

**MAF QUALITY MANAGEMENT REPORT TO THE ANNUAL CONFERENCE
OF THE NATIONAL BEEKEEPERS ASSOCIATION OF NEW ZEALAND,
TAURANGA 18-22 JULY 1994**

1.0 ORGANISATION AND PERSONNEL

In an effort to deal more efficiently with increased workloads within the National Apiculture Business Unit (NABU), managerial responsibilities were shared out during 1993 to various Apicultural Advisory Officers. The following list identifies those national responsibilities and the MAF Quality Management staff who spend at least half their time on apicultural business.

Name/National Responsibilities	Mailing Address	Telephone	Fax
Derek Bettesworth Process Manager for Exotic Pest and Disease Response (EDPR)	MAF, Private Bag, WHANGAREI	(09) 437 2822	(09) 437 1368
Murray Reid National Manager for Apiculture and Process Manager for Imports and Consultancy Services	MAF, Private Bag 3080, HAMILTON	(07) 838 5841	(07) 838 5846
Cliff Van Eaton Contract Manager for NBA AFB Disease Control Programme	MAF, Private Bag 12015, TAURANGA	(07) 578 2069	(07) 578 8429
Ted Roberts Process Manager for Export Certification	MAF, P O Box 585, PALMERSTON NTH	(06) 351 7935	(06) 351 7906
Dave Grueber	MAF, Private Bag, BLENHEIM	(03) 578 7369	(03) 578 0944
Stephen Ogden Process Manager for Food Quality Services	MAF, P O Box 24, CANTERBURY	(03) 325 3920	(03) 325 3919
David McMillan Process Manager for Surveillance and Apiary Registration	MAF, Private Bag 50034, MOSGIEL	(03) 489 3809	(03) 489 7988

2.0 BEEKEEPING STATISTICS

2.1 Beekeepers, Apiaries and Hives

There were 5565 registered beekeepers owning 289,875 hives of bees as at 30 June 1994. This represents an overall decrease of 1.0% of beekeepers and 3.0% of hives during the last 12 months (Table 1).

2.2 Honey Production

The total saleable crop for 1994 was assessed at 11819 tonnes (40.8 kg per hive), a significant increase over the previous year's crop of 7086 tonnes (23.3 kg per hive) and the previous 6 year average of 7698 tonnes or 24.3 kg per hive (Table 2).

3.0 AMERICAN FOULBROOD AND NBA AFB CONTROL PROGRAMME

MAF Quality Management was once again contracted to provide an AFB control programme for the NBA in 1993-94. The contract, which was reduced by \$20,000 from the previous year, called for the inspection of 3.9% (973) of registered apiaries by MAF personnel, the provision of inspection lists for NBA inspectors and diseaseathons, and various other services relating to disease control and reporting. Significant cost savings were made in the area of MAF Quality Management's involvement in NBA branch inspection activities, resulting in a smaller reduction in MAF inspections (7%), compared to the overall reduction in the contract price (17%).

The MAF inspection component of the contract was exceeded, with 1004 apiaries inspected. The target average hives per apiary (6/apiary) was also exceeded, with an average of 8.1 hives per apiary inspected. A total of 41 MAF Quality Management staff and contract beekeepers were used in these inspections (Table 3).

NBA branch inspections totalled 867 apiaries, or 57% of the 1522 necessary to achieve the target set by the NBA executive of 6.1% of registered apiaries. Two of the 13 NBA branches carrying out inspection programmes either met or exceeded their target of district apiaries inspected. A total of 194 letters of appointment were issued to beekeepers who wished to assist in NBA inspections, with 128 letters of appointment actually being used. This represented a 16% increase in participation over 1992-93 (Table 4).

The NBA AFB Disease Control Programme therefore resulted in the inspection of 7.5% of New Zealand's apiaries (MAF: 4.0% + NBA: 3.5% = 7.5%). The target inspection level set by the NBA executive for the programme was 10% of apiaries. A total of 13,427 hives were inspected (MAF: 8170; NBA: 5257). This figure represents 4.6% of beehives currently registered in New Zealand.

MAF Quality Management inspectors (and beekeepers contracted to MAF) found 532 hives infected with American foulbrood (6.5% of hives inspected). NBA inspectors found a further 192 hives (3.7% of hives inspected). The total number of hives infected with AFB reported by beekeepers was 1938, up 263 (16%) on 1992-93 (Table 5).

The overall reported disease incidence in New Zealand beehives in 1993-94 was 0.9% of hives and 5.1% of apiaries, the same as in 1992-93 (Table 6).

4.0 EXOTIC DISEASE AND PEST RESPONSE (EDPR) CAPABILITY

Training of MAF Quality Management staff continued and simulation exercises were held for HQ personnel, as well as laboratory staff and Field Team Leaders. Systems and procedure manuals were reviewed and revised where necessary. Planning is under way for a major simulated exercise in Canterbury scheduled for September 1994. This will involve an HQ, Field Team Leaders and Field Team Members. NBA members from the Canterbury area have volunteered to act as Field Team Members.

EDPR training and preparedness continues to be funded by government through a contract with the MAF Regulatory Authority (MAF RA). However, under the Biosecurity Act, there is a requirement for interested parties to prepare management plans for exotic and endemic pests and diseases of concern. Preparation and management of these plans or Pest Management Strategies (PMS) will be the responsibility of the farmers, growers or beekeepers concerned, unless they can persuade government to be a partner.

Recent communication from the MAF RA has indicated that they will not take any initiatives or responsibilities for preparing a PMS for the Africanised honey bee. This was one pest that MAF Quality Management felt could secure government support, since the aggressiveness of the bee has implications for public health.

Government will almost certainly not assist financially with developing PMS's for the other exotic pests and diseases of honey bees. The implications of this need to be carefully considered by the beekeeping industry because if the NBA does not develop strategies for exotic bee diseases due to financial or other considerations, then the Ministry of Agriculture and Fisheries is not likely to continue investing resources in training and systems development. (See *The New Zealand Beekeeper*, July 1994).

5.0 SURVEILLANCE

The Honey Bee Exotic Disease Surveillance Programme is comprised of three parts:- the apiary register, hive sampling and border protection.

5.1 Apiary Register

The maintenance of this register (in the form of a computer database) is a current legal requirement of government under the transitional provisions of the Biosecurity Act. The database relies on accurate statements of inspection provided by the beekeeper each spring. However, once again this year approximately 40% of beekeepers failed to provide such statements of inspection by the deadline of 7 December.

The current database has served well as an apiary register for many years, but it is now reaching the end of its useful life. For this reason, MAF Quality Management has designed a new database system which is currently being

programmed and should be in use by the beginning of the upcoming season. This database has been designed to meet the many changing needs of MAF Quality Management and the beekeeping industry. The new database will improve the efficiency of many of MAF Quality Management activities such as the American foulbrood control/eradication programme, the exotic bee disease surveillance programme, export area clearances, and HQ operations in an exotic disease response.

5.2 Hive Sampling

During the past 12 months, MAF Quality Management staff have inspected 461 apiaries for the presence of exotic bee diseases and taken samples for laboratory analysis for internal and external parasitic mites. In addition, 27 samples were taken for European foulbrood diagnosis and 29 samples were taken for Africanised honey bee analysis. Apiaries were sampled in "at risk" areas including sea ports, garbage dumps and areas frequented by overseas travellers. No specimens of exotic diseases or pests were found. A further 430 samples of bees were tested at Invermay as part of the export certification programme. The samples were analyzed for the presence of exotic internal and external parasitic mites. MAF Quality Management wishes to thank participating beekeepers for providing samples.

5.3 Border Protection

The beekeeping industry continues to have a high profile in the work of MAF's Quarantine Service, with numerous consignments of honey and other bee products being intercepted at the border, and the disease risk of honey and bees being brought to the attention of the travelling public. Seven staff from the National Fauna and Flora Investigation Unit were given training in assessing risks to the beekeeping industry in 1993-94.

A dead swarm of bees was found in a container from Australia. This was picked up by MAF Quarantine Services staff. The bees were tested for Africanisation, internal and external parasitic mites, and European foulbrood, with negative results for all diseases and pests. The incident once again highlights the importance of the Quarantine Service to the New Zealand beekeeping industry.

6.0 EXPORT CERTIFICATION

The 1994 export season was extremely trying for live bee exporters, MAF Quality Management certifying officers and the MAF Regulatory Authority. Difficulties were experienced in our two leading live bee export markets, and area freedom requirements for honey exports continue to cause concern. Many of the problems and costs associated with export certification stem from our inability to negotiate favourable access conditions with our trading partners. A number of joint industry-government initiatives are being undertaken to address these problems. The initiatives are more fully detailed in the July issue of *The New Zealand Beekeeper*.

Table 1

**BEEKEEPER, APIARY AND HIVE STATISTICS FOR NZ APIARY DISTRICTS
AS AT 30 JUNE 1994**

Apiary Register Location	Beekeepers			Apiaries			Hives		
	1994	1993	% Change	1994	1993	% Change	1994	1993	% Change
Whangarei	1225	1264	- 3.1	2972	3033	- 2.0	29848	30967	- 3.6
Hamilton	584	596	- 2.0	3100	2985	+ 3.9	43749	43185	+ 1.3
Tauranga	598	606	- 1.3	3696	3593	+ 2.9	50282	53043	- 5.2
Palmerston North	1358	1319	+ 3.0	3957	3961	- 0.1	35839	38446	- 6.8
Blenheim	474	484	- 2.1	2083	2036	+ 2.3	21190	22448	- 5.6
Lincoln	771	765	+ 0.8	5315	5143	+ 3.3	58155	58116	+ 0.1
Invermay	555	588	- 5.6	4208	4373	- 3.8	50812	52777	- 3.7
TOTAL	5565	5622	- 1.0	25331	25124	+ 0.8%	289875	298982	- 3.0%

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)**
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
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
6 yr ave	873	1128	1108	914	4022	510	2232	1612	4354	8377	27.3

* Includes honeydew

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

Table 3

PERFORMANCE OF MAF INSPECTORS*
NBA AFB DISEASE CONTROL PROGRAMME
YEAR ENDING 30 JUNE 1994

Apiary Register Location	MAF Staff	Contract Inspectors	Apiaries Inspected		Hives Inspected	AFB Found (% Inspected)		
			Target**	Completed (%)		Hives (%)	Apiaries (%)	
Whangarei	2	0	120	120 (100.0)	881	103 (11.7)	13 (10.8)	
Hamilton	3	1	119	145 (121.8)	1112	50 (4.5)	18 (12.4)	
Tauranga	3	0	139	141 (101.4)	1812	47 (2.6)	27 (19.1)	
Palmerston Nth	3	1	153	151 (98.7)	978	65 (6.6)	27 (17.9)	
Blenheim	9	0	80	119 (148.8)	812	51 (6.3)	19 (16.0)	
Lincoln	8	0	193	184 (95.3)	1212	93 (7.7)	30 (16.3)	
Invermay	9	2	169	144 (85.2)	1363	123 (9.0)	32 (22.2)	
TOTAL	37	4	973	1004 (103.2%)	8170	(8.1)***	532 (6.5%)	166 (16.5%)
1992-93	31	15	1050	1062 (101.1%)	9888	(9.3)***	771 (7.8%)	252 (23.9%)

* Includes beekeepers employed by MAF

** Based on programme target of 3.9% of apiaries per Apiary District (June 30, 1992 statistics); 1992-93 programme based on 4.2%.

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

Table 4

**PERFORMANCE OF VOLUNTEER INSPECTORS
NBA AFB DISEASE CONTROL PROGRAMME
YEAR ENDING 30 JUNE 1994**

NBA Branch	Warrants Issued	Warrants Used	Apiaries Inspected			Hives Inspected	AFB Found (% Inspected)	
			Target*	Completed	(%)**		Hives (%)	Apiaries (%)
Far North	0	0	31	0	(0.0)	0	0 --	0 --
Northland	10	10	62	35	(56.5)	177	26 (14.7)	7 (20.0)
Auckland	14	1	94	3	(3.2)	21	2 (9.5)	3 (100.0)
Waikato	32	19	186	86	(46.2)	422	15 (3.6)	11 (12.8)
Bay of Plenty	20	13	147	147	(100.0)	1196	30 (2.5)	13 (8.8)
Poverty Bay	8	6	71	49	(69.0)	334	7 (2.1)	6 (12.2)
Hawkes Bay	12	12	60	55	(91.7)	250	6 (2.4)	6 (10.9)
S'thern North Island	7	7	179	40	(22.3)	106	4 (3.8)	2 (5.0)
Marlborough	7	7	48	38	(79.2)	261	26 (10.0)	10 (26.3)
Nelson	12	12	54	78	(144.4)	535	6 (1.1)	8 (10.3)
West Coast	2	0	23	0	(0.0)	0	0 --	0 --
Canterbury	31	18	209	159	(76.1)	1260	53 (4.2)	31 (19.5)
Sth Canterbury	11	8	93	58	(62.4)	268	4 (1.5)	2 (3.4)
North Otago	0	0	53	0	(0.0)	0	0 --	0 --
Otago	15	9	137	88	(64.2)	330	10 (3.0)	5 (5.7)
Southland	13	6	75	31	(41.3)	97	3 (3.1)	3 (9.7)
TOTAL	194	128	1522	867	(57.0%)	5257	192 (3.7%)	107 (12.3%)
1992-93	243	110	1450	901	(62.1%)	5828	217 (3.7%)	81 (9.0%)

* Based on programme target of 6.1% of apiaries in Apiary Districts (June 30, 1992 statistics); 1992-93 programme based on 5.8%

**As reported to MAF by Branch Disease Control Coordinators

Table 5

**APIARIES AND HIVES WITH AMERICAN FOULBROOD
FOUND DURING NBA DISEASE CONTROL PROGRAMME OR REPORTED TO MAF BY BEEKEEPERS
TO 30 JUNE 1994
(1993 FIGURES IN BRACKETS)**

MAF Apiary Register Location	Apiaries Found with AFB:				Hives Found with AFB:			
	By MAF Inspectors*	By Volunteer Inspectors**	Reported by Beekeepers	Totals	By MAF Inspectors	By Volunteer Inspectors	Reported by Beekeepers	Totals
Whangarei	13 (26)	10 (3)	94 (115)	117 (144)	103 (46)	28 (4)	155 (250)	286 (300)
Hamilton	18 (36)	11 (0)	196 (177)	225 (213)	50 (64)	15 (0)	283 (280)	348 (344)
Tauranga	27 (48)	19 (36)	187 (191)	233 (275)	47 (184)	37 (129)	318 (405)	402 (718)
Palmerston Nth	27 (36)	8 (8)	62 (76)	97 (120)	65 (254)	10 (13)	86 (75)	161 (342)
Blenheim	19 (26)	18 (3)	140 (116)	177 (145)	51 (63)	32 (5)	460 (205)	543 (273)
Lincoln	30 (31)	33 (21)	197 (134)	260 (186)	93 (56)	57 (51)	355 (223)	505 (330)
Invermay	32 (51)	8 (10)	133 (132)	173 (193)	123 (104)	13 (15)	281 (237)	417 (356)
Total	166 (254)	107 (81)	1009 (941)	1282 (1276)	532 (771)	192 (217)	1938 (1675)	2662 (2663)

* Inspectors employed by MAF (including beekeepers)

** Beekeeper inspectors under MAF direction (diseaseathons)

Table 6

**INCIDENCE OF AMERICAN FOULBROOD IN APIARY DISTRICTS TO 30 JUNE 1994
(1993 FIGURES IN BRACKETS)**

MAF Apiary Register	Diseased Apiaries/ % of Total District Apiaries		Diseased Hives/ % of Total District Hives		Apiaries Inspected NBA Programme*	
	Number	%	Number	%	Number	%
Whangarei	117 (144)	3.9 (4.7)	286 (300)	0.9 (1.0)	158 (193)	5.1 (6.4)
Hamilton	225 (213)	7.2 (7.1)	348 (344)	0.8 (0.8)	231 (134)	7.3 (4.5)
Tauranga	233 (275)	6.3 (7.7)	402 (718)	0.8 (1.4)	337 (357)	9.4 (9.9)
Palmerston North	97 (120)	2.4 (3.0)	161 (342)	0.4 (0.9)	246 (332)	6.3 (8.4)
Blenheim	177 (145)	8.9 (7.1)	543 (273)	2.7 (1.2)	235 (179)	11.7 (8.8)
Lincoln	260 (186)	4.9 (3.6)	505 (330)	0.9 (0.6)	401 (412)	7.5 (8.0)
Invermay	173 (193)	4.1 (4.4)	417 (356)	0.8 (0.7)	263 (356)	6.0 (8.1)
TOTAL	1282 (1276)	5.1 (5.1)	2662 (2663)	0.9 (0.9)	1871 (1963)	7.5 (7.8)

* Includes both MAF and beekeeper inspectors, whether employed by MAF or under MAF direction (diseaseathons).

NEW ZEALAND BEEKEEPER, APIARY AND HIVE STATISTICS BY APIARY DISTRICT AS AT 30 JUNE 1994

Apiary Register Location	1-5 Hives		
	Beekeepers	Apiaries	Hives
Whangarei	899	988	1944
Hamilton	368	427	836
Tauranga	349	399	802
Palmerston Nth	937	1061	2169
Blenheim	319	371	700
Lincoln	516	655	1018
Invermay	341	400	728
NEW ZEALAND	3729	4301	8197

6-50 Hives		
Beekeepers	Apiaries	Hives
267	622	3680
157	321	2162
148	329	2457
360	861	5102
106	338	2049
165	460	2639
123	304	1979
1326	3235	20068

51-250 Hives		
Beekeepers	Apiaries	Hives
35	400	4683
27	352	3694
49	488	5847
39	493	4593
22	298	2684
45	606	5949
38	485	4701
255	3122	32151

Apiary Register Location	251-500 Hives		
	Beekeepers	Apiaries	Hives
Whangarei	10	195	3849
Hamilton	7	172	3168
Tauranga	21	426	6557
Palmerston Nth	10	280	3617
Blenheim	19	522	7683
Lincoln	13	316	4113
Invermay	18	492	6700
NEW ZEALAND	98	2403	35687

501-1000 Hives		
Beekeepers	Apiaries	Hives
9	382	7892
14	627	11585
19	759	13500
6	388	5302
6	368	4836
14	888	10672
22	1061	15402
90	4473	69189

More than 1000 Hives		
Beekeepers	Apiaries	Hives
5	385	7800
11	1201	22304
12	1295	21119
6	874	15056
2	186	3238
18	2390	33764
13	1466	21302
67	7797	124583

Apiary Register Location	1-50 Hives		
	Beekeepers	Apiaries	Hives
Whangarei	1166	1610	5624
Hamilton	525	748	2998
Tauranga	497	728	3259
Palmerston Nth	1297	1922	7271
Blenheim	425	709	2749
Lincoln	681	1115	3657
Invermay	464	704	2707
NEW ZEALAND	5055	7536	28265

More than 50 Hives		
Beekeepers	Apiaries	Hives
59	1362	24224
59	2352	40751
101	2968	47023
61	2035	28568
49	1374	18441
90	4200	54498
91	3504	48105
510	17795	261610

Totals		
Beekeepers	Apiaries	Hives
1225	2972	29848
584	3100	43749
598	3696	50282
1358	3957	35839
474	2083	21190
771	5315	58155
555	4208	50812
5565	25331	289875