ISSN 0110-6325

The New Zealand BeeKeeper

JULY 1997
VOL 4 . No. 6

The Official Journal of the National Beekeepers' Association of New Zealand (Inc.),
P.O. Box 3079, Napier, New Zealand. Tel. (06) 843-3446, Fax: (06) 843-4845.

If undelivered please return to:

National Beekeepers' Association of New Zealand (Inc.)
P.O. Box 3079, Napier, New Zealand.

POSTAGE PAID
PERMIT No.
384
HASTINGS, NZ.

NATIONAL EXECUTIVE BEEKEEPERS' ASSOCIATION OF N.Z. (Inc.)

President:
Nick Wallingford,
55 Watling Street,
Tauranga.
Tel/Fax (07) 578-1422

Vice-President:
Richard Bensemann,
State Highway 77,
R.D. 6, Ashburton.
Tel/Fax (03) 308-8423

Executive:
Tony Taiaroa,
43 Princess Street,
Waikari 8276, Christchurch.
Tel/Fax (03) 314-4569

Russell Berry,
Arataki Honey Ltd.,
Rotorua Division,
Waiotapu RD 3., Rotorua.
Tel. (07) 366-6111
Fax (07) 366- 6999

Terry Gavin, P.D.C., Titoki,
Private Bag,
Whangarei.
Tel. (09) 433-1893
Fax (09) 433-1895

Keith Herron,
Greenvale Apiaries,
No 5 RD, Gore.
Tel/Fax (03) 207-2738

Executive Secretary:
Harry Brown
National Beekeepers Assn of NZ,
P.O. Box 3079, Napier.
Tel. (06) 843-3446, Fax (06) 843-4845
E-mail: natbeeknz@xtra.co.nz

Editor New Zealand Beekeeper:
Harry Brown
National Beekeepers Assn of NZ,
P.O. Box 3079, Napier.
Tel. (06) 843-3446, Fax (06) 843-4845
E-mail: natbeeknz@xtra.co.nz

Hon. Librarian:
John Heineman
C/- NZ Post Shop, Milton, Otago.
Tel. (03) 417-7198 (bus)
(03) 417-7197 (home)

New Zealand Honey Food & Ingredient Advisory Service
OF THE NATIONAL BEEKEEPERS ASSOCIATION OF N.Z. (INC.)
312 Scott Street, P.O. Box 32, Blenheim, New Zealand. Tel: 03-577 6103, Fax: 03-577 8429

1997 Subscriptions: N.Z. $38.00 (GST Incl). Overseas Airmail US $38.00. Economy mail US $31.00.

BRANCHES

The first named person is the **President/Chairperson.** The second is the **Secretary.**

FAR NORTH
Bob Banks
Taupo Bay, Northland.
Tel: (09) 406-0692
Bruce Stevenson
Kemp Road, Kerikeri.
Tel: (09) 407-7190
Fax: (09) 407-7194

NORTHLAND
John Gavin
PDC, Titoki, Private Bag, Whangarei.
Tel/Fax: (09) 433-1893
Mrs Edna Hoole
Sheddock Apiaries, R.D.1., Paparoa,
Nth Auckland.
Tel/Fax: (09) 431-7348

AUCKLAND
Brian Alexander
Woodhaugh Apiaries, R.D.3.,
Kaukapakapa.
Tel: (09) 420-5028
Jim Thompson,
125 Queen Street, Pukekohe.
Tel: (09) 238-7464
Fax: (09) 232-8429

WAIKATO
L.A. Olsen
Ohaupo Apiaries
Great South Road, RD 3, Ohaupo.
Tel: (07) 823-6706
Tony Lorimer
'Kahurangi-o-Papa', R.D. 3., Hamilton.
Tel: (07) 856-9625 Fax: (07) 856-9241

BAY OF PLENTY
Gerrit Hyink
271 Lindemann Road,
Katikati.
Tel/Fax: (07) 549-1223
Ross Carroll
78 Laurel Drive,
RD 6, Tauranga.
Tel: (07) 552-4585

ADVERTISING RATES ON REQUEST

HAWKE'S BAY
Colin McLean,
Bees Landing,
240 Onehunga Road,
Bay View, R.D. 2,
Napier.
Tel: (06) 836-7199
Ron Morison,
6 Totara Street, Taradale.
Tel/Fax: (06) 844-9493

POVERTY BAY
Peter Burt,
27 Murphy Road, Wainui,
Gisborne.
Tel: (06) 868-4771
Barry Foster,
695 Aberdeen Road, Gisborne.
Tel/Fax: (06) 867-4591

SOUTHERN NORTH ISLAND
Mr P.J. Ferris,
Happy Honey Bee Apiaries
R.D. 11, Opaki, Masterton.
Tel/Fax: (06) 378-7632
Frank Lindsay,
26 Cunliffe Street, Johnsonville,
Wellington 6004.
Tel/Fax: (04) 478-3367

SOUTH ISLAND

NELSON
R.C.F. Lambie,
Anatoki Apiaries, Long Plain Road,
Takaka.
Tel: (03) 525-8322
Michael Wraight,
Braeburn, R.D. 2., Upper Moutere,
Nelson.
Tel: (03) 526-7708

MARLBOROUGH
Will Trollope,
Box 28, Tua Marina, Blenheim.
Tel: (03) 570-5633
Jeff Hook,
R.D. 4., Blenheim.
Tel: (03) 578-2640

WEST COAST
John Glasson,
34 Shakespeare Street,
Greymouth, Westland.
Tel/Fax: (03) 768-4793
Sandy Richardson,
Napoleon St., Ahaura, Westland.
Tel: (03) 732-3724

CANTERBURY
Ashburton Apiaries
G.P. Bongard
205 Alford Forest Road, Ashburton.
Tel: (03) 308-3927
Mr T.W. Corbett
80 Glenmark Drive, Waipara,
North Canterbury.
Tel/Fax: (03) 314-6836

SOUTH CANTERBURY
Peter Smyth,
Templer Street, R.D. 22, Geraldine.
Tel: (03) 693-9889
Noel Trezise,
Woodbury Road, R.D. 21., Geraldine.
Tel: (03) 693-9771

OTAGO
Blair Dale,
P.O. Box 23, Middlemarch, Otago.
Tel: (03) 464-3786 Fax (03) 464-3796
Bill McKnight,
42 Parsonage Road, Lawrence, Otago.
Tel: (03) 485-9268

NORTH OTAGO
R.B. Rawson,
23 Aln Street, Oamaru.
Tel: (03) 434-5242
Algie Lawrence,
11 Main Street, Weston, Oamaru.
Tel/Fax: (03) 434-5476

SOUTHLAND
Shaun Lawlor,
198 Brougton Street, Gore.
Tel/Fax: (03) 208-8210
Don Stedman,
40 Louisa Street, Invercargill.
Tel/Fax: (03) 218-6182

The New Zealand BeeKeeper is published eleven times per annum; February to December. All copy should be with the Editor by the 1st day of the month of publication except for December when copy should be received by 20th November.

Notes from the President

Nick Wallingford

Shortly before writing these notes, the notification of the NBA's Pest Management Strategy was confirmed. While I feel in a sense I should write these notes about that important event, I feel also that the Disease Control Committee has that all well in hand! Elsewhere in this magazine you'll find details and information that is of critical importance to the future of the industry's disease control plans. Please read and participate! There. Now I can write about whatever I want to!

This is the thirty-third time I have sat to write these notes as the President of the National Beekeepers' Association. It is my last, and I feel a sense of both relief (in not having to meet the deadline again!), and pride in being able to have had this forum to express myself as your President.

I've several times sat before this computer and thought there was really nothing I could write that would have serious meaning to the NBA membership. Sometimes, I've surprised myself, too, in finding a topic and a viewpoint that made me proud of what I wrote, as I felt it could inform, stimulate discussion and help to formulate an industry viewpoint on an issue.

The column that attempted to highlight the activities (and non-activity) of the Executive in May 1995 brought out all sorts of strong feelings among the membership, and particularly some of the Executive! I was obliged to apologise for several errors I made. I do make errors, and I do apologise when I make them. I still believe that the NBA membership needs to know more about how the work of the organisation gets done, and the Executive members should be willing to accept accountability for the work they both do and don't do after agreeing to do so. Just because the organisation depends to a great extent on voluntary effort doesn't mean it should accept anything less than outstanding performance!

From two of my columns, I've had implicit and explicit threats of legal action! While it was somewhat unsettling, I am pleased that in neither case did the people involved actually find reason to proceed further!

I've several times attempted to put some of the last few years of NBA activity into a chronological context, reminding us of why and how we have gotten to the present point with the bigger issues such as Commodity Levy or with our Pest Management Strategy. These 'historical' pieces have been enlightening to me even as I wrote them. Though I have been involved or at least aware of the decisions on the issues, it is sometimes only by putting it all down on paper that I realise how we have gotten to a particular point. It is important sometimes to trace how an over-riding philosophy, backed with a multitude of smaller decisions, can lead an organisation to a desired end point.

I've been present at many momentous meetings in the longer term history of the NBA. I've been able to help formulate a levy system, having watched it wend a slow but consultative path through the industry, and the even slower and more tortuous path through the legislative process! I was able to publicly state at least three times that we reached a final solution to the poisoning of bees with 1080 jam baits — like I say, I'm not always right! But, it seems now, the last time I did manage to say it and not get proven wrong by events!

I've received some of the most heartwarming "thank you's" and phone calls and letters of appreciation that anyone should ever be able to expect in doing a job like this. For those of you who have supported me, whether you have let me know about it or not, I sincerely thank you. I can say with no hesitation that I have done my very best to reflect the feelings of New Zealand's beekeepers, and I feel good about what we have accomplished together.

I may very well become involved in NBA affairs in the future (that should keep a few people out there on their toes, hopefully!). In the meantime, you can be assured that I will still maintain an interest in the NBA and with the beekeepers that make it the fine organisation that it is.

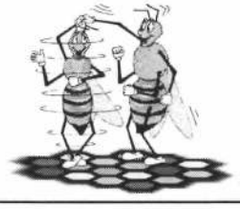
Thank you for the opportunity you have given me to serve you as President for these last three years.

Library News

Canadian Association of Professional Apiculturists. *Honey Bee Disease and Pests. 1996, 25pp, Canada.*

It has been presented to the library by Cliff van Eaton, MAF Tauranga. Thank you.

A very good little book, compiled by a team of experts. Clear text, good colour photos. It covers a wide range of endemic and (for us) exotic diseases, protozoa and mites and abnormalities. Written for Canadian beekeepers but of good use to us here in New Zealand too.



Notification of Rates of Levy for 1997 Calendar Year

The National Beekeepers' Association of New Zealand (Inc.) advises that the rates of levy payable under this order have been fixed by the association for 1997.

The levy is payable at two rates, being:

(a) Class 1: A rate of $50 plus G.S.T. payable for each beekeepers' first apiary site; and

(b) Class 2: A rate of $22 plus G.S.T. payable for each additional apiary site.

The levy for 1997 is calculated for a beekeeper on the basis of the number of the beekeepers' apiary sites on 1 June 1996.

A beekeeper who owned or controlled fewer than 11 beehives and had fewer than four apiary sites on 1 June 1996 is exempt from paying the levy for 1997, provided he/she supplies a statutory declaration to that effect to the association.

For further information please contact Harry Brown, NBA Executive Secretary, P.O. Box 3079, Napier. Telephone (06) 843-3446. Facsimile (06) 843-4845.

Front cover...
Sunny Nelson. Photo taken by Nelson Tourism.

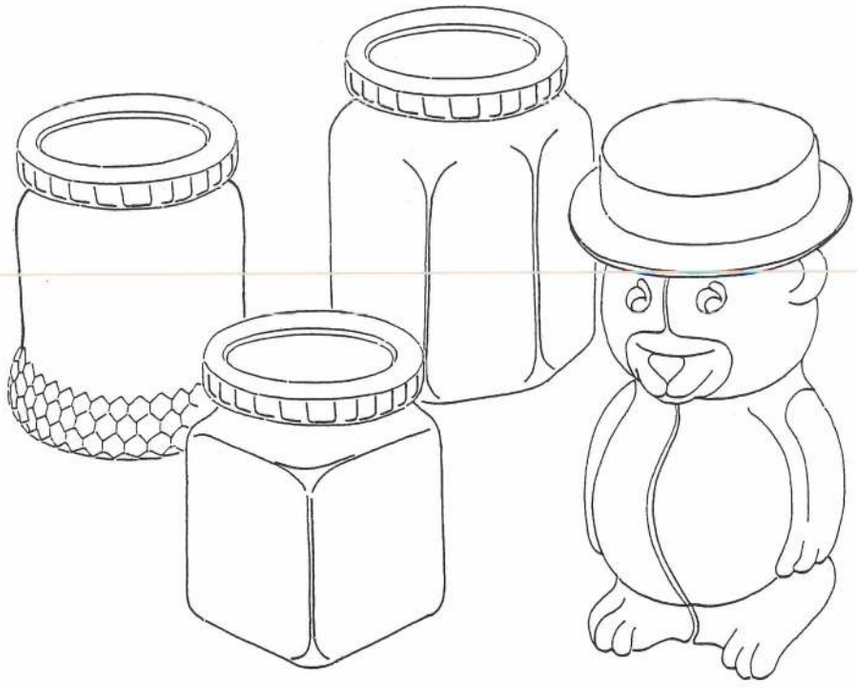
The New Zealand **BeeKeeper**

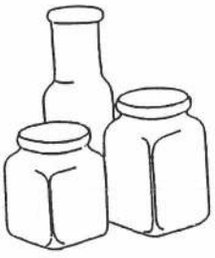
THIS ISSUE

COSPAC (N.Z.) LIMITED

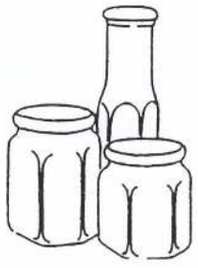
GLASS BOTTLES, JARS AND CLOSURES

We stock a large range of glass bottles and jars in various sizes and capacities.





Large and small orders welcomed.
New Zealand wide service.



Cash n Carry Showroom at:
27-33 Lansford Crescent,
Avondale, Auckland.

"Some Plastic containers available as well."

Phone: (09) 828-1575
Fax: (09) 828-1385

FREEPHONE: 0800-26-77-25

Letter to the Editor

If you write a letter to the Editor, or have an article you want printed as an article, can you clearly mark it as such. ***Thanks, Ed***

Hive Levy

I have received a demand from your organisation for a Hive Levy and as a hobby beekeeper I strongly object to the draconian way this levy has been imposed.

From the material that I received I understand that previously the levy was $1.61 per hive and that this was paid by "commercial beekeepers" ON AN HONESTY BASIS. Now your organisation has the temerity to state that all hives should be registered because of the risk of disease and that all beekeepers who have more than 10 hives, and those hives are located on not more than three apiary sites SHALL pay an apiary fee of $50 for the first site and $22 for any other sites, plus GST.

This is not in any way benefiting the hobby beekeeper such as myself. I see it as a grab by the greedy from the small person. A little like government policy that has been imposed on us.

I am not against a levy, but do consider that consideration must be given to the hobby beekeeper who would certainly not be making enough to cover expenses with under 50 hives and most hobby beekeepers would have less than 25 hives. The reasons for registrations are valid because of the disease risk but this levy will only encourage hobby beekeepers to not register hives. Previously someone such as myself who is slowly increasing the number of hives — currently about 20 hives would have paid at the old rate of $1.61 per hive a total of $32.20, now your organisation demands $94 from me because I have more than 10 hives and in three sites. Nothing fair about that — and I will respond accordingly.

You now send me a glossy magazine that I do not want, and a lot of other useless information. Why should I have to pay for those!!? This tax, because that is what it is, is exorbitant and unfair on us the little folk who enjoy keeping a few hives to provide honey for ourselves and our families. In my case with three other families now and with grandchildren, the honey that I get is not enough to provide for us all, and apart from the cost of running the hives you intend to TAX me.

I suggest that all hobby beekeepers, like myself, must protest, withhold registration and payment. Until you can provide us with proper reasons and detailed accounts. From your balance sheet it seems that levies were paid from some 238000 hives, how many more are there? Do you know? The disease risk is greater for those who are beekeepers for commercial gain — why should I subsidise them?

The existing diseases in the country are well known and it is up to the government to ensure that no further diseases are introduced. If I loose my hives through disease it is not a major disaster, but to a commercial operator with 500 or 5000 hives it would be a disaster. I understand that the spread of any disease is through the beekeeper going from hive to hive — how then can I infect someone else's hives — I cannot. Therefore your levy is unfair and exorbitant to the small hobby beekeepers.

I have not joined your organisation, but you have demanded me to pay — In today's world of user pays why should I contribute to your inefficiencies?

R.N. (Neil) Farrer

Marketing

New Zealand Honey Food & Ingredient Advisory Service

Latest supermarket sales stats shows manuka is top honey!

You can do anything with statistics... and my statement that manuka is the top honey is a loose interpretation of the facts... what it actually means is that according to the Neilsen Research Company the top dollar value single line New Zealand honey product is Arataki's 500gm manuka honey. Very closely followed by Hollands Clover! We've just received the stats and in next month's *BeeKeeper* we'll show you a comparison of national honey sales trends.

(Did you know there are 283 different lines of honey sold in New Zealand supermarkets?... each honey type, pack size and brand combination is a different 'line'. That excludes 'Controlled brands; those are the supermarket chain's own brands).

Total honey sales for the 12 months from June 96 to June 97: $16,088,000... last year $14,231,550. Excellent! And don't forget that this is in a market that is already the most saturated in the world... New Zealanders... the world's greatest honey lovers are getting more passionate every year about their favourite sweet food!... it also confirms research by three university groups over the years that consumers were happy to pay an increased price for honey... that demand wasn't dependant on cheapness.

However, without trying to burst my own bubble... I also acknowledge that the international price has been rising (despite the endeavours of some traders to suggest otherwise to their beekeeper suppliers) and it's now reflected in what's happening on our own shelves.

Did the Vikings hold the key to doubling honey demand?

A few weeks ago Brian Edward's Saturday morning radio show had a question about the meaning of honeymoon. I sent a fax to Brian explaining that Viking women drank copious quantities of mead after wars to ensure that their next child was a son (to replace the males lost in battle)... this slice of folklore was told to me by Leon Havill.. mead-maker extraordinaire...

The answer lies in the honey content of the mead... so if that's correct ask yourself which country in the world has a limit on children per family?... and where people go to extraordinary lengths to produce a son... yes, China... and now imagine every Chinese woman trebling her honey consumption to conceive a son instead

Bill Floyd

of a daughter... and you would see China become an importer of honey rather than the world's leading exporter... the idea has enormous potential for the world's beekeeping industry.

We're looking at all relevant research and I'll be talking to the American Honey Bureau about it's potential... it may come to nothing... but if the concept is true... makes one's eyes water to think of what could happen to the honey price!!!

The work of the Marketing Committee:

You'll have read Allen McCaw's article in last month's BeeKeeper. As a Marketing Committee we have to look at ways to get best value for the producer from the funds available... it's worth just repeating what the Marketing Committee's purpose is and I've reprinted our Marketing Mission here: Everything we do is to create the environment set out below... we think the results to date... in publicity, in honey sales, in the development of varietal honeys, in the decommoditisation of New Zealand honeys... is working.

And if we get it right now, while prices are good, then when the next international downturn comes New Zealand beekeepers won't follow the price fall... instead our New Zealand honeys, marketed as unique products, will set their own premium price positions.

Look forward to seeing you at Conference...

Regards,
Bill Floyd,
Marketing Committee

New Zealand Honey Marketing

The Mission Statement

The Marketing efforts of the National Beekeepers' Association shall be directed to creating an environment that will:

Allow consumers to enjoy honey as a food that is available in a variety of types, each giving different sensory satisfactions.

Allow consumers to appreciate that different honeys may have nutritional, therapeutic or even medicinal attributes that can enhance their own standard of living and health; and be able to enjoy those values with confidence.

Allow individual members of the NBA to be rewarded for innovation and for a commitment to qualify.

For those members to be aware of all the opportunities available to them apropos of Product Mix and Product Development, Pricing and Promotional Issues; with particular emphasis on the potential for monofloral honeys.

To let members of the NBA be part of an industry recognised collectively for its commitment to qualify.

To create a commercial environment that is healthy and competitive, where individual members of the honey industry succeed or fail by their own effort.

To allow for the industry as a whole to be perceived as:

An established, traditional, financially sound rural activity that is committed to qualify in all matters

Producing a range of products to the highest international standards.

That have unique competitive advantages in the New Zealand and international marketplace.

March 1995

Natural oils likely to get rid of bee-killing mites

West Virginia

It sounds like a folk remedy, but a West Virginia University entomologist says it works: Use natural oils — spearmint, wintergreen, peppermint — to ward off mites preying on wild honey-bees.

The proof, James Amrine says, can be seen in 46 nearby honey-bee colonies where applications of wintergreen have produced the healthiest honey-bees in years.

"There is no doubt those bees are almost back to where they were before these mites came into this country," he said.

The mites which entered the United States 12 years ago, have destroyed 90 percent of wild honey-bees, researchers said.

Last spring, commercial and hobbyist beekeepers reported average losses of 50 percent in 22 states surveyed by the Georgia-based American Beekeeping Federation, said Troy Fore Junior, Executive Secretary.

The harsh winter contributed to losses, especially in northern tier states like Maine, which reported 80 percent losses.

The losses follow a continual weakening of honey-bees since the mites appeared in the mid-1980s.

The original invader, the tiny tracheal mite, crawls into the breathing tubes of bees and lives off their blood. The varroa mite, the size of a small tick, attaches to bee adults and developing eggs and lives off their blood, weakening and killing them.

In Cumberland, Maryland, about 97km east of Morgantown, Bob Noel stumbled upon his natural oils remedy when mites struck his colonies last year. He put wintergreen oil in a hamburger pattie shaped mixture of shortening and sugar, then placed it in a hive.

"I said, 'well, they're dying anyway.' I came back a couple of days later and there were no mites on the bees. There were several thousand (dead) mites on the bottom of the hive," he said.

That inspired tests of natural oils like tea tree, pennyroyal, patchouli, spearmint and peppermint. Noel also plans to try lavender. He thinks most mint oils will work. Amrine was skeptical, but he could not argue with the results. Noel's honey-bees are healthy and producing up to 68kg of honey for the season in each hive.

Amrine said one of Noel's more effective methods consists of putting a greasy salve of wintergreen on a "tracking strip" that comes into contact with bees. And Noel is working on an advanced version that is constantly replenished by a feeder.

Another method involves a mixture of sugar water and mint oils the bees drink when flowers are not producing nectar. Then there are the so-called "grease patties," which are placed in hives.

Under the systems, the bees come into contact with the messy mixture and ingest it when they clean themselves. During winter months, they will consume the grease patties to get the sugar.

The mint kills and weakens varroa mites and renders them unable to reproduce, Amrine said. Tracheal mites get trapped in the oil and die because they cannot get into bees breathing tubes, he said.

Amrine is so confident in the preliminary findings he has posted the formulas on the Internet so beekeepers can begin using them.

"We're close to eradication where we can knock them out totally," he said. "We're going to continue working in that direction — total eradication.

Acknowledgement David Sharp
Thanks to Jim Barry for this article.

From the Colonies

CANTERBURY BRANCH NEWSLETTER

NOTICE OF MEETING

JULY EVENING MEETING

Date: Tuesday, 29th July 1997

Time: 7.30pm sharp

Venue: Burnside Cricket Clubrooms, Burnside Park, Avonhead Road, CHRISTCHURCH.

Programme:
1. Delegates report from Conference.
2. Executive report from Conference.
3. Eastgate Mall promotion.
4. General Business.

Supper provided at $1.00 per person.

T.W. Corbett
Secretary

EASTGATE HONEY PROMOTION
— WELL WORTH A VISIT —

The Canterbury Branch of the National Beekeepers' Association is hosting another honey and related products/trades promotion at Eastgate Mall, Linwood, Christchurch from 6-10 August 1997. The last time we were there in 1994 it created a lot of interest in the Industry with local schools attending. This year the mall management is right behind us again with marketing, advertising, colouring competitions for the children and accommodation for out-of-town hosts/demonstrators.

Our deepest sympathy goes out to Tony, Christine and the Taiaroa family of Waikari on the tragic loss of their daughter, and sister, Claire.

Our thoughts are with you.

Harry Brown, Editor

Beekeeping Memoirs

A poor honey crop

by Ron Mossop

When I became a full-time beekeeper, I found out something that many beekeepers before me had learnt. Anybody can keep bees, but when you want bees to keep you your troubles can start.

I was keeping bees mainly in the Kaimai Ranges where an average of about 110 inches of rain a year is normally recorded. If we had a fine November and December I could get good crops of Rewarewa, Kamahi and Tawari. When I got a good crop I could not extract the honey quickly enough, but when it rained at the wrong time I had trouble. It was a feast or a famine situation.

One year I had a very bad honey crop so I reluctantly decided to go out and get a job. Like a lot of men of my age I remembered the hardships my parents had suffered in the great depression, when people who had borrowed money before the depression lost everything, including their farms, when they could not met their mortgage repayments to their good time friends the bank managers. I was not going to borrow money from any Bank.

They were building a chemical recovery boiler at Kawerau paper mill and wanted fitters. So with my trade certificate in fitting, turning and machining I applied for a job. My education soon began. I found that I had two bosses. The contractor who paid my wages and the Union bosses who told the contractors what they could or could not do. Between them they made my life a misery. It was nice to travel the fifty miles home at weekends and get about the beehives doing those winter jobs that always seem to need attention at this time.

One weekend, my third son, Lynton, asked me for a lift back to Kawerau on Monday morning. They were paying big money for bricklayers to do refractory work inside the boiler. He wanted a job. On Monday morning we eventually arrived early at the single men's huts, where I lived and climbed out of the jeep. The huts were about 8 x 8 foot with an 8 foot stud and had a 4 x 4 foot porch closed at one end. There were hundreds of these huts in long rows. As we started to walk up the pathway I said to my son, this is a pretty tough place, so don't be too surprised at anything you might see". A nickel-plated kettle lying on the grass outside the first hut caught my eye. I looked at the porch and saw that it was completely covered with blood. The door was wide open and I could see a large man clad only in underpants lying face down on his bed with arms outstretched.

Ron Mossop

I stepped over the blood on the porch floor and went in. The man was dead and rigor mortis had already set in. On the wall opposite his bed were two pictures each about two foot square of nude woman in various poses. They were almost covered with blood, some of which had run down and congealed in long globules. It was a ghastly sight. My son was peeping around the corner of the doorway. I stepped outside and told him not to let anybody in the hut as it was obviously a job for the police. I jumped in my jeep and drove up to security at the main gate. When I told the security guard that there was a dead man in one of the huts he did not seem a bit interested and reminded me that he knew it was the first of April too. I told him that I didn't give a damn what day it was and that I knew a dead man when I saw one and he should follow me and see for himself. The security man was right behind me when I arrived back at the huts. He took one look and didn't say a word and within a few minutes the Kawerau police arrived and wanted to know who had found the body, and why. I must have been a suspicious looking customer because the top cop asked me to go down to the police station and make a statement. After some considerable time they said I could go as a doctor had made an examination of the body concluding that the cause of death was a burst blood vessel somewhere inside the unfortunate man, hence the resulting mess. When I arrived back at the hut Lynton was still standing outside looking very pale, for good reason, because a policeman and an undertaker were trying to get the body out of the hut. They were slipping and sliding in the blood on the porch. I presumed they were taking the body away for a post mortem examination. Policemen get some terrible jobs to do, sometimes without the thanks of the public. My son and I went up to my hut where I changed into my overalls and donned my hard hat. I told Lynton I would see him at dinner time to find out if he had got a job. When I looked for him later he was nowhere to be seen. Sometime afterwards he told me that he had taken the first bus out of town. Apparently he had not been favourably impressed with Kawerau. Next morning when I went to the cookhouse for breakfast I noticed that the hut had been washed out and a strong disinfectant used; it was the same disinfectant that they used to wash the dining room floor. It takes a fair bit to put me off my breakfast, but that morning I didn't eat very well.

I spent six months working at Kawerau and it was without doubt the most unpleasant I have ever had. There was a large turnover of workers. New men were coming and going every day. One day a new fitter arrived on the job. He was a man in his late 50's. He told me that he had lost his business in Australia and had come back to New Zealand to get a job. Some days later he saw me using my protractor and asked me for a loan of it to help him do a job. After two days I had not seen him or my protractor, so I went looking for him after work. I went to the camp sergeant's office and asked if my friend was still about. Apparently he was, because his key had not been returned. I got his hut number and went to his hut, the door was ajar and I could see his bare feet on the floor. I went into his hut and found him lying on the floor in his pyjamas, I thought at first that he was an alcoholic and had had too much to drink. I could not see or smell alcohol so decided he must be very ill. I got the camp sergeant who called an ambulance. He was taken to Whakatane hospital. Next night after work I went to see him. He did not recognise me. The ward sister told me that he had suffered from a bad stroke and she did not think he would last much longer. I didn't save his life, but at least the poor man died in a hospital bed not on his hut floor. There were hundreds of men working on that job and I feel quite sad when I think of all the broken hopes and dreams many of these men once had.

At last I could go back to full time beekeeping and start the next season free from debt. I decided to try and become a better beekeeper so that I would not have to go to work again, but eventually I did have to, and that's another story.

AUSTRALASIA Pierco

THE PLASTIC FANTASTIC

ONE PIECE FRAME AND FOUNDATION

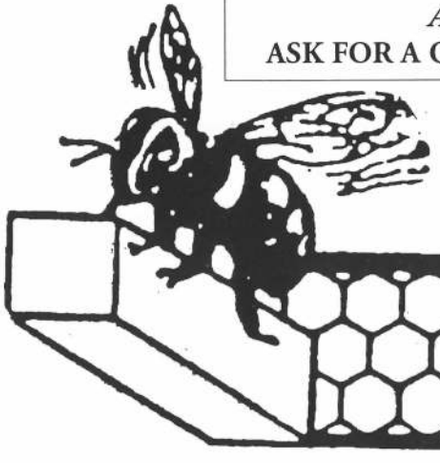
- Ready to use, no assembly.
- Very durable. Sheet fixed on all sides.
- 15% more comb space.
- No Blow out or click outs during extracting.
- Frames won't break.
- Lugs won't break.
- Proven over 24 years.
- Colours to order.
- Bottom bars to remanufacture one piece to 3/4 depth.
- New soft feel edges.

NOW!

Sheets to fit. Mahurangi or Alliance Double Grove Frames, full depth and 3/4 sizes.
All types available, plain or wet spray waxed in New Zealand, 15 cents per frame/sheet.

1996 PRICES UNWAXED		
One Piece	per 100	$2.40
	per 1000	$2.20
Sheets	per 100	$1.40
	per 1000	$1.30

All prices plus GST
ASK FOR A QUOTE ON LARGE ORDERS



See them at Conference 97 in Nelson

PHONE/FAX: (09) 408-2200

Notes for beginners and others

Two letters arrived recently requesting info from the library on basically the same subject. The first one came from a 5th former, at present hobbying with a couple of hives. He wanted to know how many hives are needed to make "a reasonable living". The other letter was from a part time beekeeper, presumably running about 20 hives at present. That request was for any available info on the financial implications with regard to a viable commercial beekeeping operation and trade in hive products.

This just shows that there are still people around who are thinking about making beekeeping their full time career. That is good. Our industry needs the younger generation very much indeed to take over from those who are nearing the end of the trail. It has been a matter of concern for a while when it appeared that too few with a serious interest in that direction were coming forward.

Some of today's commercial beekeepers are second or even third generation apiarists, sons or daughters born into beekeeping families. Others have been affected by the beekeeping bug somewhere along the line, decided to get a finger in the pie somehow, buying an outfit or acquiring a share in a going concern. Fine if one can find the finance. Then there are those who went the hard way, from running a very limited number of colonies expanding gradually to the point of full time beekeeping. This has been done successfully in the past and can surely be done again.

There are no simple or direct answers to these questions. What is regarded as a "reasonable" standard of living varies from person to person. Does it mean an income of 25, 40 or 60 thousand dollars? What are the needs of different sized families? How does a particular environment influence the honey crops one hopes to secure? Is production of extracted honey the sole aim or is there a possibility to augment income by rendering pollination services or cashing in on the production of one or more of the so-called by products. Production of some special honeys from certain floral sources, cut-comb or organic honey may well lift the returns per Kg. Then there is the person. We are all different, some are able to cope with more work than others and some are much better organised than others. All these factors will influence the number of colonies required, 350 could well be the ideal number for some while 600 would still be insufficient in another case. Also remember that an elastic band can only be stretched so far before it snaps, the human body and mind too can snap at a certain point. It is not only the "reasonable living" but also the quality of life which means a lot. We only live once!

If a beekeeper, through spending a little extra time per hive, can increase the monetary return, for example by systematically gathering propolis, it will mean an advantage. The same goes for keeping overheads down. Every home raised queen (quality please) is equal to X dollars. But one has to be very careful with working out where and when it is warranted to spend that extra time. If then by working hives more intensively and cutting down expenses as much as possible, it follows that the basic number of units required can be less than with a more extensive management, still achieving the same financial result. So bigger is not always necessarily better. Hives are the very basis of a beekeepers business, the most important investment. That + time input - expenses = the beekeepers reward. Less hives needed means less investment capital required. Very important if one is struggling to become established.

Talking about investing, the greater the amount of "own" capital available the better for there is always that margin between deposits and loans. This sounds perhaps very old fashioned but big interest bills, especially in years of poor returns, which always will occur, can be an awful burden.

Besides that basic number of producing units one must have a reliable vehicle. It is not any more a matter of working a few hives near home or at a friends place when a car and trailer will do. Once into commercial beekeeping you are looking at sites, not individual hives. To be efficient in management the site or yard becomes the unit and the hives on the site should all be treated in such a manner that they will be as uniform as possible. Not set out in nice straight rows which through drifting will make for some very strong colonies and a number of weak ones, aim for re-queening "en-bloc", supering the same throughout, etc. There will of course still be differences between the hives but it will be minimised. Doing this one will save time and avoid having to make extra visits. It is one very important adjustment a person has to make when expanding into commercial beekeeping. It takes some planning and self-discipline too. One can do without such things as a honey house and expensive extracting equipment for a start at least. There are a lot of established outfits which are prepared to do the extracting for others on contract. Certainly one cannot expect to get it done for nothing but look at the capital investment avoided and the time saved. It is not such a bad scheme. Storage space for equipment such as supers and some room for a work shop is undoubtedly needed. But here again one cannot probably save initially by renting or erecting a very simple building. Lots of possibilities.

Getting rid of that honey crop. It has always been attractive to honey producers to pack and sell their own product. But one really needs to give this aspect a lot of thought before attempting it. There is the temptation of getting a few extra cents per Kg. But having to wait for the returns to come in hampers the cash flow, perhaps most at the time when ready money is urgently needed, packing material ties up working capital and last but not least there is the time factor. Time involved with packing and traipsing around to supply the customers is probably much better spent attending to the hives, making up extra gear etc. I would think it to be more profitable to leave this aspect to those specialising in packing and marketing. The greatest majority of our New Zealand honey buyers/packers are not sharks. Of course they are not a charitable institution, they cannot afford to be, but they will endeavour to give you a fair deal.

To the 15 year old I say if you seriously want to become a beekeeper prepare yourself thoroughly through proper training. If possible take a beekeeping course such as the residential one at Telford and follow it up with some years working for one or more good beekeeping outfits. Those years devoted to training will probably pay a large dividend in years to come.

To the present part timer wanting to go full time: consider the options you have in your area, get expert advice from experienced beekeepers and your apiary advisory officer (consultant) and from your accountant as well. Very likely arrangements will have to be made with some financial institution, do your home work thoroughly beforehand and set out notes and figures on paper in a clear and business like manner so that you have a reasonable chance to be listened to. Also be realistic, over optimistic figures and presumptions will only spell trouble, now or later. A computer may be of help but what comes out of it is only as good as the initial input. What it cannot do for you is to give you the essential expertise to operate your beekeeping enterprise in an efficient and professional manner, to recognise bee diseases, do your queen raising or get your hives ready at the right time for that hoped for honey crop.

As for setting up and running a shop trading in hive products it could perhaps be feasible in the right place and at the right time. A consistent supply of products would be a necessity and I doubt that one's own modest outfit could fill that requirement. So there is more to it. Really not beekeeping but trading and one should go elsewhere for info and advice. It would be a small business enterprise, go and see those people who are equipped to advise for that kind of undertaking.

Another point which comes to mind and may well affect all those who want to go into business, especially the small ones, is the political uncertainty we experience in this country at present. I am thinking of the possibility that a person may be compelled to set an extra 8% of his or her income aside for a superannuation fund, money that then cannot be used for building up and expanding the undertaking. It just could make all the difference. No doubt we can think of more examples where politics and a lack of firm direction can and does adversely affect a person's initiative.

However having said that does not alter the fact that if there is a will there will be a way. If one wants something to happen hard enough it will usually come to pass.

John Heineman

My dad and his bees

My daddy is a beekeeper
He is always sinking deeper
Into working with his bees
That often sting his knees
But he doesn't really care
And to leave he does not dare
He works in his own little hole
Down at a farm named Mole.

Stuck up with propolis and honey
Hoping to make money
Thinking that he's funny
Although he looks like a bunny
Now that it has turned sunny
The honey is now runny
My dad gets all gummy
Right on the tummy.

My daddy has a smoker
And I'm the little stoker
With bees flying all around
We stack frames on the ground
My daddy finds the queen
And counts the queen cells he's seen
We've finished at the farm
The bees are very calm

AND WE ARE GOING HOME

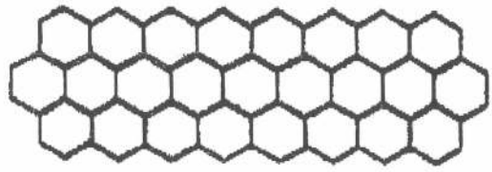
Rebekah Dalby, aged 11

Attention Beekeepers

Research has found that regular replacement of poor combs with new foundations promotes increased honey yields

New PLASTICELL Foundation

Our new PLASTICELL Foundation is better than any other plastic foundation on the market, it's had to stand up to close scrutiny, the kind of scrutiny expected of someone who's been an innovator in the Beekeeping Industry for over a hundred years. — Dadant & Son Inc., USA.



We've got the best

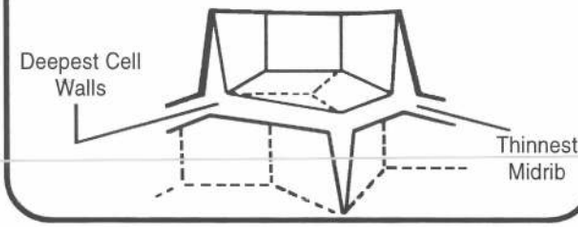
YOU'LL SEE YOU ARE GETTING MORE FOR YOUR MONEY

* PLASTICELL is injection moulded to tight Dadant standards
* Less expensive or no more expensive than other plastic foundations on the market
* Available coated or uncoated PURE beeswax coating*
* Maximum honey production with or without a wax coating
* Uniform cell dimensions throughout the foundation
* Deeper cell walls for better bee acceptance
* No excess plastic where it's not needed
* No stretch cells
* No bulky cell edges — No wall loss
* No excessive midrib plastic waste

**Coated sheets not available in New Zealand at time of printing.*

Take a Closer Look...

PLASTICELL INJECTION MOULDED TO PERFECTION



Consider the advantages...

- The strength yet economy of a standard* wooden frame
- You can quickly and economically change back to beeswax foundation anytime if desired (eg comb honey)
- Have only one frame type yet two foundation options.

**4mm groove required in the bottom bar.*

Build Your Future on Dadant Quality Foundation

The Foundation you can trust for perfect combs everytime

Prices:

PLASTICELL Foundation	**$1.50 each + GST per 100 sheets** **$1.40 each + GST per 1000 sheets**
Kitset frames for PLASTICELL	**$76.53 + GST per 100** **$699.56 + GST per 1000***
Assembled Frames for PLASTICELL	**$119.11 + GST per 100** **$1089.56 + GST per 1000***

See page 14 for SPECIAL PRICES

Ecroyd Beekeeping Supplies Ltd

Distributors, Exporters & Importers of Beekeeping Equipment
Distributors of Bee Healthy & Beeway Honey & Bee Products

P.O. Box 5056 Papanui, Christchurch, New Zealand | Phone: 64-3-358-7498 | Fax: 64-3-358-8789 | 26B Sheffield Crescent, Burnside, Christchurch

Storing storeys

When we were kids we had chooks — well trained chooks. Each year in the early Autumn we would sort out the combs in the empty honey boxes and invariably there would be a certain amount of wax moth. There, I've done it, I've found a good point for wax moths, they make wonderful chook food. Actually I suspect that they also do sterling service by chewing up the remains of wild and or neglected hives which have died of foul brood. Don't think for one minute that they get rid of foul brood but at least they make the remains less attractive to foraging bees.

Those two points aside, wax moth are a curse, they cause an awful lot of comb and frame damage and keeping them under control is a problem. They chew the combs up, particularly the older, blacker ones and then, like a giant two toothed borer, they make flaming great holes in the woodware, invariably where it will do the most damage. Also, because of their habit of, first attacking the darker combs, particularly areas of dead brood, they make it almost impossible to tell if a hive has karked it by starving, on one hand, or by foul brood, on the other. If it's all one great fruitcake smelling, cowbwebby mess, burn the frames and paraffin the boxes. Often, however, the upper supers are not too bad so you can just send off a sample to be tested and then clean out the worst of the cobweb and stick the boxes onto a strong hive for them to clean up.

Of course live hives do have some wax moth in them but is very little you can do about them. If I see one I squash it on principle and occasionally I can't resist following the track of one where they've chewed their way under the caps of the sealed brood, hooking it out with my hive tool and splat! It's a bit like squashing queen wasps, it's probably pointless, but oh so very satisfying, (they make such a lovely crunching sound). Still it always pays to remember the two cardinal rules for working with beehives.

1. Do everything necessary for the well-being of the hive conscientiously.
2. Have the hive open for the absolute minimum of time which is consistent with 1. above.

Okay I hear you, yes it is a commercial beekeeper with a time = money philosophy talking here, but the longer the hive is open the more stress it will be under, particularly in poorer weather.

Stress = disease, mainly nosema which is bad enough, but it can also leave the hive open to ending up in a hole with half a gallon of petrol poured over it.

All of which leads us eventually, to storing empty combs, or boxes of feed, during the autumn and winter when they're off the hives. Wax moth move in very fast when the boxes are inside warm conditions therefore you should extract the honey within one week of bringing it in, certainly within a fortnight. Then get the wets robbed out as soon as possible and do something about the wax moth build up in the frames. In cooler areas this can amount to just stacking the boxes outside with a lid on (bring them inside later in the winter to store them in an unheated room if you think it is warranted). In warmer areas, however, you'll have to do something more drastic, particularly earlier in Autumn. Now that methyl bromide is unacceptable (and let's face it, it was always jolly dangerous as well) the easiest way is just to stick the boxes of dry combs, feed or cut comb in containers (not comb honey in frames or section honey and don't say I didn't warn you), into the freezer for a few days and then store them in a heavy gauge plastic bag sealed and with no holes. If you've only got a few boxes, do it in your freezer at home. If you have a heap to do then there are commercial freezers all over the place who no doubt will be only too glad to help you part with some cash, which leads us to my last suggestion. If the average cost of damage is less than the cost of freezing, which is generally the case for dry combs here in Hawke's Bay but most definitely not the case for boxes of feed, then stick the combs outside with a lid, in a well ventilated spot and put up with the damage that you get as one of the facts of life. It also helps if you space the frames out and don't jam the boxes too full of frames. Make sure the boxes are well ventilated from underneath eg. not a fully closed in pallet and don't forget to put out some rat baits. Finally, two last tips, keep your cut-out comb honey in the freezer. it stops it granulating and I was only kidding about the half gallon of petrol — it really is better to use diesel to set fire to diseased hives. As my brother John says, — It's a good thing it blew out the ends and an even better thing I was standing next to one of the sides"!

Peter Barry

BIOSECURITY (PROPOSED NATIONAL PEST MANAGEMENT STRATEGY FOR AMERICAN FOULBROOD)

Pursuant to section 62(1) of the Biosecurity Act 1993, I give public notice of a proposed national pest management strategy for American foulbrood (Bacillus larvae), a disease of honey bees.

Purpose and Extent

The purpose of the proposed strategy is to eliminate American foulbrood disease in beehives in New Zealand in order to:

a. minimise production losses associated with American foulbrood in honey bees;
b. minimise the potential for American foulbrood disease to affect export returns for honey, bee products and live bees; and
c. minimise the potential for decreases in profitability for beekeeping enterprises, and for horticultural enterprises growing crops which require paid pollination services from honey bees.

The proposed strategy would principally involve measures to eliminate the spread of the disease among honey bees and beehives. It would place duties on all beekeepers, including apiary registration, apiary identification, beehive inspection for clinical symptoms of American foulbrood disease, the reporting and destruction of beehives found to have clinical cases of the disease, and the supplying of an annual statutory declaration of apiary ownership and occurrences of the disease. These measures would be implemented throughout New Zealand.

Place of Inspection

A complete description of the proposed strategy may be obtained from the following organisation:

National Beekeepers' Association of New Zealand Inc.
PO Box 3079, Napier, Tel: 0-6-843 3446, Fax: 0-6-843 4845.

or a copy may be inspected at the following premises:

National Beekeepers' Association of New Zealand Inc.
40 Niven Street, Napier.

or

Ministry of Agriculture, Level 4, ASB Bank House, 101-103 The Terrace, Wellington.

or a copy may be inspected on the internet at:
http://www.wave.co.nz/pages/nickw

Address for Notices of Opposition

Any person who is likely to be affected by the implementation of the proposed strategy, and who is opposed to the proposed strategy, may notify their opposition by sending a letter to:

Associate Minister of Agriculture
Parliament Buildings, Wellington.

The letter should include a brief explanation of the reasons for opposition and should be sent in time to reach the above address by **14 August 1997.**

Dated at Wellington this 26th day of June 1997.

John Luxton
Associate Minister of Agriculture

MAF
MINISTRY OF AGRICULTURE
TE MANATU AHUWHENUA

MID WINTER WOODWARE PROMOTION

We are offering special prices on Alliance Quality Frames, both kitset and assembled, and Alliance Quality Storeys in kitset, for the months of May, June and July. The primary purpose is to assist in relieving the massive pressures on production that generally occur during the last few months of the year, and to transfer that work load to a time that is traditionally a lot quieter.
We therefore offer you a price incentive to purchase your requirements now. This will also give you the opportunity to have your storeys and frames ready to go prior to the new season.

FRAMES: *(Kitset)*
Usually $659.56 + GST per 1000. All sizes, all types
NOW $590.00 + GST per 1000

FRAMES: *(Assembled & wired)*
Usually $1009.56 + GST per 1000.
NOW $790.00 + GST per 1000

FRAMES: *(Assembled with plastic foundation fitted)*
~~**Usually $2489.56 + GST per 1000.**~~
NOW $2190.00 + GST per 1000

STOREYS: *(Kitset)*
Full depth, first grade, commercial type:
Usually $10.62 each + GST
NOW $9.80 each + GST

3/4 depth, first grade, commercial type:
Usually $8.80 each + GST
NOW $7.50 each + GST

NOTES:
- ★ Minimum purchase of 1000 frames for special price to apply. For quantities of 2000 or more, please contact us for even better prices.
- ★ Minimum purchase of a total of 100 storeys for special prices to apply. For quantities of 200 or more, please contact us for even better prices.
- ★ Payment is strictly at the time of ordering, prior to dispatch, or at the time of collection.
- ★ We have arranged some very competitive freight rates. Please contact us for a firm quote including freight prior to sending payment.
- ★ Special prices are valid until 31st July 1997.
- ★ For grooved bottom bars for plastic foundation add $40 + GST per 1000.

TO ORDER: Contact your local EBS stockist or EBS directly

E B S

Ecroyd Beekeeping Supplies Ltd

Distributors, Exporters & Importers of Beekeeping Equipment
Distributors of Bee Healthy & Beeway Honey & Bee Products

P.O. Box 5056 Papanui Christchurch, New Zealand ‖ Phone: 64-3-358-7498 Fax: 64-3-358-8789 ‖ 26B Sheffield Crescent, Burnside, Christchurch

BEEWAY

Toll Free EBS Orderline 0800-33-5056

EBS ORDERLINE: TOLL FREE: 0800-33-5056 (CHRISTCHURCH)

BeeFax

Vol. 2, No. 9 July 1997

HONEY STANDARDS HERE AND THERE

Last week I received a letter from a PhD student at the University of Hong Kong who is studying quality evaluation of honey. The student asked me to supply him with a copy of New Zealand's regulations relating to honey standards.

A couple of days later, I was told that the UN Commission on Food Standards (called the Codex Alimentarius Commission) was having a meeting in Switzerland at the end of June to consider a draft revised standard for sugars and honey.

In coming up with a reply to the student's enquiry, I did some investigation into New Zealand's honey standards. At the same time I had a look at the proposed Codex standards for honey. What follows is a comparison of those two standards, which may be of use to beekeepers here in New Zealand who are currently discussing the need for improved honey standards of our own.

First a bit of background. The Codex Alimentarius Commission was jointly organised in 1962 by the Food and Agriculture Organisation (FAO) and the World Health Organisation (WHO) as a means of producing international food standards on both a worldwide and a regional basis.

Efforts to attain a worldwide standard for honey began at the outset of the commission. The Codex Alimentarius standard for honey was first adopted by the commission as a recommended world standard for honey in 1987. This followed a long period of regional standard setting, especially in Europe where a European Community Codex honey standard was drafted in 1968.

The Codex Alimentarius standard is only a recommended standard, however. Countries have been encouraged by the UN to adopt the standard in their own countries, and for international trade. However, many countries have been reluctant to bring their own country standards into line, as in the case of the US and the European Community. The current revised draft Codex standard is an attempt to "harmonise", or bring into line, the international standard with other existing standards.

What gives more urgency to the exercise, however, is the freeing up of trade under the World Trade Organisation (WTO). If a country has a honey standard which is radically out of step with world standards, this could be seen as a non-tariff trade barrier and a case could be brought under the WTO.

The current draft revised Codex standard covers the following areas:

Honey definition - Honey is defined as a natural sweet substance produced by honey bees from nectar of plants or from secretions of living parts of plants or excretions of plant-sucking insects living on parts of plants (ie, honeydew).

Honey description - The standard states that honey consists "essentially" of different types of sugars (such as fructose and glucose), but also significantly mentions other substances such as organic acids, enzymes and solid particles derived from honey collection. This last part is an addition to the previous standard, and is important because it helps to differentiate honey in food standards from other sugars.

Additives - The standard says that honey shall not contain any added food ingredients or other substances, and that it shall not have any objectionable flavours, aromas, or taints from foreign matter or from fermentation.

Heating - the standard makes a basic statement that honey shall not be heated or processed to such an extent that its essential composition is changed and/or its quality is impaired. Levels of substances used to determine over-heating (such as HMF and diastase) are recorded later in the standard (see below).

Filtering - This is allowed under the standard, provided that sufficient pollen grains are retained which can be used to characterise the honey.

Moisture content - Under the standard, honey cannot have more than 21% moisture, except for heather (*Calluna*), which can have up to 23%. Interestingly, this makes it very hard for many honeys produced in tropical countries with high humidity to meet the international standard, and may reflect a certain bias on the part of large honey buyers and packers (who are predominantly from temperate-climate countries).

Hygiene - The standard "recommends" that the honey is prepared and handled in accordance with appropriate sections of the Recommended International Code of Practice - General Principles of Food Hygiene, and is free of microorganisms, parasites or substances originating from either, which may represent a hazard to health. Luckily, honey as a rule does not contain such things anyway.

Origin - Under the standard honey may be designated by the name of a geographical or topographical region if the honey was produced exclusively within the area referred to in the designation.

Floral source - "Honey may be designated according to floral or plant source if it comes wholly or mainly from that particular source and has the organoleptic, physicochemical and microscopic properties corresponding with that origin." I've quoted this passage directly from the standard, since it may have some importance in our current debate regarding standards for manuka honey. To be manuka under this standard, the honey would need to smell and taste like manuka honey (organoleptic property), be thixotropic (physicochemical property), and have a percentage of manuka pollen within a recognised and accepted range (microscopic property).

Methods of processing - such terms as extracted, pressed, comb and chunk honey are defined.

HMF content - HMF stands for hydroxymethylfurfural, and is a chemical which is produced in the breakdown of simple sugars, and especially in the case of honey, fructose. The amount of HMF in honey has been shown to directly correlate with the amount of heat applied, in combination with the amount of time the honey is subjected to the heat. Interestingly, however, there is no suggestion that HMF is a toxin in honey, especially in the low levels normally experienced in even over-heated honey (in comparison, a 12 ounce can of cola-type soft drink has 456mg/kg of HMF).

Nevertheless, HMF is a standard means of determining how much honey has been heated, and in the past whether the honey was adulterated with sucrose. The Codex standard sets the maximum limit for HMF at 80mg/kg, or twice the current EC maximum level. Some observers believe the EC level was set at the lower level because it was based on research on European honeys. Some tropical honeys are said to have naturally occurring levels of HMF above the 40mg/kg level.

Diastase content - Diastase is an enzyme which is used by honey bees to change the sucrose in nectar into the fructose and glucose found in honey. It is weakened or destroyed by heat, and so is another means of determining whether honey has been over-heated. Some people also argue that its presence in honey makes it more "natural" and "health-giving". The minimum diastase level in the standard is 8 (using a measure called the Schade unit), or 3 in those honeys with naturally low levels of diastase. Once again, it can be debated whether diastase levels are an appropriate means of determining honey quality, since diastase varies according to floral source and storage.

Those are the proposed international Codex standards for honey. The question then needs to be asked, how do New Zealand's legally determined honey standards compare? Legal requirements specifically relating to honey appear in two pieces of New Zealand legalisation: the Food Regulations (1984), and the Honey Export Certification Regulations (1980).

Section 146 of the Food Regulations defines honey in quite similar language to the proposed Codex standard. It does not, however, contain any statement about the other substances besides sugar that it contains, apart from minimum levels for apparent reducing sugars, ash and apparent sucrose (which again are similar to the Codex standard).

In fact, section 148 of the Food Regulations forbids the use of any wording on a honey label stating or implying that the food value of honey is superior to that of sugar (which is defined in the same regulations as sucrose). So our standards do not allow honey as a food to be differentiated from sucrose.

The regulations also set a maximum for moisture content of 21%, the same as Codex. However, our regulations do not allow the heather we produce in this country to have 23% moisture, like the Codex standard. Our regulations also have another provision, for "industrial honey", which can have a maximum moisture content of 25%.

The Honey Export Certification Regulations pertain solely to honey exported from New Zealand. They have no jurisdiction over honey sold on the domestic market. Section 5 of the regulations deals with honey standards, and forbids the presence of organic or inorganic substances foreign to the composition of honey, the presence of foreign tastes or orders, fermentation, or the heating or storage of the honey to such an extent that the honey's enzymes are destroyed or made inactive. This is similar to some statements regarding heating in the Codex standard, and while neither of our regulations set any levels for HMF, the Export Regulations at least make mention of honey enzymes.

The Export Regulations also set limits for moisture content in export honey -- in this case 19%, except for ling heather (which can have 20%). It should be noted that both of these figures are less than the maximum allowed in the Food Regulations for domestic honey, and also less than the Codex revised standard.

There is no mention in either piece of New Zealand legislation of labelling of honey by geographic origin or floral source. Terms like extracted honey, comb honey and chunk honey are defined in the Honey Export Regulation (and so relate to exports), but not in the Food Regulations. Food hygiene regulations relating to honey are contained in the Food Hygiene Regulations 1974, and are a requirement, rather than the "recommendation" contained in the proposed Codex revised standard.

WORLD HONEY PRODUCTION RANKED

An interesting article on world honey production recently appeared in the March 1997 issue of *Bee Culture*. In it, John Parker, a retired US government statistician, presented four-year production totals for 40 nations, based on FAO data. Unfortunately, New Zealand wasn't included in that report; but I've added the New Zealand figures from last month's *BeeFax* to this table showing the top 20 players, so that readers can make some useful comparisons:

Rank	Country	Annual Production 1992-95 average (tonnes)	Exports as % of Production (1992-94 average)
1	China	179,310	53.2
2	USA	101,060	4.2
3	Argentina	63,450	94.0
4	Ukraine	61,293	1.2
5	Turkey	56,910	5.2
6	India	51,100	1.7
7	Mexico	59,934	51.0
8	Belarus	52,075	1.8
9	Russia	46,900	1.6
10	Canada	31,609	29.7
11	Kazakhstan	28,850	?
12	Germany	27,037	56.8
13	Spain	27,012	29.7
14	Ethiopia	23,900	0.4
15	Kenya	23,500	0.1
16	Australia	22,601	48.0
17	Tanzania	21,875	0.4
18	Angola	20,900	?
19	Brazil	18,852	2.3
20	France	17,574	20.5
28	**NZ**	**8,943**	**22.3**

Two things struck me when I first looked at this table. First, it is sobering to note what a small player New Zealand really is in the international market. But even more astounding are the high levels of production in some countries we don't normally associate with beekeeping. For instance, who would have guessed that Turkey, India and Belarus each have more than double the production of Australia, or that the Aussies would also be beaten by Ethiopia and Kenya. New Zealand comes in just ahead of Iran and Austria, but is out-produced by Korea, Italy and Poland.

Perhaps luckily for New Zealand, relatively few of the "unknown giants" of beekeeping are involved in exporting. We do have to wonder how long this will continue, however. We are constantly being told about the "global economy", and as trade barriers come down, it isn't hard to imagine more honey from the old Soviet Union moving into Western Europe, or the cash-starved African nations organising some sort of export drive.

The point of this article isn't to try and scare anyone here in New Zealand. I believe it is important, however, for both honey producers and exporters to be aware of just where we stand in the world production stakes. On the positive side, increases in New Zealand production and exports are unlikely to make the slightest difference to international prices. And of course knowing the amount of honey which may be entering the world market in the future reinforces just how important it will be for New Zealand to niche market its honey on a value-added, packed line basis if it wishes to continue to have high export returns.

The other thought that struck me is how little we know about production systems and management in most of the countries on this table. Our industry is based almost exclusively on ideas imported from the UK and North America. It is easy to dismiss beekeepers in most of these other countries as "unsophisticated peasants". However, this isn't necessarily true for the Eastern European countries. Or, for that matter, in Argentina and Brazil. The language barrier makes it hard to find information from many of these countries, but it does make me wonder just how many good ideas we may be missing out on.

- Paul Bolger, AAO, PUKEKOHE

DEHUMIDIFIERS IN THE HOT ROOM

Over the past 3-4 years, dehumidifiers have become readily available in New Zealand. And because they are now relatively inexpensive, many beekeepers have considered using these "household" sized units in their operations for drying both honey and pollen. Some beekeepers have had great success with the devices, while others have reported less impressive results.

Obviously there are potential advantages in having a drying option in your hot room. You might be able to harvest your honey earlier than would normally be the case, without worrying about possible fermentation. And you could also store your honey-filled boxes longer before extraction without the honey absorbing more moisture.

However, we should not expect miraculous results from a house-sized dehumidifier. Air movement at the right temperature and relative humidity (RH), and the exposure of the surface area or comb faces to this air movement, is paramount for good dehumidification. Regardless of what method is used, honey will not dry evenly unless the fresh (dehumidified) air is mixed and flows evenly through the hot room, through the super stacks and across the comb faces. For efficient drying, the "incoming" air should be at 27°C or warmer and an RH of 58% or less.

And there is a real need to do some homework on dehumidifiers before racing out and spending up to $1000 on one unit, let alone two or three!

In general, dehumidifier specifications are established at a standard temperature of 30°C and a relative humidity of 100%. Therefore, if the statement is made that the unit will extract 6 litres of water in a day, it is at 30°C and 100% RH, not necessarily the temperature and humidity in your hot room.

It should also be obvious that it is unlikely that the stated optimum performance of many units will ever be reached in most homes in New Zealand. However, you as a beekeeper have the advantage of being able to

control at least air movement and temperature in your hot room, and this is a big advantage. Be aware, though, that along with the heater you already have in the room, as the dehumidifier takes moisture out of the air, it will give off heat as well. So the temperature in the room will rise substantially, and it's important that you control at least the heater with a good thermostat so that you don't have a comb melt down!

As an example of specifications, let's take a look at a readily available model on the New Zealand market, the Delonghi DH25:

Watts -- 390
Average running costs per hr (on max) -- 4.3 cents
Tank capacity -- 6 litres (but has continuous drain)
Working range temperature as stated -- 0°C to 32°C
Optimum air temperature -- 30°C
Airflow through unit -- 260m^3 per hr

The stated performance factors at which this unit is capable of extracting the maximum amount of water from the air is 30°C (and 100%RH). Given this prerequisite, and allowing for at least 5 air changes per hour (they don't tell you this, but it gives you an idea about room size and ventilation), you can expect up to 20 litres of water condensed from the room every 24 hours.

What all this amounts to is that a domestic dehumidifier will work superbly for pollen drying, and very well for honey drying in some cases, providing that all factors limiting performance are minimised by the beekeeper.

Before rushing out to your favourite retailer, get a copy of the June 1997 issue of *Consumer Magazine*, and check out "Test Dehumidifiers - The Dry Air Machine" (pages 22-24). Amazingly, the cheapest, noisiest model is the second best performer. Maybe it's not worth having in the comfort of your own home, but in the hot room where noise isn't a big deal, who cares!

- Dave Grueber, AO, BLENHEIM

COST OF HIVES AND INCOME TAX

Now that we're in the middle of winter, beekeepers throughout the country are reluctantly delving into their books, sorting out budgets and cash flows, and finalising their accounts. If you're wondering how to treat new and existing hives for tax purposes, what follows is the Inland Revenue position.

Hives belonging to ordinary commercial beekeepers are not trading stock. The only exception is for those beekeepers (such as queen producers) who produce and sell hives as part of their normal business.

The cost of hives purchased by a taxpayer commencing beekeeping, and the cost of additional hives purchased by an established beekeeper, are capitalised. However, there is no deduction allowed for depreciation. (Note: new or additional hives first used before 31 March 1988 qualified for the first year depreciation allowance, subject to any recovery of that allowance when sold. This allowance was repealed with effect from the 1993-94 income tax year.)

The cost of hives or boxes to replace existing hives or parts of hives, less any amounts received on disposal of the hives or parts replaced, is allowed as a straight deduction against income. However, to ensure that the costs of additional hives purchased are not charged against income, beekeepers are required to furnish each year to IRD a memorandum account for hives or parts of hives.

- James Driscoll, AAO, PALMERSTON NORTH

SHARE-CROPPING AND HIVE LEASING

Recently I've received calls from several people who want to lease out their hives. They've asked me my opinion of the practice, and I had to tell them that in my experience most share-cropping and hive leasing arrangements don't work out.

These types of beekeeping arrangements usually fail for one of several reasons, including:

- the agreements between the parties haven't been put in writing, or the agreement wasn't detailed enough,
- the parties have expectations that just can't be met when the honey crop fluctuates,
- the person who leases the hives tend to have short term goals (hive increase, more apiary sites, etc), while the owner has more long-term goals (like repairs and maintenance, and good AFB control).

Still, lease arrangements can be successful, provided that both parties are willing to compromise and take the time to sort out most details in writing so that there is little or no misunderstanding about who is responsible for what. There is also more potential for meeting income expectations in outfits which have diversified into pollination and/or bulk bees in addition to honey production.

Several years ago, Murray Reid prepared a six page pamphlet on share-cropping and hive leasing which discusses the issues involved, and gives useful pointers about how to overcome most of the potential pitfalls. If you are interested in either leasing hives, or maybe thinking about share-cropping your outfit for a couple years, and you want to use this guide, contact your local AAO, who will be able to supply you with a copy free-of-charge.

BeeFax is a publication of the National Apiculture Business Unit, MAF Quality Management. Editing and production is by Cliff Van Eaton, MAF Qual, Private Bag 12015, Tauranga. Copy is by Cliff Van Eaton, unless indicated.

Communication regarding back issues and fax distribution to David McMillan, MAF Qual, Private Bag 50034, Mosgiel, phone (03) 489-3809, fax (03) 489-7988.

"PERMADENT" Plastic Foundation

Now available from:

C C B S S

Ceracell Beekeeping Supplies Ltd

HONEYCOMB FOUNDATION MANUFACTURERS
SUPPLIERS OF QUALITY BEEKEEPING EQUIPMENT

24 ANDROMEDA CRESCENT, EAST TAMAKI, AUCKLAND, NEW ZEALAND.
BOX 58-114, GREENMOUNT, AUCKLAND. PHONE: (09) 274-7236, FAX: (09) 274-0368

Nothing "Fantastic" about this Foundation — just a good robust well made American product produced by an American Commercial Beekeeper who understands what Beekeepers want.

As used by approximately 70% of American Commercial Beekeepers who are using Plastic Foundation.

FEATURES:

- **Thin mid rib, no surplus plastic here**
- **High Cell Wall start**
- **Uniform pattern with no ejector pins or plastic inlet gate marks**
- **Standard full depth size**
- **Genuine New Zealand 3/4 depth size available**
- **Available standard lengths or extra lengths for grooved end bars**

WILL FIT QUALITY MAHURANGI GROOVED BOTTOM BAR FRAMES

WILL BE AVAILABLE WITH NEW ZEALAND WAX COATING IN NEAR FUTURE

Prices uncoated.

$1.50 per sheet	**1-100**	**sheets + GST**
$1.40 per sheet	**101-1000**	**sheets + GST**
$1.30 per sheet	**1001-3000**	**sheets + GST**

3/4 depth size less 10 cents per sheet

On quantities over 3000 ask for our bulk user prices.

Phone: (09) 274-7236, FAX: (09) 274-0368

William Charles Cotton

Grand Bee Master of New Zealand

Auckland and Wellington, 1846

"A capital run in the whale boat"

Thursday January 15th **"Took three hives in the boat up to Skeys place, and in a very short time, built, by the assistance of my crew a very capital bee shed. I think they will do excellently well here, the place is very sheltered, and there are plenty of trees in the neighbourhood. A capital run in the whale boat there and back."**

"Out Colonies of Bees"

On January 17th **"I took in the boat from Purewa the swarm of Bees which I have given to Willy Porter, intending to take them there after the funeral** (of a Maori woman). **Then it came on to blow so heavily from the NE that I knew the surf wd prevent our landing comfortably on shore, so we turned away, and ran up our creek. A lurch of the boat must have displaced the stopping from the closer of the hive, for we saw a number of them crawling up the side of the hive as we were crossing Orakei Bay. Many of them took wing, and after wheeling two or three times round the boat, darted off to shore. We ran rapidly home and yet I had hardly put the hive back into its old place, when these escaped Bees came hurrying home, each with their load. They must have been very quick about it."** Willy's hive survived this adventure for it swarmed on September 24th.

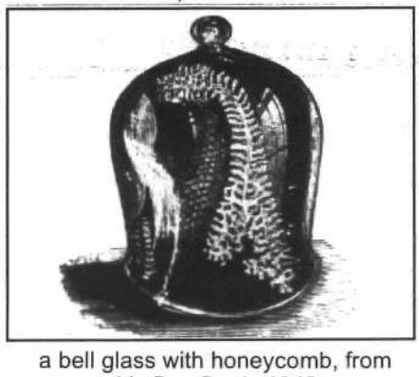
A Swarm Prevention Experiment

On February 22nd Cotton performed quite a feat. He captured a Queen as it issued with a swarm and thus began an experiment. **"I settled one or two curious points about the Bees today. I caught the Queen as she was coming out of the Parent hive, and clipped her wings on one side, to see whether I can prevent my hives swarming so much by this method, so that in reverandi gloria mellis may more engage their attention - I then fastened a small piece of twine round her body tight enough to confine her, but not so tight as to do her any damage. I then fastened the captive to the handle of a gardening basket, a convenient place enough for the swarm to settle upon - shd the Queen be the centre of attraction. The basket I placed where the greatest number of the swarm were whizzing about in the air - but they took no notice of the Queen - in an instant the cloud of Bees were seen to darken in another direction, and an old paling was evidently to be their resting place where I took the basket but altho the Queen was not more than six inches from her subjects they took no notice of her ... This proves that it is not any call from the Queen, nor even her presence which gathers the swarm together - The other question whether the hive will swarm or not cannot of course be settled until next year."**

However he didn't have to wait long for a development for on April 28th the hive was attempting to swarm again "The Queen with the clipt wings was carried out from the hive about 20 yards, a number of Bees (not the whole swarm) clustered about her, and she was returned by Hector to the Box."

Bee glasses from London

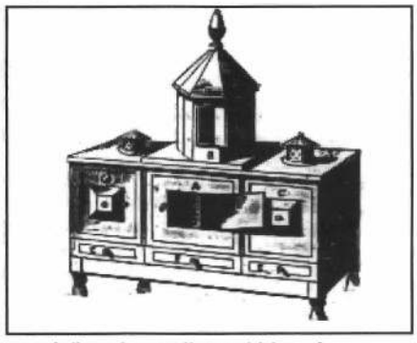
Not until August are matters beekeeping mentioned again. The *Ralph Bernal*, a 400 ton barque under Captain McLaren had arrived from London via Nelson and New Plymouth. On Wednesday August 19th **"The things arrived from the *Ralph Bernal*, not one of my Bee glasses broken!"** Some bell shaped glasses had arrived, no doubt to be put to use for the collection of new comb honey atop a collateral (compartmented horizontal timber) hive.



a bell glass with honeycomb, from *My Bee Book,* 1842

Neighbour's 1866 book *The Apiary; Bees, Bee-Hives, and Bee Culture* describes this hive style which "consists of three boxes placed side by side (c,a,c), with an octagonal box (b) on the top, which covers a bell-glass. Each of the three boxes is nine inches high, nine inches wide, and eleven inches from back to front. Thin wooden partitions, in which six or seven openings corresponding with each other are made, divide these compartments, so that free access from one box to the other is afforded to the bees; this communication is stopped, when necessary, by a zinc slide passing down between each box. The octagonal cover (b) is about ten inches in diameter and twenty high. There are two large windows in each of the end boxes, and one in the centre box.

Saturday October 24th. **"A beautiful day, four swarms of bees - 2 returned - 2 went into another hive. There was no fight, but very soon a most magnificent swarm issued forth, which completely filled one of my new straw hives. In the event I shook it into one of my long hives, with three glasses on the top. These new swarms are all brought up near the College. The permanent Bee house is not yet constructed, so they are placed on terraces cut out of the hill side in a sheltered part of one of the gullies - they will set our clover."**



A 'long' or collateral hive, from *The Apiary, 1866*

Beekeeper Sarah Selwyn

On Thursday August 26th Cotton simply noted **"Walked down to Purewa in the morning - the bees hard at work."** Next month on September 7th the Bishop's wife was identified as a beekeeper **"The Bishop took Mrs Selwyn to town to attend her monthly Committee. I took 13½ lb of honey from her hives."**

The Purewa Bee Gully

At Purewa, Monday September 21st **"Another stormy day so after twelve we all set to work digging the terraces in my Bee gully, where the Bee house is to be. It is quite sheltered there as it ought to be, and entirely a different climate from that of the College. At the later place I saw a few flakes of sleet show at 7.30 this morn."** Thursday September 24th. **"I walked with Mr D down to Purewa and took a couple of honey combs from one of my hives, to his great amazement. This prevented my going to Mr Church's who had sent for me to consult about his Bees, as one of his hives was being robbed."**

The next day **"Walked ... on to Mr Church's. His Bees in great disorder from my neglect. He swarmed them last year into old candle boxes, and left them much exposed to the weather, with the top of the hives much broken - recommended him to send the swarm, which was being attacked to Purewa to remove it out of the way of the robbers - took honey from one of his other hives - then on to Mr Claytons where I put another box under my magnificent hive which is**

there. Then along to Captain Porters - took honey from his hives and drank tea. Saturday Sept. 26th. After dinner went to Purewa and took 20 lbs of honey - with so many mouths such a supply as this is soon absorbed." On Friday November 13th Cotton again visited Claytons **"where I took a beautiful box of honey."**

The Bride's Swarm

Tuesday September 22nd **"Samuel took new honey in for his Mary."** On Wednesday September 30th the Revd. Samuel Williams was married at St Thomas, Tamaki, to Mary Williams, eldest daughter of Archdeacon H Williams. On the following Saturday, October 3rd **"Samuel and his Bride took possession of my old house at Purewa today. The first swarm of Bees rose just as they walked up the garden - which consequently became the property of the Bride and was put into the 'Mary' hive."**

Archdeacon Williams Stung

Friday October 2nd. **"Walked to Purewa at 12. Then took Archdeacon H & Mrs W and one or two more to tour in the whale boat. The Archd had intended to stay in town all night, but he was stung by a bee just before we started and soon swelled up so tremendously that he was ashamed. I came back. We sailed every bit of the way going and returning - it is not often that the wind is so completely fair."**

Ruche a l'air libre

The page for Friday October 16th is titled 'Apiarian' **"Walked down to Purewa - a swarm from the Ruche a l'air libre** (a French style hive) ***which rose when the whole side of the hive was open*, which proves it is not heat alone which makes the swarm pour forth. This swarm went back, nor cd not think why - and at last found that the Queen was hung up in a cobweb on the fence. This again proves if for this proof were wanted besides myself years of experiment - that the Bees do not *follow* the queen to some before arranged place where she shd happen to settle."**

Cotton described this 'open' hive type in his 1848 *Manual* "it is nothing more than a square board fourteen inches and upwards, standing on four legs (like a table, in fact), with shutters fitting into rabbits cut in these legs. These shutters are to protect the bees in windy or rainy weather, but may be taken down when it is fine and still; and then you will have a delightful sight; the whole of the bees, as they hang in their clusters, will be exposed to view; and combs, as they are filled, may be cut out with the greatest ease. It is a beautiful sight when fully stocked, and when there are two or three tiers of these table shaped frames on the top of each other: take care that your breath does not fall upon the bees as you are taking down the shutters, or you will be stung."

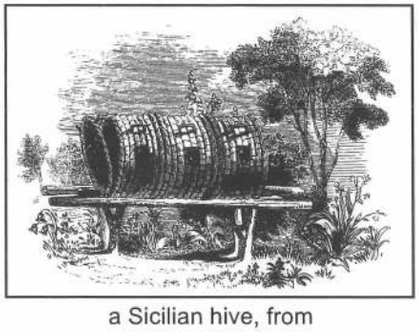
The Stinking Beetle

Wednesday October 21st. **"Took Mrs. Williams into town in the whale boat. Two swarms, one of them went into a hive which was already occupied. There was a great fight. I lifted the hive up and the Intruder dropped onto the ground & put her, with all the Bees I could collect from clusters which were lying about, into the obs** (observation) **hive. The old swarm which was there did not die out in the winter, but the number of workers was so much reduced that they had lost all activity, a great number of them were killed by a Kikeri, the stinking beetle, which got in, and whose scent made them drop down quite paralized so I thought it better to stock it again."**

The Sicilian hive

Wednesday November 11th. **"The first swarm from my Sicilian hive in my new Bee gully. It settled in a stupid place on a Tupuki bush. In a minute I got a good deal stung."**

For a description of this hive I looked to Cotton's 1848 *Manual* "The Sicilian hive is a very handy form of the straw hive: when complete, it is like a long barrel resting on trestles, divided into three or more sections, which are all kept in their places, by fitting each of them into an extra rim of straw, worked round the edge of that which stands immediately behind it. The front, which is a flat disc of straw, is fitted into the last section in the same way. The advantage of this hive is, that it can be enlarged to any size, by adding fresh rings of straw. The honey, too, is very easily taken; a few puffs of smoke at the doorway will drive the bees into the far part of the hive, and then you may either cut out such honey combs, or take away a whole section."



a Sicilian hive, from *My Bee Book,* 1842

Wellington

On November 18th Cotton was packing his belongings for his removal to Wellington aboard the brig *Victoria* which was to sail on the 21st. By Sunday 22nd the brig was becalmed off Cape Colville and a day later it was off Cape Runaway. On the 28th it reached Cape Turnagain with landfall on December 1st. Within two days Cotton **"called on Mr Stokes and talked with him about his Bees."** Stokes was to be the instigator and publisher of Cotton's *A Manual for New Zealand Beekeepers.*

A swarm on an espalier pear tree

On Thursday 31 December **"Then on to Mr Stokes. I was just in time there, as his bees had swarmed, and flown out of the hive on an espalier pear tree. It was a still more difficult position than that which I remember at Walwood some years ago, besides I had no one to help me. By patience and gentleness I managed to get the greater part of them upon a detached bough. The Queen fell down on the ground as I was brushing the Bees off the stem. I suspected she was there by the number which I saw clustering about, and moving them about with my fingers I soon found her & tying her up in a bit of net, I hung her on the bough, and then was in no further apprehension about them."**

"Desolate Bees"

A few days earlier in reference to another hive **"4 working Bees came back with their loads to the place where the hive stood in the verandah of the house before it was moved inland. I know nothing which expresses so much utter desolation and hopeless despair as a Bee searching for its hive in a place where it is no longer standing. ... I put them out of their misery. The place where the hive now is must be at least three miles off, and extensive sand hills occupies a great part of the intervening space, so that it is strange that these ones should have come back and if these four came, why not more. At Otaki when they were moved inland, a multitude of drones came back, and they alone, but the maoris, thinking from their important air, that they must be Bees of great consequence, caught them all carefully and carried them back to their hive in a tin kettle"**

Peter Barrett, June 1997

Note: Where interpretation of Cotton's script is doubtful, words appear underlined.

References

1. Barrett, Peter J. (1995) *The Immigrant Bees, A Cyclopaedia on the Introduction of European Honeybees into Australia and New Zealand*, Springwood, Australia.
2. Cotton, William Charles (1841-1847) Journals, No. X & XI. Mitchell Library, Sydney.
3. Cotton, William Charles, (1842) *My Bee Book*, London.
4. Cotton, William Charles, (1848) *A Manual for New Zealand Beekeepers*, R. Stokes, *The Spectator* Office, Wellington, New Zealand.
5. Neighbour, Alfred (1866) *The Apiary; Bees, Bee-Hives, and Bee Culture*, Kent & Co., London.
6. Nicholson, Ian (nd.) *The Log of Logs.*

New Feds chief says it's time to wake up

New Zealand farmers are obsessed with the strength of the dollar when a bigger threat to their income is right under their noses, says the new Federated Farmers' chief executive.

Speaking to Waikato Federated Farmers and business leaders, Australian Tony St Clair said he was amazed New Zealand had not yet twigged to food safety and accountability lessons learned in global markets by Australia.

"When it comes to food safety and animal health now there are no second chances," he said.

"When you load a 200kg beast on the truck (for the meat works) you should be thinking, 'there goes 560 meals'.

"We must embrace the transition from being producers of grain, meat, milk and wool to being food processors."

Markets such as Japan insisted on being able to trace a food component or product back to the farm, he said.

He said it was only a matter of time before a New Zealand farmer was prosecuted by an overseas market for a food safety failure.

Farmers and producer companies that did not put food safety, traceability, and accountability at the top of their agenda were punished by overseas markets, he said.

Australian producers had been hit with $350 million in claims. Australia had been slow to adapt to the new producer culture, but New Zealand was miles behind, he said.

In three weeks in the job he had been "amazed" at New Zealand's obsession with the value of dollars. If the market got tough Kiwis blamed the exchange rate, instead of looking at their performance.

He said the world was now driven by perception. That was why the mad cow disease crisis in Britain had so damaged meat's reputation.

"Large companies like McDonald's didn't pull out (of the meat market) because of the meat pattie. It pulled out for the sake of it's name," he said.

Damage to the McDonald's brand could have been irreparable if a customer had got the disease, he said.

A Safeway supermarket survey in Australia showed 29.7 percent of people selected products for food safety — not price or location in the supermarket.

Product branding would drive food production into the future.

Acknowledgement NZPA

I think these comments are just as pertinent to the Honey Industry and we should take very careful note of our own products and think how are we going to prove what we say about our products and their safety. This is one of the reasons that Standards are critical. The Marketing committee will be presenting a "Draft" Manuka Standard to conference in July and they really want your input.

Thanks to Ted Roberts for this item.

Editor

Random Thoughts — Beekeeping

Today's random thought is about collecting bees

by Ham Maxwell

"Bring a ladder, the bees are high up in a tree," said the lady's voice, "they have been there for three days and are not showing any sign of moving." This was my introduction to the swarm.

Three days before my contemporary had mentioned the call he had about a swarm, but said not to worry, they would no doubt have moved on by the time he returned from an out-of-town visit. The lady of the house was not concerned, but he left my name "in case something needed to be done." The current message said that something needed to be done as the swarm had now multiplied in size, enough to be concerned about the safety of the children.

First inspection at the site showed a massive swarm, the biggest I have seen for many a year. The whole hive must have taken flight to be that big so early in the season. The branch of the kowhai tree that held them was as thick as my wrist, but typically there was no where to anchor the top of my ladder. A few attempts to secure the ladder only resulted in dislodging a few bees every time from the vibration caused by my climbing the ladder. Couple this with my natural aversion to scale any ladder which has the top section free to move of its own accord and there is a problem. The owner of the property was prepared to help, but only by watching from the safety of a glassed-in porch.

A kind neighbour offered a step-ladder, but trying to stand on the second-to-top rung and maintain balance was more than I was able to manage. We looked around and saw an old fridge at the rear of the property, so promptly dragged it under the tree. By placing a plank between the fridge and the step-ladder a reasonably stable platform was created, stable enough to stand on if one was able to ignore that funny feeling that comes with ascent from ground level. To house the bees I prefer to drop them directly into the super they will be hived in, saves double handling after collection. By leaving two frames in the super the bees will, hopefully, instantly recognise a ready-made home and be prepared to settle in. However a super box is no light weight, especially when having to hold it at almost arms length above one's head. Having got that far, how to apply the necessary "bump" needed to drop the swarm into the box.

The decision to move the super box swiftly upward to strike the branch was finally decided upon as being the only practical solution. With the possibility of bees tumbling from a great height it was prudent to don a veil and gloves, as most bees I know have not read the book which assures beekeepers that bees in a swarm-mode are unlikely to sting. Moreover, I would be directly under the super box, and never yet have I had that magical clean drop where virtually all the bees drop in one package. So it turned out to be worthy of "dressing up formal." The helpful neighbour discretely retired to his porch, and up the ladder and onto the plank for me. Finding balance point was not easy, but when finally satisfied, I offered up the super to the "gods" above with a rapid movement.

The resultant bumping of the branch dropped the bees alright, about half and half. Half in the super and half all over me. The gasps of the observers was easily discernible over the noise the swarm created. By placing the super on the top platform of the step-ladder I was able to then bend over and drop a considerable number of bees from my person directly into the super. Naturally a lot of bees had taken wing, but partially covering the super created a closed box situation, as in a hive. Experience brings patience, and by waiting a short time the message became evident, a new home had been found. To prevent mass movement back into the tree I was by this time applying smoke to their former resting place. This hopefully masked the scent of the queen on the branch, so when the branch was relatively clear of bees the rapid application of a saw removed the branch which was then dumped at the end of the section.

Why was the branch not sawn off with the swarm intact, carefully lowered to the ground and then the bees shaken into the super? Good question. Ever tried to hold a branch steady, use a saw to cut the branch, and at the same time hold the weight off the branch and prevent it falling? All this of course at arms length, above one's head. Easy stuff, no sweat, if you are made in the form of a deity with multiple arms that will stretch to meet the occasion. My person comes in the standard form, only two arms unfortunately, and with all observers offering only moral support it was not easy to adapt myself to the occasion.

That aside, the super box was then moved from the ladder and placed on the ground adjacent to the bees which had fallen from the tree. Again by patiently waiting the bees on the ground began to move into the super, and the gentle application of a little puff of smoke helped make up their minds. The sun had virtually set by this stage of the day, so the super was then closed, ready for movement to my front lawn, a temporary resting place until I decide whether to start a new hive or to combine them with an existing hive. Once the super was placed in the van the observers emerged into the open. The few remaining bees on the ground, and some which had begun to settle on another tree branch were then sprayed to allay any fears the owners of the property may have had.

As usual, the bees on the outside of the super started to investigate the interior of the van after I drove away from their former home, but this is a minor concern. When disrobing at home I was chased out of the house, not by bees, but because of bees. Seems a few bees secreted themselves on my person and were attracted by the bright lights in the lounge, and the better-half was not prepared to tolerate uninvited guests, especially ejected and denied readmission until free of bees on my person.

I wonder if I would have received the same treatment if it had been fleas instead of bees.

Extractor Reversing

Many years ago I brought an elderly Pender extractor. On top it had a horizontally mounted steel wheel which drove the baskets of frames down below via a long vertical shaft. Driving the horizontal wheel were two vertical fibre wheels mounted on a movable horizontal shaft, this shaft was rotated by belt drive from an electric motor. Then there was a brake with its drum on the vertical shaft and the brake lever mounted up top.

You would start the motor with the two vertical fibre wheels positioned out of contact on either side of the central steel wheel, then the "forward" fibre wheel would be gradually pushed into contact with the steel wheel and the baskets would start to spin in the forward direction. When they had gone long enough in the forward direction you would push the forward fibre wheel into the out of contact position, apply the brake gently to slow the frame rotation and just before the frames had stopped you would brake hard and the frames would be pulled through 180 degrees via eight radial steel arms assembled in what I think is called a spider. You then slid the "reverse" vertical wheel into contact with the central steel wheel and the frames rotated in the opposite direction. This worked fine in my old extractor.

For my first attempt to modernise things I bought a Bennie electronic controller. This was absolutely marvellous electronically but wasn't there some story about "new wine in old bottles?" The controller has a soft start and a soft stop using a hydraulic drive, there is no sudden application of the brake to initiate reversal of the baskets. As my extractor grew older and older it no longer reversed the baskets reliably. What to do? I put my great mind to work and fitted two central clock weights, ropes and pulleys, and dragged two of the frames into the central radial position with the other six being kept in step via the spider. "Home and hosed" as my cow-cocky mates say. When the extractor motor started the radial baskets moved over to the tangential position and raised the central weights, when the extractor stopped the weights pulled the frames back into the radial position. The motor then reversed, the baskets moved gradually into the tangential position with the frames in the opposite direction. Now the spider has a circular steel knob at the end of each radial arm and this slides in an elliptical hole in each basket and, unfortunately, the heavy clock weights eventually proved too great a load for the thin steel plate which cracked round the edges of the ellipse.

Now, as I have said before, one of my ancestors used a steam roller to crack a nut and I have inherited lots from him. What to do next? Well, how about driving the frames from forward into reverse and then back again using an electric motor? I bought bicycle chain and eight sprockets to drive the baskets in step, got my old mate Bo Mac to make me an assembly of four slip rings and four carbon brushes, spent hundreds of dollars buying electronic bits and pieces to make the control gear. My notebooks are full of my experiments, I had fun for about a couple of years designing my latest nut cracker. Then I went to a beekeepers' field-day at Bruce Stevenson's honey-house near Okaihau. There was a trade show and Trevor Cullen of Ceracell had a four frame tangential extractor, which used four steel springs to position the baskets. With the motor running forwards the frames moved into the tangential position, stopped and the frames came to the central radial position, reversed and the frames assumed the reverse tangential position. Dead simple, very effective. Cheap. My nasty scientific mind got busy in its "What if —" mode. What happens if the springs are not exactly of the same tension? What happens if one frame is much more heavily loaded that the others? Probably doesn't matter much

with four frames fairly widely spaced but with eight frames tightly packed there would be a traffic jam if a heavily laden frame got left behind.

I went back home to have a think. Why have four springs, why have eight springs? The obvious solution is to have one spring, an elastic band running freely round eight pulleys has only one tension. Mount the pulleys one each near the centre of the bottom bar of each steel basket? How much stretch can an elastic band manage (I nearly said "band stand" but that sounded daft like the beekeepers' concerto)? I drew two regular octagons, one for the unstretched position and one for the stretched position. The maximum pull would occur if I mounted the pulleys at the inner end of the basket and also the maximum stretch, likewise the minimum stretch and pull would occur with the pulleys at the outer end of the basket. I could get no scientific data on maximum loading of cotton covered circular rubber so adopted the "suck it and see" philosophy, mounted the wheels 60mm from the inner end of baskets, bought a few metres of 6mm elastic, ran it round the pulleys with the baskets in the radial position and tied a knot at a comfortable tension. I was a bit bothered about the knot working its way round and jamming up a pulley so the problem goes away. Fig.1. I started up the motor and everything worked perfectly. There must be something wrong, life is not supposed to be that simple!

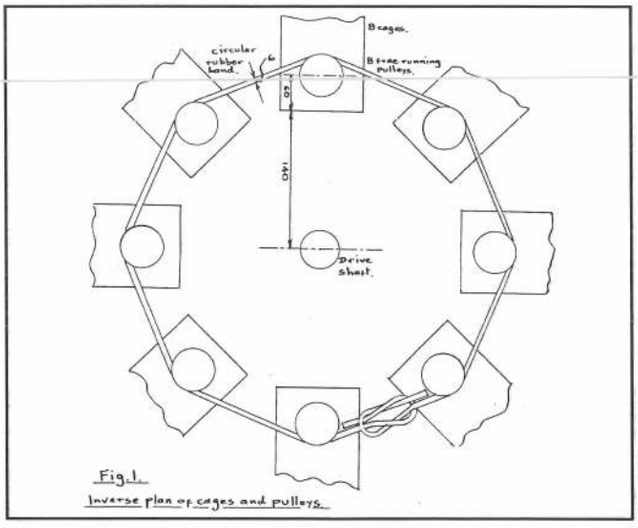


Fig.1.
Inverse plan of cages and pulleys.

My wretched "What if —?" started up again. What if a heavy frame gets left behind when the motor starts? My previous solution had been to run a bicycle chain round sprockets to keep the frames in step. What sort of mess would I have when the bicycle chain had been lubricated with honey for a week or so? I can imagine having to explain this blackened horror to Dagmar Schmidt our long suffering health inspector "Well, honey is supposed to be self-sterile!" I wonder how many times she has heard this feeble excuse? Brilliant as ever, I decided to use a stainless steel boat rigging cable wrapped round eight plastic pulleys and locked in place using screwed collars. Fig.2. I made a small loop in both ends of the cable and tensioned

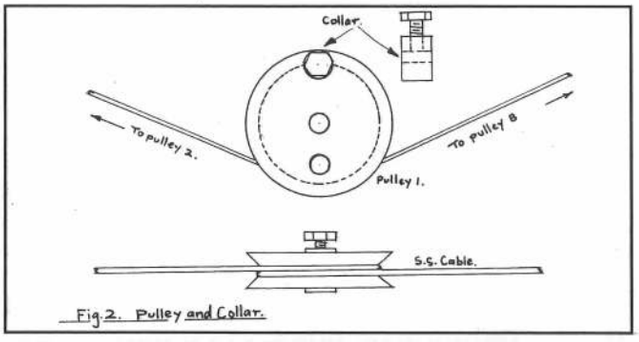


Fig.2. Pulley and Collar.

the cable using a short length of plastic cord. I locked each of the long 6mm diameter pins, which support the baskets via the top and bottom hinges, using a piece of square section steel. These steel pieces are drilled to fit round the long pins and are held in place with a screw. Fig.3. The front rectangular face is jammed hard against the surface of the basket. Out with the hacksaw to remove the spider, drill and tap a hole in the cage bearing, insert the screw from the spider and the job was done.

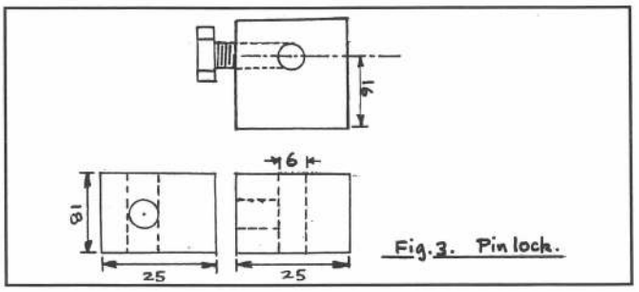


Fig.3. Pin lock.

The whole assembly is so dead simple I wonder why it was never previously used. I have used it for a complete season and had to replace the rubber band once, it fell off when it got tired. Nothing else went wrong but it wasn't much fun to make

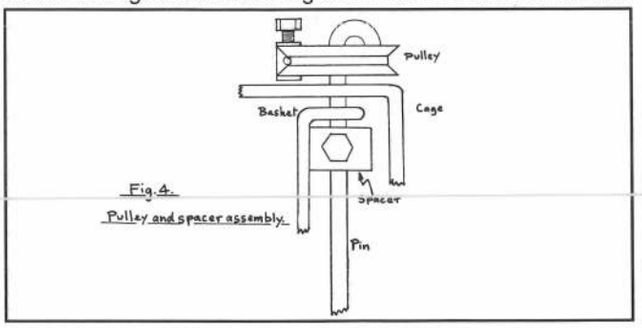


Fig.4.
Pulley and spacer assembly.

and it wasn't expensive and it wasn't electronic. Why on earth did I spend five years studying a four year electronic course when I can use a rubber band?

George Nichols

Man's death was crash 'waiting to happen'

The death of an Inglewood beekeeper on a King Country farm bridge was an accident waiting to happen, the Taumarunui Coroner's Court was told.

Coroner Tim Scott said Kenneth John Richard's death was due to a severe blow to the head after the bridge collapsed, but several factors contributed to the accident.

Mr Richards died when his honey-laden vehicle crashed through an army-built bridge leading on to the Owhango farm of Keith and Maragaret Berryman in March 1994.

"Overall, the impression is that here was a bridge in need of repair. The court believes the Berrymans had been aware of the need for repair," Mr Scott said.

"Hindsight is a wonderful thing, and in hindsight this tragedy was avoidable.

"His speed and load may have contributed to the accident but, in effect, this was an accident waiting to happen."

"In respect of any dangerous or potentially dangerous structure, a regular programme of maintenance should be implemented."

Mr Scott said he considered taking the case to the solicitor-general after Mr Berryman breached contempt laws.

Mr Scott censured Mr Berryman for his dealings with the media, which included him releasing a copy of the coroner's preliminary findings to *New Zealand Farmer* magazine, which were subsequently published, and criticisms of the delay in court proceedings.

Mr Berryman, representing himself, said in his submission to the coroner that the bridge was built by the Crown, was on Crown land and, in that regard, legal responsibility had not been established.

He was also critical that there was no autopsy, pathologist report or medical records made available after the accident.

Mr Berryman said Mr Richards was not wearing a seatbelt before the accident, and it had not been proved whether his death was caused by a medical condition, such as a heart attack.

"I believe that our concerns that Ken, and not the bridge, was the hazard are justified," Mr Berryman said.

Mr Scott described some of Mr Berryman's assertions as fanciful. He said whether or not Mr Richards was wearing a seatbelt was irrelevant.

No autopsy was carried out because none was requested by either the deceased's family or Mr Berryman.

Mr Scott conceded that the army should have employed a more experienced overseer of the bridge building project, though the failure of the bridge was not caused by the army.

Speed might also have contributed to the accident, but Mr Scott disputed an engineer's figures given as evidence for Mr Berryman.

"Frankly, though I accept he (Mr Richards) may have been driving more than 5km, I find it difficult in the extreme to accept he was driving between 15km and 20km... that might assume the capacities of a Peter Brock-type (racing) driver."

Counsel for the Occupational Safety and Health Service, Tim Brewer, who investigated the accident, said what had been forgotten was that a man died in the accident and lessons should be learned from his death to save others.

"We are greatly concerned that work accidents kill farm workers at seven times the national average and that farming now exceeds both the forestry and construction industries as the most fatal occupation," service spokesman Geoff Wilson said.

Acknowledgement The Evening Post

The honey-bee - our most valuable "endangered species"

by Herb Spencer, President of the Southwest Missouri Beekeepers' Association, Rocky Comfort, MO

Television and newspapers tell us a lot about some species of this or that bird, fish, animal or reptile that is on the "endangered list." Not once have I heard the honey-bee mentioned in that category.

From where I sit and understand it, the Good Lord put the honey-bee here to pollinate the herbs, flowers, gardens and farm crops to benefit and feed US! The honey-bee pollinates the bloom; then lastly she brings the nectar back to the hive to store it in cells so the workers inside the hive can tend it and make it ready for their own food stores which we call honey and remove it from them.

It has been estimated that the honey-bee is responsible directly or indirectly for about 12 billion (with a 'B') dollars worth of garden and farm produce each year. This is made possible by good folks moving their honey-bees up and down the roads to pollinate these crops. However, the bees can only pollinate where they are unloaded; everything else even a short distance away is left with a lesser crop yield. I wonder what it would be like if we had a surplus of honey-bees?

This should be an awareness and concern of everyone in this country. It is not like stocking the rivers with fish or relocating wild turkey into other forests, when not everyone fishes or hunts. We all have to eat - big, little, old or young.

I am sure we could get by without honey on our tables, using Karo syrup or other substitutes in its place. But I don't think any of us would be content trying to get along without fresh fruits and vegetables; perhaps beef also. A huge percentage of the livestock feed is pollinated by the honey-bee.

This past spring a drawing was printed in our country newspaper from an extension office in Arkansas of a man pollinating his blooms by hand with a little brush, telling just how to do it. If God had intended for me to do my own pollinating, he would have put a brush on my forefinger. I believe we will all be satisfied for the honey-bees to do that part of the work for us.

A lot of people say, "We don't have any wild bees any more." We have never had wild bees, as honey-bees are not native to the US. They swarmed from someone's hive at some time. If my cows get out in the neighbour's woods, they are not wild cows; if they have calves over there, the calves are not "wild calves." The reason we don't have many feral colonies any more is that not many people are keeping bees like they did 40 years ago. If we get more people involved with keeping bees again, we will see more feral colonies show up again despite the parasitic mites.

We have become a nation of fear; we fear so many things, and the honey-bee is near the top of the list. People call, wanting bees removed from houses, etc telling me to kill them or whatever has to be done in order to get them out of their house, yard or vicinity. Then, while paying me for my efforts, they sometimes say, "My fruit trees don't bear much fruit any more; I think I'll just cut them down." It is like trying to take a bath without getting wet.

This country has made great strides during the past 100 years, calling it progress. I am thankful, but in doing so we have taken the honey-bee and our dependency on it out of our conscious awareness. Nationally, we can set aside a few thousand acres as a protected forest and game preserve to be used as a habitat for some of our endangered species. No doubt, there are bee trees in some of these forests, but those bees cannot pollinate a field of watermelons or cucumbers 10 miles away. And John Q. Public must not even contemplate cutting a bee tree on State Forestry Land for that would result in dire consequences.

We have spent millions of tax dollars to pipe or channel water to some of our dry and arid farmlands. Great! Now we may think that we can plant fruit trees and acres of vegetables that will really grow. But they will not produce the harvest without the honey-bee to impregnate or fertilise the blooms. We are overlooking one step that is as important as the water itself - the honey-bee!

Our government is spending millions of our tax dollars to save the trees for the spotted owl, which I endorse, but with some reservations. Why save the poor owl and then starve him to death because he doesn't have anything to ear? It has been said that "you don't miss the water until the well goes dry." Well Alas! Brother, the well is going dry unless we save the honey-bees.

What can you do about the matter? You can get a hive or two of honey-bees. You may say you live in town? The good news about that is that you can have 100 hives or more of bees and not own a foot of real estate. Most farmers are more than happy to have someone bring their hives and set them on their land. People call frequently asking me if I will bring bees to their place, or if I know of anyone else who will.

This arrangement can make the beekeeper some money and better crops for the farmer.

If everyone reading this article would go out and show five non-beekeepers how to get a hive or two of bees, I am sure there would be a lot more acres pollinated next summer. And, we would not even run into a surplus of honey; the demand for good honey is much greater than the supply. We need to get some honey-bees back into the country before it is too late.

The new beekeeper needs to know a few of the basics of beekeeping in order to be able to handle the bees and produce a good supply of honey. Remember, having bees and being a beekeeper does not always mean the same thing. The best place to learn these skills is at a beekeeper's association. We started a new beekeeper's association in Neosho, MO, eight years ago and it has a lot of interest and is thriving. To get started, two men with bees stopped at each house where they saw even a hint which indicated there might be bees there, and talked to the people and especially invited them to the new beekeeper's first meeting. It begun with 12 people and now has from 35 to 50 at each informal meeting. Before we had a beekeepers association, each beekeeper probably did like I did; staggered and stumbled along, not knowing who to talk to about his or her problems. If there isn't a beekeeping association in your area, start one!

Our beekeepers' association has bought four packages of honey-bees with plans to give them to interested beginner beekeepers to encourage beekeeping in this area. The people who get the bees will have to attend the beekeepers' meetings, go with a group of experienced beekeepers to watch and learn and to participate in caring for them and make the hive ready for winter. Then, the bees (hives, supers, etc) will be given to the recipient at our beekeepers' meeting. We hope to make some new and better beekeepers by doing this.

The honey-bee may not be on the official "endangered list," but this species is surely in trouble. It is up to you and me to do something about it. The spotted owl and the timber wolf, along with a lot of other birds and animals are protected, but what do those "critters" put on your dinner table or into your bank account? The honey-bee does both, to the tune of several billion dollars each and every year!

Remember - "By the time we realise we should do something, sometimes it is TOO LATE!"

Acknowledgement
American Bee Journal

Beekeeping in Taupo Bay

My 10 hobby hives are located out of sight on a raised platform behind some Pohutukawas 60 metres up the steep hill on my section behind my house which is right on the beach in Taupo Bay about 30km northeast of Kaitaia.

Although there are houses each side of me, Taupo Bay being a holiday resort, they are occupied only during holiday periods, with my nearest permanent neighbour almost 90 years of age and quite deaf and with my wife away enjoying a trip around Australia I was very much on my own.

Having university qualifications in Domestic and Industrial Safety was not much use in the following series of events.

Early afternoon I decided to take some of the surplus honey off some of my hives and as most of the hives were five or six supers high and as I am relatively 'vertically challenged' it required some high lifting.

For some reason this year my bees decided that propolis would be the main crop and as a result most of the hives were glued solid, and in the struggle to lift the top box on one hive a board on the decking gave way and my leg went through.

Falling backwards with my leg trapped I grabbed the hive for support and only succeeded in bringing it down with me base and all.

In the process the zip on the shoulder on my suit was pulled down giving the bees who were just a little excited access to me.

End result was me lying on my back, one leg jammed inside the platform, one arm trapped behind me, the other across my throat, with everything held firmly in place by a full hive containing six supers lying across me.

After almost an hour of trying to extricate myself the first signs of panic set in with me firmly trapped, no one able to see me and an elderly deaf neighbour not being aware where I was.

I imagined my wife arriving back from her trip three weeks later and being not too keen on going near the bees it could be quite some time before she found my remains amongst the hives.

It took another painful hour to get my arm off my throat and from under the hive but as I was lying in a hollow the struggle to push the hive off by trying to bounce my hips up and down, was to no avail. To add to my excitement my veil was filling up with bees and so far, apart form a few stings to my neck, they were not too much of a problem.

Eventually I managed to get hold of my hive tool which I keep attached to my belt by a cord (as I regularly manage to drop it when it is most needed) and start prying apart the nearest joint between the supers but with all the propolis involved it took quite some time.

Once I managed to break the joint I then had to get the hive apart somehow so I rolled the bottom three supers away as far as my leg still trapped inside the platform would allow then roll the top three supers towards me as far as my face.

The bees that were still inside the hive then poured out through the break in big numbers looking for a scrap.

The break in the hive gave me just enough room to lift my shoulders and free my other arm from behind me which by this time had gone quite numb.

Now with both arms free I pushed the hive off and got upright to find that the foot that went through the decking was jammed firmly between the broken jagged ends of the board and once again the hive tool came into its own as a pinch bar to lift the nails out and free my foot.

Having got my leg out I went to stand upright. It collapsed underneath me and I collapsed and the hive and I were again reunited.

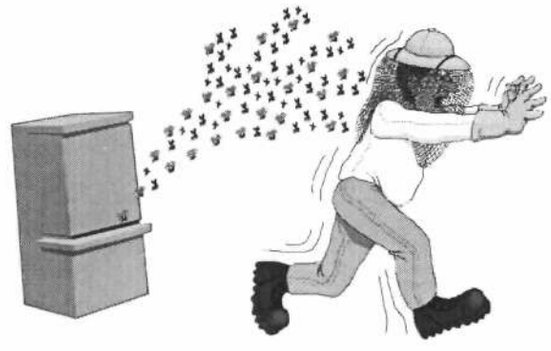
After getting the circulation going in my leg again without exposing any flesh to the bees the next problem was getting the bees out of my suit. Fortunately I was wearing a baseball cap under my suit so after carefully sliding it down over my face I unzipped my veil and just shook most them out and in the process got a few more stings.

I now had to return the two halves of the hive to the platform which was another struggle as it is over a metre off the ground. I had for a number of reasons decided against breaking the hive up further.

This whole episode took just under four hours. Fortunately I consider that I am fitter than average, however my 65 years slows the recovery process somewhat! And for some unknown reason as I limped around and the swelling from the stings in my neck and badly bruised and swollen calf muscle went down I decided to give beekeeping a miss for at least a couple of weeks.

The above episode looks like the beekeepers' version of the often told story of "The Barrel and the Bricks"!!

Bob Banks, Far North Branch NBA



$(A-C)=(S \times I)^2$

Average crop is equal to skill times the enthusiasm squared (my spell check, Glenda, has just informed me that enthusiasm is spelt with an e, stuffed that up last month didn't I).

Beekeepers don't produce honey, bees do. True enough, and from looking though some outfits I get the impression that this is the basic management technique. In its simplest form, leave the bees to it, they after all know best. All the beekeepers do is steal the honey, then stick the empty boxes back on.

Beekeepers who know how and want to make a profit and are hard working (if you're not into hard work you're wasting your time) don't just take off the honey. Bees still make the honey, but keen skilful beekeepers manipulate the bees and the conditions they live under to maximise financial returns from the hive while putting in just over the minimum amount of resources and effort necessary. Note that I didn't say maximise honey production, which is one option but a bit simplistic, and I said just over the minimum effort and resources necessary. This is likely to be heaps of both. When I first wrote the draft for this article I left out the just over bit, but on thinking it over, I put it in because just under the minimum is not a good idea.

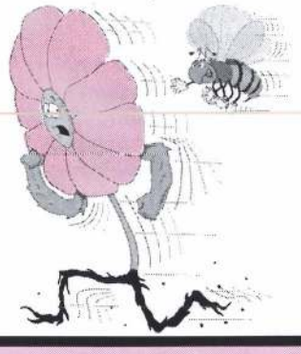
Let's take the case of a laid back beekeeper EC Going and believe me the likes of EC Going are more common than you might think. EC Going has a thousand hives, more or less, but most probably less - he's not really sure. He replaces his dead hives when he gets round to it. He's methodical about checking for FB when he thinks about it and he has the time. When he's had a good season he buys a hundred queens or so and gets stuck into some re-queening. EC Going has help for the busy part of the season via a government subsided scheme, which means he has to take on a different (or usually rather indifferent) trainee each year. Oh, and the hiveware manufacturer loves him because he hasn't got round to building a paraffin plant. EC Going's costs appear to be low at face value, and here is the clincher — his best hives got six boxes last year and some of the yards he got two absolutely choker boxes off most hives.

So what is he doing that I disagree with (that is PC talk for wrong).

1. Hive Numbers: If you have got the gear for 10 hives or 1000 hives you should aim to have that many hives. Unused gear only costs you money and even worse, doesn't make you money. The particular thing to watch for is to make sure you have the same number of hives every year, especially after a bad year when times have been hard and it is hard to find the enthusiasm.
2. Check for FB every time you open the hive, how thoroughly you do it depends on the previous history of the hive in question. Bees catch FB, beekeepers spread it. If you are slack, sooner or later, hopefully sooner, you will get plastered and it will cost you a fortune.
3. A hive with a dud queen costs you money, always! A hive with a good queen will on average make you money and, just as importantly, will be a pleasure to work.
4. If you can, do the job yourself, make sure you do the work a little ahead of time and do it properly. If you have to employ someone, train them well, pay them well and if they're no good get someone else. If they are good, look after them well. I'll rather pay a really good worker $15 per hour than a no-hopper $7.50 per hour — it's more profitable and not such a vexation to the spirit.
5. Paraffin your boxes, you can paint till the cows come home but your boxes will still go rotten if they are not paraffinned. Try to keep them dry and never stack boxes on the ground for more than a week or at all if you can help it.
6. I like to know how much our best hives got in, and we have records to show us, but what really matters is the yearly averages over all the hives over a period of years. Aim to have all your hives producing the maximum profit each year.
7. I didn't take the photo on the cover of last month's *BeeKeeper*. As soon as your boxes are nearly full take them off. It is far better to take the honey away rather than just stacking another box on top. Apart from comb honey, there is money to be made by not letting the boxes get too full as the bees slow right down on the last little bit. Mind you, I wouldn't mind a bit of the kind of flow that produces slab honey up the front of the hive like that photo — or a lot of that kind of flow for that matter.

To finish off I'll make the point once again that it is important to put thought and enthusiasm into your hives right through the season and every season. For example, three seasons ago some yards we have had records on for over 20 years did an average crop of three to five kilos (that is not taken off, that is stores for winter). The following year they got over 100 kilos. If you try to get every hive right every year, then when times are good and everyone is making a profit, you will be able to put some away for retirement and when times are bad, them as don't cut the mustard will lose their shirts while you can keep your head inside a decent bee-proof veil.

Peter Berry



RECIPES

Honey Bran Squares

A great after school treat that will bring all the friends over, too.

¼ cup honey
¼ cup butter or margarine, melted
4 cups miniature marshmallows
6 cups favourite bran cereal
1 cup peanuts

Blend honey and butter in large saucepan; stir in marshmallows. Cook and stir over medium-high heat until marshmallows are melted. Mix cereal and nuts; stir in marshmallow mixture until well coated. Press into lightly greased 13"x9"x2" pan. Cut into squares. *Makes 24 (2"x2") squares. Preparation time — about 15 minutes.*

Honey Pineapple Bread

Bake in a loaf pan. This is a nice change from banana bread.

2 tbsps oil
1 slightly beaten egg
1 cup pineapple juice
2 tsps baking powder
¾ cup copped walnuts
1 cup honey
½ tsp salt
2 cups unsifted flour
2 cups whole bran

Mix liquid ingredients. Add dry ingredients, mixing just until moistened. Fold in 3/4 cup copped walnuts. Pour into greased 5"x9" loaf pan and bake at 350°F. for one hour or until toothpick tests clean.

Zaps

A healthy sweet treat. If mix is sticky, you used too much water. Shake balls in bag with icing sugar.

1 cup peanut butter
1 cup almond butter
1 cup honey
1 tbsp vanilla

Blend and pour over mixture:

1⅓ cups coconut
½ cup sunflower seeds meal
½ cup non-instant powdered milk
1 cup wheatgerm
½ cup oatbran
½ cup carob powder
water

Blend first four ingredients. Slowly add remaining ingredients. Add only enough water to make the right consistency to form into balls. Chill to blend flavours and serve.

Tortilla Crisps with Honey Dip

This recipe comes from Mexico. It is a little different, but if you try it, you'll like it.

½ cup honey
2 tbsps butter or margarine
1 small (about 2") cinnamon stick
1 piece (1½x½") orange peel
6 (about 6" each) flour or corn tortillas, cut in six wedges
vegetable oil

Combine honey, butter, cinnamon stick and orange peel. Cook over low heat at least 10 minutes. Remove cinnamon stick and peel before serving. Deep fry tortilla, smooth-side up, at 350°F, about 30 seconds. Turn and deep fry 30 seconds longer or until golden brown. Tortilla should puff as soon as they are put in hot oil. Remove from oil to paper towel lined tray. Serve crisp tortilla with honey dip or spoon over chips. *Makes 6 servings.*

Oven Method: Brush both sides of whole tortilla with vegetable oil. Cut into wedges before baking, if desired. Place on baking tray and bake at 325°F about 12 minutes or until crisp and browned but not hard.

Honey Cheesecake

Cheesecake is best when aged 2 or 3 days. It will be difficult to keep this one so long.

Filling:

¾ cup honey
4 eggs
700 gms cream cheese
2 tsps vanilla
2 tsps lemon juice

Topping:

2 cups sour cream
¼ cup honey

Crust:

3 cups cracker crumbs
½ cup butter
3 tbsps honey

Combine crust ingredients and press into a springform pan. Chill. Whip honey and 2 egg whites until fluffy. Set aside. Cream softened cream cheese until light. Add remaining eggs, vanilla, lemon juice and honey mixture, in this order, whipping thoroughly. Pour filling into prepared crust. Bake 45 minutes at 350°F. Remove from oven and refrigerate cake for 10 minutes. Increase oven temperature to 400°F. Prepare topping by combining sour cream and honey. Pour topping over cake and return to 400°F oven for 5 minutes. Cool 45 to 60 minutes, then refrigerate cake.

Coconut Honey Squares

These freeze well. This recipe makes 9 squares, so you can put extras away to serve later.

1 cup butter or margarine
1 tsp salt
1 egg
½ tsp baking powder
1 pkt (4 oz) shredded coconut or 1 can (3½ oz) flaked coconut
1 cup honey
1 tsp vanilla
¾ cup unsifted flour
1 cup quick cooking oats
½ cup coarsely chopped walnuts or pecans

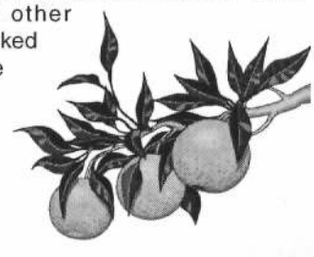
Cream butter, continue creaming while adding honey in a fine stream. Add salt, vanilla and egg and beat until well blended. Sift flour with baking powder. Stir in oats, coconut and nuts, mixing thoroughly. Spoon dough into greased 9" square pan. Bake at 350°F (moderate) 40 to 45 minutes, or until cake tests done. While still warm, cut into squares and serve plain or with honey sweetened whipped cream or softened vanilla ice-cream. *Makes 9 squares.*

Honey Punch

This recipe makes about 24 half-cup servings. Adding champagne for festive occasions is optional.

1 quart boiling water
1 tea bag
5 cloves (whole)
1 cup orange juice
1 can (12 oz) limeade
½ cup lemon juice
½ cup honey
1 quart cold water

Pour boiling water over tea bag and cloves. Cover and let steep for 5 minutes, then strain. Blend honey into tea while warm, combine tea mixture with other ingredients and pour over cracked ice to chill. Garnish with orange slices and mint leaves.



Acknowledgement
American Bee Journal

INCREASE YOUR KNOWLEDGE OF

THE FASCINATING WORLD OF BEEKEEPING

A Telford Rural Polytechnic course of study will enhance your awareness of the many diversities in beekeeping. Applications are invited for our Certificates in Apiculture which may be studied by:

One year of full time study in house

Two years of part time study by correspondence

For those wanting to study full time, Telford's one year Certificate in Apiculture will provide you with the practical skills and theoretical knowledge needed for a career in the beekeeping industry. Enrolments currently being received for mid year intake commencing 21 July 1997.

ENROL NOW!

Our correspondence course may be commenced at any time and is ideal for beekeepers already in full time employment, or hobbyists who want their hives to perform as well as any professionals.

We also can create programmes tailored to your individual needs.

DON'T DELAY — CONTACT US NOW FOR FURTHER INFORMATION

TELFORD RURAL POLYTECHNIC

Te Whare Wanaka O Puerua

FREEPOST 73901
The Apiculture Secretary,
Telford Rural Polytechnic,
Private Box 6, Balclutha, New Zealand.

Telephone: 64-3-418-1550 Fax: 64-03-418-3584

OR USE OUR TOLLFREE NUMBERS

0800-805-657 OR 0800 TELFORD

IMPORTANT DATES FOR 1997

BRANCHES SEND YOUR MEETING DATES IN FOR 1997. NO CHARGE.

EXECUTIVE MEETING DATES

JULY - 20th AT CONFERENCE - IN NELSON
SEPTEMBER - 2nd and 3rd - WELLINGTON
DECEMBER - 2nd and 3rd - CHRISTCHURCH

MAGAZINE Copy/advertising deadline 1st of month. EXCEPT for DECEMBER issue. DEADLINE 25 NOVEMBER

COMING EVENTS...

PROPOSED NBA DATES FOR 1997

CONFERENCE

Specialty group meeting	Mon 21 July
Seminar	Tue 22 July
Conference/AGM	Wed 23 July - Thurs 24 July
Special Meeting	Thurs 24 July - 8am

AUCKLAND BEEKEEPERS CLUB INC.

SECRETARY - *Jill Dainow* **Ph: (09) 838-8567**

July 15th	AGM - 7.30pm
Venue:	Unitec Building 23
August 9th	Working Bee - 10am
	Field Day - 12.30pm
Venue:	Location Unitec Entrance Two.

★ ★ ★ BRANCHES... *PUT YOUR MEETING DATE IN HERE...* FREE ★ ★ ★

AUCKLAND BRANCH
Call: Jim (09) 238-7464

NORTH CANTERBURY CLUB
Meet the second Monday of every month March to November inclusive.
Contact Mrs Hobson
Phone: (03) 312-7587

SOUTH CANTERBURY BRANCH
Phone: Noel
(03) 693-9771

CANTERBURY BRANCH
Trevor Corbett
Phone: (03) 314-6836

CHRISTCHURCH HOBBYIST CLUB
These are held on the first Saturday each month, August to May, except for January on which the second Saturday is applicable.
The site is at 681 Cashmere Road, commencing at 1.30pm.
Contact Peter Silcock
Phone: (03) 342-9415

DUNEDIN BEEKEEPERS CLUB
We meet on the first Saturday in the month September - April, (except January) at 1.30pm. The venue is at our Club hive in Roslyn, Dunedin.
Enquiries welcome to Club Secretary, Dorothy phone: (03) 488-4390.

FRANKLIN BEEKEEPERS CLUB
Meet second Sunday of each month at 10.00am for cuppa and discussion.
Secretary — Yvonne Hodges,
Box 309, Drury.
Phone: (09) 294-7015
All welcome — Ring for venue.

HAWKE'S BAY BRANCH
Meets on the second Monday of the month at 7.30pm.
Cruse Club Taradale.
Phone: Ron (06) 844-9493

MANAWATU BEEKEEPERS CLUB
Meets every 4th Monday in the month at Newbury Hall, S.H. 3, Palmerston North.
Contact Joan Leckie
Phone: (06) 368-1277

NELSON BEEKEEPERS CLUB
Phone: (03) 546-1422

OTAGO BRANCH
Phone Bill (03) 485-9268

NORTH OTAGO BRANCH
Phone: Mr Peter Cox,
38 Rata Drive, Otematata
Ph: (03) 438-7708

POVERTY BAY BRANCH
Barry Foster (06) 867-4591

SOUTHERN NORTH ISLAND BRANCH
Phone: (04) Frank 478-3367

SOUTHLAND BRANCH
Contact Don Stedman,
Ph/Fax: (03) 218-6182

TARANAKI AMATEUR BEEKEEPING CLUB
Phone: (06) 753-3320

WAIKATO BRANCH
Call Tony (07) 856-9625

WAIRARAPA HOBBYIST BEEKEEPERS CLUB
Meet 3rd Sunday each month (except January) at Kites Woolstore, Norfolk Road, Masterton at 1.30pm.
Convener Arnold Esler.
Ph: (06) 379-8648

WELLINGTON BEEKEEPERS ASSOCIATION
Meets every second Monday of the month (except January) in Johnsonville. All welcome.
Contact Frank Lindsay
(04) 478-3367.

CHB PRINT, WAIPUKURAU, HB, NEW ZEALAND — 2101