capital column. The reasons were many.

It was included because when a beekeeping business is sold and a purchaser wishes to borrow money, in most cases the house with land and other buildings is included as security. Hives are still not recognised by lending institutes as good lending security. Similarly, if refinancing is required, then usually the house and other buildings are used as collateral. Whether the beekeeper lives in a \$10 000 home or a \$60 000 home is immaterial. As individuals we set our own standard of living whether it be homes, trucks, boats or trips overseas, or taking things as they come and purchasing things as we can afford them.

Mr Average

Five beekeepers were surveyed with hive holdings totalling 4873 colonies. The size of the outfits ranged from 500 colonies to 2000. When comparing the figures for the three years please note that in 1974/75 only four beekeepers were in business for that year.

The 1974/75 honey price was based on 54 cents per kilogram,

and the 1975/76 honey price at 57 cents per kilogram, although actual income is recorded. Production figures per colony are exactly the same for 1974/75 and 1975/76, but it will be noted that income from honey sales is down for 1975/76. A March balance date has caused this anomaly. This will also reflect in the proposed budget for 1976/77.

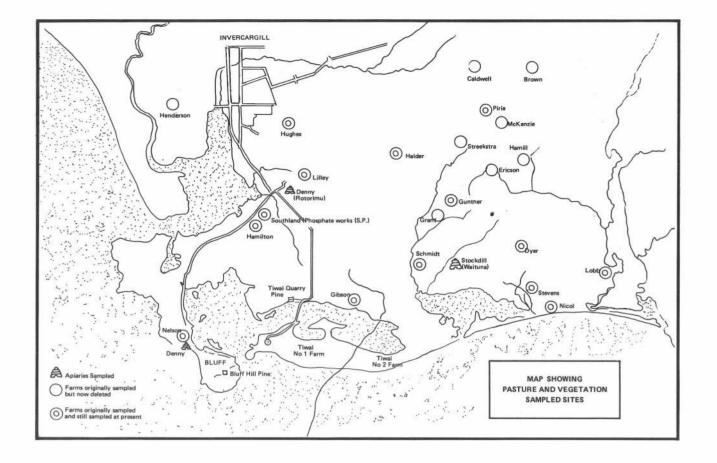
Points To Note

- In two years (1974/75 and 1975/76) total costs have increased by 3.86 per cent.
- The cash surplus decreased by 2.7 per cent.
- Non honey income increased by 81.07 per cent.
- Crop expenses increased by 27.1 per cent.
- Wages decreased by 28.1 per cent.
- Vehicle expenses increased by 35.9 per cent. This does not include depreciation.
- The results of this survey are already out of date and adjustments will be required across the board. The example is the income assessed for 1976/77 and budgeted at 60 cents per kilogram.

Facts About Mr Average Beekeeper

He is 36 years old and has been beekeeping on his own account for nine years. He has one wife (understandable) and three children. He owns a house and 2.1 hectares of land, and has a honey house and storage area of 320.1 metres/sq. He also owns a truck and utility vehicle plus a motor car, and travels on the average 13918 kilometres in the truck and 4827 kilometres in the utility vehicle. The average number of kilometres travelled per hive is 19.23.

To meet his cash expenses he requires a crop of 2.69 tonnes per 100 hives, 1.71 tonnes per 100 hives to meet standing charges and personal drawings plus tax, or a total of 4.40 tonnes per 100 hives before making a profit. This is based on the base price for honey as set by the HMA for 1976.



Bees as air pollution monitors

by Dr David Stewart, Invermay Agricultural Research Centre

BEEKEEPERS ARE all too familiar with the hazards posed to bees by the indiscriminate use of insecticides, often by gardeners and orchardists who depend on the bees for pollination of their crops. A less well-known hazard to bees is air pollution, particularly by chemicals such as fluorides which are known to have strong insecticidal properties.

Fluorides are emitted by industries such as phosphate fertiliser works, glass factories, aluminium smelters, chemical factories, and brick works. The dusts and fumes are deposited on vegetation where they can be a hazard to animals, and collect in the pollen that is gathered by the bees. The fluorides are rapidly absorbed and in excessive amounts can result in death.

Fluorides were used as insecticides as early as 1896, but the effects of fluoride air pollutants on bees were first realised in 1938 when fumes from a chemical factory near Hamburg in Germany caused the death of most of a nearby beekeeper's colonies. Later, in the 1950's, mass poisoning of bees occurred again in Germany and in Switzerland, throughout communities situated along the Rhine river near an aluminium smelter. Dead bees were found to contain between two and 50 times the normal amount of fluoride.

Because of this history of fluorides affecting bees, the Ministry of Agriculture and Fisheries have included bees in the list of species sampled as part of their monitoring of the environmental effects of the Tiwai Point aluminium

smelter near Invercargill. Because of the sensitivity of bees to fluorides, analysis of them also provides an early warning of any increase in concentrations of fluorides in the area. Dead bees from hives in the area are collected twice each year at times when the bees will have been active, and the fluoride concentration in millionths of a gram per bee is determined.

Analyses have shown that bees from one of the apiaries situated near a phosphate works contained more fluoride than those from other hives, and fluoride concentrations in the bees have increased since the smelter opened. However, present concentrations are still well below those at which ill-effects are possible, and there is little likelihood that any deaths will result from the operation of the smelter.

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Lake Tekapo before the dams, before decimal currency and back in the days when farm management systems had room for farmers and bees.

Honey shows big potential in Tekapo development

Mr G. Carroll, Soil Conservator, Waitaki Catchment Commission, Kurow.

IMAGINE THE Waitaki Valley and McKenzie Basin flowing with honey!

In 10 years time this may not be a dream, but a reality. Already a considerable amount of honey is produced in these areas. With development of certain riverbed and rough areas for honey production, the honey output could be greatly increased. Through appropriate tree planting and sowing of areas with such plants as sweet clover specifically for bees, the local environment could be improved for recreation, aesthetics, wildlife and soil and water conservation.

Along with two beekeepers, Richard Irving and Mervin Cloake from Timaru, I was recently shown around by the Ministry of Works and Development. We saw tree, shrub and legume trials laid out over the last two seasons in

the Tekapo riverbed. Jim Mitchell, Ministry of Works and Development, Twizel, gave us a good run down on the history of the Tekapo riverbed and the moves to try out plants which would be suitable to grow there once most of the flow is diverted through the power canal network.

One of Jim Mitchell's men drove us to the trial sites and also gave us a good run around much of the lower reaches of the river so that we might gain an appreciation of the potential of the area.

Most of the trial plantings had only been in since the 1976 winter. Planting was carried out in very dry conditions—the 1976 autumn and winter drought had not yet broken. However, the wet summer was obviously putting new life into many plants.

A real effort had been made to try out as many plants as possible that are useful for bees. Plants growing well that are useful to bees included flowering currant, Kowhai and sweet clover. Some tree lucerne seedlings were appearing, but it is too early to tell how successfully they will establish.

Other plants growing well included ashs, silver birchs, oaks, Hall's totaras, elders, prunus species, strawberry tree, elms, firs and lupins. Lupins grown from seed were growing particularly well.

Self-sown Lotus major was growing prolifically throughout much of the riverbed. Some Maku Lotus had been successfully sown. Bees appeared to be working the sweet clover and white clover present in preference to the lotus.

Bees were also seen working haresfoot trefoil present in some dry areas. Sweet clover was commonly a metre high in areas where there was a little moisture. It is hoped to establish sweet clover on many of the near-bare sites, among the willows. Vipers buglos will probably spread into the riverbed area from adjoining grazing land. This is an important plant for bees.

The effects of the micro-climate produced by the mature willows was very noticeable. There was always more moisture in the ground in the shade and shelter of willows, and consequently greater grass and legume growth in these areas.

Only the occasional gorse bush was seen and these had been successfully killed with spray. The sooner a tight sward of sweet clover and other such plants are established on the bare ground, the less chance there is of gorse and broom invading the area.

The two beekeepers were impressed by the results achieved so far, and are optimistic that the great variety of plants being grown could enable good honey production to be achieved from this area in about five years, providing the present trial plantings are greatly expanded, as planned by Jim Mitchell.

A small group of old Robinia's were inspected among the trees at the old Rabbiters Homestead site on Simons Hill. Robinia's have been used extensively in such countries as Rumania to increase honey production. I understand that attempts are being made to import some better Robinia stock into New Zealand, since the local trees do not seem to grow as well as expected.

The concepts being employed in the use of the Tekapo Riverbed are certainly forward looking and likely to succeed.

The concept of using marginal or waste land for honey production in New Zealand has not yet been taken to the stage of deliberately creating a specific environment There for bees. are several persons, such as Mervin and

Harry Cloake, who are keen to try out in practice the concept of creating just such an area. However, it seems the major stumbling block is the lack of capital to purchase land for this purpose. It is expected that full development of an area to near its full potential honey production may take as long as 15 to 20

A point worth noting is that under a honey production system there is no grazing of plants and thus a good vegetative cover is kept. This can be important in several locations such as along stream and river banks, on eroded slopes, and in protection watersheds.

Jim Mitchell and the Ministry of Works and Development is to be encouraged in its work in the Tekapo riverbed. There should be encouragement to farmers to include plants suitable to bees in farm woodlots. These areas are normally fenced off and thus the problem of having flowering prevented or cut short of grazing is eliminated.

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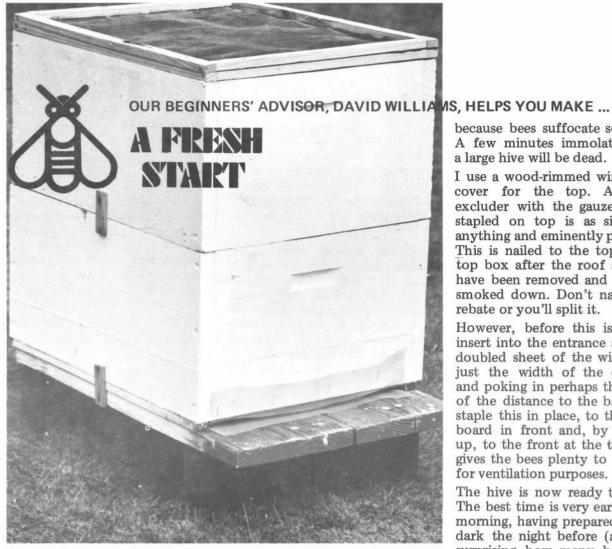


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How to fasten hive for travelling.

Moving hives

MANY AMONG us need to move hives from time to time from place to place, but unless you plan to incorporate the moving of hives into your regular production sequence as migratory beekeeping and so need a streamlined foolproof technical system, then let us discuss the subject as the beginners we all are.

For moving my hives, which are always two boxes high, I use six segments of slats 50 x 25 x 5 mm (in actual fact I use four and choose to ignore the fact that an occasional hive may swivel a little but for the purposes of this discussion I use six) and double that number of 25 mm flat headed nails.

These pieces of wood are used to nail down box 1 to the floorboard at both sides and the back and box 2 to box 1 similarly – just hammer them home carefully to avoid splitting the wood. Point the pieces straight up and down so there's no slack.

This part can be done several days before the move or at the time of moving — it really makes little difference. Surprisingly, the bees never seem to resent it too much, perhaps because the sharp and continued taps of the hammer make them cling rather than attack.

You may say that nail holes in your hives are detrimental. A few hundred may be but the few you may put in over the years will hardly be noticed, particularly as your annual re-painting will hide any defects.

Your hive is now fastened together for moving, but is not yet ready to move.

Some of us, for a short haul in cool weather with small colonies, have merely stuffed the entrance with newspaper and got away with it, but obviously this is not to be recommended, principally because bees suffocate so easily. A few minutes immolation and a large hive will be dead.

I use a wood-rimmed wire gauze cover for the top. A queen excluder with the gauze merely stapled on top is as simple as anything and eminently practical. This is nailed to the top of the top box after the roof and mat have been removed and the bees smoked down. Don't nail at the rebate or you'll split it.

However, before this is done I insert into the entrance a bowed doubled sheet of the wire gauze just the width of the entrance and poking in perhaps the depth of the distance to the back, and staple this in place, to the floorboard in front and, by bending up, to the front at the top. This gives the bees plenty to work on for ventilation purposes.

The hive is now ready to move. The best time is very early in the morning, having prepared it after dark the night before (and it is surprising how many bees turn up at the site later in the day. Makes one wonder where they spent their night on the tiles) and the job can be managed by one with difficulty and two with ease, just as it is possible to do the transporting in the back seat of a car or station wagon but preferably by trailer, nailing down the bearers to the floor.

Bees remain quiet on the journey, presumably for the same reason as when being hammered.

On arrival, the bearers are levered up from the trailer floor and the hive placed on the new, prepared site. The cleats may be left on for a later visit or removed now. The bees are smoked away from the top cover and that is levered off and replaced immediately with mat and roof.

Put a few puffs of smoke in the entrance, rip away the entrance gauze, drop it, and run! Leave the hive to settle for at least a week before disturbing again. It is surprising how easy hive moving can be if these instructions are followed and what a shambles they can be if not.

Remember humans are people too

THIS BEING a quiet time of the year, let us take a little while to consider the human half of the bee-people symbiosis.

I had a friend who felt he needed a bit of meditation and tranquillity and had heard that the chanting of a suitable phrase could bring peace of mind. Accordingly he spent many happy hours of darkness sitting on the floor, gazing at a candle flame and murmuring over and over the soothing sybillants of 'Apis millifera' very slowly and quietly. A-pis-mell-if-er-a-a-pismell-if-er-a-a-pis-mell-if-er-a. worked wonderfully for him. The only trouble was that when he woke up the next morning they had all changed back to b. . . . bees, the same as they'd always been.

This little story has one moral, and that is that beekeeping is not pleasantly philosophical hobby that those who have never tried it believe it to be. It is a hot, dirty, sweaty, sticky job and, although it has its own satisfactions, these are not abstract ones.

It must be said here for the benefit of the concerned friends and relations of the amateur beekeeper, that beekeeping is not really a hobby, it is a compulsion and one that takes years to wear off. Hence it follows that the sufferer is not responsible for his actions, poor fellow, and should be treated kindly at all times.

And now a little word to the amateur keepers' supporters club, those dear ladies whose mission in life it is to help and succour their husbands in good times and bad. The good are the winter months, the bad are the active ones when the menfolk have to be up and about their beekeeping business.

A few hints on how to handle the situation with the maximum of ease and the minimum of strain will not come amiss. Rule one is that all men are little boys at heart. They cannot stand criticism and other unkindnesses, so agree with everything they say, enthuse over everything they do, and clean up the mess afterwards. Rule two is really a variation of rule one and states that the more you agree with him, the faster it will be over. Nothing you say or do will actually stop him (he is

acting under compulsion, remember?) so encourage and accelerate

Rule three is a very important one and states that you should never offer to help him because if you do he will accept and then you are really in trouble. Any woman can think of a dozen good reasons why she can't help, much as she would like to. Never deviate from this and you will lead a long and happy life. Both of you.

Rule four follows directly from rules one two and three in that it defines your function as passive supporter rather than active participant, and this may be best illustrated by examples.

When he comes in all hot and bothered, all sweating and swearing, to tell you that he has managed to do in two hours what any reasonable competent apiarist could do in 10 minutes or less, do you say, "Aren't you a little old/young/intelligent/respectable (cross out what does not apply) for this sort of thing?" You do not.

Experience is expensive

MY OWN beekeeping started with a couple of swarms that settled locally, one in a low brush bush, the other on the trunk of a local oak, both on the same day.

Without any gear and without any experience whatsoever, I managed to get both swarms home in cardboard boxes and sent off an order post-haste to the nearest bee-supply stockist 80 km away.

The bees stayed in the boxes happily enough until the knocked down hives arrived and I knocked up a couple of thumbs putting them together. My hurt feelings then were nothing to

those of the swarms, who bitterly resented being re-housed and showed it in no uncertain terms. The scores of stings received might have come from a completely different tribe to the meek and mild ones collected a week or so earlier.

To prove it, one swarm took off the next day. Not knowing how to melt foundation in with electricity I had bought a spur embedder and one sheet of foundation had dropped out of the frame and trapped a couple of bees, a la guillotine. Their cries of alarm must have sent the rest off in panic.

The other hive died out that winter from lack of stores. They

hadn't built up very fast and had made only half a frame of honey by March, so that one bright August day they were all lying in untidy festering heaps on the floor and spilling out the entrance. A tragic sight.

Encouraged by this distinct lack of success, I ordered two nuclei from Bates at Matamata (did you know that Matamata means 'point' and refers to the spur of high ground extending into the swamp on which the pa was built?), which duly arrived, turned out to be gently bred golden bees of a charming disposition who built up well, produced some surplus that year, since when the story has been one of

No, you stand well back and say calmly and clearly, "How very clever of you, darling. You must be very hot. Let me make you a cup of tea."

Not only have you shown your saint-like qualities, you have also decisively reclarified your respective roles, he as the frivolous time waster, you as the efficient comforter. Now let's have one more quick example and then we can leave the subject. Your ever-loving better half drifts in in that casual way you have become so suspicious of over the years.

"Been thinking", he says "that what we really need (note that 'we' he's trying to share the blame!), what we need is a bee blower - a super trolley - an electric driven 40-frame extractor (for two hives!) - a new honey house - a four wheel drive Landrover - a larger section to put more hives on" - (again, cross out which does not apply). Do you say, "Not in a million or "Over my dead years," body"? You do not. Your only tactic here is a delaying one.

Give him a few days grace and he will come to his senses, so your job is to see that he has those few days. The slightest hint that you agree with him and he will send off the cheque today, the slightest whiff of opposition and you are the enemy.

You say, for example and depending on circumstances, "What a good idea. What range of models are there?" That puts a spoke in the wheel straight away because he never thought that there might be a choice.

Or you say, "Wonderful! Where are you going to put it?" which reduces the whole thing to a horribly practical level. Or you say, "Good idea. What does the apiary instructor think of it?" which makes it a whole new ball game, loaded with implications he will be reluctant to face. It is not whether you win, it is how you win, that makes for domestic harmony.

Well, that is enough on the subject. Don't take this too lightly. Every word here has been hammered on the anvil of truth and the principles, properly applied, will do wonders all round. Let's finish up with a funny story, a quote from the wellknown Scottish newspaper the Aberdeen Press Journal.

"Neighbour Mrs Mary Kelly said yesterday Mrs Blackhurst and her husband who died about five years ago were a peculiar couple. She used to stand at the gate with a monkey on her shoulder and he kept bees."



How to treat exhausted beekeeper — plenty of tender, loving care!

moderate success interspersed with occasional dramatic failures, as for most beekeepers, particularly amateurs.

There is a moral here, in that every mistake was both avoidable and inexcusable. A little more experience and a few words of advice and this particular series of disasters would never have happened.

The most important point is to get to know your fellow beekeepers, none of whom will begrudge a few minutes of their time to initiate you into the mysteries of the craft.

I well remember when Gordon Tuckey came over the next season in response to a request for a demonstration on how to look through a beehive and proceeded to happily romp through the boxes wearing shorts and short-sleeved shirt and nothing else — no gloves, no veil — while 1 stood alongside, dressed cap-apie, rigid with fear and murmuring continuously "Dear God, let me get out of this alive and I'll never touch another bee." Both of us survived, much to my surprise, and both of us have touched many another bee, but the terror was genuine and really due to ignorance. Gordon's nonchalance was a revelation.

Similarly, a friend of mine had a few days with a commercial beekeeper and came home transfigured. The speed and expertise of the operators left him openmouthed with admiration and his contempt for the slow, cautious, frame approach of the amateur took months to wear off. Neither he, nor his bees, will ever be the same again. He has moved on to a higher plane of beekeeping altogether.

Mind you, we all have these experiences to a greater or lesser degree. I don't think there is a book nor a magazine on beekeeping that hasn't produced some useful hint when I read it, some gem of information, while it is noticeable that the formal part of beekeeping club's meetings are excessively so, but



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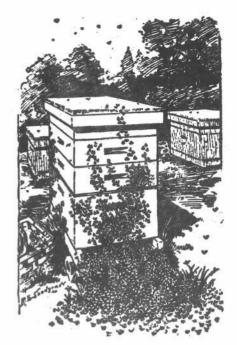
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Dear Mr Williams, Please can you help us?

Our bees this season have provided us with quite an abundance of honey and I would like to make use of this in drinks, such as milk, milo and tea, also in baking and general preparation of food.

Would it be possible to obtain recipes and information on the quantity of honey to substitute for syrup, sugar, treacle, etc.

Another query: We have a brand new hand model extractor which, before using the first time, I sterilised with boiling water. My husband informs me that this method of sterilisation is in-

Readers' queries

David Williams, our resident hobbyist adviser, is willing to answer readers' queries about problems they have with their hives. "My articles are designed to be both practical and provocative," he says. "There may be many points amateurs would wish to raise and would do so if told to write in. I would be happy to provide answers to the best of my limited ability and can always call on the literature or the experts for the really tricky ones."

Mail your questions to: "A Fresh Start", 26 Otonga Road, Rotorua. They will be answered by Mr Williams personally and suitable ones submitted for publication.

correct in respect of the extractor's interior. Could you advise on the best method practised by home enthusiasts. We store the extractor in its original cardboard packing box, but it still collects a certain amount of dust. We both enjoy the Beekeeper magazine, keep up the good work.

Sylvia King (Mrs) Rotorua

To answer your last question first, all the amateurs I know scald out their extractors after use and, as long as they are then thoroughly dried, none of them seem to have any problems. In fact many of the local models must be 50 years old and still going strong.

We have had amateurs who tried a thin coating of vegetable oil for storage, but this proved detrimental and the successful formula certainly seems to be hot water and plenty of it. I wash mine down well, once, after my final extracting, dry out, put in sun to get

completely dehydrated, and use a plastic bag over the top and a smaller over the tap, and then give another hot water rinse out before use the next season. Certainly a nice tight plastic bag keeps all dust out. You may care to try it.

With your second query, I am afraid I cannot help much. One major use for my honey is in fruit bottling as a syrup, stirring two cupfuls into every quart of boiling water, but note that the honey must not be boiled, merely the water. It makes a beautiful mixture. All other procedure is as for normal bottling.

You may care to get the Rotorua Public Library to put you on their distribution list for the American Bee Journal. That monthly publication always has a page of recipes and also contains ads

for (American) recipe books for which you could send, and I know both Australian and English Beekeeping Associations have put out booklets.

Perhaps other readers may care to share?

break for tea and biscuits and the conversational level rises to the rafters and you can hear more good beekeeping talked than you'd believe possible.

Then there was the time I was out with an old timer who used his pipe as smoker. A few mouthfuls in the entrance and the bees — and anyone standing around — were practically asphyxiated. Then he stuck the pipe back in his mouth and the bees never came near him. His protective smokescreen was 100 percent effective.

Another occasion was a visit out around the lake where a longtime beekeeper wishing to subdue his bees prior to examination walked up to the hive and started putting the boot in. A dozen or so smart kicks to the brood chamber would about do.

If I'd tried that on mine, hell itself couldn't have contained their fury. His simply buzzed sullenly and promised to be good, which they were.

I produced my smoker and demonstrated, at which the beekeeper's wife said "What a good idea. Must get you one for Christmas, darling."

Never a dull moment in beekeeping. We learn something every day.

Then there was the expert amateur — if that doesn't sound

too Irish — who claimed not to have had a swarm in his four hives in five years. No, he hadn't requeened or anything like that. What was his secret? "Oh, I just change them round a bit." I was delighted to pass his place one sunny October day and behold him desperately smoking an enormous swarm up one of his landing boards. Brave words butter no parsnips!



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IF THE beekeepers of New Zealand wish to have the hive levy paid direct to the NBA, that is okay. But if it is part of a parcel including the amalgamation of the NBA and NMA, that's another story.

This news comes from agricultural association minister, Jim Bolger. He says he would have no objections in principle to the merger of the two bodies, but he would want to see more evidence of industry support before he started talking about specific legislation.

In a letter to the NBA, Mr Bolger said the issue of a merger is of major significance. And he would want more information and more evidence of industry support than was available at this stage.

In response to a second approach by the association, Mr Bolger said he would be quite happy to promote appropriate legislation allowing the NBA to collect the levy, if this was the wish of the 1977 conference.

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FROM THE COLONIES

OTAGO

Yes sir, the Otago Branch is still alive and kicking. Lack of membership is not our trouble, but to get them to attend meetings is a different issue. We have a small number of faithfuls, however, who keep things going.

The past season, right through spring and summer has been a most difficult one in every aspect and so in most cases the takings are at an all-time low with the exception of some lucky ones who are apparently situated in a more favourable district this year. Central districts were certainly better off than the areas nearer the coast.

However, one beekeeper in the coastal district of South Otago experienced a good rata flow. Whatever honey was gathered by the bees as a surplus came in very late. The turning point was probably the Southland field day held at Te Anau under perfect weather conditions in early February.

Our branch held a very pleasant field day cum picnic cum barbecue at Long Beach (North of Dunedin) late in February and again the weather was fine. So good in fact that all kids and also a number of the older ones did have a great time in the surf. A good get together, we hope to do something like this again.

Now we are busy planning for the forthcoming conference. Things seem to be pretty well under control. We hope to welcome a good number of beekeepers from all over the country. North Islanders remember that a free passport for the South is available, and visas for entering Otago are not needed yet. We are doing our best to offer you a good time and endeavour to keep costs as reasonable as possible. Further information regarding the conference will be elsewhere in this issue and will have already been sent out to branch secretaries.

Other events in the near future in which this branch is involved is the 100th Winter Show of the Otago A & P Society and the annual Southland and Otago Beekeepers Convention. Both take place round Queen's Birthday weekend. At the show we will have a stand depicting the importance of bees for pollination, regeneration and conservation.

Of course other aspects won't be left out. We also hope to see a good many entries in the competitive section: The best way to keep honey in front of the public on this occasion.

The convention is a pretty informal annual event. A few speakers, slides or film and time for a social natter and supper is the usual programme.

This report would not be complete without making mention of the fact that our branch did have the pleasure recently to congratulate Mr and Mrs Jim Marshall on the occasion of their Golden Wedding. Mr Marshall will be well known by many outside Otago. He is our senior member (and branch life member) and is still an active beekeeper. Once again, we wish them all the best and no doubt many of you who know them will gladly join us in this.

M. Heineman Milton

CANTERBURY

A very successful spring field day last October, which had for its theme queen rearing, mating and introduction, prefaced a season which gave promise of a very good crop. Unfortunately subsequent weather did not give us the summer heat required for a strong honey flow, with the result that light land produced reasonably well, but heavy land remained too cold to give much of a crop. Most hives should be entering the winter with reasonable stores.

The district recently lost the services of Murray Reid, apiculturalist with the Ministry of Agriculture and Fisheries when he left to take up a similar position in Hamilton. Although our loss is Waikato's gain, all beekeepers will continue to benefit from Murray's knowledge and experience in the articles he will undoubtedly continue to have published in the N.Z. Beekeeper.

The branch has received advice that a number of overseas beekeepers will be visiting Christchurch after the Apimondia Congress in Australia. The branch secretary is to compile a list of local members who will be able to meet and host visitors in the post congress period. We are looking forward to meeting beekeepers from many countries and hope to be able to give them some idea of the type and scope of local beekeeping operations.

R. Poole, Christchurch

SOUTHLAND

The Branch held a very successful field day at Brian Risk's home apiary near Te Anau on Saturday, February 5. Southland turned on a perfect day which reduced even the Canterbury-ites to shirt sleeves.

Demonstrations of loaders included John Syme's Hiab loader and pallet system, Richard Beeby's forklift and pallet system and Brian Risk's tailgate loader; each system had merit depending on the individual's operations. Peter Pearson demonstrated a very useful gadget which lifts and holds the honey supers while an inspection of the brood nest is made.

The W.T. Herron Trophy was won by John Smith for his gadget designed to prevent the overflowing of tanks.

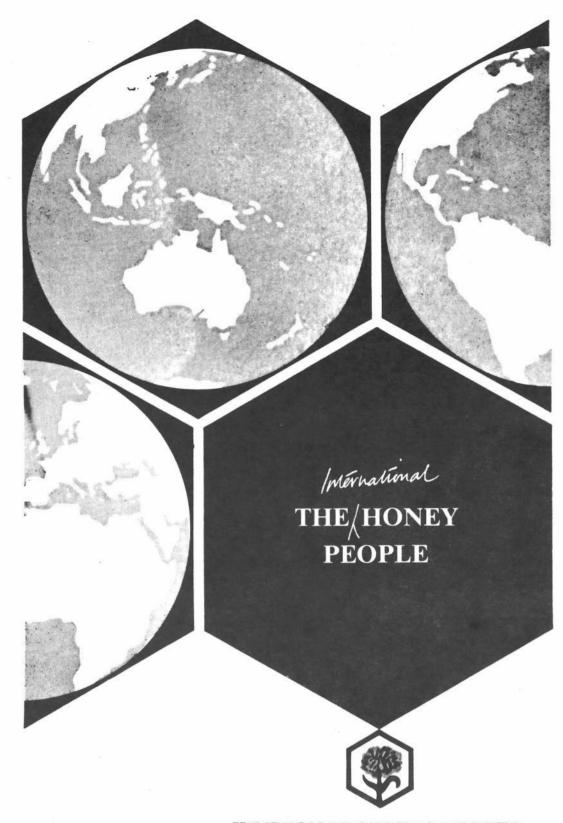
For the ladies there was a display of pottery by Mrs J. Fraser and a spinning and weaving demonstration by Mesdames Risk, Woods, and Ballantyne. The day concluded with a social hour and barbecue which was enjoyed by all.

The Annual Meeting was held in Gore on April 29, and the election of office bearers resulted in Jim Simpson becoming president and Murray Ballintyne secretary. I am sure that those two men will serve the branch well.

The crop is the poorest we have experienced in a long time, taking it off was like digging a crop of small potatoes. The average appears to be around $2^{1/2}$ tonne per 100 hives, although beekeepers near the bush will have fared better as the Rata produced very well.

Southland members look forward to meeting old and new friends at the Dunedin Conference in July.

Stewart Booth Drummond



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BAY OF PLENTY

It is 21 years since this branch was formed, and this winter we will hold a suitable celebration, where we hope to bring together many of our past and present members.

Don and Charlie Barrow have retired from commercial beekeeping. Both served in turn as secretary and president of our branch over the years. Don was a member of the National executive for seven years and Dominion president for two years.

The past season has not been a particularly fruitful one for many of us in this region. Poor crops in the bush areas, but reasonably good late crops in the pastures. It is pleasing to note that beeswax prices are keeping up with general inflation. Some of our members for the last six years, have been supplying bees for Kiwi fruit pollination. Many of the problems we encountered in the first few years are not so bad now. One good point about the pollination service is that there is a sure income for part of the year.

Ron Mossop, Tauranga

NORTH OTAGO

North Otago has experienced a most disagreeable spring, the worst for 60 years. A severe shortage of feed led to the death of a substantial number of hives. This consequently led to a big splurge on artificial feeding right up to late December. Not until this time did honey flow in any volume. Most apiaries netted an average flow, while coastal regions were patchy.

Despite the lean season the hives will winter well with ample stores which are being stored low in the hive rather than in the upper supers.

Vince Cook is in Papua (New Guinea) as a temporary supervisor and is due back early this month after a three week stay.

R.M. McCallum, Oamaru

WEST COAST

First of all apologies to the editor and fellow beekeepers for missing the deadline for notes in last issue, partly caused by the sad loss of a son in law and fellow beekeeper.

Jan Derks passed away suddenly while picnicing with his family on Oharito beach on November 14, 1976.

He came from Holland about 25 years ago.

He first worked on a farm near Kaiapoi then on different farms here in Harihari and in sawmills.

The fact that his father in law had bees no doubt encouraged him to also have a go, and at the time of his death he had established several yards, although working for the Ministry of Works where he was also very popular.

His effervescent enthusiasm, cheerful smile, and helping hand is missed by everyone.

A field day was held at Waitane Apiaries honey house on November 20, (my establishment) and there was a fair and representative attendance from as far afield as Canterbury, Havelock North and a visitor from Edmonton Alberta, Canada.

In anticipation of some hungry visitors from far afield provisions were laid out on a low table under the carport at the back of the workshop. The first visitor arrived earlier than expected and was very hungry, as she had consumed a whole loaf of sliced, and buttered, currant loaf, and was in the process of removing the cover off the rest of the food when discovered.

A few well-chosen words and missiles dispersed the visitor, which incidentally had four legs and wasn't related to the host or any other beekeeper.

Proceedings were opened by the president of the West Coast branch of the association, Keith Detlapp, who, after welcoming those present, asked them to stand a moments silence as a mark of respect for Jan Derks.

The honey house, equipment and gadgets were inspected. Murray Reid talked on methods of handling supers and showed photos illustrating methods adapted by different beekeepers.

With a hive he had transported down for the purpose, Keith Detlapp gave a demonstration of raising queen cells. The demonstration hive used had already raised 250 to 300 good cells and had 34 nearing the stage of transfer to nucs. The day was perfect and augured well for a bumper honey crop if the rata bloomed. Some concern was expressed at the non flowering of kamahi which resulted in the loss of some hives.

An enjoyable day ended after afternoon tea. The visitor of the morning returned again in a hungry state, and when no one was looking helped itself to the contents of Rod Buchanan's picnic basket.

Well, the kamahi did eventually flower, even if spasmodically, and was a help in building up bee numbers. But small though the flow was its flavour was detected by the grader.

Fortunately the rata flowered prolifically and had we had a fine warm January instead of the miserable one we had, when the rata was at its best, and handiest for the bees, the crop for the season would have been a whopper indeed. Good weather from the end of January to the present time and rata flowering still on the higher hills at about 1000 metres at the beginning of April provided an excellent crop.

The red and white rata vine also flowered prolifically and is still flowering (May 5, 1977), and because it commenced over a month early, provided an additional source of good nectar.

Wasps have been a real pest in some areas and have already caused the loss of some hives.

The Annual General Meeting of the society was held in the Pensioners Rooms, Greymouth on April 29, and there was a fair attendance.

Comments on wasps were, "Bad, worst on record." Trapping was reported to be very successful.

Two recommended were:

- 1 A long narrow tray under windows containing water and a slick of kerosene.
- 2 A half gallon flagon baited with a mix of jam and stale beer to start fermenting.
- 3 Two inches of water in flagon and a ripe apple chipped into it has the same result, and saves beer for better use!

Election of officers took place, those elected being: A. Braid, Franz Josef Glacier, president; Rod Buchanan, Paroa, secretary; Ralph Glasson jnr, Blackball, vice president; P. Lucas, Harihari, press representative.

Congratulations to Tony Roper for winning the Page Cup and Rod Giles for winning the Baty Cup.

Peter Lucas Harihari

HAWKES BAY

Although the season was later than usual it was worth waiting for, and most of the bay beekeepers are happy with the honey crop, which is a little above the average. With the cooler temperatures now being experienced, the bees are going into winter with full stores.

Branch activities included a field day at Paul Marshall's honey house in Napier. With beekeepers coming from as far away as Gisborne and the Manawatu a very interesting day was had by all. Guest speakers who helped make the day a success were Kevin Ecroyd from Christchurch, Colin Rope, honey grader from Auckland and Grahame Walton, AAO, Palmerston North. It ended up being a day full of chat about bees.

To finish the year the branch held its annual general meeting at the end of April and all officers were re-elected for another term.

Paul Marshall, Napier the damp spring and early summer conditions thistles grew in abundance to give us a late flow and to allow the bees to pack the broodnest full with stores. Hives will go into the winter, probably the heaviest ever, and should be safe till well on into the spring.

Generally crops of around two thirds to three quarters of the average were taken off, the light land doing better then this but foothill country much less.

However we are comforted by the thought of an expected payout much better than last year and of course the skyrocketing price of beeswax is putting a smile on a lot of faces.

This winter will see some beekeepers looking over their feeding equipment making sure they will not be caught again by a season which stretches their ability to keep hives alive; they will make sure they can cope if ever another cold damp spring happens along.

Harry Cloake, Timaru

SOUTH CANTERBURY

In the December issue I wrote, "We were not too happy with the thought we may have to feed till Christmas, it would be hard on the pocket and the nerves." Well we did just that, feed till Christmas. The country covered with the greatest clover flowering ever, the weather cold and damp and the bees eating their way through stores at twice the normal rate, it was feed to survive. We learnt a lesson by this: If you were not set up to feed in a big way, the result could be disastrous. If you could cope with the feeding then, you had no losses and the hives stayed in good shape.

Fortunately we had three glorious days around Christmas which saved the day and from then on the bees picked a little honey to keep them going. It was not until early February the weather picked up and a fairly long spell of fine weather set in. Clover flowered very late and with

NORTHLAND

The weather settled down nicely in February and March and the honey season carried on quite well in most districts. North of Kaikohe however wasn't very good in general with most hives only gathering about one super of honey surplus. Things got better south of Kaikohe around Whangarei and through to Maungatoroto and Dargaville; a very good season was experienced by some beekeepers with hive surplus of four to five supers quite common.

The weather cooled off quickly in April and the bees closed down breeding in most cases. Overall an average season was had by most beekeepers. A field day at Mr Terry Gavin's honey house will be held on May 14. Some end of season honey will be extracted and wax processed.

Peter Smith, Kaitaia

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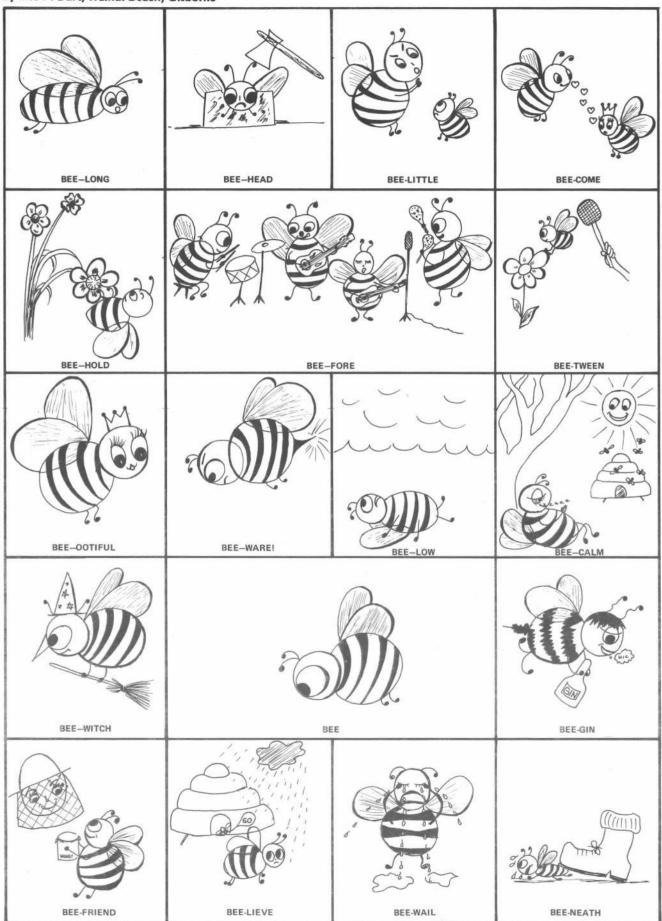
- The Pollen Loads of the Honeybee by DOROTHY HODGES — 100 pages — 1974 — Presented by Foundation Life Member Wm H. ADAMSON.
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Library Books are available to members of the National Beekeepers' Association. Catalogue of Books and Rules available on receipt of Stamped Addressed Envelope. Please state Branch of which you are a Member.

> Beekeepers Technical Library, P.O. Box 423, Timaru, Chris Dawson, Librarian.

To bee or not to bee....

by Mrs F. Burt, Wainui Beach, Gisborne



David Williams, our beginners' correspondent, takes a close-up look at a friendly worker bee in a way which should be of interest to amateur and professional alike.

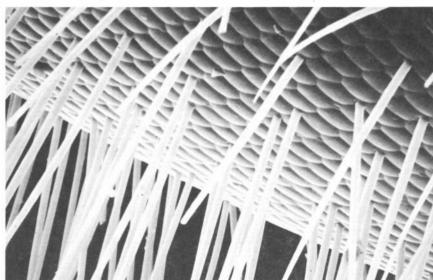


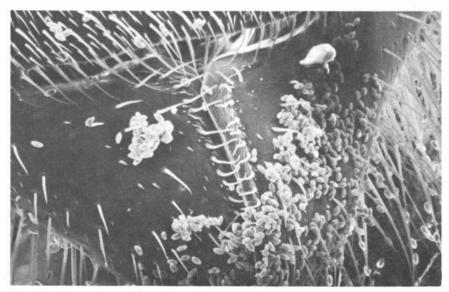
Looking closely at the bee

NEVER STOP looking and learning. Commercially this may mean better ways of managing hives, of hive transport and location, of queen rearing and replacement, of super removal and extraction, of the application of research to local conditions, and so on.

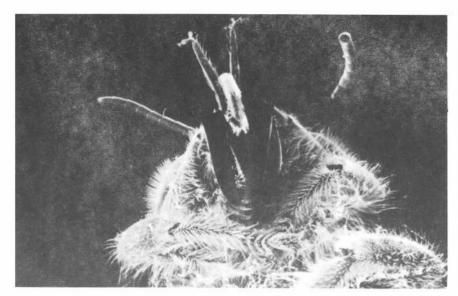
For the hobbyist it can mean so many more things. He has the leisure to review his hives and accumulate data daily if he is so inclined, he can study individual bees and parts of bees with the naked eye or under magnifi-

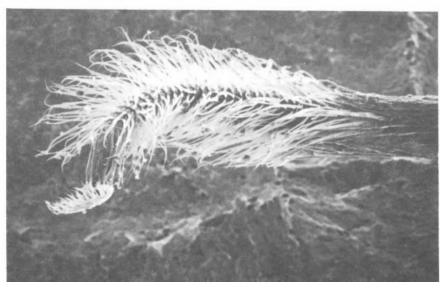
Even a simple hand lens is useful here. He can track down nectar and pollen sources and map the area with his findings, he can join with others to share his experience and information and opinions. In all this there is a great deal to be said for adopting an intellectual as well as a pragmatic approach to the whole subject of beekeeping.

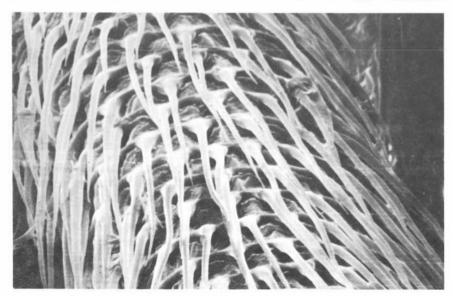




Photos from top: The "face" of the bee (x29); the surface of the compound eye showing lenses (x475); the probiscus cover (x120).







Photos from top: Underside of head with antennae at side, glossa (tongue) curled in centre, maxillae and labia. The tongue tastes, the other structures come together to form the tubular proboscis through which nectar is sucked (x14); the end of the tongue (x120); detail on curl of tongue (x475).

It is not merely the honey crop that attracts many apiarists, but everything is of interest, whether it be beekeeping or the bees themselves where every facet of their structure, habits, reputation, equipment, manners and morals has its own appeal.

The bee is a functional insect. It has evolved to perform a series of specific tasks and, while its structure may be a compromise between the ideal and the possible as all biological structures are, it nevertheless must be a source of wonder that something so precise and intricate can be 25 days in the making and then have a working life only slightly longer than this.

It may seem wasteful, but the system works. The bee has survived as a social insect for a long time

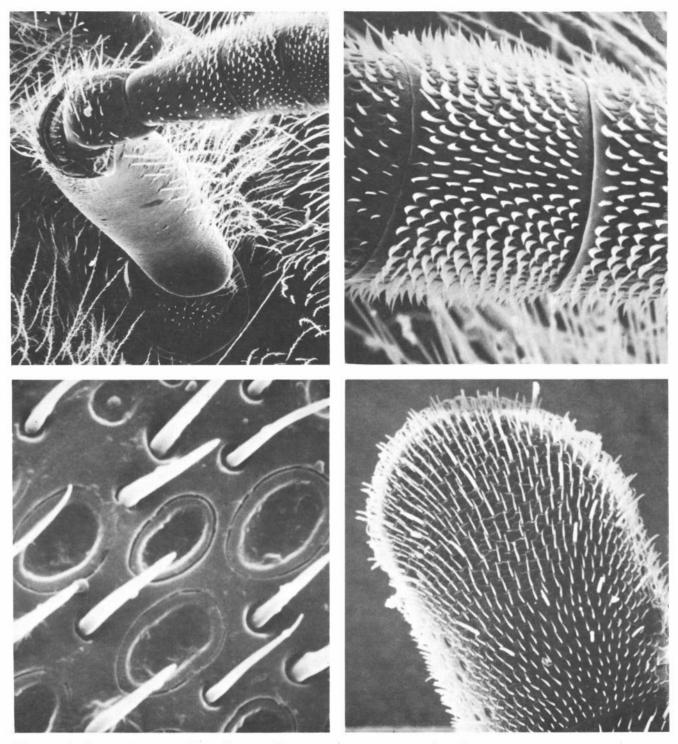
The bee suffers from a number of design faults, and we can only touch upon these here. The wings are sub-standard, deteriorating in perhaps 100 hours of flying to a point where flight is no longer possible and one working unit in otherwise functional order is lost to the hive. It has been suggested that this is a hygiene move, aged bees leaving the hive and not being able to return. Possibly, but there is much we have to learn yet.

The antennae are multi-jointed but each joint is hinged in one direction only, although this is partly compensated for by the elbow joint where it emerges from the head and by the fact that successive joints may be hinged in different directions.

The compound eyes are more suited to an overall view than a specific one, while the simple eyes, the ocelloi, appear redundant.

The mandibles appear clumsy and the proboscis and associated structures may be spring-loaded but do appear a somewhat clumsy device for selection and collection of dilute solutions.

The three pairs of legs function as supports, cleaners, balancers, and pollen collectors, but could be improved upon for all purposes by any structural engineer.



Photos clockwise from top left: One of the marvels of nature — the elbow joint and first segment of an antenna (x120); detail of antennal segment (x420); antennal tip (x240); poreplates on antenna, these are smell receptors, "smell" being the distribution of characteristic chemical molecules (x1900).

Pollen may be necessary for brood rearing, but the laborious process of inducing pollen to become entangled in the body hair, combing it with special leg appendages, directing it to one particular location on one pair of legs, there assembling it into adhering lumps and flying these back to the hive to have these removed before

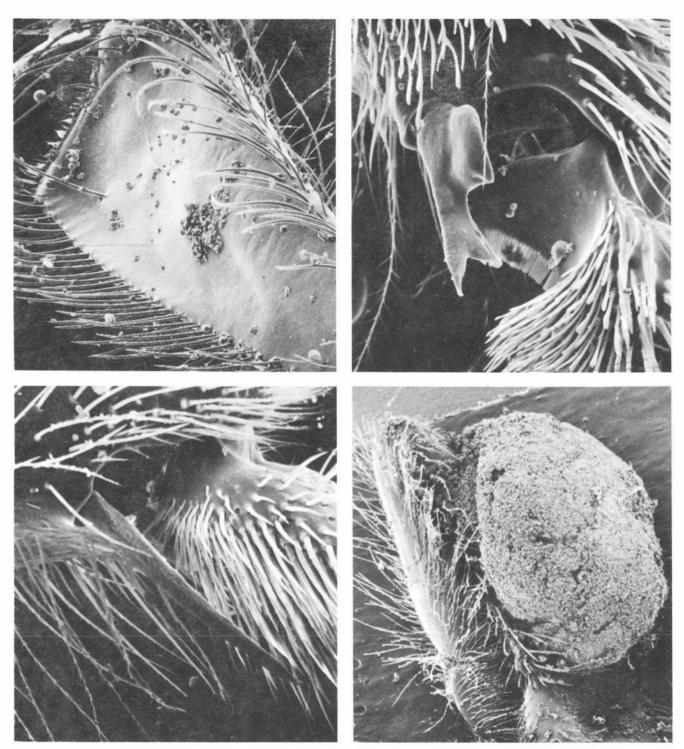
doing the whole thing over again calls for an easier way or a redesigned bee.

The body itself is semi-flexible, solid rings of chitin linked by flexible folds, thus enabling the bee to undulate, direct its sting, produce wax from glands in the lower abdomen interspaces, and so on, while the spiracles or

breath-exhaust holes may be likened to the portholes in an aircraft, inserts in the reinforcing.

The sting is a sting, effective against brittle chitin which it shatters, but barbed so that it remains in any flesh it penetrates.

Is the injection of poison involuntary, on impact, or is it in re-



Photos clockwise from top left: Pollen compaction site (x60); antenna cleaner on front leg (x120); pollen bundle ready for the hive; spur on second leg (x120).

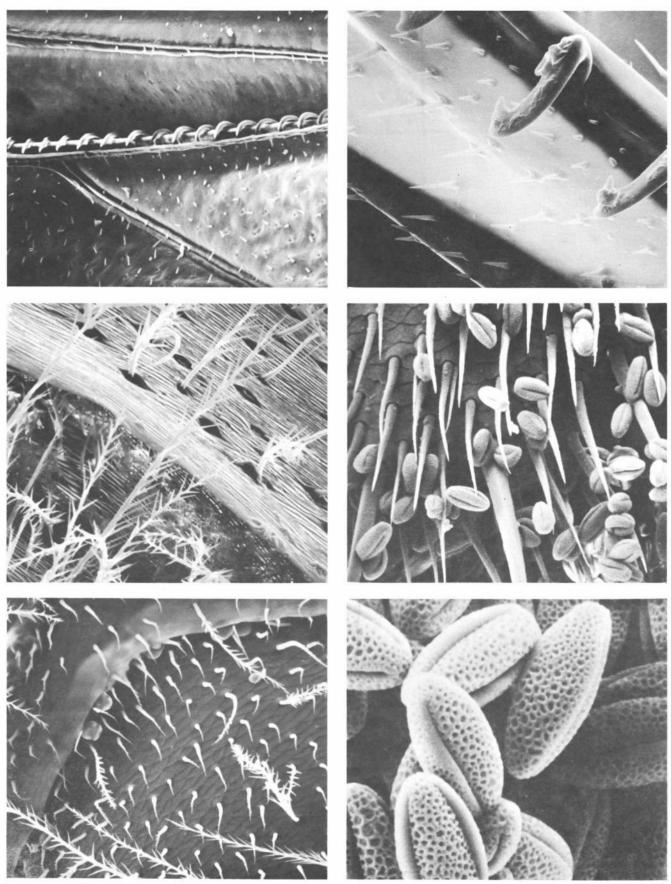
sponse to pressure on the barbs, or is it under direct control of the bee, an in-inject-out sequence? No doubt this has been investigated and the answer available in some text.

It does seem unfair that the bee should perish when the bee could achieve the same effect with a smooth shafted sting. However, this preliminary discussion leads us nicely in to the more interesting section of this article, wherein we may see more of some of the structures we have been talking about.

The following photographs are intended to show what may be seen even at low magnifications,

though some series continue from low to high magnification to give a better coverage.

We have concentrated upon those features that are more readily observable and most photogenic, but it is hoped that this superficial display will whet the interest of readers.



Photos from top left clockwise: The hooks which hold together during flight are shown in place (x120); the wing hooks detached (x475); pollen grains emeshed in leg hairs (cilia) — insect distributed pollen grains are large and sticky (x475); pollen grains from the goat willow (Salix capra), known as pussy willow when in flower (x1900); the underside of the bee showing wax flake production (x240); chitin plates showing branched cilia on the upper abdomen (x240).



METRIX

N.B. The ingredients in these recipes are in standard metric measures:

> t = teaspoon (5 ml)T = tablespoon (15 ml)c = cup (250 ml)

Honey yeast breads for a winter tum

WITH THE wind howling about the house and sleet slashing at the windows, it is time to shut out the tempest and follow the warm spicy fragrance of freshly baked honey breads wafting from your kitchen.

There is nothing quite like freshly baked bread still warm from the oven, and imagine the added delights of using honey from your own hives. You can also feel a little smug in beating the high bread prices, which certainly recompenses for the extra time needed in yeast cookery.

So, roll up your sleeves, don an apron, and prepare to be covered in flour from head to foot, as I tell you a little about yeast.

You can buy fresh yeast or dehydrated yeast. I prefer fresh yeast which is in compressed form in 1 oz packets which will keep in the refrigerator for two to three days. The dehydrated yeast is sold in packets and will keep for several months if stored in a cool, dry place.

1½ teaspoonfuls of dehydrated yeast can be used instead of 1 oz fresh yeast in a recipe. The dehydrated yeast will take longer to dissolve than compressed yeast.

When the yeast starts to work it creates the gas that gives bread its light, characteristic texture. If your bread is rather bullet-like it could be that the liquid is not warm enough — yeast either works very slowly or not at all in cool liquid.

When the dough is put in a greased bowl to rise, turn the dough over so that the top is lightly greased. This keeps the top soft and allows it to stretch easily as the dough rises. Cover with a clean tea towel.

When leaving the dough to rise in a warm place, make sure that there are no draughts. The top of the hot water tank or in a barely warm oven -80°F. — are excellent places.

So, wishing you good luck and a lot of pleasure, do try the following recipes and in no time at all you'll be hooked by the scrumptious combination of yeast and honey cookery.

HONEY PLAIT

1 cup milk ¾ cup water ½ cup honey 25 g butter melted butter

2 t salt 1 cake yeast 3 cups white flour

3 cups wholemeal flour

Heat the milk and water together and pour over the honey, butter and salt in a large bowl.

Stir until butter and honey are dissolved, then leave to cool until lukewarm.

Crumble in the yeast cake. Sift in about half of the white and half of the wholemeal flour.

Beat well with a wooden spoon, then add more wholemeal flour to get a sticky, but manageable dough.

Turn onto a board sprinkled with remaining white flour and knead this into the dough until a pliable and elastic mixture is formed.

Shape into a ball, and drop into a well-greased bowl. Cover and place in a warm place to rise for $1 - 1\frac{1}{2}$ hours.

Punch the dough down and knead again on a lightly floured board until the dough is springy, then divide the mixture into two pieces.

Divide each piece into three cylinders and plait together. Leave in a warm place to rise until double in size.

Brush with a little melted butter, then bake at 375°F. for about 45 minutes. * * *

CORNELL BREAD

3 cups warm water

½ cup soy flour

2 T honey 2 T yeast

% cup skim milkpowder 4 t salt

6 cups flour (1/2 whole- 6 t gluten flour meal, ½ white)

2 T melted butter

3 T wheat germ

Place water, sugar, yeast in a bowl and leave for five minutes. Sift flours, milkpowder, and stir in wheat germ. Stir salt into the yeast mixture, and then add half the flour, then butter, then the remaining flour, adding more as necessary. Knead for five minutes and put into a greased, covered bowl for 45 minutes.

Punch the dough down and knead again. Let rise another halfhour. Turn out and divide into two to three pieces, and let rest for ten minutes.

Shape into loaves and put them into buttered pans. Cover and let rise until double.

Bake at 350°F. for 50 to 60 minutes.

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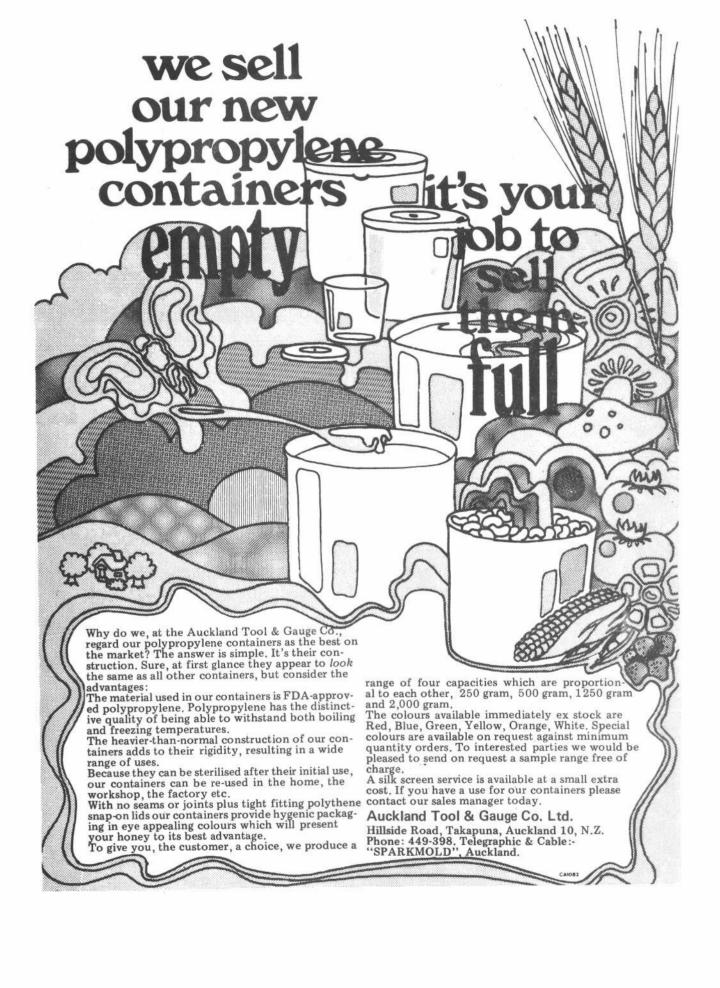
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