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Notes from the President

Nick Wallingford

Importation of bee products into New Zealand

If you were to ask most beekeepers, they would say to you that honey, bees and bee products are not allowed into New Zealand because they pose a disease risk to our industry. This has never really been the case, but so far as beekeepers were concerned, it was near enough to true that we have felt a sense of security. Changes to agricultural security and New Zealand's attempts to lead the world in free trade policies have also changed the procedures for dealing with the importation of honey and bee products. It is important that beekeepers keep up with the changes and their potential impact on our pest and disease free status.

Throughout this article, I'm going to use the therm 'bee products' as shorthand for honey, live bees, queens, pollen, second-hand beekeeping equipment, pollen and honey spreads, royal jelly tonic — all the many products and goods that contain 'things' from the beehive.

Bee products have never been a *prohibited* item. Rather, under the Apiaries Act 1969 and the legislation that preceded it, they have always been a *permitted* item. That doesn't mean they are automatically permitted to enter New Zealand. Rather, it means they *require a permit*.

Traditionally, the authority to permit was delegated down from the Minister of Agriculture as far as the head of the Apicultural Advisory Service (an Apicultural Advisor in what we would now call MAF Qual). This person, knowledgeable about the industry and the technical aspects of bees and beekeeping, had to make the 'on the spot' decisions about whether particular bee products were allowed a permit to enter New Zealand. The decisions were of a conservative nature, attempting to *conserve* the enviable pest and disease status we have.

The 'owner', if you will, of the whole system of issuing the permits in the MAF Regularity Authority (MAF RA). They contract the actual 'operation' of the permitting system down to MAF Qual. Several years ago, they chose to *standardise* their system by removing the decision-making from the Apicultural Advisory personnel and moving it to the Head Office of MAF Qual in Wellington.

In the meantime, the powerful forces directing us toward free trade were bringing about their own changes to the systems. The greatest of these was the passing of the Biosecurity Act. As an industry, we're well aware of the impact of this Act — it is what has forced us into the development of a Pest Management Strategy. In a different but related area, it has changed the process for the issuing of permits for the importation of bee products.

The 'traditional' system for the permits developed with something of a bias towards the *status quo*. The assumption seemed to mean that before a product would be allowed in it would need to demonstrate that it would not pose a risk to the industry. It was this use of the system that probably has led many beekeepers to feet that most bee products were actually prohibited entry. The Biosecurity Act has moved the focus to making the starting point that products are allowed in *unless they can be shown to be a risk*.

The change to 'Head Office' personnel (rather than people familiar with beekeeping) issuing permits, however, and the direction to removing any impediments to trade, the system no longer favours the protection of our industry.

Another change in emphasis relates to conditions placed on bee products after importation. Under the old system, some products were allowed in so long as they were going to be processed further or even re-exported. My understanding is that the obligations of the Biosecurity Act now mean that these conditions cannot really be enforced. If a product receives and import permit, no restrictions can be placed on what is done with it after that time. We have been told that this would be taken into account in the risk analysis for the product. It seems, with a bit of quick word play, anything can be done! We would still impose the same conditions, but not actually say the product has been 'imported' until they have been carried out! Somehow, this doesn't fully reassure me of the levels of risk to our industry...

The NBA has discussed these matters with the MAF RA. We have even gone so far as to ask that the entire permit issuing scheme in place be reviewed. We did this because we felt that the original analysis of the risks involved did not recognise the less rigorous systems related to the consideration of individual import requests. Without the full technical backup and knowledge that previously drove the permit system, we now may have a consistent permit system but I'm not sure we have a good one!

There will always be a degree of risk to our industry in the illegal importation of bee products into New Zealand. With the ease of air travel, we rely on effective border protection to keep out the unwanted imports. What frightens me just now is not the illegal ones — it's the ones that have been permitted to come into New Zealand. It is the importation of products with inadequate analysis of the risks involved, and a risk analysis that has not fully involved communication with our industry.

I believe the NBA is on the right track to sorting out some of these issues. Discussions with MAF RA has meant they are well aware of our concerns. They also know that the decision to issue permits is open to review, so they know they must have robust and fully documented decision-making procedures. With our bee health status at risk, we must as beekeepers ensure that they are fully adhered to.

Executive Election

In the upcoming elections, the NBA membership will be electing two members resident on the North Island and one member resident on the South Island to the NBA Executive.

I urge each of you to consider your responsibilities to the NBA as an organisation. Only if enough suitable beekeepers allow themselves to be nominated will there be a real *choice* for the industry. If there are only just enough people willing to say "I'm willing to stand", they go by default onto the National Executive. They get the chance to set industry policy, and make important decisions about the future of the industry.

I can remember the first time someone asked if I would consider standing for the Executive. It was a well-respected ex-President of the NBA. I couldn't imagine where it came from — not me, surely?

It was about five years before I actually did something about it. I realised that the people who were on the Executive were

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really no different than me! They were just beekeepers trying to do their best to contribute to the future of the industry.

You don't *have* to do everything on the Executive! To run the NBA effectively, we have to ensure a variety of topics get covered, but you don't have to be an expert in each. Some abilities or interest in such areas as finance, export, import, marketing, disease control, publications, pesticides, research — the list goes on and on. If you feel you have some particular skills in *virtually any aspect of beekeeping*, you have something to offer as a member of the Executive.

I urge each of you to consider what the NBA has done for you over the years. Marketing? Disease control? Protection from the pests and diseases overseas? Now, what do you think *you* owe to the NBA in return? Don't be afraid to stand for the Executive and lose. It happens! I have lost in both my first election and then again after I was on the Executive. It isn't the end of the world, and I ask that you balance the possible personal feelings against what it is you believe you can offer the rest of New Zealand's beekeepers.

Talk to your friends. Sound them out about how they would feel about supporting you as a member of the Executive. The NBA *needs* good people who are willing to contribute to the organisation by allowing their names to go forward as nominees for the Executive elections. What do you reckon?

Choose carbohydrates carefully for your bees

by R.E.L. (Dick) Rogers, Apiculturist/Tree Fruit Entomologist, Nova Scotia Dept. of Agriculture, Kentville NS.

Reprinted from *Hivelights*, August, 1995, Canadian Honey Council

Honey-bees get their energy from carbohydrates and their carbohydrates from sugar sources. Many plant nectars are excellent bee food because of the natural sugars they contain. However, when this sweet liquid is not available, or is in short supply, beekeepers can help by making sugar syrup available to them in feeders. The most common sugar used to produce this bee food source is sucrose, which has been derived from cane or beet sources. There are many other types of commercial sugars and beekeepers have probably tried them all. However, some are more suitable for bee food than others.

Some of the sugars available commercially include high fructose corn syrup 55 (HFCS55), high fructose corn syrup 42 (HFCS42), glucose syrup, and granular white cane sugar. The compositions of these sugars are: HFCS55-55% fructose, 41% dextrose and 4% other (77% solids); HFCS42-42% fructose, 53% dextrose, and 5% other (71% solids); glucose - about 50% dextrose and 50% sucrose (80% solids); granular white cane sugar-100% sucrose (100% solids, but normally fed to bees as a 66% solids syrup). High fructose sugars are invert sugars that can be produced by either acid hydrolysis or enzyme hydrolysis. It has been known for quite some time that those produced by acid hydrolysis can be deadly if fed to honey-bees. But prior to 1975, there were no tested theories as to the cause of mortality.

A study in Germany (Jachimowicz and Sherbiny, 1975) found that the concentration of hydroxymethylfurfural (HMF) in sugar syrups is indeed the factor that influences bee mortality. They found that HMF levels below 3 mg/100g of syrup did not kill bees. However, HMF levels of 15mg/100g of syrup, which is common in commercially available acid hydrolysed invert sugars, causes significantly increased mortality. Mortality was the result of gut ulceration. Expanding on this work in a personal interview, Dr W Kalt, Food Plant Biochemist (Agriculture and Agri-Food Canada, Kentville N.S.) explained that HMF is a by-product of the acid hydrolysis process which splits the sucrose module into the simple sugars, fructose and dextrose. In contrast, the enzyme hydrolysis process reshapes the molecule so the split does not result in the formation of HMF.

Another concern when considering the sugars for bee food is "Which ones do the bees like best?" To address this question, a trial looked at the attractiveness, consumption rate, handling and storage characteristics of HFCS55, HFCS42 glucose and granular cane-derived sucrose. The high fructose sugars were produced by enzyme hydrolysis (Rogers and Illsley, 1992). All syrups were diluted to approximately 66% solids content. Autumn pan feeding trials indicated that HFCS55 and 42 were equally capable of luring bees and were marginally better than sucrose. Glucose was clearly not very attractive to bees. Consumption was determined by measuring the amount of syrup removed by colonies from hive top feeders. The results, in litres of syrup, were HFCS55-69, sucrose-61, HFCS42-58, glucose-50. With regard to handling and mixing, HFCS55 and 42 were superior because they dissolved readily in water and clean-up was easy. Sucrose had similar characteristics, however, hot water is needed to dissolve the sugar readily. Glucose was difficult to mix and clean up. As for storage, undiluted HFCS55 was the clear winner because it did not crystallise readily, even after several months under winter conditions. Undiluted HFCS42 had some crystallisation, and sucrose syrup did not store well because of fermentation. Glucose, both undiluted and diluted, became very thick in cool temperatures and formed a very hard, glass-like layer in feeders. Based on this trial, HFCS55 was the best bee food and could be fed even undiluted (77% solids). Sucrose was a close second in performance it can be purchased in bulk in a granular — form and, under proper conditions, be stored indefinitely. Glucose is not recommended.

It should now be clear, as a result of the above discussion, that the best carbohydrate sources for supplemental feeding to honey-bees are HFCS55 and sucrose. This essentially concurs with the results of Severson and Erickson (1984). If using HFCS55, ensure that it was produced by an **enzyme hydrolysis process.**

From personal observation, it appears that the most significant mortality from feeding acid hydrolysed invert sugar would occur if it were fed in the autumn. This could be the result of the length of confinement, bee longevity, and lack of alternative carbohydrate sources over the winter months.

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Acknowledgement
American Bee Journal

Letter to the Editor

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

Dear Editor

Never was a truer word said in your Marketing section — "YUK!" is not a term commonly used by professional food tasters (March edition).

Then again, the title of your Solomon Island honey critique suggests there is more than the taste of a new honey at stake. "The Great Import threat has arrived" — really! Some primary producers may not like it but we live in an era of deregulated trade. It is ironic that in the same issue your president reports on attempts to open up the US market to New Zealand exporters under GATT — the regulations cut both ways.

Besides, surely we are confident enough in our own honey not to feel threatened by a small shipment of imported honey that can only serve to increase consumers' discerning powers in honey appreciation. To set the record straight, the Solomon Islands have been extensively tested and the honey proven to pose no risk of causing any new bee diseases (as outlined in your February issue). As for the taste, the honey is selling well through Trade Aid shops — enough said?

Finally, the honey is being produced by the Solomon Island Honey Producers Co-operative — a small group formed with the assistance of New Zealand Overseas Development Aid and MAF. In the face of large scale unemployment and widespread logging of native hardwoods, beekeeping offers a sustainable, environmentally-friendly form of income generation that surely deserves better than the groundless attack offered in your journal. My advice to honey connoisseurs is a bit like Dr Seuss's Sam-I-am — try it, you may like it!

Sally Blundell, (Mediaperson, Trade Aid Importers Inc).

Candle

Candle candle
Light up your flame
Give some light
So I see again

Candle candle
Your flame is bright
Flickering to and fro
Burning through the night

Candle candle
Burning away
How fast you burn
It's hard to say

Naomi Dalby, England

Varroa

Varroa is a disease
It kills all our bees.
We treat in the spring
for loss of wing.

Here comes varroa —
the bees drop lower.
Less and less they get —
varroa and bees have met.

The bees start to die,
falling from the sky.
They all end their lives
far from their hives.

So I must report
that their lives will be short,
so protect your bees
from this fatal disease.

Naomi Dalby, England

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Notes for beginners and others

One cannot help but be perturbed about the fact that some potentially very nasties have eluded our Agriculture Border Security fairly recently. Of course as soon as these intruders were discovered steps were taken to prevent the establishment and spread of these pests. Aerial spraying of an area does not come cheap, the exercise will have been costly. However if this particular insect had found its way into our pine forests it would have spelled disaster in a very big way, affecting one of New Zealand's most important industries and exports. Let's hope this problem is indeed behind us. Then there is the recent arrival of the European species of the sowfly. This creature lives on willow trees and has apparently the ability to entirely defoliate them. That, without a doubt, will mean a lot of dead willows after a while. Very unsightly in the landscape, but that would be the least, what about the loss of protection to river banks, erosion will result. And last but not least there is the interest of the bees and the beekeepers for willows are a very valuable source of both nectar and pollen. It is getting just too close to home for comfort.

Criticism of our border security is of course very easy to give, but it is negative and probably not warranted. My impression is that the personnel of this service are dedicated and conscientious, facing a huge and difficult task and very often receiving abuse instead of praise. As they are all human it is unavoidable that someone somewhere will miss something that should have been noticed.

They form the front line in our battle for agricultural security. Like any defence force they need backup in case some of the enemies happen to sneak round the flanks. Those reserves are US, that is every loyal Kiwi, kids, teenagers, fathers and mothers, travellers and welcomers, pensioners and professionals etc. We all should be alert in general for anything unusual in appearance or behaviour. Then if one notices something suspicious it is so easy to shrug one's shoulders, better to lay low and not become involved. Very poor attitude.

We must all give our active support in this fight against those intruders which may well threaten the economy of this country and ultimately the welfare and perhaps the livelihood of it's citizens.

As beekeepers we have a special task in our own particular field. Our industry by means of NBA efforts and the expertise of the Apiary section of MAF have contingency plans in place in case something we have not got as yet is discovered. But that is not enough. We individual beekeepers, small or large, will have to play our active part, be able to sound the alarm. Each and everyone of us should be able to recognise the signs of something unusual showing up in the hives we care for.

European foulbrood is now endemic in Australia, Varroa mites and Tropelaelaps play havoc with the young beekeeping industry in Papua New Guinea and there are very serious problems in the United States caused by the two mites, Varroa and the Tracheal mite. These diseases and pests have spread to these countries from other parts and established themselves under a variety of climatic conditions. They have come from Asia and Europe. If they can jump the Atlantic they can also take the Tasman Sea or the Pacific in their stride. With modern communications the risk of their spreading to our country is umpty times greater than it used to be say 50 years ago even if we still regard ourselves as a relatively isolated and remote country.

Keeping these monsters away from our territory is of the utmost importance and if the un-hoped for thing does happen we have to jump on it double quick, so that it can be confined and isolated and dealt with. If it gets out of hand it will mean big losses, feeding of chemicals with all the consequences of that. I would not think one moment that bees would not survive ultimately but beekeeping as an enterprise could very well become uneconomic, exports of queens and live bees would be finished while pollination services, both planned and unplanned, will be reduced. The last having probably a very adverse influence on certain agriculture and horticulture crops.

How many of us know what these bugs look like and what to look for when inspecting a colony? American foulbrood is endemic but many a New Zealand beekeeper has never seen the real thing so we cannot expect that many of us are conversant with these exotics. We all have the mental faculty to remember the images of objects we have not seen in reality. We have the necessary aids: Laser prints, video tapes and slides. Some 18 months ago the set of disease laser prints became available from the library, they have been requested once. How can we possibly expect to be on guard and be successful without some basic training? Winter is now about here, the right time to organise a bee disease training session. Up to you individual beekeepers to make sure that your branch or beekeepers club, or a combination of these two, have such an event scheduled in the coming months. The library is at your service for educational aids and I am certain that MAF officers will be only too happy to assist.

It is very laudable to try to eliminate AFB from the scene but don't let the other things sneak in on account of ignorance and complacency.

No, I am not paranoid about this issue, just trying to be realistic.

You cannot drive a car without first learning to drive and you have to know the road code before your driving license will be issued. No one in his right mind objects. Should we as beekeepers not have at least some self discipline and motivation to learn what we can do better than to give our support to those people trying out there at the water front and airports to beat those nasties from entering. It is in our own interest.

Canterbury Branch AGM and April meeting

— All welcome —

Date: **29 April**

Time: **5.30pm**

Venue: **The White House Restaurant, Main South Road, approx. three miles North (beside railway crossing).**

Programme:

1. **AGM** — Election of Officers
2. **April meeting**
   (a) General business
   (b) Honey Promotion discussion
3. **Dinner** — Partners welcome $16.50/head
4. **Guest Speaker** — Mr John Hortnel, O.S.H. Consultant in relation to the OSH Act, and the necessity of doing this, and the pitfalls that must be avoided to comply with this complex piece of legislation. None of us are as safe as we think we are!

Please bring partners along to enjoy an informative, creative and relaxed evening at the end of a long, trying season.

Please book early with the secretary as we are limited to 40 people.

Phone: (03) 318-6966

PS Sorry! All the committee vacancies are already spoken for so even more reason to come eh?

Marketing

* Sensational research results augers well for New Zealand honeys.
* The great New Zealand honey sample database is underway.
* Active-manuka gets great support from Tradenz.
* Bill boobs with Solomon honeys.
* Nelson conference seminar day will feature delegates in honey cooking demonstrations.

*** Sensational results augers well for New Zealand honeys**

The following is a media release sent out to tv/radio and newspapers first week of April... it's another example of the tremendous value we get from Dr Peter Molan and the Honey Research Unit. That unit now exists because of the foresight of the New Zealand honey trustees... who's three-year grant has allowed Peter Molan to develop a facility that is our industry's most valuable marketing resource! In this instance I especially like the fact that Waikato 'clover'... in this case a clover-thistle blend... is getting much good publicity. Over the years there's been a little bit of flack from some Waikato producers about how the marketing effort has focused on glamorising manuka and monoflorals... "but what about blends!"... we believe that approach was and is necessary, because for example the manuka story had a scientific rationale. And now, of that credible, published, scientific background, the concept of honey treating super-bugs was given credibility... and the first stage of the research undertaken... and the results are terrific! As you can see:

"New Zealand's internationally famous honeys, especially manuka, look set to become one of mankind's new defence's against the antibiotic resistant killer super-bacterias."

Professor Peter Molan has become internationally famous for his work on the antibacterial properties of New Zealand honeys.

In 1995 his research into the use of manuka honey against the bacteria that causes stomach ulcers was published in the world's most prestigious medical journal... the Royal Society of Medicine Journal... and saw him awarded an MBE.

Now Professor Molan has pitted New Zealand honeys against the drug resistant super-bugs that modern medicine is fast losing out to... and it looks like the honey and mankind will be the winner.

Laboratory trials at the Communicable Disease Centre in Wellington have just been completed last month.

Two honey types were trials against seven multi resistant staph aureus bacteria.

One honey was the active-manuka, the type used in the stomach ulcer research, the other was a Waikato clover blend honey, selected because it had high concentrations of the honey's natural antibacterial agent... (hydrogen peroxide).

In every case both honeys were completely successful in killing the bacteria.

The seven strains of staph aureus used in the trials have developed resistance to all but one antibiotic and there is concern worldwide that eventually the bacteria strains will be resistant to that as well.

Professor Molan stresses that the work to date has been in the laboratory, not on actual wounds.

The next stage is to develop clinical trials to test the honeys on wounds. These trials are likely to have to take place overseas, as there is insufficient cases of super-bug infection in New Zealand at present.

Manuka honey is a commercial cinderella success story for New Zealand beekeepers. Up till six years ago there was little demand for it... and beekeepers fed it back to bees as a winter feed.

Once Professor Molan's research gained international publicity the demand for manuka honey developed export markets throughout the world, especially the United Kingdom, the Middle East and Asia.

New Zealand presently produces around 300 tonnes of manuka honey and it is now the second most popular honey variety in New Zealand (after clover).

But it's not only on the culture plates in medical laboratories that manuka honey is making a name for itself... chefs are taking up manuka honey as a unique New Zealand food and the strong, unique, mineral flavour is now being used in leading restaurants.

Manuka honey was one of the key ingredients in the bronze medal winning dish at the 1996 International Culinary Olympics held in Germany last year.

Manuka trees have long been regarded by New Zealand farmers as a weed... but this attractive weed may be responsible for what will be one of the world's most sought after honeys... a honey that confirms our reputation as a land of milk'n honey.

*** The Great New Zealand Honey sample database is underway**

Last month we started contacting specific beekeepers and 'ordering' 1kg pots of their honey.

Over the next four weeks we will have sourced a sample of all New Zealand's main honey varieties. Each honey sample will be analysed by Prof Alistair Wilkins for composition, Dr Peter Molan for bio-activity, a certified laboratory for standard colour and pollen analysis and by us (here at the Advisory Service) for its sensory profile.

The work will be ongoing... and all information from the four areas of research will be collated together into (I didn't know what this meant either until Peter Molan explained it) a Canonical Variable Analysis Statistical Recognition Computer Programme. In other words, it may help us to create a simple, inexpensive way to recognise honeys by variety in the future.

It will also give us the opportunity to see if there are any more 'manuka' success stories in the other honeys.

If you haven't been contacted... if you would like your honey to be part of the database, if you have a honey that you think is unique, that is in commerciable quantities... this is your (last) chance to get it included... contact Sandee Floyd (Honey Database Project Manager) tel 03 5776103 or fax 03 5778429, or write Box 32 Blenheim. Sandee'll send you a questionnaire that we'll need to be filled in and returned with the sample. And remember: this is all FREE to you! (except the cost of the honey and the freight postage!) The results will start being published later in the year. Special thanks too to Steve Olds and Tekpak for free packaging containers to use for the exercise!

To my understanding what is being done is an international first! And the potential benefits to the industry could be staggering... just look at the potential value to New Zealand from the super-bug research results... imagine if there's more like that! Good eh! (Good eh! is highly sophisticated marketing jargon... it means potential to sell honey for more money).

*** Active manuka gets support from Tradenz**

Last month I was invited to a meeting of the active-manuka honey industry. This was initiated by Judith Saunders from Tradenz Hamilton. The meeting was very successful. It included active manuka producers packers, exporters, manufacturers. As a result we're certain to see active manuka producers looking at how to work together and maximise the value of active-manuka, and more importantly, their own returns as the producers.

I'm chairing a working group looking at all the issues (and possibilities!) If you are in the active-manuka business, in any shape or form, and have an opinion, a concern... contact me.

My group will be giving an interim report to the 'active manuka industry' in early May... I'd like to hear from you before then!

*** Bill boobs with Solomon honeys**

There's an old saying... "don't knock the competition... just concentrate on your own business". I don't agree... I think there're times when a customer is entitled to your opinion on the choices they have, including your knowledge about a competitors weakness... but it's a tricky area and you have to do it right. So I've got no problems with saying that I thought the Solomon Islands honey that I bought was unpleasant to taste, in fact I've never eaten slumgum... but I have the feeling this comes close... however, I should have left it at that... my comments about the threat to the New Zealand industry and my horror at the Regulatory Authorities allowing this importation was unfair... some would say 'asinine'... and I've since had the protocols that have been set up to protect our industry from disease explained to me. My defence is that I was at least sincere... although wrong. Sorry.

*** Nelson conference**

We're just in the process of finalising the marketing committee's involvement in this years' conference... but already arranged is for Denis Taylor, (head of the Christchurch Polytechnic Chef Training School) to give actual cooking demonstrations as part of the seminar afternoon... and we'll be carrying out a blind tasting of honeys to name the Conference's Champion Honey Taster... and do I have some incredible honeys to use for this!!!!

*** and my favourite honey this month**

Mountain Valley's Kamahi from Nelson. Lovely rounded honey, hints of vanilla and butteriness balancing the sweetness... absolutely perfect on fresh warm date scones! (also impressed with their manuka... especially the Pollen Analysis detailed on the side to demonstrate the manuka integrity... (83.5% manuka, 14.5% kamahi)... good bold honey with that manuka bite but softened by the kamahi. Nice one.

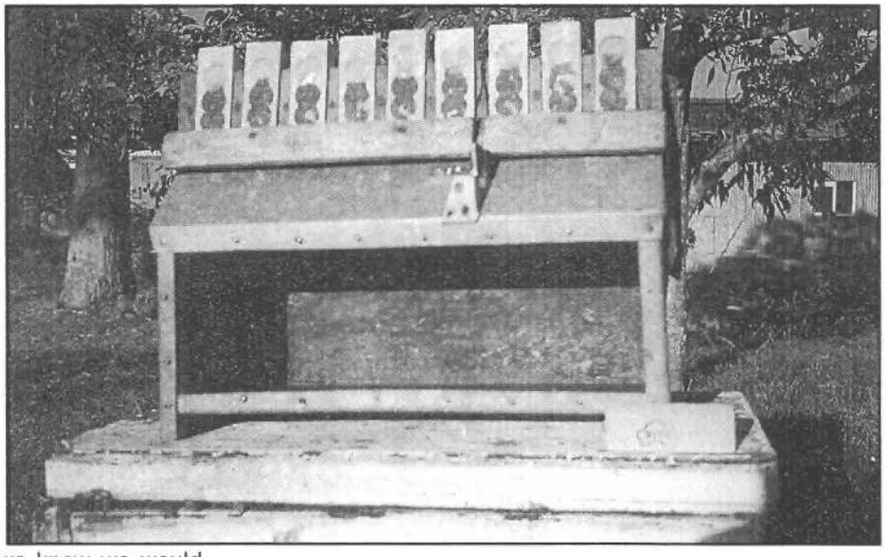
Regards, Bill Floyd

Queen cage escorters

Filling cages with escort worker bees without touching a bee was a problem that I hoped to solve. Catching each bee and running her into the cage was very time consuming.

We had large consignments of queens to ship during the late 1960's and for the first time we were faced with finding a better method of pre escorted cages. Previously we had escorted the cages with bees from the same colony, while catching the queens. This worked very well while we were only handling a couple of hundred queens for local shipment.

We had the task of catching, marking and escorting one thousand five hundred queens for a shipment with our limited staff. All the other parts of the production cycle had to be carried on at the same time. It was necessary to increase our efficiency to handling this extra workload in the quickest possible time.



It was a need that we knew we would have to solve quickly because of an order for queen-bees we had arranged to supply to an overseas customer. One of my queen catching staff and I had spent several months trying to work out a solution to this escorting problem. We made trials of different types of equipment without much success.

Most problems in life may be solved if you think about them long enough, an idea or inspiration will usually find it's way into our thinking. Early one morning I went to my workshop with the germ of an idea that finally proved successful, it was really quite simple.

By the time my staff started work at 7.20am, I had made up a rough escorter from a regular bee shipping package. A few days later, after a trial run the escorter was ready to fill the 1500 cages with escort bees. My idea was to put a slit in the bottom of the package that was almost as wide as the cage was thick. Then shape a back rest for the cages so they would sit at an angle. Timber guides were fitted inside the package that lead the bees to the cages as they ran up the inside of the package to the light.

The cage worked best if only about 250 grams of bees were added at a time, the package had to be turned upside down to be filled through the feed can hole that was then in the bottom of the escorter. The backing board had no separations for the cages, so a lot of the bees would escape when the cages were being filled and removed.

Son Robert decided to make up a new model of the escorter that could be filled through a hinged flap in the top. Division spacers were provided so individual cages could be removed and replaced without shifting the other cages. This escorter was entered in the exhibits at a field day held during the 1977 world Apimondia congress held in Adelaide, Australia and won a silver medal.

A local man came into my workshop one day looking for some casual work. He was a regular handy man with engineering skills, in fact he seemed to be able to turn his had to any job I could come up with, except that he would not have anything to do with my bees. We had some building repairs and extension work that needed doing. My queen cage machine needed some maintenance and modification. No job was a problem to him. I asked one day if he was any good at sheet metal work. I showed him our escorting box that was showing the effects of the sun and rain and asked him if he could make one out of sheet metal?

A few weeks later he produced the Rolls Royce of an escorter made from sheet metal and gauze. The inside was coated with some rubber glue so the bees could grip the surface. The escorter became a labour saving device that we used every day in our queen-bee production.

Our usual routine was to bring in a package of bees for the next day's queen catch. When the queen catchers arrived for work, their job would be to fill cages with escort bees ready for the days catch and pack these into the catching draws that fitted in the catcher's stool. These drawers were made to hold sixty cages on end, in one long and one small compartment. Two smaller compartments in either end of the drawers held spare corks. The drawers were made deep enough so that the escorted cages could have their cork put in sideways so that it could be easily removed, but at the same time they were protected while in the stool.

When the catchers caught a queen they would remove the cork, run the queen into the cage and then replace the cork on it's flat, without removing the cage from the drawer. Occasionally the cork would be replaced on its side and a second queen would be added to the cage with disastrous results for one of the queens. It was always a game between the queen catchers to see if they could fill the sixty cages in one hour.

At times when we had really large orders of two to three thousand queens to ship at one time we would catch and bank the queens up until two days before the shipment was to be made, then the last two day's queens would be caught into escorted cages, the banked queens would be transferred into escorted cages ready for the shipment.

On one occasion we had eighteen thousand queens to be shipped to a country who had very strict requirements as far as Nosema was concerned. To fill the order we fed a yard of bees with Fumidil B, in preparation to fill the order, even then we shook the packages of bees from colonies in separate packages and examined samples from each colony under the microscope to see that they were clear of Nosema. All of our shipments received a clean bill of health on arrival at their destination.

The queen cages we manufactured and used were the usual three hole cage. They had a 3.8" (10mm) cork hole in each end. We used the same cages for our banked queens, covered with fairly open gauze so that the queens could be fed by the worker bees in the bank colony. The queens were banked without candy, but candy was rubbed over the gauze so that the queen would have some food while they were being caught.

Our queen cage escorter was a very handy piece of equipment for our queen-bee production operation. Many man hours were saved and it enabled us to catch queens and post or ship them on the same day most of the time.

Norman V. Rice, Queensland, Australia

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Another Fred Story

When I awoke this morning, the sun was shining, the birds singing in the trees and a lovely smell of toast, freshly made came from the kitchen. Ahah, the memory of earlier days gave me that good feeling, but not for long. "Get up you lazy sod, have you forgotten it is the field day today and that crafty mate of yours, Fred, will be here shortly to take you with him".

Yes, in the euphoria of the awakening I had forgotten about the field day, but of course I could not openly admit to such a thing. Over the years I have learnt to control what should be a spontaneous comment and taken refuge in silence or, if I felt a reply was expected, to come out with that proverbial standby "yes dear". Today it was the latter defence, but at least I had the satisfaction of a good breakfast on the table when finally presenting myself to the world. No sooner had I started into breakfast than the door flew open and Fred entered, took one look at the table and exclaimed "you always manage to hold me up when we arrange to go to field day, come on we haven't got time for you to fill you face". He then turned tail and disappeared out the door. That meant the poached eggs were hastily transferred, with the toast, to a paper plate and hastily stuffed into a plastic bag. The coffee was poured from the cup into a small thermos, and whilst all this culinary perfection was carried out I was jamming my feet into shoes and hastily donning a jacket. As I emerged from the house I heard a distant cry " you haven't cleaned your teeth". Too late for those niceties, experience has taught me that Fred waits for no man.

The truck was moving before the door was shut, and as usual, I settled myself in the seat and took stock. First the seat belt, it was actually working this time. After the last trip I swore black and blue that never again would I travel with Fred until the seat belt was fixed. For once I believed he had listened to what I said, but the reality was he went for a warrant of fitness and the garage included the seat belt in with other things necessary to be done before they would issue a warrant. Not even Fred can overcome that obstacle, so he reluctantly complied with their wishes. It was good to see the speedo working, to feel the positive action of the brake being applied, to know the lights were up to standard for the trip home in the evening. Even the inner door handle of the passengers door was working now, Fred had really excelled himself in rectifying the mechanical oddities of the vehicle.

It is said that all good businessmen take their breakfast on the run. Well, I fitted that description perfectly as I somehow managed to complete my breakfast from the plastic bag contents, and only spilt a little of the coffee when Fred took a corner a little too tightly. His driving skills had been learned in the back country, he has always found driving around town restrictive. Once on the open road though he really comes into his own. His memory is short when recalling speed restrictions, but his handling of the vehicle is second to none, and I trust his judgement and driving skill implicitly, I have to, there is only one steering wheel. He is intolerant of slow drivers, but never overtakes if there is any suggestion of the move being indiscrete. Experience has taught me to use the handle above the door as a stay when we come up to corners, to brace myself with my feet when he applies the brakes, and to roll gently with the centrifugal forces as we pass through the riverside gorges, which twist the road every which way.

Each time we leave for a field day it is the same, late in leaving, traffic building up along the way slowing our progress, the inevitable mob of sheep or cattle on the road. Yet he comes out of it all unruffled, smiling and friendly to all when we arrive at the field day site. How he maintains such composure is beyond me, driving makes me a nervous wreck, which is why the missus insists that I always travel with Fred. She has confidence that he will deposit me at the front gate at the end of the day.

Despite the fact that he can sink pint for pint with anyone when the occasion allows, Fred has never been known to overindulge if he has to drive a vehicle. From time to time someone will produce a bottle or two of mead at a field day, but Fred limits himself to only one glass, and makes sure that he has food with it. Too good to be true. Not if you know Fred.

Beekeepers are no different to the rest of the population, with the exception that they actually like bees. Some people find this concept a little difficult to fathom, and from time to time I am sure some of my friends give me sideways looks when I begin to rabbit on about the beauties of bees. Fred is no different, except perhaps in his ability to hold the listener spellbound with his yarns. We were at an agricultural field day last year and each club member took a turn at manning the information desk at our display. Most questions asked are fairly basic as the public at large is used to having the honey- bee around the place.

When asked if his bees were tame?, Fred excelled himself in the reply he gave. "Tame?, I'll say my bees are tame, why, did you know that each night at sunset I go out to the hives and give a whistle." With that he emitted a shrill shriek punctuated with several short blasts. "When my bees hear that whistle they immediately stop work and return to the hive for the night." His listeners expressed amazement of course and went on their way. Our reaction on hearing this was to bend double with suppressed laughter, trying desperately to not let his listeners see they were being had on.

He fielded one enquiry with brilliance. The questioner wanted to know if Fred's bees ever stung him. "No," said Fred, "they used to until I learned the secret, and since then I have never been stung." Asked to elaborate, he hedged slightly, and replied that knowledge was a universal thing, available to most people, but only if they went about acquiring it in the correct manner. When pressed further he appeared to relent a little and replied, "as a beekeeper, I have certain standards to maintain. One of these is to be loyal to the brotherhood of beekeepers. Amongst ourselves we disseminate information fairly freely, and 80 percent of what we know is freely available to all. A further 15 percent is semi-classified information, available to those who have demonstrated a love of bees. The final 5 percent of information is only available to a select few, indeed they must have amply demonstrated to their fellow beekeepers that they have a lifelong interest in bees and beekeeping. This final information group is the core of beekeeping happiness, and once initiated into the circle of knowledge there is no way that the person will ever give up beekeeping. The joy that results from access to this final information ensures a lifelong commitment to beekeeping."

He then went on to remind his listener that serving a painful apprenticeship was one of the crosses all beekeepers had to bear.

This explanation apparently satisfied the enquirer and he went on his way round the exhibits. We of course pressed Fred for an explanation. "Well," said Fred, "we all finally get sick of being stung when a hive is opened up. Then, and only then, do we have enough sense to buy a full length bee suit and wear gloves, something we should all have done right from the outset into beekeeping. Simple really when one gives it some thought."

So much for the "inner brotherhood of beekeepers". Are you a member?

Ham Maxwell

Library News

None this month.

There are still some borrowers who drag the chain.

PLEASE RETURN THOSE OVERDUE BOOKS.

Noise Control

Noise is something which we all experience in one form or another. At certain times, or in certain places, we expect to experience greater noise than at other times or in other situations. For instance, in a city centre or an industrial area during the day there is likely to be more noise than there will be in a residential no exit street at night.

If our normal activities are regularly disturbed by noise interference it can very quickly become a source of considerable irritation and even a danger to health.

Resource Management Act

The Resource Management Act 1991 contains provisions which enable local authorities, in conjunction with their District Plans, to exercise control over noise nuisance.

The Act imposes a duty on every occupier of land to adopt the best practicable option to ensure that the emission of noise from that land does not exceed a reasonable level.

The Council's District Plan will generally specify a maximum level of noise for activities in a particular area. The District Plan may specify a different noise level for different times of the day and night.

Under the Act an enforcement officer employed by the local Authority may serve an abatement notice if it is considered that the occupier of land is not using the best practicable means of ensuring that the emission of noise is kept to a reasonable level. An abatement notice will require that reasonable steps are taken to reduce that noise level.

If the abatement notice is ignored, then it is possible for the Council to seize the source of the noise problem.

This is a remedy which the Council will consider using if the noise source is created perhaps from industrial or business premises and when the noise, although unreasonable, is not an immediate danger to health or to people's comfort and safety.

Excessive noise

However, there are those types of noise which are an immediate nuisance or danger. For example, a late night rowdy party or sporting activity.

In this case the enforcement officer may consider that the noise is excessive, that it is under human control and is of such a nature as to "unreasonably interfere with the peace, comfort and convenience of any person."

In the case of excessive noise the enforcement officer may direct the occupier of the place from which the sound is being emitted to reduce it immediately to a reasonable level.

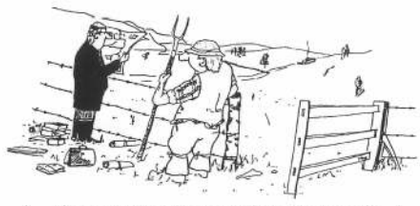
If such a notice is not complied with immediately the enforcement officer may seize and remove the source of the noise, render it inoperable, or lock or seal so as to make unusable an instrument or machine that is contributing to the excessive noise.

It is under this provision that enforcement officers will sometimes remove stereo equipment, and in most instances there will be quite considerable costs to be met before the stereo will be returned.

Practical steps

If you are being unduly disturbed by an activity which you consider is excessively noisy, then refer the matter to a Council noise control officer and ask that action be taken.

It will be up to the enforcement officer to decide whether the noise falls into the category of excessive noise, which can enable the immediate action as set out above, or whether it is just unreasonable noise for which and abatement notice may be served and longer term steps taken.



'... the green bits are the grass, sir...'

If you are at the receiving end of a notice from an enforcement officer, and if the notice is one for an excessive noise, you should comply at once. If you do not, the noise source may be removed and you could face prosecution and the costs of recovery of the item such as a stereo.

If the noise complained of is caused by your industrial process and the notice requires you to take reasonable steps to do something about it, you may have a more lengthy and costly problem on your hands. It may well be that you have to modify your business processes or construct soundproof facilities.

Local authorities will usually be reasonably co-operative and are often able to advise on the best methods of reducing the noise emission.

However, any notice served is a legal notice which may have considerable consequences for you or your business. We advise that you seek our assistance, as soon as you become aware of any noise issue, to do what is necessary without your business being unduly prejudiced.

Acknowledgement Bannister & Von Dadelszen, Hastings

BeeFax

Vol. 2, No. 6 April 1997

CLOVER WEEVIL UP-DATE

At the most recent Auckland NBA branch meeting, several beekeepers expressed concern over the effects of the newly introduced clover weevil on honey production. With this in mind, I contacted the AgResearch scientists studying the little beastie for the latest news.

The Clover Root Weevil (*Sitona lepidus)* was first identified in the Waikato in 1996. Surveys show that it has already spread into the Bay of Plenty and North Auckland. This suggests it had been around for five years or so before anyone noticed.

To date the mite has been found as far north as Wellsford, down the Waikato to Tokanui and Matamata, and from Whangamata to Te Puke on the East Coast. Strangely, there is an empty zone around South Auckland/Pukekohe. Under its own wingpower, it will probably spread up to 20 km/yr. However, a bale of hay could carry the weevil from one end of the country to the other in a matter of days. And it might also be blown across Cook Strait to the South Island, since fishing boats have already picked up the weevil at least 8 km off the New Zealand coast. A country-wide survey is currently underway to establish its present range.

The weevil is widespread throughout Europe, from Finland to Spain, although it seems to prefer warmer areas. So there is little doubt that it can survive anywhere in New Zealand.

The big question, however, is how much damage will it do? It is considered a serious clover pest in the UK, whereas in America it hasn't had much impact, despite arriving 100 years ago. This summer, clover growth was much worse than normal in the Waikato in areas where weevil numbers built up to very high levels. The researchers stress, however, that they haven't actually proved that the weevil is to blame, although it seems a logical assumption.

The weevil larvae do most of the damage, feeding on nodules and roots, while the adults tend to chew on the leaves before flying off to greener pastures. The general effect is to seriously reduce the amount of clover in a pasture mix. One trial in Ireland showed the amount of clover tripled after the weevils were controlled. No one seems to have specifically studied the impact on flowering, but it would probably reduce in line with the proportion of clover. According to one researcher I talked to, "If current outbreak areas are indicative and directly related to the weevil, the outlook for pasture-based apiculture is serious, at least in the short term and on a regional basis."

Opinions are divided as to whether the high numbers are a one-off event because of unusual weather, or something we will have to get used to. Often, pests build up to very high levels just after introduction before natural controls have a chance to build up. If our home-grown pests and predators can't cope, introducing some form of biological control is a strong possibility. Lucerne Weevil, a close relative, is already being controlled by a parasitic wasp. On cost and environmental grounds, chemical controls are not viewed as a long-term solution. On the bright side, for once we can be sure that a problem affecting the beekeeping industry will have a strong claim on research time and dollars.

[Thanks to Ian Tarbotton, Richard Watson, Paul Addison and Barbara Barrett, all of AgResearch, for supplying information.]

- Paul Bolger, AAO, PUKEKOHE

NEW MITE DETECTION METHOD

MAF Quality Management has recently completed a successful trial of a new method for the detection of *Acarapis woodi*, a microscopic internal parasite commonly known as the tracheal mite. The method or test is known as an **E**nzyme-**L**inked **I**mmuno**S**orbent **A**ssay (or **ELISA** for short). This type of assay is commonly used to detect the presence of many human diseases such as HIV. It is a very quick, cost-effective and accurate method of detection. A team at the Agriculture Canada Research Station at Beaverlodge, Alberta, developed the tracheal mite assay.

Female tracheal mites infest the breathing tubes (tracheae) of the honey bee. The mites pierce the tracheal wall and feed on the bees "blood" or haemolymph. The mite has a 14 day life cycle. During this cycle, eggs are laid in the main tracheal tubes. These hatch and mature and the adults mate. Mated females may then leave the tracheae to find new host bees.

Tracheal mites are found in many parts of the beekeeping world, and can have serious affects on honey bee colonies. Last year, the mite was blamed, together with the long, cold winter, for hive losses approaching 90% in some northern US states and in Canada.

Fortunately, the mite is not present in New Zealand. However, as part of the government-funded Honey Bee Exotic Disease Surveillance Programme, a large number of New Zealand hives are sampled each year for the mite. Currently, the samples are dissected by hand, a time-consuming and costly process.

The ELISA method of detection is reliable and can detect the presence of mites at a level of six infested bees per 100 bees sampled. Live, adult bees are collected and pickled in a >30% salt solution. The bees are washed before processing to remove the salt and any external mites. One hundred desalted bees are homogenized and a small filtered sample is used for the assay.

The ELISA process occurs within a small, rectangular plate containing 96 wells. The procedure has several steps including coating the plates, adding samples and various biochemicals, and performing incubations and plate washings. The final step involves a colour reaction and the "reading" of this colour intensity in an ELISA reader. A computer interprets the results and provides a printed statement of the level of infestation in the sample.

MAF conducted a trial using 88 samples of bees collected from around New Zealand. The samples were run in triplicate against both negative (no bees to test biochemicals) and positive (pickled bees from Canada containing dead mites) controls. Six samples tested as false positives (ie, the samples were dissected and shown to be free of *Acarapis woodi*).

Although New Zealand is free of tracheal mites, the external, nonparasitic mite *Acarapis externus* does occur on bees in New Zealand. It was the presence of these mites in the six samples that gave the false positive results. To eliminate false positives caused by *Acarapis externus*, a better system of washing and desalting the bees has been developed.

Using the ELISA assay, we estimate that a saving of around 40% can be made on the current laboratory costs of exotic mite testing. The assay will be used as a preliminary screening technique, with full dissection of any not-negative samples. Currently, MAF Quality Management collects and tests more than 1000 samples of adult bees annually for the presence both external and internal exotic mites.

- Robert Rice, AAO, LINCOLN

NEW OPTION FOR HONEY HOUSE LICENCE

If you own a factory that processes honey or any bee product, and you currently obtain an annual licence from your local council, did you know that beginning July 1 you will be able to go on a food safety programme instead? The new law that allows this is called the Food Amendment (No. 2) 1996.

The purpose of the 29 page Act is to allow food processors to get an exemption from the need to comply with the Food Hygiene Regulations 1974, the law that says beekeepers, for instance, need an annual honey house licence.

Beekeepers will now be able to produce their own customised food processing standards, rather than have to fit into a rigid set of requirements not necessarily suitable for honey. However, you can only get an exemption by adopting an appropriate food safety programme. And, naturally, you need to document your safety programme, present it with your application for exemption, and pay a certain fee.

The Act says any food safety programme needs to meet the following requirements:

- It must be based on the principles of Hazard Analysis Critical Control Point (HACCP).
- The programme must be in writing.
- The programme must:
  a) systematically identify the hazards involved in the preparation of food at the premises;
  b) identify how those hazards will be monitored;
  c) identify the means by which those hazards will be controlled, and provide for the systematic supervision of those controls.
- The programme must identify the food preparation tasks or categories of tasks that will be carried out, and identify, in relation to each such task or category of task:
  a) the skills required to perform it;
  b) the persons or categories of persons who will perform it;
  c) the training and instruction necessary before the task can be performed, and any ongoing training and instruction that may be required.
- The programme must identify the regular maintenance tasks that must be carried out in relation to the premises or vehicle concerned, and in relation to any equipment used in the premises.
- The programme must provide for compliance with the programme to be audited, on a regular basis, by an approved auditor.

- Where appropriate, the programme must provide for the recall of unsafe food.
- The programme must set out appropriate record keeping requirements.

Now for the good news/bad news thing. The bad news is that some councils are making it "mandatory" to move onto the new scheme, and it may cost more initially to get your food safety programme written and accepted than it currently costs for an annual licence. One suggestion to reduce such costs might be for an organisation like the NBA to develop a generic model for honey processing.

The good news is that HACCP is a very logical and easy procedure. One group of beekeepers, plus MAF Quality Management and Telford staff have already been through a HACCP workshop. MAF Quality Management's Dairy Group are running food safety courses all the time and if there is enough interest they will run a customised one just for beekeepers.

You can contact the MAF Training Section on free phone 0800 100 205 for more information on training and courses. The most applicable courses are the Introductory Food Safety - C10 (NZQA Unit Standard 167) which covers food hygiene, food delivery and storage, food handling, cleaning and pest control. This is a one day course and costs $80 plus GST per person.

The HACCP courses (NZQA Unit Standard 169) is usually a 2 day course that covers the Codex Seven Principles of HACCP, the application of the principles, how to develop your own HACCP programme, and environmental HACCP. This workshop costs $375 plus GST per person, which is a special price until 30 June 1997. The course normally costs $550 plus GST. Some Polytechnics also run food safety courses that will no doubt meet the requirements of the new regulation.

And if you want to get your own copy of the Act, try your local Whitcoulls, or Brookers in Auckland, Wellington or Christchurch. Brookers specialise in providing access to legal and tax information and you can phone them on 0800 732 766.

While on the subject of food quality, the MAF Quality Management Dairy Group is currently negotiating with AGWEST Trade and Development to use their SQF2000 quality code. AGWEST is a business unit of the Western Australia Department of Agriculture and their SQF, or "Safe Quality Food" programme, was specially developed for small businesses involved in the food industry. It can apply to primary producers as well as small food processors. We'll give you more details on SQF2000 in an upcoming issue of *BeeFax*.

- Murray Reid, AAO, HAMILTON

HIVE LOSSES AND SPLITS

For those of you currently wintering down your hives, here's a timely comment from Alan Dick, a commercial beekeeper in Alberta, Canada, which recently appeared on BEE-L, the Internet beekeeping bulletin board. Mr. Dick had just done a survey of winter losses on his own hives. As an aside, the hives were mostly headed by New Zealand or Australian queens:

"An interesting thing about mathematics is that the truth is not always obvious and intuitive. This is particularly true when you consider the relationship between the size of hive loss over winter and the cost of recovering from it in the spring:

- If you lose 10% of your hives, you have to split 11% of your colonies to recover;
- If you lose 20%, you have to split 25%;
- If you lose 25%, the number is 33%;
- But if you lose 33%, half (50%)must be split;
- And when you have 50% loss, every hive (100%) has to be split

... just to get you back to where you started!"

BLOOD AND BEES

"Be nice to me...I gave blood today." But should you have? Well, it turns out bee stings and blood don't mix.

Whether you are young or old, or even hate needles, you should consider being a blood donor. Generally, any normal healthy person over 55 kg in weight and aged between 16 and 65 can give blood. However, the Blood Bank will not take blood when it considers there is a risk, either to the donor, or to the patient who will eventually receive the blood or blood product.

And, of course, the reason to give blood is that it's likely that at some stage in your life you will need either blood or a blood product yourself. Some of us may need a whole blood transfusion as a result of an accident, illness or an operation. More often, however, we may need a blood product, like an immune serum globulin for protection against hepatitis when travelling overseas.

However, as beekeepers we need to be aware that there is a minimum period of three days between our last bee sting and when we should give blood. The reason is simple -- if we give blood in a shorter time period, and the blood is administered as a transfusion to a person who has a generalised allergic reaction to bee stings, the venom remaining in the blood could cause serious complications for the patient.

To be on the safe side, the next time you give blood, make sure you tell the nurse that you're a beekeeper. And remember the 3 day rule!

- James Driscoll, AAO, PALMERSTON NORTH

GADGETS AND GISMOS

(This month: Murray Reid tells us about labels, bar codes and the IRD)

Polysleve Labelling/Convex Plastics

As the name suggests, these stretch polysleves can be used on plastic bottles and containers of all sizes. They require no heat or glue and you get full wrap-around graphics in up to six colours. They are also recyclable. And if stock is damaged, or if the label is damaged but the stock is okay, then a new label can be easily fitted.

Call Graeme or Hamish on 09 525 1010 for more details or you can E-mail Convex at: convexmh@inca.co.nz.

[Source: *Food Business*, June 1996]

Tax Rules Change on April 1

If you run a business or are GST registered you need to be aware that the laws on tax compliance and penalties are changing. Whether you are a sole trader or a large employer, you need to know how the changes will affect you. Call your local Inland Revenue office and ask for a copy of their booklet "Taxpayer Obligations, Interest and Penalties - A Short Guide to the New Rules for Business People" (IR240). It may pay to have your IRD number handy.

Bar Codes

Supermarkets have moved towards requiring EAN-128 bar codes on cartons as well as jar labels. Bar codes and "use by date" can be printed to a label and applied to the carton, or printed on the carton itself. A number of companies offer expertise in bar code printers, including:

- Reynolds Group Ltd Ph 09 360 3555
- All-Mark Industries Ph 09 828 9966
- Bar Code Systems (NZ) Ltd Ph 09 849 5260
- Arrow Labels Ph 09 376 5146
- William Brandt Technology Ph 0800 909192

[Source: *Food Business*, June 1996]

TAMPER-PROOF LIDS FOR PET JARS

According to Rick Tupou, Marketing Manager at Nexus Packaging Systems in Auckland, by the end of the year his company will be able to supply their popular 250g and 500g polyethylene terephthalate (PET) honey jars with tamper-proof lids. The lid will look similar to the lid now seen on the PET Sanitarium peanut butter jars. It has a conventional screw lid attached to a break-away bottom collar (the same system used on PET soft drink bottle caps).

The design requires a new mould for both the lid and the jar itself, and since PET moulds cost hundreds of thousands of dollars, the lid is being offered first on high-volume lines like the peanut butter jar. New moulds are scheduled, however, for lower volume lines like the honey jars.

The recent Arnott's food ransom scare in Australia has highlighted the vulnerability of food packaging to sabotage and extortion. Last August, during a visit to the Honey Corporation of Australia, I was told that the Australian federal government was requiring tamper-proof packaging throughout their food industry because of fears of such sabotage.

EMERGENCY FEEDERS

A recent posting to the BEE-L Internet bulletin board described an interesting method of feeding sugar syrup to honey bee colonies using zip-lock plastic bags. The authors were two long-time beekeepers, who initially dismissed the idea, since they had heard of several "catastrophes" over the years with similar feeders leaking and drowning out a colony. However, those were just normal plastic bags, and so the beekeepers tried the method again, this time using thicker gauge gallon zip-locks.

They found that the bags held syrup extremely well, even with a slit on the top. According to one beekeeper, "The bags allowed for the most rapid taking up of syrup I've ever seen. I filled gallon bags a bit over half full, and they were cleaned out in a day."

The secret seems to be using the right size bag for the amount of syrup fed (no more than 3/4's full), and making sure the feeder slit in the bag isn't too long. A razor blade makes a good, clean, controlled slit once the bag has been placed on the top bars.

Needless to say, however, to make feeder bags work successfully, you'd need an over-sized inner cover, or a empty super put on top of the brood nest so that the syrup-filled bag doesn't get squashed. Still, it sounds like a good idea for feeding, especially in emergency situations where a beekeeper doesn't have a frame feeder to do the job.

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

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

ISO standards process proving a vexing issue

As Executive Director of the Packaging Industry Advisory Council David Warburton expressed New Zealand's views on the new ISO 14000 environmental series of standards which are being developed by the International Standards Organisation (ISO).

The issue of maintaining equity in applying environmental labels, reducing the risk of technical barriers to trade and ensuring individual products in a market are not inappropriately disadvantaged is a vexing one.

ISO is developing standards to address these issues. About five standards are at various stages of development to assist the application of environmental labels internationally.

The difficulty from New Zealand's perspective is that the cost for this development is substantial and no one organisation can afford to underwrite it. Consequently, the ISO standards are being prepared with an erratic New Zealand input limited by funding availability.

Once the standards are prepared and adopted (with considerable input from our northern hemisphere trading partners and environmental groups) we will be locked in to complying with the standard. It will be a key set of documents used by the WTO in determining whether a given programme is simply a technical barrier to trade or a justifiable environmental label. This is an undesirable position for New Zealand and a greater effort should be made in the development of the standards.

Exporters can't afford not to be actively involved in the area. It will be essential to understand the issues, monitor progress and participate in the formulation of programmes to ensure they remain balanced, viable and are capable of delivering the desired outcome.

As customers and retailers of our exported products focus more on environmental issues we must be positioned to capitalise on our advantages.

Environmental labels are likely to expand, irrespective of individuals' views of their advantage or otherwise. The expansion is likely to occur in a number of areas:

- More countries adopting environmental labels.
- Existing programmes adding to their list of products and services covered by the label.
- Wider adoption be retail outlets to promote a label.
- Greater discretionary spending by consumers increasing the attention given to environmental issues in the purchasing decision.

Apart from what individuals may be aware of in the commercial area now, it should be appreciated that the role of environmental labels is being promoted or investigated by environmental groups, the World Business Council for Sustainable Development, the OECD, UNCTAD, CSD to name a few. This international support, from an area not regularly monitored by the commercial sector, is likely to result in labels appearing and being supported by a wide range of institutions which will ultimately affect funding and purchasing decisions.

Consequently, environmental labels will become part of the normal commercial fabric of business.

The objectives of environmental labels are legion. Some are stated. Others are the natural consequence of the conditions imposed by the programme. In most cases the objectives and the relative priorities are influenced by the management.

Broadly, one would expect the object to have one or a series of environmental benefits as the key objectives. How this is achieved varies and the demonstration of quantifiable environmental improvement through the use of labels has been limited to date.

Labels may address products (this could range from the product itself, its packaging or a service) with respect to:

- How they are made
- How they are consumed
- How they are disposed of
- How they may support some secondary activity

The first three are relatively straight forward and cover process activities (eg, emissions during manufacture or resource use), consumption impacts (eg, efficient use of detergent or energy) and finally disposal (eg, reuse, recycling or safe handling instructions).

The final category may relate to support for an environmental group or cause. This category is more difficult to monitor or assess the outcomes.

Environmental labels may address one or a number of these areas and require careful consideration as to whether they are promoting a "cause" or providing a mechanism to achieve an improved environmental outcome.

Environmental labels are managed by three categories of organisation:

* **Government supported** (through policy and funding) organisations. Most of the European programmes fall into this category. The best known is probably the Blue Angel label in Germany. The Canadian Environmental Choice programme started as a government initiative but has recently moved into category three and is being run as a private programme with government interest.

New Zealand's Environmental Choice programme has strong government association through its conception but has been largely funded by Telarc with some government support.

* **Environmental group supported organisations.** The most widely known programme in this category is the Forestry Stewardship Council (FSC) label that was primarily initiated by the World Wide Fund for Nature (WWF). Greenpeace and the Environmental Defence Fund in the USA are also examples of environmental organisations developing environmental labels.

* **Private initiatives, generally with some industry support.** There are fewer of these programmes to date but they are likely to grow in the future. The USA has some entirely private programmes (White Dove) and the "Project 98" programme in New Zealand are examples of this category.

It must be appreciated that some of the programmes operate on the fringe between categories and individuals in any one programme may see their activity in a different category. In principle there is a need to establish who is controlling the programme as this often influences the balance of priorities within any stated set of objectives.

Acknowledgement Export News

Mangapehi Moonshine

by Ron Mossop

I have not always been a beekeeper, in fact, in earlier times my working life was very much tied up with the timber milling industry in some of the more remote parts of the North Island. During this time I met some interesting characters and, of course, had some remarkable experiences. Although not directly related to beekeeping some of these were well worth recalling and I'm sure you will find them of general, if not historical, interest.

More than fifty years ago just after our first son, Colin, was born, I obtained my second class steam ticket and my wife, Noeline, and I left our native Taranaki and I went to work for Ellis and Burnand, a timber milling company with a number of mills in the Te Kuiti area. The mill I worked at was some twenty miles up the company's private railway line from Mangapehi towards Lake Taupo. All told the company had about eighty miles of railway. We had two steam boilers for the main engine and a log hauling winch. My job was to keep the wheels going around. There were some big wheels. For instance the engine had a fly-wheel fourteen feet in diatmeter weighing several tonnes.

We cut mainly Rimu, Totara and Matai logs. Some of these logs were up to five feet six inches in diameter. Anything bigger had to go down to the main mill at Mangapehi and pass through a twelve foot "up and down" saw.

There were no modern facilities in the house. We had a wood stove with a "wet-back" for hot water, no power, just a battery light and radio. There was a "longdrop" toilet down the garden path. The foreman and I took turns milking the cow. I usually milked in the morning. The one telephone was at the foreman's house. The foreman was also the only man to have a car. We got our groceries and other supplies by company railcar from the store at Mangapehi. Our life was very simple. We had no house rent or power bill, no fuel bill, no telephone bill or rates or water bill, no paper or car running expenses and no milk bill. If you knew the right people you could also get free whisky!

Noeline became the local heroine when she jumped into a fast flowing stream one day and saved the foreman's three year old son from drowning... I went on to become the local villain.

One evening I was out for a walk carrying my father's old double-barrelled shotgun when I came across truck tyre marks in the scrub, I followed them and found a large heap of clear glass bottles stacked neatly by the Cut Over Bush area. Next day I mentioned this to the foreman. He said that if I went there that evening there would not be a bottle left. Sure enough, I went there that evening and every bottle had gone. I noted that three horses had been there, not one of them had been shod, there were also footprints of one man. After following the hoof marks along the bush track, I decided one man was riding a horse and leading two packhorses in single file. I became very curious.

It was very cold in winter time at the mill, although I had been colder when I spent several months in the winter of 1941 at Waiouru Military Camp under canvas with the Mounted Rifles. It was common knowledge that army deserters were up in the bush somewhere very busy distilling whisky. There was a big demand for their product in whisky-starved Auckland. Sacks of barley and a forty four gallon drum of molasses had been found beside the railway track. The company management were not pleased. One day one of the trains disappeared. The mill foreman and managers were ringing the main office at Mangapehi as their trucks of timber and logs had not been picked up. The boss transport man set out by rail to find the missing train. He found it up a spur-line where they were laying more tracks into a new lot of forest. Both the loco driver and fireman were lying on the floor of a hut completely out to it and obviously both full of whisky. They were rudely woken and fired on the spot.

The loco driver had powerful friends at Mangapehi who insisted that the be reinstated in his job. Most of the people I knew said that they did not want a drunken loco crew on the same line that their children used when they went to the company school on the rail transport. Ultimately a meeting was called some miles up the line from our mill at the main campsite for bushmen and railway workers. I went to the meeting with our foreman and timber yard man. It was dark when we arrived at the meeting which was held in the cookhouse dining room. The tables had been moved out but the long forms stayed there for everybody to sit on. The place was dimly lit with kerosene lanterns around the walls. The room was crowded but we managed to get a seat by the door. Somebody got on a box and called the meeting to order and then proceeded to tell us at great lengths why he wanted the loco crew reinstated. From some of the interjections I heard, I got the impression that it was going to be a lively meeting. Accusations flew back and forth until somebody in the middle of the room said in a loud voice that "the so and so bush boss had ratted on the loco driver". Unfortunately for him the bush boss was sitting right behind him. The bush boss leapt to his feet with a roar and lifted the man off the seat by his hair with his left hand and at the same time planted a very heavy right fist in his face. The unfortunate man went over into the next row of seats. That was the signal for half the men in the room to start punching one another. Seats were knocked over including the one I was sitting on. I hit the floor and bounced right out the door with my mates right behind me. We watched from the doorway for a few moments until we were swept aside by half of the men rushing out the doorway. Eventually we got in our car and drove home, laughing all the way. We all agreed it was the best night's entertainment we had ever had. The loco crew never worked for the company again.

We had trouble with bees at our mill. When the bushmen felled a tree with a wild hive of bees in it they would kill the bees by burning sulphur, chop or saw the log to get most of the honey out to put in their tins, then winch the logs on to the flat-top rail wagons to come down to the mill. When our man arrived with his Fordson loco to bring the logs down they were covered with robbing bees from the surrounding wild hives. The logs were then winched off the wagons onto the mill skids. The skiddy who did the job was not amused. From the safety of the engine room it looked amusing to see a man jumping up and down waving his left arm and spraying water into the air with his right hand. During the eighteen months I worked at the mill this happened several times.

The same skiddy came to work one morning in a bad mood and told me that the police has burnt his favourite saddle up at the whisky still. As all the bushmen at our mill were single men I often wondered what they had done with the honey and how many pounds of honey were bartered off for a bottle of whisky. Several men were man-powered into the mill to work. One had been a bosun on a Merchant ship, two others had been in the Pacific army. They all became part of the team and worked willingly. Another man, whose wife was the cook for the single men, was a very reluctant worker and went out of his way to be a pest. The foreman tried him just about everywhere about the mill and always found that he was a danger to the other men trying to get on with their job. In desperation the foreman finally gave him the slabbies job where he couldn't annoy other people.

His job was to take slabs of waste timber from the breast-bench saw on a flat-top rail trolley out to the drying line beside the rail line and then bring back dry firewood into the boiler house for me to burn. The large boiler took twelve foot lengths of firewood and the small boiler six foot lengths. When the slabbie brought the firewood into the boiler house he would walk up the sloping side of the heap of firewood and put the slabs down where I could open the furnace doors and slide them directly into the furnace which was fourteen feet long about six feet wide and three feet deep. I asked him several times not to cross the slabs as it made it difficult for me to slide the wood into the furnace. He would then deliberately cross them more than ever. Eventually I lost patience with this man and told him exactly what I thought of him. I must have upset him a bit because he jumped off the six foot heap of firewood trying to kick my head in with his hobnail boots. It was not a good idea. The foremen and odd job man carried him off the job. Next day the mill was short of a slabbie and a cook.

A few days later the foreman told me that the manager from the top mill was sending a replacement slabbie down to our mill. This man had been getting a rough time from some of the mill workers and being an Italian he had pulled a knife on them. Nobody would work with him. Our foreman showed Angelo what to do and he did a perfect job except that every time I looked up Angelo was watching me with a scowl on his face. This went on for several days. I was beginning to get a bit nervous as I didn't want a knife in my back. Then it dawned on me that if I had heard bad things about Angelo then he would have heard even worse things about me. Angelo probably expected me to seize him and hold his head against the hot furnace plates then throw him on the concrete floor and do horrible things to him. For a while things settled down and almost became boring, but not for long. Every few spare minutes Angelo got he spent sharpening his axe. He would sit by the rail opening into the boiler house where he kept his oil and oilstone. After honing his axe he would wipe the oil off the axe on his trouser leg and shave a few hairs off his arm, then blow the hairs off the axe. It was obvious that Angelo liked a sharp axe. One day whilst this performance was going on I went to the small boiler to cross-blow the water in the glass. I took hold of the brass water cock handle and moved it. It blew completely out with a loud roar. In a flash the boiler house and engine room were full of steam. After the boiler had emptied itself out on the floor I shut the steam line between the two boilers and dragged the fire out on the floor. The foreman said he knew where he could get a mounting from another Vulcan hauler up in the bush somewhere. The main engine kept going and the men started cutting timber again. Later the timberyard man gave me an eye witness account of what he had seen from the yard. He said that he had heard an explosion and had seen the boiler house and engine room enveloped in steam then down the railway track bounded Angelo going fast enough to make a sprint champion look like a stunned slug. Poor Angelo, I hope he didn't think that I had done it on purpose.

Soon after that time we got word to listen to the radio for an important announcement. I shut the engine down and we all went to hear the news that Japan had capitulated. The war that had claimed so many lives was over. I hung weights on both the cords to the main and alarm whistles. Within an hour we were cutting timber again. There would be a lot of timber required to build houses for the men lucky enough to return from the war.

I carried on working at the mill. Noeline was expecting our second child and did not like the idea of being twenty miles up a private railway line, so she went to stay with her parents for a while.

One day I got a telegram to tell me that baby Gary had arrived into this world.

It all seems so long ago now with our five children, sixteen grandchildren and five great grandchildren (last count).

The Centenary Apicultural Congress and the Apimondia Beekeeping Museum

by O. Van Laere

Introduction

Most of us know the situation: the XXXVth International Apicultural Congress is to be held in Antwerp, Belgium, from the 1st to the 6th September 1997 under the auspices of Apimondia. Some 20km South of Antwerp the town of Mechelen is situated about midway on the highway to Brussels. In this place we find the "International Apimondia Beekeeping Museum".

The Apimondia museum is working close together with the congress organisers, under the responsibility of the municipality of Mechelen.

All congress participants (full week or half week) will find a ticket in their congress documents for a free visit to the Apimondia museum. The way to get there is most simple: Antwerp Central Station is next to the congress centre; from here frequent trains go to "Mechelen Nekkerspoel" station in about 15 minutes. The museum is one minute walking from this station. From Mechelen Central Station the distance is much longer (20 minutes walking or 5 minutes taxi). The railway time table will be available at the congress reception desk.

General conception of the museum

In recent years an increasing interest for nature and for the historical background of various agricultural and handicraft activities, connected with nature, is generally observed. One of these items and activities is the biology of the honey-bee and beekeeping in general.

Beekeeping, and everything connected with it, has considerably evolved in the course of many centuries. A considerable historical patrimony concerning beekeeping materials and methods is now gradually disappearing. It is therefore important that special efforts are undertaken in different parts of the world for the preservation of the most essential items of historical apiculture.

The aim of the Apimondia museum is collecting and putting on display historical hives and beekeeping objects. But it is much more than just this sensu stricto assignment. Important efforts are made into valorizing the patrimony of the museum for the benefit of a large public, an important part of which being schools of different levels and specialization.

Therefore, we consider as being most important that the general biology of the honey-bee (and related insects) as a natural basis for a reasonable understanding of beekeeping be represented explicitly.

In the same line of ideas different subjects as engravings in connection with bees and beekeeping, heraldry, philately, numismatics and a historical beekeeping library are incorporated in the museum.

From wild living bee colony to movable-frame beekeeping

Many centuries ago, before the existence of any "beekeeping" techniques, honey-bees were nesting in natural cavities or in the open air. The first collection of honey for human consumption from honey-bee colonies is the so called "honey hunting", where honey combs are taken away from free living nests. This practice continues to the present day in some parts of the world. It has nothing in common with bee management or beekeeping (See Eva Crane 1990, Bees and Beekeeping. Edit.: Heinemann Newnes).

A more systematic harvesting of honey from wild nests in known locations still exists nowadays with the "giant honeybee" in the Far East. Further evolution towards "Apiary beekeeping" passed over stages of "Bee management", where man is taking care of natural nests in situ in hollow trees, rocks and human dwellings. "Beekeeping sensu stricto begins when natural nests are simulated and used in situ.

In the beginning beekeeping was limited to very simple activities and the use of simple materials. Keeping bees and harvesting honey from bee hives dates back to some 5000 years. The use of "fixed comb log hives" as the simplest nest cavities was later replaced by organised apiaries with horizontal or upright artificially made cavities, which evolved to various types of "fixed comb hives", in which the individual combs were attached by the bees to the body of the hive. An important step forwards was the construction of "movable comb hives with top bars and a round cross-section".

All these "Traditional beekeeping" techniques have evolved into "Modern rational beekeeping" over the stage of "movable-comb hives with top bars and rectangular cross-section" into "movable frame hives with rectangular frames".

Traditional and some modern items of all these historical stages in the evolution of beekeeping techniques are shown in the Apimondia museum in Mechelen.

Biological section: basis of understanding

In the biological section the situation of the honey-bee in the general taxonomy of the animal kingdom is shown on several didactic panels, representing the evolution of the universe into the animal kingdom as a whole, the arthropods, the insects, the order of Hymenoptera and the family of Apidae with the four species: *A. mellifera, A. florea, A. dorsata and A. cerana.*

Furthermore, several important biological characteristics and phenomena of the bee colony are visualised, such as the division of labour, orientation and communication, the life cycle of queens, drones and worker bees, and bee-plant relationships.

An observation hive is particularly helpful for demonstrating and studying several biological aspects of the honey-bee community.

Products of art

Many remarkable engravings and other objects of art have been produced from ancient times until today. Some of them are particularly instructive concerning the use of definite types of bee hives or honey harvesting methods in a certain historical period and/or a given geographic area.

The art of heraldry is a branch that deals with the history and practice of bearing and displaying armorial ensigns. Some families or persons with a well defined social rank, or communities, use particular armorial ensigns. The methods of painting them have changed very little in the course of centuries. Some of them are typically illustrated with honey-bees and/or bee hives.

The Apimondia museum has a remarkable collection of more than 60 armorial ensigns.

Honey-bee motives have sometimes been used in philately and numismatics. Collections of stamps and coins are historically valuable elements in the Apimondia museum.

Library

Books on bees and beekeeping are numerous from the very beginning of the art of printing.

The Apimondia beekeeping museum will be able in the near future to give the opportunity to students of history and other research workers to study several aspects of ancient and modern beekeeping. In addition to the collections, the library is of particular interest for this purpose.

Modern beekeeping, bee products and commercial aspects

Beekeeping includes modern beekeeping and today's beekeeping will be called "historical" in future generations. It seems therefore likely to provide the museum with items, techniques and methods for modern, amateurish as well as professional, beekeeping. This section is in its initial stage of development. Various types of modern movable-frame hives and other beekeeping equipment

will be shown in the future and will give to the visitor a deeper understanding of modern beekeeping possibilities. Also bee products, their production technologies and their use in human consumption, cosmetics and apitherapy are a field of interest for a large public. It goes without saying that potential candidates in beekeeping may find in this section the necessary inspiration and develop their capacities into beekeeping practice.

International character of the museum
The "International Apimondia Beekeeping Museum" is not only concerned with the presentation of beekeeping and production of bee products in all continents through the ages, but is determined to carry out its mission of communicating with people of all countries around the world.

The close relationship with the administration of Apimondia require a high standard of management and linguistic capability. Individual or group visitors receive close attention and are given the possibility to be guided in different languages. The delegate of Apimondia in the museum has, in close collaboration with the municipal administration of Mechelen, developed connections on a high scientific level with specialists, institutions and organisations in quite a number of countries, in relation with apicultural research and history.

Address for correspondence:

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Fax: +32-15-55.20.85 / +32-9-253.91.63

The 35th International Centenary Apicultural Congress - Antwerp, 1-6.09.1997

How to manage as future congress participant?
Congress participant candidates will find hereafter the addresses for information, registration, hotel reservation, group tours, Apiexpo ... etc.

1. - **General information about Apimondia and the congress:** ask for second announcement with registration forms at the following address:
   - **Registration as congress participant:** send your completed registration form to:

APIMONDIA, General secretariat
Corso Vittorio Emanuele 101
I - 00186 ROME - Italy
Tel/Fax: +39-6-685.22.86 Telex: 612533
E-mail: APIMONDIA@MCLINK.IT

2. - **Participation as exhibitor in APIEXPO '97:** ask for detailed information and conditions at the following address:

FAIRTEC Industrial Exhibitions
Autolei 337
B-2160 Wommelgem. Belgium
Tel.: +32-3-354.08.80
Fax: +32-3-354.08.10
E-mail: <info@fairtec.com>

3. - **General congress information in Belgium and participation in contests:**

Prof. O. Van Laere
Dekokerlaan 13
B-9940 EVERGEM. Belgium.
Tel/Fax: +32-9-253.91.63
E-mail: <vanlaere@club.innet.be>

4. - **Hotel reservations,** all congress **excursions** and **technical visits; group tours at special rates:** send your completed form to:

IfB-Belgium Incoming Travel, Conference Department

C/- Mr S. van de KERCKHOF
Place St Gery 33-35
B- 1000 BRUSSELS
Tel.: +32-2-551.05.80
Fax: +32-2-551.05.88

Practical information

ApiExpo '97: exhibition within the framework of the 35th International Apicultural Congress.

Date: Monday 1st to Saturday 6th September 1997.

Opening hours: 10.00am - 7.00pm

Location: "Koningin Astridplein", Antwerp - Belaium (situated opposite Central Railway Station and Antwerp Zoo.

Initiative: Apimondia, International Federation of Beekeepers Associations.

Reservations and info: Fairtec nv, Autolei 337 - B-2160 Wommelgem (Antwerp), tel: +32 (0)3 354 08 80, fax: +32 (0)3 354 08 10
E-mail: info@fairtec.com
http://www.fairtec.com.

Village-dwelling bee a non-stinging native

Busy insects hovering over bare patches in lawns and on garden paths are native solitary bees.

The museum received 18 telephone calls last month about busy insects hovering over holes in bare patches in lawns and on garden paths. People were concerned about the large numbers of the insects and about the crumbly mounds of soil around the holes.

In every case the insects were solitary native bees. This year only one species, *Leioproctus monticola,* was reported. It is about 13mm long, mostly black and does not live in a hive with a highly organised caste system, as social bees, such as the honey-bee, do.

They are beneficial, aid aeration of the soil, do not sting and should not be disturbed. Rain soon removes the mounds of soil and in a few weeks the bees are gone for another year.

These solitary bees are gregarious. Although many individuals live together in villages, each female fends for herself. She digs her own burrow constructs a terminal cell, then lines the cell with a substance that resembles tissue paper. Next she visits flowers to collect nectar and pollen. With this she makes a honey-nectar-pollen mixture that she places in the cell, then lays an egg on top. She then pulls together at the top end the sides of the "tissue paper" lining.

The contents of the cell thus resemble a pudding, with the larva and its food in a bag tied up at the top. The bee then fills the shaft of the burrow with particles of soil. The larva is left to develop by itself with its own store of food: unlike a queen honey-bee, the solitary bee mother does not see her own offspring.

There may be hundreds of these burrows within a radius of a metre. The entrances are surrounded by crater-like mounds of finely powdered clay, which are soon dispersed by wind and rain. Males fly close to the ground, back and forth over the holes, hoping to find a receptive female. Unlike the males, females often have their hind legs bulging with yellow pollen.

Throughout the world, most bees are solitary, as are all species native to New Zealand.

Various native New Zealand bees nest in hollow stems, in abandoned galls in meuhlenbeckia, in old beetle holes in wood, in clay, in loam, and in sand. Many are undescribed - there are more than 40 species that will soon be well known, because they are the subject of a *Fauna of New Zealand* contribution which is nearing completion by the New Zealand expert, Dr Barry Donovan.

Acknowledgement
Otago Daily Times

Branch Apiary

Every branch should have one

An apiary in a suitable location can be used for educating new beekeepers, for a field day centre and for making a few dollars. All that is required is a suitable site, a few donated hives and a few willing helpers.

In Hawke's Bay we are fortunate to have all these. Midway between Napier and Hastings is a riverside reserve where we have obtained permission to keep a few hives, now a total of 10, four of which are backed by a shade cloth screen. This enables hives to be opened for inspection or teaching with participants able to see what is going on without the need for everyone to be given protective clothing. We have had scout groups, school groups and field day groups all learning something. Each year we are able to take off 10 to 15 boxes of honey plus a few frames of comb honey.

To start you need one keen member who is prepared to be the hive-master. His job is getting a team of helpers to share the work of managing the bees and keeping the site tidy. We are fortunate in having Bob Wotherspoon a past president who has twisted arms to get all sorts of assistance. He is the motivator.

There are a few recurring jobs, with our worst being the control of growth around the hives. It is a bonus if you have a member with a weedeater or mower. A tractor mower is a help if the area warrants. Better still, site your hives in a paddock with sheep. We can't have sheep because of the young trees growing in the reserve. Another problem is the fruit tree spraying. We try to talk to orchardists; but the region is a conglomeration of small holdings all with trees flowering at differing times. We loose a few bees each season even if we haven't had a total hive loss.

There's the challenge. Get your branch apiary up and buzzing.

by Ron Morison

Auckland Branch AGM

Date:	30.04.1997
Time:	7.30pm
Venue:	Rob and Janey Johnston's, Runciman Road, Drury. Phone: (09) 294-8320
Directions:	Turn west at the Drury off-ramp, south into the Old Great South Road, and at 1km turn right into Runciman Road. At 1 1/2km watch for the Johnston Honey sign on the right.
Agenda:	1996 AGM Minutes, reports, election of officers, general discussion, President Brian determined to have an early night owing to shaking of bees.
Note:	New members with 10 or more hives and/or three or more sites, this is your meeting too, and you will be made welcome.
Apologies:	To Secretary Jim Phone: (09) 238-7464 125 Queen Street **PUKEKOHE**

Free money?

What is the Business Development Programme?

The Business Development Programme (BDP) is an integrated package of Government assistance measures designed to assist both existing businesses and those wanting to start out in business.

The programme has two primary objectives:

- to increase the ability of businesses to respond to opportunities, and
- to increase the wealth of New Zealand through business growth.

The programme aims to build better businesses by;

- helping New Zealand's small and medium size enterprises (SMEs) gain access to the information and skills they need to compete effectively in today's globalised trading environment; and
- providing assistance to business that is appropriate in that it is tailored to individual business needs; and
- building on a businesses strengths and skills, with the objective of helping the business to perform better.

How does the grant scheme work?

Assistance is provided in three areas:

1. Strategy
2. Implementation
3. Innovation/research and development

The aim of the grant is to assist SMEs without building dependence on Government assistance.

The **strategy element** helps determine goals and objectives, ways of meeting them, as well as identifying any necessary resource requirements.

The **implementation element** provides assistance for export ready SMEs to develop offshore markets.

The **innovation/R&D element** will enable testing of strategic focus, eg under innovation, assistance could be provided to improve a current product/service, while under R&D the development of new products/services could be supported.

Grant Limits

The grant scheme offers assistance on a 50-50 basis (ie dollar-for-dollar) to a maximum contribution of $50,000 (for all time) to any one applicant. Any number of applications against the $50,000 (maximum) can be made but approvals are subject to a maximum of $20,000 in any one July/June year. The annual maximum for the innovation/R&D element is $10,000. The term "maximum" refers to the amounts actually uplifted. Grants are GST inclusive. Grant approval is subject to regional funding priorities.

What does the programme offer?

The supply of information

The Business Development Boards (BDB) will endeavour to provide relevant and timely information to SMEs particularly in the following categories:

a. The overall economic and regulatory environment in which businesses operate, highlighting the significance of particular developments for SMEs.
b. New Zealand's trading activity and the regional economy, highlighting opportunities for SMEs.
c. Techniques to improve business skills;
d. Sources of advice and assistance for SMEs or those intending to go into business.

Business Capability Improvement Assistance

Assistance is provided in the following areas:

1. **Preliminary business appraisal/capability assessment** — focusing on eight key business capabilities, that are needed in today's business environment.
2. **Business training** — this provides a basis for Boards to refer to appropriate training providers to address gaps in business skills.
3. **Grant scheme** — eligible businesses can apply the new skills gained through the business training element. Alternatively, SMEs who demonstrate overall business capability to the BDB can apply directly for a grant.

Who can apply?

1. Applications can be made by any individual, business, trust, organisation, iwi authority or incorporation, based in New Zealand for tax purposes.
2. SMEs employing less than 50 full-time equivalent employees including parent and subsidiary companies overseas.
3. Grant assistance is only available in overseas markets or in competition with imports.
4. Assistance is not available for activities which are directed at the Australian market; this is in line with New Zealand's obligations under the Australia and New Zealand Closer Economic Relations Trade Agreement (ANZCERTA).
5. Assistance to local authorities is only available to help them investigate projects outside their normal scope of activities. Government departments are not eligible.
6. Applicants will have to satisfy their Board that they are at the stage where a grant is appropriate — that they wish to test or apply a skill that they have acquired or have had access to through either the BDP's business training element or through some other means. The Board will base it's decision on the appropriateness of the grant on the basis of the capability assessment, or other knowledge of the SME.
7. Applicants seeking a grant under the innovation and R&D element will have to show that they are developing a new product/service to the region (R&D component) or that they are looking to introduce significant new technology into an existing product/service (innovation component).

For further information on the Business Development Programme contact your nearest Business Development Board.

Ocean pastures

Coastal fish species have been an important part of the Japanese diet for centuries, but the population of these fish have plummeted as a result of indiscriminate fishing practices and the increased efficiency of the fishing industry. Water pollution caused by effluent from coastal urban centres and industrial zones has further depleted marine resources in the seas around Japan.

In an effort to meet its demand for fish, Japan used to send its fishing fleet across the seven seas, deep-sea fishing in the Pacific, Atlantic, Indian and Arctic oceans. However, this practice came to an end in 1979 with the signing of an international agreement that gave coastal nations dominion over the marine resources in all waters within 200 nautical miles of their coasts,

With this turn of events, the Japanese fishing industry once again turned its attention to its own coastal waters, asking "How can we revitalise our impoverished marine resources?" One of the most effective answers has been the development of so-called ocean pastures. Like the shepherd's horn that keeps sheep from wandering too far from the flock, ocean pastures are equipped with a "sea horn" that helps keep fish in the area. This high-performance underwater speaker emits and auditory signal whenever food is dispensed from the buoy to which it is attached. After feeding, the schools of fish disperse, but they do not go far. An artificial reef on the sea floor around the buoy provides protection and an ideal living environment.

The fish that tend to congregate in these "pastures" include high-value species such as sea bream, flounder, and turbot. The fish are hatched artificially in facilities on land and then raised inside enclosures in the sea until they are around ten centimetres long. During this time, the "sea horn" is sounded at feeding time to train the fish to associate the sound with food. Once released from the enclosures, the fish will still be drawn to the sound and feed on the food available around the buoy. They will also feed on smaller fish just like their native cousins. To protect young fry, an area with a radius of two kilometres around the buoy is established as the fish's territory. The benefits of this system show clearly in fish yields. According to an official at the Oita Prefecture Fisheries Experimental Station, fish yields have nearly quadrupled since the establishment of an ocean pasture.

The ocean-pasture concept is a comprehensive system for using the sea's capacity to increase marine resources. Component technology includes artificial hatching, fisheries technology for raising fish, electrical and mechanical technology in the buoys and fish school detectors, and underwater engineering technology for erecting reefs for the fish. A system suited to the characteristics of the ocean area is then created by skilfully bringing these different technologies together. This system is the first case of a commercial application of the ocean-pasture concept. After a ten-year period of development, large-scale ocean pastures of this type are operating commercially in some twenty locations around Japan, and another thirty or so small-scale facilities, and experiments in industrial applicability are under way.

Replenishing coastal waters

Japan was working to develop the coastal fishing industry even before the appearance of ocean pastures. Such efforts focused on developing aquaculture facilities and stocking Japan's rivers and seas, The artificial hatching and raising of fish is the foundation of the ocean-pasture system, but the technology is being implemented

differently from traditional aquaculture and stocking strategies.

In aquaculture, fish are raised in a small enclosure in the ocean. The fish, tightly packed together, are dependent on humans for all their food. The technology needed for this kind of system is geared toward protecting the fish from stress or disease related to high population densities. Such technologies include the administering of antibiotics. The techniques are similar to those used in raising chickens or hogs in special confinement facilities. The fish are managed completely by man from birth to death.

At aquaculture facilities, the sea is little more than a huge fish tank. Uneaten feed and the fish's faeces build up on the sea floor, becoming another source of ocean pollution.

Stocking oper-ations are similar to ocean pastures in that both use the productivity of the sea to raise fish. In stocking, however, there is no control over the fish once they are released. Some of the fish are caught in fishermen's nets before they have time to reach maturity; the others swim far and wide from the spot where they were released. Only three to five percent of the released fry are ever caught as adults.

The purpose of ocean pastures is to keep the released fish in a specified area rather than to satisfy all their dietary needs. The fish are given around one-third for themselves. Under this system, no food is wasted, and the fish are free to range over a wider area than in aquaculture systems, thereby eliminating the problem of faeces buildup. The quality of ocean-pasture-raised fish is comparable to wild fish and much higher than that of fish raised in aquacultures. Furthermore, under the pasture system, thirteen to fourteen percent of the fry released are recovered as adults — three times more than in conventional stocking operations.

The preservation of marine ecology is an important consideration in ocean-pasture operations. The fish species released for example, are native to the region. Although it is true that ocean pastures only increase the population of a few marketable species, humans remove the surplus population through harvesting. In an ocean pasture, man manipulates nature, but does so in a manner that does not disrupt the ecological balance.

An ocean pasture in the Amami Islands (between Kyushu and the Okinawa Islands) shows great promise for future developments in ecosystem preservation. At the Amami facility, the mouth of a calm, isolated bay is closed off with a 240-metre-long net, creating an expansive, 140,000-square-metre area where black tuna — a species that can swim at speeds of up to 100 kilometres per hour — are raised. There, technology is being developed for gathering tuna eggs, artificial hatching, and raising tuna fry. The facility is providing Japanese scientists with further insight in the effects that ocean pastures may have on a particular species and the surrounding ecosystem.

Artificial upwelling

Another type of ocean pasture aims to increase the productivity of the entire ocean region rather than focusing on the productivity of certain species. This method uses artificial upwelling, a technology first employed commercially last year. To create upwelling, a ten-metre-high wall is erected on the ocean floor. When water currents that are close to the ocean floor and rich in mineral nutrients approach the wall they are forced up almost to the water's surface. Plant plankton absorb the nutrients in this fertile water and reproduce. Since plant plankton are near the base of the food chain, an increase in their numbers leads to an increase in animal plankton, and, consequently, an increase in fish population.

Upwelling occurs naturally where ocean currents run into islands or peninsulas or, as off the coast of Peru in South America, where strong winds blow out from the continent. It has long been

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known that such places produce rich fisheries. However, creating upwelling where no natural upwelling occurs has a major impact on an ecosystem. In Japanese coastal waters, man-made upwelling is only allowed where some form of natural upwelling already exists. Structures are erected on the ocean floor to strengthen the existing upwelling effect without drastically altering the ecosystem.

Confronted with a shortage in marine resources, Japan has independently developed artificial hatching and techniques for raising fry, and followed that by developing ocean pastures. Many of these technologies are being transferred to private industries and local administrative bodies, and some have reached the stage of broad implementation.

The rapid industrialisation of many Pacific Rim countries coupled with the population explosion in developing nations will likely bring about even worse over-fishing and ocean pollution and cause an eventual crisis in marine resource depletion. Though specific regulations governing the size of the fish harvest and the avoidance of depletion of marine resources are yet to be settled, the goal is to increase ocean productivity through the establishment of ocean pastures, to maintain sustainable marine resources, and to protect the marine ecosystem.

In the future, the possibility of creating international ocean pastures may be discussed, in which case Japan should be ready to actively pass on its technology and know-how. Of course, ocean-pasture technology is still in the development stages even in Japan, and there are many problems still to be resolved. First of all, it is impossible to precisely evaluate the impact of ocean pastures on the marine environment since the minutia of the ocean ecosystems' structure and interactions are hard to decipher. The greater the scale of the ocean pasture, the more difficult this problem becomes. Knowledge from a number of fields — among them, wide-area ocean surveying, and marine biology and ecology — must be assembled before we can fully understand the impact of ocean pastures.

This author is a writer for the Nihon Keizai Shimbun. Born in 1960, he graduated from Sophia University's Faculty of Science and Technology in 1984 and earned a master's degree in Geophysics from Tohoku University in 1986.

Acknowledgement Look Japan

RECIPES

Honey recipes from the "1996" Texas Honey Queen

Enjoy the delightful flavours of honey

Wendy Riggs, Texas

Wendy Riggs, of Elmendorf, Texas is the 21 year old daughter of Weldon and Sally Riggs. She is pursuing interests in both veterinary medicine and meteorology. She fills her free time by spending time with family, church activities, numerous pets, and livestock, just to name a few.

As 1996 Texas Honey Queen, Wendy will spend her year travelling Texas and promoting the Beekeeping and Honey Industry. She is available for interviews, personal appearances, and is prepared to give presentations of all groups.

Easy Honey Muffins

1/2 cup milk
1/4 cup honey
1 egg, beaten
2 1/2 cups buttermilk baking mix

Combine milk, honey and egg. Mix well. Add baking mix and stir only until moistened. Portion into greased muffin tins. Bake at 400°F for 18-20 minutes or until wooden pick inserted near centre comes out clean. *Yield: 10-12 muffins.*

Honey Caramel Sauce

1 1/2 cups honey
1/2 cup heavy cream
1 tbsp margarine or butter
1 tsp vanilla
1/8 tsp salt

Combine honey and cream in heavy saucepan; cook and stir over medium-high heat until mixture reaches 238°F. Stir in butter, vanilla and salt. Cool. *Yield: 1 3/4 cups.*

Tip: Serve warm over ice-cream, custard, and pudding.

Honey Mustard Chicken

1/2 cup salad dressing
2 tbsp Dijon mustard
1 tbsp honey
4 boneless, skinless chicken breast halves (about 1 1/4lbs)

Heat oven broiler. Mix dressing, mustard and honey. Place chicken on broiler pan. Broil 5-7 inches from heat for 8-10 minutes on each side, or until tender, turning and brushing with salad dressing mixture during last three minutes of cooking time.

Lemon Nectar

1 1/2 cups honey
1/3 cup fresh lemon juice
1 tsp grated lemon peel
apple juice to taste (opt)

Pour honey into a 4-cup measure. Add lemon juice, peel, and, if desired apple juice. (Adding apple juice makes a syrup of thinner consistency). Mix well. Pour into sterilized bottle or two honey bears. Store at room temperature. Serve with pancakes or waffles. *Yield: 1 3/4 cups.*

Playdough (You can eat)

2 cups powered dry milk
2 cups smooth peanut butter
1 cup honey

Mix all ingredients together. The results will be a soft, pliable, good tasting modelling dough. This is especially good for younger children, who are often tempted to eat conventional playdough.

Honey Vinaigrette Salad

1/2 cup berry flavoured or balsamic vinegar
1/4 cup honey
olive oil
favourite fresh herb
mixed greens or fruit

Combine vinegar and honey in small bowl, mix well. When ready to serve, drizzle 2-3 tbsp of vinegar mixture, 1-2 tbsp oil and 1 tbsp chopped fresh herb over 8 cups mixed greens. Toss to coat greens. Or drizzle 1-2 tbsp vinegar mixture, 1 tbsp oil and 2-3 tbsp chopped fresh mint over 4 cups mixed fruit. Mix well. *Yield 4-6 servings.*

Tip: Select flavour of vinegar and honey to compliment salad. Vinegar and honey mixture may be stored in covered jar for future use.

Honey Blueberry Spread

1/2 cup fresh or thawed frozen blueberries
1/4 cup honey
1/2 cup butter or margarine, softened

Heat blueberries and 2 tbsp honey in small saucepan to a boil over med-high heat, stirring constantly. Cook 3-4 minutes or until mixture thickens, and is reduced by half. Cool. Blend in remaining honey. Beat in butter. Serve spread at room temperature. Store in refrigerator tightly covered. *Yield: approx. 2/3 cup.*

Honey Shortbread

1 cup butter
1/3 cup honey
1 tsp vanilla
2 1/2 cups all-purpose flour
3/4 cup chopped pecans

Beat butter, honey and vanilla in large bowl with electric mixer until mixture is light and fluffy. Add flour, 1 cup at a time, beating well after each addition. If dough becomes too stiff to stir, knead in remaining flour by hand. Work in nuts. Pat dough into shortbread mould or ungreased 9-inch cast iron skillet. Score surface with knife so it can be divided into 24 wedges; prick deeply with fork into score marks. Bake in preheated 300°F oven for 35-40 minutes. Cool in pan on wire rack 10 minutes. Remove from pan. Cut into wedges while warm. *Yield: 24 wedges.*

Sunday Rolls

2 tbsp dry yeast
1 cup lukewarm water
1 cup hot water
1/4-1/2 cup honey
3/4 cup unrefined oil
2 tsp salt
2 eggs, beaten
6 cups whole wheat flour

Dissolve yeast in lukewarm water. Let sit for 5 minutes until bubbly. Mix hot water, honey, oil and salt until completely dissolved. Add eggs. Stir well. Add yeast and flour. Mix well. If dough is used immediately, add 1/2 cup more flour. Shape dough into any type rolls. Allow to rise. Bake 10-12 minutes at 425°F. NOTE: Dough is more easily handled if chilled till firm. Also, raw, shaped rolls may be frozen. Allow three hours from freezer to oven. *Yield: 24 rolls*

Oven fried Chicken with Honey Butter Sauce

1 chicken
1 cup flour
2 tsp salt
1/4 tsp pepper
2 tsp paprika
1/4 cup butter

Honey Butter Sauce

Mix together 1/4 cup melted butter, 1/4 cup honey and 1/4 cup lemon juice.

Combine flour, salt, pepper and paprika. Dip chicken pieces in mixture. Melt butter and roll chicken in butter. Lay in single layer, skin side up. Bake at 375°F for 30 minutes. Turn chicken. Pour honey sauce over and bake another 30 minutes or until tender. Baste occasionally with sauce.

Honey Glazed Baked Ham

Place ham, fat side up, on open pan. Do not add water. Do not cover. Roast in a preheated low oven of 325°F until cooked.

Remove rind from ham if it hasn't been done. Score in diamond shapes. Place 1/4 of a marischino cherry in centre of each diamond. Pour 1 cup honey over scored ham. Use more honey if necessary to cover ham uniformly. Bake at 400°F until well browned.

Hints on job references

Privacy questions often arise in connection with job references — collecting them, giving them and getting access to them.
This article sets out some suggestions for employers to consider when they are collecting references.

Purpose and use:
Consider how much information is needed about a candidate. What will the reference be used for?

Suggestion:
Before collecting a lot of information decide whether all of it is needed. For instance, references will not be required for every applicant, perhaps only for those who are short-listed.

Anticipate the uses of the information and let the applicant know them.

Realise the referee will also need to be authorised to give the reference.

Collection:
Who can be asked to give the information?

Suggestions:
Discuss with the applicant beforehand who may be contacted for a reference.

Collecting personal information in a reference from other people is permitted if it has been authorised by the individual.

Authorisation may be implied from a supplied list of referees (as distinct from a list of former employers) on a CV but it is still safer to check with the applicant beforehand.

Always check before approaching the current employer.

Checking gives the applicant an opportunity to contact the referee and authorise the disclosure. The referee will then know when the request is received, it is bona fide.

Be clear whether the authorisation is to ask only a named referee or anyone at the same agency.

Authorisation may be oral or in writing.

The Privacy Commissioner has offices in Auckland and Wellington.

Auckland:
Ph: (09) 302-2160 Fax: (09) 302-2305
e-mail: **privacy@iprolink.co.nz**
Manager: Robert Stevens
Senior Enquiries Officer: Terry Debenham
Manager Codes and Legislation: Blair Stewart
Executive Officer: Elisabeth Harding
Education Co-ordinator: Sarah Mackenzie

Wellington:
Ph: (04) 472-2059 Fax: (04) 472-7516
e-mail: **privacy@actrix.gen.nz**
To contact the Auckland office with privacy inquiries, telephone: (09) 302-8655
For inquiries from other areas, call the Commissioner's hotline: 0800-803-909
Postal address:

Privacy Commissioner, P.O. Box 466, Auckland 1, New Zealand.
Internet address:
http://www.knowledge-basket.co.nz/privacy/welcome.htm

Japanese tyres okay

Used car tyres flooding in from Japan and Korea have received qualified approval from the NZ Automobile Association.

In the past three years the inflow of such tyres has risen by 50 per cent to 600,000 annually.

In general, they do not appear to cause safety problems, according to the latest issue of the AA's magazine, Directions.

Since used tyres began pouring in four years ago, official statistics show no detectable increase in the proportion of car crashes caused by tyre defects.

The AA concluded there was no reason motorists should not buy such tyres; but said it was essential to check the standards mark of the country of origin was clearly stamped on the tyre and had not been interfered with.

If the standards mark had been obliterated or damaged, the tyre was illegal.

However in a comparison of four types of tyre, the AA placed used imported tyres last. First choice of AA engineers were new tyres manufactured in New Zealand, because they were made for local conditions. New imported tyres came second, while retreads, if made to the New Zealand standard came third. Used imported tyres were ranked fourth.

Acknowledgement NZPA Wellington

Solar-powered sea voyage

Ocean adventurer Ken'ichi Horie (57), who once sailed round the world without a crew or call at port, has undertaken the first trans-Pacific crossing in a solar-powered craft.

Christened the "Malt's Mermaid," 70% of the 9.5 metre long craft's body is made from recycled aluminium beer cans — 22,000, to be exact. (Suntory, a major producer of spirits, beer — one of its leading brands in "Malt's" — wine, and soft drinks, is sponsoring the trip). Solar panels with a total surface area of approximately 20 square metres are attached to the deck with strong, double-sided adhesive tape. The panels produce around 1.5 kilowatts, which is enough to power the boat and supply electricity for Horie's daily needs and navigational equipment.

The Malt's Mermaid was shipped from Yokohama, Japan to Ecuador — the starting point of Horie's trans-Pacific voyage — last January. Horie set sail from the port town of Salinas on March 20, and is expected to arrive in Tokyo in late July.

Acknowledgement Look Japan

Property sales:

When are they zero rated for GST?

Two recent Taxation Review Authority decisions contain a summary of the principles which determine when a sale of property will be a supply of a going concern.

Judge Willie identified the following principles:

- there must be some undertaking taking place on the land at the time of the agreement for sale and purchase;
- the undertaking must be of a business or commercial nature;
- the undertaking must be in existence and operation before, during and after the sale;
- whether a going concern has passed from vendor to purchaser will involve an objective consideration of all the relevant facts;
- the transfer of assets which are capable of being used for some business activity is not of itself a going concern;
- the relevant time at which to consider if a going concern exists is the date on which the purchaser takes over the asset in terms of the arrangements agreed upon between the parties; and
- both parties must be registered and agree in writing that sale is to be zero-rated.

Before you sign any sale and purchase agreement you should contact this office as there may be many unpleasant GST and Income Tax consequences involved in what may seem to be a simple transaction. It can often be just the wording, timing, or order of events that can trigger an unexpected and expensive result.

Acknowledgement
Coffey, Davidson - Hastings

Marketing that makes sense

by Lisa Cork

Define marketing. It's not an easy task is it. Marketing is one of those business buzz words that is tossed around at meetings, but does anyone know what marketing really is or how to apply it to the real needs of business?

Most people would say marketing is advertising or selling. They are right, but at the same time they are all wrong. At Results Marketing, I have created a Make Sense Marketing framework to explain what marketing is and how marketing can help a business achieve its goals. It doesn't matter what your business produces, the Make Sense Marketing framework applies to all businesses.

What is Make Sense Marketing? By definition, Make Sense Marketing is:

- The ability to understand your product or service in terms of:
- your customer and how your product or service meets their needs.
- the competition and how your product or service compares with theirs.
- the market-place and where your product or service is positioned in the market.

The Make Sense Marketing framework is best used as a series of questions you ask yourself about your business. Break down the above definition of marketing and you find there are four key components.

1. The ability to understand your product or service.

This component looks beyond the physical descriptions of what you make and looks at the product itself. It asks questions like:

- What business am I in?
- What are the advantages/disadvantages of my business?
- What is my differential advantage (one unique item that sets you apart from the competition)?

2. Who are my customers and what are their needs.

- Who are my customers? (Male/female? Business/homeowner?)
- Where do they live? (House/apartment? City/country?)
- When do they buy my product? (Weekly? Monthly? Seasonally?)
- Do they have any needs that aren't being met?
- What do they think of my product or service?

3. Who is the competition? How do I compare?

- Who is the competition: by name, location, product, description?
- Who are their customers and why do they buy from them?
- What are the competition's advantages and disadvantages?
- What is the competition's differential advantage?

4. What is the market like? How am I positioned in it?

- What is the market size?
- How many buyers are there?
- Are there any market segments?
- Are there any competitive products?

The Make Sense Marketing framework is a good starting point for any business thinking about marketing. It is an excellent checklist to see how much you know.

If you are like many businesses and haven't worked through these questions, you are probably in need of a marketing plan. A marketing plan is a directive. It averts problems before they start because it is based on understanding. In addition, a marketing plan defines your needs and presents strategies to address these needs.

Marketing can be a complicated science, but it doesn't have to be. Test your marketing knowledge on the questions presented above and go from there. Happy Marketing!

Lisa Cork is the owner of Results Marketing and has seven years of marketing experience in the US, Australia and New Zealand.

She is most well known for the role she played in sending 10 tonnes of broccoli to former US President George Bush in a public relations coup that generated millions of dollars of free publicity. She is currently writing a Make Sense Marketing workbook.

Contact: *Phone (09) 623-1908, Mobile: (025) 772-842, Fax: (09) 634-4491, E-Mail: lcork@results.ak.planet.gen.nz.*

ACC Experience Rating

The experience rating for ACC premiums was part of a move towards a more 'user pays' system of ACC. The experience rating provides a discount or loading on the employer premium depending on whether the employer has a good or bad accident record.

If you pay less than $10,000 a year in employers ACC premium, and your business does not have any claims you will receive a rebate.

If you pay more than $10,000 a year in employers ACC premiums, they are assessed in greater depth.

Refunds or a loading on the premium is calculated based on the number of work accidents and the cost to ACC in comparison to other employers.

You will be advised by ACC if there have been any work related accidents. It is important to check whether or not these were in fact work related accidents. If they are not you should contact ACC. Failure to do this may mean no rebate and perhaps a loading!

Some clients have had loadings costing up to $35,000.

You should also be aware that when buying a business its ACC rating goes with it. If a work related accident occurs, it is in the interests of both employer and employee to explore the options for the earliest possible return to work even if on lighter or different duties to normal.

As well as the financial cost of increased ACC premiums for work related accidents, there is the possibility of action from Occupational Safety and Health if there is an unsafe workplace.

Acknowledgement Coffey, Davidson - Hastings

IMPORTANT DATES FOR 1997

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

MAY - 20th CONFERENCE CALL
JULY - 21st AT CONFERENCE - IN NELSON
SEPTEMBER - 2nd and 3rd - CHRISTCHURCH
DECEMBER - 2nd and 3rd WELLINGTON

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

COMING EVENTS...

PROPOSED NBA DATES FOR 1997

NBA Executive Elections		**Conference**	
Send out nomination forms	Wed 16 April	Specialty group meeting	Mon 21 July
Closing for nominations	Fri 16 May - 5pm	Seminar	Tue 22 July
Voting forms posted out	Fri 23 May	Conference/AGM	Wed 23 July - Thu 24 July
Closing date, return of votes	Mon 23 June - 5pm	Special Meeting	Wed 23 July - 8am
		Last date, remits in	Sun 8 June - 9am
		Last date, rule changes in	Sun 8 June - 9am

1997 CALENDAR AUCKLAND BEEKEEPERS CLUB

April 12	12.30 pm	Apiary requeening Check winter stores	May 10	10.00 am 12.30 pm	Working bee Check winter stores

Contact: (09) 838-8567, Jill Dainow, AUCKLAND BEEKEEPERS CLUB INC.

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

AUCKLAND BRANCH
Call Jim on (09) 238 7464

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

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

CANTERBURY BRANCH
Phone Brian Lancaster
Ph/Fax: (03) 318-6966

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

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

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

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

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

NELSON BEEKEEPERS CLUB
Phone: (03) 546-1422

OTAGO BRANCH
Phone Bill (03) 485-9268

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

POVERTY BAY BRANCH
Barry Foster (06) 867-4591

SOUTHERN NORTH ISLAND BRANCH
Phone: Frank 478-3367

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

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

WAIKATO BRANCH
Call Tony (07) 856-9625

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

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