

## 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 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%)	
<b>TOTAL</b>	<b>39</b>	<b>5</b>	<b>990</b>	<b>1026 (103.6%)</b>	<b>8426</b>	<b>(8.2)***</b>	<b>246 (2.9%)</b>	<b>146 (14.2%)</b>
<b>1995-96</b>	<b>28</b>	<b>7</b>	<b>987</b>	<b>1033 (104.7%)</b>	<b>8643</b>	<b>(8.4)***</b>	<b>530 (6.1%)</b>	<b>183 (17.7%)</b>

\* 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 --
<b>TOTAL</b>	<b>108</b>	<b>79</b>	<b>990</b>	<b>544 (54.9%)</b>	<b>3304</b>	<b>51 (1.5%)</b>	<b>30 (5.5%)</b>
<b>1995-96</b>	<b>108</b>	<b>82</b>	<b>1545</b>	<b>981 (63.5%)</b>	<b>7401</b>	<b>132 (1.8%)</b>	<b>76 (7.7%)</b>

\* 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)
<b>Total</b>	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%)
<b>TOTAL</b>	<b>694 (885)</b>	<b>2.9% (3.6%)</b>	<b>1334 (1741)</b>	<b>0.46% (0.61%)</b>	<b>1570 (2014)</b>	<b>6.3% (8.0%)</b>

\* 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.