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Notes from the President

This month's notes from the president will take a different form. As a means of informing members of the various issues being handled by the National Executive, I have attempted to summarise the activities that have taken place since the Executive meeting in December (these notes being written on the last day of February). I would encourage any member who has particular concerns about any of these matters to raise them with either (1) an Executive Committee member or (2) with me to obtain further details or voice opinions. Some of these matters have long histories of activity — I've just started with things that have happened since early December in each case.

Pesticides Board/1080 jam baits

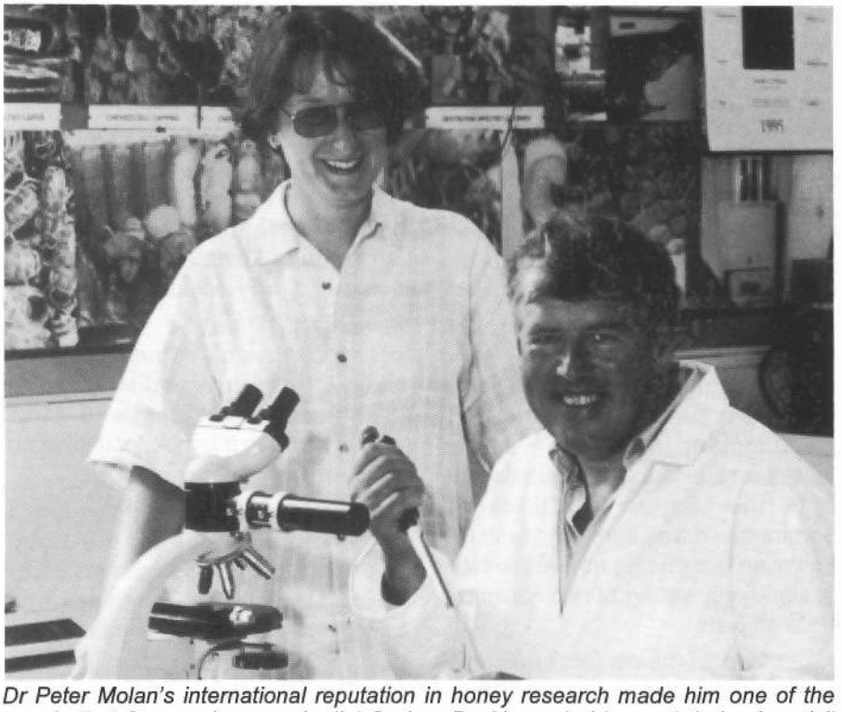
1. Nick Wallingford (NBA President) and Richard Bensemann (Vice President) attended a meeting in Wellington called by the Pesticides Board. Regional Councils and the Animal Health Board (AHB) reiterated their total opposition to the use of isovaleric acid as a bee repellent. Pesticides Board representatives indicated that time was running out before a decision would be made to ban 1080 jam baits attractive to bees. Councils were urged to co-operate and consult with beekeepers to try to get through the next few months until a new non-attractive bait is available.

2. The Agricultural Compounds Unit (ACU) (the MAF Regulatory Authority body that assists/ administers for the Pesticides Board) reported on legal opinions related to the combining of the Animal Remedies and Pesticides Boards. The NBA was asked to re-submit a nomination for our representative, who is to be Dr Jim Fraser, also representing the Wine Institute.

3. Jim Fraser reported to the NBA on a combined board meeting held in February. He complimented the NBA on the Profile documents which were provided to the members. He indicated that the board's sympathies were with the beekeepers regarding 1080 jam programmes. He said the meeting in December had been useful and our reasonable approach won friends on the Pesticides Board.

Continued on page 4

NBA President Nick Wallingford (left). Honey Marketing Committee's Bill Floyd (back) and Waikato beekeeper and honey packer, Bryan Clements (right), enjoying discussing the flavour attributes of New Zealand honeys with Germany's Institut fur Honiganalytik honey scientist, Gudrun Beckh. Gudrun visited the Tongariro National Park and its caluna honey nectar sources as part of her three week tour of New Zealand.



Dr Peter Molan's international reputation in honey research made him one of the people that German honey scientist Gudrun Beckh wanted to meet during her visit to New Zealand.
Peter Molan's work at Waikato University has had a major impact in publishing the unique benefits of New Zealand honeys, especially in the very important German market.
Gudrun Beckh and Dr Peter Molan discuss international honey research issues during Gudrun's visit to Waikato University.
Gudrun Beckh's visit costs within New Zealand were funded by the NBA's Marketing Committee. The German government paid for her international travel costs to and from New Zealand.
Costs within New Zealand were kept to a minimum says tour organiser Bill Floyd, because of the willingness of honey industry people to home-host Gudrun. This home-hosting also allowed Gudrun to take away very positive memories of New Zealand as a warm and friendly, environmentally clean country; and of a beekeeping industry that is both honest, professional and committed to a quality product.

Notes from the President
Continued from page 3

4. The NBA renominated Dr Jim Fraser as our representative on the Pesticides Board to the Minister of Agriculture.

Commodity Levies

1. The NBA's solicitor made application to the Privacy Commissioner to allow 'one off' access to the Apiary Register for the purpose of conducting the Commodity Levies ballot (Access to the register on an on-going basis would be possible once the application for a levy is successful).

2. MAF Policy was approached to ensure the latest version of the ballot/ voting material was appropriately worded.

3. Ron Rowe provided Executive members with a draft of the NBA promotional material to accompany the ballot and asked for their comments.

US Access and Transhipment

1. MAF Regulatory Authority (MAF RA) informed the NBA that a notice of final rule had appeared in the US Federal Register, indicating that possible approval was near.

2. The NBA provided material to MAF RA to put pressure on the USDA to ensure the access/transhipment issues were sorted out prior to the coming export season.

3. In late January the NBA received word that Hawaiian state officials might still attempt to circumvent the USDA's approval for transhipment through the use of Hawaiian state law. After consultation with the Export Certification Committee, it was agreed to fund the Hawaiian fact finding mission to New Zealand, consisting of two Hawaiian state officials.

4. Mervyn Cloake (chairperson of the Export Certification Committee) escorted the two Hawaiian officials, and a Hawaiian beekeeper visitor, on a tour of exporters and exporting facilities. Meetings also included Dr M Goodwin and MAF RA and MAF Quality Management personnel. President Nick Wallingford joined in one of the negotiation meetings held in Hamilton.

5. Executive Secretary Harry Brown was successful in obtaining $4000 funding from the Ministry of Foreign Affairs (MFAT) to assist with financial aspects of the trip.

Korean Access

1. In late December the NBA obtained information that indicated changes to the import conditions in Korea could be possible. It was agreed to fund a visit by Mervyn Cloake (chairperson of Export Certification Committee) and Jim Edwards (MAF RA) to Korea to re-negotiate as possible to obtain better conditions for New Zealand exporters.

2. Mervyn Cloake and Jim Edwards went to Korea in early January and met with a variety of industry, scientific and regulatory personnel. They obtained some concessions related to AFB testing. They also obtained an indication that we would be able to negotiate a bilateral agreement for future exports.

Pest Management Strategy (PMS)

1. In late December the Executive Secretary notified the Disease Committee that Harry Brown would be the Secretary of the commmittee to assist in communication and liaison. Further details of the proposed Road Show were sought. Version IV of the PMS is to be modified to remove references to funding (the funding details/methods are part of the Commodity Levies application, so don't need to be included in the PMS).

2. The Disease Committee provided Version V of the PMS to the Head Office. It was distributed to branches, bee clubs and MAF officials to open the wider consultation process.

3. The committee provided a detailed programme for the Road Show, including venues, templates for advertisements, press release and information to assist in organisation.

4. Details of the Road Show venues and times appeared in the February issue of the *NZ Beekeeper* magazine.

5. Reports from the first presentations indicate reasonable numbers attending and general support for the procedures.

Trusts

1. At the December Executive meeting, it was agreed that a meeting would be called in conjunction with the Planning Meeting in March 1995 of the NBA, Apicultural Research Advisory Committee (ARAC) and the Trustees.

2. The NBA applied to the Honey Industry Trusts in late December for funding for the Pest Management Strategy development (1995 activities) and funding for the Planning Meeting to be held in March 1995.

3. The Trustees notified the NBA in late January that both of the NBA applications for funding had been successful.

Carniolans

1. The NBA President wrote to MAF Regulatory Authority in late December to ask that no importations be allowed until full industry consultation has taken place, including a vote at the 1995 Conference.

2. MAF RA responded to the NBA's December letter in January to say that the health conditions that were circulated in August were still in force, and that if the NBA had any technical information to provide it should do so immediately.

Submissions

1. Russell Berry and Ron Rowe prepared a submission to the Department of Conservation regarding proposed restrictions to be placed on siting of hives near DOC land in the central North Island.

2. Richard Bensemann prepared a submission regarding proposed introduction of *Osmia coerulescens* (Red clover mason bee).

3. Nick Wallingford prepared a submission regarding proposed imports of bumble-bees and other insects reared in Belgium.

Branch and Membership Issues

1. Hive Levy declaration forms and invoices for ordinary members were prepared and posted in late January.

2. Graham Cammell proposed a change to overseas subscription rates, eliminating air mail rates and rationalising other rates to ensure cost recovery now that there are eleven issues of the magazine rather than four.

3. Nick Wallingford prepared and produced an NBA Branch Handbook for 1995 to assist branch secretaries and presidents with dates, responsibilities and forms.

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Publicity and Press Relations

1. The NBA President prepared four press releases that were distributed to newspapers, magazines, radio and TV.

2. A variety of other interviews were conducted with radio, newspapers and magazines that resulted in articles about bees and beekeeping.

While the above cannot obviously be a full listing of all of the work carried out by the Executive members and the Head Office, I hope it will serve to keep you up to date on the activities that concern you. As Executive elections get closer, I would urge each of you to consider what sort of people you want to represent you. From the nature of the issues described, you can see how significantly beekeepers can be affected by those forces, and how important it is that your interests are well represented.

Honorary members of the NBA

The Executive at their meeting in Wellington on the 6th March unanimously agreed to confer Honorary membership on the following persons whose contribution to beekeeping is worthy of merit and note. They are:

Sir Ed Hillary	Dr P Molan
Dr J Edwards	Dr M Goodwin
Mr M Reid	

Congratulations to these persons and sincere thanks for their advice and assistance that has assisted all beekeepers.

No Cap Han Swop w/ STOP Press p 9

Honey delights top chefs and lots more

In this marketing report:

* Honey becomes a food feature of Christchurch City's Festival of Romance.
* German Scientist sees New Zealand Beekeeping and is very impressed
* How to make more from less
* Honey and herb combinations make to delight the palate
* More magic from the manuka
* New Zealand honey display looks great in Palmerston North
* Honey becomes a food feature at Christchurch's Festival of Romance

A well made sabayon is a superb dessert sensation. Sabayons are traditionally made with castor sugar but professional chef tutor Emily Cross, decided to explore the magic of marrying South Island Beech Forest Honeydew into a sabayon dish as a feature food during Christchurch's Festival of Romance.

"The result" says Emily, "is truly divine. The Honeydew added another dimension to the sabayon."

Christchurch's professional chefs are working with the Marketing Committee in looking at adventurous new ways with honey.

Last year the group helped us to categorise honeys and this year they'll be incorporating New Zealand varietal honeys into cooking classes for students. At the end of March I'll be working with the head of the Professional Cookery Unit, Dennis Taylor, in presenting a four hour honey workshop to twenty graduating chefs. The chefs will be sampling honeys along similar lines to the Sensory Evaluation Exercise we did in Blenheim last year. The second year chefs will then will be given a selection of honeys and other food products and will have to each create four recipes from scratch, prepare and present the dishes.

The exceptional value for the honey industry is that all of these young chef trainees will be going out into the marketplace and will often be looking for opportunities to use differentiated unique varietal honeys because of the skills they have learned at Canterbury.

I look forward to reporting back to you all in April and describing some of the dishes (and explaining how many kilometres around the block I have to run to get my waistline back to normal).

* German Scientist sees New Zealand beekeeping and is impressed

German honey scientist Gudrun Beckh had a marvellous stay in New Zealand. I must congratulate all those beekeepers and other people who met Gudrun and who took the time to talk with her about New Zealand. She's left New Zealand with some very, very favourable images of the New Zealand landscape, our flora and fauna, our honeys and probably most importantly, the people who make up the industry.

In particular I must thank (in order of their meeting Frau Beckh): The Brays; the McCaws; the Wards; the Berrys (and Barbara); the Clements; Mark Goodwin and especially Heather; Dr Molan; Nick Wallingford; the men from MAF Apiculture; Steve Lyttle; and all the beekeepers Frau Beckh met throughout New Zealand who made such a positive and professional impression with her.

Ted Roberts from MAF explained to me that the MAF Apicultural team spent a very interesting (and enjoyable) afternoon talking with Gudrun about certification requirements for both the German and the European marketplace; issues of vital importance to not only honey exporters but to the beekeeping industry at large in New Zealand.

* How to make more from less

One of the most important issues that faced the Marketing Committee when it was established was that its job was not to guarantee or to try and guarantee that all beekeepers would do better, but to work to achieve an environment where beekeepers could succeed or fail by their own endeavours.

Front cover caption

Dennis Taylor, head of Christchurch Polytechnic's Professional Cookery Unit with Emily Cross, chef tutor and New Zealand Honey marketing consultant, Bill Floyd.
Dennis adds a Blue borage honey and Balsalmic vinegar dressing to a salad while Emily beats up a Honeydew sabayon.
The chocloates, oils, vegetables and dips all feature New Zealand varietal honeys. The dishes were prepared for Christchurch's Festival of Romance held in February.

The amount of honey available in a season does of course have a profound effect on returns to beekeepers. Good marketing skills can insulate a beekeeper from the worst ravages of an oversupply, but to a certain extent we're all victims of the climate.

As we all know, the huge 1993/94 crop of 11,500 tonnes has now been superseded by an alarmingly low crop of between 6500-7500 tonnes (based on initial estimates).

If ever there was a time (an opportunity!) to add value to your honey crop it's this year. The price cutters will have less to play with. Don't just dollop your honey into one big light or dark blend — look to producing unique and identifiable blends (rewarewa/manuka, tawari/vipers etc, etc ... whatever suits or is possible from your locale).

"Bland blends make less bucks for the beekeeper!"

We're generating publicity about honey's unique varieties ... it's up to you to cash in on that.

* New Zealand Honeys "Defined"

These are how the professional chef team at Christchurch grouped a selection of New Zealand honeys:

Group One — Seasoning Honeys

Rewarewa, thyme, honeydew, kamahi

Group Two — Mellow Honeys

South Island manuka, North Island manuka, rata, pohutakawa, North Island clover

Continued

NZ Bee Genetic Improvement Group

A Unique Response to the Challenge

Over the past decade there have been a number of calls for a New Zealand bee breeding programme to be set up. In 1984 Dr H Shimanuki of US Dept of Agriculture visited New Zealand in response to the discovery of chalk brood. His report suggested that a breeding programme would improve hygenic behaviour in our bee stocks and he recommended that tests be developed for queen evaluation.

Dr Dennis Anderson was working in New Zealand researching bee disorders and disease and in 1987, following Dr Anderson's suggestion, the NBA commissioned Geneticist Dr Ben Oldroyd to make a independent assessment of New Zealand bee stocks. He concluded that although our bees were generally docile and adequate for commercial honey production, the lack of bee breeding effort, the market dominance of a small number of large queen bee producers, and the ban on imports combined to give the expectation of decline in genetic variability. "Without a departure from the status quo, increased incidence of disease and lower levels of brood viability are likely to occur in the future. Certainly, there can be no expectation of improvement in breeding value for the majority of New Zealand bee stock, unless there are increased efforts in genetic improvement."

Growing interest in bee stock improvement

There were a number of other developments which highlighted the growing interest in bee stock improvement. The recently established Queen Bee Producers Assoc prepared a discussion paper on quarantined importation of bee stock. Cliff van Eaton of MAF conducted New Zealand's first ever queen quality survey and following a meeting of queen producers and interested beekeepers at the 1988 Conference, Apicultural Advisory Officer Derek Bettesworth produced a discussion paper outlining relevant factors and options for a Bee Stock Improvement Programme for New Zealand.

Into this climate of concern and debate, David Yanke presented a proposal to Conference the following year for 'A Joint Beekeeper Closed Population Breeding Project'. David had emigrated to New Zealand from Canada in 1981 and had a keen interest in bee breeding. He had worked with both Sue Cobey and Steve Tabor who were in the forefront of bee breeding development in the USA and was operating a queen producing business near Kaitaia.

In 1990, in the conducive atmosphere of Rarotonga, a modified proposal was considered by the Queen Bee Producers. The Assoc resolved to support the programme but felt it would be best operated on a private basis. A follow-up meeting of interested beekeepers resulted in the appointment of a steering committee to get the programme up and running.

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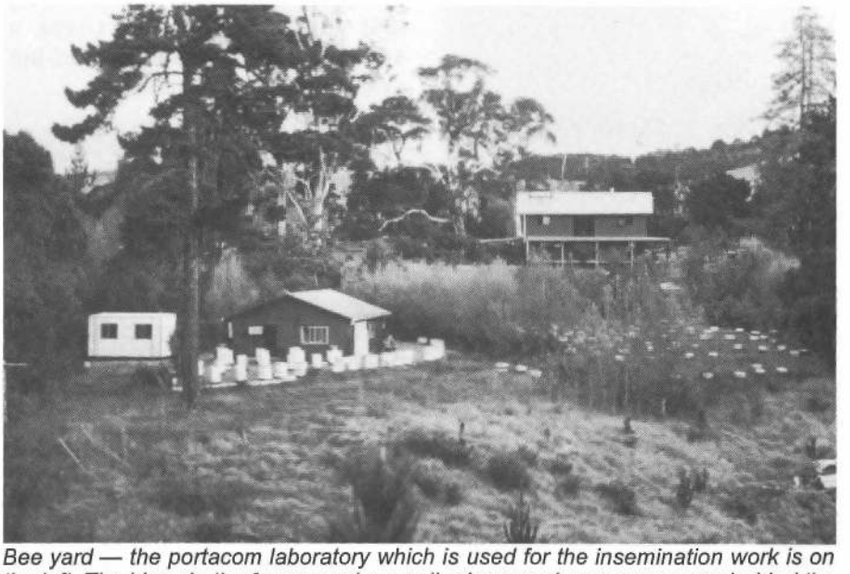

Bee yard — the portacom laboratory which is used for the insemination work is on the left. The hives in the foreground are cell raisers and queen nucs are behind the shed to the right.

Caging virgin queens for insemination — queens need to be collected as soon as they are sexually mature or they may injure themselves trying to squeeze through the excluder. They are caged very early in the morning to avoid them flying away as the hive is opened.

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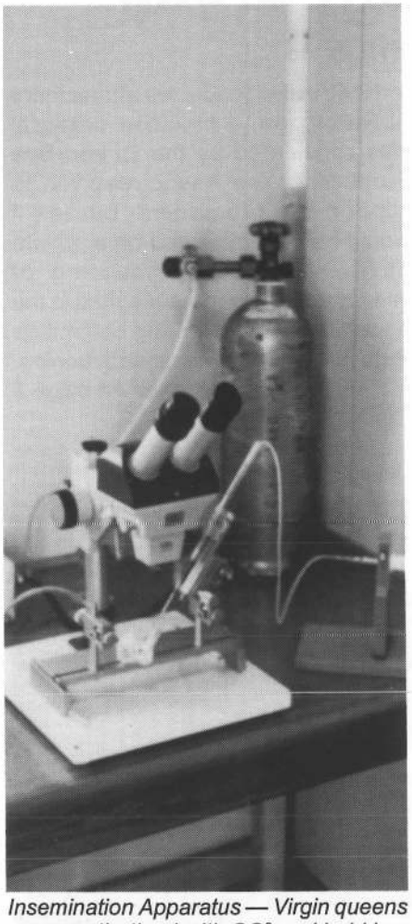


Insemination Apparatus — Virgin queens are anaethetised with CO^2 and held in a perspex block beneath the microscope. A microsyringe releases an accurate dose of semen by means of the hydraulic plunger to the right of the microscope.

Basis for genetic improvement programme

John Bassett, Malcolm Haines and Gelen Giacon put considerable work into establishing the group. A private company was formed with 25 shareholder participants and foundation stock was contributed by beekeepers from all over New Zealand. These queens became the basis for a genetic improvement programme which involves evaluation and selection by the shareholder participants and instrumental insemination of daughter queens. The programme has evolved over the four years it has been running and Chairman Malcolm Haines says there are still some points to address. "We have progressed very well as far as we've gone. There is some concern that improvement is tending to average towards the middle and that we could be taking better advantage of the overall best performing queens."

Programme Manager David Yanke is confident that the insemination programme is now working well. "The technique we use is modelled on a method developed in the mid 1980s by Tilly Künhart for the Western Australian breeding programme. The first couple of years were very much a learning experience and the logistics of rearing sufficient quantities of mature drones and virgin queens, arranging laboratory equipment and technicians and bringing everything together at the right time for one full-on week has been quite a challenge. We had problems with drone rearing last year but I think this was a seasonal difficulty and overall the system is working smoothly."

Careful evaluations are made

From a participant's point of view, the programme cycle begins in January when each shareholder receives 7-10 daughter queens to maintain and compare. Careful evaluations are made to compare the genetic characteristics of each queen. For instance brood viability is assessed by counting missed cells in a 10cm square area of unsealed brood. Any queen with a viability score of less than 85 percent is not considered further. Weight loss and overwintering ability is compared as well as general housekeeping, temperament and colour. Hygenic behaviour is rated by stabbing clusters of newly capped pre-pupal larvae with a pin and calculating the percentage of killed brood which has been completely uncapped and removed after 24 hours.

Four evaluations are carried out between April and October and the highest scoring queen selected. These top queens are returned to the Project Manager in late October to become the new breeders. Large quantities of drones (10,000 plus) and 250 virgin daughters are reared from these top scoring queens. To carry out the inseminations, semen is collected individually from the drones using large capacity syringes, pooled or homogenised in a buffer saline solution and centrifuged to separate it again from the solution. Virgin queens are anaethetised with carbon dioxide and inseminated under a microscope with special equipment. Using homogenised semen ensures that the drone genetic input does not vary between queens. Differences in progeny are therefore related to the queen input and can be selected for. Queens are re-established in their nucs and once they are laying successfully, each line is sent to their shareholder for the next evaluation cycle.

Costs are kept to a minimum

With participants conducting the selection process, costs are kept to a minimum. The Western Australian programme for instance has an annual operating budget of around $100,000. The NZ Bee Genetic Improvement Group programme inseminates a larger number of queens, from more lines within an annual budget of around $15,000.

Director and former Secretary John Bassett sees this as a distinct advantage. "The beekeeping industry in New Zealand does not have the population base to support a more elaborate scheme. Our programme is a relatively inexpensive way for participants to maintain an input of quality energetic material and being owner-operated, we are not subject to the whims of Government funding."

A long term investment

John Dobson, a participant and recently appointed Director agrees. "It's hard to put a value on the programme because it is more than a dollars for queens proposition. I see it as a long term investment in the future of New Zealand's bee stocks. It may be a relatively slow way of improving the stock we already have but without importing genetic material, which would be a lot more expensive, the improvement programme is an effective option."

Participation in the programme is seen as a long-term involvement and although shareholdings are limited to 25, as circumstances change shares are occasionally available for purchase. Some shareholdings are also held jointly. Interested beekeepers should contact the Secretary Jenny Dobson for more details. (67 Poporangi Rd, RD1, Hastings. Tel. (06) 876-0962 or fax (06) 876-4326). A shareholding is currently available and other names could be recorded on a register.

Project Manager, David Yanke says he has had a number of enquiries from overseas about the structure and management of the programme. Although there is still room for improvement and development, the

Continued on page 9

Marketing — Continued from page 6

Group Three — Sheer Honeys

Vipers bugloss, nodding thistle, blue borage, South Island liquid, clover, tawari

The chef's herb recommendations for the Honey Groups:

Group one — Seasoning Honeys:

Thyme, rosemary, mint, lemon zest, orange zest, citrus, coriander, "winter" flavours

Group two — Mellow Honeys:

Butter

Group Three — Sheer Honeys:

Rose petals, lemon balm, lemon verbena, "summer" flavours

The Marketing Committee will be using these groupings in promoting an awareness of the differences between honeys. The more we can show there are real differences the more we create opportunities for beekeepers and packers to create niche markets for themselves and add value to their honeys.

* More magic from the manuka

We have started planning the second phase of manuka honey research. This will be carried out in Hamilton, and based at Waikato University. Dr Peter Molan and his team will be exploring the findings that came from the first set of research by Niaz Al Somai, ie that although that research didn't prove that certain manuka honeys can cure stomach ulcers, people that take (what we at present call active) manuka honeys, can have their symptoms improved dramatically.

I'll be giving you a more detailed report on the research in next month's *Beekeeper*.

* Cost of information from the Marketing Committee

We're getting a number of inquiries from overseas beekeepers and honey marketers/consumers.

Please note that prices quoted in previous *New Zealand Beekeeper* magazines for reprints of information, are for New Zealand only. If an overseas reader wants information sent we need them to send instructions re airmail or surface mail options and include the costs with their cheque/inquiry.

* Price of education kits

In last month's *Beekeeper* we said that the price of the kit was $29.95 inc GST, but $24.95 inc GST for members of the NBA.

Please note that the special $24.95 price was an introductory offer and only applies for orders received before 30 April 1995.

Please add $7 for post and pack for orders within New Zealand: outside of New Zealand by arrangement.

NOTE: Education Kit enquiries direct to:

Visuals Canterbury

6 Robert Street

Lincoln

Canterbury

* New Zealand Honey display in Palmerston North

Roger and Raewyn Clarke of Palmerston North put the industry's display unit to great use at the end of last year.

The photo shows the Clarkes with a selection of their products in front of the display unit in the Plaza Shopping Centre.

If you have an important event coming up please remember to book the display unit well in advance. It's available to all NBA members; prices depend on uses and times.

Phone us on (03) 577-6103 for details.

* Oh dear .....

Cuisine magazine readers will be enjoying the honey food recipes in Annabel Langbein's feature on honey.

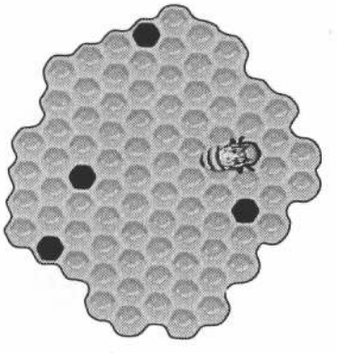
(But we're sorry the magazine used a photo of a bumble-bee in its article; and said "what an important pollinator it is" ... I'll be sending some information on honey-bees and the differences between them and bumble-bees to the editor ... but the article itself is great value for the industry!)

Regards,
Bill Floyd
for the Marketing Committee.

Swiss-bound

South Canterbury-based Honey Producers co-operative is setting out to open up a new market in Switzerland with the help of a Swiss marketing company — Kiwi Pacific. Honey Producers' general manager Steve Lyttle said honey and fruit products produced by the co-operative sold well on the export markets and honey and ginseng, honey and deer horn and similar products developed for the Asian market had proved extremely popular.

Courtesy NZPA



Continued from page 8

Directors feel the programme as it stands is good value for the participants and for the New Zealand beekeeping industry. As Chairman Malcolm Haines commented in his first annual report, "we have created a unique programme of which we can all be proud to be a part of."

STOP PRESS
Honey tops jam

A C Nielsen's supermarket statistics for spreads have been released and show that honey has had an increase in both sales volume, but more particularly in dollar value.

This means that people are starting to buy higher priced varietal honeys and that the value of honey per SE is increasing. The same statistics show that the jams and marmalades, peanut butters, and vegetable and yeast extracts had a decline on both volume and dollar values.

Full details in next month's *Beekeeper*.

Bill Floyd
New Zealand and Food Ingredient Advisory Service

Planning Meeting

The planning meeting referred to in the February issue of *The Beekeeper* was held over the weekend of 4th and 5th March in Wellington. Whilst we cannot print all of the outcomes at this time we are pleased to print details of both the Guiding Statement and the Strategic Goals agreed. The various objectives and actions will appear as a lift out section in a future issue of *The Beekeeper.*

A guiding statement encompasses both "The Vision" and "The Purpose or Mission" of the NBA and is arrived at in order to provide clear direction to all within the NBA at all times. It is the pre-eminent directional statement for all that follows and any actions or activities should always be cast with the guiding statement to the fore.

The guiding statement seeks to serve "all" the various parts of the organisation. The constructive and informed debate at the planning meeting certainly sought to do this.

The Guiding Statement:

The National Beekeepers Association will create the climate for excellence, enjoyment and profitability in Beekeeping.

Better Beekeeping — Better Marketing

The Strategic Goals are:

* To increase the level of Research and Development
* To enhance education (throughout the industry)
* More Effective Disease Control reporting
* To enhance marketing
* To ensure Effective Bee Disease Control
* To improve Export Certification and access

(remove impediments to the exports of bees and bee products)

* Enhance communications and improve Public Relations activities
* To ensure the Future of the NBA

Bee bullets to attack cancer

Bee stings may hold the key to science's long-running quest for a "magic bullet" to hunt and destroy cancer cells, toxins and viruses in the body.

Scientists at the Horizons of Science forum at the University of Technology in Sydney yesterday predicted that doctors would be using the first genetically engineered "bullets" to fight cancer within six years.

One of the main drawbacks of conventional cancer treatments is that radiation and chemotherapy can kill healthy cells. But the bullets would be able to discriminate between normal and diseased tissue.

In theory, the bullets can be made from antibodies — the molecules produced by the human body in response to foreign invaders such as a virus, a cancer cell or a pollen particle.

The antibody molecules bind to the invader and mark it out for destruction by the body's white blood cells.

For nearly two decades, scientists have been looking for a way to turn antibodies into miniature guided missiles. Researchers are now experimenting with ways to fuse antibodies to toxins or radioactive compounds that could explode cancerous cells.

One such molecule is melittinm, a tiny protein that makes bee stings painful.

The head of the pathology and immunology department at the University of Technology, Sydney, Professor Robert Ralson, told the forum yesterday that melittin was able to burst cells by breaking down their outer membrane.

The forum was told doctors could well be using the first magic bullets "well before the year 2000".

Courtesy The Australian Beekeeper

A novel treatment for snakebite and stings

Many animals have venomous bites or stings. New Zealanders have been let off fairly lightly — we don't have the usual range of poisonous animals. But we do have wasps. The following article suggests a novel, if not shocking possibility for treating wasp stings.

It has recently been proved that a most effective treatment for snakebite is to give the victim electric shocks of high voltage but low amperage, such as you get from a cattle prod or from the ignition system of a vehicle, outboard motor or motorcycle.

One of these can usually be obtained even in the bush. Treatment consists of giving several shocks, both in the immediate vicinity of the bite and between the bite and the heart. This treatment is so effective that the Amref Flying Doctor Service in Kenya now carries a cattle prod on board its aircraft in case of just such an emergency.

An advantage of this treatment, apart from its simplicity, is that there is very little, if any, necrosis of the tissue surrounding the bite.

I can cite two cases in which this treatment almost certainly saved a life: one of a young man bitten by a cobra at Island Camp on Lake Baringo, and another of a girl bitten by a carpet viper at Koobi Fora, on the shores of Lake Turkana. Both were miles from any hospital, and both survived with virtually no ill effects.

Our neighbour's dog was bitten on the eye by a spitting cobra, and was close to death when we administered the shocks from a cattle prod. Within one and a half hours the dog was on its feet, eating its dinner, and showed no signs of its ordeal.

Interestingly, we have found this treatment also works for bee, scorpion and poisonous fish stings, and we have treated a number of cases of people stung by stonefish in shallow water (we live by the sea). In two cases the victims had been stung hours before and were in severe pain, with the whole leg swollen right up to the groin. They had come long distances by canoe to reach us and were almost in a state of collapse. The electric shocks provided almost instant relief, and the swelling went down almost as we watched. Within half an hour the pain had eased and after an hour the victims could walk away unaided.

My own granddaughter, aged five at the time, was stung by a scorpion hidden in her shoe. We used the spark plug lead of a vehicle in her case, and the pain eased at once.

I have discussed this with several doctors, and none of them can say how it works, but they all know about it and in fact it was written up in the *Lancet* some time ago. It is perhaps enough that it does work, and most dramatically at that.

P.D. Hemphill
Sea Adventures
Shimoni, Kenya
Courtesy Landcare Research

Notes for Beginners and others

Autumn has arrived, in another 6 weeks hives should be ready to face the coming winter. Still some time left to do some re-queening or if there are plenty of bees and enough brood a top or nuc can be made (using a caged queen) to carry through the winter as a spare. Preferably placed above a normal large colony.

Watch out for wasps and if they are about not only safeguard the hives but also try to find the nest and root it out. Use a bottle of petrol or diesel, push the bottle neck into the nest entrance, block up any other entrances. Don't light the fuel, the fumes will do the job. Do it after dark when all the wasps have returned home. Alternatively sprinkle a tablespoon or two of carbaryl at the entrance so that the wasps will walk through it and carry it into the nest. Takes a few days to finish them off.

Make sure of adequate winter stores, replace poor equipment, cut long grass from around the hives, attend to fencing where needed. Re-read March 1994 notes. It is a year ago since we started these notes so instead of repeating the same let us have a look at something different.

How can those beekeepers survive?

There is an article in the November 1994 issue of the SPEEDY BEE reporting on a survey of colony winter losses in the states of Oregon and Washington, the Pacific N.W. of the U.S.A. This research was done by the honey-bee laboratory of Oregon State University. Returns were received from 34 commercial beekeepers (more than 300 hives) and from 48 semi-commercial people (25-299 hives). This covers about ¼ of the registered beekeepers in those two states and represented 39,405 colonies. Overall winter losses amounted to 10,305 hives or 26%.

Conservative colony replacement cost is US$100 p.h. = US$1,030,500. That is for those covered by the survey. Seeing this represented ¼ of the hive holdings and the probability that these loss figures are an average the total replacement cost to the beekeepers in these two states would be more than US$4,000,000. (NZ$6,700,000). Different causes but a major factor are the two mites: the tracheal mite (Acarapis woodi) and the Asian brood mite (Varoa jacobsoni). Staggering losses! But read on.

Remember Dr Mark Winston who spoke to us at last year's conference in Tauranga. Factual, understandable, logical and not exaggerated. I love reading his books and articles. I believe he will never make a statement which is not based on facts. In Gleanings September 1994 (Vol. 122-9) he too writes about winter losses. This time in the Fraser Valley of British Columbia (Canada). There 66% of colonies did not survive the winter. He concludes that this very high figure is due to a number of factors: an unusual bad summer season, infestation of the earlier named 2 mites and subsequent bacterial and or viral infections of the already weakened colonies. It shows that colonies which are under stress (severe in the case of mite infestation) are also susceptible to infections which ultimately will prove to be fatal. It is no different from what happens to warm-blooded animals including humans. Put them into an adverse environment, under physical and mental pressure and they will soon show the signs of extreme tiredness, lose resistance against infections of one kind or another and if conditions are not changed rapidly the bell will ring.

Now these quoted loss percentages are staggering indeed and one cannot help to wonder how any beekeeping business can survive those ordeals. Surely some will not.

I have no recent figures available as to the average winter losses here in New Zealand but it is nowhere near these dreadful figures. A fair estimate would be 5 to 7% depending on the kind of winter we experience. The reasons for our losses are: starvation, disturbance by livestock, blown over by a gale or flooded, poor equipment, robbing, failing queens, weak colonies in autumn and bee diseases resulting from stress, damp conditions and poor quality stores. Part of these losses can be avoided through sensible management at the right time. That is up to the beekeeper. We will have to put up with the occasional loss caused by severe weather conditions over which we have no control.

Let us hope that those bee plagues we are without at present will continue to leave us alone. Beekeeping for pleasure and a little profit will then be possible and we will be able to export queens and bees to the other side of the Pacific where they may desperately be needed.

Our border security service is in place but certainly is not infallible, it cannot be, so it is the beekeeper, every one of them, who has to be on guard. If anything unusual is found call in the expert, Ministry of Agriculture and Fisheries. Do it immediately.

Library News

The only new item which has come to hand is the pamphlet: THE AMERICAN FOULBROOD PEST MANAGEMENT STRATEGY AND YOU. NBA, 1995, 7 pages.

Only a pamphlet you may think but in my mind it is very important for every beekeeper in this country to sit up and take notice. It is a summary of the information and policy with regard of AFB control to be expected to come into force in the near future. This will affect all of us: hobbyist, part-timer and commercial beekeeper. A number of public meetings have been and are being held throughout the country on the subject during this and the next month (notices mailed, adverts in papers). Please try to attend one of these for your own good, take note of the pamphlets contents before. If you have not got the pamphlet ask the Exec Secretary or the librarian for a copy.

As mentioned in the February issue our two queen-rearing video tapes have gone walk-about. N.Z. Post has accepted a claim form and is investigating one and Graham Cammell (Exec member) has been asked to play Sherlock Holmes and find out about the other.

If these items don't turn up we will try to replace them. In the meantime a number of would-be borrowers and the librarian feel pretty much frustrated.

Letters

The Editor

The New Zealand Beekeeper

Research Project — Intoduction of the Honey-bee in Australasia

Can you or your readers assist me please? I am researching the introduction of the Honey-bee into Australasia. After intensive research I intend to write and publish a book of lively interest to the beekeepers and historians of Australasia and hopefully create a device to fire school childrens' interest in the vigorous and colourful 19th century events and people of Australia and New Zealand.

Over recent years I have been repeatedly annoyed by the conflicting details provided throughout national and international beekeeping literature regarding the who, when and how of the introduction of the honey-bee into Australasia.

It is commonly accepted that they first reached New South Wales in 1822. I have found clues that the first successful introduction may have occurred as early as 1810 (Rev. Samuel Marsden) or by another in 1805. I have no firm dates for the other colonies.

For New Zealand, the earliest date I have is 1839 by a Miss Bumby, the daughter of a missionary who landed at Mangunga, Hokianga. Many authors quote the Rev. Charles Cotton being successful in 1842 with his ingenious device for transporting bees from England. This was a hogshead containing straw skep beehives packed with cinders above and ice below. Another author states the bees were thrown overboard by superstitious sailors following uncommonly rough seas.

I wish to clear up these ambiguities. My research has only just commenced. The task has already taken on Herculean proportions. I would greatly appreciate any assistance that your readers may provide. All useful contributions will be acknowledged in my work.

I am also attempting to collect details on the life and work of Tarlton Rayment, a beekeeper and naturalist from Gippsland, Victoria. Born in 1886 during the renaissance of beekeeping, influenced by the famous French entomologist Fabre to study Hymenoptera, an artist, author of practical beekeeping books between 1914 and 1918, discoverer of many species of Australian native bees, a writer of beautiful prose, maker of films on bees, a prize winning novelist, an enigmatic man.

A work of his life titled *'The Melody Lingers on'* was written by Lynette Young, published in 1967. I wish to add to this story and make this talented pioneer better known to today's beekeepers. Again, any assistance would be greatly appreciated.

Yours faithfully,
Peter Barrett
1 Banjo Place
Springwood 2777
NSW
Australia
7 February 1995

P.S. Rayment born 1882, died 1964.

Random Thoughts

Now we know who's doing the work*

We've all heard of the global village. Well, suppose for a minute there was only one village on the globe and it consisted of 1,000 people.

There would be;

583	Asians
113	Africans
103	Europeans
80	whose nationality cannot be traced or who consist of thousands of very small tribes
83	North Americans
58	from the old Soviet Republics
55	South Americans
5	from Oceania of whom one could claim 1/200ths Australian nationality.

The village would have;

333	Christians (of over 150 varieties)
181	Atheists
161	Muslims
159	Hindus
86	Buddhists
56	Confucists
11	Shintoists
7	Taoists
6	Jews

Of these 1,000 people

60	(6%) would own half the wealth
500	(50%) would be short of food
600	(60%) would live in a shanty
700	(70%) would be illiterate
and 1	(0.1%) would be the beekeeper trying to find a honey flow for the remaining 999.

*** adapted from "Beekeeping & Development". Courtesy The Australasian Beekeeper**

*The only people who brag about being poor are the rich — **F.B. Medo.***

*One of the greatest pains to the human nature is the pain of a new idea — **W. Baghot.***

? Do you know ?

Winter Survival

Clarence Collison

In various areas of the country, winter can be a stressful time of the year for honey-bee colonies. Fluctuating temperatures, long periods of confinement, moisture buildup within the hive, mites, Nosema and inadequate food stores are just a few of the conditions that can impact colonies during the winter.

How familiar are you with these conditions that affect colony winter survival? Please take a few minutes and answer the following questions to determine how well you understand this important topic.

The first nine questions are true and false. Place a T in front of the statement if it is entirely true and F if any part of the statement is incorrect. (Each question is worth 1 point).

1. — Nosema is a bacterial disease that affects both larvae and adult honey-bees.
2. — Queens infected with Nosema cease egg-laying and die within a few weeks of infection.
3. — Nosema disease is transmitted within the colony by spores being spread by bees.
4. — The highest levels of Nosema infection are found in late fall.
5. — Nosema-infected bees live approximately only half as long as non-infected bees.
6. — Newly-emerged adult bees are always free of Nosema infection but are as susceptible as older bees.
7. — A larva suffering from European foulbrood has an abnormal demand for food.
8. — Dysentery is most prevalent in late winter or after periods of long confinement and is caused by improper food.
9. — The vegetative stage of Nosema apis is not infective.

Multiple Choice Questions (1 point each)

10. — Nosema infection develops mainly within the:
    A. Rectum
    B. Epithelial cells that line the mid-gut
    C. Hypopharyngeal glands
    E. Hemolymph (blood)
11. — The only antibiotic that is effective and registered against Nosema disease is:
    A. Terramycin
    B. Fumidil-B (fumagillin)
    C. Sodium sulfathiazole
    D. Streptomycin
    E. Aureomycin
12. — The fastest killing brood disease associated with a honey-bee colony is:
    A. American foulbrood
    B. Stonebrood
    C. Sacbrood
    D. European Foulbrood
    E. Chalkbrood
13. — Sacbrood is a honey-bee disease that is caused by a:
    A. Bacterium
    B. Fungus
    C. Protozoan
    D. Mite
    E. Virus
14. Dissection of adult honey-bees is the most reliable method for the beekeeper to determine if a honey-bee colony has Nosema disease. Describe the mid-gut of both a healthy and an infected honey-bee. (2 points).
15. A colony will starve in mid-winter even though there is plenty of honey in the lower brood-food chamber(s). Explain why a colony will starve if there is little honey in the upper brood-food chamber and may also starve if the upper brood-food chamber is honey-bound. (2 points).
16. Explain why more colonies die in late winter/early spring than during the coldest part of the winter. (1 point).
17. Please explain why an upper entrance for a wintering colony is desirable. (1 point).
18. Explain where you would find tracheal mites and varroa mites within the hive during the winter. (2 points).
19. Within the winter cluster, heat production and heat conservation are two important functions related to survival. Describe how honey-bees accomplish these two tasks. (2 points).
20. Explain why feeding sugar candy is preferred over feeding sugar syrup in mid-winter when a colony is found short of food stores. (2 points).

ANSWERS ON PAGE 16

From Bee Culture Magazine

This questionnaire is written for overseas conditions, not always applicable to New Zealand but it is very educational for all beekeepers and a lot of fun.

Switzerland to host the next APIMONDIA Congress 15-19 August 1995

Dear Beekeeper friends,

Only a few months to go to the great rendezvous of world apiculture among our Swiss friends and fifty-five years since the International Apiculture Congress which was held in Zürich in 1939. Despite the difficulties caused by the Second World War, it brought together 280 representatives from 21 countries. Of the participants at that time, almost all have unfortunately disappeared; however, one of them, the youngest, is still with us and I am certain that he will be pleased to be one of us.

At that time, Dr Otto Morgenthaler was the Permanent Secretary of the Congress organisation which was to become, in 1949, APIMONDIA. He was then in charge of the most renowned of the apiarian research laboratories at the Federal Station in Liebefeld and his work and those of his collaborators — Werner Fyg, Anna Maurizio et al. — enjoyed universal renown. The present Apiarian Research Section at Liebefeld, managed by Dr Peter Fluri, can also boast excellent research workers.

This past and present will attract many of you. The meticulousness and the enthusiasm of the National Organisation Committee are such that already more than 2100 people had registered by end-October 1994. We are all likewise attracted by Switzerland, which astounds us by the diversity, the grandeur and the beauty of its picturesque sights.

Finally, the most burning subjects of world apiculture — among others the apiarian economy and the future for our products — will be exhaustively discussed during this Congress.

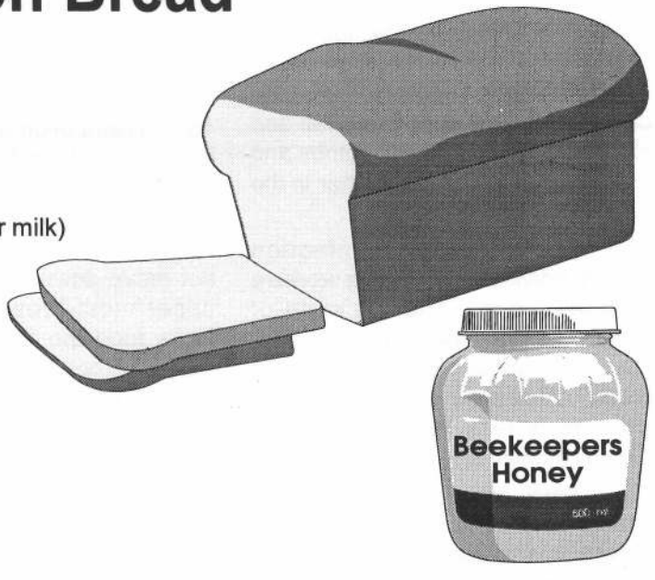
You therefore have every reason to come in great numbers to Lausanne.

We look forward to seeing you, dear friends.

Raymond Borneck, President of APIMONDIA
Details available from NBA Executive Secretary

Recipes

Bourbon Bread



1 cup unsweetened dates, chopped
1/3 cup bourbon
3 eggs
½ cup honey
¼ cup melted sweet butter
¼ cup heavy cream (or evaporated milk, half and half, or milk)
1 teaspoon vanilla
3 tablespoons brandy or cognac
½ cup raisins
1 cup chopped pecans
2 cups unbleached white flour
2½ teaspoons baking powder
½ teaspoon baking soda
½ teaspoon salt
½ teaspoon nutmeg
¼ teaspoon ground cloves

In a small bowl, marinate the dates in the bourbon for an hour or several hours. In a large mixing bowl, beat the eggs until light and thick. Add the honey and beat. Beat in the butter, cream, vanilla and brandy. Stir in the raisins, pecans and dates with the bourbon (scrape out the bourbon bowl with a rubber spatula so you won't waste any). Mix to distribute evenly. Sift together the dry ingredients and spices. Add to the liquids and fold in gently until just incorporated. Pour the batter into a buttered mould, small Bundt or Kuglehopf pan or large loaf pan. Bake at 150°C for 50 minutes or until the top feels springy and the edges are beginning to brown and shrink away from the pan. Don't overcook. Let rest in the pan for about 10 minutes before unmoulding onto a rack to cool. Store, wrapped in plastic wrap, in a cool dry place (not the refrigerator). It will keep for about 5 days. Or store in the freezer. Makes 1 loaf.

The Garden Way Bread Book
Ellen Foscue Johnson

? Do you know ?

Answers

1. **False** Nosema disease is an adult bee disease that is caused by a spore-forming protozoan *(Nosema apis)* that invades the digestive tracts of workers, queens and drones. It does not affect larvae or pupae.

2. **True** When queens become infected with Nosema disease, egg production and life span are reduced, leading to supersedure. Some queens cease egg-laying and die within a few weeks of infection.

3. **True** Spores of Nosema disease are ingested with food or water by the adult bee. Infected bees are unable to defecate outside the hive during the winter, and they contaminate combs and frames by voiding fecal matter in the hive. Wintering bees, cleaning and polishing cells to expand the active brood area during late winter and early spring, become infected as they pick up spore-laden fecal matter. The level of infection and percentage of infected bees increase while the adult population is confined during the winter.

4. **False** Nosema infection peaks in the spring of the year, because infected bees, unable to defecate outside the hive during late fall and early winter, contaminate combs and frames by voiding fecal matter in the hive.

5. **True** Nosema infection affects individual honey-bee workers in many ways. The life span of infected honey-bees is reduced, particularly under the stress of rearing brood. Often the life span of infected workers is less than half that of healthy individuals.

6. **True** Since Nosema disease affects only adult honey-bees, and spores must be ingested for the bees to become infected, newly-emerged adults are free of the disease. No differences in the susceptibility of different-aged adults has been found.

7. **True** European foulbrood disease is readily transmitted by nurse bees that inadvertently infect the larvae while feeding them. The bacterium multiplies in the midgut, destroys the peritrophic membrane and as the disease progresses, invades the intestinal epithelium. The larvae must compete for food with the rapidly multiplying bacteria, creating an abnormal demand for larval food. The nurse bees reject those larvae requiring more than the usual amount of food.

8. **True** Dysentery is manifested chiefly in late winter or after periods of long confinement and is caused by improper diet. Food which contains an unusual amount of indegestible material, such as honeydew, or too much water, will cause the problem.

9. **True** The vegetative stage of *Nosema apis* is not infective. Spores must be swallowed by a honey-bee for infection to be initiated.

10. B) Epithelial cells that line the mid-gut.

11. B) Fumidil-B (fumagillin)

12. D) European Foulbrood

13. E) Virus

14. The honey-bee midgut is normal (healthy) when it is straw-brown in colour and the circular constructions are clearly seen. In a severely Nosa infected adult, the midgut is white in colour, soft in consistency, and swollen, obscuring the constrictions.

15. Distribution of food in the hive is an important fall management consideration since the cluster moves upward during the winter. Even if a colony is starving in late winter, it will not move down to get food. If the upper most brood-food chamber lacks food the bees will starve to death. A colony may also starve if the upper brood-food chamber is honey-bound since the cluster often fails to move up and remains in the chamber(s). In this case, this lack of open cells in the upper hive body prevents the cluster from moving.

16. Late winter and early spring are critical periods for over-wintering honey-bee colonies. Consumption of food reserves increases dramatically to satisfy the needs of an expanding brood nest. Prior to extensive brood rearing, food consumption is relatively minimal.

17. An upper entrance is extremely important to successful colony wintering. While an upper entrance serves as an emergency exit when the lower entrance becomes blocked, an upper entrance is most important for reducing moisture buildup (condensation) within the hive.

18. During the winter tracheal mites are found within the respiratory systems (tracheae and air sacs) of adult worker bees and adult female varroa mites are attached to the exterior surface of adult bees. In areas where active brood rearing occurs during the winter, some varroa mites may also be found in capped brood cells.

19. The winter cluster plays a role in regulating the temperature of the brood nest as temperatures fall below 57°F. When forming a cluster, honey-bees on the surface establish an insulating shell which varies in thickness from 1 to 3 inches. The colder the temperature, the more compact the cluster becomes, reducing the surface area from which heat energy is radiated. The honey-bees within the cluster are much less compact and generate heat through metabolic processes. The heat generated within the cluster is conducted to the surface of the cluster.

20. Sugar syrup is the most common feed for bees when the weather permits easy movement of the cluster, occasional flights or when the outside temperature is above 40°F. Feeding heavy sugar syrup in the winter is not normally recommended, since it places additional stress on the clustered bees. Inversion of the sucrose and handling excess water causes problems (dysentery) for honey-bees. Therefore, sugar candy is recommended for emergency feeding in the winter.

There were a possible 25 points in the test this month. Check the table below to determine how well you did. If you scored less than 12 points, do not be discouraged. Keep reading and studying — you will do better in the future.

Number of points correct

25-18 Excellent

17-15 Good

14-12 Fair

Bee Culture.

Honeycomb Directory

Various headings will be used within this directory as required by advertisers and will include:
Beeswax, Honey, Bee Products, Woodware, Beekeepers supplies/accessories, Queens & packaging bees, Packaging Materials, FMG Insurance, Extracting services, laboratory services; Sugar supplies. The cost will be $30 per comb, per issue (with 6 or more issues at $20 per issue).

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Levin

Commodity Levy

Agricultural and Horticultural organisations in New Zealand must, from 1st January 1996, change the way in which they receive funds from members. Over the past year details of the changes to the funding, THE NEED TO HOLD A REFERENDUM OF ALL KNOWN BEEKEEPERS and how this will affect the New Zealand Beekeeping Industry has been printed in issues of *The New Zealand Beekeeper*, in various other material, discussed at many meetings of beekeepers and at the national conference and has been broadcast on the radio.

These statutory changes are the result of the implementation of the Commodity Levies Act 1990 and its amendments. This new act replaces the Hive Levies Act under which the present levies are able to obtained.

Timetable for ballot

It is proposed to hold a ballot of all known beekeepers during the latter part of April 1995. This is later than had been hoped as there has been the need for a great deal of consultation with officers within MAF, our legal advisor, and the Privacy Commissioner.

The April issue of *The Beekeeper* will have more details of the referendum however if any Beekeeper has any queries they should contact any member of the Executive whose names and contact details appear inside the front cover of each issue of *The Beekeeper*.

The National Beekeepers Association, on behalf of the Beekeeping Industry in New Zealand has over many years sought to act in the very best interests of all beekeepers in New Zealand, be they hobbyists or commercial.

YOUR SUPPORT is VITAL if we are to continue the excellent work of many within the Industry over the past years that has seen the beekeepers control disease, market their product more effectively and become an integral part of the wider land based industry whose opinion is sought and respected.

Today and into the future there will be literally dozens of actions and activities that could affect the owner of one hive ... right through to those who own thousands of hives. WE WANT TO CONTINUE TO ACT IN THE VERY BEST INTERESTS OF ALL BEEKEEPERS.

A new guiding statement was agreed at the planning conference on 4th and 5th March which clearly confirms that the NBA seeks to work diligently for all beekeepers. (Please see page 10).

Bee Craft

The official monthly journal of the British Beekeepers' Association, covering all aspects of beekeeping in the UK. Annual subscription £13.68, surface mail.

Details from the Secretary,
Mrs S White,
15 Copthorne Bank,
Crawley,
Sussex RH10 3QS,
United Kingdom.

Branch Newsletters — Providing a Focus

I've had a long interest in writing newsletters. From my first efforts as Youth Group Secretary, through various church and playgroup publications to my current job as Buzz Sheet editor, I've been 'newslettering' for almost 25 years! Over that time I've kept the same basic approach (which comes from instinct and observation rather than training) — that is to make each newsletter informative, encouraging and enjoyable. I really believe that a well presented newsletter can add a lot to any group.

From my point of view, pictures are a must. Large blocks of small type are not inspiring so I always include pictures as well as a variety of headings, frames and a familiar layout that is easy to look at. Most people 'flick' to start with and it is the visual message that sparks their interest.

Of course the contents are important too. Communicating accurate information about meetings and events has to be high on the reasons for sending a newsletter but I feel it is equally important to include material that is encouraging and enjoyable. Encouraging in the sense that your readers, be they playgroup parents or beekeepers, will feel a sense of worth in their interest; enjoyable because of a personal touch, helpful and interesting articles and humorous snippets. I like to mention people's names and I think every reader should be able to feel that they are a part of the group — even if they don't always come to the meetings.

Production wise, I worked for years on an old manual typewriter, progressing to an electric model and more recently to a computer. With the typewriter I developed all sorts of tricks to avoid retyping whole pages — mostly involving cutting and pasting and stick-on strips I could type over. The computer makes alterations and layout much simpler but it doesn't like printing to the bottom of the page, so I still use the glue-stik! I also use glue-stik for the newsletter heading and pictures, which I collect and keep in a large pocket folder and photocopy as needed.

A decent photocopier is essential — it is disappointing to you and unappealing for your readers to be presented with a scruffy end result.

All of the above determines whether or not a newsletter is readable — if it isn't you might as well not have bothered. If it is readable and interesting, a newsletter can provide a focus to your branch, encourage members to join in and help people feel part of the wider beekeeping community. It's also a fun hobby — if beekeeping isn't your only interest!

Jenny Dobson
Hawke's Bay Branch

Classified Advertisements

Available only to registered beekeepers selling used hives, used plant, and any other apiary equipment, and those seeking work in the industry. $15.00 for 25 words (inclusive of G.S.T.) payable in advance. No discounts apply. No production charges. Maximum size:1/6 page. No box number available.

For Sale

250 hives on site or removal — Putaruru area. Other assorted equipment including:

Full depth supers, bottom boards, lids and drip trays.

Also a hitchhiker forklift in excellent condition.

Contact: Sandra Mentjox, Phone (07) 883-8135

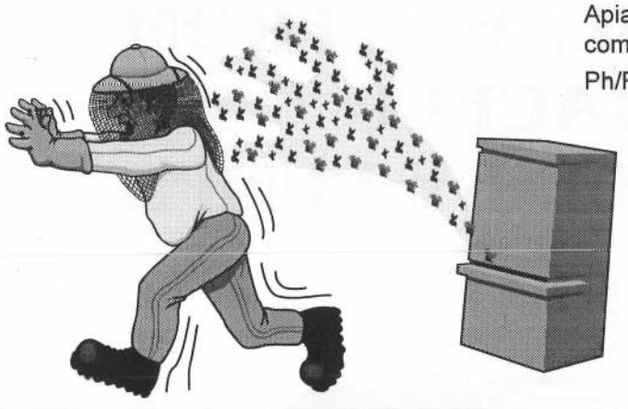
250 Beehives in good condition with winter stores on extensive beech honey dew sites

North Canterbury

Price negotiable

Also extracting plant, diesel truck and miscellaneous Apiary equipment including new pollen traps and cut comb gear available optionally.

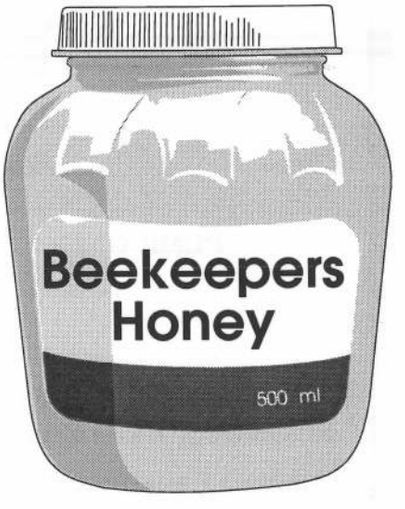
Ph/Fax (03) 384-1162



NZ Bee Genetic Improvement Group Ltd

Shareholding currently available

For more information contact the Secretary
Jenny Dobson, R.D.1., Hastings
Telephone (06) 876-0962 or Fax (06) 876-4326



DIARY DATES

1st day of each month — deadline for copy for the *NZ Beekeeper.*

April 17	Nominations to be notified for Executive elections
May 9 & 10	National Executive meeting
May 17	Nominations close for Executive
May 26	Voting forms posted out
May 29	Last date for remits and rule changes
June 17	Voting forms to be received by returning officer
July 10	National Executive meeting
July	AGM & conference see dates in advertisement
Sept 5 & 6	National Executive meeting
Dec 5 & 6	National Executive meeting

Apimondia 26th International Beekeepers Conference, Vancouver, Canada, 13-21 September, 1999.

Switzerland ?

Meeting

"The next meeting of the Canterbury Branch will be held on Tuesday 28th March at 7.30pm at the Merivale Rugby rooms, 290 Wooldridge Road, Christchurch."

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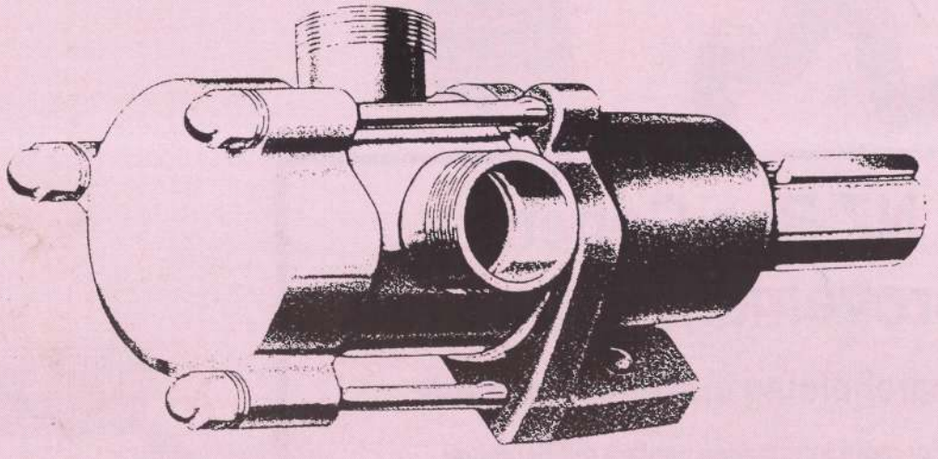

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Beelines Supplies	5 Donald Street, Kaikorai, Dunedin	Phone: (03) 474-1427
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