

MAF QUALITY MANAGEMENT REPORT

From Murray Reid

1.0 ORGANISATION

During the year MAF's Policy and Delivery functions were separated. The parts of MAF that give policy advice to government, set specifications on legislation and audit these specifications, were formed into a Policy Services Unit.

The National Apicultural Business Unit (NABU) remained in the delivery arm of MAF Quality Management, and work done on policy was contracted to Policy Services. The process of joining the research arm of MAF (MAF Technology) and DSIR together as crown research institutes was begun. It is likely that MAF Quality Management will be formed into a similar structure known as a crown owned agency. The possible corporatisation of MAF Quality Management is an attempt to make our services more cost competitive by removing the restraints of operating under the Finance Act and State Sector Employment Act. Instead the crown owned agency would operate under the Companies Act and Labour and Employment Act.

2.0 STAFFING: NATIONAL APICULTURAL BUSINESS UNIT

Andrew Matheson, apiculture consultant at Tauranga, resigned to become the Director of the International Bee Research Association in Cardiff. Andrew has given 13 years service to the beekeeping industry in Nelson and Tauranga and his efforts and support are gratefully acknowledged.

Cliff Van Eaton, formerly AAO, Gore and Whangarei, was appointed to the position in Tauranga. Dr Stephen Ogden, formerly Apiculture Scientist with MAF Technology, was appointed Apiculture Services Manager based at Lincoln.

Apiary registers and systems were maintained and disease control programmes operated by apicultural advisory officers at Whangarei (Derek Bettsworth), Hamilton (Murray Reid), Tauranga (Cliff Van Eaton), Palmerston North (Ted Roberts) and Lincoln (Stephen Ogden). Field Officer Mathew Sole (Alexandra) and Livestock Officer Dave Grueber (Blenheim) spent between one third and half their time on apiculture.

Brian Milnes (field officer) Lynfield continued to provide a disease diagnostic service. Other bee pathology services were provided by MAF Technology, Ruakura, and DSIR, Mt Albert, Auckland.

3.0 BEEKEEPING STATISTICS

3.1 BEEKEEPERS, APIARIES AND HIVES

There were 5,774 beekeepers owning 312,242 hives of bees at 30 June 1991. (Fig 1) Beekeeper numbers decreased by 436 or 7% over last year while hive numbers declined by nearly 6,000 or 1.9%. A small decline in beekeeper numbers can be attributed to continued pruning from the apiary registers of beekeepers who cannot be traced. New registrations continued to be made despite an impending apiary levy.

3.2 HONEY PRODUCTION

The total crop was assessed at 7,290 tonnes (23.3 kg/hive) compared with last year's crop of 8752 tonnes (27.5 kg/hive) and the six-year average of 8,184 tonnes (25 kg/hive) (Fig II). Exports to the year ending December 1990 were worth \$5.5 million and involved 1,253 tonnes of bulk, retail, and comb honey and honeydew (Fig III).

3.3 AMERICAN FOULBROOD DISEASE (AFB)

The 3,733 diseased hives found by MAF inspectors, or reported by beekeepers, were a decrease of 218 over last season. The number of infected apiaries also decreased by 98 from 1660 to 1,442 (Fig IV).

The overall incidence of infected apiaries was down on last year as beekeepers appreciated the need to examine both brood boxes and more frames to increase the chance of finding low levels of AFB. Continued testing of adult bees showed relatively high levels of hives with AFB spores but no visual symptoms, which accounts for some of the increase in AFB in recent years in hives managed for pollination.

The decrease in infected hives occurred despite several severe infections in small numbers of outfits. Over 220 hives were destroyed in one operation and 300 in another. Every apiary district has one or more operations that are of concern because of their disease history and management. They are potential time bombs that require continuous surveillance.

More than 270 beekeepers volunteered their time and vehicles to help inspect hives for AFB. These teams together with MAF officers inspected 13,465 hives (4.3%) in 2,345 apiaries and found 242 hives of disease. (Fig V). The assistance of beekeepers is grate-

fully acknowledged but especially those who did more than their share.

3.4 QUEEN AND PACKAGE BEES

New Zealand producers exported 26,230 queen bees worth NZ\$283,000(fob) and 12,166 1 kg equivalent packages worth NZ\$424,300(fob). Most bees went to Canada but other shipments were also made to Japan, UK and the Pacific Islands. Package bee exports were up 2,570 on last year's figures while queen bee shipments were down 4,000. The total fob value of \$707,300 was up \$87,300 on last year's exports for live bees.

4.0 POLLINATION

MAF continued to provide a quality systems audit for the Kiwifruit Pollination Association (KPA) in the Bay of Plenty. MAF audited the management system of KPA members and this assessment was used to prepare hive inspection specifications for the KPA's own hive auditors.

MAF also contracted with growers, with beekeepers and with other pollination associations to audit hives to pre-determined standards. In all cases permission to check hives was obtained in writing from the beekeepers concerned. As the kiwifruit industry retrenched some beekeepers were forced to hold or reduce their pollination fees and compete for contracts while others managed to raise prices. Growers were more aware than ever of the need for specifying and demanding good colony performance.

5.0 MAF SYSTEMS

5.1 SURVEILLANCE

MAF operated two surveillance systems during the year.

5.1.1 RESTRICTED BEEKEEPING ZONES

One hundred permits were issued for beekeepers to operate hives in the two restricted zones. Fifty four beekeepers with apiaries registered in the restricted zones failed to apply for their annual permits. A number of beekeepers failed to remove honey from their hives by the due date but all complied when served notice.

One case of toxic honey poisoning occurred from an unregistered hive with the victim requiring hospitalisation for three days.

5.1.2 EXOTIC BEE DISEASE PROGRAMME

Apiculture officers operated a strati-

fied sampling programme which involved identifying 500 hives in designated risk areas. These areas were places with high populations, sea ports or airports, dumps, tourist spots, military bases or large hospitals etc. Bees were sampled and routinely analysed for tracheal mites (436 samples), *V. roa* mites and the Asian mite *Tropilaelaps* (454 samples). Twenty four suspect European foulbrood specimens were also tested along with five suspect Africanised honey bee samples.

A number of specimens were also tested from live been exporters for mites. No positive specimens of these exotic diseases were found and our trading partners and the Office International des Epizooties (OIE) in Paris were assured of our good bee health status.

FIG. 1 BEEKEEPERS APIARY AND HIVE STATISTICS FOR NZ APIARY DISTRICTS AS AT 30 JUNE 1991

Register Location	Beekeepers		Apiaries		Hives	
	1991	1990	1991	1990	1991	1990
Whangarei	1,307	1,580	3,046	3,576	32,475	33,982
Hamilton	649	659	3,105	45,661	47,596	
Tauranga	619	656	3,541	3,664	53,717	54,764
Palmerston North	1,340	1,391	3,917	4,064	40,528	39,728
Blenheim	505	548	1,972	2,052	23,284	23,713
Lincoln	768	783	4,937	4,848	58,239	59,677
Alexandra	586	593	4,482	4,475	58,338	58,743
Total	5,774	6,210	25,000	25,786	312,242	318,203

FIG 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	Marlborough, Nelson, Westland	*Canterbury N. Otago	South & Central Otago, Southland	SOUTH ISLAND	New Zealand	Yield per Hive (kgs)
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
1991	668	1057	1470	811	4006	265	1965	1054	3284	7290	23.3
6 year average	801	1206	1124	828	3959	667	1592	1966	4226	8184	25.0

* Includes honeydew

Five manuals, describing how the MAF would respond to the arrival of an exotic disease were drafted. The technical specifications have yet to be negotiated with the beekeeping industry.

5.1.3 ENDEMIC DISEASE CONTROL

It is government policy that the cost of inspection services should be recovered from those who benefit from the service. The beekeeping industry has said that as all beekeepers benefit then all should contribute to the maintenance of the MAF service. The Commodities Levy Act was made law during the year and the industry now has a vehicle to levy all beekeepers if they are agreeable. The proposed basis for the levy was the apiary.

Further submissions were made to government to continue funding this work in the public good. Unless the government directs otherwise or the industry contracts MAF to deliver a disease control service the Ministry will cease its activities in this area. A report was prepared for the Executive on feeding drugs to honey bees to control bee diseases. The report looked at the effects of drugs and chemicals for both endemic and exotic diseases and discussed some of the implications of us-

FIG III EXPORT FIGURES FOR HONEY, HONEYDEW AND BEESWAX FOR THE YEAR TO DECEMBER 1990

PRODUCT	TONNES	NZ\$ (FOB)	NO. OF COUNTRIES	\$/kg
Bulk Honey	678.22	1,836,275	11	2.71
Retail Honey	131.45	627,696	22	4.78
Comb Honey	272.95	1,743,057	12	6.38
Honeydew	170.53	414,674	6	3.02
TOTAL Honey	1,253.15	4,722,702		
Bees Wax	144.21	790,037	13	5.48
Total Honey and Wax Exports	1,397.36	5,512,739		

Source: NZ Customs

ing these chemicals.

5.1.4 APIARY REGISTERS

The seven computer data bases were maintained at Whangarei, Hamilton, Tauranga, Palmerston North, Blenheim, Lincoln and Alexandra. The database contains over 30,000 names and addresses including beekeepers and apiaries. Temporary sites used for fruit and vegetable pollination were not included.

The MAF continued to fund the maintenance of the registers as part of the surveillance and emergency

response programme.

Beekeepers were still not very diligent in returning their statement of inspection forms and this added to the cost of maintaining the registers. Less than half the statements were returned to MAF by the due date of December 7 with a further 10% still outstanding, after two reminder notices. These beekeepers (about 250) were contacted by phone.

The usual problems of beekeepers shifting or disposing of hives without informing MAF were encountered. Consideration was given to changing the

reporting period to the autumn but this requires a change to the Apiaries Act. 5.1.5 MARKET ACCESS

A number of 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 U.S. Problems over Kashmir bee virus in our bee stocks still have to be resolved. Documented evidence of our freedom from disease, and control systems was requested by Canada and Japan.

Exports of honey to Australia and Papua New Guinea resumed following resolution of export protocols. These required that all honey be heated to 70°C for two hours and each batch tested and found free of chalkbrood spores. A zoosanitary certificate is required from MAF for honey to both Australia and PNG.

FIG IV AMERICAN FOULBROOD DISEASE LEVELS IN APIARY DISTRICTS TO 30 JUNE 1991 (1990 FIGURES IN BRACKETS)

Register Location	Diseased Apiaries				Diseased Hives				% Apiaries Inspected by MAF Inspectors	
	No.		%		No.		%		1991	1990
	1991	1990	1991	1990	1991	1990	1991	1990		
Whangarei	192	175	6.3	5.0	667	521	2.1	1.5	18.1	4.7
Hamilton	232	390	7.5	12.5	559	641	1.2	1.3	14.1	14.6
Tauranga	351	362	9.9	9.9	1,115	863	2.0	1.6	9.1	7.0
Palmerston Nth	119	136	3.1	3.3	272	253	0.7	0.6	9.2	7.7
Blenheim	218	242	11.4	11.6	453	497	2.0	2.0	6.7	10.4
Lincoln	148	209	3.0	3.6	255	694	0.4	1.1	5.5	5.6
Alexandra	182	146	4.1	3.3	412	362	0.7	0.6	6.2	6.3
Total	1,442	1,660	6.6	7.0	3,733	3,831	1.2	1.2	9.8	8.0

NEW ZEALAND BEEKEEPER, APIARY & HIVE STATISTICS BY APIARY DISTRICTS AS AT JUNE 30 1991

Register Location	1-5 Hives			6-50 Hives			51-250 Hives		
	Beekeepers	Apiaries	Hives	Beekeepers	Apiaries	Hives	Beekeepers	Apiaries	Hives
Whangarei	949	1,048	2,093	297	661	4,409	29	268	3,586
Hamilton	398	450	955	185	384	2,740	31	276	3,787
Tauranga	343	398	799	179	394	3,119	51	430	6,400
Palmerston North	882	975	2,065	388	824	5,597	40	426	4,281
Blenheim	327	387	695	124	328	1,951	29	338	3,914
Lincoln	480	563	999	183	514	2,899	59	619	7,546
Alexandra	335	376	744	149	325	2,322	45	541	5,327
NEW ZEALAND	3,714	4,197	8,350	1,505	3,430	23,037	284	2,898	34,841

Register Location	251-500 Hives			501-1000 Hives			More than 1000 Hives		
	Beekeepers	Apiaries	Hives	Beekeepers	Apiaries	Hives	Beekeepers	Apiaries	Hives
Whangarei	14	225	4,776	11	353	6,993	7	491	10,618
Hamilton	11	263	4,267	11	410	9,073	13	1,322	24,839
Tauranga	20	475	7,988	12	416	9,177	14	1,428	26,234
Palmerston North	14	368	5,051	10	452	7,171	6	872	16,363
Blenheim	11	324	4,696	11	388	7,696	3	207	4,332
Lincoln	18	315	5,873	14	875	10,893	14	2,051	30,029
Alexandra	18	519	6,478	24	1,137	16,713	15	1,584	26,754
NEW ZEALAND	106	2,489	39,129	93	4,031	67,716	72	7,955	139,169

Register Location	1-50 Hives			More than 50 Hives			Totals		
	Beekeepers	Apiaries	Hives	Beekeepers	Apiaries	Hives	Beekeepers	Apiaries	Hives
Whangarei	1,246	1,709	6,502	61	1,337	25,973	1,307	3,046	32,475
Hamilton	583	834	3,695	66	2,271	41,966	649	3,105	45,661
Tauranga	522	792	3,918	97	2,749	49,799	619	3,541	53,717
Palmerston North	1,270	1,799	7,662	70	2,118	32,866	1,340	3,917	40,528
Blenheim	451	715	2,646	54	1,257	20,638	505	1,972	23,284
Lincoln	663	1,077	3,898	105	3,860	54,341	768	4,937	58,239
Alexandra	484	701	3,066	102	3,781	55,272	586	4,482	58,338
NEW ZEALAND	5,219	7,627	31,387	555	18,273	280,855	5,774	25,000	312,242

5.1.6 CONFORMITY CERTIFICATION

Some exporters requesting a MAF zoosanitary certificate (one declaring the product or area of production to be disease free) were offered the choice of entering a conformity certification programme or having their products 'end point' inspected.

A conformity certification programme involves the exporter in documenting his production and packing systems and describing how the conditions required by the importing countries are being met. It is a cheaper option than 'end point' inspection.

5.1.7 ORGANIC HONEY

A commission was undertaken on behalf of the Executive, to examine and report on the existing organic standards and certifying agencies in New Zealand. A set of organic standards was drafted for adoption by the EEC. If these are accepted they will become the standards for organic honey to most of Europe.

Until the EEC formulates its standards these 'MAF' standards, are available for the NBA or honey exporters association etc. to promote as their own. The MAF could act as an auditing and certifying authority to these standards if requested.

FIG V NUMBER OF APIARIES AND HIVES WITH AMERICAN FOULBROOD DISEASE FOUND BY MAF OR REPORTED BY BEEKEEPERS TO 30 JUNE 1991 (1990 FIGURES IN BRACKETS)

	No. Apiaries	No. Hives	% Apiaries Inspected	% Hives Inspected
Inspected by MAF	1,287 (889)	7,606 (8,728)		
Inspected by beekeeper inspectors	1,058 (1,077)	5,859 (6,040)		
Total Inspected (275 inspectors)	2,345 (1,966)	13,465 (14,768)	9.4 (8.0)	4.3 (4.8)
AFB found by MAF or beekeeper inspectors	242 (181)	950 (644)		
AFB Reported by Beekeepers	1,200 (1,479)	2,783 (3,167)		
Total AFB	1,442 (1,660)	3,733 (3,831)		

5.1.8 CONSULTANCY

MAF continued to earn income from external clients in a number of areas. These included:

- Auditing pollination systems and hives.
- Producing 'Buzzwords' and a revision of 'NZ Beekeeping Industry Profile'
- Secretarial services to NZ Queen Bee Producers' Association
- Support services to the NBA executive.

- General consultancies including overseas aid projects in Tonga and Papua New Guinea.
- Import and export certification and quarantine inspection.

6.0 ACKNOWLEDGEMENTS

The co-operation and support of my colleagues in the apiculture unit, and in MAF Quality Management, Dr Mark Goodwin and his team, and members of the executive are gratefully acknowledged.

EXPORTING

The NBA has, with the assistance of its members, established an export liaison group. This group will assist members who:

a) *may be considering exporting*

or

b) *wish to discuss an exporting matter with someone else in the industry.*

The following members will be pleased to provide information for members new and inexperienced in the export of honey.

ORGANISATION	CONTACT PERSON	TELEPHONE NO.	FAX NO.
Airborn Honey	Peter Bray	(03)243569	(03)243236
Arataki Honey	Percy Berry	(070)775790	(070)775076
Ceracell Products	Stephen Mahon		(09)2740368
Kintail Honey	Dudley Ward	(0653)48301	(0653)49209
	Jane Ward	(0728)58038	
NZ Honey Producers Co-Op	Kevin Ecroyd	(056)48882	(056)84859
Southern Honey			
Exports	Allen McCaw	(03417)7198	(03417)7198
Waitemata Honey	Neil Stuckey	(09)4038491	(09)4038556

QUALITY QUEENS

In an effort to give you access to improved Honey Bee stocks, we have in the past, imported Honey Bee semen from the Western Australian Department of Agriculture breeding program.

Now, we are members of the New Zealand Bee Genetic Improvement Group. It is early days for the program, but as bee stock improvements come, they will be passed on to you in the Queens we supply.

We offer an instrumental Insemination Service with Breeder Queens available. Prices on request.

PRICES — Spring '91

Shipment Size:		All prices include GST and postage
1-4	\$14.50	
5-9	\$13.00	
10-49	\$12.00	
50+	\$11.25	

Terms: Payment in full before dispatch.

Queens guaranteed to arrive alive, healthy and well mated.

DAYKEL APIARIES

David Yanke and Rachel Kearney.

*Member
PARANUI R.D. 3,
KAITAIA, NORTHLAND,
NEW ZEALAND.*

PHONE: (09) 408-5895

