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Notes from the President

This issue of the New Zealand Bee Keeper will not be in beekeepers' hands until after the Annual Conference in Christchurch. It is difficult to decide on a relevant topic this month, as many matters will have had considerable discussion by the time you read these notes.

I have always had an interest in the history of the NBA. During the last

year I have started on yet another project, trying to compile and organise some of the facts and statistics of our industry. The initial idea changed considerably, and the full completion looks like one of those 'impossible tasks'. I would, however, like to provide a part of it rather than my own writing this month.

The material that is on pages eight

and nine were collated from back issues of the *New Zealand Bee Keeper*, back to Vol 1, No 1. I'd be pleased to be notified of inaccuracies, as I haven't taken the time to provide this to people who I know could check my work.

> Nick Wallingford NBA President

Honey research earns MBE

The letter was addressed to 'The Honey Doctor, University of Auckland', but eventually reached its intended recipient, University of Waikato Associate Professor in Biochemistry Dr Peter Molan. It was an enquiry about using honey as an antiseptic - one of several letters received by Dr Molan each week and an indication of high interest in his research. Research that has just earned Dr Molan an MBE in the Queen's Birthday honours - and which continues to reveal the important medical and veterinary properties of honey.

Evidence which could be important to our livestock industry as well as our health. For example, laboratory tests showing that honey is effective against mastitis. Dr Molan points out that animals treated with honey for bacterial infections carry no risk of being rejected by exporters sensitive to traces of antibiotics in meat. The next stage is for clinical trials to be carried out under veterinary controls.

Clinical tests on the effectiveness of honey as a treatment for wound infections are likely to be undertaken by Waikato Hospital later this year.

The New Zealand honey industry also is thrilled that Dr Molan's work on New Zealand honey has been recognised with an MBE. According to the Honey Food and Ingredient Advisory Service, the commercial value of New Zealand manuka honeys has doubled in the last two years, with his work creating a positive attitude towards New Zealand honeys per se. "The potential benefits to medicine obviously outweigh these commercial activities but the fact that he is providing benefits to the industry on two fronts shows the exceptional value of his work to us," says spokesperson Bill Floyd.

Meanwhile laboratory research into honey continues to confirm the wideranging anti-bacterial effectiveness long claimed within folklore. A current project, funded by a Honey Industry Trust Research Grant, is revealing that all species of the gastro-enteritis bacteria are sensitive to honey - it means a spoonful of honey could be effective medicine against those stomach bugs. Another project, undertaken this year for a Master's thesis, has tested the sensitivity of the skin fungi, (Tinea, of which Athletes Foot is one type). Again all of the fungi proved to be sensitive to honey.

Earlier research has shown sufferers of burns, stomach ulcers and infected wounds can also expect relief from certain types of honey. (All honeys contain the anti-bacterial substances hydrogen peroxide, some honeys particularly manuka — also contain an unidentified additional antibacterial agent. These "active" honeys can be identified by simple laboratory tests — a service offered by the University's biochemistry laboratory that is in high demand. A large amount of the certificated honey is exported.) For Dr Molan, his honey research is one component of a wider field of research into anti-bacterial substances. During the past three years he has been on secondment to the Tatua Dairy Company investigating the extraction of antibacterial proteins of fresh milk.

Further work, in collaboration with the Livestock Improvement Corporation at Newstead, is investigating the antibacterial properties in bull semen. This could have implications for the preservation of sperm for artificial insemination.

We acknowledge the use of this article reprinted from "ON CAMPUS", the Journal of Waikato University; editor Jenny Elliott.

Congratulations Dr Peter Molan MBE

All associated with the Beekeeping Industry will be pleased to note the award of the MBE by Her Majesty Queen Elizabeth, to Dr Peter Molan of Waikato University for his and his team's work within the area of honey and its properties. Other articles appear in this issue of *The New Zealand Bee Keeper*. Congratulations Dr Molan this award is well deserved.

Front cover

Dr Peter Molan MBE, Research Assistant Nicolette Brady and Technical Officer Kerry Allen. Photograph — courtesy Waikato University

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* Honey Researcher Awarded MBE

Dr Peter Molan's receiving the MBE is a marvellous reward to him for the many years that he has put into researching New Zealand honeys. When I was first engaged by the Honey Industry Marketing Committee member Sue Jenkins and I spent a day with Peter at Waikato University getting background information on his research. It was an invaluable exercise and it's interesting to note how research results now are totally supporting many hypotheses that Peter had back then.

The publicity that the New Zealand Honey Industry will gain from Peter's MBE should not be under-estimated. The Auckland Herald, for example, is arranging a major feature on New Zealand honeys and the research into their nutraceutical values.

All in all great news for us as an industry. Talk to anyone in the honey industry who has met with or worked with Peter and they will say to you "it couldn't have happened to a nicer chap."

Congratulations Peter! It's great to see the good guys win sometimes.

* Honey Research Unit

We have just been advised (as at end of June) that the New Zealand Honey Trust has approved our application for funds to finance a Honey Research Unit at Waikato University.

The Marketing Committee will be managing the Unit and working with Dr Molan, Professor Alister Wilkins and other researchers at Waikato in creating opportunities for honey.

What particularly thrills me in working with the people at Waikato is that they are keen to work on projects that create commercial opportunities for the New Zealand Honey Industry. They may live in an academic environment but they certainly have a practical businesslike attitude towards creating increased profits for beekeepers when it comes to selecting projects.

I believe that the Honey Research Unit will be the most important strategy that the Marketing Committee has been able to introduce.

We will be in a position to take research findings to major New Zealand companies and thereby create successful products that include New Zealand honeys.

* The New Zealand Domestic Market

The price of honey has remained high despite the large crop in 1994. That's great news but we have to get honey positioned so that the price is less of a kneejerk reaction to seasonal oversupplies.

Our marketing strategies are starting to bite in and I believe that over the next three years we will see a significant uptake in the use of honey by New Zealand manufacturers. This will help to absorb abnormal seasonal surpluses.

At the same time as we get honey absorbed by New Zealand food and beverage manufacturers, the pioneering research work being done by Waikato on manuka honey will continue to create international demand for our honeys per se. I believe a number of honey packers will start to aggressively develop export markets for themselves again helping to soak up surpluses.

It's also very pleasing to see the development of varietal honey retail packs in the supermarkets. The ubiquitous blends are still there and always will be. But consumers are now being given an opportunity to buy what I would term "treat honeys", is higher priced attractively packaged mono floral and floral blend honeys and this has to be good for the industry as a whole.

* The Honey Marketing Committee

Over the last four years I have been working with a representative group of beekeepers which make up the honey Marketing Committee. The Committee is Allan McCaw (Chairman), Graham Cammell (NBA Executive representative), Sue Jenkins, Neil Stuckey and Peter Bray: plus co-opted members, Barbara Bixley and Steve Lyttle.

I believe that the committee has worked very well together and as this is the end of the "year" in terms of executive appointments and the like, I'd like to record my thanks to them all.

I have been able to tap a huge resource of knowledge and talent through the members of the committee and that's been a key element in the success of our marketing strategies.

Blends Versus Mono Floral

A key strategy in our industry Marketing Plan is to develop the demand for New Zealand's unique mono floral varietal honeys. There are a number of reasons for this.

It is the most effective way of in effect de-commoditising honey as a product: and giving beekeepers the opportunity to differentiate their own product, add value and therefore profit.

Having said that, I know that a number of beekeepers feel disadvantaged by that strategy because they are not in a position to produce a pure mono floral honey in their hive catchment areas.

I don't think that has to be a negative and it is probably time to admit now that I an a "closet blend man".

I've been experimenting with making up blends of honeys that have differing flavours ... right now I'm into a Kamahi/Rewarawa ... getting a full rounded flavour that isn't just sweet, it's quite complex and moreish!

There has to be opportunities for beekeepers/packers to create specific blends. These blends can cover any (minor) faults in one of the varieties used.

This is no different to a winemaker adding Bemillon to his/her Sauvignon Blanc wine ... after all, at the end of the day it's what the customer likes that counts.

Skilled blending of honey types here is "skilled". Beekeepers should look to developing unique flavours from a

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combination of honey varieties and then be able to replicate that package of flavours time after time so that consumers can look forward to getting their favourite again and again.

"Chuck and chance" blends cannot expect the same returns as a carefully structured/planned blend.

* Cows Eating Honey?

Not quite. But you will be pleased to know that Dr Molan is currently researching the concept of using honey to our mastitis in cows and the indications are that the concept will work. This could have significant benefits to the New Zealand meat industry because drug residue in meat is a major problem.

* The Old "Sugar is Honey" Argument

When I started working for the honey industry four years ago a nutritionist told me that honey is simply sugar. I intuitively felt they were wrong but knew that it was not enough to scoff at them — we had to counter that statement with facts.

The information that's now coming into the marketplace from Dr Peter Molan and other researchers is showing the absurdity of the statement.

Honey has a myriad of nutritional values and I personally am convinced that there is an amazing future for our product!

But all the added values and profits will go to others in the marketplace (processors/packers/agents/ retailers) if beekeepers don't act as a group and ensure that as the producers they get to keep their share!

I look forward to you arguing the merits of that argument with me at conference!

Regards Bill Floyd Marketing Committee



To all MAF Stakeholders

On 1 July this year, the Ministry of Agriculture and Fisheries will split into two separate ministries: an agriculture ministry and a fisheries ministry.

At the same time, MAF Quality Management (MQM) will be internally separated within the agriculture ministry.

The new agriculture ministry is simply to be known as the Ministry of Agriculture, but will continue to use the current MAF acronym and current logo. This decision was made because the MAF acronym and logo are widely recognised as representing integrity and reliablity in New Zealand's important overseas export markets.

It has taken a lot of work over a number of years to establish the international recognition and reputation the MAF acronym and logo enjoy, and it would take considerable time and effort to re-establish that level of recognition if we changed them. Retention of the current MAF acronym and logo also emphasises to our trading partners that food safety and export quarantine certification procedures have not been subject to change within the new Ministry.

New Zealand's agriculture and fisheries are widely recognised as being the best managed and most efficient primary production industries in the world. Over the years, the staff of the Ministry of Agriculture and Fisheries have made a significant contribution to the achievement of this position, and I expect this contribution to continue under the new structures.

Yours sincerely

Russ Ballard, Director-General, Ministry of Agriculture, Larry Fergusson, Group Director, Agriculture Policy, Andrew McKenzie, Administrator, Regulatory Authority, Derek Breton, General Manager, MQM.



Election results for Executive

The successful candidates in the recent election for members of the NBA Executive are:

Russell Berry, Terry Gavin and Warren Hantz.

The Executive for the coming year will comprise:

Richard Bensemann; Russell Berry; Terry Gavin; Warren Hantz; Keith Herron; Nick Wallingford.

Carniolans The Debate Continues

After reading Mervyn Cloake's article in the June 95 issue of the Beekeeper. I felt compelled to respond in an effort to bring some balance back into the debate. If somehow I can be successful in bringing the debate back on to an even keel, then I am asking you to start from this neutral position, read the available literature, find out who the experts are in this field and seek their opinions. That is the logical process to follow in finding the facts of the matter, and that is exactly the process MAF Regulatory Authority followed when developing the Import Health Standard for the importation of Carniolan semen. After the submission process was completed, they took the concerns of the industry on the matter very seriously, but an extensive search of all available literature could find nothing to support those concerns. They then put those concerns to Prof. Alfred Dietz, Prof. Dr. Friedrich Ruttner, Prof. Koeniger, and to Dr. Thomas Rinderer. All were unanimous in saving that there was no valid biological reason for preventing the importation of Carniolans into New Zealand MAF allowed me to make those responses available to the industry at conference last year. Your branch secretaries should have copies.

I would like to respond to Mervyn's article by working down the articles list of reasons why we would not import Carniolan genetic material.

1. That there is a risk of importing bad genetic material.

I am not sure what exactly is meant by this, but if the inference was to the risk of an accidental introduction of Africanised Honey Bee genetic material then I suggest consulting the Import Health Standard to put minds at ease. If the reference was to the introduction of undesirable European genetic material, then only the importer has anything to fear, for they would have invested a lot of time and money and ended up with nothing worthwhile to work with. To reduce this task, the semen for the proposed importations is being sourced from a world renowned institute in Oberusel, Germany. At the institute, Carniolans have been maintained in a closed population breeding programme set up by Prof. Dr. F. Ruttner many years ago. Stock selection is based on racial characteristics, with very significant on going stock improvement being well documented. 2. It will be difficult to maintain the stock we have.

Mervyn would have us believe that there is only one race of European Honey Bee in New Zealand, and that a bi-racial situation would make stock maintenance very difficult. The truth is that we are already bi-racial. The situation now is that we have Apis m. mellifera (Black Bees, better known as the Dark European Honey-Bee) and Apis m. ligustica (Italians) and their hybrids making up our present bee stocks. We are already living proof that a multi-racial situation need not disadvantage anyone, but instead offer choice and opportunity. I run my Queen breeding business in a small valley surrounded by large areas of bush, and I am very much out gunned numbers wise by feral mellifera colonies, yet I produce large numbers of ultra-yellow, gentle, Italian type Queens. If I can do this in a narrow valley barely 6km long, surrounded by hordes of nasty mellifera drones which have a distinct apparent mating advantage over other European races, then many other beekeepers in many other parts of the country can do the same with whatever race they choose to run. No one can inflict Carniolans on you if you do not want them. When it comes to stock selection, you are the master of your own destiny.

3. Not being able to maintain pure Carniolan lines.

The article stated, "There are no beekeepers in New Zealand with the facilities to maintain a pure line of Carniolans." This statement is not true. I am Project Manager for a closed population breeding programme working with Italian type bees, and it is my intention to do the same with Carniolans. Even without the use of instrumental inseminations, beekeepers could easily maintain Carniolan type bees by using the same techniques we use now to keep some of our bees beautifully yellow. You have to put effort into drone rearing, nuc yard placement, and selections based on measurable racial characteristics, but it can be done and is being done by

many beekeepers around the world.4. Having uncontrolled crosses with unpredictable results

As I have already said, there are already two races present in New Zealand. We have one of the best in ligustica (Italian), and without doubt, the worst in mellifera (Dark European Honey Bee). Very little good can be said about mellifera, except that it is a survivor. It can be found in many feral populations in different parts of the country as true to race as it was the day it came off the ships last century. In evolutionary terms it is more closely related to the African races than it is to the other European races after having crossed into Europe from North Africa over an ancient land bridge that existed at Gibraltar. It gives other dark bees a bad name. It is nervous, nasty and susceptible to brood diseases, and yet we all live with it, and even choose to run its hybrids to varying degrees in our outfits. The reason some of us tolerate these touchy hybrids is because they offer us degrees of hardiness not found in Italian type bees. The truth is that the worst and most vicious European racial hybrids result when you cross mellifera with any of the other European races. When you have vicious racial hybrids, mellifera is almost always the culprit. Carniolans and Caucasians often cop a lot of criticism which should have been directed at mellifera simply because they are dark. What I am trying to get across is that we already

Continued from page 6

have the worst European race there is, so why is there such a fuss about introducing one of the two best honey bees on this planet. Carniolans and Italians evolved as neighbours in South eastern Europe and are as a result very closely related. The Carniolan has been described as the grey version of the Italian. The subtle differences in behaviour that you find between these two races have resulted from the Italians evolving in a mild, forgiving Mediterranean climate while the Carniolans became what they are by adapting to the more severe mountain and continental climate to the north and east of their Italian cousins. Both are generally guiet and gentle, and both have bood production potential. Their differences are most obvious in winter hardiness and spring development. Carniolans are much more winter hardy than Italians.

Carniolans explode away in the spring once conditions become favourable. while Italians stop brood rearing later in the autumn and start earlier in the spring with a more gradual build up. The Carniolans are more resistant to brood diseases and to the parasitic mites than the Italians. They definitely drift and rob much less than Italians. Swarming is said to be the Achilles heel of the Carniolan, but in a paper published by T Rinderer, it was found that the Italian stock in the trial actually swarmed more than the Carniolans. The spring population explosion in Carniolans does require well timed spring management to help control swarming.

The first cross of F1 Carniolan and Italian hybrid is a very good one, and in fact trials have shown that production can be more than 150% greater than the best parent. But hybrids whether they be plant or animal do not make good breeding stock, because hybrid vigour is not heritable. Mervyn's article says that the subsequent crosses are unpredictable which is true, but it would be true of any hybrids. It is certainly not peculiar to Carniolans. If you are going to run racial hybrids, then the breeding stock you use still has to be maintained true to race. Running F2 and F3 crosses is Bad Beekeeping.

The article posed several questions for which there were no answers, and they left me begging to ask the obvious. Isn't it worth at least having a look? Carniolans are good bees and they have the potential to offer a great deal to our gene pool and to the marketing of our live bee exports. Virtually every country which practices modern beekeeping uses imports of genetic material as the fastest and most effective way to improve their bee stocks, except New Zealand. If you want to think of something really scary - what if every country adopted our industry's attitude to bee imports.

It is a pleasure to print the recent grants from the Industry's Trusts.

Grants

- (a) Waikato University Honey Research Unit
 - \$20,000p.a. for three years APPROVED
- (b) Landcare Research
- Wasp ecology and control
- \$7000
- DECLINED
- (c) Telford Scholarships ---
 - As previously advised the Trustees have agreed to fund scholarships totalling \$2000p.a.

They take the form of \$500 each term and an annual award of \$500.

Please note that the introduction of a four (or more) term year will not affect the quantum of the grant!

As previously agreed with Mr Lyttle, these scholarships are not a form of Social Welfare to assist needy students but should be awarded on merit. If there is no student considered suitable, no award will be made.

It was also agreed that the Trustees would be represented in the selection process by Mr I.J. Dickinson.







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Year President	Vice President	National Executive	Conference	Venue	Opening
1968 Don Barrow	George Winslade	Bruce Forsyth, Fred Bartrum, Terry Gavin, Ivan Dickinson	Hamilton	Red Cross Hall	DJ Carter, Under Secy for Min of Agric
1969 Don Barrow	George Winslade	Bruce Forsyth, Fred Bartrum, Terry Gavin, Ivan Dickinson	Invercargill	RSA Hall	Hon BE Talboys, Min of Agric
1970 Bruce Forsyth	Ivan Dickinson	Bob Blair, Fred Bartrum, Robin Jansen, David Penrose	Auckland	RSA Hall, Takapuna	AD Dick, Parl Under Secy for Min of Agric
1971 Bruce Forsyth	Ivan Dickinson	Fred Bartrum, Mervyn Cloake, Robin Jansen, Ernie Whalley	Greymouth	St Johns Ambulance Hall	AD Dick (Parl Secy to Min of Agric)
1972 Ivan Dickinson	David Penrose	Jasper Bray, Mervyn Cloake, Malcolm Haines, Ernie Whalley	Kaitaia	Kaitaia College	A D Dick, MP (by phone link from Wgtn!)
1973 Ivan Dickinson	David Penrose	John de Wit, Mervyn Cloake, Dudley Lorimer, Malcolm Haines	Nelson	St Mary's Hall	Bruce Barclay, Under Secy to Min of Agric and Fisheries
1974 Ivan Dickinson	Percy Berry	Gavin McKenzie, David Penrose, Michael Stuckey, Malcolm Haines	Palmerston North	Fitzherbert Motor Inn	Bruce Barclay, Under Secy to Min of Agric and Fisheries
1975 Ivan Dickinson	Percy Berry	Mike Stuckey, Ray Robinson, Tony Clissold, Gavin McKenzie	Timaru	Seven Oaks	Bruce Barclay, Under Secy for Lands and Agric
1976 Percy Berry	Mike Stuckey	Ray Robinson, Tony Clissold, Ivan Dickinson, Gavin McKenzie	Taupo	Senior Citizens Hall	J B Bolger, Under Secy to Min of Agric
1977 Percy Berry	Michael Stuckey	Ivan Dickinson, Keith Herron, Ray Robinson, Tony Clissold	Dunedin	Northern Oaks Hall	J H Elworthy
1978 Mike Stuckey	Paul Marshall	Percy Berry, Tony Clissold, Mervyn Cloake, Ivan Dickinson	Hastings	Angus Motor Inn	
1979 Paul Marshall	Mike Stuckey	lan Berry, Tony Clissold, Mervyn Cloake, Steve Lyttle	Christchurch	Russley Hotel	R L G Talbot (Under Secy for Min of Agric)
1980 Paul Marshall	Mike Stuckey	lan Berry, Tony Clissold, Mervyn Cloake, Steve Lyttle	Tauranga	Willow Park	I G Forbes (for R L G Talbot)
1981 Tony Clissold	Mike Stuckey	lan Berry, Paul Marshall, Mervyn Cloake, Steve Lyttle	Queenstown	Lakeland Inn Hotel	R L G Talbot (Under Secy for Min of Agric)
1982 Tony Clissold	Mike Stuckey	lan Berry, Tony Lorimer, Mervyn Cloake, Steve Lyttle	Waitangi	THC Waitangi	M Gould (Asst Dir Gen, MAF)
1983 Ian Berry	Allen McCaw	Tony Lorimer, Dudley Ward, Tony Clissold, Mervyn Cloake	Nelson	Rutherford Hotel	D L Kidd
1984 Ian Berry	Allen McCaw	Tony Lorimer, Dudley Ward, Keith Herron, Gavin White	New Plymouth	Devon Motor Lodge	John Scott, Dep Dir of Adv Services, MAF
1985 lan Berry	Allen McCaw	Tony Lorimer, Dudley Ward, Keith Herron, Gavin White	Greymouth	Kings Motor Hotel	David Butcher (Under Secy for Min of Agric)
1986 Allen McCaw	Gavin White	lan Berry, Tony Lorimer, Dudley Ward, Keith Herron	Rotorua	Travelodge Rotorua	David Butcher (Under Secy for Min of Agric)
1987 Allen McCaw	Gavin White	Stan Young, Tony Lorimer, Dudley Ward, Keith Herron	Christchurch	Avon Hotel	David Butcher (Under Secy for Min of Agric)
1988 Allen McCaw	Gavin White	Stan Young, Gerard Martin, Dudley Ward, Keith Herron	Auckland	Airways Motor Inn	Ralph Maxwell (Under Secy to Min of Agric)
1989 Allen McCaw	Gavin White	Nick Wallingford, Gerard Martin, Dudley Ward, Keith Herron	Dunedin	Pacific Park Hotel	Mike Moore, MP
1990 Dudley Ward	Gerard Martin	Nick Wallingford, Allen McCaw, Frances Trewby, Keith Herron	Rarotonga	Edgewater Hotel	Hon Vaine Tairea MP
1991 Dudley Ward	Gerard Martin	Nick Wallingford, Michael Wraight, Frances Trewby, Keith Herron	Blenheim	Blenheim Country Lodge	Doug Kidd, MP
1992 Dudley Ward	Frances Trewby	Nick Wallingford, Gerard Martin, Michael Wraight, Richard	Hastings	Angus Inn Motor Hotel	Jeff Whitaker, MP
1993 Francis Trewby	Richard Bensemann	Bensemann Graham Cammell, Russell Berry, Gerard Martin, Mervyn Cloake	Gore	Croydon Lodge	Margaret Moir, MP
1994 Nick Wallingford	Richard Bensemann	Graham Cammell, Russell Berry, Mervyn Cloake, Keith Herron	Tauranga	Willow Park	Ross Meurant, MP

Notes for Beginners and others

Most of us possess some kind of motor vehicle and very few do not know at least the basics of what makes the internal combustion engine function. Parts s.a. spark plugs, cylinders, bearings, wiper blades etc are not a great mystery. It is surprising though that many a beekeeper knows very little about the make up of a bee's body. It is surely of importance to understand a little of what makes the creatures tick if you want to do a proper job in a well reasoned out and logical way as a keeper of bees.

Do you know that the bee has 5 eyes? Yes Sir/Madam five.

The two 'main' ones are the compound eyes on the side of the head, the three others are the ocelli positioned more or less on top of the head.



The ocelli are simple single lens eyes which are thought to act as light intensity detectors but do not produce an image.

The compound eyes are a very different price of ingenuity and are the main organs of vision. Such an eye is composed of thousands of tiny eyes named ommatidia. Imagine a hedgehog with all its pricks close together but each facing in a slightly different direction. In that way the hedgehog is well protected. The ommatidia placed in kind manner can together cover a well spread out field of vision.

The compound eyes of queens, workers and drones differ as to the number of ommatidia. Approximately 4000 for queens, 6500 for workers and 8500 for drones. Drone ommatidia are also larger. (They got to be able to make 'big eyes' at those virgin queens!).

Each ommatidum transmits its message via a rather complicated system to the brain and the bee 'sees'. It is not known what kind of image is produced by each single ommatidium or by the total complex of the compound eye. There is no doubt however that the insect eyes are very different from the human eye.

However a good few facts are known and a number of them are valuable when it comes to the practical management of bee colonies.

A bee can recognise country sights with which it has been familiar (orientation flight, landmarks, antidrifting positioning of hives).

It can see colours (see Beginners Notes May '95 *New Zealand Bee Keeper*), not red but it does see ultra violet, which the human eye cannot. It may visit red flowers, which it sees as black or grey but the petals often reflect the U.V. light and so the flower becomes attractive.

A pure white flower may not show any nectar guide markings to us but these are present probably in U.V. which will register in the bee's eyes.

Bees also register movement at a much higher frequency that we do. About 300 p.sec. for the bee against 50 p.sec. for us. They seem to be more attracted to flowers moving in the wind than to those standing still.

The eyes are also sensitive to the polarization of light which the human eye cannot detect without the aid of certain crystals s.a. in polaroid plastic. (Waves coming from a light source vibrate in all directions, passed through a certain kind of crystal the emerging waves vibrate in parallel planes which are called polarized. Light from an electric bulb is not polarised). This ability to detect polarized light has a lot to do with orientation and communication (Bee dance).

Bees are able, to a certain extent, to differentiate between shapes. Again of practical value when one thinks of a large concentration of hives such as found in a mating yard.



They can discriminate between the shapes in the top and bottom rows shown in this diagram but not between those within a single row.

What about marking those nucs?

The vision of the honey-bee is indeed another example of how well nature has endowed our insect friends with senses to monitor their particular environment and to adapt over such a wide range stretching from near the Arctic circle to Stewart Island.

Ref.: H A Dade, Anatomy and Dissection of the H.B.; R Morse & T Hooper, Encyclopaedia of Beekeeping.

Leadership and Teamwork as printed in the Southern North Island newsletter ...

When geese fly in formation, they travel about 70% faster than when they fly alone. Geese share leadership. When the lead goose tires, he (or she) rotates back into the "V" and another flies forward to become leader.

Geese keep company with the fallen. When a sick or weak goose drops out of flight formation, at least one other goose joins it to help and protect.

By being part of the team, we too can accomplish much more, much faster. Words of encouragement and support (honking from behind) help inspire and energise those in the front lines, helping them to keep pace in spite of the day to day pressure and fatigue.

There is an excellent book on this subject too depicting the difference between Geese and Buffalo ... when the lead Buffalo was shot all the other buffalo would stand around and wait to be led again ... and so they were easy prey and were decimated ... Geese on the other hand share the lead etc ... as in the story above ... Maybe we could learn a thing or two from the Goose?

Letters to the Editor

Dear Sir,

I have written to you some time ago seeking out "Thin foundation wax", Thank you for helping me, Petter Lyttle was great help. Right now I'm again asking you for some help. I've read recently in a Beekeeping book by the Victorian Department of Agriculture, that beekeepers in New Zealand use elevated wire floors that allow light to penetrate to control wax moth with flywire sides, top and bottom with frames stacked inside. Do you have any sketches, photos or any sort of information on this nonchemical method of wax control. I would greatly appreciate it.

> Graham P. Smith P.O. Box 72 Margaret River West Australia 6285 Or fax: Leeuwin Computers 09-757-3901

Editor's request

If any reader can supply Graham Smith with what he is seeking please contact him direct.

> Thank you Ron Rowe

Dear Mr Rowe,

You probably do not know me but there are a few old hands still there who will remember me. Shortly after starting to be a beekeeper about fifty years ago, I realised the need for reading matter and suggested to my branch that a library would be a good idea. They took up the idea with enthusiasm and suggested a National Beekeepers' Library. I was deputed to head the project and soon afterwards the scheme was floated. The suggestion that a pool of funds could be created by members becoming Foundation Life Members was accepted and when an invitation was given to beekeepers to become Foundation Life Members, Harry Cloake headed the list and a healthy list of others followed. The National Association at an annual meeting, agreed to the project and thus the project was floated. I was the first librarian and carried on for fifteen years. John Heineman was my successor who has skilfully carried on ever since. Now I come to the reason for this letter. The list of Foundation Life Members has never, to my knowledge been published. Would the magazine be interested in publishing this list and acknowledging the part this group of men played in the establishment of the library? I, personally, would like to see the list published and my thanks added because, without their help, it would not have been possible.

I look forward to hearing from you.

Yours sincerely Chris Dawson 13A Charles Street Rangiora North Canterbury

Editor's reply

Thank you for your letter Chris, Yes! I am sure that readers would be interested in the list of Foundation Life Members. I would be pleased to receive that list so that it might be published.

Ron Rowe

Dear Mr Rowe,

May I congratulate you on the high standard you maintain in our magazine. Layouts are good, printing is excellent and the subject matter is such that I read it through with considerable interest.

There is just one feature on which you fail:- The name of the magazine over the years is "The New Zealand Beekeeper" not N.Z. Keeper or the N.Z. Bee Keeper or the New Zealand Bee Keeper or any other variation and if you read through any issue you will see there is considerable confusion as to the correct name. The April issue has the following list of names page 1 The New Zealand Bee Keeper, page 2 New Zealand Beekeeper and also N.Z. Beekeeper, page 3 N.Z. Beekeeper (twice), page 5 N.Z. Beekeeper, page 15 New Zealand Beekeeper, page 16 N.Z. Beekeeper, page 18 NZ Beekeeper - and there might be others.

Some will say "Let's not be pedantic. The message is clear" but I have always been a stickler for correctness. I would like the traditional name "The New Zealand Bee Keeper" to be maintained. I used to write the "Skep Notes" long years ago and later wrote on queen rearing and the variable nuclei concept of queen raising. My arrangment with the editors was always that nothing should be altered without consultation and agreement between us. This arrangement held good until one editor altered one of my articles and made me look rather foolish. I asked for an apology and a correction. I received neither so I never again contributed. I still write for other magazines and The Timaru Herald.

But now my writing days are drawing to a close. I was 87 on Sunday and the lines are beginning to disappear when my eyes fog up.

I read of the coming conference in Christchurch — just twenty miles away — and I can't be there. Now that's hard to take. I sold the last of my bees two years ago and now have to live on a pocket handkerchief section — with no bees.

So sorry to see of the deaths of Percy Berry and Jasper Bray and to hear of others who are winding down or signing off.

Here's hoping for the maintenance of the good standards of production that we now have.

Yours sincerely Chris Dawson

Request for old honey tins

John Brandon recently received this request from Murray Bush, 24 Adams Lane, Blenheim.

His hobby is collecting "Honey Tins" and already has 30 different tins dating back to 1940, but has very few from the North Island. His research has indicated that there were possibly up to 70 different tins produced from 1915 onwards and would like to know about the history of honey tins used in our region.

He is also interested in anyone who has any old honey tins (whether they are collectors or not) contacting him. I hope you can help.

From the colonies

Dear Sir,

Hawke's Bay celebrated Solstice when nearly 40 members and partners gathered for a dinner at Windsor Lodge in Hastings. Pat and lan Berry had celebrated their 40th wedding anniversary that day with their family and we were able to toast the occasion with them. June birthdays were also toasted. Stories were swapped and jokes were told as we forgot the worries of trying to make a living from those little critters in boxes.

Most of those present were able to forget but one hobbyist was worried about the wasps robbing one of his farm hives. Try as he had, he was unable to find the nest. Robbing continued even after he had closed the hive entrance right down to almost nothing. The solution offered is one which may be of help to others.



A piece of light metal is inserted so that any wasp or bee entering has to go half-way back into the hive before it can move up into the frames. Best results are claimed if this restriction is tapered from a wide entrance to a narrow gap toward the back.

We are all looking forward to our delegates' reports of the conference at our August meeting so that we can talk to the bees to tell them what is expected of them.

Ron Morison

Southern North Island

Planning for 1996 conference has started. The conference committee formed within the Branch has already firmed some items and is looking toward more detailed planning.

Delegates to this year's conference will be Rob Johnson, branch Chair, and Frank Lindsay. Remits were discussed and delegates instructed as to voting. Cohesion within our industry should be an aim for all branches attending the conference.

Diseaseathons in our territory were discussed and supported. Continuation of diseaseathons will assist materially in reaching the national goal of eliminating Foul Brood disease by the turn of the next century.

Next areas for attention are Shannon/ Levin and Feilding/Halcombe.

Letters continued

Dear Ron

I've just read the May issue (Vol 96, No:11) of the Australasian Beekeeper. It has three very good articles worthy of reprinting.

1. Travel to Korea study the package bee industry and exotic diseases — B R White. Volunteers will be called for in early November to carry out inspections, each team to be under control of a MAF staffer. This will give correct authorisation to the inspecting teams. Spring field day will be at Garry Tweedale's property on the main highway south of Wanganui, Saturday 30th September. A varied and instructive programme has been promised.

The single seller desk is an item for discussion at the next branch meeting on Thursday August 10th, 10am in the Rotary Clubrooms, Palmerston North.

> Contact — Ham Maxwell — Scribe Southern North Island Tel 06-3670-321

This is a very good insight into the problem associated with the package industry. Should we be publishing some of the reports associated with our communications with the Koreans.

2. Bee quality discussion — James C Back, Olympia W.A. USA



Problems with the bees when miticides are put in hives. Could also explain why our New Zealand queen exported to Canada etc. are being superseded. Also shades of things to come if we ever get mites.

3. Criteria used in wax evaluation of quality beeswax — S Bogdanov.

Talk about the problems with the buildup of acaricide residues in comb wax.

This was touched on by Gudrun Beckh when she spoke to us at the Lake Rotoiti Buzz weekend. (Some countries in Europe can't produce comb honey for sale as it is considered too toxic. She considered all honey produced in New Zealand as organic.) Should we be researching the residue levels in our wax? Also when standards are produced specifying wax residues, it could put our wax in a higher class which can be used in cosmetics etc, therefore must command a higher price.

> Regards Frank Lindsay Branch Secretary Southern North Island Branch

Share your knowledge

The other day I was thinking about how I was going to extract next season's kamahi crop and how I could keep it separate. The only problem is that when one source switches off and another one starts, there's always frames that aren't fully capped. This won't matter to some but our climate isn't known for its dryness, so these frames are put aside and returned to the hives. Also, we all know that honey in a drip trays takes up moisture and can be up to 20 percent moisture within 24 hours so is put down the draim. A waste of time, travelling and honey. Well, a business becomes profitable if you can eliminate waste and double running.

Now the hive and honey bee touches on dehumidifiers and how they can extract two percent moisture from the equivalent of a drum of honey in a few hours. Just the thing perhaps, but the only problem is that this machine works on vacuum, takes up the space of a small room and probably costs a fortune. Out of the question.

However with all the advertising regarding dehumidifiers lately, I thought I'd borrow one and see how it would work in my small six foot square hot room. I didn't have a refractometer to take accurate readings, so used a barometer to get a rough idea of the humidity.

So I borrowed one of these little domestic dehumidifiers and was really quite impressed with the results. With the temperature set to 28 Deg C, and with 20 boxes in the hot room, the humidity went from 65 to 42 percent and took out six litres of water in 48 hours.

Now that's a lot of water when you pour it on the ground and I suspect most of it came out of the boxes. But it also reduced the water content of the honey in the drip trays and the odd dribble down the boxes to a sticky consistency. Now if it does that sort of job at the end of the season, then perhaps it's worth investigating further. Apart from honey, it could also be used to dry pollen recirculating the warm air.

My question is — Is there anybody out there who has already investigated dehumidifiers or is using them? It's a lot of money to invest and I'd hate to waste it.

> Frank Lindsay Johnsonville

Tip for those storing drums outside

Noticed a little tip when visiting Jenkin's honey house in Blenheim. Drums stored outside collect water in the rims which can cause rusting. This water can be drained off by using a foot length of synthetic string (ie hay bailing twine). Just tie a stone to one end (to act as a weight to keep the the string in contact with the water), soak the string for a few seconds and then hang it over the side of the drum. The water drips away in a few minutes thus keeping the top of the drums dry.

Editor's reply

Thank you Frank for sending the newsletter from Southern North Island branch. This is first class and contains a lot of very useful information — great communication. Yes! I will look out for the articles that you refer to and print in upcoming issues of *The New Zealand Bee Keeper.*



Library News

Two cartons with 'goodies' arrived from our Exec. Secretary's office. Some books are now extra copies and some are additional which are listed below and should be added to the catalogue. Thank you very much Mr Brown.

Books:

Apimonida.	SCIENTIFIC BULLETIN 1972, 535 pp. Addresses by a number of well known apicultarists and practical beekeepers.
Apimonida.	XXIVth INTERNATIONAL APICULTURAL CONGRESS, BUENOS AIRES 1973, 623 pp.
Apimondia.	APITHERAPY TODAY, 105 pp, 1976, Rum. An interesting book about the composition and use of bee products, preparations in nutrition and therapeutics with regard to their biological value.
Dept. of Conservation.	CONSERVATION MANAGEMENT STRATEGY FOR TONGARIRO/TAUPO 1995-2005. 1994, vol.1 244 pp., vol. 2 228 pp. Very extensive and detailed, may well be of value to beekeepers in that area.
Dept. of Conservation.	1080 IS NOT KID'S STUFF and 1080 SOME QUESTIONS AND ANSWERS. Pamphlets of respectively 8 and 7 pp. meant for schools and general public.
Min. of the Environment.	HAZARDOUS SUBSTANCES & NEW ORGANISMS, proposals for law reform. 1992, 59 pp.
MAE Qual LIELDING	TO ODEATE A COMPETITIVE EDGE Domobilation

MAF — Qual. HELPING TO CREATE A COMPETITIVE EDGE. Pamphlet re activities.

Molan Dr. P C FOOD AUTHENTICITY — Honey. 41 pp., N.Z. Statistics N.Z. 1994 CATALOUGE, 55 pp.

Fieldhouse A.E. A DIRECTORY OF PHILANTHROPIC TRUSTS IN NEW ZEALAND. 1987, 126 pp.







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receive it th	rough the various associat	ions th	at we have with them.						
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