THE NEW ZEALAND BEEKEEPER

1989

SPRING
(AUGUST)

OFFICIAL ORGAN of the
NATIONAL BEEKEEPERS' ASSOCIATION
OF NEW ZEALAND

(An Organisation for the advancement of the Beekeeping Industry in New Zealand)

50th Anniversary

Better Beekeeping | Better Marketing

The New Zealand BeeKeeper

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

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

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

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Matters for thought

From Ham Maxwell

Think about hive siting. Just where to put ones hives can, and has proved to be a problem over a long period. To own the land is not the total answer, especially in an urban area. All sorts of things can and do happen to the unwitting new beekeeper.

"I see you now have a beehive at the bottom of your garden," is a phrase from the neighbour which is usually, to the novice, a disarming way to introduce the subject over the garden fence. When the new beekeeper modestly admits the fact that a new hobby is being undertaken, and that it is hoped that the forthcoming season will bring forth a bumper crop of honey, the withering look which results from the neighbour is enough to make one begin to suspect that something is amiss.

"My wife is allergic to bees, she swells if she gets a sting. I'm afraid you will have to get rid of your bees, because we can't have the risk of her being stung, can we?"

Now this is like a bomb blast to the unsuspecting new beekeeper, and leaves him or her in a mild state of shock, sufficient to inhibit his or her ability to think rationally for the moment. So what course to take?

To endeavour to arbitrate the situation may result in a verbal altercation of the horrific kind, with things being said over the fence in the heat of the moment that someone may be sorry for at a later date.

To meekly comply leaves one with a sense of injustice about not being in control of the activities undertaken on one's own property. If the neighbour can hold sway over this action, will it end there, or will further actions on your part become equably objectionable to him? The ownership of a cat or dog may be in jeopardy or in extreme, your ability to whistle as you undertake your garden chores may be curtailed. It has happened.

Resorting to a perusal of the local by-laws will bring chilling news. NZS 9201, Chapter 1313, relates to beekeeping, and in seven small paragraphs ties any would-be beekeeper up in knots for any area other than those zoned rural. Permission to keep bees must be sought, which in practical terms requires a hearing for "specified departure", together with a fee of $242.00. I know, I have the letter from my local council on file still.

Restrictions still apply in rural zones, the principal one being a requirement that the hives must be located a minimum of 20 metres from any property boundary, or 30 metres from any residential dwelling. Whether yours or your neighbours' dwelling is not spelled out.

So what hope is there for the landless? On the official face, stony and impassive, none at all. Rules are rules, [by-laws are by-laws] and must be obeyed at all times. Failure to do so may result on official action being taken to remove this noxious insect you have so unwittingly taken upon yourself to introduce into the neighbourhood.

Not all local authorities are stonyfaced, some even go so far as to provide a free inspection visit upon request from the prospective beekeeper. All this to come to terms with the term "nuisance" in your community.

Rules exist to cover the nuisance factor of dogs, cats, and chooks, basically requiring that three written complaints must be received before action can be taken. This factor was overlooked when the chapter covering bees was created.

Tread softly, prospective beekeeper, forces exist out there that are beyond your understanding of human credibility, rational reasoning, and good old Kiwi thinking.

"Give it a go, Kiwi!" is all very well when applied to the sporting scene, but don't press your luck when you decide to keep bees. Ignorance, intolerance, irrationality, and plain damn cussedness await the unwary. Not in our community, I hear you say, not in this enlightened day and age of free thinking, untrammeled freedom so long fought for by our forebears. All that can be said in answer to this is: "Don't be so damned naive".

You, as the beekeeper are left with two alternatives. Try to obtain official permission to establish a hive in your back garden, so forestalling any disapproval from your neighbours, or simply get on with establishing your hive, crossing fingers, toes, eyes — and palms — if needed. Every situation differs from any other where beekeeping sites are concerned. Relationships between neighbours is the fickle factor to be contended with, and how you yourself react to things occurring around you may bear fruit, or should it be said — Honey.

Then let's consider disease control, or the lack of it.

Now I don't regard myself as an expert when it comes to identifying diseases in my hives, that is prior to attending field days and weekend seminars. Now, still far from the reaching the exulted status accorded to experts in any subject field, I am more confident when examining my hives. This change in attitude came from being able to observe diseased frames and discuss, with acknowledged experts lecturing about the particular disease, the identifying symptoms.

Listening to discussion between beekeepers at club meetings and field days has been of tremendous value to assist me in coming to grips with all the dreaded lurgies lying in wait inside my hives.

One of the most interesting methods of learning came through the correspondence course in beekeeping conducted by the Bay of Plenty Community College. The module dealing with diseases encountered within the hive made me go looking for information, made me read articles about diseases, and helped rationalise my thinking in regard to methods of prevention.

Now don't think that I think I know it all. I don't, but at least I'm sure that I am now more fully aware of what is going on within the hive. This boost in confidence has helped me all through my current season of beekeeping. Perhaps the bees also noticed, but to date they have seen fit to withhold their thoughts.

But what about the run of the mill beekeeper with a couple of hives? Too busy trying to keep up the mortgage payments to be able to devote time to study, or otherwise committed in time allowance. How is the message on disease control going to be brought to his/her attention, and made sufficiently interesting to warrant his/her wanting to do something about it?

Pamphlets published by MAF are of great value, but deal principally with American brood disease. Text books giving detailed coverage of diseases are expensive, and often written for the scientist, going by the jargon one has to plough through. I never was any good at Latin in my school days.

Looking at what happens in other hobbies may help formulate something for beekeepers. Dog lovers are required to have their dogs dosed as part of a disease eradication campaign. Cat lovers are encouraged to protect their moggies with vaccinations, horse owners don't hesitate to call in the vet if something is amiss.

Farmers of course have a well developed advisory service to back up their concerns on animal health.

Beekeepers have a back-up service too. Too late to do anything but burn the diseased hives, and this is what gets my back up, or gets up my nose. Beekeeping clubs are doing their best to keep the identification of diseases in front of their membership with evenings and field days devoted to this subject, and should be encourated to continue this work. Not all beekeepers be long to a club, and this is where the identification and control of diseases breaks down. With the possible introduction of a registration fee for the purpose of funding disease control within the beekeeping industry, would it be going too far if, as an integral component of the registration system the prospective beekeeper was required to show evidence of having attended a seminar on diseases of the honey bee?

Before the furious outburst overwhelms me, with new beekeepers bursting to have visible evidence that my life form is now extinct, why should I have the temerity to proffer such ideas? My reaction is why not? What better way to introduce the new beekeeper to a club offering a service for a modest fee; and who knows just how many prospective beekeepers may be induced to stay under the club's umbrella, enriching the industry with their new found enthusiasm.

Access to clubs is, for some a difficult and unrealistic fact, particularly when living in an isolated community. But those same people think nothing of travelling, at their own expense to attend summer schools, seminars on their chosen topic, so what is so different about beekeeping? That ugly world COMPULSION!

I do not recall being able to get my driver's licence without a test of my competence behind the wheel of a vehicle. Similarly, limits exist in our daily lives, controlling who may do what, for whom, and for what purpose. Is requiring evidence of the acquisition of knowledge to a basic level of bee diseases such a bad thing if the alternative could be the destruction of an industry because someone says, "If only I had known, I would have done something about it much sooner!" The stable door syndrome is out of context in today's world. People mobility is a fact, and having diseases introduced and remain undetected until too late is a feature we can do without.

Will you be the next one to have to ask: "where are the matches?"

Which brings me to the quality of bee veils and associated clothing.

Despite the advertising, I have yet to purchase any item of protective clothing used in my beekeeping activities, apart from thick wooly socks, that did not fall apart at the seams or have zips that jam.

Take my bee veils for instance. The very first was a simple device which pulled over the shoulders, was tied down by two nylon cords, and depended upon the solar topee hat to keep it expanded. Learning the hard way to tie the nylon cords crosswise across the chest was the first lesson. I never did manage to tame the plastic mesh into any semblence of proper order and discipline. After being folded away, creases developed in the mesh, causing it to assume a caressing attitude against the skin of my face. You guessed right, the bees also caressed that particular portion of my anatomy. Working with my shirt collar in a vertical position became mandatory, as the rear section of the cloth developed a mind of its own in regard to its placement once work on a hive commenced.

A look at the market place resulted in the purchase of a half suit, that is the top half with veil. This was to be the end of my torment, once and for all time. But no. Despite having a full jacket, with sleeves, and being lulled into a sense of security by successful use over a number of weeks, a painful reminder on the upper lip told me something was wrong. On arrival home from the bee yard an introduction was necessary prior to my wife allowing me over the doorstep, so mis-shapen was the facial contour of the creature standing in front of her.

Examination of the veil, when I was able to use my eyes again, showed that a seam had parted company at the end of the zip. Expert opinion from my better half conclued that during the construction process, someone was rather stinting on the amount of material made available for the needle to put the thread in and hold the garment together. Naturally, one of my little furry friends saw fit to use this heaven sent entrance and drive her message home.

Back to the advertisements. Aha! Here is what I want. Quality control in the manufacturing process. Made in Kiwiland for Kiwis. Also the local bee club will benefit from the sale. Great. Pay the money, take the half suit home

and sit down and look at the seams. Seams OK. Don the item and down to the hives. Super, no annoying visitors. Again I develop that comfortable feeling that comes with knowing that full protection is available. Then whammo! There is a bee INSIDE the veil! A calm gallop back to the truck soon enables one to despatch the errant creature. But how did it get in there? Another seam failure, this time centre back where the hood joins the body, right where the tab for hanging the suit is attached. Out with the needle and thread, and another look at the rest of the seams. Yes, it's true, the seam is also coming undone at the end of the zip, not at the end normally opened by the wearer, but at the other end, a position normally never used by this beekeeper.

Where next? I'll ignore the minor coming adrift of the seam on the wrist end of the right sleeve.

Now look at gloves, those cumbersome things used by me as I never have developed that macho feeling that arises when a red hot needle is being inserted into my knuckle or wrist. Same problem with seams not holding up to the normal wear and tear of daily useage. Admittedly the leather section lasts well, prior to the splits developing in the fingers, but by that time the cloth section has long since decided to call it a day. My current pair of gloves has decided to part company with a tear in the cloth at the point where my fingers from my left hand apply pressure needed to pull it on to my right arm.

Overalls have their own peculiarities, with seam failure being a thing of the past. My choice is to have a long zip up the front of the overalls, that also is my downfall. Why is it the design and construction lends itself so readily to creating a jamming zip, always at crucial moments? You no doubt have also experienced such treasured times, like looking down and seeing bees smothering the front of the overalls, and you have forgotten to pull up the zip. The irregularity of the calls of nature can also lead to the zip suddenly developing a mind of its own. There you are, hopping from foot to foot, and the zip won't move, despite your most earnest endeavours.

The cause of all this trauma? Those lips of material designed to fold over and hide the zip once it has passed on its way to being done up.

Sewing up pockets after purchase is, of course a job designed to test ones manual dexterity. Inserting elastic into the ends of the sleeves and trouser legs can nicely while away a winter's day, and it does not take long to give up watching Tv if you are sensitive to insertion of a needle into your finger. Perhaps it reminds you of something else?

So where to go from here in the quest for protective clothing that will, in the words of a recent commercial, last, and last, and last, and last.

Perhaps I'll try a full bee suit, forget the cost, that's written off against tax — or is it? Excuse me, I have to go see my accountant.

And then when you go to buy beekeeping supplies, and find a complete lack of information about suppliers.

The beginning beekeeper, full of enthusiasm to get under way, soon finds the pace of progress slowed, if not impeded, when it comes to going out into the market place to buy hive equipment.

Those people introduced to beekeeping through a club stand a better chance of finding out the names of supply firms than the individual going it alone.

A search through the yellow pages of my local telephone directory failed to reveal any supplier of beekeeping equipment. Visiting the local post office showed that only two major ci-

ties had beekeeping listed in the yellow pages.

So where to go?

The local library does not keep any beekeeping journals, but interloan will produce them on request.

There are copies of beekeeping journals in the library of a neighboring city if one cares to take a trip over to them, sorry, available by interloan only as you are not a resident of the area.

Of course resorting to the photocopy machine in the library will overcome the need for further trips. Progress, or is it?

Begin by 'phoning the local, or adjacent town suppliers. Not much further on after being held on hold by the telephone operator for six minutes, despite the preamble that "this is a toll call," when phoning out of town.

Try the next supplier on the list, good, got through straight away. Supply ex-stock is music to the ears, until a minimum order quantity is stated. Freight extra of course. So who needs 1000 frames when running just two hives?

Even those running larger numbers of hives encounter this minimum-order bogy. Understandable from the suppliers point of view, costs must be kept to a minimum.

In an industry where the bulk of beekeepers are very small operators, the lack of appreciation by those supplying the hardware and associated equipment is beyond all understanding. To be fair, firms do exist who cater almost exclusively for the small beekeeper. But how does the initiate to beekeeping find out about them? Word of mouth advertising is about all one has to go on, as they rarely advertise in the print media.

Attendance at field days is an excellent method of product promotion, but, like running a club, it is only the dedicated few who show. Recent experience of a field day activity was proof that an excellent promotion resulted from suppliers banding together to share costs, resulting in each company paying less than $50.00 over a two-day event. One supplier remarked it was the first time he actually banked money after such an event.

In two years of club activity, few publicity brochures have been received by our club secretary. Given the fact that the majority of beekeepers have ten hives or less, these are the very people suppliers should be chasing. Not on an individual basis, the costs would be prohibitive at current postal rates. Access them via the clubs and field days, the occasional newspaper advertisement, and of course the NZ Beekeeper. Having received consistent enquiries from our club members over many months about the source of equipment, I am aware that this problem is real for the new beekeeper.

Supply of queen bees is another cross to bear. Not everyone has access to the NZ Beekeeper outside of the club library or the few local libraries stocking it throughout the country. Some queen breeders as a business group show an abysmal lack of consideration for the customer. To receive an early morning call from the post office telling you that a parcel of bees has arrived appears to be standard procedure adopted by one queen breeder, and this after two requests to be advised prior to despatch of the bees, to allow time for nucleii to be prepared.

O.K. It costs money to phone, telegram, even send a letter, but see the panic in the eyes of a new beekeeper when his order of queen bees arrives "out of the blue" is not a good example of customer relations.

Not all suppliers are this callous, and advice prior to despatch is the norm in their operation. Similarly, any hold-up due to weather, seasonal delays, poor fertility rate should immediately trigger an advice to the customer. But after waiting three weeks, it was the writer who finally phoned to find the reason for the delay. The reason? Wet weather. The next order for queens went to another breeder. Advice prior to despatch and a follow-up phone call to find out if all was well with the shipment was received. Which company would you send future orders to?

Sales will always be an enigma for the supplier, with costs spirals flattening profitability curves. Customers are fickle, treacherous, unreliable beasties, yet demand attention, service, and worst of all, "credit". But in the striving for profit, it is the supplier who looses all because he has lost his "credibility" in the eyes of the customer.

FIG FILLING

½ cup chopped figs
½ cup honey
¼ cup water
2 tablespoons orange juice
1 tablespoon corn starch

• Mix ingredients in top of double boiler and cook until thick enough to spread. Spread between cake layers while hot.

Editorial: From the First Issue NZ Beekeeper 1939

Our Official Organ

We have pleasure in announcing to the beekeepers of New Zealand that, after a lapse of some years, they now have available a journal which is published solely in their interests. The "N.Z. Beekeeper," is the Official Organ of the National Beekeepers' Association (an organization which has functioned for over twenty-five years). This paper is posted free to members and will serve to keep them informed of the General Executive's activities on their behalf, besides telling of the progress and activities of the numerous branches of which the Association is comprised. Further, the journal will be used to convey news and official information from the Internal Marketing Division and the N.Z. Honey Control Board. It is expected that the Director and officers of the Horticulture Division also will make use of our columns and if, in addition, the beekeepers themselves will do so, then we shall feel that there is justification for our coming into being.

Beekeepers are urged to use this paper and to join the Association so as to ensure receiving a copy regularly. While at the present time it is not possible to publish oftener than quarterly, it is hoped shortly to commence bimonthly issues, and that is only one step from regular monthly issues. However, the only way this can be brought about is by beekeepers themselves taking an active interest and joining the Association.

We shall publish matters of interest pertaining to the activities of the various branches, and Branch Secretaries are asked to forward to the General Secretary reports of all meetings and field days which are held in their respective districts for inclusion in the space set apart for Branch Notes.

We are not going to tie ourselves down to any given number of pages per issue and, because this issue contains 24 pages, it does not follow that we shall be the same size next April. We might then be only an eight-page publication, but we shall see to it that, so far as is possible, the size of our journal will be adequate to publish as much information as is necessary in the interests of the Industry, and by that we mean the industry as a whole, not a part of it, and not the interests of only a few individuals who might be remotely associated with it.

Dear Sir,

I am taking the liberty of asking for your assistance. Please put us in contact with a beekeeper in New Zealand who would be interested in corresponding about beekeeping.

My wife and I operate a small apiary of two hundred hives in Western Canada. We sell most of our honey to packers. We are interested in innovative uses of honey, and ideas on the use of the by-products of beekeeping such as bee wax, pollen, propolis and bee venom. However we are prepared to exchange ideas on any aspect of beekeeping. A visit for first hand observation is also a possibility.

Perhaps you or your staff know of such a beekeeper, located near Wellington and could direct me to him. Our sincere thanks for any assistance you can provide.

Sincerely yours,

Andrew Dziadyk
1333 Arlington Avenue
Saskatoon, Sask, S7H 2Y

P.S. I am a subscriber to the New Zealand Beekeeper.

Over to our readers. Ed.

Dear Sir,

At risk of being considered negative, I must point out to Derek Bettesworth (A bee stock improvement programme for NZ, NZBK, Winter 1989) that in any improvement programme it is vital to consider not only next year but also 10 years, 20 years and 100 years hence.

We already have suggestions that New Zealand Italians have a gene pool which is too narrow (a suggestion with which I do not agree). Any improvement scheme that initially is very successful must eventually decrease that gene pool to a stage where we will be forced to import stock or semen from some other country.

Assuming that our quarantine methods are foolproof, not just this year but forever, the importation of genes can bring further problems. Once the initial outcross vigour has subsided we will find that we have introduced characteristics which are undesirable in New Zealand, probably characteristics that were in the original strains of Italian that were imported and have been largely bred out during the 35-odd years since the last importation of stock.

Incidentally, I do not consider bee breeding analagous with sheep and cattle breeding, because haploid drones cannot be confined by fences once given their freedom.

Having made those profound statements, backed by quite a few years of learning to think like a bee and a responsible attitude to the future quality of our bee population, I would like to point out two further options. One would be more than twice the expense of those proposed, whilst the other would not be very costly at all and would maintain a very satisfactory gene pool.

The first alternative would involve duplication of any of his options from 2 to 5, while eliminating 1 and 6. The idea is to produce a male line as well as a female line which are completely separate, and the top evaluated progeny of each line would then be crossed to produce what would be an outcross. This would give New Zealand a consistent line of improving queens.

Advantages:

1. It would give a system that could be used ad infinitum without importation.
2. Narrowing of the gene pool would be overcome by outcrossing to produce commercial queens.

Disadvantages:

1. Heaps of recording would be involved to keep the two lines separate for all time.
2. This is an expense that the industry cannot afford currently or in the foreseeable future.

The second alternative is the only one I am currently in favour of, in view of the present financial situation of our industry.

Commercial beekeepers would supply their best, puremated Italian queens to queen breeders, each supplying only one queen of their choice. Each queen breeder would in turn fit those queens into their breeding plan after evaluation, and be prepared to sell breeder queens back to all customers.

Advantages:

1. This is the cheapest option other than doing nothing.
2. It maintains a wider gene pool in New Zealand.
3. The expertise of existing queen breeders is used.
4. It will give immediate and ongoing results.
5. The rate of improvement is in the beekeepers' own hands.

Disadvantages:

1. Possibly after 10 years or so it would create inbreeding problems in some queen breeders' stock, depending on their system.
2. It puts responsibility for stock improvement in the court of those who will benefit, but who will have to evaluate and record their own stock performances.

I believe that queen breeders are responsible and can produce quality queens, but in view of Dr Denis Anderson's findings we should pay more attention to pollen supplies and where escorts are taken from in our escort hives, as well as the number of escorts in cages.

We cannot expect anything better than marginal improvement on our best queens but we can expect dramatic improvement on our medium to worst. None of us can take full advantage of any queen improvement unless our management is also first class.

As a guide: If your production is not better than the average for your area then your management may need a review.

Don Gibbons

Dear Sir,

Over the past three years, there has been a great deal of discussion via industry publications (NZ Beekeeper, Apiarist, Buzzwords) and at NBA conferences, branch meetings and field days re price cutting. More recently, this activity has extended beyond honey sales into the area of pollination, particularly of kiwifruit.

In the Bay of Plenty, beehives were being quoted by beekeepers as low as $55.00 per hive delivered into orchards. As a counter, established operators did lower their prices, with some coming down to a ridiculous level or offering considerable discounts, plus two/three months deferred payment schemes.

It is noted that competition is healthy, but it is further noted that many operators were intending to subsidise their pollination activities through honey production and that many had not been involved with pollination in the past. They therefore came into the pollination industry at the expense of established operators who have learnt the expensive lesson that to be successful each business activity must be profitable if a reasonable rate of return is to be earned.

Unfortunately for everyone, little or no honey has been harvested throughout the upper North Island. The nett effect is loss of income, individual beekeepers report a 60% drop which will put them in a deficit situation this financial year. Worse still, most beehives in the region are starving, with beekeepers facing an autumn feed bill exceeding $10.00 per hive and are staring at a Spring feed bill of a similar magnitude. "No problem", many will say: their financial institution will provide the necessary seasonal finance. Many honey producers have intimated "Bad luck chaps, now you know how it feels". May I point out to the total industry that the cumulative effect of three years open slather on the local market, price cutting to gain a short-term cash flow from pollination (plus bad debts) has resulted in **ALL** beekeepers being positioned in the same boat as other primary producers,

they have lost any equity they had in their business and have you tried borrowing funds when you have nil or deficit equity?

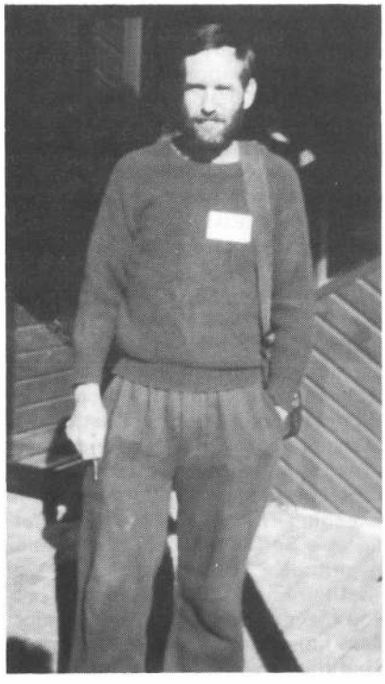
If you don't believe me, look at the prices beehives are being offered at in any of the earlier mentioned publications, then look back three years. Hives selling readily two or three years ago at $90-$120 are now offered for as low as $60 and **not selling.** Right now you can buy a going concern of 1200 hives, plus equipment and vehicles for $85,000, with existing pollination contracts to boot: this same business three years ago was valued and sold for in excess of $250,000 and it turned a profit each year.

Sir, the industry has lost so much because of the activities of so few that at a time when so many opportunities could be taken advantage of I'm afraid few in the industry will be in the position to benefit.

I therefore urge all those within the industry to think carefully of their role and actions over the past three years and in particular to identify those who have been guilty of actions in the marketplace which have impacted throughout the industry. By depriving these individuals of product (honey, hives, sugar and **credit** i.e. pro rata payments for honey) then maybe, (just maybe) they will be cast out of the industry and we can all get on with beekeeping for essential profit and enjoyment.

Trevor Bryant

New Executive Member



Nick Wallingford, the new Executive member elected to replace retiring member, Stan Young, from New Plymouth. Nick has been the prime mover and tutor for the Certificate of Beekeeping Course based at the Tauranga Polytech. He has much to offer the industry.

Dear Sir,

I am a hobby beekeeper in Berkeley, California. I have three hives (stocks, I believe you call them) and I and my wife are planning a trip to New Zealand in October and November of 1989. Could you supply me with the names of some New Zealand beekeepers who are also in the Farmstay or Homestay business. We think it would be nice to visit a New Zealand beekeeper.

Enclosed is a check for $16.00 for a one year subscription to your magazine.

Thomas E. Farris
1621 La Loma Avenue
Berkeley, CA 94709
U.S.A.

Editor's Note: Anyone care to write to Mr Farris?

Dear Sir,

I beg to state that I have been doing apiculture for many years in Bangladesh. It is pity that Apiculture in Bangladesh is still underdeveloped. This fact has induced me to make three month's study tour to New Zealand. There I shall visit for myself many apiaris and the various methods of apiculture. This will give me a first hand direct experience in apiculture which will help me develop my apiculture in Bangladesh. I am sure such a short travel will be conducive to our country's apiculture. It may be mentioned here that all the expenses on such a visit under the guidance of your Association shall be borne by myself.

As such every instruction in respect of my proposed study tour should be available from your Association. Please send me journals of New Zealand's apiculture if your Association have any.

May I therefore request your honour to send me necessary guidelines and instructions in the above connection and thus oblige.

Abdul Momen Bhuiyan
C/o Niramoy Homeo Hall
Telikona Chowmuhari
Bangladesh

Editors's Note: Would anyone care to write to Mr Bhuiyan?

Dear Sir,

About six years ago during a spell as B.O.P. Branch President, I sought and gained Branch approval for the 'Young Beekeeper of the Year' Competition. It has been eagerly contested on several occasions and more recently, we have opened the Competition up to Poverty Bay and Waikato Branches.

The Competition is now being run again culminating in finals and a social evening in June 1990. Competition conditions are:—

1. Entry is free.
2. Contestants must be from Poverty Bay, Waikato, or the Bay of Plenty branches.
3. They should be no older than 30 years.
4. They should own 50 or more hives.
5. Judges will be arranged by the B.O.P. Branch, and there will be one MAF Officer and one NBA Member from each area.
6. Local eliminations will provide no more than two finalists from each branch.
7. Entries close Aug. 15 with Bruce Stanley (Co-ordinator). Phone 076-29028, or Fosters Rd, R.D. 1. Whakatane.
8. The Competition will generally be structured as follows:—
   (a) Visits by judges to contestants apiaries mid-September (pre pollination) and Jan/Feb (Honey Production)
   (b) June 1990. Finals: Questions and five-minute talk. This will take place on an evening social and prize giving event
   (c) There will be first and second prizes. In 1987, prizes were valued at several hundred dollars

My purpose in writing is to float the idea of a National Competition in, say, 1990-91. I would like to see some response through correspondence in your magazine on the subject. My tentative suggestions would be to have branch-to-branch eliminations, culminating in a final at Conference.

If we are to believe such valuable visiting entemologists as Dr Cameron Jay and Dr Shiminuki, New Zealand Beekeepers are amongst the best, (if not the best) managers of beehives in the world.

Furthermore our beekeepers now have an excellent opportunity for further education via the Telford and B.O.P. Community Colleges.

The Industry could further encourage this developing situation by recognising our Young Beekeeper talent.

Bruce Stanley
B.O.P. Branch (Co-ordinator for 1989-90 Regional Competition for Young Beekeeper of the Year)

A look at beekeeping in Iran

By Andrew Matheson, Apicultural Consultant, MAF Tauranga

CHELO KABAB — two vital words for anyone travelling in Iran. I got to practise them twice a day recently, while working in Iran for a month.

Chelo kabab seems to be their national dish. Chelo means rice — huge mounds of it — and kabab is pretty much what you'd expect — pieces of meat grilled on a skewer and laid on a plate. The food is usually served with lots of bread, side dishes of pickles, yoghurt and salad, and bottles of the ubiquitous Coke (the Islamic beer is another story). It's very nice, but eating it for lunch and dinner for days on end can become a little monotonous.

I was in Iran as a guest of their government. Not to teach beekeeping but to make recommendations for the future of that industry.

The visit arose from Colin Moyle's trip to Iran in February of last year. In meetings with his Iranian counterpart he agreed to provide four MAF consultants to assist with the development of their grasslands and animal breeding industries. Later, the Iranians asked to substitute a beekeeping specialist for one of the others, so at short notice I was off to the Middle East.

First impressions of the country are vivid. To get to the capital, Tehran, I flew from the south for more than an hour and a half; over vast plateaux devoid of vegetation, interspersed with high mountain ranges blanketed in snow.

Tehran itself is an immense, sprawling city. No one knows the population (the best guess seems to be about 10 million), but the city spreads over a huge area of plain and foothills. Immediately behind it the Elburz mountains rear up to over 4,000 metres, providing a stunning backdrop.

Iran is six times the size of New Zealand, and most of the countryside is bare and arid. However, during my time there I travelled for thousands of kilometres, and I was continually amazed at the beauty of the rugged landscape.

Beekeeping in Iran goes a long way back, as the honey bee *Apis mellifera* is native to the area. So too is the dwarf honey bee *Apis florea*, and the eastern honey bee *Apis cerana* is said to be in the extreme south-east of Iran, having been introduced from Pakistan.

So fixed comb hives are traditional, usually cylindrical baskets covered with mud. But Iran has made huge advances in recent years converting these to moveable-frame Langstroth hives. The coming of *Varroa* has been partly responsible for the speed of this changeover, because you can't do much about controlling the mite in rustic hives.

The Ministry of Agriculture calculates that there are now over 1.25 million movable-frame hives and less than 200,000 rustic ones in Iran. Most beekeepers are registered members of co-operatives, which gives them contact with the Ministry and access to subsidised sugar and drugs.

Iran has huge variations in climate. Though the country's latitude is similar to New Zealand's, Iran has a distinctly continental climate; in winter there's lots of snow inland and temperatures drop down to -20°C or lower. In summer the same areas have up to 40°C or more, while at the Gulf Coast the mercury can nudge 50°C.

The result of this is a very different beekeeping system to New Zealand. Kiwi beekeepers wouldn't recognise the operations run by their Iranian counterparts.

Almost everything is migratory. But it's not only the hives that move; the beekeeper goes too. All the hives are moved to one spot and the beekeeper lives there in a tent for several months. This prevents theft of hives, but also seems to be a carryover of the lifestyle of the nomadic herdsmen I saw around the country.

One problem with this style of beekeeping is overstocking. Apiaries of 100 to 200 hives are common and I saw yards of nearly 700 hives with very little bee forage apparent. Overstocking, along with little or no requeening and making increase with "paupers splits", means that unit honey production is low.

Most beekeepers move two or three times in a year, to areas for increasing hive strength and numbers or for surplus honey. Most of the honey crops come from pasture legumes in the mountains. The average crop isn't known, but is probably no more than 10kg per hive.

Being at the crossroads of east and west has meant that Iran has copped almost every bee disease or pest going. *Varroa* came into the country in the early 1980s and a variety of drugs have been used to combat it. In areas with a definite break in brood rearing Folbex seems to be quite effective, and now the systemic drug Perezin is in vogue.

A cocktail of antibiotics is used to treat AFB, EFB, and nosema, and the country also "enjoys" amoeba disease

Over a thousand kilometres from home a Turkish-speaking beekeeper from Azerbaijan tends his bees near the Persian Gulf, southern Iran. Both modern and traditional hives are kept.

MAF apicultural consultant, Andrew Matheson, inspecting bee colonies in Fars province, southern Iran.

and *Braula coeca*. There are some wasp pests, bee-eating birds exist in some areas, and of course wax moth can be a problem too.

Honey is highly valued in Iranian society. The Qu'ran contains a lot of recommendations about honey: that it is good and a "medicine for man". It has long been part of Iranians' diet, especially in the different types of confectionery that are traditional in many areas.

Iran was a fascinating country to visit, with the combination of ancient history and modern politics an interesting mix. The war had only stopped about six months earlier and signs of it were still common. The people are very hospitable, and no visit is made without the host bringing out glasses of tea and fruit or sweets.

Iran has the potential to increase honey production, if management is changed to make colonies stronger and so increase crops per hive. Better training of beekeepers is needed to increase their skills in colony buildup and queen rearing. Then the existing infrastructure can support a productive and profitable industry.

PUDDING SAUCE

¼ cup sugar
6 tablespoons flour
½ cup honey
2 cups water
⅓ cup butter
juice of 1 lemon and 1 orange

• Mix sugar and flour, add honey and water. Cook in double boiler until thickened. Add butter and fruit juice. Serve hot.

Importing bee products: How the system works

From Murray Reid, National Manager (Apiculture), MAF

'I was in a health food shop last week and saw Peking royal jelly for sale but I thought bee products were banned from coming into New Zealand.' I receive a number of calls or letters like this and usually the item in question has come in legally under permit. However, occasionally a product slips through so I do appreciate hearing from beekeepers.

So how does the system work? Well, first let me say that no bee, bee product or used appliance is banned from New Zealand, but nearly all require a permit to enter. Each product is considered on its merits, especially what diseases it can carry and what risks it presents. For example, honey can be imported under permit from Western Australia, Papua New Guinea, Niue, Western Samoa and Tuvalu, only because these countries do not have European foulbrood and they have a bee inspection and border quarantine service that we have audited and found reliable.

When it comes to bee products such as royal jelly, pollen, propolis or bee extracts, I look at a number of things. I consider the percentage of bee product present, the country of origin, any heat treatment the product may have had (European foulbrood can be sterilised by heating to 80°C for 30 minutes), the form of packaging and the final composition of the product. The questions I ask are: 'What is the likelihood of honey bees coming into contact with this product if it is disposed of incorrectly? Would beekeepers be likely to feed this product to their bees?'

For example, I will not issue a permit for packages of loose pollen pellets but I do accept pollen prepared as pills or in capsules. I do let in royal jelly mixed with herbs or ginseng as a tonic but pure royal jelly, whether fresh or as a powder, must first be tested and found free of European foulbrood before it is released.

In the same way wax for cosmetics or polishes is acceptable but not if imported as foundation. Honey in chocolates or cosmetics is permitted entry but where honey is used in drinks, muesli bars, marinades, jams or pickles I insist on seeing a description of the manufacturing process, to make sure the temperatures used have been sufficient to kill any European foulbrood bacteria. I also consider how attractive the product may be to bees. Drinks, jams or marinades containing honey will be more attractive to bees than chocolates, pickles or cosmetics.

Honey from South Africa intercepted by Agriculture Quarantine officers and destroyed.

Personal supplies of pollen, propolis, royal jelly or bee extracts may be allowed entry by the MAF Agriculture Quarantine Officers without a prior permit, provided the quantities are obviously for personal use and they are packaged in tablets or pills, capsules or small glass vials. Loose or bulk pollen pellets, and pure or powdered royal jelly requires a permit. As a general rule honey in retail packs brought in by travellers will not be permitted entry.

Any beehive components that have been used will not be allowed into New Zealand, but clothing or gloves may be allowed if dry-cleaned and fumigated to a MAF inspector's satisfaction. Hive tools and smokers may also be released after proper cleaning and disinfecting.

I like to think that all commercial consignments of bee products enter New Zealand under permit, but we still rely heavily on the honesty of travelled not to bring in restricted bee products. MAF Agriculture Quarantine Officers are still intercepting over 200 samples of honey or other bee products every month at our international airports. We will never know how much is not being declared but here are some things all beekeepers can do to help keep New Zealand free of exotic bee diseases or pests, or unwanted genetic material, such as the Africanised honey bee;

- ★ Understand the rules on importing.
- ★ Do declare all bees, bee products or used appliances you may wish to bring into New Zealand.
- ★ If you do bring in a product legally, take care to wash and dispose of the containers properly once you have finished with them.
- ★ Apply for a permit from MAF Hamilton if in doubt or if you are involved with commercial consignments. There is a fee of $40 (plus GST) for each permit.
- ★ Do ask your travelling friends or relations not to bring back honey as a present, and to declare any other bee product.
- ★ Let me or a MAF Apicultural Advisory Officer know if you see a bee product in the shops or hear of someone having a jar of honey that you are not sure about.
- ★ Remind all beekeepers of the legal requirement of registering their apiaries with MAF. If an exotic pest or disease does arrive here we need to know where all the apiaries are if we are to have any chance of eradicating them.

The health of our charges

(Part II)

By John Heineman

In the previous issue we discussed the most common brood diseases. Next we have a look at what may affect the wellbeing of the adult bee population.

First there is *Nosema* disease, undoubtedly the most serious of adult bee diseases here in New Zealand. *Nosema Apis,* to give it its proper name, is caused by a microscopic single cell organism. A Mr Zander identified it in 1911 but we can be sure that colonies were afflicted with it long before that. It is spread throughout the world wherever bees are kept, although it seems to be more prevalent in the cold and temperate climatic zones than in the sub tropical and tropical parts of the world. This stands to reason for Nosema is stress related, meaning that the disease will explode when the condition of a colony has become poor resulting in a drop of resistance (energy) level needed to fight infections. It is much the same with human beings and other warm blooded animals who become more susceptible to health troubles when their condition becomes run down.

The spore is the dormant stage of *Nosema apis,* it is resistant to extremes of temperature and is long lived. It is probably present in most colonies and is just lying in wait for the right conditions to occur. What happens is that the bee will take in spores with its food and they pass into its stomach. There the spore germinates and finds its way into the cells of the gut lining. There they multiply and fill each cell with new spores. The cells will burst and millions of spores will be passed out with the bee's faeces. If the bee can make it outside in time to relieve itself it is not too bad, but if confined inside the hive through weather or other reasons it does not need a great deal of imagination to understand the magnitude of the source of further infections. It will affect workers, drones, and queen alike.

The digestive system is impaired, and premature ageing and death follow. The glands which produce the royal jelly dry up so brood rearing becomes less and less. It will also cause degeneration of the queen's ovaries resulting in supersedure or queenlessness. Not a pretty picture, no less depressing than BL, but at least we can do something about it.

A positive diagnosis of this disease is not easy as it cannot be made without a microscope. However there are some symptoms which are easy to recognize and should put you on the alert.

1. A colony's failure to show the normally expected expanding pattern during the spring time
2. Apparently distressed bees crawing in front of the hive
3. A general weakening of the colony
4. Signs of defaecation inside the hive

Take a seemingly-affected bee, pinch off its head and thorax, then carefully pull off the terminal segment which will bring out the gut. The large intestine of a diseased bee will be white and very swollen. Normally it should have a pinkish-brown colour.

However, it is still best to make sure if you suspect a serious outbreak of *Nosema* to consult the experts (see previous issues of the NZ Beekeeper).

What to do about it? As always prevention is better than cure. In the first place the beekeeper must do his bit to supply the best possible conditions for the colony so that the factors causing undue stress are avoided or at least minimized.

We have no control over the weather so we cannot avoid periods of confinement inside the hive but we can make certain that

a. the hives are in the right environment: dry, shelter, sun, air current, good gear

b. sufficient stores of honey and pollen are available at all times

c. good quality stores (high moisture honey, burned honey, fermented honey or syrup mean a greater percentage of indigestable substances)

d. shorten confinement of bees in hives, nucs, packages, and queen cages as much as practicable when shifting etc. Avoid stress through poor ventilation or overheating in the sun when such an operation takes place

e. avoid undue disturbance of the hives at the wrong times and prevent intruders such as stock which do so (fences).

Returning to **c.** it stands to reason why, if supplementary feeding becomes necessary, we should feed a strong syrup in autumn or early spring as the bees have to get rid of the excess moisture, which means expending energy, and do it early enough in autumn when the colony can still afford the needed energy to do a proper job. If done too late the bees must live on unripened stores which hold too much moisture and will probably ferment. It will mean stress all around with its consequences.

A factor in the spread of *Nosema,* as with other diseases, is the problem of drifting and diseased bees entering healthy hives. We will look at that later on in this series on bee health.

In short we can say that sound management practices are most likely the best answer to avoiding the problem of *Nosema apis.*

In contrast to treating B.L. we are allowed to use a drug in the treatment of *Nosema.* This is the antibiotic fumagillin, which is available under the name of Fumidil B. It is expensive and of course time consuming, but of importance to queen breeders who must guarantee nosema-free queens and escort bees.

Seriously infected equipment can be treated with steam and acetic acid. This is however hardly practical for most of us.

Our fairly favourable climate helps us to stay on top of this problem or at least keep it at a tolerable level.

As a matter of interest, nosema-apis affects honey bees but no other insects. Other particular strains of nosema have it in for other particular insects. This is why nosemas are called species specific. It also implies that here we have something which could be and is useful for the biological control of certain insect pests. So as you see this protozoan family to which nosema apis belongs is not all bad news.

We just have to live with our *Nosema apis,* but must do the right things at the right time by practicing good husbandry.

DYSENTERY is not really a disease in itself but results from certain nutritional short-comings which affect the digestive system. As we have just seen, colonies suffering from Nosema often show signs of dysentery. Logically the dysentery which causes stress, opens the door for the nosema outbreak. Just think what a good bout of diarrhoea does to our own constitution. A few days of it and we feel weak and seedy and become run down. The same applies to the bees and, of course, it usually happens when the colony needs all its energy to keep going properly. Bad weather may prevent the bees from going outside in winter and spring for urgent cleaning. Flights, and in the ab-

sence of indoor plumbing walls, combs and floorboard become fouled. A very serious situation in a city of some 20,000 or more inhabitants. In severe cases the area near the hive entrance and the outside of the hive itself can be covered with spots of excrement and an unpleasant smell may be noticeable.

The condition is the result of excessive moisture and perhaps a too large amount of indigestibles taken in by the bees with their food.

Prevention is the answer and to achieve that we must follow the rules of good management as mentioned earlier. A slower build-up of waste products in the bees gut will result in fewer required trips to the outside and minimize the chances that they "will not make it in time".

PARALYSIS. This disease is caused by a virus. Bees affected are often black and have lost their hair. They have lost the ability to fly and move around shaky with trembling wings. A small heap of dying and dead bees may be found at the entrance. Sometimes sick bees can be seen in the more remote corners of the hive. And we don't know of course how many do die unobserved from this cause when out in the field. Colonies will undoubtedly become weakened. It seems to be more prevalent in warmer climates. Also some strains are more susceptible than others, so we probably have to deal with an hereditary factor. If the trouble is persistent it is sound advice to requeen the colony with a queen which is not related to the affected colony.

Poisoning symptoms can appear the same at first sight as those of paralysis, so make sure before drawing conclusions.

Viruses in general are difficult to control and there are many other virus strains which can affect honey bees but thanks to nature bees have build-in control systems of their own.

These then are the most common disease we come up against in our part of the bee world, there is however more which influences colony health.

SPRING DWINDLING. When spring arrives we expect hives to become stronger as the brood nest increases. It often happens however that the opposite occurs. A hive looks to be in good shape in August with plenty of bees and three weeks later we find that the bee population has declined. This is normally not caused by a disease but simply the result of old overwintered bees dying off rapidly in the field while fickle weather prevails. Field bees will go out under marginal conditions to gather water or that early drop of nectar and precious pollen. Caught out by a sudden chilly shower or cold wind they cannot make it home. Simply, for a while the death rate outstrips the birth rate. This will usually correct itself in a short while.

If a hive does not pull up its socks when conditions improve you could have cause for worry. There may be several reasons. Nosema, dysentery, a failing queen are all causes for population decline. Nutritional deficiency, namely shortage of fresh pollen, may all too often impede the normal build-up of a colony in spring.

CHILLED BROOD. When for some reason bees cannot adequately cover the combs with brood the temperature will drop and the brood dies. This may happen if the brood nest has expanded fast in spring and a sudden severe drop in temperature occurs. Because of the cold the bees will contract into a cluster and leave outside combs exposed. If the brood nest temperature drops to 27°C, or below, for a prolonged period neither eggs, larvae, or pupae will survive. No disease has caused that. The dead brood is found at the edges of the brood nest, for the cluster will have kept the centre warm.

It can also occur as a result of insec-

ticide poisoning when a great many field bees are suddenly caught and die before they can reach home, leaving the colony so depleted that the brood cannot be looked after and covered.

Another reason can be wrong arrangement of brood nest combs and the splitting of the broodnest by placing empty combs or sheets of foundation into the centre.

Nucs left on the same side as where they were made may loose too many bees as they are apt to return to the parent colony. The beekeeper should take care to adequately prevent this (plugging up) and by making sure that enough young bees are present in the nuc.

OVER HEATING of bees and brood can easily happen under certain circumstances. A strong nuc or hive made ready for travel with the entrance closed up but without proper provision for ventilation can very quickly overheat. Leave them out in the sun for a while and the temperature inside the hive will rise very rapidly. Brood and bees will become cooked and we will be left with an unholy mess of dead bees, dead brood, greasy wet-looking comb which may be collapsing. Not a pretty sight.

Screening, a few wet sacks, and shade are a help. The sooner released the better.

It can also happen to a strong nuc made on top of a hive, blocked up to avoid bee loss to the parent colony. Again ventilation is impaired which may be fatal on a hot day. Place some small sticks between the bottom edge of the super and the split-board, small enough to prevent the bees from getting out but providing that temporary gap to let some fresh air in.

One does not need a great deal of imagination to understand what overheating, even to a minor degree, does to the stress factor.

There are still some points affecting the well-being of our charges left to be discussed. These include something about "Drifting". That's for the next issue.

Hawkes Bay branch activities

January 1939

A gathering of Hawke's Bay beekeepers presided over by Mr A. Lowe, Branch President, at Hastings on December 7.

In introducing Mr G.V. Westbrooke, Apiary Instructor for the district, Mr Lowe mentioned that refining actually improved honey and did not remove any of its good qualities as was the case with so many other valuable foods. "It is a scientific fact, that bacteria which causes disease cannot live in honey; it is killed by it," added Mr Lowe.

In an address, Mr Westbrooke outlined the preparation of honey for market and described the product as a "God-given food." The necessity for absolute cleanliness both in the honey house and in the apiary itself was stressed and it was emphasized that honey should be ripened before it was removed from the hive. Then, it should at all times be kept away from objectionable odours.

The various methods of straining honeys of different densities were described and the use of a hydrometer for checking ripeness was detailed. The hygroscopic properties of honey resulted in excessive absorption of moisture from the air unless it was packed in airtight containers and extracting in wet weather was a source of potential danger.

The process for conditioning the product in order that it would granulate finely, or to improve coarse grained honeys was explained by the speaker, who went on to outline the regulations governing the sale of honey by the producer either on the local market or direct to the consumer, and also through the Internal Marketing Division.

Library Notes

Mr and Mrs Ashcroft have passed on to the library the collection of bee books which belonged to the late Mr W. Ashcroft. Thank you Paul and Jacky. Paul's father was a very well known beekeeper in Havelock North and a founder member of this library. Some of the books we already have but a second copy is welcome, others are additional to our collection, list them in your catalogue copy:

Brown H. A BEE MELODY. 1923, 274p. UK.

Flower A.B. BEEKEEPING UP TO DATE. 1925, 109p. UK.

Meyer O. THE BEEKEEPERS' HANDBOOIK. 1983, 253p. UK.

Tenant K. THE HONEY FLOW. 1956, 348p. Australia.

N.Z. Hort. Div. PLAN OF STANDARD HIVE EQUIPMENT. 1948, 8p. NZ.

Paul Ashcroft has had very bad back troubles which has led to the sad decision to sell the Ashcroft business. Our very best wishes Paul and Jacky.

Review copies are always welcome, we received from the Editor:

Evans J. & Berrett S. THE COMPLETE GUIDE TO BEEKEEPING. 1989, 192p. UK. (see below for review)

The library has purchased a copy of the Video: THE MONK AND THE HONEY BEE, 90 min. Now available for lending to members, branches, clubs etc. Loan fee $5 plus postage.

It is all it is said to be. No beekeeper should miss this one. An hour and a half of interest, fascination, and enjoyment.

This film is a monument to Brother Adam for his dedication and for all he has given to the world of beekeeping.

Mr J. Taylor, producer of The Monk and the Honey Bee, has kindly waived the restrictions, as laid down in the copyrights, for use of the cassette by our library. But we like to draw your attention to the YORK FILMS advertisement in the Winter 1989 issue of the NZ Beekeeper.

THE COMPLETE GUIDE TO BEEKEEPING by Jeremy Evans and Sheila Berrett. Unwin Hyman Ltd 1989; NZ distributors Allen & Unwin NZ Pty Ltd., 60 Cambridge Terrace, Wellington, 192pp, UK.

This is a very nice book indeed. To look at it while reading the contents was a pleasure. Very artistic dust jacket, hard back, good grade paper, wonderful colour and b/w photos and clear diagrams. The authors love their bees.

It takes one through the many facets of beekeeping in a systematic and easy to follow way. Very much aimed at the beginner and hobbyist under British conditions. I would not recommend it to the beginner in this part of the world as a first source of information for it could lead to confusion.

It will certainly make a very nice gift for a bee book oover.

I am somewhat critical of the title: "THE COMPLETE GUIDE etc.", as I think it could be judged as a little presumptuous.

DEEP DISH APPLE PIE

• Wash and quarter apples. Pare. Cut into thin slices. Fill deep pie plate with apple slices. Pour 1 cup honey to which 1 tablespoon lemon juice has been added over apples. Sprinkle with cinnamon. Dot with butter. Cover with pastry. Prick design in crust to allow steam to escape and for decoration. Bake in moderately hot oven (400° F.) about 40 minues.

President's report

I am privileged to have the opportunity to present a third Annual Report to Conference as President of the Association.

In preparing a report such as this, it is always difficult to decide just how much of the past year's activity to try and review, or which items to highlight. Undoubtedly this year has presented considerable hardship for many beekeepers who have been subjected to harsh treatment from the elements, and Executive are very aware of the depressed situation in some areas.

Low production figures, coupled with continuing high financial charges despite lowering inflation and little possibility of assistance from Government, have left many individual beekeepers wondering how they will survive through to the next season. Sadly I fear some may not, and current offers of beehives for sale at below average prices somewhat exemplifies this situation.

THE HONEY CROP and PRICES: The 1988-89 honey season will go down on record as one of the lowest for some years. The estimated total production is between 5,500 and 6,000 tonnes, an average of around 17-18kg/hive, with considerable variations both between and within districts. Despite some carry-over of honey from last year, it is highly probable that total honey stocks in the country will be at low levels by the end of 1989.

While pleasing to note, the current bulk honey prices of around $1.80-$2.20 per kg. represent not much more than a catch up from the disastrous prices of 1988. Packed honey prices have also moved upwards in line with bulk prices, and it is imperative that these are sustained when we again reach normal levels of production.

HONEY MARKETING: On the local market, recent estimates indicate that total retail sales of honey have fallen around 12% in the past year — a situation which refutes the policy adopted by some major packers last year of reducing prices to gain market share. In the final analysis, I believe the whole industry has suffered the consequences of cheapening a quality product to the point of creating consumer resistance. We must now take the present opportunity to restore this lost ground through better understanding between producers, packers and buyers, with the aim of substantially increasing the market share for honey.

Despite unfavourable export market conditions during 1988, a total of 2046 tonnes of honey in various forms were exported with an average FOB value of $3.52 per kg. For the five months up to June 1 this year, exports have reached 527 tonnes, at an average FOB value of $3.31 per kg. This reinforces the comment I made in last year's report that the export market is now providing a significant annual return to our industry, and was worthy of support and encouragement.

If we accept that under normal circumstances our present hive numbers mean we have the potential to produce an annual excess of honey above domestic market requirements, then we must be prepared to encourage and support those export markets where profitable returns can be obtained.

Generally this means many of our specialty floral sources and highest grade honies must be set aside for export each year, to ensure standards of quality are met, and markets consistently satisfied.

MARKET RESEARCH and PROMOTION: The NBA Marketing Committee has met on several occasions during the year to continue the development of a marketing strategy for New Zealand honey, as outlined in our Industry Plan. Efforts to date have been mainly directed towards the domestic market, and has proved to be a frustrating exercise in many respects. Attempts to obtain data on honey stocks and prices have met with little success, due it seems to the reluctance of a number of potential contributors to supply even the most basic information.

In view of this prevailing attitude, I believe this Association should now concentrate its limited marketing resources on the encouragement and development of honey and live-bee exports. There are number of factors to indicate even better opportunities ahead in this field, and it is pleasing to see the formation of groups of beekeepers with a commitment to produce quality products for specific export markets around the world.

If the NBA is to accept an active role in marketing, then a clear indication must come from the wider industry, along with a commitment of support, both financially and in spirit. Experience would indicate that this is unlikely to be readily achieved in the local situation, but that the sheer magnitude of the export market demands a concerted effort, and dare I suggest the possibility of a central export coordinating organisation?

BEEKEEPING RESEARCH: An important decision was made at the Annual Industry Planning meeting in March to pursue the objective of establishing a Beekeeping Research and Advisory committee for the industry. When established this committee will aim to provide advice to Executive in assessing research proposals which have been submitted for financial support; will aim to initiate research according to industry needs; and will assist with the securing of adequate funding from all sources for beekeeping research in New Zealand.

It is critical that we maintain an effective research capability in beekeeping for the future. In order that we may respond to threatening situations as they arise, and further develop our beekeeping skills and methods. The Ruakura Research Unit, Invermay Apicultural Research Unit, and our continued association with the DSIR, are the three main links in our present research capability. It is pleasing to report that these links will soon be extended to Australia with Industry Trust funds having been allocated to maintain contact with Dr Denis Anderson when he returns to work for CSIRO in Canberra.

INDUSTRY COMMUNICATIONS: A significant development this year was the introduction of the NBA newsletter, "Buzzwords". This monthly publication is now providing topical information for members, with the aim of improving overall communication within the industry. I believe this is being achieved, and that "Buzzwords" will become a more important medium for providing information in the future. Appreciation is extended to Andrew Matheson MAF, Tauranga, as compiler along with Nick Wallingford for production.

INDUSTRY TRUST FUNDS: The total allocation of funds from the Industry Trusts for the past year was $50,400. The provision of this funding support for educational, research, and promotional work has again been a key factor in the continuing progress of the industry. Our thanks to the Trustees for their administration of these Funds on behalf of the Association.

INDUSTRY PLANNING: The annual industry planning meeting this year included representatives from most of the specialised groups within the beekeeping sphere as well as the Executive. Progress over the past five years was reviewed, and goals established for the association to work towards into the next decade. The contribution from those who attended was greatly appreciated, with many constructive ideas discussed in the formation of this year's Industry Planning statement.

NBA ADMINISTRATION: One of the objectives arising from our planning meeting was for the establishment of a management support officer for the NBA Executive. This is to be further discussed at this Conference, and the Executive are seeking the guidance of the industry in this decision. I have clearly stated my personal opinion that this association cannot function fully, or develop much further without more professional assistance in its administration.

The present heavy reliance upon voluntary input by Executive members is no longer fully effective in coping with the need for the NBA to respond to an increasingly diverse range of issues. If the concepts of employing added administration support is not acceptable or cannot be adequately funded, then this Association must quickly decide what functions it will perform in the future under the constraints of available funds and time for Executive members and others who may be willing to lend a hand.

SUMMARY: As an industry we have some major problems to grapple with. Uncertainty continues over the ability to maintain disease control programmes in the face of user-pays demands and inherent difficulties in drafting suitable legislation to provide the necessary funding. We find ourselves unwittingly caught up in the struggle to control TB in pastoral farming, whereby 'possum eradication programmes are posing a threat to our beehives and livelihoods. And as always, there is the ever-present problem of providing adequate funds and servicing for our Association particularly as the demand for the industry to become more self-reliant is increasing steadily.

It is difficult to remain optimistic in the short term under such circumstances and the temptation to lie down and let it all roll over us is great. However, I believe there are signs for cautious optimism, with improvements in both the domestic and overseas situations. Our ability to take advantage of any such improvement will depend upon a positive approach from beekeepers, and a continued policy by the industry of forward planning and preparation. We should learn from past mistakes, but we cannot afford the luxury of dwelling in the past. Our direction is forward whether we like it or not, and our aim must be to control that direction wherever and however we can.

APPRECIATIONS: Finally, may I again extend my personal thanks to the many people who have assisted in the work of the association over the year. In particular to Steuart Goodman, Olive Hebron and the staff at Head Office in Wellington, to the other five Executive members for their support; to Murray Reid and his NABU advisory team; to Michael Burgess as "Beekeeper" editor, and to John Heineman as National Librarian. My appreciation also to the many individual beekeepers who have provided help throughout the past year.

Allen McCaw

HONEY FUDGE

2 cups sugar
1 square unsweetened chocolate
¼ teaspoon salt
1 cup evaporated milk
¼ cup honey
2 tablespoons butter
1 cup nuts

• Boil sugar, chocolate, salt, and milk for five minutes. Add honey and cook to soft-ball stage (240° F.). Add butter; let stand until lukewarm; beat until creamy, add nuts, and pour into buttered pan. Cut when firm.

Report by NBA Rep. on Pesticides' Board

I have attended five meetings of the Board in Wellington since last conference. Some of the matters of interest to arise during the past year were:

PUBLICITY Another full page advertisement using the "Dead bees don't pollinate" theme was published in the October 1988 issue of the Orchardist of New Zealand. Once again, it was jointly funded by the Pesticides Board and the NBA plus a contribution of $100 each from the Kiwifruit Pollination Assn and the Hawkes Bay Pollination Group.

BEE POISONING There were no official reports of bee poisoning during the year although I did point out to the Board that there had in fact been a number of bee poisoning incidents which had not been followed up by having dead bees tested. In an attempt to reduce bee losses in Hawkes Bay we have asked Richard Wimsett a local MAFQual Consultant to prepare some written material suitable to send to orchardists.

KIWICARE NO WASPS It has been brought to my attention by Andrew Matherson that this product to kill wasps has been placed on the market with a recommendation that it be mixed with sugar syrup to attract wasps but with a caution not to use sugar syrup if there is a risk of attracting bees. I discussed this with Mr David Lunn, Registrar of the Pesticides Board. He said they were sensitive to the problem and should it prove necessary the label will be reviewed.

CHANGES TO THE PESTICIDES BOARD I stated in my report last year that it seemed likely that the Pesticides' Board and the Animal Remedies' Board would be combined and there have been some moves in this direction. However a new development has been a strategy prepared by the Ministry for the Environment to set up an organisation to cover all hazardous substances which would include pesticides. This could mean the Pesticides Board coming under the control of the Ministry for the Environment instead of the MAF. At this stage it is unclear which direction will be taken but the indications are the situation is likely to be resolved by the end of the year.

In conclusion I should stress that I have had an assurance from The Registrar that the interests of our industry will be taken care of when the changes are made.

Ian Berry

Librarian's Report

The rate of lending out library material has been much the same as in the past. A fairly limited use is made of what is available.

I am pleased to report that the problem of overdue borrowers has eased considerably and all books which people were holding on to for unnecessarily long periods (18 months — 2 years +) have come to light at last.

This past year we have purchased three items of importance: The Kleinschmidt Research Papers; Bibliography of NZ Apiculture; and the video The Monk and the Honey Bee. Total expense $132.00.

We acknowledge with thanks the generous donations of books made by Mr Stammers of Milburn, and by Mr and Mrs Ashcroft of Havelock North. Paul and Jacky sent a large parcel containing the private bee-book library of the late Mr W. Ashcroft, Paul's father.

Also many thanks to MAF Officers, our Executive Secretary and the NZBK Editor who have passed on a number of reports, papers, magazines and review copies. Their continuous interest in the library and co-operation is very much appreciated.

We received $200.00 following a claim lodged with our insurance company after fire destroyed Mr Caisford's property at Levin including a number of library books. A reply received from Apimondia indicates that most of the items, not all, can be replaced. This sum will not altogether cover the cost of replacement.

Financially the library is holding its own and we will endeavour to keep loan fees at their present level for the coming 12 months.

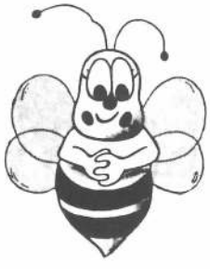
The Otago Branch once again has allocated a portion of the profit made by the Branch Apiary for the purchase of a video cassette for library use. Very nice indeed and no doubt many NBA members and others will benefit.

With the removal of the Post Bank from Milton it has been decided to close both the cheque account and the investment account and transfer the balances to the Trust Bank Otago at Milton for the sake of efficiency and convenience.

John Heineman
Honorary librarian

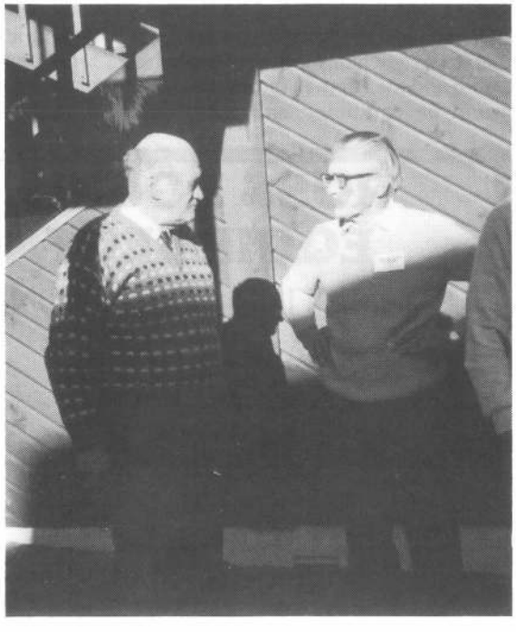
Jenny Dobson, Hawkes Bay and better half of the Kereru Bee Farm, possibly looks grim because in her spare time she drives a school bus somewhere beyond the black stump. We sympathise. A load of screaming horrors twice a day would make a saint look grim.

Henry Jenkins from Nelson takes five. Henry is tired, not from driving the school bus but from the chore of dragging his aged parents to Conference and seeing that they behave. Henry's mother (left) ticks off editors who publish recipes that give measures in cups and spoons instead of metric. Editors quake in their boots.

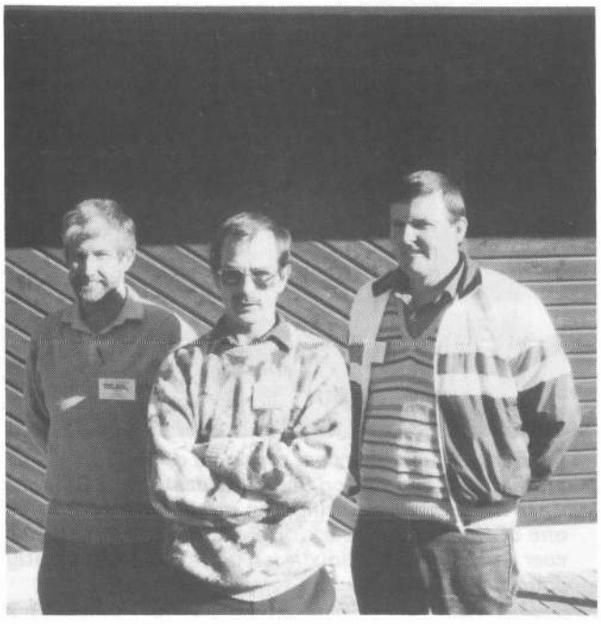


A pensive stare from Marcel van Heezik (Otago). A neat pair of legs beneath a short skirt perhaps, or is he wondering what's for dinner?

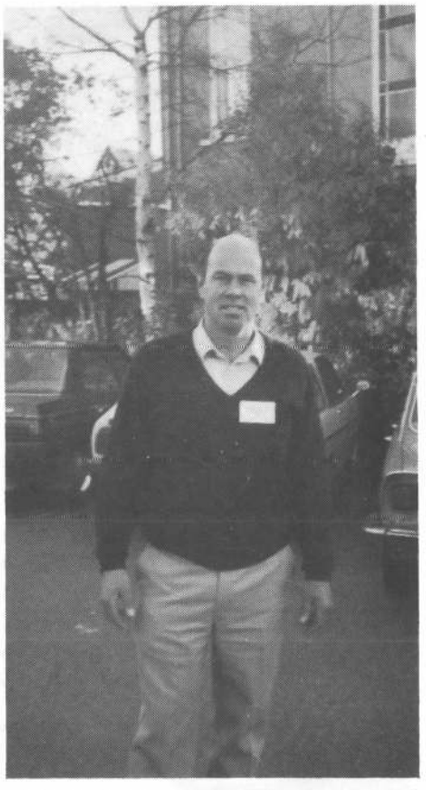
This heah town ain't big enough for the two of us. If you ain't gone by sunset lead will fly. Appearances can be deceptive. Terry Gavin (left) and John Heineman are merely figuring who's turn it is to buy the next round.



Buzzing at Conference



I want me money back and me two big mates think that's fair. From left, Alan Hill (Canterbury), Warren Hantz (Canterbury), and Bob Lambie (Nelson) eye the camera.



Editors don't make funnies about Danny Smith from V.L. Smith & Sons. Danny is too big.

Linda White (Nelson, right) and Tricia Waller. Linda is trying to train her husband to lock motel room doors so strange beings can't wander in.

A puckish Ted Roberts lurks behind what seems to be a burning bush while Clive Vardy (right) appears to be wondering what the bottom will drop out of next.

Life Members

Ivan Dickinson, a member of the Board of Governors at Telford has done much to promote beekeeping cadetships. Ivan joined the NBA Executive in 1968 and subsequently served four years as President. He was Chairman of the HMA at the time of its demise in 1981.

Ian Berry, immediate past president of the NBA, is the present NBA member on the Pesticides' Board. Brought up in a beekeeping family, Ian might be described as one of the hardest working Presidents the NBA has ever had. A born administrator, his advice is frequently sought.

On parade in Dunedin

MAF report

From Murray Reid, National Manager (Apiculture), MAF

ORGANISATION

MAF is divided into four major units; MAFFish, MAFTech (scientists and consultants), MAFCorp (administration) and MAFQual (quality assurance and regulatory). Officers who work as consultants, inspectors or registrars are in MAFQual. During the year MAFQual reorganised itself into nine national businesses eg Livestock, Dairy, Laboratories, Meat, Plants, National Agricultural Security Service (NASS), Statutory Boards, Agricultural Policy and Business Management.

Each of these national businesses was in turn divided into smaller business units with a national or local focus, eg the Plants Business includes part of the National Apicultural Business Unit (NABU) which deals with hive inspection and disease audits, import and export certification, market access negotiations, policy and legal matters, along with kiwifruit, summerfruit, pipfruit, seeds, plant varieties, fertilisers, pesticides, orchard vendor, plant imports and so on.

Other NABU activities to do with maintaining the registers, exotic disease surveillance, preparation for an exotic disease, other policy and legal matters came under the Exotic Disease and Pest Response business unit which is a part of the National Agricultural Security Service.

These businesses were operated in four regions North (centred at Ruakura), North Central (Palmerston North), South Central (Christchurch) and South (Invermay). Late in the financial year it was decided to reduce the South Island to one region centred at Christchurch. The implications for apicultural servicing from this reorganisation have yet to be determined.

STAFFING: NATIONAL APICULTURAL BUSINESS UNIT (NABU)

Staff levels within NABU remained unchanged for the first time in many years. Apicultural advisory officers were located at Whangarei (Derek Betesworth), Hamilton (Murray Reid), Tauranga (Andrew Matheson), Palmerston North (Ted Roberts) and Gore (Clive Vardy). Field Officers were employed at Auckland (Brian Milnes) and Ashburton (Mike McPhillips) and a Livestock Officer at Blenheim (Dave Grueber).

A number of other field officers and livestock officers, as well as many beekeepers, were engaged as temporary inspectors. The input and help freely offered by beekeepers, as well as my colleagues in MAF, is gratefully acknowledged. I also appreciated the help and support offered by the NBA President and his executive and members of the association.

BEEKEEPING STATISTICS

a) Beekeepers, Apiaries and Hives

There were 6695 beekeepers owning 330,338 hives of bees at 31 May 1989 (Figure 1). Hobbyist beekeepers decreased by 8% over last year. This decrease was due to more diligent purging of the registers and beekeepers giving up their hobby,

not necessarily to the eminent fee for keeping bees. Hive numbers also decreased in both the commercial and hobbyist groups.

b) Honey Production

The total crop was assessed at 5752 tonnes (17.4 kg/hive) compared to last years crop of 7748 tonnes (Figure II). This was the lowest total crop recorded since 1983 when 5053 (18.8 kg/hive) was produced.

FIG. I BEEKEEPERS APIARY AND HIVE STATISTICS FOR NZ AS AT 31 MAY 1989

	Beekeepers		Apiaries		Hives	
	1989	1988	1989	1988	1989	1988
Whangarei	614	670	1778	1837	19170	18335
Auckland	1226	1301	2479	2307	20859	20285
Hamilton	671	820	3055	3113	46506	43678
Tauranga	693	724	3826	3800	59889	61451
Palmerston Nth	1437	1503	4165	4162	38959	41719
Nelson	561	587	2223	2268	25457	26921
Christchurch	901	965	5100	5181	61072	64233
Gore	592	621	4456	4509	58426	59080
Total	6695	7191	27082	27177	330338	335702

The effects of the La Nina, or the southern oscillation, were felt over the whole country with wet weather affecting Northland, Coromandel, Bay of Plenty, and Waikato, Nelson and Westland while most eastern parts of the country and central South Island were very dry. A number of districts experienced a large variability in crop production with pockets of bush, clover or thistle yielding heavily while in other areas hives starved or needed feeding to get them through the winter.

FIG. II HONEY PRODUCTION IN TONNES BY APIARY DISTRICT AS AT 31 MAY 1989

Year	Whangarei	Auckland	Hamilton	Tauranga	Palm. Nth
1987	412	705	1506	1450	1012
1988	255	225	1298	976	834
1989	59	320	790	401	530

Year	Nelson	*CHCH	Gore	NZ Total	kg/hive
1987	966	1070	1011	10091	29.7
1988	807	1503	1850	7748	23.1
1989	621	1290	1801	5752	17.4

* Includes honeydew

Bulk prices rose from around 75c-$1.40/kg to $1.80-$2.60/kg. This reflected firming overseas prices, a lower NZ dollar and movement by most major packers to raise their wholesale prices.

Some large stocks of comb honey from the 1987/88 season were finally sold at very low prices. Other sales of current seasons comb honey realised NZ$28-$34/dozen or better. Beekeepers continued to develop valuable niche markets, such as 40 gm packs of comb and creamed honey, full combs for export, cut comb in various shapes and containers, high moisture honey, speciality floral types such as ling heather, thyme, manuka, or honey certified as organic and so on.

For the year to December 1988 New Zealand exported 1074.5 tonnes of bulk honey ($1.77/kg), 582.7 tonnes in retail packs ($3.28/kg), 260.1 tonnes of comb honey ($6.52/kg), 127.6 tonnes of honeydew ($2.53/kg) and 121.7 tonnes of beeswax ($4.47/kg). The above average prices are New Zealand dollars and free on board (fob).

c) American Foulbrood Disease and Diagnostic Services

While the total number of American foulbrood (AFB) infected hives reported by beekeepers, or found by MAF, decreased slightly from last season, most districts recorded increased levels. (Fig III).

The large reduction in diseased hives reported from Auckland was a direct result of an increased inspection program by MAF and by beekeepers working as temporary inspectors.

Disease levels attributed to management practices for kiwifruit pollination, and perhaps robbing of diseased hives in orchards, has led to increased levels of disease for most beekeepers who carry out kiwifruit pollination. Beekeepers have undertaken to be more diligent in registering apiaries with MAF, with pre-pollination inspections and in keeping records of hive movements for traceback purposes.

MAF inspected 8.3% of apiaries compared to 8.2% last year and found 438 diseased hives in 191 apiaries (Fig IV). This was less than the target of 10% of apiaries to be inspected but was considered satisfactory following budget cuts, reduction in MAF staff, lack of industry funding and the unwillingness of many beekeepers to assist as temporary ispectors or failing to carry out inspections as agreed.

Brian Milnes, Diagnostician, Lynfield, continued to operate a diagnostic and quality assurance facility for beekeepers and exporters of bees.

Dr Denis Anderson, Bee Pathologist at DSIR completed his contract with the National Beekeepers' Association (NBA) and returned to Australia. Denis' contribution to bee pathology in New Zealand will be missed although he has trained Helen Murray at DSIR, and Brian Milnes at Lynfield in diagnostic techniques.

d) Queen and Package Bee Production

Queen bee production was difficult in Northland because of the La Nina cycle, but good elsewhere. Export orders from Canada were again late in being placed and while our New Zealand dollar was competitive against the Australian dollar, hives were generally weak after a poor honey crop so it was difficult to produce packages. Reduced freight space compounded the exporters problems.

However, 40075 queen bees, worth NZ$435,000 C and F, were exported, along with 9458 one kilogram packages worth NZ$500,000. Queen bee exports were up 34% on last year but packages declined 8%.

A small quantity of drone semen

was imported under quarantine from Western Australia. This was the first legal importation of honey bee genetic material since 1956. Select queens were inseminated and observed for three months under MAF quarantine until cleared for release. Ten percent of the semen was taken by MAF for testing by DSIR but no exotic pathogens were found.

e) Pollination

Beekeepers continued to discuss the formation of a single kiwifruit pollination association with a set of standards, code of ethics, and quality assurance schemes. Some groups employed their own quality auditors while others employed MAF personnel. In either case growers continued to pay for audits of hives on their properties. A number of large horticultural companies continued to buy hives.

Pollination fees for kiwifruit varied from district to district but generally ranged from $50 to $85 per hive. Prices reflected competition for contracts, as a result of a downturn in the kiwifruit industry, and various discounts to growers who supplied and/or fed sugar syrup, assisted with moving hives, accepted hives on pallets, provided depot sites and so on. An estimated 70,000 hives were placed in kiwifruit orchards last season.

Management practices continued to evolve with widespread feeding of sugar syrup the use of HiCane (cyanamide) and artificial pollination.

f) Pesticides

Since MAF adopted a 'user-pays' policy very few beekeepers have paid $50 per sample to have bees analysed for pesticides. MAF continued to promote the correct use of insecticides in the media but beekeepers must also raise grower awareness especially in areas where spraying is being done for clover fleas and the Fruit Federation is no longer maintaining orchard maps. There is no accurate data on damage to bees caused by pesticides.

g) Financial Situation: (MAF)

Budget cutbacks continued with Government contributing around $60 million to MAFQual but reducing this to $43 million over the next two years. Further cuts were announced in the 1989 mini-budget whereby MAF had to absorb any wage movement, redundancies, inflation and GST increases. These costs alone are expected to amount to over $9 million. MAFQual spent $120 million delivering services to its clients (which include the Government) but this will reduce as staff cuts and rationalisation of services continues.

Along with the move to a June financial year and an accrual accounting system a detailed coding system for activities, income and expenditure was instituted. Officers are now individually accountable for time and expenses, and as these have to be coded to a designated budget, the need to be cost effective has become critical.

As all members of NABU could not earn sufficient from beekeeping to justify full-time employment in that field, officers were expected to work for other business units such as ERP, Dairy, or Meat Inspection. This trend to multi-skilling will continue even should industry funds become available to operate the registers and carry out disease control based on inspecting 10% of apiaries. These activities usually occupy 30-50% of an advisor's time depending on the size of the district being serviced.

Other revenue sources were:

* auditing pollination hives, especially kiwifruit and summerfruit.
* subscription clients.
* general consultancies.
* import and export certification and inspection.
* overseas consultancies.

Overseas consultancies are becoming an important source of revenue for NABU, and while some beekeepers objected to our involvement in this field we are obliged to earn income whenever we can.

h) Legal And Policy

All the Acts and Regulations administered by MAF or producers were reviewed and consolidated. Acts dealing with disease and pest control were brought under an Agricultural Security Bill while legislation concerned with quality assurance came under a Primary Products' Bill. The Apiaries' Act 1969 came under both these Bills with a set of Regulations covering aspects peculiar to apiculture.

The Hive Levy Act came under an umbrella Bill, called the Primary Producers' Levy Bill, while other legislation dealing with pesticides, fertilisers, animal remedies, and stockfoods came under the proposed Agricultural Compounds Bill.

It was hoped to have most of this legislation into the House by September 1989 and to Select Committees shortly thereafter. Major changes proposed to the Apiaries' Act involved removing anomolies and introducing specific measures required for a disease monitoring program. Specific changes involved:

* redefining an apiary.
* defining a hive.
* establishing powers to impound and sell abandoned hives.
* changing the disease schedules.

FIG. III AMERICAN FOULBROOD DISEASE LEVELS IN APIARY DISTRICTS TO 31 MAY 1989 (1987/88 FIGURES IN BRACKETS)

Apiary District	Diseased Apiaries No	%	Diseased Hives No	%	Apiaries Inspected by MAF Inspector
Whangarei	109(39)	6.12(2.2)	385(185)	2.0(1.0)	14.6(3.0)
Auckland	126(291)	5.1(11.7)	258(1278)	1.1(5.6)	5.9(18.4)
Hamilton	293(84)	9.6(2.7)	491(180)	1.1(0.4)	8.7(7.8)
Tauranga	358(249)	9.4(6.6)	681(514)	1.1(0.8)	5.1(5.4)
Palm. Nth	184(121)	4.4(2.9)	732(322)	1.9(0.8)	5.6(10.9)
Nelson	160(125)	7.2(5.5)	427(235)	1.7(0.9)	13.0(3.5)
Christchurch	147(302)	2.9(5.8)	421(429)	0.7(0.7)	6.1(4.6)
Gore	153(287)	3.4(6.4)	281(662)	0.5(1.1)	7.8(12.0)
TOTAL	1530(1498)	5.6(5.5)	3676(3805)	1.1(1.4)	8.3(8.2)

FIG. IV NUMBER OF APIARIES AND HIVES WITH AMERICAN FOULBROOD DISEASE FOUND BY MAF OR REPORTED BY BEEKEEPERS TO 31 MAY 1989 (1987/88 FIGURES IN BRACKETS)

	No. Apiaries	No. Hives
Found by MAF/MAF Agents	191 (654)	438 (1786)
Reported by beekeepers	1348 (844)	3228 (2019)
Total	1539 (1498)	3676 (3805)

FROM THE COLONIES

Nelson

The dawn of another season of activity. Our area has been cold enough to keep the bees reasonably quiet, so they have conserved some of their stores, but with tree lucerne and other odd floral sources showing up, 'wake up' day must be closer than we think.

I understand our annual disease-inspection is to be a repeat of last year's exercise which proved to be the answer, thanks to Dave Grouber from Blenheim.

At Easter I made a trip to Invercargill. On the way back I stopped off at Timaru and stayed with Mr and Mrs Dawson. I intended to continue on home next day, but was invited by Chris to stay for South Canterbury's Field Day, on April 1. The morning of that day was spent at NZ Beeswax Processors Ltd's premises at Orari. Very interesting! I can recommend a visit there to any beekeeper.

Although everyone would be delighted to see a nice tailor-made spring, there is not yet enough winter behind us to forecast what we can expect.

It seems our Branch 'get-together' will be over before this gets to print, so unfortunately I can't tell you much about it except that it was held on July 15 at Salisbury Road, Richmond.

Ron Stratford

Auckland

On Saturday June 10 the Auckland Branch held a field day at the DSIR, Mount Albert Road, where we also farewelled Denis Anderson who is returning to Australia.

Some 50 people attended, or about half the number that usually turns up for such functions. Perhaps the wet day had something to do with that.

The speakers were Denis Anderson, who discussed the premature aging of the queen (half-moon disease), and the work he had been doing at the DSIR.

David Yanke talked about the importation of semen from Western Australia and the insemination of local queens with Italian bee semen.

A panel of four beekeepers (two pro, two con) debated the subject: Does pollination increase the incidence of AFB, and should drugs be fed to suppress it. Afterwards the panel answered questions. A vote was then taken on whether drugs should or should not be used. A unanimous 'no' was recorded. However, the meeting agreed that the use of drugs might be further investigated.

A 'sit-down' lunch with bar-b-que steak and sausages was then served. In all, an interesting and informative day.

The Auckland Branch bought many tonnes of sugar to get its hives into the winter and more will be needed for spring.

Dave Young

South Western Districts

(Southern North Island)

Indoors — a good place to be when it's cold and wet outside. Winter — a time to relax from the normal hectic round of field work with the hives. That is why I am enjoying the to and fro of discussion around me while I sit at our Branch remit meeting in Palmerston North. My beekeeper colleagues are debating the issues of a national marketing strategy, the financing of a disease inspection service, wasp control, a code of ethics for beekeepers, the appointment of a manager to relieve the workload of our voluntary executives. There is plenty to talk about in the wake of a poor season which yielded a meagre average of 14kg honey per hive. That is an estimate of our regions patchy crop worked out by Ted Roberts (our MAF advisor).

Ted spoke for us all when he thanked Stan Young for his two year's service on National Executive — great for our district to have that close contact with our industry leaders.

The shortest day is now behind us and spring is ahead. Soon that long round of feeding and requeening — cost for work greater than a year ago. Also upon us soon the preparation of hives for pollination. Bees still remain a vital service in ensuring a top crop for stone fruit, pip fruit, berry fruit, and kiwifruit.

Pollination groups in New Plymouth and Wanganui will once again be offering hives to kiwifruit orchards in a quality assurance scheme (hives inspected while in the orchards). Ahead of us is the challenge that kiwifruit orchardists fail — the quest for bigger fruit.

We cannot forget the hobbyists — the many who enjoy looking after just a few hives. We congratulate the Wellington Beekeepers' Club on their 50th Anniversary. And isn't this the 50th year of publication for the N.Z. Beekeeper Journal too?

John Brandon

Marlborough

Winter is nearly over. Conference is in a week. The remits meeting yielded nothing contentious. Those of us who like a good debate could only split hairs over poor wording and a dream of Raratonga.

A large amount of brood has been reported in hives over the winter months. I guess that will mean more than the usual hungry hives and perhaps more swarming problems. But plent of time yet for a cold snap or that easterly which loiters around for weeks.

Our Branch invited itself to the Tax Department for an evening session. All sorts of grey areas were explored. Accountants were given the thumbs down as the tax office will help with account preparation. Touting for business perhaps? With tax laws changing as fast as they are, neither beekeepers, accountants, or the Inland Revenue can keep up. It leaves one in a quandry . . .

On August 26 we have our St Bartholomew's evening, although the precise date is August 24. It is a useful ritual to stir us beekeepers into action, even if it is only tongue wagging.

On September 23 we will hold our disease inspection day in conjunction with MAF. We make a valuable contribution to our areas disease problems and if MAF takes over this function on contract than I hope that this contribution will continue and the accounting system can give us credit for our efforts.

Here's to a successful spring season. No more droughts we hope — plenty of rain and warmth at the right times.

James Jenkins

Hawkes Bay

After such a disastrous season as the one that has just passed it is little wonder that activity in "The Bay" has been on a somewhat quiet note over the past few months. Two good speakers at recent Branch meetings were our main topics of interest. We were fortunate to have Mr Graham Gaisford from Levin as our guest speaker at our Bay meeting. He is an apiarist who believes bees can provide the answer to many of the worlds illnesses, especially arthritis and while he gave us a very educational and interesting talk on his apitherapy work some members wished he had a cure for headaches caused by a succession of bad seasons, poor crops and impatient bank managers.

Mr Tom Jamieson spoke to us at our June meeting about his work in Thailand with the "Volunteers Services Abroad" organisation a very interesting evening — we do thank both gentlemen for their efforts.

At the time of writing your committee is just starting to put together a spring field day in mid-September, so members can get together and have another enjoyable day out.

Gordon Sutton

Bay of Plenty

Because of the disasters of earlier seasons, the question of applying for "hardship" grants from the government was considered by the BOP Branch.

Beekeepers have suffered quite heavily in the region, with little or no honey and with the downturn in the horticultural industry, pollination money has been in the main very slow coming in. One would presume beekeepers will have to bear the brunt of the storm. Partly because of the state of economy, so no one has actually persued the idea of hardship grants.

The Young Beekeeper of the Year competition will be held again this coming 1989-90 season. It will include not only the Bay of Plenty but also Waikato, and Poverty Bay. This year the competition is being organised by Bruce Stanley (Queen Breeder) of Whakatane.

Finally, for a touch of optimism, beekeepers should put the woes of last season behind them and look positively towards the '89'90 season and plan for a better year; maybe by looking at the options for generating income from beekeeping which include honey production, pollination, queen bee rearing, propolis and wax production, royal jelly, package bees, etc, etc. It has been tipped that those who secure and sell early honey crops will benefit most from favourable prices.

Karl Christophersen

Waikato

Our branch held our Annual Field Day during March at Bryan Clement's Honey House at Kihikihi, Te Awamutu. As always the usual large number of members turned out to a very interesting day and informative discussions. Honey buyers were well represented and keen to talk prices and their expectations for the year.

The crops in the Waikato this season have been very patchy with some as low as 5-7 kg per hive. The district average was only 17 kg per hive. One of our members reports it was the lowest crop he has had in his forty years of beekeeping.

Since extracting and closing down for winter we have had our share of rainy days. This I feel is more helpful to wintering as it is a known fact that bees only take sufficient honey for their out and return flights, thus every rainy day means less winter stores are consumed.

Sugar prices are already rising and this will cost us extra. Those who have already purchased sugar will be pleased with their savings.

Reports of large sales of cyanamide (HiCane) for spraying kiwifruit to increase and condense flowering, will mean bee pollination hives will be in demand over much shorter periods. This will require in excess of 140,000 hive movements in the Waikato and Bay of Plenty in less than a six-week period. HiCane, I'm told, can advance flowering as much as two weeks so beekeepers doing pollination will need to have hives ready much earlier and with sugar costs increasing they will be looking for an exceptionally warm spring with plenty of pollen available.

Our remit voting meeting held mid-July was well attended. It appears that remits presented have held considerable interest to members and they look forward to favourable results at the annual conference. Dr Mark Goodwin gave us a review of their research work on kiwifruit and Nashi pollination and research on wasp control, package bees, Nosema trials, and queen bee supercedure. The Tuakura team has done an enormous amount of research since setting up two years ago and we are pleased to have them in the Waikato.

The Waikato-Bay of Plenty golf challenge match is coming up and we look forward to the annual meeting with our neighbours.

Several of our members have suffered personal crises lately involving their own health or that of one of their family. This includes Ray Robinson who usually writes these notes. Ray's son is in hospital with severe kidney rejection problems. Our thoughts go out to our colleagues at this time.

Norm Finlay

Southland

It has been a busy year for Southlanders and on the whole a successful one. A good honey flow early in the season caught some beekeepers on the left foot. Most of us down south, usually resigned to cold and changeable weather, were pleasantly surprised by the strength of the early flow. Some honey was lost due to lack of room. This situation, although temporary, caused the brood boxes to be filled cutting down on brood rearing but giving plenty of winter stores. However, further inland the summer was dryer with a shortage of clover honey. Most beekeepers are reasonably happly with the upward movement of honey prices although some undercutting is still evident in the retail market. This winter so far has been cold, frosty and wet, keeping the hives inactive, well tucked-up and the beekeepers smiling. However some are scratching their heads while looking over the price list of sugar trying to calculate how much to order for the spring. Those beekeepers still active are looking forward to conference this year in Dunedin hoping to renew old acquaintances and meeting old friends.

Alister Lee

Westland

At time of writing we are in the middle of winter which has been about average so far. Early snow on the Alps gave a spell of cooler, frosty weather in May, which was a sudden change from the mild autumn experienced here. The frosts however, heralded the demise of the wasp population and now that problem has largely disappeared until next summer.

The Branch held its AGM in Westport again this year with a very small turnout of members. Of those present the general consensus was that the economic factors experienced in the industry over the last few years have left many of our members disallusioned to the point where a number of smaller operators have lost interest and turned to other pursuits, ranging from school teaching to go-cart racing.

Because of this lack of interest, the few remaining members felt they should adopt a caretaker role with regards the Branch and its activities 'til interest picks up again. This could well be determined by the policies of the government, to be formulated over the next few months, re user-pays etc., as it affects the beekeeping industry. There is less and less incentive to stay in business in the eyes of many, and no doubt there is a further percentage of beekeepers who would get out if they could.

Oh well . . . there is still mead in the cupboard. Cheers!

Sandy Richardson

Otago

The autumn has given reasonable weather to get the crop in and the hives wintered down in good time and condition. Then winter arrived with a bang and with some rough days and snow falls in late May, which is early, even for this part of the country. Lately just an average of good and dull days, nothing out of the ordinary.

By the time this issue of the Beekeeper arrives in your mail, Conference will once again be behind us. In the meantime a number of our branch members are kept busy making preparations for the multitude's welcome. That the 1989 Dunedin Conference will be remembered for positive thinking and good decision making is our wish.

John Heineman

The impact of wasps on New Zealand beekeeping — the 1986/87 wasp survey

By Andrew Matheson, Apicultural Consultant, MAF,
Kay Clapperton, Henrik Moller, and Peter Alspach, Scientists, DSIR

There is both good and bad news for New Zealand beekeepers in the results from the 1986/87 industry-sponsored DSIR/MAF wasp survey. The bad news is that the newly-invading common wasp is making the problem caused by the existing German wasp even worse, at least in the South Island honeydew beech forests. In the 1986/87 season, 3% of the country's hives were totally destroyed by wasps, and another 7% seriously affected. This translates into a $650,000 loss to the industry from wasps robbing hives. Much more revenue may be lost through production losses caused when wasps compete with bees for food, especially honeydew.

The good news is that common wasps do not rob honey from hives as often as German wasps and they seldom overwinter, which means they are not present in spring. While common wasps predominate in the honeydew forests, the German wasp remains the more serious problem for rural beekeepers.

Donovan (1983) described the advent of the common wasp in New Zealand. By 1987 they were widespread through the country, as illustrated in Fig. 1.

While German and common wasps lead similar lives in Europe, we are only just beginning to gain information about both species in New Zealand. We do know that in 1987 common wasps reached very high numbers in the honeydew-rich beech forests of the northern South Island. They reduced the numbers of German wasps but more than made up for this by their own numbers. They are also well established in cities and towns, but are less abundant in rural areas. While perennial German wasp nests are common in New Zealand, only three overwintering common wasp nests have been recorded.

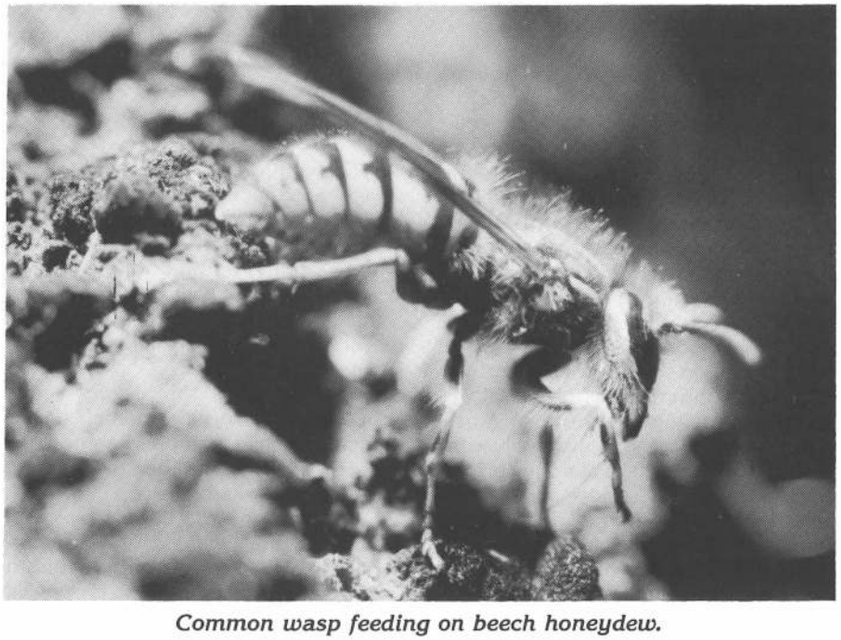
DSIR's study of wasps has included a survey, run in conjunction with the Ministry of Agriculture and Fisheries, to determine the effect of the common wasp on the beekeeping industry. We present the main results of that survey here. A more detailed analysis will be published shortly (Clapperton et al. 1989a).

In April 1987, with the financial support of leading firms in the beekeeping industry, we sent a questionnaire and wasp collecting kit to 600 beekeepers throughout the country. We received replies from 98 (56% of) commercial operators (owning more than 500 hives), and from 159 semi-commercial operators (with 50 to 500 hives). Twenty-three further respondents were hobbyists with fewer than 50 hives.

TABLE 1

Percentage of hives lost during the 1985/86 and 1986/87 seasons in those parts of New Zealand with and without the common wasp.

	PERCENTAGE OF HIVES			
	1985/86		1986/87	
	Totally destroyed	Seriously affected	Totally destroyed	Seriously affected
NORTH ISLAND				
Without Common wasp	4.5	6.8	3.3	5.8
With Common wasp	1.7	3.0	4.0	6.4
SOUTH ISLAND				
Without Common wasp	0.9	2.4	1.7	3.0
With Common wasp	1.8	7.8	1.8	11.2



Common wasp feeding on beech honeydew.

Extent of the problem

Most (83.3%) of the respondents reported that wasps were a nuisance in their operations. Wasps destroyed 2.6% of hives and seriously affected production of a further 6.6% in the 1986/87 season (Table 1). These figures are higher than the 1.9% totally destroyed and 4.9% seriously affected hives revealed by a smilar survey of the 1974/75 season (Walton & Reid 1976). This is not just because 1987 was a particularly bad year for wasps. Our 1985/86 season figures (Table 1) are also up on those of Walton & Reid (1976).

Based on current costs of restarting hives (queen plus bees = $21.50 + freight + GST), this translates into a $650,000 loss to the New Zealand beekeeping industry. This may be an over estimation if beekeepers without a wasp problem were underrepresented in our survey, but it is only part of the overall cost of wasps to the industry. It does not include the cost of lost production from the damaged and destroyed hives. We must also add in the costs of wasp control. Beekeepers spent on average 10 hours and $10

per 100 hives on wasp control in 1985/86. The equivalent figures for 1986/87 had risen to 12 hours and $12.

We asked beekeepers to compare the 1986/87 beekeeping season with five or more years ago. The consensus was clear: wasps are now more of a nuisance, beekeepers are finding more nests, and more hives are being damaged by wasps than before. Beekeepers spent more time controlling wasps in 1987 than five or more years ago: another indication of an increasing wasp problem. At least part of this increasing wasp problem has been caused by the common wasp (Table 2).

The effect of the common wasp

By comparing those parts of New Zealand with and without the common wasp, we can make an assessment of the effect this species is having on the beekeeping industry. More beekeepers in the common-wasp-plagued forests of the South Island considered wasps to be a nuisance than did beekeepers elsewhere in the country. In the North Island the common wasp damaged few hives in either season (Table 1). By contrast, in the South Island, more hives suffered damage in areas with the common wasp than in areas without the common wasp. This caused a substantial financial loss for beekeepers in infested areas.

Why is the common wasp having more of an effect in the northern part of the South Island than elsewhere in New Zealand? The main reason is because of its preference for honeydew beech forests, where numbers reached an all-time high in 1987. Wasps have always been a nuisance in these forests, even before the advent of the common wasp (Walton & Reid 1976). But in 1987, wasp densities reported by Sandlant & Moller (1989) were two to six times higher in honeydew forests that were colonized by the common wasp than in honeydew forests where only the German wasp was found. In 1988, a year when there were relatively few wasps, honeydew forests with the common wasp contained as many as 46 nests per hectare, while they were absent from other habitats (Moller et al. 1988).

Common wasps in large numbers damage hives and interfere with the management of apiaries. They could also severely limit the amount of honeydew-honey being produced. The potential production for honeydew honey was estimated in 1979 by the Ministry of Agriculture and Fisheries at 3,000 tonnes. With wasps outcompeting bees for the honeydew during three to four months of the year (Moller & Tilley 1989), the industry could be losing millions of dollars in lost production.

TABLE 2

Percentage of beekeepers reporting increased numbers of: wasps, wasp nests destroyed, and hive damage (hives totally destroyed or seriously affected by wasps) since five or more years ago.

	WASPS	WASP NESTS	HIVE DAMAGE
NORTH ISLAND			
Without Common wasp	55.7	49.4	43.4
With Common wasp	68.0	52.6	52.6
SOUTH ISLAND			
Without Common wasp	54.2	36.9	43.2
With Common wasp	80.0	71.7	71.4

A giant over-wintering German wasp nest in South Westland. Photo: Chris Pugsley

The effect of the common wasp does not increase proportionately with increasing wasp numbers. There are some positive factors to weigh against the negative ones in terms of the effect caused and the problem posed. Common wasps did not cause increased problems in spring. This is probably because the strictly annual cycle of the common wasp nest means that common wasp workers are not present in spring.

We found that more hive damage occurred in areas with the common wasp than in areas without the common wasp. This is presumably because of high wasp numbers, but their main effect was to reduce hive production

A giant over-wintering German wasp nest found in a tree near the mouth of the Whakapohai River, South Westland, this autumn. For years ecologists have suspected that the superabundant introduced social wasps may be seriously affecting New Zealand's native birds and insects. The Department of Conservation commissioned the research reported here. It is the first large-scale attempt to measure the impacts of wasps and to find out what to do about them. Photo: Chris Pugsley

rather than destroy the colony totally (Table 1). This may be due to a behavioural trait that could make the common wasp less of a threat to the beekeeping industry than the German wasp. As part of our study, we asked respondents to send us samples of wasps collected from their apiary sites which we compared with samples collected away from beehives. This revealed that, relative to their population levels in the environment, common wasps do not rob beehives as frequently as do German wasps. This was true in both bush and rural settings.

Controlling the wasp problem

Almost all respondents used some means of control, even those who did not consider wasps to be a nuisance. Destroying nests was the most commonly reported practice, used by 81.5% of respondents. It was employed most in the northern South Island. Destroying hibernating queens and providing wasp baits were methods used by nearly half the respondents. A third of them recorded the preventive measure of using wasp-proof hive equipment, and only 10% used insecticide sprays. Shifting hives to avoid wasps was done by many North Island beekeepers, but few in the South Island. This difference between the two islands may be a response to the disposition of nectar. Beekeepers harvesting honeydew in South Island beech forests do not have the choice of moving to a wasp-free area.

Of the beekeepers who reported that wasps were not a nuisance, 66% nevertheless spent some time destroying wasp nests. In areas with few wasps, beekeepers may be able to keep on top of the wasp problem by using this method. In areas where wasp numbers were very high, such as in the South Island honeydew beech forests, most beekeepers reported that they destroyed wasp nests, but in 1987 no more time was spent on wasp control in these areas than elsewhere. This suggests that beekeepers reach a point where they cannot commit any more time to wasp control, and conventional methods are not coping with the problem.

We must look carefully at new options for wasp control. The Entomology Division of DSIR has released a parasitic wasp that attacks nests of both German and common wasps (Donovan & Read 1987) but it is too early to assess the success of the release. If, as predicted, the parasite attacks common wasp nests more than German ones, it may be a mixed blessing to the beekeeping industry. While the parasite may help to reduce overall wasp numbers, the more damaging German wasp may not be checked.

Other control options remain to be investigated. Poison baits (Spurr 1989) and wasp-specific lures (to attract wasps to baits) are under investigation. We also need a better understanding of wasp behaviour and ecology in New Zealand so that we can control these pests most effectively.

Future prospects

We can speculate on the future impact of the common wasp on the beekeeping industry. If this new species is at present undergoing the same type of population 'boom-and-bust' cycle that characterised the establishment of the German wasp 40 years ago, the severe financial effects caused by large populations may be only temporary.

We must learn more about wasp population cycles before we can predict wasp problems for future years. If wasp numbers drop and the common wasp

continues to predominate in honeydew forests, its lesser tendency to rob hives could lead to wasps being less of a problem to beekeepers in this habitat. The German wasp, with its ability to overwinter and its habit of robbing beehives, will remain the major threat to beekeeping in rural areas.

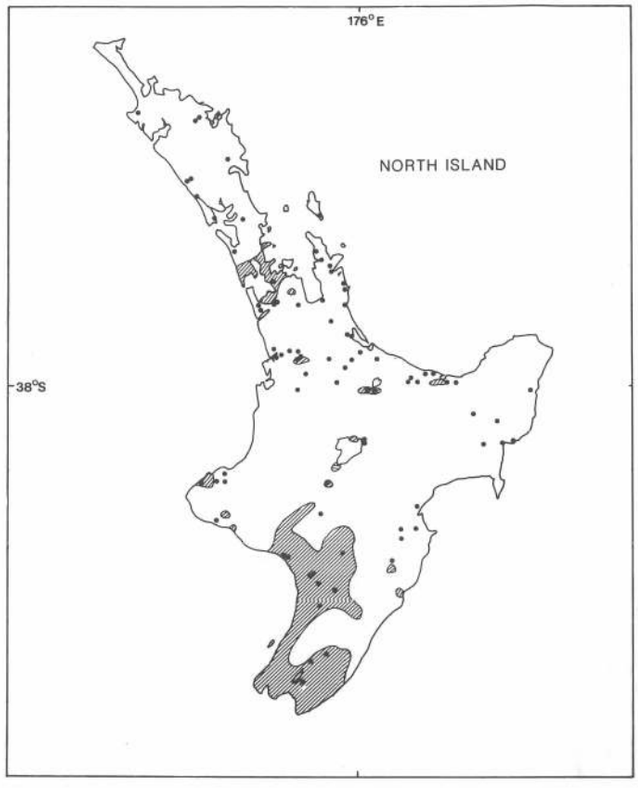
Acknowledgements

We would like to thank all the beekeepers who participated in our survey, and the following companies for generous financial sponsorship: Kiwicare Corp. Ltd. (principal sponsor); Tecpak Plastics (principal sponsor); Auckland Beekeeper's Supplies; Dimet Corrosion Ltd.; Fruitgrowers Chemical Co. Ltd.; Lilypack Industries Ltd.; Pharmacy Wholesalers (SI); Symes Apiaries; The Bee Farm; V.L. Smith & Sons. Thanks also to Jocelyn Tilley for drawing the map.

References

Clapperton, B.K.; Alspach, P.A.; Moller, H.; Matheson, A.G. 1989a. The impact of Common and German wasps (Hymenoptera: Vespidae) on the New Zealand beekeeping industry. New Zealand journal of zoology (in press).

Clapperton, B.K.; Moller, H.; Sandlant, G.R. 1989b. Distribution of social wasps (Hymenoptera: Vespidae) in New Zealand in 1987. New Zealand journal of zoology (in press).



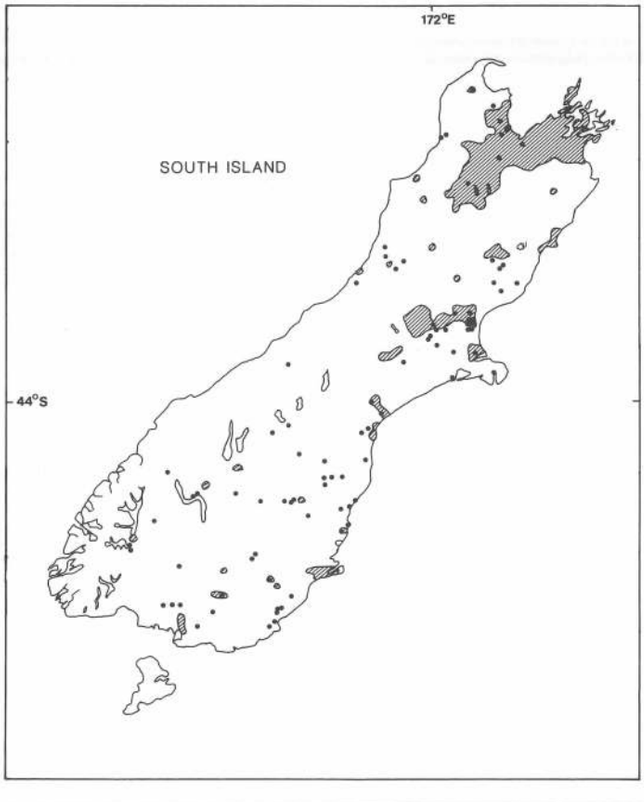


Figure captions. Shaded areas show where common wasps were reported in 1987. The dots represent beekeepers who responded to the questionnaire. From Clapperton et al. 1989b.

Donovan, B. 1983. The common wasp is here. New Zealand beekeeper 180:9-10.

Donovan, B.J.; Read, P.E.C. 1987. Attempted biological control of social wasps, *Vespula* spp., (Hymenoptera: Vespidae) with *Sphecophaga vesparum* (Curtis) (Hymenoptera: Ichneumonidae) in New Zealand. New Zealand journal of zoology 14:329-335.

Moller, H.; Plunkett, G.M.; Tilley, J.A.V.; Ward, PJ.; Wilson, N.J. 1988. The wasp problem on the West Coast: first year research report. Ecology Division, Department of Scientific Industrial Research, report no. 12.

Moller, H.; Tilley, J.A.V. 1989. Beech honeydew: seasonal variation and use by wasps, honey bees and other insects. New Zealand journal of zoology (in press).

Sandlant, G.R.; Moller, H. 1989. Abundance of Common and German wasps (Hymenoptera: Vespidae) in the honeydew beech forests of New Zealand in 1987. New Zealand journal of zoology (in press).

Spurr, E.B. 1989. Wasp control by poison baiting: experimental use of compound 1980. Unpublished report, Forest Research Centre, Forest Research Institute, Christchurch.

Walton, G.M.; Reid, G.M. 1976. The 1975 New Zealand European wasp survey. New Zealand beekeeper 38:26-30.

It happens in Waikato

WAIKATO HONEY PRODUCTS LTD has two directors, BRYAN and BARBARA CLEMENTS. Bryan was originally a builder by trade but nine years ago he and a friend, Roger Peake, bought 1400 hives. With only hobbyist experience they increased to 3000 hives over three years. Two years ago the Clements bought out Roger Peake. They now farm 3000 hives and place 2000 hives on pollination. They honey is packed under WAIKATO HONEY and ANCHOR HONEY brands for local sales.

The seasonal changes that beekeepers contend with have always been a challenge but never more so than now. I straighten my back after finishing wintering down the hives, and it's time to reflect and plan for the next big crop.

It is now mid-July and most hives have a quarter to half a frame of brood. The warm weather means strong hungry hives in the early spring and most of us will be considering what will be the most economical way to feed them.

Liquid sugar still seems too expensive for what it is and I suspect we'll all be looking closely at mixing our own this year.

The small crop produced is another indication of the seasonal changes that we seem to be enduring, but at the moment I'd like to consider some of the other changes that have taken place; changes that affect us all.

Back in 1984 you worked 79 days out of a whole year to earn enough to pay your taxes. Today you work 93 days a year before you keep a dollar yourself. That means since 1984 we are all working another three weeks just to fill David Caygill's coffers.

While PAYE rates for some are down, the overall tax take has doubled since Hard Labour came to power. Interest rates are still far too high, and despite mud slinging between the Government, Treasury, and the trading banks, most small business are not making any gain from the pain.

In the meantime the banks are spending up large telling us that they have lots to lend at the very best rates. Said I, the timing might just be right to put all our mortgages and seasonal OD in one bank.

Well, one bank had some of the highest interest rates and I found they only had eyes for the cows.

At the second bank I would have to wait two weeks to see the Manager: I'm glad I did not because the loans officer informed me that they would not accept a first debenture as security, which makes it tough for most beekeepers who have little land security.

A third bank made all the right noises but on a second visit the manager said he knew nothing beyond sheep, beef, and cows and that a registered valuation certificate would be required for everything. That manager also pointed out what it would cost in fees, etc., to change and so quickly talked me out of banking with him.

Since then my own bank has pulled the interest rate back 1% and so life goes on.

As beekeepers we will need to innovate to survive the "seasons" of change, but a word of warning: don't fall into the trap of diversifying too far from bees.

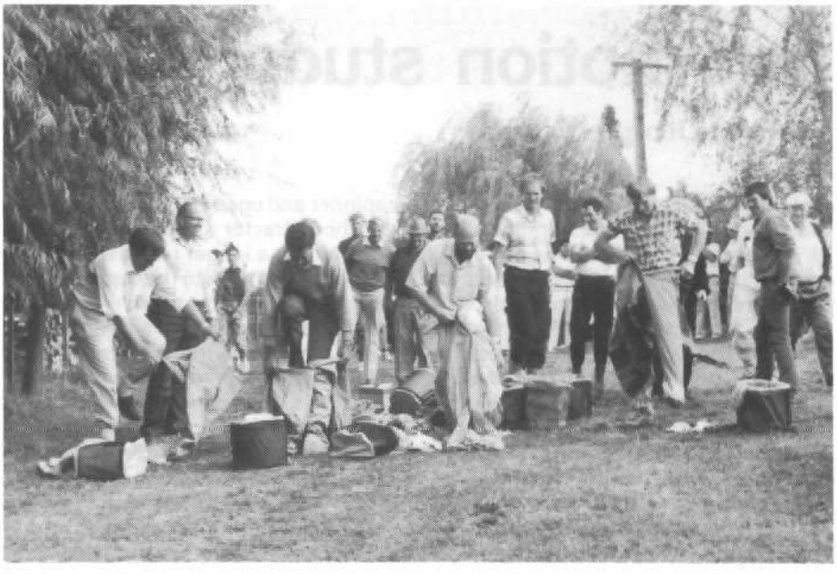
This winter we spent three weeks killing our trucks by carting bins of kiwifruit from orchards to pack house. It may work for some beekeepers but it put us back three weeks in our bee work and the money wasn't worth it. As honey producers and pollinators we have a fine industry with many strong indicators that the future is sound and promising.

This year we hosted our Branch Field Day and as part of the activities ten of us lined up for a hive-tool throwing competition. There were big hive tools, small ones, sharp ones, and old ones. Few hit the target but I report that no hive tools were lost. That, I suggest is the message we should be learning: have fun while beekeeping, and remember every dollar saved or not lost is a dollar earned.

The photo of Stan Young depicts how he used to take his overalls off before he got his new hive lifter.

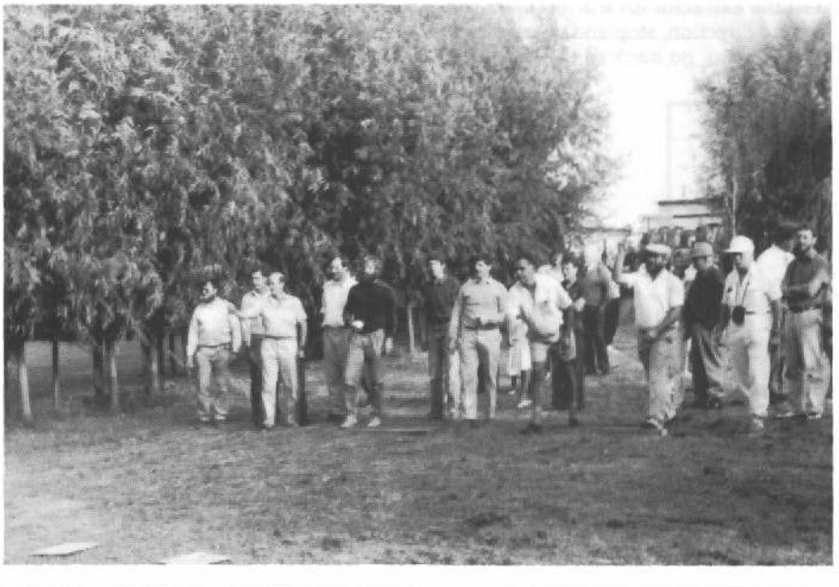
Stan Young's wife helps him make a high-speed change during a race on Field Day.

Mark Goodwin, Bryan Clements, and Anton ten Houten weighing a hive for the Gadget Shield competition.



◄ *The beginning of the relay race. Competitors had to don full beekeeping gear and light a smoker with gloves on.*

► *Those smokers are difficult to light.*



◄ *The hive tool-throwing competition.*

Time and motion study

From George Nichols

I remember my engineering course mostly as feeling tired for five years: lectures all morning, maths, electronics, physics — practical work all the afternoon making things, measuring things, inventing things. Evenings spent writing up the results of the afternoon's experiments, then to bed. Saturday afternoons I usually made a large cake and a large stew to live on for as much as possible of the rest of the week. Sunday mornings cleaning the house which, with uninspired male care, seemed gradually to become greyer and greasier. Sunday afternoon go for a bike ride with the girl friend. Finally I graduated. In those days just after World War II the bigger engineering firms contacted you early on in your student days, you spent the 13 weeks of your summer vacation in their factory and when you graduated you walked straight into a job.

Straight out of university you still knew very little, so you then do a five-year graduate apprenticeship to earn your "ticket." For a few months you might be designing and making a BBC transmitter, then you learned to manufacture valves. A course in accountancy came next. Management studies and production planning was followed by running a production line making hearing aids. Transistors were then in their infancy so I was sent to night school to learn semi-conductors. Quality control and statistics took about a month.

What has all this to do with beekeeping?

One of the dullest but most useful subjects I had to undertake was time and motion study, the study of how to make things better, faster, and cheaper. You have a production line of women making small amplifiers, Mary has to assemble four resistors in a circuit board and then pass it to her neighbour. What do you do about her soldering iron, does she hold it in her right hand? How does she hold the circuit board, where is the roll of solder wire, how does she pick up and place four resistors? After some months of effort you have her soldering iron fixed in a frame in front of her hands, a roll of solder suspended just to her left, the circuit board in the centre, two trays of resistors to her left and two to her right. You have taught her to assemble the resistors using both hands, to lift the circuit board towards the soldering iron with her right hand whilst steering the solder wire with her left. Mary is now producing 2.3 times as fast, and takes home a bigger pay packet since she is on piece work. She has more time to chat with her neighbours and says she is not so tired at the end of the day. (I am unable to measure tiredness so I just have to believe her.)

Now we move many years later and I am extracting honey using a Pender 8-frame extractor with the usual brake and the reversing friction wheels on top, a Maxant cappings spinner and an electric knife. I uncap frames over the cappings spinner, placing each frame into a rack over a drop tray near the Pender extractor until there are eight dripping there. These I load into the extractor, start the extractor for a brief run in the forward direction, stop and reverse it for a longer run, go back to the cappings spinner and uncap four frames, go back to the extractor and stop and reverse it again for a longer run in the forward direction, go back to the cappings spinner and uncap frames five to eight. I stop the extractor, unload it and reload with eight more frames. There are all the other jobs, pumping honey, changing filters, unloading fairly dry cappings and taking them to the oven, making cups of tea, mopping up. At the end of the day I have extracted 32 boxes.

Move on a few years. We had a good season the previous year, have acquired a suspensory loan and bought some new equipment. Now to design a new extracting room around the new equipment. As in my days in the factory I made scale models of the apparatus, shuffled them around on a drawing board until I had a logical pattern with the minimum walking and carrying. I wrapped the walls of the room round it, made the doors open the correct way, made a flow chart for the boxes from the trailer to the warm room — to the extracting room — to the "stickies" room — to the trailer.

The additions to the extracting equipment and room were a Penrose uncapper and Bennie electronic controls for the Penrose extractor, a pit in the floor for a polythene tank and a honey pump. There is enough room for me to run a barrow with five boxes into position by the uncapper but no space to be filled up with "junk." Now I feed eight frames to the uncapper, the cappings move automatically left to the cappings spinner and the uncapped frames move straight ahead to a long rack over a drip tray. I inspect these to

scratch any missed cappings with a scratcher, feed the frames into the extractor and press the start button. Extraction now proceeds entirely automatically and I return to feed ore frames into the uncapper. The uncapper and I work so fast that 24 frames are ready by the time the first eight frames are extracted. By the end of the day I have finished 54 boxes. The next 'time and motion' problem is how many boxes could I extract if I had a 16 frame extractor or perhaps two eight-frame extractors? Mathematically about 80 boxes giving myself time for T. and P.

There is one great snag, Manuka the world's most beautiful honey is extremely difficult to extract. Thixotropic honey needs a pricker before it can be released from the comb and my pricker is primitive, noisy, slow, and dangerous. Otherwise it is not at all bad. I can extract 22 boxes of Manuka honey in a day. Would it be possible to prick a comb in one operation? What if we have two large plates of needles, one on either side of the comb, and drive the plates together using two motor car hydraulic brake rams driven by a foot pedal? Could this be used instead of an uncapper for ordinary honies?

Other jobs spring to mind: is it worth reclaiming old brood combs? This is a dirty time consuming job and it might be better to use the frames on the sitting room fire. With much effort I produce a fair amount of 'boot polish' wax and a stack of grubby frames to be rewired for foundation. This is done in the winter so what else would I be doing if I were not doing this reclamation, going fishing, playing with the grand children? New frames are always much nicer to assemble but my method using hammer, nails, and glue is very slow and I can only make about 200 in a day. What does a stapling machine cost, how much air does it use, how much does the compressor cost? The trouble is that when building up a business, you have the least amount of money when capital equipment is most needed. When you have grown as big as you want to be there are only annual maintenance and fairly few replacements in your budget.

The best thing to do is carry on with an interesting job until you drop dead and then you do not have to worry about being efficient.

Raising queens for export

By Mervyn Cloake

With rising costs and depressed honey prices it is becoming difficult to make ends meet by using traditional hive management techniques to produce traditional products.

For several years I have been investigating the feasibility of producing queens for export to Canada. I began working from a timetable based on the African bee invasion of the USA and decided that we had a few years to find stock that would perform and winter well in the Canadian climate, and to find suitable methods of raising and holding queens in sufficient numbers to make it worthwhile. The Canada-US border closure in 1987 caused by Tracheal and Varroa mites meant that we had to move into the market before we were ready. That created some difficulties, but if we were to take an overview I would say that we have made a successful start into the Canadian market. The Canadians themselves have had problems with the border closure and for many it has been a costly exercise.

These facts do not create an automatic market for us, but Canada is a large market that can be tapped if we can offer a good product and back it with service. Already some exporters have damaged our reputation and in one instance in particular Canadians were put off New Zealanders and NZ stock by the antics of one would-be exporter who failed to match his promise. That must never happen again.

So how should we go about exporting? First, most Canadians who have successfully established a good business relationship with New Zealanders and Australians have done so through personal contact. Secondly, most who have not had contact have preferred to work with importing brokers. Those buyers are prepared to pay more for their queens to avoid the hassle, or risk, of dealing direct. So a few people deal direct with their shipper, some import for themselves and their friends — really group importing — and some import large numbers of queens as a business and distribute to clients for profit. In all it is very difficult to get into the market and establish a reputation.

There are three major players in the field: NZ, Australia, and the Canadians themselves. New Zealanders must not compete against each other for a market share. Australians, of course, are fair game. The Canadians who are raising their own queens can be encouraged to use our stock by giving them good products and service at a reasonable price. That, however, will take time.

With all this in mind, what should we do? I think the trend will be towards a small number of exporters dealing with a few importers. This will keep the market stable and will be good for long term business. It is important to develop lines of stock which have their own reputation and there are some genetic characters which must be built into these lines if a good reputation is to be established. My advice to anyone interested in raising queens for export is to contact an existing exporter and discuss raising queens under contract.

Now for methods. First, we must never forget that the original purpose of beekeeping is honey production. That is the major source of our income, and no sideline must be allowed to detract from that main source of income. A method I recommend to the people working with me is to use a divided super with standard frames. Some will be using four and six frame nucs as well. At the conclusion of the honey flow a hive can be divided into six or seven nucs, and the hive left with three frames only and the bottom super. If necessary it can be requeened at this point with a cell. The nucs are then put out in good mating sites and left for about three weeks. They can then be checked and any that have missed can be remade. it should be possible by the end of April or early May, when the queens are to be shipped, to have a queen in almost every nuc. It will be necessary to have a feeding system so they can be fed before the queens are caught. That will give enough feed to winter the colony when the nucs are amalgamated. It should be possible to build that hive back into full production for the next season.

I believe it possible to increase the hield per hive by at least $40. At this time I do not believe in banking queens as this detracts from the quality of the end product. We do however have to find a method of storing queens which will not impair quality and so that when the queens are delivered to the buyer they will be in perfect condition. That will give us an edge in the market place.

In conclusion I would like to reiterate the following points:

1 Diversification should not have a detrimental affect on production.
2 We have to prove to be reliable and honest in the market place.
3 We have to have genetically sound stock.
4 We have to produce top quality queens.
5 We have to work in groups.
6 We must not compete with other New Zealand shippers except in the area of quality and service.
7 We must strive to present our country's image as a producer of the best quality stock backed by the best possible service and integrity.

Bee nutrition in kiwifruit orchards

By Reg Clarke

Hives used for pollination seldom gather as much honey as undisturbed hives, and there are several reasons for that — some well understood and others less so. The impact on bee nutrition has not so far been studied but there are good grounds for doing so.

Female kiwifruit pollen consists of empty microspores having no food value. As this normally makes up at least 50% of the kiwifruit pollen gathered, it probably results in impaired nutrition, the extent depending on the mix of pollens gathered. Graham Kleinschmidt has shown the importance of crude protein intake for bee longevity. His studies in Queensland indicate that when crude protein intake is below 25% to 30%, and there are large numbers of larvae to be fed, nurse bees will use their own body stores of protein to maintain brood food quality. This has a severe shortening effect on adult bee life, and nectar gathering ability will be reduced for many weeks.

In general pollens contain between 7% and 37% crude protein, and the higher levels are needed for bees to thrive. It seems probable that kiwifruit pollen, of which half has no nutritional content, must fall well below the desired level. It appears from Kleinschmidt's work that the bees are not able to compensate fully for this by gathering and digesting greater quantities. We have no data on the content of New Zealand pollens so can only speculate. It would be very helpful to know the body protein content of worker bees before and after the pollination period, as well as the food value of kiwifruit pollen.

If there is a protein deficiency occurring, as I suspect, then it will be worst where the kiwifruit pollen makes up most of the intake. We should also bear in mind that any deficiency will not be of protein alone, but also of minerals and vitamins. So what can beekeepers do? The first step must be to ensure that hives have ample high-quality pollen during the build-up period. Natural supplies could be boosted with stored (frozen) pollen and extenders. If the bees go into the orchard with 60% body protein, they can tolerate some degree of run-down without severe effects. To write of "high quality pollen" is not very helpful when we do not know the food value of New Zealand pollens. Lacking better knowledge, look for ample suppies from a wide range of species. In the orchard, sugar feeding should be beneficial as this increases total pollen intake. Pollen trapping is likely to have an adverse effect. After moving out of the orchards, the bees need a recovery period on good pollen supply to replenish body stores. It will help if the honey flow does not occur for several weeks.

One of the new pollination systems being considered is to use bees to gather male pollen only, from orchards planted only with males for that purpose. This pollen would be applied mechanically to the female vines. From the narrow nutritional viewpoint that would be beneficial, though it might have severe economic effects by reducing the total number of hives needed. In that case, the honey crop will increase in importance.

One method which works well to combine pollination with honey cropping, is to divide hives four to six weeks before the kiwifruit pollination period, using a mated queen for the split. Strong hives may provide two pollination units of the required strength, otherwise leave the weaker unit behind. When the hives return from the orchards, re-unite them. The extra brood from what is now a two-queen system will more than compensate for any adverse effects from the pollination period. That is perhaps better suited to intensive management of small numbers of hives, so is not for everyone. But it does address a basic problem: that a good pollination unit is a weak hive so far as honey-gathering is concerned, bearing in mind the late spring blossoming period of kiwifruit.

This article is of necessity mostly speculation. But then if no one asks questions we shall never have answers.

'Kaizen' — beekeeping the Nissan way

By Reg Clarke

In the motor trade, one of the current buzzwords is "kaizen" which, if I have grasped the message correctly, means striving for continuous improvement, better products, more efficient systems. That is one of the management methods that has made Japanese industry supreme in many fields. Beekeepers could also benefit by applying that philosophy. Many do so already, without needing a Japanese word for it. Each of us could probably produce a list of ideas: for what they are worth here are mine.

Improvements to queen quality would be at the top of my list — both genetic and physiological. But that subject has had a good airing lately, so let us move on to consider hive design. For the benefit of overseas readers, the 10-frame Langstroth hive is the universally used New Zealand hive. It is not perfect, but the value of standard interchangeable equipment overrules any temptation to modify the major components. Its major deficiency is the brood area available in a single full depth brood box. At 17,700 sq. cms it has insufficient area for a good quality Italian queen to reach maximum egg-laying rate allowing for 70% utilisation. As 10 to 12 frames may be needed for a few weeks during peak colony build-up, it is necessary either to rotate brood frames above the queen excluder and replace with empty frames below, or allow the queen the run of two boxes; in which case the threequarter size box will serve equally well. Neither arrangement is perfect, and perhaps the full depth boxes have the advantage where two queen systems are used, and single queen management works well in the smaller box. Perfectionists will be tempted to experiment with non-standard gear, but that is a mistake. But that does not mean we have to leave all the hive parts unchanged. There are some that cry out for redesign.

Bottom boards, for instance. The standard design has far too much space under the frames. Bees do not fly within the hive, so must use the hive walls for access to the frames. This 25 to 30 mm. unusable space becomes a rubbish dump in which chalk brood mummies fructify to reinfect the brood. If this gap is reduced to no more than two

bee spaces — preferably one — the bees will keep the floor clean. This should reduce the incidence of chalk brood, keep mice out, and eliminate two seasonal jobs: spring cleaning bottom boards and autumn fitting of mouse guards. If more ventilation is thought necessary, cut an entrance in the queen excluder rim, and offset the supers.

Queen excluders are also overdue for re-design. As will be obvious to all, they breach the fundamental rule of correct bee spaces, as there are two or even three bee spaces above the excluder mesh, with a bottom space super. Kiwi design ingenuity leads the world in some respects. Why can no one rid us of this unnecessary vexation?

While in this mood of critical reappraisal, Manly frames could be improved also. For manufacturing convenience, they are made with the same top and bottom bars as the narrower Hoffman frame. As a result excessive honey is removed with the cappings. In most plants top heat is used to melt the cappings wax, and the honey will not be of the same quality as that extracted from the frames. Wider top and bottom bars would put more honey into the top quality class with lower HMF and less impaired enzyme activity.

Many readers will have other — perhaps better — ideas for increased efficiency. How about sharing them with others? If you are uneasy about your writing skills, send them to me in rough form for editing. That allows me to conclude with another of those "kaizen" principles: the importance of team work, of helping each other to raise standards industry-wide.

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The National Beekeepers' Association — what is it?

(From the first issue of the NZBK)

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The Government has intimated definitely that it will not negotiate with individuals in any industry. It expects industries and workers to organize themselves and then formulate proposals for the promotion of improved conditions pertaining to their industries or employment. The National Beekeepers' Association's Annual Conferences have been held for twenty-five years when beekeepers have been able to get together and exchange ideas, besides make representations to the Government of the day for the improvement of conditions pertaining to their industry.

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