

**MAF QUALITY MANAGEMENT (MQM) REPORT TO THE ANNUAL CONFERENCE
OF THE NATIONAL BEEKEEPERS' ASSOCIATION OF NEW ZEALAND, NELSON,
23-24 JULY 1997**

1.0 Organisation and Personnel

Cabinet considered reports on the Ministry of Agriculture and the Ministry of Forestry and made the following decisions:

- The Ministry of Forestry and the Ministry of Agriculture will be merged into a new Ministry with a new Chief Executive. The change will be effective from 1 March 1998.
- The border quarantine services and government to government certification staff groups will be transferred from the existing MAF Quality Management and integrated into the new Ministry.
- The commercial MQM businesses will remain a separate business unit within the new Ministry, and will continue to deliver existing services until further decisions on the most appropriate long-term structure for them.

The new Ministry, excluding the commercial MQM businesses, is expected to have a total staff of 900 to 1000 with the broad functions of policy advice, standards setting, contract and grant management, corporate services, certification services and border services.

With respect to MAF Quality Management (MQM) Cabinet has accepted the MQM Scoping Review recommendations that the services which will remain in MQM should be assessed by the Viability Assessment Team (VAT) by November 1997, with a view to becoming commercialised in an appropriate organisational form. The services in question are:

- Front-line Meat Inspection Services
- Dairy and Food Business
- Livestock Business - including apiculture
- Plants Quality Service
- Regional Animal Health Laboratories
- Outbreak Response or OR (the old EDPR)
- Surveillance

Further Ministerial decisions on the commercialisation or divestment of these services should be made in early 1998 based on VAT recommendations. If MQM is to remain as a commercial organisation (possibly a Crown Owned Entity), it will need a new name and logo and this will take effect some time after July 1998. The viability of the National Apiculture Business Unit (NABU) will depend on securing contracts from the industry as well as government through the Regulatory Authority (RA). The RA reviewed its

requirements for surveillance and exotic disease response during the year and concluded that:

- The effects of any known disease of bees in the national economy and on trade would be small.
- Government may consider taking the responsibility for the control of European foulbrood.
- All other exotic bee diseases could be the responsibility of the beekeeping industry.
- The Health Department may be asked to consider Africanised Honey Bees.

The requirements for surveillance for exotics to declare country or area freedoms were not determined but are under review.

2.0 Beekeeping Statistics

2.1 Beekeepers, Apiaries and Hives

There were 5286 registered beekeepers owning 287,458 hives as at 30 June 1997 (Table 1). This represented a decrease of 0.4% of beekeepers but an unexpected increase of 652 hives or 0.21%. Apiary numbers decreased 2.6%, a trend that is expected to continue with the introduction of an apiary levy.

2.2 Honey Production

The total saleable crop was assessed at 8,537 tonnes (29.5 kg/hive) which is a decrease on last years crop of 8,610 tonnes (30 kg/hive). The six year average is 8,943 tonnes or 30.4 kg per hive (Table 2). Per hive figures are taken over all registered hives not just the productive ones. There were 31 tonnes of bees exported to Canada and 3.2 tonnes to Korea.

3.0 Exotic Disease and Pest Response (EDPR) Capability

Training exercises at Invermay and Palmerston North were held last year involving 40 MQM staff. These covered training in exotic disease response procedures including hands on inspection of beehives.

This year two joint exercises involving both MQM staff and NBA members are planned. In Hamilton in August and Cromwell in September. These will involve combined teams inspecting hives for AFB as an exercise simulating a response to a European foulbrood outbreak.

A report on the epidemiology of European foulbrood was completed and reviews of Africanised honey bee, *Varroa* and tracheal mite are almost complete. Work on a *Tropilaelaps* review has started. These reports are intended to provide MAF and the beekeeping industry with an up to date summary of what information is available to help make decisions on entry risk, impact in New Zealand, surveillance methods and control options.

4.0 Surveillance

The Honey Bee Exotic Disease Surveillance Programme is comprised of four components; the apiaries register, hive sampling, toxic honey monitoring and border protection.

4.1 Register

The maintenance of this Register (in the form of a computer database) is a legal requirement for the Government under the current Apiaries and Biosecurity Acts. The database relies on accurate statements of inspection provided by the beekeeper each spring.

During the year MAF Quality Management installed a new apiary database which combined the 7 stand alone databases, that were situated throughout the country, into one database, located in Wellington. The database can be accessed from MAF offices throughout the country.

4.2 Hive Sampling

In the past 12 months, MAF staff have inspected 462 apiaries for the presence of exotic bee diseases and taken samples for laboratory analysis for internal and external parasitic mites. In addition, 32 samples were taken for European foulbrood diagnosis. Apiaries were sampled in at risk areas including sea ports, garbage dumps and areas frequented by overseas travellers. No specimens of exotic disease or pests were found. A further 496 samples of bees were tested for live bee exports at Invermay as part of the export certification programme. The samples were analysed for the presence of exotic internal and external parasitic mites. MAF Quality Management wishes to thank the beekeepers for providing samples.

4.3 Quarantine Services

The apiculture section does not have any direct involvement with determining import protocols or issuing import permits. This is the responsibility of the Regulatory Authority (RA). Occasionally we may be asked to audit the performance of importers of an 'at risk' bee product if so requested by the RA. The improper importation of pollen that was alleged to have occurred in 1997 was, and still is, being investigated by MAF's National Fauna and Flora Investigation Unit (NIFFU).

5.0 American Foulbrood and NBA AFB Control Programme

The 1996-97 AFB Control Programme contract with MAF Quality Management (MQM) contained most of the provisions of the 1995-96 contract, including the inspection of 4% (990) of registered apiaries by MQM personnel (up from 3.9% in the previous contract), the provision of inspection lists for NBA volunteer inspectors, counselling of beekeepers with AFB problems, and various other services relating to disease control and reporting. The contract also included a further trial of the adult bee test for *Bacillus larvae* spores, this time directed towards commercial and semi-commercial beekeepers.

Once again this year, the MQM inspection requirement was exceeded, with 1026 apiaries inspected. The average apiary size was also exceeded, with inspected apiaries averaging 8.2 hives (target minimum apiary size was 6 hives). A total of 44 MQM staff and contract beekeepers were used in these inspections (see Table 3).

The NBA executive canvassed branches prior to this year's contract to determine which branches wished to carry out NBA volunteer (diseaseathon) inspections. Six of the 16 branches elected not to be involved in this part of the programme.

NBA branch inspections totalled 544 apiaries, or 55% of the 990 required to achieve the target of 4% of registered apiaries. A total of 108 letters of appointment were issued to beekeepers wishing to assist in NBA inspections, with 79 letters of appointment actually being used (Table 4).

The NBA AFB Disease Control Programme therefore resulted in the inspection of 6.3% of New Zealand's apiaries (MQM:4.1% + NBA:2.2%). The target inspection level set by the NBA executive for the programme was 8% of apiaries. A total of 11,730 hives were inspected (MQM: 8426 + NBA: 3304). This figure represents 4% of the beehives in New Zealand registered at the time the contract was let.

MAF Quality Management personnel found 246 hives and 146 apiaries infected with AFB (2.9% of hives and 14.2 of apiaries inspected). As directed by the contract, all MQM inspections were targeted whenever possible to areas where there was the greatest likelihood of finding AFB (ie, trouble spots/outbreaks). NBA inspectors found a further 51 hives and 30 apiaries infected (1.5% of hives and 5.5% of apiaries inspected). Beekeepers reported an additional 1037 hives and 518 apiaries to be infected (Table 5).

The overall reported incidence of AFB in New Zealand beehives in 1996-97 was 0.46% of hives and 2.9% of apiaries, down from 0.61% of hives (24% reduction) and 3.6% of apiaries (19% reduction) in 1995-96 (Table 6). The current incidence of AFB in New Zealand is now at its lowest point since 1975.

This downward movement in incidence of AFB in New Zealand beehives continues a trend which began 6 years ago at the beginning of the current round of AFB control contracts with MAF Quality Management. During that time, AFB incidence in New Zealand has dropped by 54%. As well, the target of 10% reduction in AFB incidence per annum, which is the objective of the NBA's National Pest Management Strategy for American Foulbrood, has been met or exceeded in 5 of those 6 years.

Table 1

**BEEKEEPER, APIARY AND HIVE STATISTICS FOR NZ APIARY DISTRICTS
AS AT 30 JUNE 1997**

Apiary Register Location	Beekeepers			Apiaries			Hives		
	1997	1996	% Change	1997	1996	% Change	1997	1996	% Change
Whangarei	1135	1150	- 1.3%	2647	2687	- 1.5%	30252	28777	+ 5.1%
Hamilton	522	530	- 1.5%	2893	2947	- 1.8%	39692	41270	- 3.8%
Tauranga	518	511	+ 1.4%	3242	3414	- 5.0%	47964	47670	+ 0.6%
Palmerston North	1333	1330	+ 0.2%	3831	4005	- 4.3%	37055	38121	- 2.8%
Blenheim	469	463	+ 1.3%	1986	1935	+ 2.6%	22894	21775	+ 5.1%
Lincoln	790	789	+ 0.1%	5294	5361	- 1.2%	58452	58983	- 0.9%
Invermay	519	533	- 2.6%	3861	4030	- 4.2%	51149	50210	+ 1.9%
TOTAL	5286	5306	- 0.4%	23754	24379	- 2.6%	287458	286806	+ 0.2%

Table 2

**NEW ZEALAND HONEY PRODUCTION, IN TONNES
AS AT 30 JUNE ANNUALLY**

<i>YEAR</i>	Northland, Auckland, Hauraki Plains	Waikato, King Country, Taupo	Bay of Plenty, Coromandel, Poverty Bay	Hawkes Bay, Taranaki, Manawatu, Wairarapa	<i>NORTH ISLAND</i>	Marlborough, Nelson, Westland	Canterbury*, North Otago	South & Central Otago, Southland	<i>SOUTH ISLAND</i>	NEW ZEALAND	Yield per Hive (kgs)**
1992	1200	1068	998	1231	4497	650	2870	1543	5063	9560	31.4
1993	1033	811	958	577	3379	560	1611	1536	3707	7086	23.3
1994	1295	1946	1524	1442	6207	493	2883	2236	5612	11819	40.8
1995	354	962	1426	1200	3942	499	1685	1921	4105	8047	27.5
1996	829	1639	1077	1367	4912	607	1287	1804	3698	8610	30.0
1997	766	829	933	1112	3640	919	2339	1639	4897	8537	29.5
6 yr ave	913	1209	1153	1155	4430	621	2113	1780	4514	8943	30.4

* Includes honeydew

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

Table 3

PERFORMANCE OF MQM INSPECTORS*
NBA AFB DISEASE CONTROL PROGRAMME
YEAR ENDING 30 JUNE 1997

Apiary Register Location	MQM Staff	Contract Inspectors	Apiaries Inspected		Hives Inspected	AFB Found (% Inspected)		
			Target**	Completed (%)		Hives (%)	Apiaries (%)	
Whangarei	2	0	116	118 (101.7%)	1004	29 (2.9%)	19 (16.1%)	
Hamilton	6	0	116	118 (101.7%)	1089	31 (2.8%)	12 (10.2%)	
Tauranga	3	2	141	143 (101.4%)	1430	84 (5.9%)	43 (30.1%)	
Palmerston Nth	19	3	161	174 (108.1%)	951	30 (3.2%)	18 (10.3%)	
Blenheim	2	0	81	86 (106.2%)	908	26 (2.9%)	16 (18.6%)	
Lincoln	3	0	211	223 (105.7%)	1556	27 (1.7%)	21 (9.4%)	
Invermay	4	0	164	164 (100.0%)	1488	19 (1.3%)	17 (10.4%)	
TOTAL	39	5	990	1026 (103.6%)	8426	(8.2)***	246 (2.9%)	146 (14.2%)
1995-96	28	7	987	1033 (104.7%)	8643	(8.4)***	530 (6.1%)	183 (17.7%)

* Includes beekeepers employed by MQM

** Based on programme target of 4% of apiaries per Apiary District (June 30, 1995 statistics); 1995-96 programme based on 3.9%.

*** Average hives per apiary (>6 hives/apiary required)

Table 4

**PERFORMANCE OF VOLUNTEER INSPECTORS
NBA AFB DISEASE CONTROL PROGRAMME
YEAR ENDING 30 JUNE 1997**

NBA Branch	Warrants Issued	Warrants Used	Apiaries Inspected		Hives Inspected	AFB Found (% Inspected)	
			Target*	Completed (%)		Hives (%)	Apiaries (%)
Far North**	0	--	--	0 --	0	0 --	0 --
Northland	0	--	69	0 (0.0%)	0	0 --	0 --
Auckland**	--	--	--	0 --	0	0 --	0 --
Waikato**	--	--	--	0 --	0	0 --	0 --
Bay of Plenty	23	16	144	144 (100.0%)	929	13 (1.4%)	8 (5.6%)
Poverty Bay	5	5	74	37 (50.0%)	127	3 (2.4%)	1 (2.7%)
Hawkes Bay	12	10	100	63 (63.0%)	295	3 (1.0%)	3 (4.8%)
S'thern North Island	12	12	148	80 (54.1%)	210	10 (4.8%)	7 (8.8%)
Marlborough	6	6	46	32 (69.6%)	356	4 (1.1%)	3 (9.4%)
Nelson	14	7	55	33 (60.0%)	122	2 (1.6%)	2 (6.1%)
West Coast	4	3	28	9 (32.1%)	209	4 (1.9%)	2 (22.2%)
Canterbury	24	12	244	117 (48.0%)	938	12 (1.3%)	4 (3.4%)
Sth Canterbury	7	7	82	28 (34.1%)	116	0 (0.0%)	0 (0.0%)
North Otago**	1	1	--	1 --	2	0 (0.0%)	0 (0.0%)
Otago**	--	--	--	0 --	0	0 --	0 --
Southland**	--	--	--	0 --	0	0 --	0 --
TOTAL	108	79	990	544 (54.9%)	3304	51 (1.5%)	30 (5.5%)
1995-96	108	82	1545	981 (63.5%)	7401	132 (1.8%)	76 (7.7%)

* Based on programme target of 4% of apiaries in Apiary Districts (June 30, 1995 statistics) inspected by those branches electing to be involved in programme

**Branches that elected not to be involved in '96-'97 NBA Voluntary Inspection Programme

Table 5

**APIARIES AND HIVES WITH AMERICAN FOULBROOD
FOUND DURING NBA DISEASE CONTROL PROGRAMME OR REPORTED TO MQM BY BEEKEEPERS
TO 30 JUNE 1997
(1996 FIGURES IN BRACKETS)**

MQM Apiary Register Location	Apiaries Found with AFB:				Hives Found with AFB:			
	By MQM Inspectors*	By Volunteer Inspectors**	Reported by Beekeepers	Totals	By MQM Inspectors	By Volunteer Inspectors	Reported by Beekeepers	Totals
Whangarei	19 (36)	0 (1)	53 (58)	72 (95)	29 (83)	0 (2)	89 (108)	118 (193)
Hamilton	12 (10)	0 (0)	118 (110)	130 (120)	31 (15)	0 (0)	231 (168)	262 (183)
Tauranga	43 (44)	9 (17)	95 (87)	147 (148)	84 (175)	16 (34)	245 (108)	345 (317)
Palmerston Nth	18 (26)	10 (27)	68 (69)	96 (122)	30 (117)	13 (46)	148 (125)	191 (288)
Blenheim	16 (24)	7 (13)	61 (60)	84 (97)	26 (41)	10 (25)	112 (148)	148 (214)
Lincoln	21 (25)	4 (13)	64 (132)	89 (170)	27 (58)	12 (18)	100 (231)	139 (307)
Invermay	17 (18)	0 (5)	59 (110)	76 (133)	19 (41)	0 (7)	112 (191)	131 (239)
Total	146 (183)	30 (76)	518 (626)	694 (885)	246 (530)	51 (132)	1037 (1079)	1334 (1741)

Inspectors employed by MQM (including beekeepers)

** Beekeeper inspectors under MQM direction (diseaseathons)

Table 6

**INCIDENCE OF AMERICAN FOULBROOD IN APIARY DISTRICTS TO 30 JUNE 1997
(1996 FIGURES IN BRACKETS)**

MQM Apiary Register	Diseased Apiaries/ % of Total District Apiaries		Diseased Hives/ % of Total District Hives		Apiaries Inspected NBA Programme*	
	Number	%	Number	%	Number	%
Whangarei	72 (95)	2.7% (3.5%)	118 (193)	0.39% (0.67%)	118 (123)	4.1% (4.1%)
Hamilton	130 (120)	4.5% (4.1%)	262 (183)	0.66% (0.44%)	118 (153)	4.1% (4.9%)
Tauranga	147 (148)	4.5% (4.3%)	345 (317)	0.72% (0.66%)	324 (480)	9.2% (13.0%)
Palmerston North	96 (122)	2.5% (3.0%)	191 (288)	0.52% (0.76%)	317 (394)	7.9% (10.0%)
Blenheim	84 (97)	4.2% (4.8%)	148 (214)	0.65% (0.94%)	160 (179)	7.9% (8.6%)
Lincoln	89 (170)	1.7% (3.2%)	139 (307)	0.24% (0.53%)	368 (467)	7.0% (8.8%)
Invermay	76 (133)	2.0% (3.3%)	131 (239)	0.26% (0.48%)	165 (218)	4.0% (5.2%)
TOTAL	694 (885)	2.9% (3.6%)	1334 (1741)	0.46% (0.61%)	1570 (2014)	6.3% (8.0%)

* Includes both MQM and beekeeper inspectors, whether employed by MQM or under MQM direction (diseaseathons); apiaries inspected as a percentage of apiaries registered on June 30, 1995.