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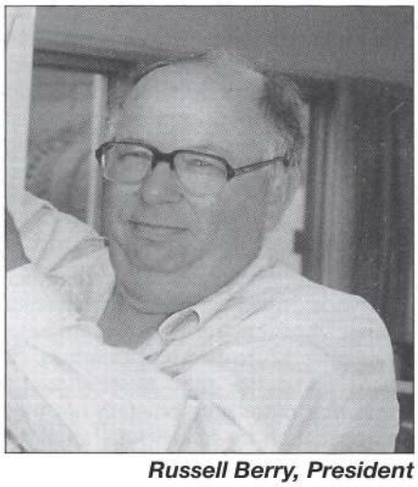
Notes from the Executive

Ted Roberts family and friends together with the New Zealand beekeeping industry have suffered a tragic loss with the sudden death of Ted Roberts on Monday, 20 April 1998.

On behalf of the beekeeping industry I wish to pass on our deepest sympathy to his family and friends. A truly tragic loss of a great man. A man with humility, humour, wisdom, a lover of bees and an active beekeeper. How lucky we have been to have had the advice of Ted on the NBA executive. He would sit at our meetings with eyes closed - one could imagine he was asleep dreaming of the next cigar - when all of a sudden he would come out with words of wisdom and advice. He was not asleep at all, just concentrating intently on what was being said.

Ted spent many years lecturing at Massey University, his subject being Agronomy. He refereed many scientific applications for funds from the NBA Trust Funds and he wrote many important papers supporting our industry, and the quality of these was so good that they often swayed a situation in favour of beekeeping in New Zealand.



Russell Berry, President

I have known Ted for over 30 years, from the days when he brought students to the Rotorua areas to study the grasses in the area. I received the benefit of the odd quiet chat and being given friendly advice on what I should not be doing, including losing weight and reducing stress! On the Friday immediately prior to his death he rang me twice with advice that will be very beneficial to the beekeeping industry.

How many men do you know who would go to the trouble of stopping and taking the time to quietly talk through current affairs with you? Thank you Ted. May you rest in peace.

Life goes on for the rest of us lucky ones. But Ted's death makes us realise how soon and sudden death can happen. Are we prepared? Let's think of the more mundane things. Is your Will up to date, do you even have one? How would your bees get on, are your site records up to date? Is there somebody who knows where they are? Have you recorded those brilliant ideas of how to double the production of a hive of bees or what kiwifruit pollination orders you have received for next year? Is your financial record up to date? Will your family be placed under financial pressure if you were to die suddenly?

Let us pause for a minute and think about how we would like to be remembered if we died tomorrow and act in life to achieve those goals. Let's strive for what I think Ted's ideals were for the industry - Enjoyment, Prosperity and Harmony.

Russell Berry

Genetically modified organisms - benefit or threat?

An enzyme produced in the milk of genetically modified sheep could one day result in a medical breakthrough for the treatment of cystic fibrosis and emphysema.

Although many applaud the benefits of such approved field trials, there are others who believe that "tampering with nature" poses real threats to the environment.

In recognition of these beliefs, the Minister for the Environment established (in 1989) an organisation known as the Interim Assessment Group (IAG) which assesses the relevant risks and benefits of applications for genetically modified organism (GMO) field trials. The Ministry for the Environment has the task of co-ordinating the administration of the IAG.

Over the past 10 years, the IAG has considered applications for field testing of genetically modified organisms as diverse as sheep, potatoes, maize and pine trees.

To date the IAG has received a total of 60 applications and 51 of these have been approved for contained field trials. Last year, 15 of the 16 applications received were given the go-ahead, while the remaining one is still being considered.

The IAG evaluates all applications and makes recommendations to the Minister for the Environment for his final decision. Although the present IAG approval process is voluntary, it appears that no GMO field trials or releases have been made outside the IAG process.

The 1997 applications included trials on radiata pine, maize, sheep, lisianthus, peas, tamarillos, apples, broccoli, forage brassica, potatoes, barley, sugarbeet and canola.

The same philosophical approach to GMO assessments by IAG will in the future be adopted under the umbrella of the Hazardous Substances and New Organisms Act (HSNO).

Later this year, the HSNO Act will empower the Environmental Risk Management Authority (ERMA New Zealand) to assess applications to import, develop, field test, or release GMOs. This will mean the field testing and release of modified crops will be prohibited, unless approved by ERMA New Zealand.

Therefore, the Minister for the Environment, Hon Simon Upton believes that "New Zealand is well placed to manage any possible risks from GMO developments as well as obtaining the benefits from them."

Acknowledgement, Ministry for the Environment

The New Zealand **BeeKeeper**

THIS ISSUE

Letters to the Editor

This magazine attempts to promote industry interest and is not a forum for personal vendettas.

If you are using a non-de-plume, please indicate to the Editor on your first letter and your contact details (these will not be printed) the Editor will contact you before your letter is printed.

Editor

All correspondence in relation to the 1997 Executive Elections is closed.

Ed

Dear Sir

I refer to a letter by Graeham Gaisford in the February 1998 issue of this magazine.

May I first offer congratulations with his elevation to a place on the Supreme Committee of IAHBA.

He castigates our industry leaders for wasting money on honey research, for keeping some of our scientists in paid jobs and calls the rank and file of New Zealand beekeepers a bunch of ignoramuses. He implies that what little research does take place is out of date, repeating similar work done overseas. In other words it is all useless and wasteful. Then he is apparently of the opinion that our mono-floral honeys are a hoax, deceiving customers etc, etc.

I think we all know of the numerous references to honey in the Bible, the Koran and other religious and classical works and about the high regard bees and honey receive by old and not such old cultures. We are also aware that much of the knowledge pertaining to apitherapy has originated from China, Japan, other Asian countries and from Eastern Europe. We have to admit that our Western medical authorities in general have been and still are slow to recognise much of its beneficial values. However slowly but surely certain apitherapy treatments are accepted and practised.

Possibly Mr Gaisford has not taken note of the ongoing research at Waikato University, (Molan, Willix, Bradley) into different New Zealand honeys for their activity against certain microbes and fungi harmful to human health. The result showing some manuka honey being more active and so of a higher value than other honeys. This work has become of international interest.

Marketing research has its good sides too, seeing the higher monetary returns coming to the beekeepers who have accepted advice and are in the position to produce these mono-floral sources. Of course there will always be traces of honey from a different source present but standards have been set.

Still reading his letter he is of the opinion that New Zealand beekeeping research is just about at the bottom of the ladder. May I point out that New Zealand research is funded by a population of three and a half million people, (including a few hundred commercial beekeepers) which is very small indeed when compared with countries with 10, a hundred or more times the number of inhabitants. We should also remember that twice over, it was people from New Zealand beekeeping background who were selected to become Directors of IBRA. The letter then finishes on a somewhat bitter note pointing out that an application for funding his travel to the Japanese Conference from our Industry Fund met with a refusal. There are many demands on that trust fund and those who do allocate the grants have a difficult job to get priorities right. There is no doubt in my mind that the Trustees and their advisers try to be fair and are people of high integrity.

But Mr Gaisford did get to that conference without the assistance of the industry fund. Good for him. There is a lot to say for paddling one's own canoe.

I would suggest to Graeham that a change in tone and approach could perhaps assist in opening ears and make minds more receptive to his message. After all honey does catch more flies than vinegar.

Also, without being over-patriotic, I like to point out that it does not become a decent Kiwi to dirty its own nest.

John Heineman

Dear Sir

It has been the practise of the Editor of *The New Zealand BeeKeeper* to publish all letters received. The correspondence from B Peterson was treated accordingly and published in good faith. It is now known that B Peterson is a pseudonym but that the writer is a current member of the NBA (though not the NBA Executive) and therefore entitled to voice his opinion through the pages of the magazine, just as Nick Wallingford, as outgoing President, was entitled to express his views, and again, as a member of the NBA in the magazines of November 1997, and March 1998. Three responses have been received from "B Peterson" (address supplied) and published in December 1997, February and March 1998. (The last of these was to submit for publication a copy of a bulletin from http://www.beekeeping.co.nz) The magazine is, in part, a forum for opinions but, at the same time, it cannot become an arena for personal vendettas.

AR Taiaroa, Chairman of Publications Committee

Dear Sir

In last month's magazine there was an error in the publication of an apology to Nick Wallingford. It should have read:

APOLOGY. It has been brought to our attention that we may have breached a member's copyright on the reprinting of Nick Wallingford's bulletin, (requested to be reprinted by B Peterson).

If this is correct we apologise to Nick.

AR Taiaroa, Chairman of Publications Committee and Harry Brown, Editor, The New Zealand BeeKeeper

Dear Sir

I've recently been trying to find out about honey and pollen testing and related procedures, but have had difficulty identifying companies that offer these services in New Zealand and where they are located.

My main reason for wanting the information is that I've just started beekeeping as a hobby this past year and am very keen on tying this interest in with full-time work in my field. I'm originally from Canada, have a biology degree from a university there, and also have a significant amount of laboratory experience gained through previous employment.

I was wondering if anyone could help by offering suggestions of who to contact, where they are located, and what kinds of tests are performed.

Any suggestions would be hugely appreciated.

Sincerely

Karen Faller, C/- 18 Galaxy Dr, Mairangi Bay, Auckland, 1310 or C/- Post Office, Takaka - (before May 15th).

NB: I'll be visiting Canada between May 25th and July 12th, so things may take a while to reach me during this time. Thanks in advance if I'm not too prompt in replying.

Dear Sir

I want to publicly dissociate my name from the recent correspondence to the editor in your magazine. I am the only "Peterson" registered as a beekeeper in Nelson. In fact on further investigation, I see there is no B Peterson listed on the Nelson Electoral Role. B Peterson does not have a telephone account even though this person still has an Email address on the Internet.

I challenge the ghost writer for B Peterson to use their real name.

Sincerely

D Peterson, Registry #K 939

Letters to the Editor

Dear Sir

Mr Wallingford has challenged the accuracy of the Editor's note, published after his letter in the March magazine.

Mr Wallingford did offer his Web pages to the NBA in June 1997 as described in his letter, subject to various conditions. At the time of the July meeting he had withdrawn his offer. The July meeting minutes record that Mr Wallingford was prepared to "supply a copy of the Web site information to the NBA for $400 a page".

The Editor apologises to Mr Wallingford for any misunderstanding which may have been caused by the Editor's note.

Dear Sir

When you can't win fairly — throw in the boot!

Nick Wallingford has been kicked around repeatedly in Mr B Peterson's letter to the Editor. He criticises Mr Wallingford for "his vitriolic letters," his "destructive attitude", his "failure to accept responsibility", his "waffling" and his "slackness" (refer April's issue).

Well I suggest that it is YOUR comments that are "not enhancing the magazine and the industry" Mr Peterson!

Look in the mirror!

In Nelson: You do not own one registered beehive!

You have not attended one NBA meeting!

You gave not one minute of help with hosting NBA Conference!

In fact you don't even appear on our Electoral Roll!

So - where do you hide? What's your agenda?

Do the industry a favour. We need contributors not just knockers.

John Moffett, Nelson

The wonders of Royal Jelly

It is said that God helps those that help themselves. It is also said that life is a learning process and that no one will learn until they are ready to, or want to.

With the high cost of medicine in the West these days some people are becoming aware of the need to find cost effective answers.

They are on their own until universities or even Area Health Boards set up facilities for honest, open evaluation instead of waiting for funding by drug companies who supply 98% of our doctors education after graduation, and suppress anything not favourable to their cause.

Migraine is a good example - basically caused by mental stress - with one company (Dominion, 21 October 1991) pushing the taxpayer via the Health Department to fund a pill at $43 a time that does not always work and needs repeats with so called minor side effects when a dessertspoon of honey dissolved in warm water has no side effects and always works (although sometimes a second dose in 20 minutes is necessary, so people have informed me).

Honey at $5 a kilo in the supermarket gives 100 10gm doses at a cost of 5c a dose as opposed to the drug company product at $43 a dose.

Sandra Coney has done more than any other current New Zealander to open the eyes of the average Kiwi to the closed and selfish brains of our medical profession.

When GPs make up to $600,000 a year on ACC work alone (Sunday Times, October 21 1991) no wonder junior doctors (apprentices in plain English) go on strike over hours being too long and $100,000 a year not enough.

Sandra Coney's latest book The Menopause Industry and the latest drug company fad of hormone replacement therapy aptly brings to mind nature's 60m year old answer - Royal Jelly.

Royal Jelly is a super powerful natural hormone booster which is produced automatically by a specific age group of bees as breast milk and colostrum is by a nursing human mother.

All bees are fed Royal Jelly for three days when they hatch from an egg and are then weaned to pollen and honey. Only those chosen to be queens are fed an extra three days on Royal Jelly before going into a cocoon. Upon hatching a virgin queen is not fed Royal Jelly until she has mated - and no longer a virgin. For the rest of her life she is fed nothing but Royal Jelly by her constant escort while she will lay up to 1500 eggs a day in season or in excess of her own bodyweight a day. She will live for up to six years whilst the normal bee only lives for six weeks - yet both are born the same except for being fed Royal Jelly.

Royal Jelly is a super rich hormonal booster with all known amino acids and a rich supply of B complex vitamins and minerals but 3% of it still defies analysis.

Present research is centred on France, China and Japan.

In healthy people it gives resistance to mental and physical fatigue and stress; it retards the effects of ageing and eases diet inadequacies.

In sick people it is a great aid to recovery, weight loss, anorexia, premature and exaggerated ageing, and for some forms of arthritis as well as PMT.

I find that the main benefit of Royal Jelly is as a booster to failing glands as a hormonal booster to help the body heal itself and as a major booster to the immune system.

Not all Royal Jelly is top quality and in China all Royal Jelly is graded with only the best being labelled Peking Royal and then falling off rapidly in quality.

Production of Royal Jelly is time consuming, labour intensive, seasonal and weather affected therefore China is the main world bulk supplier.

It is normally sold as a nutritional supplement but anyone wanting a super powered natural tonic (or hormonal booster) should try Peking brand Royal Jelly and not the cheaper versions.

A normal course is three months; costing $50 a month and Peking Royal Jelly is the backbone of any treatment I advise.

Acknowledgement,
Graeham Gaisford, previously published by Levin Chronicle

Exciting new food and health values

Flights of fancy or flights of the honeybee... what's behind all the news about the exciting new food and health values showing up in New Zealand's honeys.

Manuka, Rewarewa and Penny Royal honeys being used in research against the MRSA 'superbugs' for wound healing... Manuka honey in stomach ulcer research.... Beech Honeydew for helping the body recover after a course of antibiotics.... North Island Rewarewa being fed to bobby calves instead of antibiotics... honey and milk being combined to create a unique new meat baste that protects against antibacterial contamination... honey instead of apples to prevent dental cares!... honeys being rich in antioxidants!... honey-in-milk drink to increase the uptake of calcium from the milk ... the naturally occurring presence of chromium in all New Zealand honeys making it the natural and balanced food sweetener (chromium is essential for the body to metabolise sugars and alcohol)....

These are all projects currently under investigation at the NZ Honey Research Unit at Waikato University .. and the research continues to underscore a recurring theme: that the old folklore... the traditional uses of honey for thousands of years... throughout the world... have some startling bases in fact: our research is proving the folklore values!

But even more exciting is how many of these values seem now to be unique to New Zealand's native flora and the honeys from those! (Because we still have our 'heritage flora stock' that has been lost elsewhere in the world.)

But at the same time as there are these health values being confirmed and explained, New Zealand honeys are becoming a food icon for their utterly different and unique flavour values.

Manuka honey started out as an unwanted honey variety... in fact beekeepers used to feed it back to the bees... and then the medical research highlighted it... and now people's palates have become more sophisticated and they appreciate the three-dimensional sweetness: a good manuka has a flavour of oak and vanilla, geraniums and minerals .. and a pleasant bitterness vaguely like a good old tonic water.

Then compare the manuka honey with the marvellously complex profile of rewarewa honey... with its flavours reminding you of a very old aged citrus marmalade... or the exquisite limes and lemons (but with a hint of salt) flavour of one of the world's rarest honeys: Pohutakawa ..... the sublimely seductive oily smooth sweetness of vipers bugloss.... or the buttery smooth, fully rounded, milk toffee delight of Kamahi honey .... and you will start to realise that the word 'honey' doesn't do justice to the myriad flavours of each of New Zealand's twelve honey types; or the blends of them created by the honeybees in different regions of New Zealand.

One of the most exciting food and health ideas for honey in the last twelve months has been the discovery (rediscovery!) of comb honey for baking. This came about last year when a Southland beekeeper's wife (actually, that's a bit unfair because the wife is a beekeeper too), anyway, went to bake some muffins and found she had no butter. So, she took the recipe and replaced the butter and the sugar with a block of comb honey... and the muffins were magnificent! So the Honey Advisory Service got to hear about this and commissioned its consultant-chef, Dennis Taylor of Christchurch, to find out why and refine the recipe.

The result is brilliant... moreishly so: but the best news is that because the natural beeswax comb replaces the butter ... they are a virtually fat-free muffin. (Beeswax is a lipid, just like butter and oil, but beeswax is inert in the human digestive system: the molecular structure means we can't digest it and it simply passes-through.) And so lattes and doppios and the like can now be enjoyed with a mouthwateringly delicious muffin ...(you'll wax lyrical over the flavour, *sorry*)... without any butter.

The muffins also keep incredibly well: the honey is hygroscopic, which means it attracts and keeps moisture... so the muffins don't go stale (ie dry out) for 'days'! The texture is firmer than for a butter muffin.... the secret is in minimal working of the ingredients. In fact I prefer to mash the comb honey and eggs with a fork rather than use a processor: but that's up to you... don't be heavyhanded! And the recipe lends itself to a whole range of chopped and added 'extras'... dates, figs, bananas, stem ginger.... don't be coy: go for it!

And so you can see that NZ's honey hives are on a high: make sure you get to try some new honey types this year: life's too short to be stuck on one honey!

Regards

Bill Floyd, Manager: NZ Honey Advisory Service and NZ Honey Research Unit

"The New Zealand Honey Industry"

As you will know, the New Zealand Honey Industry has been plagued by recurrent economic problems throughout its history. These are associated with the inherent nature of beekeeping. Dependence on biological cycles, and vulnerability to national and international events and pressures, renders honey production levels variable and unpredictable. This creates an environment of uncertainty, and makes problematic the continuous supply of honey for the local and international markets. Consequently, the Honey Industry is unattractive to large-scale capitalist investment, and marked by the persistence of small-scale and hobbyist operations.

Beekeeping is often regarded as a 'lifestyle' activity, rather than a livelihood. This perception is reinforced by the marked division between 'hobbyist' and 'commercial' beekeepers, and the fact that honey producers have traditionally delegated the 'commercial' aspects of honey production to various organisations. In many respects, it is a unique industry, and one which appears to have received special treatment by the state relative to other small-scale farming activities in New Zealand. In fact, it may have been a New Zealand leader in terms of the adoption of 'free market' ideologies in the agricultural sector.

Due to changing interests and goals of those involved in the industry, including government employees, the organisational arrangements put in place are constantly being outpaced. Beekeepers have traditionally been highly innovative and independent individuals. As a Master's student I want to explore how they are faring or flourishing in the competitive conditions of 'free trade', and how the recurrent economic problems of beekeeping are being played out in the 1990s.

I am a graduate student of sociology at the University of Canterbury undertaking research for my thesis from May through to September this year I intend to analyse the present composition of the industry, and how it is being organised and administered in the climate of 'free trade'. This means understanding the effects of entry to the (unprotected) world market on individual beekeepers and industry organisations. 'Free trade' is thought to signify the relative absence of state regulation and intervention in the agricultural sector post 1984, and correspondingly high degrees of openness to the international marketplace on the part of New Zealand Industries. It denotes a market-driven environment in which industries are expected to be self-reliant, and producers in those industries are compelled to assume responsibility for the marketing and distribution of their produce.

I will be talking with members of the Industry, including government officials and office-holders, and attending meetings and functions of the National Beekeepers' Association during this time. I want to identify key 'players', and understand how the Industry is being constructed or shaped by these 'players' collectively and as individuals. The strategies and tactics you employ as commercial operators, and as members of the Honey Industry, are important. This includes your participation or non-participation in Industry structures and organisational arrangements. It also includes new marketing strategies, the formation of companies or joint ventures, and the development of mutual understandings and reciprocal arrangements with fellow beekeepers.

I also wish to contemplate the changing role of the state in the Industry, and how other 'players' may be taking over the tasks or functions traditionally performed by the state and government employees. This involves inquiring into the Commodity Levies Act 1990 and the Biosecurity Act 1993. What is being sought are individual accounts of the Industry from the point of view of actual players and those involved. Your relationship with government officials, and how you feel these pieces of legislation will affect you personally and the Industry as a whole, are of interest. The research is intended to provoke, and aid in, self-reflection on your part concerning the ways in which the Industry is, and can be, regulated in the 1990s, and of your crucial roles within this.

I will incorporate a case study of the Canterbury Branch because this enables the voting and remit procedures of the National Beekeepers' Association to be observed in action. [For practical and financial reasons only one Branch could be targeted, and this Branch was the most accessible.] The Association provides the arena in which the recurrent economic dilemmas of beekeeping, and problems and concerns of beekeepers, can be played out producing consequences for the Industry as a whole.

I would like to hear from members of the Industry, and particularly those associated with the Canterbury Branch. I will be pleased to answer all inquires regarding the nature and purpose of my research, and welcome any suggestions and comments you might have or want to share.

The research is being conducted by myself, **Bronwyn Newton**. I am the daughter and seasonal employee of a commercial beekeeper in Mid Canterbury. I can be contacted at telephone number (03) 348-9957, or (03) 364-2987, extension 7376. I can also be contacted via electronic mail (e-mail) at bmn15@student.canterbury.ac.nz

Life is like riding a bicycle, you don't fall off unless you stop pedalling

Ted Roberts

Ted was foundation member of the South Western Districts Branch of the National Beekeeper Association, which was formed on the 27 February 1971. It is now called the Southern North Island Branch.

At this time he was a lecturer in Agronomy at Massey University.

In November 1971, he gave a talk on Beekeeping in East Africa to the branch. Before emigrating to New Zealand, Ted had been at the Makerere University, Kampala, Uganda, where he was a lecturer in Agricultural Botany for the Department of Crop, Science and Production. As well as doing a survey of beekeeping in Uganda, he was also studying which animals give the best weight gain to food intake. (It was one of the big antelopes).

I'm not sure whether it was at this, or a subsequent talk, that he told us about the SNAKE. The Roberts stayed on campus and it was only a short walk to the office. One Sunday morning he had just opened the office door, when he noticed this rather large snake beside his leg. He froze and waited for it to go away, but instead, it settled between his feet. Every time he tried to move, or call out, the snake would raise its head. Being a Sunday, nobody was around, so he was stuck there, petrified, with one foot half way through the door. After what seemed hours, a local came past and he quietly called him over. The local said "oh, that snake, its harmless", and picked it up and threw it away. It pays to know your snakes he told us.

He also told us about hippos and the peculiar way they go to the toilet. Their tail acts as a propeller, which spreads faeces everywhere. Locals would take the tourists in a dug out canoes to see the hippos, and would edge into a mob and wait. Pretty soon one would float to the surface tail rotating. They would duck while the tourist were christened.

Hippos produced the biggest steaks and were the biggest and best he had eaten. He also told us about the bees and beekeeping practices, superstitions and taboos.

Hives are mostly hollow logs hung in trees. He had tried for a long time to be taken out to see the harvesting of honey but they refused his request. Finally one group said he could come provided he follow the their instructions. He was not allowed to be with a woman four days prior and would have to go out naked. This he agreed to and met in the evening at a camp fire. After some singing and dancing they all took their cloths off so the bees could not see them. Seeing Ted, they all burst out laughing, saying the bees will see him as he was so white. This gave them confidence as all the bees would attack Ted instead of themselves. However Ted knew better, (as bees don't fly at night).

Ted was an integral part of the branch, at times he held the positions of: committee member, Scribe, Deputy Delegate 1973, he helped organise the Palmerston North Conference in 1974, was Vice President in 1975 and Deputy Delegate that year, as well as hosting a field day at his honey house.

In February 1976, he and Graham Walton organised the first Introductory to Beekeeping Course for Hobby Beekeepers at Massey University. This was a live in, eat, sleep and breath bees, for the whole weekend. Three of us from Wellington attended, (Me, Joe Sweeney and Len Tooke). They taught us about bees and inspired us to pass on the information to others. In fact, we went back to the Wellington Club, threw out the old administration, changed the whole club around and made it into the vibrant beekeeping club it is today.

This was the forerunner of many successful courses run by Ted and Kerry Simpson, the last (I think) being in 1985.

In May 1985 Ted was appointed to the Ministry of Ag & Fish as an Apiary Officer to replace Bill Rodie after his retirement.

He was introduced to the branch at the Wangaehu Field Day by the then President, Vernon Gladstone Brown.

From my notes; he said: "It won't be an easy task, the physical size of the district, (Gisborne, Hawke's Bay and Wairarapa across ranges to New Plymouth down to Wellington), beekeepers are not well organised - we tend to be against each other. His challenge was to increase our 10 year honey crop to double what we get now.

His job was to get to know the beekeepers, (1684 beekeepers in the district) and to maintain surveillance over disease".

"The situation in our district: - Chalk brood is moving down and we will have to face this within a few years. If the disease gets out of hand, we will be in all sorts of trouble. It will effect pollination, new beekeepers, sale of nuc's and export of queens. Ag-Links are free for 1 but you will be charged for more than this number. The Ministry supports field days as a means of communicating to beekeepers". This was the fore-runner of many reports he gave to the Branch.

Ted although being our AAO, was also a beekeeper and normal member of the branch. During some meetings it was not unknown for him to have to change hats several times if we needed to clarify a point which involved MAF or the Regulations.

Three Years ago on the 20th April 1995, Ted, along with two other founder members, was made a life member of the Branch.

Ted attended nearly all of our field days and always contributed. However three years ago James Driscoll came on the scene. Young and keen, Ted was able to gradually hand over the MAF role to him at field days. However Ted was still in demand, so we would set a chair under a shady tree where he could hold court. Surrounded by old and new members, dispensing advice or just having a chat. He rather enjoyed this aspect of our field days.

Ted was encouraged by James's enthusiasm. Just last month they both attended a week long course up north. He noted that James had written everything down, while he, the old hand, had heard it all before and had just taken in the salient points. The young bull and old bull scenario.

Ever been to his office? Away from the rest, so he could smoke his "King Edwards" when he felt the need. Papers a foot high in piles on his desk and the floor. No matter how confused and messy it looked, he could always go straight to a document, (I have a similar office).

Did you ever notice the two buckets on the book case? For the water leaks when it rained. The price of freedom.

His Vehicles:

Ted had a few - he drove them until they fell apart. First it was the Humber Super Snipe, then the A40 Farina, followed by the Lada.

He did a lot of travelling, arm out the window, smoking the odd cigar. So much time was spent in that red Lada that he wore the right arm out on two jerseys, as well as the upholstery and paint off the window.

(I'm told it had travelled 250,000 km, fifth gear didn't work, the heater couldn't be turned off and the aerial was a coat hanger).

His beekeeping truck was an old J1 Bedford, with only one windowscreen wiper - how he kept getting warrants for it beats me.

When he retired the Bedford he brought an old Landrover. Just a few weeks ago he upgraded again, this time, to a modern four wheel drive.

When James came along, I believe Ted started actively planning his retirement and to this end purchased hives in Taranaki. Three out of four weekends, was spent in Manaia with Chris and Margaret Brommel where he worked his bees. He had just finished removing this year's crop the day before he died.

How did Ted do in his thirteen years with us?

He was always available, no matter what the hour, a mine of information. He would be on the phone for hours. If you stayed with him, conversations were between phone calls. If it was going to be a long one, he would get a coffee and a cigar.

However, there were times during the year when Ted was not available. His yearly pilgrimage to Wales to see his Mum and Dad, and the weekends of "concert in the park" and at "mission wines". Ted loved his music. We all knew to work around these dates.

Ted had an enormous influence on all of us, to some he was "The Man from MAF", an advisor, to others a colleague, to some an employer, a valued friend, and to an awful lot - one of the family. He attended many meetings, a lot in his own time. He was quite and unassuming, had a mischievous sense of humour, a source of calm and reason in a storm, dispenser of valuable budgetary advice and timely tips.

Ted once said at a friend's funeral, that when one dies, it leaves a hole. We may fall in often at first, but as time passes, although the hole is still there, we gradually learn to step around it without falling in. Ted has left an enormous hole.

Acknowledgement, Frank Lindsay

The good old days!

In the "Olden Days" the Apiary Instructor was also the health inspector.

One beekeeper bought an old house and converted it into a honey shed. He was very proud of his achievement, so invited the local Apiary Instructor to see it.

When they arrived at the door the beekeeper threw open the door with a great flourish to display his handiwork.

And there it was in all its glory. A beautiful room covered with about two inches deep of well trodden sheep manure. To add to the touch there was a lonely sheep running around at high speed looking for somewhere to get out.

It was obvious that the manure came from many more sheep that one lonely individual — unless its capacity was much greater than normal.

Anyway work was waiting elsewhere so the instructor said "leave it and he would help with the cleanup that evening."

They worked all day with the cleanup in the backs of their minds, but it didn't inspire much enthusiasm.

Anyway, on returning that evening and the door was opened, everything was spotless just as it should have been with a trace of disinfectant in the air. Had a real hospital atmosphere.

It would appear that a flock of sheep belonging to a local farmer had somehow got into the shed and the door blew shut. Later he had found them and released all except the lonely individual who had probably been in another room.

Then later that day he had returned and scrubbed everything so that the beekeeper would not know about it.

I think neither ever mentioned it to the other which avoided embarrassment on both sides.

Bay of Plenty Branch Field Day

DATE: 23 May 1998

VENUE: New Comvita Factory, Paengaroa

TOPIC: The Need for Standards

Selling our products - what can we expect in future?

SPEAKING ON RESEARCH:
Peter Molan
(Director Honey Research Unit)
Professor Alistair Wilkins
(Chem Dept, Waikato University)

ON MARKETING: Peter Bray of Airborne Honey
Allen McCaw of Milburn

AND MORE

—Details on page 16 of this magazine—

Shortcomings of Anti-Varroa methods

Eliane Noirot, Professor, Bruxelles

This text describes and often criticises some ways of struggling against Varroa jacobsoni Oudemans, the parasite menacing the survival of honeybees and thus also the food chain. Our best honey collector and least dangerous species for the beekeeper: Apis mellifica mellifica, names "abeille noire" in Europe and "common western bee" in the USA, is particularly vulnerable to this parasitism.

I wish to thank Pierre Bresc, the beekeeper who allowed me to study in his apiary, Professor Michel Bounias who transmitted me much information about Varroasis and whose comments upon this story were very useful, John Phipps, editor of "The Beekeepers Quarterly", who corrected my English, Daniel Holender, Regine Kilinsky and Monique Radeau: in order to permit me to work on the field, they assured my teaching task during one year.

Introduction

Around 1960, the common Western bee, a better honey and pollen collector than the Asian species (Apis mellifica Cerana), is imported into China in order to increase the production of these foods on the Asian continent (39, 41). But most hives of these imported bees die because, unlike the Asian bee, the common Western bee does not efficiently defend itself against Varroa jacobsoni Oudemans, a honeybee mite rather frequent in Asia. The common Western bee workers don't remove the varroa females from their sisters' bodies whereas the Asian workers do (15). Their hives' temperature is nearer to Varroa's preference than that of the Asian ones (26). Their haemolymph contains a greater quantity of juvenile hormone, favourable to the parasite's development (15) and they rear relatively more drones than Apis Cerana. And, the female Varroa lays its eggs in the bees' brood cells but prefers those containing male rather than female offspring. The former cells are larger and diffuse pheromones which it likes better (27, 54).

For these reasons, Apis mellifica mellifica suffers much from the damages caused by Varroa to its guests. The male parasite does not directly hurt the bees: it does not eat, fertilises one or more females (disagreement about their number in the literature) and then, dies. But the female mite feeds itself with the bees', the drones' and eventually also with the queen's haemolymph, sometimes already during their development in a brood cell and during their adult life. Simultaneously, she injects a substance into the host that could be anaesthetic, anticoagulant and/or digestive (2). Contaminated in this way, the bees' life span decreases (12). They emerge mutilated from their brood cell where they have been contaminated (shortened abdomen, deformed wings and underdeveloped hypohgaryngial glands: (13). Varroa also exerts indirect disastrous effects. The contaminated insects become more vulnerable to other pathogenic agents as well as to intoxication by pesticides (unfortunately frequently used) and serious alterations of their behaviour may occur. Their "clusters" formed around the queen during winter are sometimes so agitated that rest becomes impossible. In such cases the bees remain awake and their queen goes on laying eggs which allows the Varroa females to pursue their reproduction and expansion (12,31). In addition the work in the hive often loses its organisation in a spectacular way and another most surprising change in the bees' behaviour can be observed: they steal the food reserves belonging to neighbouring hives (8).

From 1960 onwards, Varroa progressively invades several countries more and more distant from each other (3, 8, 15, 57) probably because the international sales of bee swarms and queens progressively also increase and because the hives are transported by their keepers over greater and greater distances. The ecologists fear for the bees' survival, a necessary link of the food chain, their foraging mainly assuring the crossed pollination of numerous plants (18, 58). And, Varroa's expansion goes on despite the numerous arms used against this animal. This battle, in the way it is actually engaged, thus seems hopeless.

Discussion

The following text may require one to consult the table which follows, summarising the development of a worker bee in a brood cell contaminated by a Varroa female going through a reproductive cycle.

We shall discuss seven anti-Varroa remedies, immediately mentioning that the four first ones (using pesticides, exposing the infested bees to heat that kills Varroa from 45°C onwards, attracting the parasite into a death trap and powdering the bees with fine dusts in order to hinder varroa's adhesion on its hosts), all have, besides from their specific limitations, a serious common weakness. They can not possibly influence the numerous parasites in the operculated brood cells of the hive, where their reproduction takes place and where they go on to parasite the larvae and the nymphs of bees and drones which will be contaminated by several Varroa females as they emerge and contaminate the other insects in the hive.

Table

Summary of the development of a worker bee and of Varroa in moderately favourable conditions for the parasite's reproduction (the Varroa mother has chosen a cell containing female *bee brood, lays an egg every 27 hours, the eggs develop in 5 or 6 days**).

Day/hour	Worker bee	Varroa mother	Varroa offspring	Other events
1	egg			
2				
3	larvae			
4				
5				
6				
7		enters brood cell		
8				cell's operculation
9 0h		lays:	female egg 1	cell operculated
10 3h	nymph		male egg 1***	
11 6h			female egg 2	
12 9h			female egg 3	
13 12h			female egg 4	
14 15h			female egg 5	
15 12h			daughter 1 adult	
16 15h			son adult	fertilisation of Varroa mother and/or daughter 1****
17 18h			daughter 2 adult	fertilisation of daughter 2?
18 21h			daughter 3 adult	fertilisation of daughter 3?
19 0h			daughter 4 adult	fertilisation of daughter 4?
20				
21 0h	emergence	leaves cell	4 adult daughters	son dies or did so before****
		(if not too old)	leave the cell	

Legend:

* : in a cell with male bee brood the Varroa female remains 18 days on average (24-6) instead of 15 (21-6) in a cell with female brood,

** : in optimal conditions six eggs are laid, one every 24 hours and they develop in five days (14),

*** : a single male egg is laid per cycle (either the first or the second one: (14, 15),

**** : according to some authors the male fertilises a single female and then dies (15), according to others it may fertilise several females (14).

1. Pesticides

These treatments present, in addition to the shortcoming just mentioned, other serious inconveniences. Acaricides as well as their residues are dangerous for bees and beekeepers and they pollute honey and pollen by their deposit in these products. M'Diaye and Bounias (29, 30) have proven that Fluvalinate and Amitraze, rather popular pesticides, although often advised (52) and proclaimed harmless (59), do, on the contrary, poison the bees in an alarming way. Their physiological state becomes sub-lethal and incompatible with work demanding great energy. Foraging may thus become impossible and, as a consequence, the decrease or disappearance of their pollination activity may endanger the survival of plants. The effects of two acaricides, Amitraxe and Fluvalinate, is biphasic, small doses producing more serious damage than large ones (a rather disquieting discovery!). The toxicity of acaricides has been proven but not their efficiency. The studies dealing with this topic have only shown that their effects on Varroa are limited ("at fork"): part of the parasites survive because they rapidly become resistant to the pesticide by transforming it biochemically (45, 46, 47). The chemicals must therefore continuously find new formulae. On the market, the appearances of Folbex (bromopylate in fumigenic paper), Anti-Varroa :Schering" (Amitraze), Perizin "Bayer", Klartan, Apitol and Apistan (tissues impregnated with Fluvalinate) have rapidly succeeded one another. Several beekeepers deplore their inefficiency like, for example, Jean-Prost (21, 22) did for the use of Amitraze.

Since pesticides can not influence the numerous Varroas in a hive's brood cells, some beekeepers use these chemicals in the absence of insect offspring: during the winter when in principle, there should be none since the bees and their queen are normally inactive or at moments when they have either removed the brood from the hive or artificially stopped the queen's egg-laying by removing this animal from the hive or by putting it in a small cage within the hive (16). The first method leads to failure in case of serious infestation for a reason already mentioned: the hive being unable to cluster, their queen goes on laying eggs which allows Varroa to pursue its reproduction. The second procedure, at first view more judicious, also presents disadvantages. The separation between the bees and their queen may seriously alter their behaviour. In "orphan" hives (without a queen), the bees "weep" and isolated queens behave in the same way. They emit a particular sound that, until proof of the contrary, has never been heard in other circumstances (4, 25, 56). In addition, the worker bees may start laying unfertilised eggs engendering an overpopulation of drones, incompatible with an organisation assuring the hive's survival (4). Finally, this method needs to be combined with other difficult manipulations in order to be effective in the long term. Without brood cells in a hive, a Varroa female is unable to lay eggs. Thus, if the queen's egg-laying is blocked during 15 days (maximum duration of the bees' brood cells' operculation plus one day) there will be no varroa offspring at all in the hive. The use of pesticides at such a moment may thus kill a relatively great number of parasites but we remain with the problems of their toxicity, of their "fork" efficiency, and with that of a new possible contamination of the colony by the workers susceptible to carry parasites when they return into the hive after foraging. Beekeepers regularly transport their hives to good foraging sites which are over congested with other hives. Therefore foragers from contaminated and from uninfested hives may visit the same flowers and this may allow a Varroa female to "jump" onto a same host (as it frequently does, attracted by pheromones it prefers and by the electrical-magnetically charges carried by bees: 43). Thereafter, the parasite may then travel with its new host to a previously Varroa-less hive. But, Varroa's development being about three times faster than that of the bees (14. 15 see table), such an arrival, even of a single non fertilised female can rapidly contaminate the whole hive (this female may lay an unfertilised egg which will develop into a male that will fertilise her and permit her to then give birth to females: 46). In order to avoid these contaminations, a beekeeper should thus treat all his hives with pesticides within a time interval as short as possible and avoid to place them within the proximity of another beekeeper's hives at a distance that is greater than that of the bees' longest possible travelling capacity. But, if necessary these insects may forage flowers at (at least) 10km away from their hive (54, 55).

2. "Thermotreatment"

Heller (20), Khmara (24), Pazold & Ritter (38) and Stell (48) tried to eliminate Varroa by exposing the contaminated bees to heat. The temperature lethal for the parasite being above that at which the wax cells of the bees melt (45°C), the procedure is laborious. The beekeeper must drive all the insects from a contaminated hive and lead them into an enclosure heated at 47°C for ten minutes (20). This method only relieves the bees and the drones of the pests for a short while. Back into the hive they may rapidly be contaminated again by newly emerged insects invaded by (usually several) parasites (see table).

3. Attractive traps for Varroa

Some researchers tried to manipulate Varroa by attracting the females into a trap containing bees' (preferentially male) crushed brood, diffusing pheromones they like (54). The procedure is of course time consuming and difficult to cover with a beekeeper's numerous tasks. In addition, I ignore whether this method has been tested in the field or only in the laboratory where, often, a remedy is easier to apply and more efficient than in natural conditions. Scientists can more easily than beekeepers control important variables for a hive's survival.

4. Find dusts on the bees

Ramirez (42) tried to clear Varroa from its hosts by dusting the bees with several kinds of powders (glucose, a crushed pollen substitute, flour, talc etc) in order to render the Varroa female's cuppings[1], [1]*("Ventouses" in French: organs exerting*

a sucking or pumping action; in Varroa's case they, in addition, secrete a kind of glue favouring even more its adhesion onto the host) one of its means for adhering onto its host, inefficient. He reports good results for the use of this remedy in laboratory conditions. Glucose was, after some hours, successful in all cases: no more Varroa on any of the treated bees. The other powders were slightly less powerful (success varying from 87 to 97%). But we may legitimately question the long term benefits of the procedure. It would be normal that a bee full of dust, will soon start energetic self-grooming. The possibility that this activity causes Varroa to leave its host for a short while only, remains open. Finally, powdering bees with dust (including talc!) does not seem too safe for their respiratory system.

5 Anti-Varroa ("Schmidt Schen") frames

The procedure (23) aims at shortening the workers' and the drones' development in order to shorten the time during which Varroa's reproduction can go on. The beekeepers replace the normal frames in the hive by others with enlarged cells. The queen nevertheless lays a majority of female eggs in the anti-Varroa frames. Since the worker bees provide these cells with more food than the small cells of a normal frame, the female larvaes' and nymphs' maturation is accelerated: it lasts in between 17 and 19 days instead of 21 under normal circumstances. The users of these frames thought that this would stop varroa's reproduction, probably because they were unaware of the progress realised by studying the parasite's development (14). But, when consulting the table prior, it is obvious that worker nymphs aged between 17 and 19 days can already be contaminated by one or more females among which at least one is fertilised. We thus can, unfortunately, only conclude that, in a hive with anti-Varroa frames, the Varroa female gives birth to less offspring than in a normal one.

6. Hybridisation or selective breeding

Some beekeepers cultivate hybrids from two sub-species among which one is more resistant to Varroa than the other, or selective breeding of bees possessing a defence against the parasite. For example, Tregarot (50, 51) crossed the black and the Asian bee, hoping that their hybrids would inherit the Asian superiority. Guth (19) systematically selected bee populations practising the shortest possible operculation time of their brood cells. Some remarks are necessary. Firstly, misunderstanding the forager bees' dances indicating a foraging source is likely to occur in a hive where hybridisation is practised because all the different (sub) species dance in, at least, different ways (28, 55). This of course will hinder the organisation of the colony's work. Secondly, a hybrid is not necessarily superior to its parents, the contrary may happen - some hybrids are less well adapted for surviving than each of their two parents. Finally, I am afraid that selecting bees for a short operculation time will not help more than the use of an anti-Varroa frame. A Varroa female may, in good conditions (cf legend of table prior) have adult offspring on the fifth day following its cell's operculation. It will of course be impossible to cultivate by selective breeding, a population of bees operculating their brood cells during an even shorter period.

7. Feeding contaminated bees with organic cupric salts

An anti-Varroa method, much more subtle than all the other ones, has been designed and tested (in the laboratory and on the field) by Popeskovic and Bounias (17, 37, 40). Appropriate doses of copper sulphate or, even better, of copper gluconate are added to the hive's food. A Varroa absorbing the haemocyanins of a bee or a drone nourished in this way, is asphyxiated within some days. Indeed, Varroa's respiration is assured by external membranes (peritremes) and by particular cells (haemocyanins) transporting the oxygen to its whole organism. Copper salts "block" these cells' activity and are harmless for the bees because their respiration is assured by a tracheal system. The toxicity of copper sulphate is virtually absent for bees provided that their diet is sufficiently rich in pollen. If not, they will suffer from a slight excess of sugar in their heamolymph (5, 6, 7, 34, 35). Bees fed with copper gluconate apparently do not suffer at all, they are, on the contrary, in a physiological state of "hormesis" (33), favouring longevity and protecting against intoxication by Amitraze, Fluvalinate and probably also by other pesticides (7, 36, 37).

Good results are obtained with this method in cases of low or moderate contamination of a hive by Varroa. Unfortunately the procedure becomes inefficient when there is acute parasitism (37). Copper sulphate and gluconate kill Varroa within some days (five on average) but such a time lapse still allows a certain proportion of their females to lay eggs (at least one: see table). Therefore the treatment can not exercise a "choc" effect. When the parasites are too numerous in a hive, they reproduce themselves more rapidly than the chemicals' effect they endure. Nevertheless, the bees treatment with copper gluconate is, even in such cases, advisable because it helps them overcoming intoxication by pesticides (37).

Popeskovic and Bounias' method has been criticised by some researchers who say the Varroa possesses a "differentiated" tracheal system, that such an equipment is incompatible with the presence of haemocyanins in its haemolymph and questions the usefulness of the bees' treatment with copper salts. Varroa tracheal system is composed by five anterior and four posterior ramifications in junction with each other at three levels (43, 44). At present, we completely ignore whether this system can or can not oxygenate Varroa's organism entirely, lacking physiological data on this point. But, it is certain that, without the presence of haemocyanins in the parasite's haemolymph, it becomes impossible to explain the success of 'Popeskovic and Bounias' remedy in cases of low and moderate contamination of a hive. The criticism is thus at least partly unjustified.

Conclusion

The struggle against Varroa, as actually engaged, is useless. Varroasis is now a "quasi" universal ("mondial"?) problem, which is not surprising. Feeding the bees with copper

gluconate is the only non polluting and possible remedy available to the beekeeper for fighting against the parasite. But this method is only successful when the hives are not too seriously contaminated. What then should be done in case of intense parasitism? Some (if not most) beekeepers, I assume, will use pesticides. They may benefit from an amelioration: protect their bees against poisoning by these chemicals by simultaneously adding copper gluconate to their food. Nevertheless, this does not rule out other undesirable consequences: the pollution of the environment, the "fork" efficiency of the pesticides and the danger of new contamination of the hive by newly-emerged bees and drones and by returning foragers. For these reasons, the creation of new remedies is essential. But this will imply some changes in our research strategy. I proposed the following ones in an article not yet published. Firstly, we should not systematically try to kill Varroa in order to learn more about its behaviour and particularly about its communication. Such studies are now feasible. Researchers design and progressively ameliorate an artificial feeding system: a membrane through which the female Varroa accepts to absorb an artificial heamolymph (9, 10, 11). At the same time, the attempts to rear the parasite in laboratory conditions are progressing (1, 32). The knowledge of an animal's way of communicating may allow us to interact with the animal without polluting the environment (for example, by exposing it to the alarm signal of its species, we may cause it to flee). Secondly, such remedies should be used preventively (before the parasites invade the hive and particularly its brood cells). Finally, research in this field needs collaboration between beekeepers and scientists. Beekeepers possess important knowledge with regard to the problem of Varroasis, often transmitted without texts and on the other hand, scientists obtain equally important data which are not always transmitted in a way that is accessible to beekeepers.

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Nature's oldest medicine

The greatest secret of natural medicine is propolis.

It is the medicine of bees and has been their medicine for 10,000,000 years before man arrived on this planet.

You see a dog or cat chewing grass and you tell children that that is a dog's natural medicine or a cat's medicine.

Nature and natural things are the fad these days but we still try to control nature rather than work with it and are certainly far from learning from nature.

Perhaps it is because nature guards its secrets so well and as science progresses we add to the sum of knowledge.

Without bees, two thirds of Western man's food would disappear because of the effect on pollination and the "food chain".

Bees live on only three things but use a fourth.

We all know that bees go to flowers for nectar and pollen and use water. Propolis is the fourth element and a major breakthrough as a major, cheap, natural medicine for humans.

Overseas research has established that propolis is antibiotic, anti-fungicidal, anti-yeast, antiviral, anti-inflammatory and has the most magic quality of all — the ability to stimulate wound healing in half the normal time due to its positive effect on cell tissue.

The 1991 Nobel Prize for Medicine was awarded for how cells communicate, so science is starting to learn about nature.

Propolis is gathered by bees from the bark and gum of trees. It was used as part of the mummification process by the ancient Egyptians, used and called black wax by Hypocrites in his ointments, used in Russian medicine since the 12th century and in modern times on people who show adverse reactions to penicillin.

Bees use propolis in three ways. The most important of which is to sterilise the nursery cells after a baby hatches and before the next egg is laid. Also to block holes in hives and to embalm organic objects like dead snails and mice that could rot and cause fungi and viral problems.

I use propolis ointment and tincture — and all the other bee products of honey, bee venom, royal jelly, bee pollen and wax as part of my highly successful 12 week arthritis course.

From use and research I have found a whole list of uses for propolis apart from arthritis, such as mouth and stomach ulcers, nappy rash, glue ear, sunburn and skin problems.

I have not had the flu in years since at the first sign of sniffles I take two or three doses of tincture and it always bangs the flu on the head.

I produce my own ointment and tincture since normal shop offerings are too diluted. For the layman natural propolis is dark brown, therefore a cream coloured ointment is far weaker than a dark brown ointment.

The base also is a guide such as paraffin or beeswax and oil used whether olive (as Hypocrites) or sunflower, soya, or peanut, which also lowers price and reduce effectiveness.

A tincture is usually used internally and ointment on the skin.

One important fact for arthritics. Most arthritics complain of high stomach acidity but the truth is that most arthritics have lower stomach acidity than normal (a feature of their ailment).

Their so-called high acidity is due to sensitivity from aspirin, removing the lining of their stomach. Propolis heals this, as well as restoring proper floral or bacteria balance to their stomachs by killing the bad bugs and encouraging the food ones for proper digestion.

Social Welfare, as a constructive suggestion, should make available propolis ointment from their counter as a universal ointment for the poor and needy. As a universal cure for cuts, burns, sore throats, nappy rash, even herpes and cold sores, at $20 it is far cheaper as a self help antibiotic than a doctor's visit and prescription. Propolis ointment should be in everybody's first aid cupboard.

Any wise employer would supply propolis tincture at $15 as being cheaper than having staff absent on sick leave for a week or so.

There is a New Zealand-based answer to the high cost drug industry if only we have the gumption to look.

Acknowledgement,
Graeham Gaisford, previously published by Levin Chronicle

Attention all NBA members

We are looking for nominations for the Roy Paterson Trophy for the 1998 Conference

Do you know of someone who fits the criteria below?

The main theme of the award is "Innovation" and at the same time bring recognition to Roy Paterson. It can be for gadgets, inventions, science and technology that assist the beekeeping industry.

Nominations close 5.00pm, Monday, 15th of June 1998.

Last year's winner was Mr John Thomson, Waikato.

All nominations to:
Vice Chairman Mr Terry Gavin.
Phone: (09) 433-1893
Fax: (09) 433-1895

Judge's decision is final and no correspondence will be entered into.

Re-examining the basics

Good health is the natural birthright of all New Zealanders.

Our basic health system was fought and sacrificed for by our pioneer forebears.

With our modern health system in an increasing shambles of rising costs, reduced services and non-availability to the poor and needy then it is time to stop high tech and re-examine basics.

All forms of healing are based on nature and are but branches of a tree. All have their uses as a fork is useful to a knife, but what is the trunk to the roots of the tree? The question is: Can nature teach us anything or are the drug companies the only source of knowledge?

This and five more brief articles are an attempt to give power back to the non-technical person and a reminder of basics forgotten and smothered by vested interests.

The promoters of valium (used to treat anxieties) spent $200m in 10 years advertising to the medical profession. Twenty million dollars a year for advertising alone would bring tears to the eyes of any business person as to what the profits were.

This advertising took the form of the usual leaflets etc, but also funding for seminars and free gifts to create product awareness and use.

The Australian Consumer Association reported that valium costs $87 a kilo raw material; processing and packaging brings the cost to $487 to produce 100,000 ten milligram tablets; final retail cost (1973) $11,000 a kilo.

No wonder the drug companies can be so kind to doctors with that sort of profit margin.

Honey at $5 a kilo has all the positive effects of valium with none of the negative side effects.

1. If you can't sleep at night try a dessertspoon of honey in a mug of hot milk.
2. Eradicate cane sugar from your diet and replace it with honey as a sweetener.

Until the 17th century the only sweetener that Western man had, from the stone age till then, was honey.

Honey is an ideal heart food being 31% glucose (blood sugar), 38% fructose (fruit sugar), many micro nutrients, minerals and vitamins (5%), unimportant in themselves but their inter-acting (synergistic) effect gives a power beyond their individual norm — yet plant nectar is basically 100% sucrose (cane sugar) and honey only 1.3% sucrose.

There are over 100 sugars in nature (and 25 natural sugars in honey) yet nature's servant — the honeybee — has taken modern man's greatest poison — sucrose — and processed it for its own use that many cultures (Greek, Chinese, Arabic, Jewish, Hindu) have utilised as a powerful medicine — why not New Zealand?

Basic good health starts with the food you eat. Ignorance of facts and high powered advertising has caused the Kiwi who walks to forget how to fly.

Sugar is necessary for energy (calories) but it is the type of sugar that is important or harmful.

Many people, unknowingly, are allergic to cane sugar.

Bodeg Beck MD stated "the objection to refined sugars was not that they are artificial or even give no nourishment but rather that in their final form they become powerful stimulants oxidising violently in the human stomach. The stimulation thus produced has a shock effect upon the nervous system as well as on the vital organs — just as certain drugs will produce a similar stimulation without nutrients". The average Westerner now eats an average of 128 pounds of refined sugar a year (eg tomato sauce 22.9% sugar, ice-cream 22.6%, supermarket muesli 26.2% sugar).

Honey is basically inverted natural sugars in water with organic acids and minerals — in a form readily digested by the human system — unlike white and refined sugar.

Honey from different flower sources vary in chemical composition and physical properties. The darker the honey then the more iron and minerals it has in it.

Any herbalists will tell you that different plants have different properties for healing — but forget that bees gather over 750 different floral honeys and that honey is the essence of the flower — the vital juice of nature assimilated from the soil and the air in the plants vicinity.

Acknowledgement, Graeham Gaisford, previously published by Levin Chronicle

From the Colonies

South Canterbury

The 1998 season will long be remembered as the worst honey producing year in decades.

Mervyn Cloake has researched his firm's honey production records, and had to go back as far as 1955 to find a season as bad as this year. Usually there are areas that get some rain in dry seasons, and produce a crop, or we have the alternative of shifting hives to the McKenzie Country which can have a different weather pattern.

This summer South Canterbury was bone dry from end to end. This is the first time I have had to feed hives in the autumn to prevent them starving before the wintering round in mid April. Hives will require large amounts of sugar feeding to give them sufficient supplies for the winter, putting more financial pressure on beekeeping businesses.

At our recent AGM Noel Trezise retired from the position of Secretary of our branch. He has held this office for the past 15 years. On behalf of everybody in the branch I thank Noel for his time and efforts, your good work was appreciated by us all.

Over a cuppa afterwards an interesting discussion took place as to why today's new bee boxes rot out far faster? The same preservation techniques proven in the past are still used, yet the boxes seem to disintergrate with dry-rot often around six to eight years. The most popular theory as to why this was occurring was that "Pinus Radiata" was being milled at a much younger age than in the past, and was not hardened or mature enough, therefore rotted easier. We would be interested hearing any other theories as to why this is happening.

All we can do now is plan to survive financially, and hope for a much better season this year.

Peter Smyth

Canterbury Branch

Notice of meeting

MAY EVENING MEETING-

Date:	Tuesday, 26 May 1998
Time:	7.30pm sharp
Venue:	Burnside Cricket Clubrooms, Burnside Park, Avonhead Road, Christchurch
Programme:	1. Preparation of Remits for 1998 Conference. **NB** - typed, prepared remits would be appreciated 2. Nomination of Conference delegates 3. Eastgate Mall promotion 4. General Business

Supper provided at $1.00 per person

JUNE EVENING MEETING-

Date:	Tuesday, 30 June 1998
Time:	7.30pm sharp
Venue:	Burnside Cricket Clubrooms, Burnside Park, Avonhead Road, Christchurch
Programme:	1. Voting on remits for Conference 2. Election of Conference delegates 3. General Business

Supper provided at $1.00 per person

TW Corbett, Secretary

Honey Standards!?!

Find out more about this controversial topic at the...

Bay of Plenty Branch
Autumn Field Day

Date:	Saturday, May 23
Where:	Comvita NZ's new factory complex (indoor venue)
Directions:	100m up Wilson Road from the old Comvita store, Paengaroa, just off the main Rotorua-Te Puke Highway.
Time:	10.00am - 3.30pm
10.00-10.30	Morning Smoko
10.30-10.35	Welcome - Gerrit Hyink, Branch President
10.35-10.50	Presentation of Branch Honorary Memberships - Nick Wallingford, Branch Secretary
10.50-11.00	Opening Remarks - Cliff Van Eaton, Comvita NZ
11.00-11.30	Honey Investigations Update - Dr Peter Molan, Waikato University
11.30-12.00	Scientific Basis for Honey Standards - Dr Alistair Wilkins, Waikato University
12.00-12.15	Trade Display Presentations
12.15-1.30	Lunch (barbecue sausages available at nominal cost)
1.30-2.00	The Honey Exporters Joint Action Group - Allen McCaw, Milton, South Otago
2.00-2.30	Honey Standards: A Honey Packer Case Study - Peter Bray, Leeston, Canterbury
2.30-3.00	Honey Standards: A Commercial Beekeeper Case Study - Barry Foster, Gisborne
3.00-onwards	General discussion, factory tours, etc.

Eastgate Honey Promotion

Christchurch - June 1998

Well worth a visit

The Canterbury Branch of the National Beekeepers' Association is hosting another honey and related products/trades promotion at Eastgate Mall, Linwood, Christchurch from 17-21 June 1998. The last time we were there in 1994 it created a lot of interest in the industry with local schools attending. This year the Mall management is right behind us again with marketing, advertising, colouring competitions for the children and accommodation for out of town hosts/demonstrators.

If you or your industry would like to be represented at this promotion please contact the Canterbury Branch President or Secretary as soon as possible for information and guidelines.

Secretary: T Corbett. Ph/Fax: (03) 314-6836

From the Colonies

Otago Branch Annual Report

Looking back on the past years events I am rather surprised and pleased with what we have achieved. Particularly with the less than heavy workload.

This year has seen four general meetings being held, along with three committee meetings being slipped in to take care of the more mundane tasks.

I was pleased to see the branch have a more visible presence at Conference, with the delegates arguing the cases of four remits on behalf of the branch. Three of which were successful.

The Post Conference meeting was well attended, although "Bowlline" as a venue has done its dash.

Our programmed joint Outbreak Response exercise with MAF Qual last October was postponed due to some sickly rabbits. Perhaps this spring?

Mid November the branch had a discussion about this interesting weather pattern called El Nino. Some interesting statistical information came out, especially in regard to crop trends. But at the end of the day the man upstairs just rolls the dice and we get what we are given.

The highlight of the branch calendar year would have to have been the Field Day at Telford in Balclutha. A joint effort with our neighbours Southland. Again the day was organised at the last minute, but went off very well. The branch placed personal invitations to executive members and also to support businesses within the industry, with a good response for all concerned. In particular I had some very good comments from more novice members of the industry. The emphasis on practical demonstrations appealing to them. Luckily El Nino was ever present, ensuring hot days were had by all.

The Field Day was the last outing the branch has had. We should have had one more committee meeting before the AGM. But, possibly reflecting the president's lack of enthusiasm for this particular summer generally, the energy required just wasn't there.

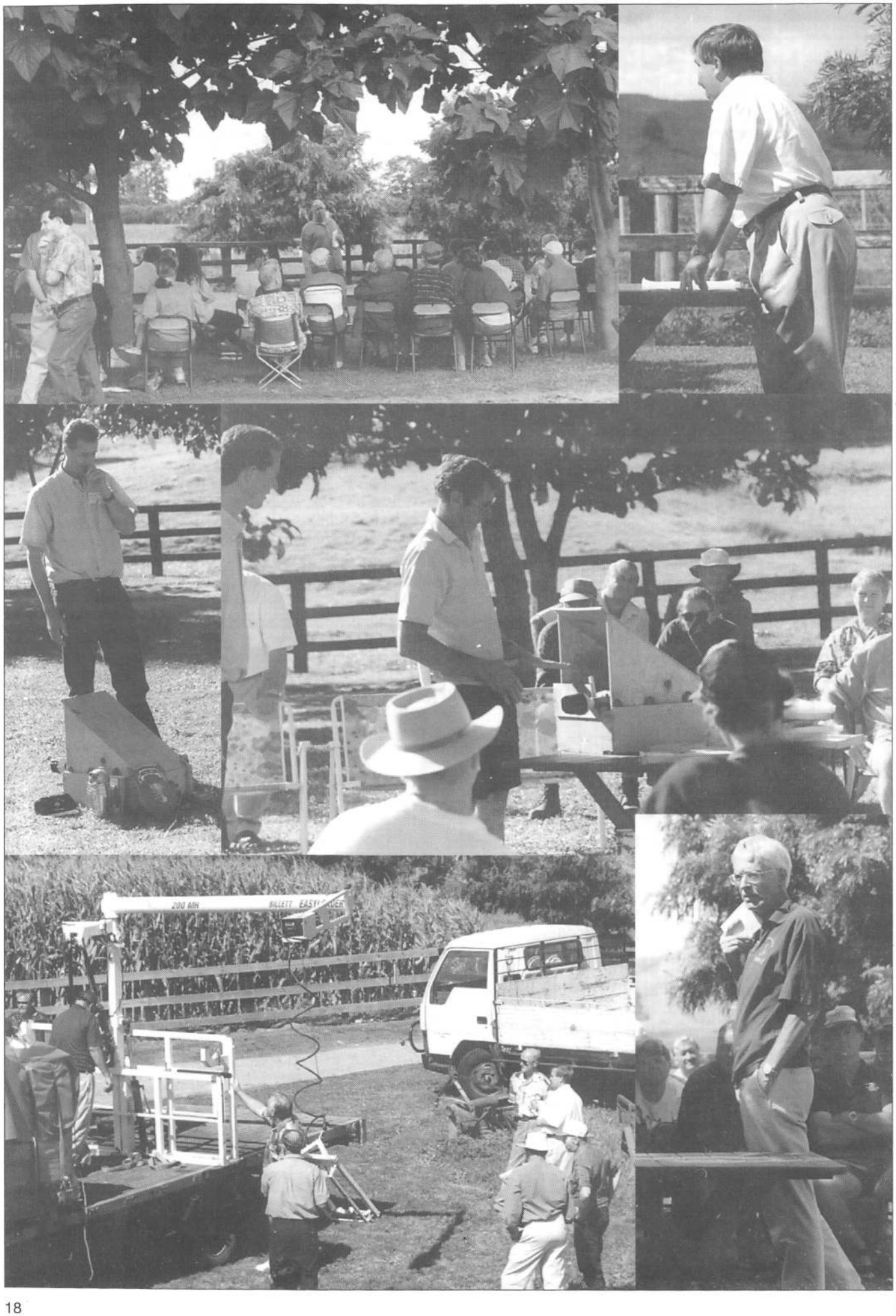
Interesting times for the NBA ahead. On the Marketing front, I would have liked to have seen more progress on the implementation of the "Honey Qual Mark". And the Pest Management Strategy, tenders are now being sort for the Management Agency.

As with any organisation we have more visible and sometimes more outspoken members within our branch. Namely Alan McCaw (Honey Marketing Committee), Peter Sales (PMS Committee) and John Heinmann our Honorary Librarian. I just want to say that I appreciate what they have done for the branch and the industry over the last year. It is these people who do the real work for us all. And the workload within these sub committees is increasing by the year. Well done!

Lastly a big thankyou to the committee and Bill for a job well done over the past year.

Blair Dale,
Otago Branch President

Waikato Field Day



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Notes for beginners and others

It's only another month or so till the shortest day on this side of the globe. So if you have not done so get your hives wintered down without delay. Brood rearing will have ceased or nearly so in most colonies (there are always exceptions). The very best hive management for the coming winter months is to leave well enough alone. Inside the hives the bees will be forming their winter clusters. The colder it gets the tighter the clusters will be. The bees will be fine as long as they have and can reach a good quality food supply and conditions within the hives are dry. It stands to reason that disturbance of the colony during this period is bad news. It can be caused by intruding life stock, kids throwing stones, vandals biffing empty beer bottles at hives or using them as targets for twenty-two's and worse. We have experienced this sort of thing in all its variations over the years, it is upsetting and not funny. Little one can do about it besides providing secure fencing round the sites and situating hives away from public roads or at least out of sight.

Having said this I will now contradict myself somewhat. A beginning beekeeper is of course a bit nosy, wants to observe and learn. Not just believing that story of the queen bee stopping that egg laying business in winter and starting again when it becomes a bit warmer, this needs to be seen. Well if you must, pick a nice day in July, open up a hive, don't take the broodnest apart but after prying the combs loose and a little to the side lift up the comb in the centre of the broodnest carefully and have a look. Chances are that you will see a little patch of sealed brood and some young larvae and eggs. The patch may not be any larger than a fifty cent coin. If there is no brood and the hive does not make that special roaring noise don't be worried about queenlessness, some colonies are conservative others more forward. Gently replace the comb into the same position especially taking care not to pinch the queen if she happened to be on this particular comb. Close up the hive and remember that there is no need for a lot of smoke during this little operation. Seeing is believing and no harm will come from having this little peep.

Winter is the time to get ready for the next season. Repairs and maintenance. Dealing with those old combs and saved up bits and pieces of wax either by rendering or by sending away to get the job done. Foundation will be required and any surplus represents welcome cash.

Now is the time to order those queens needed for the spring. Want to extend hive numbers? Plan, make up and order equipment now. Don't wait till it is needed. Then take an interest and active part in the proceedings of your branch or club meetings. Give them your own wishes and ideas. Meetings will be the better for it, you and your fellow members will benefit.

Among the hive products PROPOLIS is without a doubt gaining importance from a commercial aspect. Some firms want to buy it for hard cash. Gathered by the bees from sticky tree buds (poplar, horse chestnut, willow etc) and sometimes from other parts of plants, it is used for plugging up holes and cracks in the hive and in some areas sticking hive parts together in such a manner that it inconveniences the beekeeper.

One may find a dead body such as a mouse inside the hive covered in propolis and really mummified. The bees did not want it inside their house but it was too large to move. So they did it this way. It stopped the smell of decay and propolis also adds to the colonies hygiene as it has anti microbial properties. It are these which are of interest to mankind besides its usefulness as an ingredient for fine varnishes. But there is propolis and propolis. Just as there is a difference between honeys when it comes to anti-bacterial properties.

There was an interesting article in APIACTA No. 4, 1996 describing a research project conducted in Italy. Six samples, two Italian (Piedmont and Calabrie), two from China and two from Argentine were used for testing their activity against a series of micro-organism. It was proven that the samples from Calabrie and one of the Chinese were the most active and with one of the Argentinian placed right at the bottom of the list as it showed up very little activity.

The conclusion of this research project is that the anti-microbial activity of propolis varies from one micro-organism species to another and also from one strain to another within the same species and also that the variation of the propolis activity depends on its origin, botanical as well as geographical.

During the trials some of the propolis appeared to be active in combating certain plant diseases. This could perhaps signal its use in future as a fungicide. Very interesting! So who is to say that Northland propolis will show the same activity as that from the West Coast or Southland. There could well be a remarkable difference resulting from their botanical and geographical origin within this country. Only thorough research can tell us that, just the same as happened in the case of manuka honey. There too it was discovered that there was manuka honey and manuka honey, some of greater medicinal value than others, depending where it came from. Seeing legal requirements and the demands of the medical experts and the consumer the answers are important.

All propolis may be good just as all honey is good (not always palatable for the human) but some are better than others.

Allergy to propolis is a possibility with some people. A good friend of mine, keeping some 200 hives for many years developed suddenly when in his 70s skin trouble on his hands, flaking and cuts. Came up always after starting to work his bees after the winter. Treated first as dermatitis, by trial and error, it cleared up finally but recurred as soon as he started work with his hives again. From then on the old fellow just had to wear gloves and that he hated thoroughly. There you are, what is good for someone or something may not agree with the next person.

The library (NBA) can supply info regarding propolis, composition, uses, therapeutic value, gathering and preparation.

Preparing the way for the HSNO Act

A conference on the new environment risk management framework soon to take effect under the Hazardous Substances and New Organisms Act is planned for June.

The three day conference will provide background on the Act and its implications for business, and a practical guide to how the Act is likely to operate. The role of enforcement agencies will be explored and the application process examined in some detail. The third day will comprise two half day sessions dealing separately with new organisms and hazardous substances. These sessions, which can be booked separately, will be an opportunity for HSNO applicants, environmental and consumer groups to present their viewpoints on hazardous substances and new organisms.

The keynote address will be given by the Minister for the Environment, Hon Simon Upton. Speakers will include the Ministry's Deputy Chief Executive, Lindsay Gow; the Chairman, Board members and key staff from ERMA New Zealand; and a range of speakers from industry, local government, legal firms, consultancies, and scientific organisations.

The conference is being organised by ERMA New Zealand and the Institute for International Research. See the conference listings for contact details.

Acknowledgement,
Ministry for the Environment

Using paraffin wax and steam chests to sterilise hive parts that have been in contact with colonies with American Foulbrood Disease

Mark Goodwin and Heather Haine,
Hort Research,
Ruakura.

The Apiaries Act gives MAF inspectors the power to authorise beekeepers to salvage equipment that has been contaminated with *Bacillus larvae* spores (the causative agent of American foulbrood disease). This power to authorise methods of salvaging equipment will revert to the National Beekeepers Association as management agency for the American Foulbrood Pest Management Strategy in July. The only method currently authorised is the dipping of hive parts for 10 min in hot paraffin wax at 150-160°C. Only supers, floor, lids, innercovers, feeders and queen excluders are wax dipped. Frames and combs are usually burnt.

Even though the technique has been used extensively in New Zealand for more than 30 years, the actual temperatures and times required to sterilise American foulbrood are unknown. Both 160°C (E Roberts pers. comm.) and 150°C (Matheson and Reid 1992, M Reid pers. comm.) have been recommended and are used in different parts of New Zealand. Hot paraffin wax dipping is also often used to preserve wooden hive parts.

Even though the effectiveness of paraffin wax dipping has not been tested, the lack of reports of colonies being reinfected after receiving treated hive parts suggests that it is probably effective in killing *B. larvae* spores. It is also possible that shorter times and lower temperatures are equally effective while still leaving enough leeway to allow for operator error. Lower temperatures would also have the advantage of making the process safer to use.

Although it is not authorised, some beekeepers use steam chests, that they have designed to melt wax off combs, to sterilise hive parts. Although we use autoclaves (which use steam under pressure) in our laboratory to kill *B. larvae* spores it is questionable whether steam chests could generate sufficient temperature and pressure to be effective.

The aim of this investigation was to determine the effect of different temperatures and times used for paraffin wax dipping and the ability of steam chests to deactivate *B. larvae* spores.

Paraffn Wax dipping

American foulbrood spores were heat fixed to microscope slides and dipped in paraffin wax at a range of temperatures and times. The spores were then scraped from the slides, suspended in water and spread on bacterial culture plates and incubated to determine their viability. The number of *B. larvae* colonies per plate was then counted and those with more than 100 colonies was recorded as having 100 colonies.

Only temperatures of 150°C and 160°C had significant effects on spore survival (Table 1). While temperatures of 150°C for 6 minutes or longer and 160°C for 2 minutes or longer significantly reduced spore survival, only 160°C/10 min appeared to eliminate all growth.

However, it is possible, judging from the eight minute results, that there may have been a few surviving spores at this time.

Table 1: Survival of *Bacillus larvae* spores at a range of temperature and time combinations.

Temperature (°C)	80	100	130	150	160
Time (min)					
0	100	100	100	100	100
1	100	100	100	100	100
2	100	100	100	100	32.0
4	100	100	100	100	4.6
6	100	100	100	21 6	0.1
8	100	100	100	6.4	0.1
10	100	100	100	0.6	0

The importance of the surviving spores at 160°C after 4, 6 and 8 min is unknown. However, *B. larvae* spores are not particularly infective so relatively large numbers of spores are needed to infect a colony. The few spores remaining at 160°C after 4-8 minutes are therefore to be an important reinfection risk. If the purpose of wax dipping is to kill all *B. larvae* spores, hive parts should be immersed in wax at 160°C for 10 min.

Not all beekeepers use thermometers and timers when they are operating wax dippers. As the time and temperature appear critical, timers and thermometers should always be used.

We repeated the 160°C/10 min test with spores on wood instead of glass slides to approximate wooden hive parts. We also encased spores in multiple layers of bees wax to determine if this would protect the spores. Neither of these factors resulted in spore survival at 160°C for 10 min.

Safety

Care needs to be taken in handling paraffin wax at high temperatures. There is the obvious risk of burns so protective clothing should be worn. Paraffin wax has a flash point of 199°C and care should be taken to keep the temperature well below this level especially when heating the wax with open fires that may result in wide fluctuations in temperatures. The most common problem beekeepers encounter is contamination of the wax with water which can cause the wax to boil over the side of the container and ignite.

Steam chests

Microscope slides coated with *B. larvae* spores were placed in microscope slide holders along with steam sterilisation strips which indicate the sterilisation conditions reached in the steam chests. The slide holders were sent to beekeepers who opened them and placed them in their steam chests when next in operation. The slides were then returned to us and we checked them for viable spores.

The steam sterilisation strips indicated that the slides had received either insufficient steam penetration or, at best, partial steam penetration, but insufficient for complete sterilisation. None of the steam cabinets reached full sterilisation conditions. Viable spores were recovered from all the steam cabinets except one. This indicates that steam chests cannot be relied upon to sterilise *B. larvae* contaminated equipment and it is our recommendation that they are not used for this purpose.

Acknowledgments

We wish to thank those beekeepers who assisted with this trial. The study was funded by the Beekeeping Industry Trust Fund.

References

Matheson, A, Reid, M 1992: Strategies for the prevention and control of American Foulbrood. *American Bee Journal*. 132: 471-475.

Please don't tidy my mess, you'll only confuse me and mess up my life!!

RECIPES

We will start with a little difference -

Recipes for your complexion

Cosmetic preparations

Hair Conditioner

2 tbsps honey
1 tbsp olive oil

Combine the ingredients in a bowl. Apply to the hair and scalp and massage for at least 3 minutes. Warm the hair with a hair dryer set on low (or sit outdoors in the sun) to help the lotion penetrate. Allow the mixture to remain on the hair for 20-30 minutes, then wash with a good shampoo.

French Honey Soap

4 ounces Castille soap flakes
4 ounces honey
½ ounce tartaric salt
¼ ounce fumitory water

Combine the ingredients in a pan and place over low heat until the mixture thickens. Pour into small moulds and allow to cool. Use as a bathroom soap.

Face Mask

(for oily or normal skin)

1 fresh egg white
1 tbsp dry milk
1 tsp honey

Combine the ingredients in a bowl using a whisk, or place in a blender at low speed for 2 minutes or until creamy. Apply the cream to the face and throat allowing it to remain on the skin for 15 minutes. Remove the mask with warm water, follow with an application of cold water.

Honey Lotion

1 tbsp honey
2 tbsps water

Combine the ingredients in a small cup. Apply to heal chapped hands. If used regularly this mixture will condition the skin and prevent chapping.

Spirit of Honey Skin Lotion

This skin lotion for the face and the body is a good conditioner for both normal and dry skin.

1 cup honey
1 tsp coriander
1 tsp lemon rind
1 clove
A dash of nutmeg
½ tsp benzoin
½ tsp calamite lotion
1 vanilla bean
2 cups rose water
2 cups orange flower water

Place the ingredients in a glass container. Cover tightly and allow to stand at room temperature in a dark place for 1 week. Shake the container several times during the week to mix the ingredients. Strain and pour into a quart-sized bottle. Use after bathing or in the bathwater.

Blemishes

Honey and almond butter can be used on the skin as an abrasive to eliminate blackheads and skin impurities.

¼ cup honey
¼ cup almond butter
A sprinkling of finely chopped almonds.

Combine the ingredients in a bowl, mixing well. Gently rub mixture over the face and throat with the tips of the fingers, rinse with lukewarm water.

Honey Mask (for dry skin)

1 tsp of honey
1 tsp of rye flour
1 tsp of olive oil
1 egg yolk

Combine the ingredients in a small bowl and mix well. Cover the face and throat with the mixture, allowing it to remain on the skin for 30 minutes. Remove with lukewarm water.

Anti-Wrinkle Mask

1 tsp of honey
1 tsp of onion juice
1 tsp of beeswax
1 lily bulb, washed and crushed

Combine the ingredients in a double-boiler and warm until the beeswax is melted, mixing with a wooden spatula until smooth. Allow the mixture to cool, then apply to the face and throat for 30 minutes. Remove with lukewarm water.

Medicinal preparations

Canker Sores

¼ cup honey
¼ cup lemon

Take a tsp of the mixture and hold it as long as you can in your mouth without swallowing. Repeat at least twice a day until the symptoms subside.

Sore Throat and Laryngitis

Hot milk with honey soothes the throat and helps to restore the voice. Try one of the following recipes.

1 tbsp honey
8 ounces milk

Heat the milk (do not boil) in a small pan. Pour into a cup or glass and add the honey.

1 egg white
½ cup West Indian Honey Gulakund

Beat the egg white until stiff peaks form, then blend in the honey. Take as needed to soothe a sore throat. (Gulakund also can be taken to settle the stomach.)

Cough

1 lemon
1 cup honey
2 tbsp glycerin

Boil the lemon in water to cover for 10 minutes or until the rind softens; then cut in half and extract juice. Pour the lemon juice into a glass; add the glycerine and honey, mixing well. Take one tsp every 4 hours. As the coughing spells become less frequent, increase the time between doses.

Insomnia

Honey can be used as a sedative. If falling asleep at night is difficult, take 1 tbsp of honey at your evening meal. Should sleeping problems continue, try one of the following two mixtures.

2 tsp apple vinegar
2 tsp honey
1 glass water

Combine the ingredients and take ¼ cup at bedtime.

3 tsps cider vinegar
1 cup honey
1 quart water

Combine the ingredients in a bottle and mix well. Take two tsps at bedtime. Repeat after 1 hour, if necessary.

Lethargy

2 egg yolks
¼ cup honey
1 ounce sherry

Combine the ingredients in a blender. Chill before use.

Hangover

½ cup honey
½ cup grapefruit
crushed Ice

Combine the ingredients and take at bedtime to prevent hangover. Note: One tablespoon of honey before a party can neutralise some of the effects of alcohol.

RECIPES

Muscle Cramps

Take 2 tsps of honey at each meal for a week. If there is a tendency for muscle cramp to recur, at least 2 tbsp of honey should be made a part of the daily diet.

For muscular pain, spread honey over the painful area, cover with gauze, then place a piece of flannel over the gauze. Allow the area to remain covered for 2 hours. If necessary, repeat the application and allow to remain covered for another 2 hours.

Constipation

2 tbsp honey, every day.

A natural, mild laxative, honey will not produce gastric disturbances. If part of the daily diet, it will prevent constipation.

Recipes you can eat!

Honey Apple Bread

½ cup vegetable oil
1 cup honey
2 eggs
2 tbsp fresh lemon juice
1 cup apples, peeled and grated
2 cups unbleached white flour, sifted
2 tsp baking powder
¼ tsp baking soda
1 tsp sea salt (optional)
1 tsp cinnamon

Preheat oven to 350 deg. Grease a 9-inch loaf pan, line it with waxed paper, and coat the paper with a small amount of oil. Place the oil in a large mixing bowl; add the honey in a fine stream, beating to a creamy texture. Add 1 egg at a time, beating until the mixture is smooth. In another bowl, combine the lemon juice and grated apples, then add to the honey mixture. Sift together the flour, baking powder, baking soda, salt and cinnamon; add a small amount at a time to the honey mixture, beating well after each addition. Pour the batter into the pan and allow it to stand for 30 minutes.

Bake for 60 minutes, or until a knife inserted into the center of the loaf comes out clean. Cool before serving.

Cheese Cake

Crust:

1 cup granola
1 tbls honey
1 tbls lemon juice

Filling:

3 tbsp sesame butter
2 cups cottage cheese, well drained
2 tbsp wholegrain flour
½ tsp sea salt
¼ cup fresh lemon juice
1 tbsp grated lemon rind
1 cup honey

Preheat oven to 350 deg. Crust: Combine the granola, honey and lemon juice in a bowl; mix well. Spoon the mixture into a 9-inch pie plate and press with a spoon or fingers to form an even crust inside the pan.

Fillings: Combine the butter, cottage cheese, flour and salt in a mixing bowl or blender at low speed. Add the remaining ingredients and blend until smooth. Pour the fillings into the pie shell and bake for 60 minutes. Chill for easy slicing. Serve with honey strawberry jam.

Variation: Substitute the granola in the crust with 2 cups of Graham cracker crumbs. For a lighter filling, beat 2 egg whites and fold into the filling mixture.

Curled Honey and Cinnamon Wafers

¼ cup oil
1 cup honey
½ cup unbleached white flour, sifted
½ tsp cinnamon
½ tsp grated orange rind
½ cup slivered almonds
1 egg

Combine the oil and honey in a small bowl. Sift the flour and cinnamon together into a mixing bowl; add the orange rind, nuts and the egg, beating well. Stir in the oil and honey mixture, and allow the batter to stand for 30 minutes.

Preheat oven to 300 deg. Drop ¼ teaspoonful of batter for each cookie onto a heavily greased pan and flatten with a knife; allow 1 inch space between each cookie. Bake for 10 minutes; remove from the oven and cool for 1 minute. Lift the cookies from the pan and roll into cone shapes. Return the cookies to the pan and bake 6-10 minutes until golden brown. Serve with honey.

Acknowledgement, American Bee Journal

Turkey with Rice

6 cups cooked, diced turkey
¾ cup honey
6 tbsps prepared mustard
salt
1½ tsps curry powder
6 tbsps turkey dripping
3 cups cooked rice

Mix honey, mustard, salt, curry powder and dripping thoroughly. Combine lightly with diced turkey. Heat thoroughly, stirring lightly. Serve over hot cooked rice. *Serves 8.*

Southern-Style Honey "Barbecued" Chicken

1 (2½-3lb) chicken, cut up
salt and pepper to taste
1 cup thinly sliced onions
¾ cup tomato sauce
¼ cup honey
¼ cup vinegar
1 tbsp Worchestershire sauce
1 tsp paprika
¼ tsp bottled hot peppered sauce

Place chicken, skin side down in a large dish. Sprinkle with salt and pepper. Combine remaining ingredients; mix well. Pour mixture over chicken. Bake, uncovered, at 375 degrees for 30 mins. Turn pieces and bake 20 mins longer or until chicken is glazed and no longer pink. *Makes 4 servings.*

Honey-Peanut Butter Cookies

½ cup butter or margarine softened
½ cup honey
½ cup firmly packed brown sugar
½ cup peanut butter
1 egg
1⅔ cups whole wheat flour
½ cup wheat germ
½ tsp salt
½ tsp soda

Preheat oven to 350 degrees. In mixing bowl, combine butter, honey, brown sugar, peanut butter and egg; beat well. Stir in remaining ingredients until mixed. Chill. Form into 1-inch balls. Place 2 inches apart on ungreased baking sheets. Flatten slightly with fork dipped in water, forming crisscross pattern. Bake 10-12 mins or until lightly browned. Let cool 2 minutes before removing from pan. Makes about 40 cookies.

Thai Honey Peanut Dip

Combine ½ cup honey, ¼ cup peanut butter, 2 tbsps soy sauce, 1 tbsp chopped fresh coriander and ⅛ tsp crushed red peppers. Mix until blended. Serve with grilled, broiled or sauted chicken. *Makes ¾ cup.*

Acknowledgement, Sarah Toot, 1996 Kansas Honey Queen

IMPORTANT DATES FOR 1998

BRANCHES SEND YOUR MEETING DATES IN FOR 1998. NO CHARGE.

EXECUTIVE MEETING DATES

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Phone: Noel
(03) 693-9771

CANTERBURY BRANCH
Meets the last Tuesday of every month. February to October.
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Contact: Trevor Corbett
Phone: (03) 314-6836

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

DUNEDIN BEEKEEPERS CLUB
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Enquiries welcome to Club Secretary, Dorothy phone: (03) 488-4390.

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Secretary — Yvonne Hodges,
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Cruse Club Taradale.
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Contact Joan Leckie
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