

# MAF Quality Management Report

From Murray Reid

## ORGANISATION

The National Apicultural Business Unit (NABU) became part of the Animals' Business during the year instead of the Plants' Business. This is mainly an administrative re-organisation and no changes in business activities were required.

## STAFFING: NATIONAL APICULTURE BUSINESS UNIT

Clive Vardy, Apicultural Advisory Officer, Gore, resigned during the year and Matthew Sole, Field Officer, Alexandra, assumed some of the regulatory roles formerly held by Vardy. A decision was made by Regional Management South Region to advertise for an Apiculture Services Manager to be based at Lincoln. To date the position has not been advertised.

Apiary registers and systems were maintained and disease control programmes operated by Apicultural Advisory Officers at Whangarei (Derek Bettsworth) Hamilton (Murray Reid) Tauranga (Andrew Matheson) and Palmerston North (Ted Roberts). Field Officers were employed at Ashburton (Mike McPhillips) and Alexandra (Matthew Sole) and a Livestock officer at Blenheim (Dave Grueber).

Brian Milne (Lynfield) continued to provide a disease diagnostic and queen quality evaluation service.

## BEEKEEPING STATISTICS

### Beekeepers, Apiaries and Hives

There were 6,210 beekeepers owning 318,203 hives of bees at 31 May 1990. (Figure 1). Beekeeper numbers declined by 485 or 7.2% over last year and hive numbers declared also declined by 12,135 or 3.7%. There is no single explanation for this trend.

### Honey Production

The total honey crop was assessed at 8,752 tonnes (27.5 kg/hive) compared with last year's crop of 5,752 tonnes, (17.4 kg/hive) and the six-year average of 8,688 tonnes (26.7 kg/hive) (Figure 11).

Prices remained similar to last season's and realised \$1.70-2.20 kg with most early sales falling in the \$1.80-2.00/kg range.

For the year to December 1989 New Zealand exported over \$4 million worth of honey and beeswax to over 22 different countries (Fig III). The major markets were Germany, Japan, the UK, Australia, Taiwan, and the Netherlands.

### American Foulbrood Disease (AFB)

The 3,831 diseased hives found by MAF, or reported by beekeepers, was an increase of 155 over last season. The number of infected apiaries also increased by 130 from 1,530 to 1,660. Fig IV. The increase in diseased apiaries can be traced to hive management for kiwifruit pollination and undue levels of disease in hives owned by a few irresponsible commercial and semi-commercial beekeepers. MAF took a prosecution as a test case against one of these beekeepers but a trial date has yet to be set. Over 216 MAF officers and beekeepers appointed as temporary inspectors again examined hives for AFB. These teams inspected just under 15,000 hives (4.8%) in 1966 apiaries (8.0%) and found 664 hives of disease. Figure V.

Beekeepers again proved willing to offer their vehicles and time to inspect hives. Working as teams on "diseaseathons" appears to be the most effective system and will need to be continued if the target of 10% of apiaries inspected is to be achieved.

### Queen and Package Bee Exports

A second shipment of drone semen was imported from the Western Australian Department of Agriculture's Bee Breeding Programme. The semen tested negative for exotic diseases. The inseminated stock were kept in a MAF controlled quarantine apiary before being cleared for release.

New Zealand producers exported 30,743 queen bees worth NZ \$300,000 (fob) and 9,591 1 kg equivalent packages worth NZ \$320,000 (fob). Most of these went to Canada but shipments were also made to the UK, Japan, France, Israel, Portugal, and to

some Pacific Islands. Package bee exports were the same as last year but queen bee numbers were down by 10,000.

## POLLINATION

The largest pollination group, the Kiwifruit Pollination Association, moved to a systems audit as well as an end point hive check. Based on a questionnaire, personal knowledge of the individuals operation and statistical tables MAF prepared inspection specifications for the KPA's own hive auditors. This meant that beekeepers with a poor, suspect, or unknown business and hive management system had more of their hives examined than those with a good record. MAF also continued to audit hive quality on a contract basis for both beekeepers and growers. In all cases permission to check the hives was obtained from the beekeepers concerned.

Beekeepers and growers in Canterbury began to set hive standards and audit procedures for berry and pip fruit pollination. An estimated 1,500-2,000 hives were placed in orchards in Canterbury last season.

The use of sugar feeding, Hicane (cyanamide), and artificial pollination continued in kiwifruit orchards. Growers required even more hives because of Hicane use and some beekeepers attempted to use the same hives twice, firstly in Hicane blocks for 6-10 days then into later flowering orchards. This operation wasn't always successful and showed that negotiation and carefully worded contracts between beekeeper and grower are essential. Where hives were used twice, bee-

FIG 1: BEEKEEPERS APIARY AND HIVE STATISTICS FOR NZ APIARY DISTRICTS AS AT 31 MAY 1990

	Beekeepers		Apiaries		Hives	
	1990	1989	1990	1989	1990	1989
Whangarei */Auckland	1580	1840	3576	4257	33982	40029
Hamilton	659	671	3107	3055	47596	46506
Tauranga	656	693	3664	3826	54764	59889
Palmerston North	1398	1437	4064	4165	39728	38959
Nelson	548	561	2052	2223	23713	25457
Christchurch	783	901	4848	5100	59677	61072
Gore	593	592	4475	4456	58743	58426
Total	6210	6695	25786	27082	318203	330338

\* Whangarei and Auckland districts were amalgamated during the year.

**FIG II: NEW ZEALAND HONEY PRODUCTION, IN TONNES  
AS AT 31 MAY ANNUALLY**

Year	Northland, Auckland, Hauraki Plains	Waikato, King Country, Taupo	Bay of Plenty, Coromandel, Poverty Bay	Hawkes Bay, Taranaki, Manawatu, Wairarapa	NORTH ISLAND	Marlborough, Nelson, Westland	*Canterbury /N. Otago	South & Central Otago, Southland	SOUTH ISLAND	New Zealand	Yield per Hive (kgs)
1985	1502	1697	1550	1088	5837	685	1650	2142	4477	10,314	33.3
1986	1498	1492	1150	887	5027	871	950	2623	4444	9471	29.0
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
6 year average	940	1304	1137	874	4255	737	1540	2147	4424	8688	26.7

\* Includes 342 tonnes honeydew

keepers heavily discounted each "drop" and this caused some concern amongst other pollinators.

Beekeepers acting as brokers continued to provide a useful service and one fulltime professional broker employed his own hive auditing system independent of the Kiwifruit Pollination Association and MAF.

### MAF SYSTEMS

#### Exotic Bee Disease Response

Work continued on writing manuals, job cards, and specifications for regions to deliver this service. MAF expects to control or eradicate any exotic disease by using a mobile task force of MAF officers and teams of local beekeepers. Thorough training of these people is continuing.

#### Apiary Registration and Inspection Fee (ARIF)

This fee was to be collected by the beekeeping industry to fund MAF's activities in registration and hive inspection. The proposed fee of \$20 for the first apiary and \$6 for each oother apiary owned was to be levied on all beekeepers under the Commodities' Levy Bill. This Bill did not get introduced to the House and is not expected to be passed until the New Year.

MAF will continue to fund the registration costs but cost recovery for hive inspections will require further negotiation.

A computer programme was developed so the apiary register programme could be used to administer the collection of the fee.

#### Surveillance

MAF continued to operate a diagnostic laboratory at Lynfield under the care of Brian Milnes. A small number of specimens were submitted for suspect European foulbrood but all tested negative.

A significant number of beekeepers in the restricted zones in Coromandel and Eastern Bay of Plenty did not observe their special permit conditions. Warnings were issued to the offenders and all complied eventually. A number of beekeepers didn't appreciate how serious the toxic honey problem can be.

Training manuals for Border Protection Officers were written and two courses run in Auckland. The objective is to have at least two members on every quarantine team in the country skilled in recognising imported bees or bee products, to make the correct decision over entry of those products and to take any follow-up action required e.g. prosecution, exotic disease alert, and so on.

The Border Protection Service screened 1,700,000 passengers on 12,000 aircraft last year. Of these, 700,000 declared quarantine items but another 188,000 passengers were found to have undeclared quarantine goods. Over 2,700 bee products were taken off air passengers. A large number of vessels were also cleared, including yachts, all of which had honey on board.

At least one prosecution was taken against an importer for illegally importing honey as part of a consignment of other foodstuffs.

### Market Access

Numerous submissions were made to the United States' Department of Agriculture and the Agricultural Quarantine and Inspection Service for New Zealand bees to be allowed access to the US. This resulted in a proposal to allow importations being published in the Federal Register.

A number of American beekeepers submitted objections to the proposal, all of which were addressed by MAF. A final decision is still pending.

Australian beekeepers and State Officers continued to lobby to have honey from chalkbrood countries banned. Submissions from MAF sought a compromise whereby honey would be allowed entry if certified as being heat treated to 70°C for two hours and/or tested free of viable chalkbrood by a laboratory test. Negotiations are continuing with New Zealand exporters over their ability or desire to meet these conditions.

### Legislation and Policy

A large number of pieces of legislation or policy documents were reviewed or drafted during the year. Progress on legislation change however has been limited to industry consultation and preliminary law drafting. The bottleneck is in Parliament which currently has over

**FIG III: EXPORT FIGURES FOR HONEY, HONEYDEW AND BEESWAX  
FOR THE YEAR TO DECEMBER 1989**

Product	Tonnes	NZ\$ (FOB)	No. of Countries	\$/KG
Bulk honey	582.25	1405730	10	2.41
Retail honey	264.04	105699	22	3.81
Comb honey	162.30	1085922	10	6.69
Honeydew	31.34	106997	8	3.41
TOTAL Honey	1039.93	3604348		
Bees Wax	85.51	457895	11	5.36
TOTAL Honey and Wax Exports		\$4062243		

# CONFERENCE '90

## NEW ZEALAND BEEKEEPER, APIARY & HIVE STATISTICS BY APIARY DISTRICTS AS AT MAY 31 1990

	1-5 Hives		
	Beekeepers	Apiaries	Hives
Whangarei	1176	1324	2538
Hamilton	417	479	967
Tauranga	365	426	855
Palmerston North	923	1019	2088
Nelson	356	418	761
Christchurch	479	585	1040
Gore	337	384	742
NEW ZEALAND	4053	4635	8991

	6-50 Hives		
	Beekeepers	Apiaries	Hives
	334	747	4696
	179	395	2646
	191	397	3313
	398	867	5750
	134	368	2192
	189	526	3083
	153	340	2468
	1578	3640	24118

	51-250 Hives		
	Beekeepers	Apiaries	Hives
	41	379	5116
	32	321	4294
	56	496	7099
	40	459	4449
	31	291	3496
	63	633	7499
	48	539	5794
	311	3118	37747

	251-500 Hives		
	Beekeepers	Apiaries	Hives
Whangarei	14	265	5364
Hamilton	7	154	2857
Tauranga	15	317	5322
Palmerston North	15	489	5656
Nelson	13	348	4905
Christchurch	22	401	7542
Gore	116	486	5932
NEW ZEALAND	102	2460	37578

	501-1000 Hives		
	Beekeepers	Apiaries	Hives
	10	492	8389
	11	390	8175
	16	600	13219
	9	353	5647
	11	436	8082
	13	790	9533
	22	1070	15952
	92	4131	68997

	More than 1000 Hives		
	Beekeepers	Apiaries	Hives
	5	369	7879
	13	1368	28657
	13	1428	24956
	6	877	16138
	3	191	4277
	17	1913	30980
	17	1656	27855
	74	7802	140742

	1-50 Hives		
	Beekeepers	Apiaries	Hives
Whangarei	1510	2071	7234
Hamilton	596	874	3613
Tauranga	556	823	4168
Palmerston North	1321	1886	7838
Nelson	490	786	2953
Christchurch	668	1111	4123
Gore	490	724	3210
NEW ZEALAND	5631	8275	33139

	More than 50 Hives		
	Beekeepers	Apiaries	Hives
	70	1505	26748
	63	2233	43983
	100	2841	50596
	70	2178	31890
	58	1266	20760
	115	3737	55554
	103	3751	55533
	579	17511	285064

	Totals		
	Beekeepers	Apiaries	Hives
	1580	3576	33982
	659	3107	47596
	656	3664	54764
	1391	4064	39728
	548	2052	23713
	783	4848	59677
	593	4475	58743
	6210	25786	318203

**FIG V: NUMBER OF APIARIES AND HIVES WITH AMERICAN FOULBROOD DISEASE FOUND BY MAF OR REPORTED BY BEEKEEPERS TO 31 MAY 1990 (1989 FIGURES IN BRACKETS)**

	No. Apiaries	No. Hives	% Apiaries Inspected	% Hives Inspected
Inspected by MAF	889	8728		
Inspected by beekeeper inspectors	1077	6040		
Total Inspected (216 inspectors)	1966	14768	8.0	4.8
AFB found by MAF or beekeeper inspectors	181 (191)	644 (438)		
AFB Reported by Beekeepers	1479 (1348)	3167 (3228)		
Total AFB	1660 (1530)	3831 (3676)		

240 pieces of legislation before it. The documents considered include:

- the Commodities' Levy Bill (gives powers to industries to levy members)
- the Agricultural Security Bill (deals with disease control and will include parts of the Apiaries Act)
- Primary Products' Bill (considers aspects of food quality and will include the other part of the Apiaries Act).
- Apiaries' Act
- Honey Export Act
- Animals' Act
- Regulation of Agricultural Compounds
- Regulation of Weed and Pest Management
- National Agricultural Security (Border protection)



**FIG IV: AMERICAN FOULBROOD DISEASE LEVELS IN APIARY DISTRICTS TO 31 MAY 1990 (1989 FIGURES IN BRACKETS)**

Apiary District	Diseased Apiaries		Diseased Hives		% Apiaries Inspected by MAF Inspectors					
	No. 1990	1989	% 1990	1989	No. 1990	1989	% 1990	1989		
Whangarei/Auckland	175	(235)	5.0	(5.6)	521	(643)	1.5	(1.5)	4.7	(10.3)
Hamilton	390	(293)	12.5	(9.6)	641	(491)	1.3	(1.1)	14.6	(8.7)
Tauranga	362	(358)	9.9	(9.4)	863	(681)	1.6	(1.1)	7.0	(5.1)
Palmerston Nth	136	(184)	3.3	(4.4)	253	(732)	0.6	(1.9)	7.7	(5.6)
Nelson	242	(160)	11.6	(7.2)	497	(427)	2.0	(1.7)	1.4	(13.0)
Christchurch	209	(147)	3.6	(2.9)	694	(421)	1.1	(0.7)	5.6	(6.1)
Gore	146	(153)	3.3	(3.4)	362	(281)	0.6	(0.5)	6.3	(7.8)
Total	1660	(1530)	7.0	(5.6)	3831	(3676)	1.2	(1.1)	8.0	(8.3)

- Food Administration in New Zealand (who licenses food premises including honey houses?)
- Pesticides: Issues and Options for New Zealand.

#### Consultancy

MAF continued to earn income from external clients to supplement work paid for from the agriculture vote. These included:

- auditing pollination systems as well as hives
- production of "Buzzwords" and the "NZ Beekeeping Industry Profile"
- secretary to the NZ Queen Bee Producers' Association
- Executive Officer to the NBA Executive
- import and export certification and quarantine inspection
- general consultancies including an overseas aid project in Papua New Guinea.

#### HONEY FRENCH TOAST

2 eggs  
1 pint milk  
¼ cup honey  
½ teaspoon salt  
a sprinkling of mace or nutmeg  
6 or 8 slices of bread several days old  
• Beat eggs until light. Warm the milk slightly and blend well with the honey. Add the salt, mace, and beaten eggs and stir well. Cut bread about one-half inch thick. Dip each slice into the milk and egg mixture and place on a hot well-greased griddle. Brown well on both sides. Serve with honey.



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