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# Buzzwords No 39 March 1992

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BIOSECURITY BILL: UPDATE

The Biosecurity Bill is soon to enter the drafting stage, with the drafting instructions currently being prepared for the Parliamentary Counsel.

Cabinet has agreed that the bill is urgent and should be introduced early in the 1992 session which begins the first week of March. Introduction of the bill will be followed by referral to the Primary Production Select Committee. This Committee will invite and hear submissions. The Minister of Agriculature had hoped to have the new Act in place by 1 July 1992, but this would require considerable cooperation from all parties concerned.

The overall objective of the Bill will be "To enable the exclusion, appropriate management, or elimination of unwanted organisms (i.e. pests, weeds and diseases)".

Fundamentally the new legislation will:

- a Consolidate and moderise (to improve efficacy and efficiency) the agricultural security policies currently provided in the Animals, Plants, Apiaries and Poultry Acts, i.e. border protection, emergency response, surveillance, and provide additional powers in some cases; and
- b Radically reform the policies for managing pests (including weeds and diseases, e.g. exotic diseases, Tb, nassella, possums, hydatids, etc) currently provided in the Animals, Plants, Apiaries, Poultry, Agricultural Pest Destruction, and Noxious Plants and the hydatids portion of the Dog Control and Hydatids Act.

## TO RESPOND OR NOT RESPOND

This second article from the *Sentinal* is reprinted in its entirety due to its particular use of our industry's example in its argument:

"The Ministry of Agriculture and Fisheries is in the process of preparing contingency plans for those diseases or pests which are recognised by industry and interested parties as being of particular danger to either New Zealand's animal and plant populations or to its international trade in primary products.

The most familiar of these contingency plans are those for foot and mouth disease and fruitfly. In both of these cases trade would be immediately affected by an outbreak and even a suspect outbreak produces a rapid response from our trading partners. New Zealand takes its obligations to report changes in its health status very seriously and our trading partners can be confident that, if a specific declaration of country freedom is required, then certification will be suspended until a suspect case has been clarified.

Other diseases which are considered important and specifically identified in present legislation would produce a similar response from MAF even though the results of such an action could be quite disruptive to the relevant industry sector and the general public. The recent suspect outbreak of European brood disease is a case in point and has highlighted the need to consider carefully which diseases or pests should prompt an exotic disease response.

It is fortunate that we have been able to confirm that European brood disease is not present in New Zealand. One hundred and fifty MAF personnel and Beekeepers Association members were actively involved in the response which cost approximately \$450,000. Restrictions were imposed on the movement of bees and bee products at a critical point in the pollination season. Although disruption and cost was significant, the level of response was necessary to be completely confident in our reaffirmation that the disese is not in the country. However, was the outcome sufficiently beneficial to New Zealand and the local bee industry to warrant the action? This is a question which needs to be answered.

One of the aims of the Biosecurity Bill is to reaffirm that certain diseases or pests are sufficiently significant to warrant specific identification in law and to prescribe certain action to be taken. The consideration of the Bill is an opportunity for industry sectors and interested parties to reconsider the diseases or pests which concern them most and make sure that the benefits to be gained by implementing an investigation and subsequent control programme is justifiable in light of the costs of such action.

# **BEEKEEPING LEADS THE WAY**

We mentioned in *Buzzwords* 34 that a number of articles relating to New Zealand beekeeping would soon appear in the pages of International Bee Research Association (IBRA) publications. Many of those articles are now in print, including one which must surely rank as the finest description of the New Zealand industry ever to find its way onto the pages of an overseas magazine. The article, written by Andrew Matheson, is entitled "Beekeeping: Leading Agricultural Change in New Zealand", and appears in two parts in the second and third 1991 issues of Bee World. Andrew is a former MAF advisor, author of the book Practical Beekeeping in New Zealand, and is now director of the IBRA.

The article, which covers a full 28 pages, certainly is comprehensive. The first part covers topics ranging from the history of beekeeping in our country through to the latest industry diversifications such as bulk bees and organic honey. The second part discusses the infrastructure supporting our industry -- the extension, training, research, regulatory and industry organisations which contribute to the high position New Zealand holds in world beekeeping. The article also reviews the status of honey bee pests, predators and diseases, highlighting again for overseas readers the high health status our industry maintains.

Andrew concludes his article by making several observations about the way our industry has adapted to change in t<sup>\*</sup> past 10-15 years, a time in which major developments have occurred in pollination services, industry organisation, the honey market, and government services to beekeeping. He suggests there are several lessons which may be drawn from this experience which might be applicable to other beekeeping industries. These include:

- \* Beekeepers should be prepared to change the type of productor service offered in response to market demands, or create a new market for their outputs.
- \* In many countries beekeepers have to be in charge of their own destinies: with no product subsidies or price stabilisation, and having to fund their own research, disease control and consultancy services.
- Industries must be united to be strong, with effective beekeepers' organisations that are proactive through planning rather than reactive to changes.
- \* Good communications channels and information sources are important for individuals, businesses and industry groups.
- \* Hobbyist and commercial sectors are interdependent because of factors such as diseases and marketing, and must work together.
- \* Government departments and industry groups need to co-operate for beekeeping to prosper."

Reprints of "Beekeeping: Leading Agricultural Change in New Zealand" will be available soon (likely cost \$10). For more information contact New Zealand's IBRA representatives: South Island - Peter Brunt, C/- Nelson Polytechnic, Private Bag, NELSON; North Island- Cliff Van Eaton, C/- MAF, Private Bag, TAURANGA.

Bee World, Volume 72, Nos. 2 and 3, 1991



### CANADIAN NOTES

- Ontario Provincial Apiarist Doug McRory has reported that 3.3% of hives inspected in that province in the first half of 1991 had AFB. In 1990, 4.2% of hives were found to be infected. Mr. McRory told beekeepers at a meeting of the Ontario Beekeepers Association in July that "the disease rate should be in the range of 1% (comparable to New Zealand's - Ed) to be respectable." Oxytetracycline is routinely fed to colonies in Ontario as an AFB preventative.

- Last year beekeepers pollinating special hybrid canola (oil seed rape) in Ontario were receiving \$50 per hive. That's equivalent to NZ\$80. Canola is now also the major honey producing plant in Canada, with yields quite often in excess of 40 kg per hive.

- A new CDN\$24 million food testing laboratory set up by the federal government at Guelph, Ontario, will be rigorously testing honey for chemical residues. Canadian health officials have categorised honey for a high level of testing following findings of sodium sulfathiazole in retail lines of oney several years ago. Sulfathiazole is no longer registered for use in Canada as a treatment for AFB.

- Canadians appear much more concerned about the effects of the tracheal mite on their hives than the Varroa mite. The level of Varroa mites can be drastically reduced in hives with the use of fluvalinate strips. However, according to reports only a mild winter last year allowed beekeepers in the U.S. to successfully winter hives with high levels of tracheal mite infestation. The tracheal mite is now being found in many areas of Canada. Work is under way in both Canada and the U.S. in an attempt to develop a reliable treatment for tracheal mite.

- The Canadian beekeeping industry has seen approximately a one third decline in beekeeper numbers in the last five years. Industry leaders there say that much of the reason for the decline rests with low returns on bulk honey which in turn they believe have been a direct result of the U.S. Jovernment loan and buy-back programme. In an attempt to increase consumption of their honey, both at home and abroad, the Canadian Honey Council is proposing a honey promotion agency, to be funded by a mandatory 2 cent per kg levy on all honey produced. Sixty percent of the funds received will be spent on domestic and export promotion, with 20% going to product research and development. The remaining 20% will pay for administrative costs. Recently, U.S. beekeepers voted overwhelmingly to continue with a similar programme and to rescind the refund provision which effectively allowed producers to opt out of the scheme.

Canadian Beekeeping, Summer 1991

### **EBDR - NELSON COMMENTS**

A reminder that the Executive is seeking comments and constructive criticism from industry groups, branches and individuals about the Nelson Exotic Bee Disease Response. The Executive is anxious that the industry benefits from lessons learned during the Nelson response. All contributions will be included in an industry comment document to be used by the NBA and MAF. See the article in February 1992 issue of the *NZ Beekeeper* for further details. Please send comments by 31 March to:

Exotic Bee Disease Response Comment National Beekeepers Assn PO Box 4048 Wellington

#### **EXECUTIVE MEETING DATES - 1992**

The agenda for executive meetings is circulated two weeks prior to each meeting. If branches or members have subjects they want considered at the executive meeting they should contact the Executive in sufficient time to allow any correspondence to be circulated prior to the meeting. This ensures that members will have time to do any preparation required to give **your** issue the consideration it deserves.

9 - 11 March	Includes planning meeting
28 - 29 April	
20 - 23 July	Annual Conference
15 - 16 September	
8 - 9 December	

## FROM THE BRANCHES

A reminder that the **Bay of Plenty** Branch will be holding its popular summer field day on Saturday, March 21, beginning at 11 am. Venue is the Kiwifruit Industries No. 1 packhouse, No. 3 Rd., Te Puke (3km from SH 2 on the right; look for the big bee sign!). The day should be full of interest and surprises for all North Island beekeepers and their families. What other beekeeper's field day offers a swimming pool, treasure hunt, pony rides, and a magicians? And that's just for the kids. Adults will have the chance to investigate aspects of the kiwifruit industry they may have only wondered about until now, such as packing, orchard management, bee collected pollen, and artificial pollination. B.J. Sherriff, the bee suit manufacturer from England, will also be in attendance.

### HONEY BEES DANGEROUS?

The September 1991 issue of *The Australasian Beekeeper* printed the following table on the likely causes of death in the United States (all figures per annum):

Cardiovascular diseases	977,700
Cancer	461,400
Smoking	150,000
Motor vehicle accidents	45,901
Pedestrian-vehicle accidents	7,641
Home fires	3,964
Penicillin allergy	300
Animal bites (incl. dogs)	101
Lightning strikes	85
Bee stings	17

While the editor concedes that "cross-cultural comparisons aren't always valid," the figures translate to about 1.4 p.a. in the Australian population. So much for all those people who claim they're deathly allergic to bees! HONEY INDUSTRY TRUST FUND Applications for funding close on 15 August and 15 February. Forms available from the NBA, PO Box 4048, Wellington.

## **KASHMIR CONTROVERSY**

In the March, 1991 issue of the *American Bee Journal*, an article appeared by Dr. T.P. Liu, a scientist at the Beaverlodge Bee Research Station in Alberta, Canada, entitled "Australian Strains of Kashmir Bee Virus." The article claimed that Kashmir is a virulent pathogen of honey bees, that its original host was *Apis cerana*, and that it is only found in Apis mellifera in Australia and New Zealand.

The article caused a lot of comment among New Zealand and Australian queen producers when it came out. They felt it was an unfair and poorly researched attach on the disease status of honey bee stocks in the two countries. Dr. Liu was a scientific advisor during a visit by officials to Hawaii last year to investigate the renewing of queen exports from that state. There is currently a ban on all live bee exports from the U.S. to Canada.

Recently another article appeared in the same magazine which challenges Dr. Liu's contentions about the disease. The article, entitled "Kashmir Bee Virus -- A Relatively Harmless Virus of Honey Bee Colonies (*American Bee Journal*, December 1991), was written by Dr. Denis Anderson, a scientist at the Australian CSIRO, and formerly bee pathologist at New Zealand's DSIR. Denis was the first scientist to find Kashmir outside Australia and is probably now the world authority on the virus.

Denis points out that Dr. Liu's article "omitted important published information about Kashmir bee virus and made claims that were not supported by scientific evidence." Denis quotes his own research over the past ten years which has shown that the virus is not a damaging pathogen of honey bee colonies. The virus causes no noticeable effects when fed to larval or adult honey bees and only becomes lethal when injected directly into a bee's body cavity.

The virus normally exists in bees as an inapparent infection and only becomes lethal in association with other bee diseases such as nosema and EFB. These diseases can damage the bee's gut in such a way that they allow particles of the virus to gain access to other tissues. The virus is then able to grow to high levels and cause a lethal affect. Denis emphasizes in his article that such infections are "only very infrequent" and does not occur in all cases of nosema or EFB.

Denis also argues that the original paper on the virus, written by Bailey and Woods in 1977, which speculated that the virus was spread from Asia to Australia by another species of bee, was not based on sufficient evidence. His own work suggest that the virus may be present in many countries and has a broad insect host range. He also believes that the virus may be common in honey bees in North American and that it has subsequently spread to bees in Australian and New Zealand by way of live bees imported from overseas before import restrictions were put in place.

The virus certainly occurs in honey bees in other countries besides Australia and New Zealand. Denis has published work showing evidence of distinct Kashmir strains in Canada and Fiji. And he is currently trying to obtain samples of honey bee test material from throughout the United States.

Denis's article was a timely rebuttal to unsubstantiated claims about Kashmir which have been widely circulated in the North American bee press. It should also serve as a reminderto beekeeping journals that they have an obligation to check material to ensure that it is factually correct. The controversy hasn't blunted Dr. Liu though. In the November issue of the *American Bee Journal* he's published an article inferring that New Zealand queens suffer high levels of melanosis of the ovaries, a condition which he claims is a disease. The fact of the matter is that melanosis occurs naturally in all queens and is a normal part of the aging process. Still, that doesn't stop Dr. Liu from claiming the "the most beautiful ovaries I have ever seen were those, dissected... when I visited Hawaii not long ago."

## FERAL COLONIES REQUIRED

Ruakura Agricultural Centre is seeking wild honey bee colonies as part of the research efforts related to American foulbrood. In a request similar to that made several years ago for wasps, Mark Goodwin is asking the public to let him know about feral colonies. The Auckland and Waikato regions are being especially targetted for ease of collection by Ruakura personnel.

Beekeepers can help by taking samples of 30 workers from feral colonies into a plastic bag, killing the bees by placing the bag in a freezer and posting it to him. It would assist if you could clearly identify the location and age of the colony (if it is known).

> Dr M Goodwin Ruakura Agricultural Research Centre Private Bag HAMILTON

# BUZZWORDS IS ...

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