

# MAF Quality Management Report

From Murray Reid

## ORGANISATION

MAF Technology was amalgamated with the Department of Scientific and Industrial Research and formed into a number of Crown Research Institutes (CRI's). MAF itself now consists of MAF Policy, MAF Quality Management, MAF Regulatory Authority, MAF Corporate Office and MAF Fisheries.

## BEEKEEPING STATISTICS

### Beekeepers, Apiaries and Hives.

There were 5717 beekeepers owning 304,065 hives of bees at 30 June 1992 (Fig 1).

### Honey Production and Exports

The total crop was assessed at 9560 tonnes (31.4kg per hive) compared with last year's crop of 7290 tonnes (23.3kg per hive) (Fig 11).

Exports of bee products to the year ending December 1991 were worth NZ\$6.7 million and involved 1,800 tonnes of bulk, retail and comb honey, honeydew and beeswax. (Fig 11).

### Queen and Package Bees

New Zealand producers exported 25,112 queen bees worth NZ\$301,000 (free on board; fob) and 19016 1kg equivalent packages. It was not possible to put on fob value on packages because of the reluctance of some exporters to supply the relevant

FIGURE 1 BEEKEEPER APIARY AND HIVE STATISTICS FOR NZ APIARY DISTRICTS AS AT JUNE 1992

Register Location	BEEKEEPERS		APIARIES		HIVES	
	1992	1991	1992	1991	1992	1991
Whangarei	1,316	1,307	3,072	3,046	32,301	32,475
Hamilton	627	649	3,044	3,105	45,452	45,661
Tauranga	602	619	3,573	3,541	51,938	53,717
Palmerston North	1,332	1,340	3,927	3,917	37,554	40,528
Blenheim	497	505	2,048	1,972	23,941	23,284
Lincoln	758	768	4,949	4,937	59,090	58,239
Alexandra	585	586	4,344	4,482	53,789	58,338
TOTAL	5,717	5,774	24,957	25,000	304,065	312,242

information. However, based on last season figures these packages were worth approximately NZ\$600,000 fob.

### AMERICAN FOULBROOD DISEASE (AFB) AND APIARY INSPECTIONS

A contract was entered into with the NBA Executive to assist branch disease

co-ordinators to carry out hive inspections. Some branches such as Bay of Plenty, Gisborne and Hawkes Bay carried out extensive 'diseaseathons', while others organised inspectors to work on an ad hoc basis. (Fig VI).

\* FIGURE II NEW ZEALAND HONEY PRODUCTION IN TONNES (As at 30 June annually)

Year	Northland, Auckland, Hauraki Plains	Waikato, King Country, Taupo	Bay of Plenty, Coromandel, Poverty Bay	Hawkes Bay, Taranaki, Manawatu, Wairarapa	NORTH ISLAND	Mariborough, Nelson, Westland	*Canterbury, N. Otago	South & Central Otago, Southland	SOUTH ISLAND	New Zealand	**Yield per Hive (kgs)
1987	1122	1506	1450	1012	5090	966	1070	2965	5001	10,091	29.7
1988	480	1298	976	834	3588	807	1503	1850	4160	7748	23.1
1989	379	730	401	530	2040	621	1290	1801	3712	5752	17.4
1990	660	1154	1296	894	4004	471	2774	1503	4748	8752	27.5
1991	668	1057	1470	811	4006	265	1965	1054	3284	7290	23.3
1992	1200	1068	998	1231	4497	650	2870	1543	5063	9560	31.4
6 year average	751	1135	1098	885	3871	630	1912	1786	4328	8199	25.4

\* Includes honeydew

\*\* Total estimated production available for extraction divided by total number of registered hives

Altogether 161 temporary inspector warrants were issued by MAF but only 83 beekeepers exercised those warrants. However, beekeepers did inspect over 4000 hives and found 227 hives of AFB disease. (Fig V).

MAF officers carried out limited inspections under the NBA contract plus some inspections on an individual cost recovery basis.

MAF inspected 118 apiaries compared with 1286 last season and 753 hives compared with 7607 last year. (Fig VII). One hundred and nine hives of AFB were found in 29 apiaries. MAF officers and temporary inspectors usually find an average of just under 1000 AFB hives per year. This season, with the greatly reduced field inspections, only 336 AFB hives were found. The number reported by beekeepers was nearly the same as last year so it is possible nearly 600 AFB hives are still in the field waiting to be found by beekeepers.

MAF attempted to negotiate a memorandum (MOU) of understanding with the Executive for disease control services for the 92/93 season. This MOU was to be effected by March 1992 but to date has not been received by MAF. However, expressions of intent to engage MAF have been made and on this basis MAF continued to budget resources pending a contract that was

**FIGURE III\* EXPORT FIGURES FOR HONEY, HONEYDEW AND BEESWAX FOR THE YEAR TO DECEMBER 1991**

PRODUCT	TONNES	NZ\$ (FOB)	NO. OF COUNTRIES	NZ\$/KG
Bulk Honey	1,030.9	2,858,268	15	2.77
Retail Honey	296.6	1,239,163	23	4.18
Comb Honey	114.3	934,908	10	8.18
Honeydew	254.5	993,106	13	3.90
TOTAL	1,696.3	6,025,445		
Beeswax	116.4	667,645	11	5.74
TOTAL HONEY AND WAX EXPORTS	1,812.7	6,693,000		

\*Source: NZ Customs

to be signed in August 1992. Because of these continual delays some apicultural officers have contracted other business and may not be available to personally inspect hives next season. However, they will be able to manage any disease control contracts with the industry and audit the performance of any temporary inspectors engaged to do the work.

The industry is to be encouraged to examine the whole aspect of disease control from the specifications, service delivery to auditing performance of the delivery organisation(s). The Executive Study paper is a good beginning. However, a more radical approach may be called for involving research work from Dr Mark Goodwin's lab at Ruakura. MAF has been evaluating the

**FIGURE IV AMERICAN FOULBROOD DISEASE LEVELS IN APIARY DISTRICTS TO 30 JUNE 1992**

Register Location	DISEASED APIARIES				DISEASED HIVES				%APIARIES IN SPECTED BY MAF INSPECTORS	
	No.		%		No.		%		No.	
	1992	1991	1992	1991	1992	1991	1992	1991	1992	1991
Whangarei	149	192	4.8	5.0	307	667	0.9	2.1	6.1	18.1
Hamilton	317	232	10.4	12.5	781	559	1.7	1.2	0.6	14.1
Tauranga	379	351	10.6	9.9	836	1,115	1.6	2.0	7.0	9.1
Palmerston North	126	119	3.2	3.3	267	272	0.7	0.7	1.9	9.2
**Blenheim	169	218	8.3	11.6	378	453	1.6	2.0	5.4	6.7
Lincoln	182	148	3.7	3.6	332	225	0.6	0.4	1.2	5.5
Alexandra	166	182	3.8	3.3	259	412	0.5	0.7	0.8	6.2
TOTAL	1,488	1,442	6.0	7.0	3,160	3,733	1.0	1.2	2.9	9.8

\*Includes both MAF and beekeeper inspectors whether under MAF direction or NBA direction

\*\*Does not include emergency response inspections, November 1991

AFB disease monitoring being done in Denmark, the USA and in New South Wales for some years. Now that Dr Goodwin has answered many of our questions we are in a position to consider alternative methods of monitoring AFB rather than costly hive inspections. Monitoring could be done on voluntary or compulsory submissions of honey samples from hives, honey drums, or bee samples from hives. There are still a lot of questions to be thought through and costings done with these systems. MAF will be critically evaluating these systems in the next few months and making a recommendation to Executive.

## EUROPEAN FOULBROOD (EFB) RESPONSE

This has been well documented in the New Zealand Beekeeper (No 213 1992) and Buzzwords (No 37, 38, 39, 40 and 42). An internal MAF audit following the response has highlighted a number of MAF systems that can be improved, and beekeepers and the Bee Disease Advisory Committee has also made helpful comments. These suggestions have been incorporated into new draft response procedures.

However, more fundamental questions of compensation and whether the industry wants MAF to respond to any suspect or confirmed case of EFB still has to be resolved. Remit Number 26 is a welcome attempt to address some of these issues. When the Biosecurity Bill becomes law the joint industry and MAF development of response plans will be required.

## SURVEILLANCE

Government, through MAF Policy, continued to support inspection systems to prevent exotic pests and diseases entering New Zealand, the development of response procedures and training of staff to respond to any suspect outbreak, and a surveillance operation that looks for exotics that may have slipped through the net.

The apiculture surveillance system has three parts:

### Apiary Register

Maintenance of the apiary registers is a legal requirement under the current Apiaries Act.

The computer database is a very large one with over 35,000 names and addresses. The database is only as accurate as the information supplied by beekeepers and as usual we only had approximately 50% of the statement of inspection forms returned by the due date. A number of beekeepers had their apiaries inspected after failing to make their returns and were sent an account for the work involved. The importance of an up-to-date register was

FIGURE V NUMBER OF APIARIES AND HIVES WITH AMERICAN FOULBROOD DISEASE FOUND BY MAF OR REPORTED BY BEEKEEPERS TO 30 JUNE 1992

	NO. OF APIARIES	NO. OF HIVES	% OF APIARIES INSPECTED	% OF HIVES INSPECTED
* Inspected by MAF	118 (1,286)	753 (7,606)	0.5	0.3
** Inspected by beekeeper inspectors	614 (1,058)	4,256 (5,859)	2.5	1.4
TOTAL Inspected	732 (2,345)	5,009 (13,465)	2.9 (9.4)	1.6 (4.3)
AFB found by MAF or beekeeper inspectors	106 (242)	336 (950)		
AFB reported by beekeepers	1,382 (1,200)	2,824 (2,783)		
TOTAL AFB	1,488 (1,442)	3,160 (3,733)		

\* Includes beekeepers working under MAF directions

\*\* Includes beekeepers working under NBA disease co-ordinator/NBA branch

FIGURE VI PERFORMANCE OF BEEKEEPER INSPECTORS WORKING UNDER THE DIRECTION OF THE NBA FOR THE YEAR TO 30 JUNE 1992

Register* Location	No. of Warrants Issued	No. of Inspectors	No. of Apiaries Inspected	No. of Apiaries AFB	No. of Hives Inspected	No. of Hives AFB
Whangarei	32	15	130	17	461	38
Hamilton	28	2	4	—	40	—
Tauranga	33	27	238	40	2,461	104
Palmerston North	25	20	50	1	273	3
Blenheim	15	10	99	3	364	4
Lincoln	20	3	57	15	445	77
Alexandra	8	6	36	1	212	1
TOTAL	161	83	614	77	4,256	227

\*Most Apiary Registration Districts have more than one NBA Branch

highlighted by the Nelson response and beekeepers will be encouraged to supply grid references for their apiaries.

### Hive Sampling

Apiculture officers inspected 430 apiaries for the presence of exotics and

took samples from 430 hives for testing for tracheal mites, *Varroa* and *Tropilaelaps*. Forty four samples were taken for suspect EFB and eight for Africanized honey bees.

MAF sampled apiaries mainly in residential areas and locations deemed to be high risk eg airports, seaports, garbage dumps, hospitals, military bases and suburbs with populations which are likely to be frequent overseas travellers.

No exotic specimens were found.

### Live Bee Exporters

Live bee exporters were asked to take another 500 samples for testing for exotic mites but again proved unwilling to co-operate and only submitted 22 samples.

### EXPORT CONFORMITY CERTIFICATION

Two draft export conformity certification schemes, one for bees and one for bee products, were prepared and distributed for industry comment. These schemes were modelled on schemes in place for animals and plants and reflect MAF Policy specification for animals and plants.

MAF Policy set specifications and procedures for export certification and negotiate export protocols with overseas governments. They also contract organisations to be the certifying authority. In the case of animal and plant exports, MAF Quality Management etc., is the certifying authority but no contract has been let for apiculture nor standards and procedures defined. Further work on conformity schemes has been suspended until a contract is signed with MAF Policy.

### ACKNOWLEDGMENTS

The co-operation and support of my colleagues in the apiculture unit, and in MAF Quality Management is much appreciated.

I would also like to acknowledge the support of the NBA executive and Dr Mark Goodwin and his team at Ruakura.



**FIGURE VII PERFORMANCE OF MAF INSPECTORS AND BEEKEEPERS WORKING UNDER THE DIRECTION OF THE MAF FOR THE YEAR TO 30 JUNE 1992 (1991 figures in brackets)**

Register Location	No. of Warrants Issued	*No. of Inspectors	No. of Apiaries Inspected	No. of Apiaries AFB	No. of Hives Inspected	No. of Hives AFB
Whangarei	3	4	56	5	258	20
Hamilton	2	2	13	12	207	46
Tauranga	2	3	12	8	75	37
Palmerston North	5	4	26	4	92	6
Blenheim	—	1	11	—	121	—
Lincoln	—	1	—	—	—	—
Alexandra	3	3	—	—	—	—
<b>TOTAL</b>	<b>15</b>	<b>18</b>	<b>118 (1,286)</b>	<b>29</b>	<b>753 (7,606)</b>	<b>109</b>

\* Includes Apicultural Advisors

## Environmentally safe air-filter deodorisers

A range of low-cost domestic air filters that do not depend on CFCs for operation is available from a British company.

Pongoes, from M A H Industries Ltd, are made from activated viscose, a woven, flexible cloth which is 100% carbon and capable of absorbing odours and vapours.

Activated viscose has a constant odour-absorbing capacity throughout its life, in contrast to granular charcoal which starts to deteriorate as soon as it begins to absorb odours: it is stated to last at least ten-times as long as conventional granular-charcoal filters.

The range of filters available includes: Fresh N Fridge to keep a refrigerator free of the smells of onions, cheese, fish etc; Fresh N Car which absorbs cigarette smoke, animal odours and perfume; Fresh N Bin which absorbs odours from refuse bins and wate bins; Fresh N Air which is suitable for a variety of applications including use in wardrobes to remove 'stale' smells from clothes, on boats to remove residual odours, in

caravans to get rid of the musty smell which sometimes occurs after periods of non-use, in garages and workshops to keep them free from smells of paint, paraffin and adhesives — in fact, in any confined space or where unwanted odours occur; and Fresh N Shoe which is placed in shoes, wellington boots or sports trainers overnight to absorb unpleasant foot odours.

The company also supplies Pongoe Plus masks for use in medical areas, hospitals, workshops, paint-spraying booths, farms, DIY activities or in any environment where unpleasant or unhealthy odours or vapours are a problem. They are lightweight, comfortable to wear even for long periods, have a low breathing resistance, allow clear speech transmission and are compatible and most types of goggles.

The latest additions to the company's range of products are: a universal jug filter to fit any water jug currently available - a water filter that is readily portable and which, for example, can be slipped into a suitcase prior to departure on holiday; and replacement air/air-conditioning filters for commercial and domestica use.