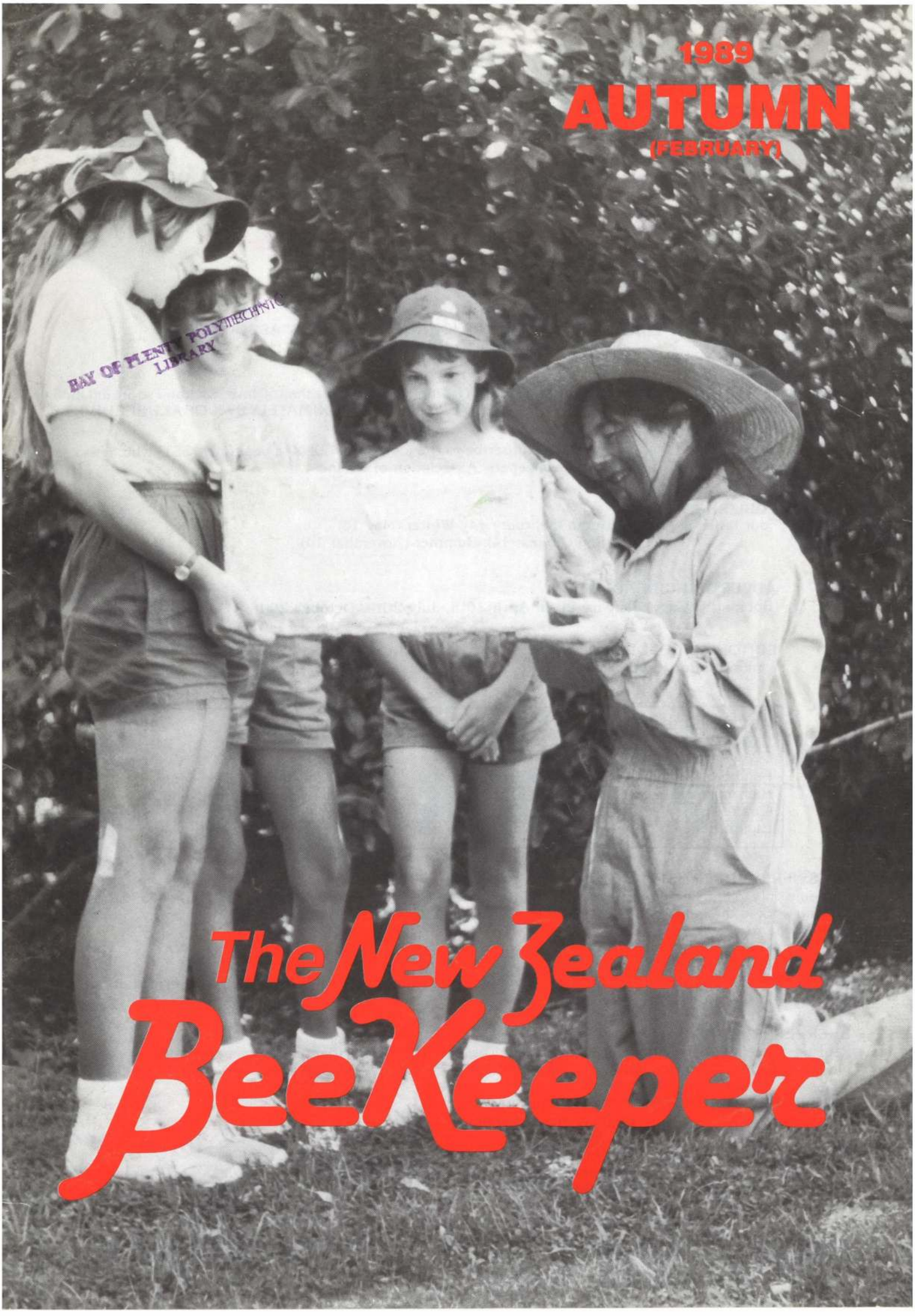


1989

AUTUMN

(FEBRUARY)

BAY OF PLENTY POLYTECHNIC
LIBRARY

The New Zealand BeeKeeper

The New Zealand BeeKeeper

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

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

To Beekeepers with less than 50 hives who subscribe to the journal at $22.00 a year (incl. GST) which also includes membership of the National Beekeepers' Association of NZ Inc.

PUBLISHED
Four times a year: **Autumn** (February 14), **Winter** (May 14)
Spring (August 14), **Summer** (November 14)

ADVERTISING DEADLINES
(Booking & Copy) **January 20th, April 20th, July 20th, October 20th**

EDITORIAL DEADLINES
1 month prior to publication.

ADVERTISING RATES Plus 10% GST.	Casual	Four Issues per insertion	Image Area
Full page black and white	$450	$400	27cm deep x 18cm wide
Half page (Horizontal only)	$240	$200	13cm deep x 18cm wide
Quarter page	$150	$125	13cm deep x 9cm wide
Eighth page	$105	$ 95	6.5cm deep x 8.5cm wide

CLASSIFIED ADVERTISEMENTS
Available only to registered beekeepers selling used hives, used plant, and other apiary equipment, and those seeking work in the industry. $16.50 for 20 words incl. GST payable in advance. No discounts apply. No production charges.

PRODUCTION CHARGES
Advertising copy: Bromides. Copy for which bromides are required, will be charged to the advertiser at net cost. Minimum charge $20.00 (incl. GST).

BEEKEEPER RATES
Registered beekeepers selling queen bees, used hives, used plant, and other used apiary equipment are eligible for an advertising discount of 20%. Where the rate is in doubt the publishers' decision will be final.

ADVERTISING MANAGER: **Mrs Elisabeth Burgess**
Burgess Media Services Ltd
P.O. Box 2131
WELLINGTON
Telephone: (04) 783-062 or (04) 789-316
Fax: (04) 783-062

ISSN 0110-6325

AUTUMN 1989
No. 201

The New Zealand BeeKeeper

Contents

FOOTROT FLATS™

Diogenes Designs Ltd

FRONT COVER: Girl Guides Joanne Oliver (Upper Hutt), Christine Baumberg and Sarah Whittaker (Hamilton), being taught about beekeeping by Leader Anne Clinch at a National Guide Camp. Photo: Pat Clinch.

NATIONAL BEEKEEPERS' ASSOCIATION
OF N.Z. INCORPORATED

President:
Allen McCaw, Milburn Apiaries, No. 2 R.D. Milton. Tel. 02997/4614.

Vice-President:
Gavin White, Hamama Rd, Takaka, R.D.1. Tel. 0524/58088.

Executive:
Stan Young, Wairau, R.D. 4, New Plymouth. Tel. 067/27414.

Executive cont. . .
Keith M. Herron, Greenvale Apiaries, No. 5 R.D., Gore. Tel. 02022/738.

Gerard J. Martin, Galatea. Tel. 07364/804.

Dudley Ward, Kintail Honey Ltd, 97 Guy St, Dannevirke. Tel. 0653/48301.

Executive Secretary:
Steuart Goodman, Dalmuir House, The Terrace, P.O. Box 4048, Wellington. Tel. 04/728102. Fax (04) 712882

Hon. Librarian:
John Heineman, Box 112, Milton, Tel. 02997/4614 (business), 02997/4613 (home).

BRANCHES

NORTH ISLAND

NORTHLAND
President: Mr Maurice McNabb, P.O. Box 3070, Onerahi, Whangarei. Tel. 08922/797. Secretary: Mr Cliff Van Eaton, Homestead Apiaries, P.O. Box 70, Kerikeri. Tel. 0887/487179

AUCKLAND
President: Mr G. Cammell, 133 Walmsley Rd, Mangere. Tel. 09/2756457. Secretary: Jim Thompson, 125 Queen St, Pukekohe. Tel. 085/87464.

WAIKATO
President: Mr R.A. Berry, Waiotapu, R.D.3, Rotorua. Tel. 073/38092. Secretary: Mr Tony Lorimer, "Kahurangi-o-Papa", R.D.3, Hamilton. Tel. 071/69-625.

BAY OF PLENTY
President: Mr S. Weenink, Lower Kaimai, R.D. 1, Tauranga. Secretary: Mr P.M.I. Townsend, Old Coach Road, R.D. 6, Te Puke. Tel. 075/33-658.

HAWKES BAY
President: Mr John Dobson, Bee Farm, R.D.1, Hastings. Tel. (070)60962. Secretary: Mr Gordon Sutton, 909 Maraekakaho Rd, Hastings.

POVERTY BAY
President: Mr Greg Colebourne, Bushmere Road, Gisborne. Tel: 079/89887 Gisborne. Secretary: Mr Peter Lamb, 297 Stout Street, Gisborne. Tel. 079/83145.

SOUTH WESTERN DISTRICTS
President: Mr V. Gledstone-Brown, R.D. Mangaweka. Secretary: Mr M. Farrington, P.O. Box 100, Longburn. Tel. 296839

SOUTH ISLAND

MARLBOROUGH
President: Mr Rod McKenzie, 13 March St, Spring Creek, Blenheim. Tel. 057/25537. Secretary: Mrs Sue Jenkins, Old Renwick Rd, R.D.2, Blenheim. Tel. 057/89325.

NELSON
President: John Moffitt, R.D. 2, Wakefield Secretary: Mr Philip Cropp, Main Road, Motupiko, R.D. 2, Nelson.

WEST COAST
President: Jack Wilkes, Kongahu, R.D. 1, Westport. Tel. 028926/790. Secretary: Graeme Roxburgh, Oparara Apiaries, R.D. 3, Karamea. Tel. 028926/822.

CANTERBURY
President: W.L. Hanty, High St, Dayleston. Secretary: Mr R.D. Bensemann, Greenpark Rd, R.D. 4, Christchurch. Tel. 03292/831.

SOUTH CANTERBURY
President: Mr J.W. Van Hoof, Gapes Valley, R.D.21, Geraldine. Tel. 05634/857. Secretary: Mr N. Trezise, 11 Trafalgar St, Timaru. Tel. 056/83806.

NORTH OTAGO
President: Mr R.B. Rawson, 23 Aln St, Oamaru. Tel. 0297/45242. Secretary: Mr G.R. McCallum, 7 O.R.D., Oamaru. Tel. 029728/676.

OTAGO
President: Mr Paul Marshall, Telford Farm Institute, Pte Bag, Balclutha. Tel. 0299/81550. Secretary: Mr Neil Walker, Milburn Apiaries, No. 2 R.D., Milton. Tel. 02997/4015.

SOUTHLAND
President: Mr I.K. Spence, Wendonside, R.D.7, Gore. Tel. 02027/804. Secretary: Mr Russell Rhodes, R.D.5, Gore. Tel. 02022/585.

The New Zealand Beekeeper is published by the National Beekeepers' Association of NZ Inc., Dalmuir House, The Terrace, P.O. Box 4048, Wellington. Telephone (04) 728-102.

Annual subscriptions available from the above address are: New Zealand $22.00 (incl. GST). Overseas airmail: Australia & S. Pacific $US19.00; N. America & Asia $US24.00; S. America, Europe, & Middle East $US28.00. All overseas surface $US16.00. Payment by bank draft or cheque only.

Editor: Michael Burgess. Advertising Manager: Elisabeth Burgess. Burgess Media Services Ltd., P.O. Box 2131, Wellington. Telephone (04) 783-061, (04) 789-316, Fax (04) 783-062. Letters, photographs, articles should be sent to the editor. Payment for articles and photographs published is at the editor's discretion. For advertising rates see page two.

1988 — a year to forget, or a lesson to be learned?

From Allen McCaw, President, NBA

The wisdom which comes from hindsight is easily obtained, but I wonder what lesson the beekeeping industry will learn from the events of 1988 as we look back. Undoubtedly it was a year of extremes, especially in climate, but also in the market for our products.

It was the year in which Cyclone Bola struck with devastating results for a number of beekeepers, and in which many areas have had to endure one of the worst droughts of the century, still prevailing in most eastern districts. Ironically, those living on the South Island West Coast have suffered from several major floods with record rainfalls, and the far north beekeepers must have all grown webbed feet by now with continual rains and low sunshine hours.

As if battling the elements hasn't been enough, we have also had to contend with continuing exhorbitant interest rates, made worse by a Government which seems intent upon self-destruction; a fluctuating international exchange rate; the collapse of kiwifruit prices which have an effect upon pollination activities; and a high degree of chaos in honey markets both locally and internationally.

Little wonder I have observed a lack of confidence amongst beekeepers, and a number of forced defections from our ranks, including several quite sizeable commercial operators. How can anyone reasonably expect to carry on a viable operation in the face of these odds?

Over the past year we have seen bulk prices paid to beekeepers drop by as much as 40%, to levels which equate to those received eight or 10 years ago. Doubtless the general decline in world prices for bulk honey is a factor in this drop, but an examination of our exports statistics for honey for 1988 show a remarkably good performance. This has probably been the brightest spot in a fairly gloomy picture for the year, in that it seems that much greater effort has been made by exporters on the world market, with positive results.

There has been a marked increase in exports of packed lines of honey into markets previously untried; specialty lines have maintained good prices, with increases in some cases, and even the lesser amounts of bulk honey exported have often shown good returns. Overall, it appears we will have exported close to 2000 tonnes of honey in various forms over the year, which is about the amount we were led to believe was causing an excess on the local market, with consequent price-cutting amongst packers.

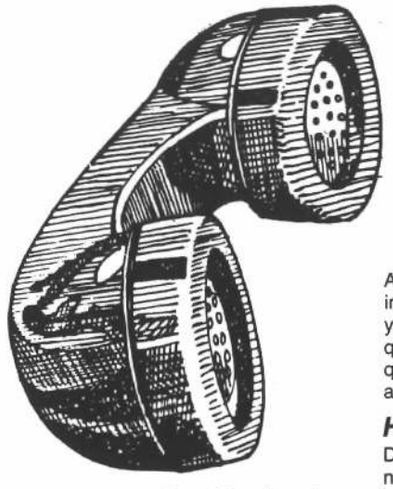
Do you need Quality Queens

Call-A-Queen and Bee Service

Telephone 1228 Kaitaia

PLEASE NOTE: Our telephone number changes December 1988 sometime!
To (STD CODE 0889) 82200

FOUNDATION MEMBER NZQBPA



HERE'S WHY:

You will get high quality Italian queens bred under natural conditions for a fast build up, honey production, temperament and good over-wintering.

A continual breeding improvement programme over 30 years ensures the best quality queens your money can buy. Our queens are sold to nine countries around the world.

HERE'S HOW:

Decide how many queens you need — whether 1 or 1000 and call us. Our phone is usually unattended from 8.30 a.m. till 5.30 p.m. but then our answer phone will take your message. Don't forget your name and full address and phone number along with your order or enquiry.

PRICES 1988 31st MARCH 1989

QUEENS

1-5.....$10.50 6-49.....$9.50

50 or more $8.50
All plus GST

Discounts for bulk orders by arrangement. Price includes postage. September fully booked.

PACKAGE BEES

1-8.....$32.00 9 +.....$30.00

Plus freight at cost, plus G.S.T.
Delivery from October 1st

TERMS OF TRADE

All Queens, Packages, Nucs and Cells deliveries are subject to terms and conditions set out on our confirmation of order.
ADVISE NOTE. Payment is due 7 days prior to despatch date. Credit terms by arrangement only.

Try us first as quality always pays

HAINES BEE BREEDERS LTD
R.D. 2, KAITAIA
Telephone — 1228 — Kaitaia

So let's have a look at the local market situation then, and try to examine the reasons for the "dog-eat-dog" situation which seems to have prevailed. All of us can cite examples of extremely low "specials" being offered in supermarkets during the year, and at various times the finger has been pointed at large packers, and smaller producer-packers for creating this situation. In truth, I believe we have all had a part to play, and must all accept some responsibility for it.

There is no doubt in my mind that some larger packing organisations have seized the opportunity to recover some of the losses of 1987 when bulk prices were perhaps artificially high, and to gain more market share. In a relatively finite domestic market, this has meant someone else misses out, and it is also understandable that a smaller producer-packer will take a price-cut to retain his minor portion. Which leads to the downward price spiral we are now all too familiar with.

However, we are deluding ourselves if we believe our efforts have that much influence on the local market. Supermarket chains are highly organised in their buying activities, which is a claim we definitely cannot make in our selling operations in most cases.

Wholesale prices have definitely slumped, but the retail price to the consumer has not, as witnessed by the Statistics Department figure for retail prices surveyed throughout the country each month. Over the past year these have altered little more than two or three cents up or down, a far cry from the 50 cents or more drop in bulk prices to the producer, and wholesale price falls!

So what does all this indicate about our local market for honey? Firstly, it is clear that supermarket buyers are doing their job very effectively — purchasing product as cheaply as possible, and ensuring it sells at the greatest mark-up according to what the consumer will accept, making that item a very profitable one for their company. Little do they need to care for the producer — in an oversupply situation there is always someone else waiting to step in with the "right" price.

Secondly, it means what many of us should already be aware of — that generally speaking we are weak sellers, whether bulk producers or packers of our product. There are exceptions of course, but no-one can afford to stand by forever and watch his markets being eroded by undercutting from other less-astute operators.

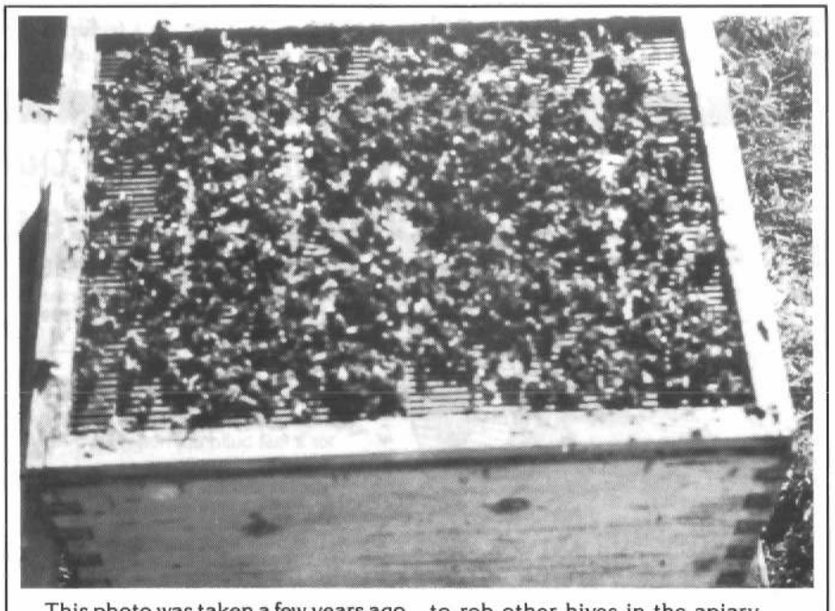
If there is one major lesson to be learned from the past year it should be that we need to be as well organised and informed as those to whom we are selling. From my own limited experience in the organisation of this industry, I would suggest that history shows the lack of co-operation and cohesion will continue to ensure we remain as weak sellers until we are determined to remedy the situation for ourselves.

What then are the early indications for 1989? At the time of writing this (early January) all the signs are for a marked decrease in honey production in New Zealand this season. The same extreme weather conditions described above have adversely affected production in many regions, with some bright spots, but a below average expectation overall. This should mean no excess of production to contend with, and if the usual inverse relationship between quantity and price applies, then prices should move up to more realistic levels quite quickly.

We all have a part to play in ensuring this does occur — as a producer we can ensure we have all the facts before making a decision to sell — shop around and choose carefully after assessing the real return you will receive. If you have limited amounts of product after a poor production season, then be sure to gain the best return for it. Even a bank manager can understand that logic, no matter how large your overdraft, so work towards an understanding from your bank. If they don't want to co-operate, change your bank — there's is a very competitive environment now as well.

As packers, we should be sure our customers are aware of the probable situation, and be pitching our prices at an appropriate level, namely upwards. The export market continues to be difficult presently, but there are clear indications that buyers are playing a waiting game also, (they too, are well-informed). World production has declined this year, consumption is increasing, and the US stockpile is diminishing fast — all factors in favour of an improvement in returns for our valuable product.

Overall I see signs for optimism in the coming year, although there will be added difficulties for many from poor production on top of last year's low returns. There is also no doubt in my mind that we can help ourselves greatly by being better informed, and taking an active part in the affairs of the industry. After all, they are our own affairs.



This photo was taken a few years ago in Central Otago, on the high tussock country back of Naseby. It shows a bad case of robbing by bumble bees. I found it while taking honey off hives in the summer.

This hive had two boxes of honey above the excluder. The top box had a knot hole at the back through which the bumble bees entered. Some must have been unable to find the way out, or were attacked by the hive workers, because I found over 500 dead bumble bees on the excluder.

Most of the honey robbed was from this hive, but bumble bees were trying to rob other hives in the apiary.

For some years I have noticed a build-up of bumbles in the high country. They have become a problem and it would be interesting to know how they are affecting honey production.

Honey bees appear to tolerate robbing at the height of the honey flow. It seems they are too busy with other duties.

The fluctuation of the bumble bee population is also of interest. A cold winter does not always seem to reduce their numbers. Perhaps there are other factors.

C. Max Lory

LETTERS

Dear Sir,

I write to ask you if you would be kind enough to put me in touch with anyone able to supply NZ Queens next year 1989 around the end of April or the begin of May.

Any expenses incurred please let me know. I will reimburse you.

K.G. Prince
Elter Cottage
off Christ Church Rd
Virginia Water
Surrey GU254PT
England
Tel. 099044062

Dear Sir,

We are interested in obtaining a copy of any articles, etc. you may have published in the past discussing the merits of a 33mm end bar and a 35mm end bar. When did the major change over to a 33mm end bar take place and for what reason? We would appreciate any information you could offer us.

Hope you had an enjoyable Christmas. Best Wishes for 1989.

Yours faithfully

Lynne Perkinson
Mahurangi Hive Ware
Pukapuka Rd,
R.D. 3
Warkworth

Dear Sir,

Please send me a free sample copy of your subscription New Zealand Beekeeper. I have read your ad in the American Beekeeper. I am a beekeeper in Johore, Malaysia, and also supervising hives in Bagris, Philippines.

Tropical beekeeping has different problems than when I was in Michigan, USA.

As of yet I have not found import restrictions, only in India, but we will see that it can be prevented.

The bees here have chalkbrood and mites, verroa and tropclairae, but as yet no foulbrood fortunately.

Ants are a big problem.

Eliot Lee
27 Wilkinson Road
Tarjong Katong
Singapore.

Dear Sir,

We find it encouraging that the subject of Organic Agriculture is becoming increasingly topical, with growing numbers of articles and letters to the Editor appearing in both local and national media.

We are keen as an Association that informed discussion on this subject be promoted and would like to take the opportunity of very briefly describing the methods of Bio-Dynamic Agriculture and introduce the New Zealand Bio-Dynamic Farming and Gardening Association and its activities in this country.

We would also like to offer ourselves as a source of information should you require it.

The methods and understanding of Bio-Dynamic Agriculture have been developed and refined over the past 60 years from indications given to practicing farmers by the Austrian, Rudolf Steiner, PhD in the 1920s.

These indications were given in a period when the then "traditional" forms of European agriculture were beginning to show a decline in quality and productivity. This was also the time when the theories of Justis von Liebig, often described as the "father" of modern agriculture, had such a profound influence, resulting in the beginning of the modern chemical approach to agriculture.

The details of the now "traditional" chemical approach need little amplification here, save to say that while yields have been increased and certain plant diseases and pests have been supressed to varying degrees, there are growing questions as to the sustainability of such a system, the quality of the yield and the ecological effects of the products used, both in their manufacture and application.

Bio-Dynamics, which has been practiced in New Zealand for the last 40 years, is essentially an organic system of agriculture but with a greater emphasis on soil health and biological activity than the conventional understanding of organics. This is achieved by the use of composts, liquid manures and sprays, carefully prepared from plant, animal and naturally occuring mineral substances, which enliven the soil and promote healthy balanced growth.

The Bio-Dynamic technique is rapidly developing and expanding in application both in New Zealand and world wide. In this country there is at least one farmer each week converting to Bio-Dynamic methods.

There is an internationally registered Certification Mark, "Demeter" awarded to produce grown under a strict Bio-Dynamic management. At present there are seven producers in New Zealand attaining the recently established in New Zealand "Demeter" standard and a significant number in a transition stage. We demand at least three years of Bio-Dynamic work before awarding the Mark.

The attraction of this method to farmers and horticulturalists, is the resultant increases in health and quality of pasture, crops and animals on a totally sustainable basis without the use of agricultural chemicals. The importance of these factors, as you are no doubt aware, is becoming increasingly recognised world wide.

We believe therefore, that the future domestic and export potential of Bio-Dynamic ("Demeter") produce is of major significance to New Zealand. To date there has been Lamb, Wool and Kiwi Fruit of Demeter standard exported.

Whilst the methods have to date been developed and recognised primarily in Europe, (in Germany alone, there are 3,000 outlets for Demeter produce, and in Holland it is estimated that about 15% of the population are buying this type of produce), recent media articles point to a growing world trend towards consumption of organically produced food.

The New Zealand Bio-Dynamic Farming and Gardening Association currently has 800 members, of whom over 100 are practicing farmers or horticulturalists. These include Dairy, Sheep, Beef, Deer and Goat farmers, Market Gardeners and Orchardists growing varieties of fruits, including sub tropical, throughout New Zealand.

To meet farmers' demands for information on the practice of Bio-Dynamic techniques, the Bio-Dyndamic Association offers an on-farm advisory service. We hold regular district Field-days, (this year 12), attended by up to 80 people each, and regularly contribute to the annual Mystery Creek Field Days. We maintain a very comprehensive postal library and publish four information Newsletters a year.

To summarise: We are keen to encourage well informed discussion on the subject of Organic agriculture, our particular emphasis being Bio-Dynamic methods. In order to facilitate this where possible we would welcome any enquiries and opportunities to share our resources.

Peter Proctor
Field Advisor for The New Zealand Bio-Dynamic Farming and Gardening Association
P.O. Box 969
Napier

HONEY BAKED PEARS

8 pear halves
¼ cup lemon juice
½ cup honey
1 teaspoon cinnamon
2 tablespoons butter

• Arrange pears in shallow buttered baking dish. Pour over the lemon juice and honey. Sprinkle with cinnamon and dot with butter. Bake in moderate oven at 350°F. Serve hot with cream as dessert. Peaches prepared this way make a delicious dessert.

A MORE EFFICIENT FEEDER

By Gerrit Hyink

Being involved in kiwifruit pollination and an advocate of feeding hives during kiwifruit pollination, there was the need for designing a new feeder in order to keep labour and the number of kilometres on the road to a minimum. We think this feeder-design has the following advantages:

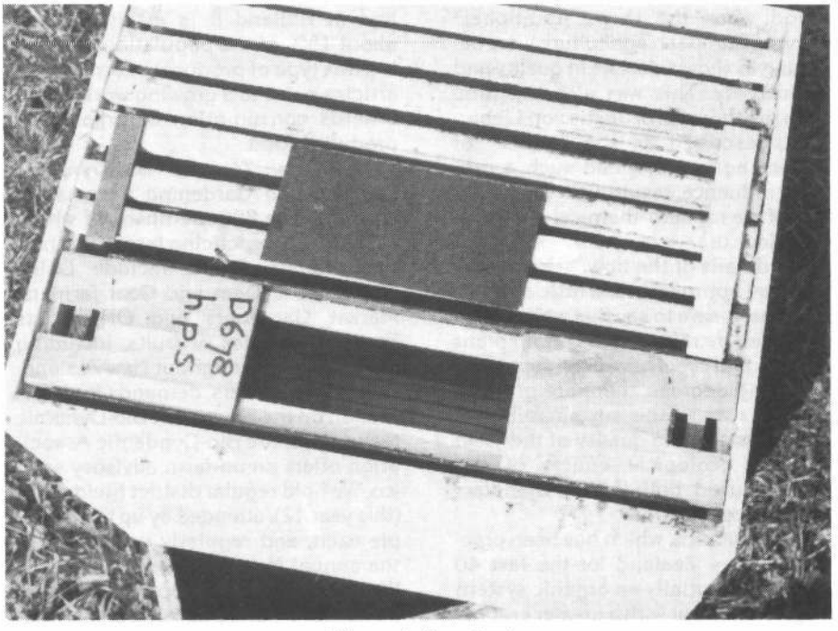


Figure I. See text.

1. To be able to control the quantity of sugar syrup the bees take each day.
2. To fit in the hive, like the division-board feeder and to fit into a standard full-depth or three quarter box.
3. To enable the bees to empty the feeder completely.
4. To prevent drowning of bees.
5. To contain five litres or more.
6. To be able to be used for feeding dry sugar.

For a description of the feeder, see Figure 1. This is a top-view of the feeder fitting in a three quarter super. It takes about the space of three frames, assuring a content of at least five litres. For a full-depth model it will take about the space of two frames. In the middle we see the big opening. It is used only for filling up the feeder. For feeding dry sugar the lid is left off so the bees have free access to the whole feeder. If we feed sugar syrup, we fill it up and close it off with the lid. The bees can take the syrup from feeding spaces at each side of the feeder. Both sides have feeding spaces. That enables the bees to empty the feeder completely. The feeding spaces are narrow so that bees cannot drown. The bees have access to the feeding space by means of an opening just under the top bar on each side of the feeder. That means in case the feeder is in the top box just under the lid or hive-mat, the bees can always enter the feeding spaces. The other parts you see in Figure 1. are feeding space restrictions. These can be used to control the quantity of syrup the bees take every day. The part on the left is a strip of hardboard which closes off just one side. We don't use that because then you are dependent on the position of the hive, which changes after shifting hives.

The part on the right, the restriction bar, can be used very easily on both sides and limits the take of syrup. The width of this bar can be changed by exchanging bars if a different feeding speed is required.

It is difficult to test the feeders under all circumstances because there are many parameters. For instance which solution of sugar-syrup do you use at which time of the year and at which hive-strength? We tested the feeder in well-populated hives during March with little natural nectar flow. We used sugar-syrup: one kg sugar to one litre water. We think that is the most likely syrup to use if you want to restrict the speed of feeding.

The results were:

Feeder-Condition	Average Quantity Taken By Bees
1. Both sides open	2 litres per day
2. One side closed	1.1 litres per day
3. Both sides restricted by bars with width 24 m	.45 litres per day

In case three it means hives will take an average of 11 days to empty a full feeder. If we narrow the restriction bars, feeding speed will increase. We found this ideal for kiwifruit-pollination. At present the feeder-materials are timber and hardboard glued together and waxed. In the future, dependant on numbers, it could be worthwhile to look at alternative materials. Our feeder is protected by a provisional patent (Patent App. No. 221179).

HONEY CINNAMON TOAST

• Toast slices of bread on one side. While still hot, butter the untoasted side of bread. Spread buttered side with honey. Sprinkle cinnamon over the top. Place slices under broiler flame until the bread is well browned and the dressing is well blended.

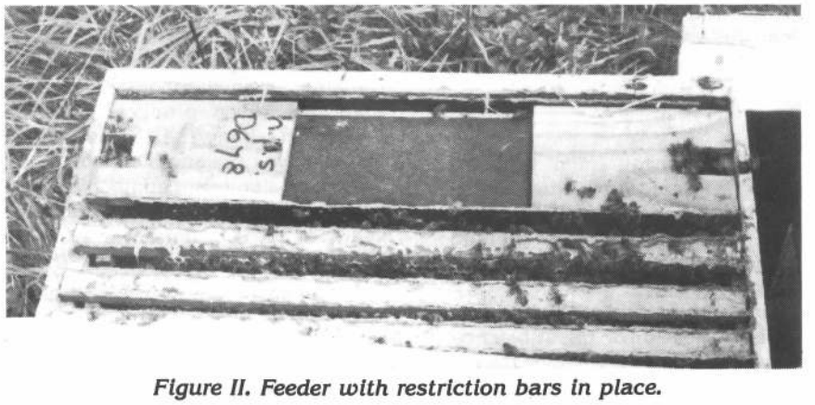


Figure II. Feeder with restriction bars in place.

INVERMAY APICULTURAL RESEARCH AND ADVISORY UNIT

From Stephen Ogden

The Invermay Apicultural Research and Advisory Unit (IARAU) was established in September 1987 with the intention of drawing together bee research, advisory, and educational organisations in Otago/Southland, and to co-ordinate research activities in the Otago/Southland region with those of the Ruakura Apiculture Unit. The members of the unit are Dr Barbara Barratt (Convenor IARAU), Science Co-ordinator, Entomology, MAFTech Invermay; Ron van Toor (Secretary IARAU), Technical Officer, MAFTech Invermay; Stephen Ogden, Scientist, MAFTech Invermay; Dr Alison Mercer, Senior Lecturer, Department of Zoology, University of Otago; Allen McCaw, President, National Beekeepers' Association; Dr Bruce Allan, Officer-in-Charge, Tara Hills High Country Research Station; Clive Vardy, Apicultural Operations Manager, MAFQual, Gore; Ian Lyttle, Principal and Paul Marshall, Bee Unit Manager, Telford Farm Training Institute, Balclutha.

Meetings are held twice each year and the third meeting was held in September 1988. Current research projects are discussed, results evaluated, and new projects considered. Information provided by Allen and Clive on the state of the New Zealand and international beekeeping industries is valuable as this enables us to be more aware of the needs of the industry and of worthwhile research projects.

Research in Progress

Stephen Ogden was appointed Apicultural Scientist in a two-year position jointly funded by MAFTech and the Miss E.L. Hellaby Indigenous Grasslands Research Trust. Stephen began work at Invermay in August 1988 following completion of his PhD studying "Contribution of honeybees to white clover pollination in hill and high country grasslands under development in Otago". Research papers from this work will be published and two major projects stemming directly from the PhD study will continue during the next two years.

Honeycrop failures in the third summer of production from high country apiaries have been observed by a number of beekeepers, and were quantified last year by Stephen in an experimental apiary in Central Otago. Pollen deficiency is thought to be the cause of these crop failures, however other factors such as the requeening programme or harsh winters may have contributed to poor honey production. If the bees can't gather enough pollen to meet colony needs, then over one or two springs pollen stored in the hive will be consumed and not replaced. Even if the colony has pollen stored in combs the nutritional value of the pollen will degrade over two years and may be worthless to the bees. During the spring build-up high country colonies may be pollen deficient, causing nurse bees to rob their own bodily protein reserves (fat bodies, flight muscles) to produce the royal jelly to feed to the brood. Consequently less brood is reared, emerging bees will have a protein deficiency and be poorly suited to feeding the next round of brood, and the nurse bees that go on to be foragers will have weak flight muscles and reduced life span. The effects of pollen deficiency are therefore progressive, resulting in populations of foragers too small or too weak to produce a good honey crop.

An investigation of the effects of pollen deficiency in high country apiaries will begin in October 1988. A number of high country and lowland apiaries will be surveyed throughout Otago to determine whether pollen deficiency is a widespread problem, and whether pollen deficiency is restricted only to the high country.

The effect of pollen deficiency on honey production will be measured from two groups of hives near Hindon, Otago. One group will be supplied with a pollen supplement and the other group will receive no supplement. Protein content of the bees will be measured through the spring and subsequent honey production will be compared.

In the spring of 1989 a number of management techniques will be compared to overcome pollen deficiency in the most cost-effective manner.

The second project concerns the amount of legume reseeding required to establish and maintain high country pastures. Honeybees are necessary for high levels of white clover pollination and seed production to be achieved in the high country. However it is not yet known how much seed is needed to maintain these pastures. This research will enable the true value of honeybees in the high country to be calculated.

Dr Alison Mercer will continue her research into the neurophysiology of the honeybee brain. Alison is currently supervising two MSc students and one BSc (Honours) student and has two PhD students who have recently completed their studies, all working on aspects of bee research. One of the MSc students, Tim Giles (co-supervised by Stephen Ogden) will be working with Stephen on the pollen deficiency project, and will measure hypopharyngeal gland (brood food gland) development in worker bees as a further indication of their protein status. Tim will also look at other aspects of honeybee nutrition and food preference.

Dr Bruce Allan's work on the effect of sheep grazing management on vipers bugloss honey production at Tara Hills is continuing this summer. The effects of various grazing/spelling treatments during spring on the amount of vipers flowering and nectar yield are being examined. The influence of spring verses autumn introduction of queens on honey production is now into the second year of a three-year evaluation.

Ron van Toor has almost completed his work on the parasitic status of *Melittiphis alvearius* and control of the mite with the acaracide fluvalinate in bee packages. This research is currently being prepared for publication.

Invermay's Apiculture Unit and DSIR (Lincoln) are assisting David Brown (Consultant, MAFQual, Invermay) in assessing the effectiveness of short-tongued bumblebees for pollination of a new variety of lucerne for production of lucerne seed sprouts. The use of lucerne leaf cutting bees and rotational saturation of the crop with large numbers of honeybees is also being considered.

TO PURCHASE HONEY

• Select the flavor you desire. The flavor depends upon the kind of flowers from which the bees gather nectar. Honey producers frequently mix several honeys by heating moderately and stirring to produce a blend with a flavor which is most satisfactory. If you have storage space, it is more economical to buy honey in large size containers.

Computer Cash Books Make Life Easy

From Ken Trevathan

Do you keep a cash book? Handy isn't it to see where you are heading? Or are you one of the many who deliver an annual shoe box of papers to a friendly but expensive accountant?

For those who keep a cash book and are tired not only of the drudgery of, but of finding and correcting, the errors before the book balances each month, here is an easy and accurate way of keeping yourself informed. It is a simple cash book for use on a computer.

This neat little inexpensive programme, called a PC General Ledger is readily available. It is distributed for less than $20.00 and if after you have tried it you like it, you pay a small registration fee to its author.

So how can this programme help your beekeeping business? It gets rid of pencil, rubber and calculator. It allows you to enter from time to time each month your cash receipts and payments. At the end of each month with very little help from you your computer will list these entrys, sort them into categories, and produce a financial statement showing your current position. It is easy and demands little knowledge of accounting to produce good results.

Let's turn the machine on. We enter today's date and ask it for the 'main menu'. We select the 'chart of accounts' because the first task is to tell the computer the names of the pigeon holes

```
                        No. 2
                  CASH RECEIPTS                    Last Ref: RC 377

Adding      New Entry
Refer       ——          Description                          Date
            Line        Account     Account Title          Amount

Bank Balance$           -9,798.06                    Entry Balance 0.00

        TYPE CASH RECEIPTS REFERENCE 'ESC' WHEN DONE
```

```
                        No 3.
                  CASH RECEIPTS                    Last Ref: RC 377

Adding      New Entry
Refer       RC 378      Description Best Honey Packers Ltd   Date 06-12-88
            Line        Account     Account Title          Amount
            1           1010        Overdraft — BNZ Ltd    3300.00
            2           4000        Sale of Honey          3000.00-
            3           2005        Tax Due — GST           300.00-

Bank Balance$           6,498.06                     Entry Balance 0.00

    TYPE 'A' TO ACCEPT AMOUNTS ('ENTER' TO MAKE CHANGES)
```

PC-SIG

Check Register as of 06-12-88

Check Num	Amount	Description	Date	Distribution
8292	3,151.50	Milburn Apiaries Ltd	02-11-88	
		6030 Sugar Purchases		2,865.00
		2005 Tax Due — GST		286.50
8293	381.26	BNZ Ltd	04-11-88	
		1715 Term Deposits		381.26

V. L. SMITH & SONS LTD.

MANUFACTURERS OF ALLIANCE QUALITY BEEKEEPERS WOODWARE

- Top Quality Woodware
- A Full Range of Woodware available
- No Order Too Big or Too Small
- Export Inquiries Welcome
- N.Z. Largest Manufacturers of Beekeepers Woodware
- Lock Corner Supers a Specialty

BUY ALLIANCE — BUY QUALITY

For further information please contact:

V.L. Smith & Sons Ltd
222 Beach Road, KAIKOURA
Telephone (0513) 5447
After Hours Danny Smith 5869 or Mark Smith 5726

Stuart Ecroyd Bee Supplies
7/10 Sheffield Crescent, CHRISTCHURCH
Telephone (03) 587498
After Hours Stuart Ecroyd (03) 587137

We will BEE KEEPING the Industry Housed

(known as account names) we wish to keep each kind of income and expenditure in. This task is done once only, when you first set up the programme and need never be repeated. It is probably the hardest to understand if you have no knowledge of accounting, but basically an account name is needed for each description on last year's annual accounts as prepared by your accountant. Look at them now. Compare them with illustration number one which is a chart of accounts I have prepared. My headings may differ from yours but that is unimportant. Change them to what suits you. Now enter these into the machine following the prompts which appear on the screen. Your new electronic cash book is now ready to work for you.

Now let's move to the day-to-day entries. if you have many entries for a month you can enter them as they occur or save them up until the end of each month. Let's say for this month you have one item of income only: a payment of $3,000.00 from your packer. From the main menu you select 'Enter Receipts' and are confronted with diagram two: a simple template asking you to give the computer your reference number (I use the receipt number), the person paying you, and the date of receipt. After entering this information you are given the chance to make corrections if you wish before entering the details of the cash received.

The computer now asks how much money you have banked so we enter the $3,300.00. Now the machine wants to know which accounts you wish to put this money into. Because it is for the sale of honey we type in the word 'honey'. The computer searches the list of accounts we entered earlier for one with the word 'honey' in it and comes up with 'Sale of Honey'. We now enter $3,000.00 as the amount received from the sale of honey, remembering that 'cash received' is a credit and is therefore entered as a minus amount. At the bottom of the screen in the position marked 'Entry Balance', a balance of $300.00 will show because the computer has deducted our $3,000.00 from the $3,300.00 we have entered as banked. The remaining $300 is for GST. We enter GST and the computer comes back with an account called 'Tax Due — GST'. We credit the $300 on to that and the 'Entry Balance' now shows nil. The computer will not accept an entry unless the balance is nil which ensures that at all times your computerised accounts are balanced. In other words, it is not possible for you to discover at the end of the period that your accounts do not add up correctly. A final point. You will see at the bottom of the screen a place headed 'Bank Balance'. This is recalculated after each entry so that you know your current bank balance at all times. Look at diagram three and you can see the entry we have made.

Now let's enter some cheque butts. We use exactly the same method as I described for receipts. The cheque number is entered automatically because the computer remembers the number of the last cheque you used and enters the next number at the push of a key. You then enter the name of the supplier and the date, also entered automatically should you wish. Finally, enter the value of the cheque and the account you wish it to be apportioned to as you did with the receipts.

With all entries completed we print out a list of all receipts and payments for the month. Look at diagram four which is a sample of the printout of cheques for the month. See how the full amount of the cheque is shown on the left while the allocation to the different accounts is shown on the right. Just like your old manual cash book. See the total expenditure for the month printed at the bottom.

All very well you may say. Nothing gained over the manual cash book except that this one balances every time. But take it a bit further and see what else the programme can do. We can now print out all receipts and payments, category by category. See diagram five, just part of a print out but it shows the expenditure for the month of April for Freight, Interest, and Vehicle Expenses. After the next month, May's amounts will be added automatically. We can also, if required, print out a set of financial statements each month just like the annual accounts your accountant prepares for you. Not months later but now. That is the big plus for doing it yourself. You know immediately what your bank balance is and you also know at the end of each month what your total expenditure is for each item.

Remember last issue's article on cash flow and budgets? Combine these programmes and you know exactly where you are heading. Great to know what is happening before you get a rude letter from your bank manager. On the other hand, if you have made a large profit, you can buy some things you need and avoid paying more tax than necessary.

If you already own an IBM compatible machine and would like a copy of this programme send me a formatted

8294	341.26	G. Pearson	07-11-88	
		6032 Wages		341.26
8295	20.80	Allied Press Ltd	20-11-88	
		6085 General Expenses		18.91
		2005 Tax Due — GST		1.89
8296	509.15	BNZ Visa Ltd	20-11-88	
		6125 Vehicle Expenses		282.27
		6085 General Expenses		63.45
		2005 Tax Due — GST		46.29

TOTAL PAYMENTS FOR MONTH $4403.97

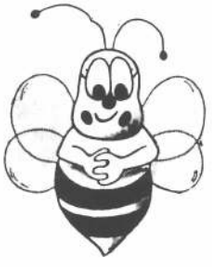
No. 4
PC-SIG
Year to date General Ledger as at 30-04-88

	Date	Description	Refer		Amount
6080		Freight			
	Beginning Balance				0.00
	20-04-88	Stewarts Transport Ltd	CK 2784	156.53	
	20-04-88	Tuapeka Transport Ltd	CK 2789	50.00	
				YTD Balance	206.53
6080		Interest			
	Beginning Balance				0.00
	19-04-88	Bank of New Zealand	CK 207	321.70	
				YTD Balance	321.70
6125		Vehicle Expenses			
	Beginning Balance				0.00
	22-04-88	NZ Government	RC 151	96.92-	
	20-04-88	BNZ Visa Ltd	CK 2767	7.68	
	20-04-88	Dunedin City Council	CK 2768	18.18	
	20-04-88	Fitzgerald Motors Ltd	CK 2773	627.27	
				YTD Balance	556.21

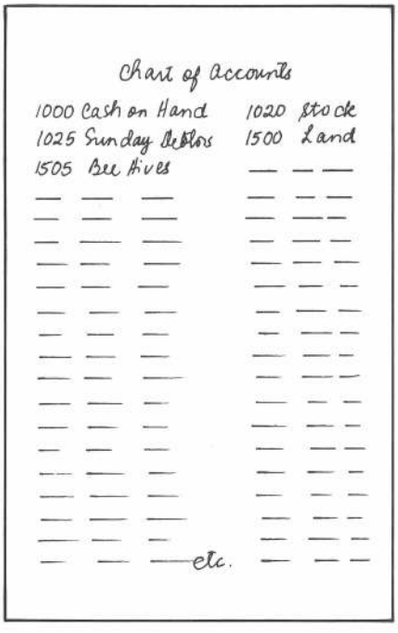
disc at Oban Street, Lawrence, and I will send you a copy of the programme.

No. 1
CHART OF ACCOUNTS

Number	Account Name
1000	Cash on Hand
1010	Bank Account
1020	Stock
1025	Sundry Debtors
1500	Land
1505	Bee Hives
1510	Less Depreciation
1515	Buildings
1520	Less Depreciation
1525	Plant
1530	Less Depreciation
1535	Vehicles
1540	Less Depreciation
1700	Honey Co-op Rebate
1710	Shares — Honey Co-op
1715	Term Deposits
2000	Sundry Creditors
2005	Tax Due — GST
2505	Loans — AMP
2510	Mortgage — BNZ Ltd
2515	Mortgage — Rural Bank #1
2535	Term Loan — BNZ Ltd #1
2540	Term Loan — BNZ Ltd #2
3020	Drawings
3025	Tax Paid
4000	Sale of Honey
4005	Sale of Wax
4045	Interest Received
6000	Extracting Costs
6005	Hive Levy
6010	Honey Purchased
6015	Packing Materials
6020	Queen Bee Purchases
6025	Repairs & Maintenance
6030	Sugar Purchases
6032	Bee Wages
6070	Depreciation
6075	Electricity
6080	Freight
6085	General Expenses
6090	Insurance
6095	Interest
6100	Legal Expenses
6105	Rates
6115	Telephone & Tolls
6125	Vehicle Expenses
6130	Car Expenses



Design the Chart to suit your Business but it could look like this



DON GIBBONS
Crown Queens Ltd.

ARE THEY THE BEST?
WE THINK SO,
IF YOU DON'T, TELL US WHY.

NZ prices:
$11.30 each reducing by 2 cents per queen for each queen ordered.

Minimum price of $8.50 from 140 queens
e.g. 15 queens would be less 30 cents per queen.
50 queens would be less $1.00 queen.

September deliveries plus 50 cents
Dispatch advice $8.00

Plus GST on all orders

Order early and avoid disappointment. Prices subject to change without notice. Terms: Cash with order, except by arrangement from:

Don Gibbons
P.O. Box 54
Waipu
NORTH AUCKLAND

(Please include phone number with order).

MAHURANGI HIVE WARE

Our sign is your assurance of quality

- A FULL RANGE OF BEEHIVE WOODWARE AVAILABLE
- BUY DIRECT FROM OUR FACTORY
- LET US QUOTE ON YOUR ORDER

we are proud of our products which reflect our standard of quality.

Before your next order call:
KEN & LYNNE PERKINSON

MAHURANGI HIVEWARE

PUKAPUKA ROAD,
R.D.3 WARKWORTH, NEW ZEALAND,
TELEPHONE: PUHOI (084620) 890
(EVENINGS)

'IT 'AINT NECESSARILY SO'

From Reg Clarke

Was Gershwin a beekeeper, I wonder? Those words from "Porgy and Bess" are so apt. We can study all the beekeeping manuals, and do everything right, but in the end the simple truth is that the bees do not read the books.

In queen rearing, expert opinion seems agreed on one technique. When using queen-right cell finishing colonies, uncapped brood must be placed above the queen excluder next to the queen cells. This season I have carefully recorded the results of some 40 successive batches with and without raising brood, using eight finisher hives. My bees have no respect for the experts. They produce bigger cells without brood in the second box.

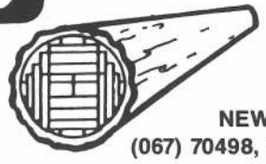
At this point I should explain what I mean by "big" and what size is big enough. As part of a trial of queen cell nutrition, of which more in a later article, I have measured and dissected some 500 queen cells. The biggest were 48 to 49mm long and the smallest 42mm. This is the overall length of cell plus Bozi cell cup — subtract 20mm to obtain the internal cell length. At 43mm there is a small residue of royal jelly, and smaller cells have none. Cells without residual royal jelly should be discarded as the larvae may have been undernourished. So to me a big, generously-provisioned cell has an overall length of 45mm or more.

The conventional method of placing frames of uncapped brood next to the grafted queen cells has the sound theoretical basis of drawing nurse bees to the cells. It is backed by the reputations of many of the most respected people in beekeeping history, so I do not question it lightly. My bees are ordinary NZ Italian stock, and my method of queen rearing in most respects conventional. That is, cells are started for 12 to 24 hours in a hive made queenless by placing the queen in a top split. Next, the cells are transferred to the second box of a strong queenright finisher hive, above a queen excluder. Finisher hives are given 12 cells each four days, placed in the lowest slot of the cell frame just above the queen excluder. The preceding batch, just being capped, is lifted to a higher slot.

This is all conventional practice, but the hive entrance arrangement used is **not**, and this may be the key to success. The top rim of the queen excluder is cut away so as to make an upper entrance, 250mm by 8mm. The normal lower entrance is shaded by a sloping landing board directing bees to the upper entrance. This is set up in advance of cell production, and soon most of the bees including pollen gatherers will use the upper entrance. The queen cells are thus in this busy traffic area, rather than isolated from it, as is the case with the normal bottom entrance.

For the commercial queen breeder this is not just an academic matter. Much precious time is saved by eliminating brood manipulations. The hive functions better without continual disruption of the brood nest, and ripe cells are not lost to the occasional virgin queen raised in a secret corner of a brood frame. In early spring, it may

Taranaki Sawmills Ltd



P.O. Box 49
NEW PLYMOUTH
(067) 70498, 71630, 71631

• SAWMILLING • WHOLESALE & RETAIL YARDS
• DE-HUMIDIFIER & HIGH TEMPERATURE DRYING
• PLANING • FINGERJOINTING • MOULDING
• TREATMENT • PALLETS & PACKAGING

COMMERCIAL GRADE HIVES
With Half Checked Corners

Full Size Super	¾ Size Super
½ Size Super	Hive Lids
Hive Foundations	Ckd or Assembled
Freight Throughout New Zealand	N.Z. or Export

Call us for Competitive Prices

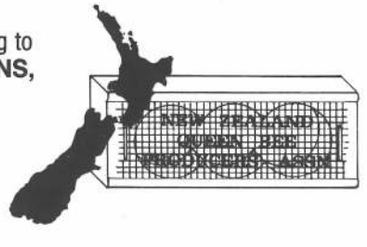
IAN SMITH After Hours **(067) 36403**
BRYAN BENTON After Hours **(067) 512138**

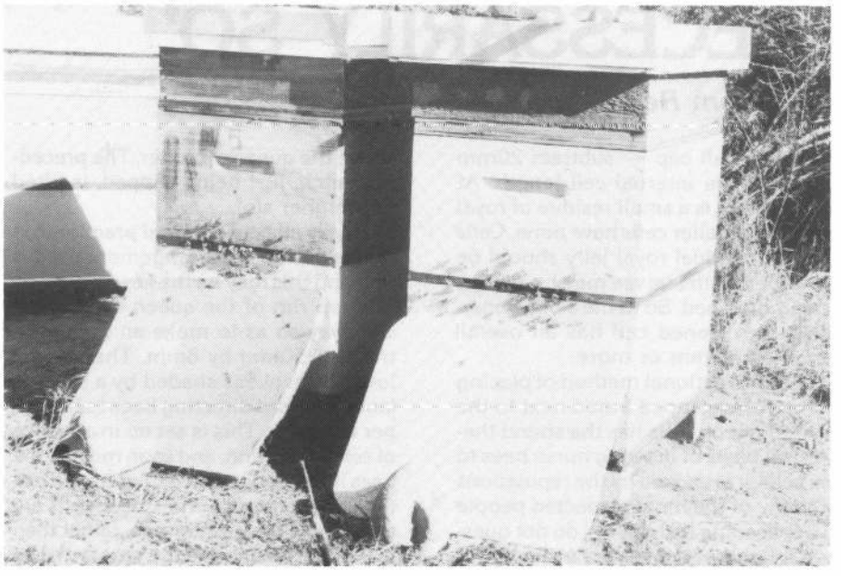
DAYLINE QUEENS

Available from October to March.
N.Z. Price $8.50
+ postage
+ toll calls
+ GST

Our queens are raised from Italian stock, selected for their ability to produce honey.

Order now by writing to **DAYLINE QUEENS,** P.O. Box 307, Blenheim, or telephone (057) 37969 . . . answer machine in use.





Hive arrangement used — landing board and upper entrance.

Landing boards removed and both entrances blocked. Note concentration of bees at upper entrance.

be necessary to add brood to get the hive up to strength. For convenience this is placed in the second box, but so far as is possible capped and emerging brood is used.

There is another doctrine that may have to be placed in the dogma basket: that cell finisher colonies should be headed by an older or even impaired queen, to produce a supercedure impulse. My impression is that queen age makes no difference and a vigorous queen of maximum egg laying capacity is to be preferred. A recently concluded trial used finisher hives headed by sister queens only one month old. Of 458 cells started, 408 (89%) were finished and only two of these were below 43mm in length. A young queen can be expected to lay more eggs and produce more nurse bees. Also cell production is less likely to be interrupted by swarming.

Producing queen cells of the highest possible quality is a fascinating challenge. Here are two ways in which the task can be simplified without compromising quality; only remember that success may depend on using the hive arrangement described.

1. Minimise disturbance to the hive by not transferring brood to the second box.

2. Use a young prolific queen in finisher colonies.

This system works well for me. Whether it works for you, with your bees in your environment you must find out for yourself. There is only one invariable rule of beekeeping — that in beekeeping nothing is invariably so. We may watch our bees dance to the timeless rhythm of their life, but we cannot hear the music. If sometimes the dance changes, perhaps they hear a different tune.

Fort St John, Canada, Beekeeper Fined

Ernest Fuhr, a Fort St John beekeeper accused of illegally importing honeybees into Canada from the United States, was fined $1,750 in Fort St John Provincial Court recently.

Fuhr pleaded guilty to the charge, laid under Agriculture Canada's Honey Bee Prohibition Order, Animal Disease and Protection Act. Maximum fine for a summary conviction is $2,000.

The charge resulted from a check of Fuhr's vehicle at the Douglas Border Crossing 4 June 1988.

The importation of honeybees from the USA has been prohibited by Agriculture Canada because of recent infestation and spread of the mite, Varroa jacobsoni, in the United States. This mite is recognized by experts as a very serious infestation of honeybees.

"The rapid propogation of Varroa disease is threatening to ruin the world's beekeeping industry," said Agriculure Canada's Dr Mike Martin. "Because Canada remains free of the disease, it is important that measures such as the Prohibition Order be enforced to prevent entry of the mite into this country."

The value of apiculture products, primarily honey and beeswax, totalled about $5.3 million in B.C. in 1987. Honeybees also contribute significantly to the pollination of many B.C. agricultural crops.

HONEY MERINGUE

1 egg white
½ cup honey

• Beat egg white with rotary or electric beater until it begins to froth. Then add honey, gradually beating until meringue stands high in peaks, (from 5 to 10 minutes beating). Use on puddings or cakes.

TREES FOR BEES

By John Heineman

Some time ago a considerable effort was made by beekeepers to generate interest in the planting of honey and pollen-bearing plants. Special name tags were supplied to nurseries and plant shops. Lists were compiled by our apiary advisory officers of the plants especially suited to their particular districts. Local Bodies, the MOW, catchments boards and farmers, etc. have been approached in an endeavour to make them consider the value of these plants, not just for bees and beekeepers but ultimately for the whole community. Such an effort is, of course, started with the very best of intentions and enthusiasm. It does hopefully book some results and then after a while, naturally, it loses its impetus and goes dormant. Our TREES for BEES effort has to be ongoing for it to bear the desired results. It is a good thing that people continue planting trees and shrubs for it all must help to maintain or restore the balance now so distorted in many parts of the World through tree felling, unwise development, roading, burning, and pollution.

It is an accepted fact that planting especially for honey production is not economical. Agricultural crops such as clover, lucerne, rape, sunflower etc. are sown for a different purpose. Honey production from those crops is incidental, a fringe benefit. So it is with parks, gardens, plantations and road side plantings. But so much the better if we can increase the benefits of these endeavours by ensuring the right kind of species is included in the material used.

So we are really trying to make others do these things for our benefit, up to a point. However every beekeeper, small or big, beginner or experienced, can do his or her bit towards enriching the flora of our environment by planting shrubs and trees of benefit to the bees. Just in our own gardens, along a road side (if suitable), on a waste plot or on an untidy looking bank or road cutting.

It is so easy to set up your own little nursery in your garden. It need cost little and you will be surprised how much satisfaction it generates when you can take some well-rooted plants to their permanent spot, see them flower, and consequently attract your bees. If bees are your hobby then this growing and planting can become a very worth while extension of your interest. It is not that I want to do the plant shops out of customers but many of us are not endowed with lots of dollars, so it has to be done on the cheap if at all.

The importance of having these honey and pollen producers in the vicinity of our hives is not so much the thought of increasing the honey-take but the availability of pollen sources and a little nectar to keep the bees interested and working during that all-important period prior to a main honey flow. Supplementary feeding will in all probability still be needed. Having these flowering plants to keep the bees occupied may also lessen their robbing urge, for idleness always leads to mischief.

Other obvious advantages of doing our bit of planting is shelter (for apiaries), increasing habitat for valuable bird life, and last but not least the improvement of the quality of our environment.

Following is a list of a few plants and shrubs which we have in our own garden here in South Otago, which means hardy, easy to propagate and good for the bees. If you start with these you will no doubt have a good chance of success and get the urge to try other things. And other parts of the country will offer opportunity for growing lots of things which won't thrive here.

Flowering Currant (Ribes sanguinium). Very common deciduous shrub. Flower Aug./Sept. with pink to red coloured hanging racemes. Cuttings of this year's twigs after leaves have fallen heel in over winter and plant out in spring. Bees work flowers freely for both H. and P. Good for low shelter.

Red, black and white currants and gooseberries all belong to the same family and bees go for the flowers while we can eat the fruit.

Rosemary (Rosemarinus officinalis). Evergreen, fragrant, pale blue flowers in Sept./Oct. There is the upright bushy variety which can be grown as a low hedge (up to 1m). Propagation is by earthing up a bush and then when roots have formed on the sparate branches cut them off the parent and treat as individuals. The prostrate variety can be layered. That is make a little trench in which a branch is laid and covered with soil. Roots will form and the branch can be cut off and replanted elsewhere. I do this earthing up and layering in the spring and have young rooted plants again by winter. Rosemary is very popular with the bees and they will visit the flowers as soon as weather permits for both N and P. The prostrate form seems to be preferred by the bees and flowers somewhat earlier and over a longer period. The shrub has also a place in the herb garden.

Ceanothus (in America known as Buckthorn and Mountain Lilac). Evergreen, can grow into a large shrub. Vivid splashes of light to dark blue when covered with flowers in Sept./Oct. The bees like it for N and P. There is also a prostrate C. which is suitable to plant on banks and makes good groundcover. Propagation is somewhat more difficult as the cuttings (soft wood in Dec.) like it warm underneath to strike and must be kept covered until roots have formed (plastic, glass) to avoid drying out. The prostrate C. can be layered, but have some patience.

Mesembryanthemum a beautiful name for the Ice Plant family. I suppose everyone is familiar with this succulent which makes those spectacular purple waterfalls down banks. This however is not the variety that seems to attract

MEMBER NZQBPA

kereru bee farm

JOHN & JENNY DOBSON

QUEENS - CELLS - NUCS
- CARRICELL INCUBATOR -
Hobbyist Orders Welcomed

Send for free information & price list to
Kereru Bee Farm, RD1, Hastings. Tel. (070) 60962

bees. But there is another closely-related member of this family we call the Minni Ice Plant as I have not been able to find its proper latin handle. The leaves are only about half the size of the common one, the flowers the same colour but about as big as a 10 cent piece. It has a very sweet smell and the bees go for it wholesale as soon as the flowers open up. Very suitable for banks and retaining walls, it is drought and salt tolerant. Propagation is very easy indeed as every bit of trailing stem will form roots when laid in the ground at almost any time of the year. One can often find already-rooted bits to use. Nov./Dec. and again late summer.

Cotoneaster. A big family with shrubs that grow up to 2m high and semi-prostrate ones ideal for ground cover, against walls and banks. Deciduous, all of them produce masses of mostly red berries attractive to birds. Bees work the flowers freely during Oct./Nov. but the flowering period is not very long. C. horizontalis, the one to grow against the wall, seems particularly attractive but I would not suggest not putting it alongside your front or back door as some people may not like to get too close when the bees are working. It could be a bit risky if small children crawl amongst the plants. Propagate from seed, just put some berries in a tray or look for seedlings under the bushes.

Teucrium fruiticans (Germander, Wood Sage). Everygreen vigorous shrub with felty greyish young growth and leaves. Dense bushy growth, makes good low shelter (1 to 1½m) and flowers for a long time, late Oct. to Dec. Blue/mauve pea-like flowers. And boy, do the bees like it, and the bumble bees too! I think it is one of the best shrubs to keep the little buzzers interested. Produces both N. and P. Growth easy from cuttings taken in the summer, a sucker or a rooted stem can often be found at a bush and can be transplanted best in autumn or spring.

Phormium tenax or our New Zealand Flax. Besides the common native variety we now have a range of plants with variegated leaves and habit. All are good for N. and P. Oct./Nov. Good for low shelter. Propagate by division of parent plant. At times flowers can be so loaded with nectar that it splashes out when bumped.

Fuchsia. We all know this family, from our native tree in the bush to the numerous kinds for the garden and pot plants. We have a few shrubby fuchsias in the garden and planted along the road. They are hardy, deciduous. Flowers red/blue, about 3cm long. The bees work them freely, Nov./Dec. for N. and P. Bumble bees too are frequent visitors. Can be grown as an informal hedge, stands plenty of pruning. Propagation easy from wood cuttings in autumn after leaves have dropped. Blue pollen.

Note: There are many more plants good for the bees and you may want to try to propagate others. Good luck! But if you start with the above list I would think that success is guaranteed and it gives an assortment covering the whole period from Aug. 'till nearly Christmas.

Your plantshop should have small quantities of rooting compounds (hormones) in stock. They often help and will assure a better percentage.

A SIMPLE BOX FOR SCRAPINGS

(not a kitchen — but an apiary tidy)

It is bad news to drop those scrapings and bits and pieces of wax all over the place. Why?

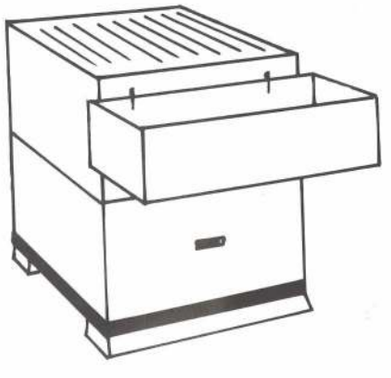
1. Honey may be adhering to the wax and will attract robbers,
2. These in turn may spread disease (B.L.),
3. Makes life unpleasant for the beekeeper,
4. It means wasting good wax which means money,
5. It is untidy. Bits of wax will also stick to your boots (you know like what).

So why not make this box to gather your scrapings into. If well made it will last a long time. It is somewhat longer than the width of a hive, say 450mm. That will help to avoid spillage. It can be hung on the front or on the back of the hive, as it suits you. Use 150 x 20mm pinus, preferably dressed. Outside dimensions: 500mm long, 150mm deep, 190mm wide. Bottom and ends fitted between sides. I would prefer screws (counter-sunk) but gluing and nailing would do. With nails only it may come apart after a while.

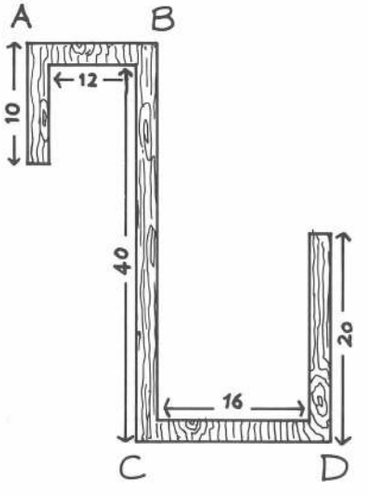
The hooks are made of light fencing wire. No 8 is too heavy (and high tensile too awkward). Drill two holes in the box 20mm from top edge and make shallow grooves for recessing the wire hooks.

Bending the hooks should be done accurately so that the box will hang snug against the super. First bend the ends going over the super rebate and in between the frame lugs (A), bend down (B), then another right angle (C), now first fit the wire through the drilled hole and keep into the cut recess on outside box then make bend on inside box (D) so that wire again lays into the groove. Cut wire flush with box top. While making last bend have good support under the timber or you may finish up with kindling. Pliers, hammer, and some piece of iron for support are all you need in the way of tools and of course a rule and a bench vice are a great help.

Don't leave box uncovered while amongst the hives. Empty out into container which can be closed or plastic bag to be tied (robbers, wax moths, mice). Wash out box. Don't leave drum or plastic bag out in hot sun.



SIMPLE BOX FOR SCRAPINGS.
(not a kitchen — but an apiary tidy)



HOOKS made from wire, measurements in mm.

Westland

Westland's near record wet spring eventually came to an end. As the honey flow began we experienced unsettled, changeable weather with some very cool nights, which had considerable bearing on early honey production. Half way through December we began to wonder just how poor a crop was in the making. However, as is often the case with Westland's fickle weather, it suddenly turned fine and warm with near record temperatures in some areas. The bees took advantage of it and worked the last half of the kamahi flow as well as their depleted populations, due to the poor spring, would allow. At the time of writing it appears that Westland's crop will be below average.

Chalkbrood has been reported again in the central Westland area and appears to be spreading. It is having a detrimental effect in some yards.

The saying: "It is an ill wind — " can be applied to our wet spring. It obviously clobbered the queen wasp numbers and thus far hardly a wasp has been seen. If it stays that way wintering nucs or singles may be practical this year.

With the drought reported in eastern provinces and the wet summer reported from the far north, NZ's crop seems likely to take a beating. If that is so, stocks of honey should diminish, which in turn may reflect in better prices. Anyway, here's hoping.

Sandy Richardson

Bay of Plenty

The kiwifruit pollination season passed without too many problems, apart from a very uneven flowering which caused many hives to be kept in orchards for three weeks or more. Only blocks which had been sprayed with cyanamide were pollinated in good time. It's almost certain that this product will be widely used in future which will mean beekeepers must have their hives ready for pollination a week or more earlier and have the organisation to move them in and out of the orchards over a much shorter period.

No major problems have been reported as a result of sugar feeding during pollination. Hopefully our fears of robbing are unfounded although great care and good equipment will always be necessary to avoid them. The orchardists are convinced of its value and can be expected to demand sugar feeding in future. The most likely effect of this will be a reduction in the number of hives required for pollination.

As usual some beekeepers from outside the district seem to think no-one keeps bees in this area. They set up new apiaries instead of taking their hives back home, so an overcrowded area with indifferent honey crops becomes even more overstocked. Why we must put up with this every year is beyond me. I find that I am forced to put hives on virtually every property in my areas just to keep hive numbers to a reasonable level. The result is that apiary sizes get smaller, travelling and gate opening time is increased, and rent honey demand is greater. All for no extra return.

Honey crop expectations from clover are very poor this year. We had a very limited flow before Christmas and have had continuous rain since. The tawari areas fared much better with good crops being reported. Thistles don't like wet weather and goat farming has destroyed some previously good areas so we will have to wait and see if that crop comes to anything.

Peter Townsend

"If honey is used with the fruit
The flavor will your palate suit."

BEE FEEDERS

FOR SUGAR SYRUP FEEDING

This super Tough Polyethelene Feeder is moulded in one piece — *NO ALUMINIUM LUGS OR RIVETS.*

Comes ready to use — just lightly stuff with bracken for bee ladder.

Available in four sizes:
F/D 8 litre — replaces 3 frames
F/D 5.5 litre — replaces 2 frames
F/D 3.5 litre — replaces 1 frame
¾ depth 4 litre — replaces 2 frames

Price **$7.50** Freight Paid (plus GST)

Contact

MICHAEL FLETCHER
869 Main Street, Palmerston North
Telephone (063) 87270 Evenings

DON'T GET STUNG UP
Our PROTECTOR TOP and POLLINATION SUIT give total protection.

PROTECTOR TOP
Elasticised waist and wrists. Large pocket.

FEATURES
- NO HAT REQUIRED.
- STRONG POLYMON MESH MASK.
- HARDWEARING FABRIC.
- MACHINE WASHABLE.

SIZES:
S 34"-36"
M 36"-38"
L 40"-42"
XL 42"-44"

POLLINATION SUIT
For complete protection and comfort.

BEE ACCESSORIES
133 Walmsley Rd, Mangere, Auckland
Ph: (09) 275-6457 and local Beekeeping Stockists

FROM THE COLONIES

Waikato

Spring work was difficult with the ground so wet that we had problems even getting to sites for feeding and working hives.

The rain kept the ground sodden until the end of October, when hot, fine weather and constant winds baked the ground hard and pasture began to stop growing. Those working bush areas managed to get kamahi and rewa rewa and, eventually, those on tawari got the best crop for several years. I have hives about six kilometres from the tawari which gathered a super of honey — a very pleasant surprise which had not happened there before.

Very few farmers were able to make silage but some light crops of hay were picked up prior to Christmas. I don't remember ever seeing milking herds on such bare paddocks.

Hives on pasture where there was some source packed the honey into the broodnest but at Christmas thousands of hives had insufficient to get through the winter and certainly very few had anything in the third super for the poor beekeeper. The drought lasted from the end of October to December 29 in our area. Very heavy rain started 5.30 p.m. that evening. Even the spouting couldn't handle the downpour. By 6.30 p.m., we had had 65 mls (2½ inches). At the time of writing we have had 175 mls (almost seven inches).

The pastures have recovered wonderfully and if we can have three weeks or so hot and fine, we will all wear smiles on our faces.

Many of us wondered if we would have an income at all the way the weather was behaving. Though I am told world honey prices are falling. Somehow that is not as bad as no honey crop to sell.

Ray Robinson

Northland Branch

After a late start to what had looked like being a very poor season's honey crop there was a marked improvement in mid-December and we started stacking on the boxes. Then down came the rain — it is still raining! We shall shortly be experiencing access problems into some yards normally associated with the mud of early spring. A patchy season with a poorer than usual manuka flow and some pollen shortages in hives in the Whangarei area. Queen breeders report an average to good season.

Brendan Nichols

Otago

Today is January 21, 1989 so on behalf of this Branch, Best Wishes to all NZ Beekeepers.

News about the expected national crop does not seem good overall and our sympathy goes out to those who suffer from either drought or too much water. As the North Otago Branch gives its own report it is the rest of the province we talk about and a mixed bag it is. Central and the inland plains are very dry in many places however a thyme crop has been gathered. Vipers bluglos is producing as someone from that area told me the other day. West Otago seems to be doing all right, while here in South Otago we feel we live in one of the best corners of the country: at least this year. The season started very early after a favourable spring. September and October especially gave a lot of fine weather resulting in a good build up of colonies. Before Christmas many nice warm days and enough moisture at the right times. Extractors have started to turn at an early date so as to get supers empty and back to the hives. How long this will last is of course a big ? It is becoming dry for the rain of the past week has not fallen here. Patches of native bush along the south east coast produced a fair number of full supers with kamahi honey.

We are looking forward to hosting the 1989 Conference in Dunedin. A Conference Committee has been formed and different tasks have been allotted to members. We hope to welcome you with traditional southern hospitality.

We may even stop that drift North and reverse it seeing what the weather does up there on top of what is going on in the Beehive.

John Heineman

South Western Districts

(Southern North Island)

What a turn-around; from an excessively wet spring, to a very dry summer which came early.

Hint of the unusual came when store fruits flowered earlier, likewise the pip fruit, then the berry fruit, all in blossom two weeks earlier than usual.

Our biggest season then was about the kiwifruit which dictates the management of hives for a lot of beekeepers.

A wet spring did not make it easy for hive preparation, then the call came for pollination hives 7-10 days earlier than ever. It was almost panic. But one consolation we thought, was that the hives could return to their paddocks early to catch all of the nectar flow.

But before we talk about the honey crop: this was the first pollination season for kiwifruit when the New Plymouth and Wanganui pollination committees ran a quality assurance scheme. Ted Roberts (MAF apiary advisor) inspected a sample of hives in participating orchards as a service by the beekeepers to ensure quality hives for the orchards.

Honey production has been a disappointment with the onset of a drought, which appeared first along our coastal fringe, and quickly extended inland. Perhaps half the region can expect a below average crop.

However, other areas are expecting better things — Central and North Taranaki, inland areas of Wanganui, and Manawatu; also the high country of Raetihi and Taihape have caught more rain.

Our branch will again set up a promotion tent at the Levin Horticulture Field Days 17 & 18 Feb. We shall promote honey from our different areas and pollination services. It should again prove a most popular display and should bolster our morale — we need it!

John Brandon

Poverty Bay

Reports from the kiwifruit blocks indicate an excellent pollination last spring. The weather build-up was perfect for the bees and even had the decency to last through the flowering season. Isolated incidents of spray damage were reported. They were generally caused by overstaying in blocks. A couple of days can make all the difference. Growers, idle through pollination, tend to sit revving their spray rigs, waiting to leap forth.

Hives that escaped safely to the hills met a short burst of ecstasy before the Christmas deluge. There was a reported altercation between the 'on again-off again' Beekeeper X, who had not put his bees on his high country site for a while, the farmer who rang, and Beekeeper Y who was called to fill the spot. As chance should have it, who should turn up the next day? You guessed it. Beekeeper X.

It is certainly a wound-up time of the year. Late one afternoon, while on a feeding round, a grower asked me to stand by a hive and count bees carrying pollen! Luckilymy 'Beebuster' partner had begun feeding and instead I found myself counting stings on a grow-

er. The first was to his forehead, the second to his shoulder, but the rest were lost amidst flaying arms and legs as he retreated down the headland.

Noel Craft

South Canterbury

As I write my memory goes back to the honey season of 1931-32. South Canterbury then experienced so serious a drought that hives did not gather enough honey to overwinter and feed themselves through to the following season. That is the only time in my experience of beekeeping when insufficient honey to overwinter was gathered. Hives were fed totally from August until the next honey flow.

This honey season looks as if it will be a repeat of that season. The whole of 1988 was so dry. Rainfall in many areas was two thirds of normal and on the coastal strip half of normal.

As is usual during very dry seasons beekeeping becomes quite easy. Queen mating is good, native bush yields well, and those pasture plants that do flower give a dribble honey flow through spring. That is how our spring began. However, as spring progressed so the pasture dried and prospects for a successful honey season disappeared. Came November and no rain. Just a few light showers. By Christmas no rain and conditions had become quite serious. Farm stock in its hundreds was being moved south to better feed. Dried-out pasture became a fire hazard and even if it had rained then it was too late for a recovery. Beekeepers in South Canterbury are in a desparate situation.

While the 1931-32 season proved a complete failure, this season at least winter stores should be gathered with perhaps a little surplus in some areas. It is now most important for honey packers to get prices up as high as possible to help beekeepers. It is also up to beekeepers to help themselves by looking for ways to reduce costs.

Harry Cloake

South Auckland

This is one spring I am glad to see the back of. I should think it would have been one of the hardest years to bring hives through in a strong enough condition to go into kiwifruit. Most beekeepers have fed sugar in large quantities. Even so, many hives had died from starvation as we discovered while inspecting for AFB.

This year barberry, willow, and hawthorn were a disaster. Clover did not look bright early in December but by the third week it improved, as did kamuka and pahutakawa. Then the honey flow was really on.

The kiwifruit growers also had their problems. The flowers were patchy and opened over a longer period. Consequently many hives destined for orchards were cancelled.

It was very dry up until November 29 but as I write it has been raining heavily for three days. That might extend the honey flow and give us a better crop.

Dave Young

Nelson

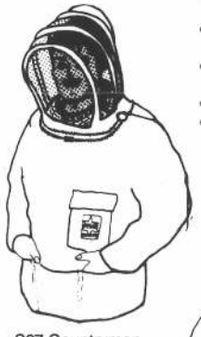
We thought during the end of August, beginning of September: "If this is spring, let's have more of it". But, like all good things, it came to an end. When the barberry was due to flower the weather changed for the worse.

THE ORIGINAL SHERRIFF BEEKEEPERS CLOTHING

B J SHERRIFF

Send For Our Free Brochure

- Self Supporting Hood. Clear vision through net veil.
- Metal Zipper at neck to push hood back when not in use.
- Removeable hood for easy washing.
- Strong, quick drying polyester fibre.
- 3 sizes
- Extra hoods available for S36—$38.75.



S37 Countryman Deluxe $68.50

CHEST SIZES

Small	34"-36"
Medium	38"-40"
Large	42"-44"

Credit Cards Accepted

S41 Honey Rustler $94.50

S36 The Apiarist & The Pollinator $101.50 Also available in junior and kiddy sizes

All prices include tax & postage

N.Z. AGENT

B. Rawnsley, Dept. B.J. Sherriff

Happy Valley Honey, Box 319, Manurewa

QUALITY QUEENS

ANNOUNCING — progeny resulting from our importation of honey bee semen, from the Western Australia Department of Agriculture Breeding programme ***now available.***

Observations show the progeny to be more vigorous.

We believe this bee to be the most productive and disease resistant stock available in New Zealand.

We now offer an Instrumental Insemination service with Breeder Queens available.

Prices:

Autumn 1989

1-9 ***$12.00***	***ALL PRICES***
10—99 ***$11.00***	***INCLUDE***
100 plus ***$10.00***	***G.S.T.***

Terms: *Payment before delivery.*

Queens guaranteed to arrive alive, healthy and well mated.

DAYKEL APIARIES

David Yanke and Rachel Kearney

PARANUI R.D.3, KAITAIA, NORTHLAND, NEW ZEALAND.

Member

NEW ZEALAND QUEEN BEE PRODUCERS' ASSN.

PHONE: (0889) 72.895

FROM THE COLONIES

Some beekeepers preparing hives for kiwifruit noted how poor the bees were compared with other years. Indications were that the flowering would be earlier than usual. Although many hives were poor in spite of sugar syrup feeding, they seemed to improve when the white clover yielded some nectar earlier, probably because of higher temperatures.

That must have saved many colonies from perishing or merely surviving. However, with the recent good weather, the crop should be better than average. With high temperatures and rain we could still be gathering honey for some time yet.

Because I have reduced the number of my hives I don't get into the bush areas, so I cannot speak for them. However, I can say that this summer's temperatures are hotter than I remember for many years.

Up to the end of January wasps stayed under cover. So far I have seen two worker wasps only, so it is reasonable to suppose that, like last year, they have suffered from predation and wet weather. If so, it is a most welcome event.

Honey prices are very keen, of course. When it does change hands the price seems to go from bad to worse.

Ron Stratford

Hawkes Bay

Regretably it appears the Hawkes Bay crop for another season is well below average. The long dry period in the late spring and early summer ruled out any possibility of a good flow from the flat country, and at the time of writing the prospects of the high country crop is nothing to get excited about.

Branch-wise our only main event over the last few months was our annual hive inspection day. With the kiwifruit pollination period coming earlier than usual that came close to having to be postponed. However, under the very capable guidance of Messrs Ted Roberts and Richard Wimsett all went well. There was an excellent turn out and approximately 250 hives were inspected in the Havelock North and Hastings city areas. AFB was found in five hives so once again the inspection day achieved very good results. Naturally members were disappointed that we were unable to have our "after match" bar-b-que. Likewise it was unfortunate that for reasons beyond the committee's control we had to abandon our planned Christmas Party this year.

However, the committee is hopeful of having something in the way of a day's outing for members in the not too distant future.

Gordon Sutton

Marlborough

Yields appear to be below average to average but it is difficult to tell as yet because vipers bugloss will provide the bulk of the crop.

Clover has had a complete miss this year in most areas. Areas without vipers will yield poorly. Renewed interest is being shown in manuka as there looks as if there is a market for it.

At the end of November we had a Public meeting-forum to conduct a public discussion on the new proposed hive levy. Gavin White, NBA, and Dave Grueber, MAF, addressed us and answered questions. None of the local descenting voices were present.

Believe it or not but Blenheim has had more bee gear dumped at the local rubbish tip. It was more-or-less covered except for one small hole which the bees naturally found. Followed it up, and decided not to take any action on this occasion. Three dumping incidences in the last year or so! Makes me wonder how many incidences are not reported at larger dumps.

James Jenkins

LIBRARY NEWS

Donated by Mr R.A. Stammers of Milburn, South Otago, a copy of the new and revised edition of GUIDE TO BEES AND HONEY by Ted Hooper (1983, 260p, UK). A very well-known handbook for beginners as well as for the experienced beekeeper. Written for British conditions but it is full of good sound beekeeping sense and of benefit to beekeepers anywhere. Numerous b/w and some colour photos and clear diagrams.

Thank you very much indeed Allistair for your generosity.

The library has purchased RESEARCH PAPERS by Graham J. Kleinschmidt, the very popular and respected researcher of the Australian Beekeeping Industry. The collection was presented by the Plant Protection Department and the Queensland Beekeepers' Association in May 1986. A host of subjects: population management, nutrition, pollen, queen bees, disease (Nosema), hive equipment, honey processing and storage, pollination and pesticides.

Received from MAF: BIBLIOGRAPHY OF NEW ZEALAND APICULTURE, by Murray Reid, Andrew Matheson and Grahame Walton, 1988, 140p and published by MAF, Tauranga.

These three gentlemen have completed a very important job. Many will benefit from their endeavours. Believe it or not, there are some 1,350 references covering most of the material on beekeeping in NZ which has seen the light from as early as 1842 till as recent as 1986.

From MAF Tech. North Region: RUAKURA RESEARCH AND ADVISORY UNIT REPORT AUG. 1987-JULY 1988, by R.M. Goodwin and A. ten Houten. Covering the recent research concerned with Kiwi Fruit pollination and General Apiculture. 78p + Appendix. 1988, NZ.

BEEKEEPING FOR THE BEGINNER by Dr S.C. Jay and D.P. Dixon, Manitoba Dept. of Ag. 138p, Can. Certainly not a manual just for the beginner as it also covers many aspects of commercial beekeeping. Comparable with books like Beekeeping in NZ but then of course for their conditions.

The following booklets are all concerned with equipment design and specifications: BEE HIVES, Min. of Ag., Fish & Food UK, 1968, 27p. Basic principles of design and comparisons of hives in use in Great Britain.

SPECIFICATIONS FOR BEEHIVES, FRAMES AND WAX FOUNDATION, British Standard Institution, 1960, 28p, UK.

The hive by F.G. Smith, senior apiculturist Dept. of Ag. Western Australia, 1966, 55p. Covers specifications of the different types of hives in Australia and recommendations for the use of standard equipment.

THE AFRICAN DADANT HIVE by F.G. Smith, Tanganyka, 1961, 17p. As the African bee seems to need somewhat less bee space than our Italian bee Mr Smith advocates the use of a modified Dadant Hive and equipment.

John Heineman

A CAUTIONARY TALE

By Don Stedman, Pine Bush, Invercargill

Over the last couple of years we have heard much about the increased incidence of AFB. We learn of fly-by-night newcomers to the industry not aware of, or perhaps unconcerned by, the incidence of disease, while they milk the burgeoning pollination business.

There are stories of sheds filled with marked but unburned gear: while other people, presumably lacking a basic scientific understanding, have undoubtedly caused or spread trouble through acting thoughtlessly or in ignorance.

Some beekeepers have coped with the presence of AFB since the beginning, while others are fortunate enough to be established in disease-free areas. As one who kept bees for 10 years in three widely-separated districts without a single case of AFB, then shifted a short distance and took a body blow, perhaps my story will alert others.

Many readers will be hobbyists with ideas of moving up to a commercial operation. A couple of years ago I had over 100 hives, 10 years experience with bees, a mature farm ownership account, an awareness of falling rural property values, and a feeling that it was now or never.

I managed to buy an ex-government property at a suitable price, bought an extra 100 or so hives and a pile of extra gear, moved the hives onto new sites in vacant territory, resigned from my job, shifted house, and made plans for an orderly rapid increase in hive numbers.

For a time all went well. Supers were filling up nicely on all hives, and a buyer was keen to buy my honey, even to pay cash up front. However, partly through the harvest, disaster struck. AFB! Not just one hive. Not just one apiary. But enough to give me a real fright.

Twice previously I had shifted into territory which "common knowledge" held to be riddled with disease. Both times I had absolutely no trouble. In fact in 10 year's beekeeping from Auckland City south, I had never seen an AFB infected hive.

Probably I had grown complacent. Certainly I looked for symptoms but hardly expecting to find any. I had heard so many totally unfounded scare stories over the years that I expect I'd become sceptical about others. So where did the disease come from?

I inspected bought-in hives before purchase and bought nothing that looked even faintly suspicious. Some used boxes came without guarantee but had not been used in infected apiaries. The distribution of infected hives did not correspond with my order of working within or between apiaries, so I am left with the conclusion that the infection has come from feral colonies.

There is little I can do about feral colonies in this district. I destroy colonies in buildings on request but can do little about hollow trees or the hollow concrete power poles installed years ago throughout the district. I've yet to find any sign of AFB in a feral colony but it must be in some.

It is distressing to have to burn hives, particularly with a crop, and the hopeless feeling of inevitability of further infections occurring or appearing does little for an optimistic view of the future.

Not all AFB killed larvae rope — I've sent away samples which didn't and had them diagnosed positive.

You know you're developing an eye for AFB when you find it at the 1-2 cell stage. If you miss the initial appearance in an apiary and are unlucky enough for that hive to be blown or knocked over, you can take a real hammering.

Constant awareness and vigilance is essential.

I've learnt to live with AFB — checking brood at every opportunity, working clean apiaries first each day with sterilised hive tools, leaving suspicious hives until last in each inspection. I also accept that some of my supers harbour spores, so there will be more hives lost in the future. And I am aware of the feral reservoir which may hit at any time, particularly at a new site.

Discounting the financial damage of hive losses the psychological effect of repeated discoveries of diseases is numbing. Division and hive increase seem pointless, inter-hive manipulation is too dangerous and inter-apiary shifts prohibited.

Yet there does seem to be an end in sight. No apiary has been completely wiped out and this year I've two sites, previously badly hit, which are clean. No doubt it is too soon to be certain, but optimism is gradually returning.

No doubt my problems are minor in the context of a large commercial operation but for a small operation they seemed devastating. Couple disease problems with the collapse of the bulk honey market. Add dumping by commercial packers on the domestic market. That lost me sales in grocery outlets because I wasn't prepared to sell below cost. I'm sure many will empathise with my position.

Ironically, I received a circular from a national honey packer suggesting

ENCO QUEENS

Up to 10.....$12 each
10 to 49.....$11 each
50 to 99.....$10 each
100 and over.....$9 each

All Prices Include G.S.T.

Terms: Cash with Order
OR by Arrangement

WRITE TO: **ENCO QUEENS**

Pokororo, R.D. 1., Motueka
or telephone (052468) 735 NGI

WANTED—BULK HONEY

TYPES REQUIRED

Thistle	Floral Blends
Clover	Bush Blends
Clover Blend	Melter Honey
Manuka	Blue Borage
Kamahi	Honey Dew
Rewarewa	Tawari

Any Quantity Accepted — Containers Available

Contact —
ORINI HONEY PACKERS LTD
Ph (071) 244-700 Business
Ph (071) 559-153 After Hrs
PO Box 14066, Hamilton

that 'Beekeeper-packers must come to accept that in current conditions they are doing an injustice not only to themselves but also to the industry in New Zealand as a whole." At the time their honey was being retailed locally at 99c/500g. My wholesale price is nearly double that, so who is damaging the market?

Over recent years a number of smaller "commercial" beekeeping businesses have gone under. We don't hear much from those who haven't made it. As one who still intends to succeed, albeit more slowly than I had hoped, perhaps some of the lessons I have learnt may be of value to others:

— Work with a commercial apiarist if possible. There are many 'tricks of the trade' I'm sure I haven't yet picked up.
— Treat all new sites and hive purchases as suspect. Set up simple quarantine routines to check hives and sterilise gloves and hive tools between apiaries.
— Don't skip the brood check when removing honey. Once you have unidentified contaminated supers in the shed your headaches will increase.

How have we survived?

Fortunately I have a relatively low debt with manageable mortgage commitments. I could have borrowed more to set up my own extracting/packing plant but fortunately did not.

As a former teacher I have marketable skills with reasonable pay rates, but a relieving teacher has limited say when he works. Often the jobs seem to be on the fine days, not when the weather turns nasty. Still, teaching has paid the bills.

So I'm a sideline beekeeper still and will probably remain so for some time as cash shortages mean that expansion will be slow. As I regain confidence I'll work on increasing hive numbers and seek further niche markets. I won't try to compete in the bulk lower end of the market.

To replace sugar with honey in a cake or cooky recipe that calls for all sugar: A general rule is to reduce the amount of liquid ¼ cup for each cup of honey used to replace sugar.

Cakes and cookies made with honey are noted for their keeping qualities. The ability of honey to absorb and retain moisture and thus retard the drying out and staling of baked goods is of great importance to the homemaker who wishes to do her baking in advance. This property combined with the food value and flavor of honey is valuable also to the baker.

COMMENT ON COMMENT

Your 'COMMENT' column, November 1988, noted the lack of marketing wherewithall among the beekeeping fraternity. I should like to endorse those remarks.

Perhaps the ability of most beekeepers could be summed up in a comment made by one of the locals: 'Never take a load to the dump without returning with something'. In other words, beekeepers must be the original do-it-yourselfers.

Unhappily, marketing does not respond to this formula. One envisages that the average beekeeper would advertise his wares in a style reminiscent of a 19th century newspaper. To whit:

"T.H. Goddard wishes it to be known that he now has bee hives surplus to his own requirements. Interested members of the Public are invited to contact him at his business premises during trading hours."

I would like to share with your readers two comments on marketing. A professional colleague who holds a high position in an international food chain said there were only three types of advertising: Television, Television and Television.

Some time ago, the highest-selling canned food on the British market was a brand of pet food. When the American directors of the company objected to the incredible amount of money spent on television advertising, the product lost its prime position.

There are two marketing ideas which I have jealously guarded. However, as it is unlikely that I will ever possess the capabilities to use them, I am revealing these at no cost to readers.

1. The marketing of a small pottle of creamed honey along with a stick similar to an ice cream stick. The idea of a snack has been exploited not only by confectionary manufacturers but by organisations marketing milk and fruit.

2. I have undergone surgery on a number of occasions, thanks to rheumatoid arthritis. When one recovers from the anaethesia, it is impossible to keep anything down. That is, everything except honey. These delightful little insects which nobody but beekeepers like, have very considerately predigested the honey before they consider it fit for human consumption. What could be more considerate than that? All that needs to be done in this instance is to convince the medical profession and the hospital boards (or whatever they are called now) of the beneficial aspects of our major products.

One final comment. If you readers want further advise on marketing — don't look at me. I can't even sell accountancy services in spite of Rogernomics.

From T.H. Goddard

LETTERS (cont.)

Dear Sir,

Over the last several years, we have been advertising in your Bee Journal for help in our Honey and Pollen operation in Canada through the International Agricultural Exchange Association.

I want you to know we have had some very excellent young people from your country. Several that come to mind that have worked in the past are Gary Glassen, David Stringer and Alan Kilmister. These young men were a real pleasure to have for the season. I would recommend them to anyone that would need reliable employees.

We want to thank you very much for running the IAEA ads. We appreciate your co-operation.

Ernie Fuhr

HONEY TOPPING

¼ cup butter or margarine
¼ cup sugar
¼ cup sifted flour
¼ cup honey
¼ cup chopped nuts

• Cream butter or margarine. Add sugar, flour, and honey and mix thoroughly. Sprinkle with nut meats.

THE VALUE OF INSURANCE

From Graham McCallum

How many beekeepers have been in this unfortunate situation?

Of 34 hives, 16 were burned when a stubble fire jumped the break. All that remained were some concrete bottom boards, scorched galvanised lids, and a lot of nails. Hardly a piece of unburned wood or burr comb could be found.

The farmer and his wife, aware of the apiary, began their burn in a way that would ensure the hives' safety. However, the wind turned! Prompt action on their part, by pushing hives into each other as they exploded, stopped the chain reaction. Needless to say, parrafin wax, paint, dry wood, and wax make an excellent fire.

The stings received by both farmer and wife mean that next time they burn stubble near hives they will take extra precautions. Or perhaps they will call the beekeeper first. However, the real problem is insurance. Who pays?

We may think, of course, that the farmer must. The hives were there for pollination. The farmer started the fire and it got away from him. His problem, we may say. But wrong says the farmer's insurance company. The bees were there to make money for the beekeeper. He therefore puts them there at his own risk.

By this time the farmer is jumping up and down. He screams: "What the hell do I pay big insurance premiums for if I can't make a claim when I need insurance".

However, it appears the only way out is for the beekeeper to sue the farmer under the Public Liability Act. Maybe! Whatever, it leaves no joy for either beekeeper or farmer.

The conclusion was that after the lawyers had gone through their act the insurance company would pay; but after the lawyers had sent their bills it would be hardly worth it to the complainant.

Some who read this will say: "Been there, done that. Once caught, twice shy." Others will say: "No insurance company will do that to me." You want to bet?

TO STORE HONEY

• Keep liquid honey in a dry place. Freezing does not injure the color or flavor but may hasten granulation. Avoid damp places for storage because honey has the property of absorbing and retaining moisture. Do not put honey in the refrigerator.

Dyce Process Patent Revocation

From Toge S.K. & Mildred P. Johansson

When we learned that a British patent awarded to E.J. Dyce for crystallised (granulated) honey had been revoked, we undertook a search to document this event. It has not been mentioned before in sources describing the process.

The Ontario Minister of Agriculture and Food indicated that the only records concerning the Dyce patent were those at the University of Guelph. Professor G. F. Townsend furnished copies of correspondence, and a typescript of what appeared to be an application for the patent numbered 332,685. A copy of a letter from the Commissioner of Patents in Ottawa confirms this is the number of the Canadian Patent issued May 23, 1933. The wording in descriptive paragraphs is altered, and the 26 claims are reduced to 10 in the later United States Patent No. 1,987,893 issued Jan. 15, 1935. There are nine claims in the British Patent No. 392,009. Dr Dyce did not mention the British patent in his article on granulation for the book *Honey* edited by E. Crane (1975). There are two errors in the article: the "978" in the U.S. patent number should be transposed to "987", and the date of the patent changed from 1931 to 1935.

The following statement of evidence as a basis for revocation was filed by the New Zealand Honey Control Board August 24, 1934:

"1. The Applicants for revocation are a corporation established under and by virtue of the New Zealand Statute 15 Geo. V 1924 N. 58 (Honey Export Control Act), a copy of which statute may be inspected at the offices of the applicants' patent agents, Messrs. Reginald W. Barker & Co., of 56 Ludgate Hill, London.

"2. The Applicants control the export of all honey from New Zealand, such control including control of quality, grading, etc. The Applicants also themselves export, market and offer for sale all honey exported from New Zealand to the United Kingdom and to the Irish Free State.

"3. The grounds on which the applicants base their case are as follows:—

A. (a) "Fermentation and Crystallisation of Honey" (Bulletin 528). The Applicants rely upon the whole of this document as constituting an anticipation of the alleged invention. The statements and directions contained in the portion of the document headed "Summary and Conclusions" constitute in the applicants' submission an anticipation of claims 1 to 9 inclusive of the specification 392009.

(b) The Bee World Vol. XIII. No. 3 [March 1932] at page 33 Col. 1, lines 55 seq. discloses that the maximum speed of granulation is at about 57°F.

(c) The Bee World Vol. XIII No. 4 [April 1932] discloses at page 42 col. 1, lines 32, seq. that heather honey can be made to granulate fine by stirring it thoroughly at the time when it commences to granulate. It was also stated that the stirring should be continued as long as possible. The Applicants further rely upon the whole of the article at pages 44 to 46 entitled "The Bee Laboratory" and submit that the said article discloses in detail the whole of the alleged invention and constituted an anticipation of claims 1 to 9 of specification 329009.

(e) New Zealand Bee Keepers' Journal December 21 1914 discloses at page 109 lines 35-43 that heating and stirring gives a fine grain and quick granulation and it is further proposed to improve coarse grained honey by this method. At page 110 lines 41 to 44 it is stated that it is as well to stir a small quantity of fine grained honey into the tank when extracting and that if this is not done the grain will vary from fine to coarse.

(f) Gleanings in Bee Culture Jan. 1932 pages 12 to 15. The whole of the article entitled "Controlling Fermentation and Granulation" is relied upon and in the applicants' submission constitutes a detailed disclosure of the alleged invention described and claimed in claims 1 to 9 inclusive of specification 329009.

(h) Journal of Agriculture (New Zealand Department of Agriculture, Industries and Commerce)

(1) Vol. IX. No. 2. [20th August 1914]. The whole of the article entitled "The Apiary" at page 151-155 is relied upon as containing a detailed disclosure of the alleged invention claimed in claims 1 to 9 inclusive.

(2) Vol. X. No. 6 [21st June 1915]. The whole of the article entitled "Preparing Honey for Market" at pages 526-532 is relied upon as an anticipation of the alleged invention, and the applicants desire to draw attention to the passage at page 526 line 16 to page 528 line 37 which in their submission constitutes a complete disclosure of the subject matter of Claims 1 to 9 inclusive.

(i) Manual of Bee Keeping [by E. B. Wedmore, London 1932] pages 145-146. Paragraphs 704 and 705 disclose the heating and stirring of honey, and in paragraph 705 it is stated that temperatures up to 160°F are usual.

(j) ABC and XYZ of Bee Culture 1929 Ed. discloses at page 374 col. 2 line 53 to page 375 col. 1 line 19 that it was known to whip liquid honey.

B. The nature of the invention or the manner in which it is to be performed is not sufficiently and clearly described and ascertained in the complete specification in that it is impossible to discover in what respect the alleged invention differs from or is distinguished from the prior art, which prior art the applicants submit is not adequately acknowledged in the complete specification; further the applicants submit that there is not described and claimed any manner of new manufacture within the meaning of Section 6 of the Statute of Monopolies.

"4. The Applicants ask for revocation of the patent and for costs."

There are other references not mentioned in the Honey Control Board brief. I. Hopkins stumbled on methods for improving granulation, which were published in the New Zealand Farmer (12(4): 183 (1882), and reviewed in the British Bee Journal for 1886 (14(185): 11). C. P. Dadant was of the opinion that the Dyce process was not patentable, "as it was used long ago by ourselves" (Amer. Bee J. 72(7): 279 (1932).

The firm of Stevens, *et al* of London that acted on behalf of Ontario is still in business, and very kindly tracked down records and sent the following report: "We keep our patent records for

a maximum term of 20 years only, but we have examined the Patent Office's register of progress, and entries in ink show that the Convention date was not granted, that an Application for Revocation under section 26 was advertised in the Official Journal dated 5th September 1934 and that the patent was advertised as revoked in the Official Journal of 10th April 1935.

The trial proceedings do not seem to have been reported."

The Patent Office in London indicated that no details are now available but the UK Patent No. 329009 was revoked on April 2, 1935 as a result of the application under section 26. Fortuitously, *The New Zealand Smallholder* for October 16, 1935 (18(1): 32) did publish the decision signed by G. F. Hambly, Assistant-Comptroller, acting for the Comptroller-General:

> "The decision has been announced agaist Dr Dyce. . . . The decision reads as follows: "In this case the patent was granted to Elton James Dyce for an invention entitled 'Improvements in honey process and product,' and subsequently assigned to Mr. Thomas Laird Kennedy, in his capacity as Minister of Agriculture for the Government of the Province of Ontario in the Dominion of Canada during the time which he occupies that office, and to his successors in that office so long as they may respectively retain it. An application for an Order for Revocation of the patent was left on the 25th August, 1934, and Mr. Duncan Marshall, at that date Minister of Agriculture for the Government of the Province of Ontario in the Dominio of Canada, has consented to an Order for Revocation being made. I therefore order that the patent be revoked forthwith. In the circumstances I award the applicants, New Zealand Honey Control Board, the sum of two guineas in respect of their costs in these proceedings, and direct that that amount be paid to them by the Minister of Agriculture for the Government of the Province of Ontarion in the Dominion of Canada."

It would be interesting to have a statement by someone who was a participant in this action. New Zealand Apiculturist Murray Reid sent the following account by a person who was involved with the Honey Marketing Authority and its predecessors:

> ". . . . I do not believe that affair ever came to Executive minuting. Probably it was dealt with by the Honey Control Board, it was in the time of Hilary and Nelson. The Dyce patent on the process did cause some concern only for a short time, and it was dropped here. I believe it was probably accepted that it could not succeed because it could be proved that it had been done that way for years. Both Nelson and Hilary used to lecture about processing honey that way, apart from the pasteurising it was always taught that as little heat as possible should be used at all times, and with diastase testing in Europe I suppose that still applies. You would not remember Laurie Schmidt, of Hauraki Plains, well his father was looked on as an expert in honey conditioning, and he developed these methods, largely because at that time Hauraki Plains were a very good production area, but one of the main sources was buttercup, the place was completely yellow with it, and it was notorious for coarse granulation, so Schmidt senior developed these methods, others learnt from him, also Hilary and Nelson were pretty active about the country. Oddly enough down South Herron gave me a five pound tin of his honey, which he thought the finest in the country, naturally it was good honey, but I was amazed to find it coarse in granulation. . . ."

A letter to Reginald W. Barker & Co., agents for the New Zealand Honey Board in London, was returned as undeliverable. But the Guelph file contained the following letter sent to the Deputy Minister of Agriculture of Ontario by Smart & Biggar that states the case succinctly:

> "We have received from our British associates a communication advising us that they have received a notification from the Patent Office dated August 30th according to which the New Zealand Honey Control Board has made application under section 26 of the British Patent Act for an order for the revocation of this patent. A copy of the form of application and of the statement of the New Zealand Honey Control Board is enclosed. The period within which a counterstatement may be lodged by the patentee expired on September 14th, but our associates have advised us that they would apply for an extension of two months at the expiration of the appointed time.
>
> "Without having access to the publications mentioned in the document, we would say that the principal publication mentioned is "Fermentation and Crystallisation of Honey" (Bulletin 528 of Cornell University Experimental Station at Ithaca, New York). The article in this bulletin was written by Dr Dyce and we believe it was published in Great Britain before the application for patent was made there, and if such is the case, since we were too late to obtain the benefits of any priority which we might have had under the International Convention for the Protection of Industrial Property, this publication will probably have the effect of rendering the patent void. We believe it would be advisable to refer the papers to Dr Dyce for his immediate consideration and comment. You might ask him to prepare a memorandum with respect to the articles and their dates and let us have copies of the articles and a copy of his memorandum. We shall then be in a position to judge whether or not it will be advisable not to oppose the petition for revocation.
>
> "In the meantime you might be good enough to have the Hon. Duncan Marshall, as Minister of Agriculture, sign the enclosed authorisation form in order that we may send it to our associates to cover their having acted to obtain the two months' extension as they said they would do.
>
> "In a case such as this where the petition is made to the Comptroller of the Patent Office any evidence to refute the claim of the petitioner is put in the form of a statutory declaration. We do not think therefore that it would be necessary in any event for Dr Dyce to go the England to give evidence. We should be glad to hear from you at your early convenience."

Professor Townsend indicated that applications for patents in other countries were denied because of the New Zealand claim of prior use. Royalties were not permitted in Canada, but written permission was required to ensure that those using the process were able to invest in equipment necessary to meet reasonable standards of quality. Dr Dyce resisted publishing articles about his method in beekeeping journals, and required a two-day conference with prospective licensees.

Dr Dyce had visited New Zealand to see first hand the making of an export product with the reputation of "The best honey in the world". That his bulletin contained no references to these techniques may have ruffled more than a few Kiwi feathers. At any rate, the

prospect of paying royalty on honey shipped to Great Britain proved "an impossible position for the industry, and the Honey Control Board took the matter up vigorously" (The New Zealand Smallholder). That the Board succeeded in revoking the Dyce patent is a matter of record, but it would be interesting to know how successfully they were able to compete with the Canadian granulated honey in Great Britain. After all, to break into that market was the objective of Dr Dyce's research.

Note: Copies of the patents can be purchased from Patent Offices in Ottawa and Washington. In the UK from the Patent Office, Publication and Sales Branch, St Mary Cray, Orpington, Kent BR5 3RD, UK.

GLAZED ONIONS OR CARROTS

• Cook small white onions or carrots in boiling salted water about 20 to 30 minutes, or until tender. Drain. Let stand a few minutes to dry. Melt four tablespoons butter in pan. Add ¼ cup honey. When well blended, add onions or carrots and cook slowly until browned and well glazed. Turn vegetables occasionally for an even glaze.

SWEET-SOUR CABBAGE

4 cups shredded cabbage
½ cup diced bacon
3 tablespoons flour
¼ cup honey
¼ cup vinegar
½ cup water
1 teaspoon onion, chopped

• Cook shredded cabbage in boiling salted water until tender. Drain. Dice bacon. Cook until well done. Remove bacon and place on cabbage. Blend bacon fat with flour. Add honey, vinegar, water, and chopped onion. Cook until thickened. Pour over cabbage and bacon. Season to taste. Heat thoroughly. Serve hot.

Note: This same recipe may be used with cooked potatoes instead of cabbage.

FROSTING WITH CHOPPED APRICOTS

• To bofiled Honey Frosting add ⅔ cup of well washed, chopped dried apricots. Add ¼ teaspoon each of almond and lemon extract. This frosting gives a new flavor to a light cake.

REFRESHING PARTY DRINK

1 quart currants
1 pint water
1 cup honey
1 small stick cinnamon
5 oranges
3 lemons
water

• Wash currants, place in a kettle and cover with water. Reserve ¼ cup currants for garnishing. Simmer gently for 10 minutes. Strain. If a clear juice is desired, do not press the pulp. Combine the pint of water, honey, and cinnamon and boil for 5 minutes. Remove the spice stick. Combine the juice of the oranges, lemons, and currant juice with the spiced sirup, diluted to taste. Fresh pineapple or cranberry juice may be used instead of orange and lemon juice. Serve hot or cold.

"With butter, egg and good honey
Your cake will moist and flaky be."

"A little honey in the canning
Mixed with the juices is good planning."

SPRING 1988 — AUTUMN 1989
PREVIOUS PRICE LISTS CANCELLED

ITALIAN QUEENS

- **OUR QUEENS PRODUCE**
- **LARGE NUMBERS**
- **HARD WORKING HONEY HUNTERS**
- **GENTLE TO MAN**

Available October through to March
**September fully booked up*

1-9 $12.00 ea	10-49 $11.00 ea
50-149 $9.50 ea	150 plus $8.50 ea

Plus 10% GST
Terms: Cash before despatch unless otherwise arranged.

- *September delivery $1.00 extra per Queen, + 10% GST*
- *December-January delivery $1.00 less per Queen, + 10% GST*

TO:
WHITELINE QUEENS,
P.O. BOX 1582,
WHANGAREI.
TEL. (089) 31-893

I require No. .....
Italian Queens for delivery in the month of .....
(choose October through to March).

I enclose $ .....
payment in full

NAME: .....

POSTAL ADDRESS: .....

.....

.....

TELEPHONE: .....

Whiteline Queens

TELEPHONE (089) 31-893
PAT and TERRY GAVIN

Breakthrough in Wasp Control

From the DSIR

The Department of Scientific and Industrial Research has dealt the first fatal blow to wasps in the South Island.

Parasites introduced into New Zealand to control the nation's increasingly serious wasp problem have attacked wasps at Pelorus Bridge near Nelson.

A DSIR research team, funded partly by the Department of Conservation, has found that the parasites have destroyed wasps in two of 40 nests at Pelorus Bridge.

Leader of the DSIR's wasp control research project, Dr Barry Donovan of the Entomology Division at Lincoln, said the scientists were delighted with the first results from the initial pilot programme.

"It is the first concrete evidence that the parasites have established in the field," he said.

"It is a tremendous thrill to get this success so early. It is very encouraging news. It proves the whole procedure for introducing the parasites works.

"It augurs well and encourages our hopes that the parasite will exert a controlling influence on the problem wasp population."

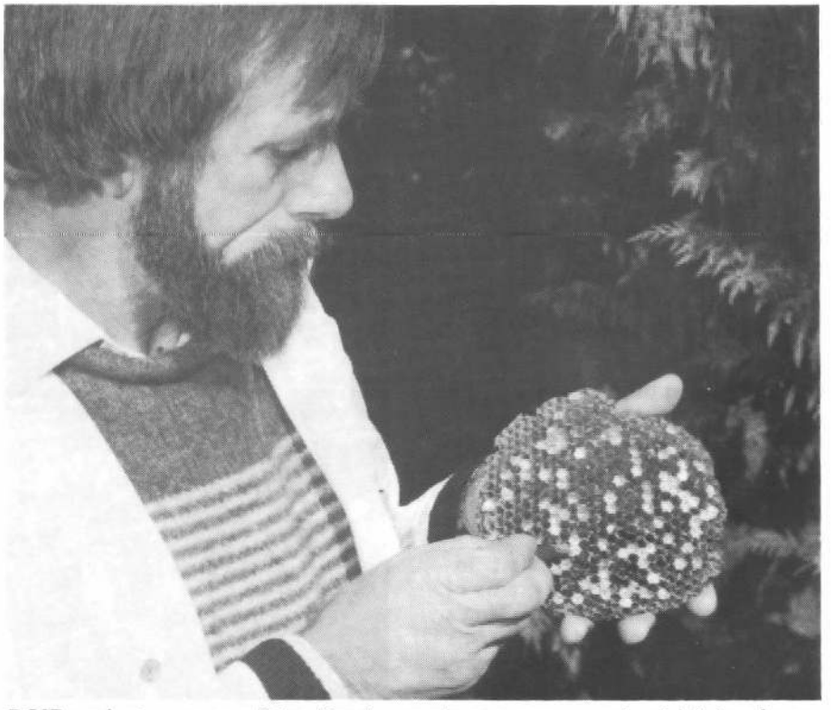
The Entomology Division imported the parasite, a midge-like insect which attacks only wasp nests, into New Zealand following growing concern about reports of an increasing number of wasps. The German wasp arrived in New Zealand during the 1940s and a second species, the common wasp, arrived a few years ago, probably in the 1970s.

The parasites were first released in the South Island in the regions of all the 25 councils or organisations which had contributed to the project. The first field assessment took place in the Marlborough-Nelson-West Coast region, in conjunction with the Department of Conservation, local bodies, beekeepers, and others in the area who had financially supported the project.

Early last year North Island councils were also invited to support the research project.

At the end of summer 1988 staff at DSIR's Ecology Division collected 300 wasp nests from the region and refrigerated them for later evaluation. The first examinations revealed two nests of common wasps which have been attacked by the parasite.

Dr Donovan said the parasites had attacked the wasp cells, killed the developing wasps and establishing themselves in the nests. One of the nests attacked was 33 metres from where the parasites had been released, the other was 625 metres away.



DSIR project manager, Peter Read, examines a wasp comb which has been attacked by parasites. The white parasite cocoons, seen in this picture, were formed in the cells where the parasite had killed a wasp.

These results showed the parasite could distribute itself over large distances and could enter and attack the wasp nests.

The parasites appeared to be "extremely efficient" at locating and attacking wasp nests because only a small number of parasites had been released.

The parasites had destroyed 471 wasps in one nest and 1050 in the other. The parasites had themselves multiplied through several generations and some had then left the nest in search of other wasp nests.

This assessment work, examining the wasp nests from the region, is continuing in Nelson.

Dr Donovan said the initial results had made it "more certain" that the parasites were going to produce some noticeable effects on the wasp population in the regions where the parasites had been released.

The rapid multiplication of parasites in these two nests suggested there would be many more parasites remaining in the area to attack wasp nests this year.

"But for overall beneficial effect the parasites would have to be distributed much more widely," he said. "To date, only a very small land area has had the wasp parasite released on to it. There are vast areas which need releases of parasites."

Following the successful introduction of the parasites into the South Island the Entomology Division is extending the control programme to the North Island. All local bodies and other interested organisations in the North Island have been invited to contribute to the cost of the programme.

Dr Donovan said so far about 15 county councils and other organisations in the North Island had confirmed they would like to support the project.

He said the DSIR had the potential to supply many more than that. Councils and other organisations, either in the North Island, or those in the South Island which had not yet contributed, would have to decide if they wished to be included in a release of parasites.

Kiwifruit Spray Pollination — The Test

Reprinted Courtesy AgriSearch

In August 1986, AgriSearch reported on a spray pollination system for kiwifruit developed by MAFTech scientist Dr Murray Hopping and marketed by Turners and Growers under the trade name PollenAid. At the time, the system was heralded as a major break-through in the fight for consistently larger, better quality kiwwifruit. Two seasons on, we catch up with Murray Hopping to see how PollenAid has fared.

Pollen, collected from hand-picked male kiwifruit flowers, is suspended in a special solution and then sprayed on to the female flowers to improve pollination. By using this technique it was claimed that export packouts could be improved by as much as 25 percent.

Now, almost two years later, Murray Hopping says continuing research has improved the economics of spray pollination even further.

"When PollenAid was first introduced it took about five grams of pollen to cover a mature vine. That's been cut to about one and a half grams with the new Ruakura air shear sprayer," Hopping says.

Good pollination is vital to kiwifruit production because the final size and weight of the fruit is directly related to seed number. And seed number is in turn related to the number of viable pollen grains transferred from the male to the female flowers.

Hopping says the next step in the evolution of artificial pollination is the development of all-male orchards for the commercial production of kiwifruit pollen.

"Even though there are considerable savings to be made if growers collect their own pollen, I think a lot of them would prefer to buy it once it becomes commercially available.

"We're researching the male orchard concept right now, with a male block planted at the Ruakura Agricultural Centre in Hamfilton. This block will yield substantial amount of pollen by August next year," he says.

Production from the Ruakura male block, plus what is produced by other operations, will make about a tonne of pollen available to growers in the next couple of seasons.

"That's going to further change the economics of the entire spraying operation," Hopping says.

It will also mean more research into the storage of a material that is notoriously difficult to keep in large quantities.

Spray pollination can lift export packouts by up to 25 percent.

"No-one has ever thought about storing a tonne of pollen," Hopping says.

"In the past we've kept, at most, about three kilograms. The prospect of storing a tonne of the stuff brings up a whole range of new problems.

"There are over 200 million pollen grains in a single gram of pollen, and each grain has to be exposed to just the right conditions to remain viable for any length of time."

Looking to the way pollen is applied, he says there are not likely to be any new developments in the meantime.

"There may well be more efficient ways of applying the pollen, but it probably isn't worth pouring a lot of research dollars into it at this stage. Besides, we're very happy with the system we've developed for suspending the pollen grains."

Tauranga kiwifruit grower, Dave Stewart, has been using spray pollination ever since it became commercially available. Last season he packed 68,000 trays of export kiwifruit.

"I estimate the orchard produced an extra 12,000 trays because I used spray pollination," says Stewart.

"The first year we used it the results were very good. However, in the second year the fruit size and fruit set seemed to drop away a little," he says.

But the investment was well worth it. Dave Stewart says the $20,000 PollenAid package paid for itself in the first season.

"I would actually like to buy another so I could speed up the whole operation, but present kiwifruit prices simply haven't warranted the outlay."

Not everyone has shared Dave Stewart's good results, however. Some growers found that it took two seasons to get the system to run smoothly and efficiently. To some extent Stewart agrees with this.

"The hardest thing is getting your pollen collected, but once you've done that the rest of the operation is fairly straightforward," he says.

The idea of pollen becoming com-

mercially available appeals to Stewart — but only if the price is right.

If pollen were more available, he says, spray pollination would probably become more popular among growers, especially with those who haven't bought the package yet.

"There's been a steady increase in grower interest in artificial pollination since it first came out, mainly because of the even size and better shape you get," he says.

And what of the good old honeybee. Does it still have a place in a modern kiwifruit orchard?

For his part, Dave Stewart still uses honeybees to help with pollination. But there are many growers who don't use bees, preferring to rely on the flexibility of PollenAid for the job.

Another trend among growers who use spray pollination has been the removal of male vines from the orchard altogether, freeing up valuable space for replanting with fruit-producing females.

Contact: Dr Murray Hopping, Ruakura Agricultural Centre, Private Bag, Hamilton.

The business end of spray pollination. The pollen suspended in liquid is sprayed on to female flowers.

PESTICIDE SAFETY

From the Pesticide Board via Straight Farrow

"Car hits lamp-post" is a pretty common headline. And you will probably be familiar with similar claims that "pesticide contaminates water supply" or "Pesticide damages fruit trees".

Pesticides, like cars, are dangerous when people use them thoughtlessly or without proper awareness of safety precautions.

Much of the risk of these agricultural chemicals is removed if people use them the right way. This means:

- hitting the right target,
- with the right product,
- using the right equipment and application rates,
- at the right time,
- under the right weather conditions,
- locking pesticides away when not in use,
- safely disposing of used containers,
- and keeping in touch with neighbours.

To start with, you've got to establish clearly what you're spraying for. Only spray for a known problem, not a suspected one. Don't guess — consult a farm adviser if you are not sure.

And, most important of all, when you have decided on a product, read the label carefully and follow the directions to the letter.

Proper equipment for the job is also important. Always apply sprays with the right sized nozzle at a suitable pressure to give required coverage while minimising drift. Correct calibration is crucial — check, and, if necessary, adjust the equipment to ensure it is applying the amount of spray it is set for.

Correct timing means spraying at the stage when the pest is most vulnerable and/or the crop is most resistant to pesticide damage. It also means choosing the best time of the day and the most suitable weather.

Evening and morning spraying are examples of good timing. Not only are bees safely out of range at sundown, but the wind often drops as well, so reducing the danger of spray drifting. The pesticide application instructions will give clear guidelines, and the legal obligations, for avoiding mishaps to bees and other beneficial insects.

If a spray is not applied at the correct time to overcome the problem, it is a wasted spray — especially if it has to be done again. And wasted spray is wasted time, effort, and money.

Wind is the major cause of spray drift, which is also a waste of money. So do not spray in winds exceeding 10 km per hour (when leaves and twigs are constantly moving). Even then, make certain there are no susceptible crops or inhabited areas downwind.

Still air can be as dangerous as strong wind because spray can drift any way. A light wind spreads spray droplets evenly and so lessens the risk of drift. Conditions are ideal when leaves are just rustling and you can feel a breeze on your face.

Drifting of chemical sprays from the intended target can upset neighbours, and with good cause. If chemical directed at insect pests on kiwifruit spreads over a nearby apple orchard where trees are in blossom and bees in flight, the bees may be killed and pollination reduced. An expensive damages claim could follow.

It helps to discuss your spraying plans with neighbours in advance, especially when homes and schools are in range. In the case of a nearby school, for example, you could arrange to spray when the children are indoors or at home.

When you have finished spraying, lock the containers safely away, out of reach of children. Dispose of empty containers safely by squashing, burning, or burying, unless specified on the label.

Overall, be aware of pesticides — their benefits and dangers, and their effect on the environment and other people.

Record Number of Beehives Shipped

By Alistair M. Isdale - Courtesy Hauraki Herald

During July, 1882, the news that Father Nivard Jourdain, so well known among Catholics and all others during the first days of Thames, was dying in China, was received with sadness. That included the Presbyterian minister of the early days, the Rev. James Hill, who was now in Canterbury.

Father Nivard would tramp the wild hills among the miners, with cheery greetings, and help for those in misfortune, irrespective of creed.

Up at the head of the Waiotahi, some miners asked him to help name their new claim. It was a small area, but good. Father Nivard suggested calling it Multum in Parvo, meaning much in little. So it was named.

In July, 1882, Thames and out districts (not counting Coromandel) produced 2514 ounces of gold from 2069 tons of quartz, mostly from Thames itself. The total would be worth around two thirds of a million today, Waihi, just getting going, gave 153 ounces.

The Martha got 107 ounces from 250 tons of quartz. That was not high grade, but Waihi had unlimited supplies of quartz, all of a fairly even grade. At Thames, miners could run from barren to bonanza in a few feet and then back again, but not at Waihi.

At the end of July, prospector Bill Nicholl took over the management of the battery from Gribble of Thames. He thought the patent turbine ineffective, and processed the Martha ore by more traditional methods. He got gold.

Timber was doing well, with both local and export demands and good prices. The Thames River Steam Navigation Company were "endeavouring to keep pace with the increasing timber trade on the Thames river, which their present fleet of barges is unable to accommodate. The two barges recently built by Messrs Stone and Savage (of Thames) are each capable of carrying 13,000 feet of timber, and the company has now ordered from Mr Savage a vessel suitable for the stowage of about 20,000 feet."

Bagnalls of Turun continued to work on the huge white pine forests with their sawmill, and landing stage for ships. White pine being odourless, they were shipping out record numbers of patent beehives.

Of these, 100 went to Gisborne, and Firth was ordering 200 for his big bee enterprise at Matamata, with its 80,000 acre estate. it was reported that Firth intended to "go in for the production of honey on a scale equal in proportion to the other enterprises with which this energetic colonist is the moving spirit.

He had recently taken Isaac Hopkins from Thames, where he had been the resident bee expert. Hopkins had just brought out the second edition of his bee manual for New Zealand.

Another ship was added to the river fleet. This was the screw streamer Marion, to connect with the Ruby from Auckland at the Puke Junction, where the Ohinemuri and Waihou joined to form the Thames in those days, and go up the Waihou to Te Aroha, being a small steamer of shallow draught.

Another steamer, the Waitoa, was specially built for the trade, and launched at Auckland. And Thames still did some shipbuilding, like Stone and Savage with the barges.

There continued to be roadmaking and optimism — at least for summer conditions. On August 10, tenders were called for a mail coach service all the way from Thames to Tauranga by Vessy Stewart, who had brought out his Ulster settlers to Katikati a few years before.

That was particularly optimistic as the Rotokohu Swamp stretch of road between Pacroa and Te Aroha, with heavy rains, had been under 18 inches of water for weeks. Nearly enough for the shallow draught steamers which continued along the riverway between Paeroa and Te Aroha.

But ships could not go overland between Paeroa and Tauranga.

Meanwhile, even at Thames there was mud, one mudbath by the intersection of Richmond and Queen Streets being called "The South of Despond". It had to be filled with waste rock from the mines.

TREE TIES ALLOW NATURAL GROWTH

A British tree tie with an automatic tension adjuster offers considerable savings in after care costs.

Tac Tree Ties and Automatic Tension Adjusters, from Tyne Auto Components, are designed to hold young trees firmly in place while allowing flexibility and natural growth.

Ideal for use by local authorities, foresters and gardeners, trees fitted with the automatic tension adjuster should not require further adjustments for up to five years.

Manufactured from quality rubber reinforced with random nylon threads, the ties will withstand extreme temperature without loss of flexibility and can be nailed without splitting.

They are available in a range of five standard sizes from 457 x 12.7mm to 457 x 51mm and at over 457mm as required, and are supplied in minimum quantities of 500.

The tree ties can also be supplied without automatic tension adjusters, and extra spacers are available.

WIND TURBINE GENERATES ELECTRICITY

A wind turbine which, in conjunction with a battery bank, can provide a steady electrical power supply — for remote telecommunications systems, coastguard stations, navigational units, farms or dwellings — has been developed by a British company.

The Furlmatic 1800 will supply up to 450VA of rectified ac into a lead acid battery bank of 12, 24 or 36V nominal at wind speeds of up to 40km/h.

The principal advantage of the unit is electronic switching of the generator stator windings which allows battery charging to begin at wind speeds as low as 8km/h. To protect the blades, generator and supporting structure against the effects of strong winds, the furling tail fin is automatically actuated at wind speeds of 40km/h, turning the unit out of the wind to reduce stresses. The three-bladed rotor is 1.83m in diameter.

A further advantage is that the power is generated at 70-100V, a voltage high enough to reduce transmission losses between generator and battery bank, leading to higher efficiency.

"All candy calls for flavor sweet
And honey therein can't be beat."

"Here honey lends refining touch
If not too spare or not too much."

Classified Advertisements

Available only to registered beekeepers selling used hives, used plant, and other apiary equipment, and those seeking work in the industry. $16.50 for 20 words (inclusive of GST) payable in advance. No discounts apply. No production charges. Maximum size: 1/6 page. No box number available.

FOR SALE

Hives 300 available, as new $90 each. Ford Truck D 0610, 1973, with loader, extra tidy. 67,500 mls LPG/Petrol, $12,000. Ph: (075) 490-810.

Boom Hive Loader for small truck or ute. 12 volt winch. 8 foot reach, $350. Phone 84588 Hastings.

SITUATIONS VACANT

Help Wanted in Canada — Pollen and Honey Operation. Must be single, between 18 to 26 years old. Apply through IAEA, Armstrong House, 3/31 Quay Street, Box 328 in Whakatane, New Zealand or write Ernie Fuhr, c/o North Peace Apiaries Ltd, R.R. #1, Fort St. John, B.C. V1J 4M6.

SITUATIONS WANTED

Fit 19-year-old youth would like employment with a South Island beekeeper. Experience — 1 season. Kevin Murray, PO Box 320, Opotiki, Bay of Plenty, Tel. (076) 57650.

APPLESAUCE CAKE

⅓ cup shortening
¾ cup honey
2 cups flour
¼ teaspoon cloves
½ teaspoon cinnamon
½ teaspoon nutmeg
¼ teaspoon salt
1 teaspoon soda
1 cup cold, unsweetened applesauce
1 cup seedless raisins

• Cream shortening. Add honey gradually, creaming after each addition. Mix and sift together dry ingredients and add alternately with the applesauce to the creamed mixture. Fold in raisins. Pour batter into a well-greased 8x8-inch pan. Bake in a moderate oven (350°F.) for about 45 minutes.

"Of all the cookies I have eaten
Those made with honey can't be beaten."

"If you a happy cook would be,
Use honey in your recipe."

OTHER PUBLICATIONS

INTERNATIONAL BEE RESEARCH ASSOCIATION (IBRA)

IBRA is a charitable trust providing scientific and practical information on bees and beekeeping worldwide. All members receive BEE WORLD. For full details of IBRA services and Membership contact: International Bee Research Association, 18, North Road, Cardiff CF 1 3DY, UK, Tel: (0222) 372409 or (0222) 372450 (ansaphone), Telex: 23152 monref G 8390.

THE SPEEDY BEE

Keep up with the latest in the United States beekeeping industry with reports of meetings and developments from The Beekeepers' Newspaper. Published monthly. $20.00 per year (mailed First Class). Write for air mail rates. The Speedy Bee, P.O. Box 998, Jesup, Georgia 31545 USA. Write for free sample copy.

THE APIARIST

A New Zealand Beekeeping Journal. Published every two months. Contains informative and interesting articles on beekeeping in New Zealand and overseas. Subscriptions: Free to all registered beekeepers in New Zealand with six hives or more. $5.00 per annum, if less than six hives. Write to: The Editor, "The Apiarist", P.O. Box 34, Orari, N.Z.

SOUTH AFRICAN BEE JOURNAL

The leading bee journal in Africa for over 75 years. Official organ of the Federation of Beekeepers' Associations, published bi-monthly in English and Afrikaans. Primarily devoted to the African and Cape bee races. Subscription, including postage: R30,00 per annum, payable in advance in South African Rands. Apply: The Federation Secretary, P.O. Box 4488, 0001 Pretoria, South Africa.

AUSTRALASIAN BEEKEEPER

Senior Beekeeping Journal of the Southern Hemisphere. Complete coverage of all beekeeping topics in one of the world's largest beekeeping countries. Published monthly by Pender Beekeeping Supplies P/L, P.M.B. 19, Gardiner St., Rutherford. N.S.W. 2320 Australia. Subscription by Bank Draft. In Australia or New Zealand — $A9.60 per annum (in advance), postpaid.

FARMING UNCLE

Magazine for homesteaders! Covering small stock, gardening, bees, and much, much more. Free information or $US8.00 one year ($US12.00 foreign). Money-back guarantee! Farming Uncle, ®, Box 91E92, Liberty, N.Y. 12754, USA.

OTHER PUBLICATIONS

SCOTTISH BEE JOURNAL

Packed with practical beekeeping. $4.80 a year from the Editor, Robert N. H. Skilling, F.R.S.A., F.S.C.T. 34 Rennie Street, Kilmarnock, Ayrshire, Scotland.

BRITISH BEE JOURNAL

Monthly — Single copies 22p plus postage. OVERSEAS: Annual subscription 4.20 sterling or $18.40 post paid. Keep up to date by taking out a subscription now from us at — 46 Queen Street, Geddington, Northans, NN14 1AZ, England.

GLEANINGS IN BEE CULTURE

Do you have questions or problems about beekeeping in different areas? Learn how to solve them by reading "Gleanings in Bee Culture", the largest circulation English language bee journal, and made up of articles by well-known professors and beekeepers, like yourself, who tell how they have succeeded in beekeeping. For Subscription rates write to: Gleanings in Bee Culture, P.O. Box 706, Medina, Ohio 44258, USA.

INTERNATIONAL BEE RESEARCH ASSOCIATION

What do you know about the INTERNATIONAL BEE RESEARCH ASSOCIATION? The many books and other publications available from IBRA will deepen your understanding of bees and beekeeping: an IBRA membership subscription — inclusive of *Bee World*, a truly international magazine published quarterly in the English language — will broaden your beekeeping horizons. Details from IBRA voluntary representatives for New Zealand, Andrew Matheson, MAF, Private Bag, Tauranga or Peter Brunt, Nelson Polytechnic, Private Bag, Nelson, or from International Bee Research Association, 18 North Road, Cardiff CF1 3DY, UK.

THE SCOTTISH BEEKEEPER

Magazine of the Scottish Beekeepers' Association, International in appeal, Scottish in character. Memberships terms from: D. B. N. Blair, 44 Dalhousie Road, Kilbarchan, Renfrewshire PA10 2AT, Scotland. Sample copy on request. Cost 30p or equivalent.

AMERICAN BEE JOURNAL

Subscribe now to the oldest bee magazine printed in the English language. Amateur, professional and scientific news makes ABJ an attractive buy for any beekeeper. World-wide crop and market page an outstanding feature. The American Bee Journal is the largest monthly apiculture magazine in the world. Enquiries to American Bee Journal, Hamilton 1U.62341 USA.

BAY OF PLENTY POLYTECHNIC
P00099436

NATIONAL BEEKEEPERS' ASSOCIATION

Promotional items for sale

Pamphlet "Bees and Honey"	**22** cents each
NBA Pens "Honey You're Sweet"	**$5.06** per box members
	$5.50 per box non members
Stickers "I Love my Honey"	**$2.75** per box
Trees for Bees Posters	**55** cents each
Trees for Bees Tags	**$3.30** (box 100)

BOOKS

Practical Beekeeping in N.Z.
by Andrew Matheson
$17.60

Nectar & Pollen Sources of N.Z.
by R.S. Wash
$2.20 members
$2.75 non members

NEW

Recipe Sheets
20 cents each

Honey Bear & Bee Stickers
Honey Bear & Bee Mobiles
(price to be advised)

Available from
Jan Chisnall "Maungatai"
R D Greta Valley

—OR—

Jacqui Ashcroft
Ashcroft's Honey House
Martin Place, Havelock North

PLEASE NOTE
Prices include GST but
PLEASE ADD POSTAGE