

MAF QUALITY MANAGEMENT REPORT

1.0 ORGANISATION AND PERSONNEL

David McMillan was appointed Apicultural Advisory Officer (Invermay) and took up his duties in October. David will have national responsibility for the exotic disease surveillance programme and will carry out district duties including apiary registration and export certification for the former Alexandra apiary district (North Otago, Central Otago and Southland). Matthew Sole will continue his apiary inspector role at Alexandra.

2.0 BEEKEEPING STATISTICS

2.1 Beekeepers, Apiaries and Hives

There were 5622 registered beekeepers owning 298982 hives of bees as at 30 June 1993. This represents an overall decrease of 1.9% of beekeepers and 1.7% of hives during the last 12 months (Table 1).

2.2 Honey Production and Exports

The total 1993 crop was assessed at 7086 tonnes (23.3kg per hive), down significantly from the previous year's production of 9560 tonnes (31.4kg per hive) (Table 2).

Exports of bee products to the year ending December 1992 were worth NZ\$8.6 million, and involved the shipment of 2400 tonnes of bulk, retail and comb honey, honeydew and beeswax (Table 3).

2.3 Queen and Package Bees

According to Customs Department figures, New Zealand producers exported queen bees and packages of bees (including queens) worth an estimated NZ\$1.7 million FOB in the 12 months to June 1993 (Table 3). MAF Quality Management issued export certificates for 38,523 queen bees and 29,082 packages of bees (including queens) in 1992-93.

3.0 AMERICAN FOULBROOD AND NBA AFB CONTROL PROGRAMME

MAF Quality Management was contracted by the NBA executive to provide an AFB control programme in 1992-93. The contract called for the inspection of 4.2% (1050) of registered apiaries by MAF personnel, the provision of inspection lists for NBA inspectors and diseasathons, publicity and extension activities, the counselling of beekeepers on bee disease issues, and the preparation of reports and disease statistics.

The MAF inspection component of this contract was exceeded, with 1062 apiaries inspected. The target average hives per apiary (6/apiary) was also exceeded, with an average of 9.3 hives per apiary inspected. A total of 31 MAF Quality Management staff and 15

contract beekeepers were used in these inspections (Table 4). NBA branch inspections totalled 901 apiaries, or 63% of the 1450 necessary to achieve the target set by the NBA executive of 5.8% of registered apiaries. There was a variability of NBA inspection commitment throughout the country. Nevertheless, 4 of the 13 NBA branches either met or exceeded their target of district apiaries inspected. A further one branch came within 10% of achieving this target. A total of 243 warrants were issued to beekeepers who wished to assist in NBA inspections, with 110 warrants actually being used (Table 5).

MAF Quality Management inspectors (and beekeepers contracted to MAF) found 771 hives infected with American foulbrood, up 665 on the amount during the limited inspection programme in 1991-92. This increased amount of AFB found is similar to that predicted in the MAF report presented to the NBA annual conference in 1992. NBA inspectors found a further 217 hives infected with American foulbrood, a decrease of 13 from the previous year. The total number of hives infected with AFB reported by beekeepers was 1675, 1149 (41%) less than reported in 1991-92 (Table 6).

Table 1
BEEKEEPER, APIARY AND HIVE STATISTICS FOR NZ APIARY DISTRICTS AS AT 30 JUNE 1993

| Apiary Register Location | Beekeepers | | | Apiaries | | | Hives | | |
|--------------------------|-------------|-------------|--------------|--------------|--------------|--------------|---------------|---------------|--------------|
| | 1993 | 1992 | % Change | 1993 | 1992 | % Change | 1993 | 1992 | % Change |
| Whangarei | 1264 | 1316 | -4.0 | 3033 | 3072 | -1.3 | 30967 | 32301 | -4.1 |
| Hamilton | 596 | 627 | -4.9 | 2985 | 3044 | -1.9 | 43185 | 45452 | -5.0 |
| Tauranga | 606 | 602 | +0.7 | 3593 | 3573 | +0.6 | 53043 | 51938 | +2.1 |
| Palmerston North | 1319 | 1332 | -0.1 | 3961 | 3927 | +0.9 | 38446 | 37554 | +2.4 |
| Blenheim | 484 | 510 | -5.1 | 2036 | 2048 | -0.6 | 22448 | 23941 | -6.2 |
| Lincoln | 765 | 758 | +0.9 | 5143 | 4949 | +3.9 | 58116 | 59090 | -1.6 |
| Invermay* | 588 | 585 | +0.5 | 4373 | 4344 | +0.7 | 52777 | 53789 | -1.9 |
| TOTAL | 5622 | 5730 | -1.9% | 25124 | 24957 | +0.7% | 298982 | 304065 | -1.7% |

* Previously Alexandra

Table 2

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*, North Otago | South & Central Otago Southland | SOUTH ISLAND | NEW ZEALAND | Yield per Hive (kgs)** |
|-----------------|-------------------------------------|------------------------------|--|---|--------------|------------------------------|--------------------------|---------------------------------|--------------|-------------|------------------------|
| 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 |
| 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 |
| 6 yr ave | 737 | 1020 | 1017 | 813 | 3586 | 562 | 2002 | 1548 | 4112 | 7698 | 24.3 |

* Includes honeydew

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

The NBA AFB Disease Control Programme therefore resulted in the inspection of 7.8% of New Zealand's apiaries (MAF: 4.2% + NBA: 3.6% = 7.8%). The target inspection level set by the NBA executive for the programme was 10% of apiaries. A total of 15,716 hives were inspected (MAF: 9888; NBA: 5828). This figure represents 5.3% of the registered bee hives in New Zealand. The overall reported disease incidence in New Zealand bee hives in 1992-93 was 0.9% of hives and 5.1% of apiaries, down 0.1% and 0.9% respectively on the previous year (Table 7).

4.0 EXOTIC DISEASE AND PEST RESPONSE (EDPR) CAPABILITY

The Honey Bee EDPR Programme, which continues to be fully funded by central government, increased in capability during the year. A total of 45 MAF personnel received training as Field Team Leaders (FTL) and a further 15 staff received training in Emergency Headquarters (EHQ) roles. Staff in addition to those from the Apiculture Unit will be used in the EHQ to ensure that adequate human resources are available in the case of an exotic bee disease outbreak. A procedures manual has now been approved by the EDPR contractor (MAF Regulatory Authority) and will form the basis for all subsequent EDPR training, exercises, and actual emergencies.

Table 3

EXPORT FIGURES FOR HONEY, BEESWAX AND LIVE BEES* (Honey, Beeswax - year to December 1992; Live Bees - year to June 1993)

| Product | Amount | NZ\$ (FOB)** | Countries | Ave. Price |
|------------------------------|----------------------|---------------------|-----------|------------------|
| Bulk Honey | 1564.3 tonnes | \$3,855,832 | 16 | \$2.46 kg |
| Retail Honey | 235.7 tonnes | \$1,074,080 | 27 | \$4.56 kg |
| Comb Honey | 241.6 tonnes | \$1,815,208 | 13 | \$7.51 kg |
| Other (including Honeydew) | 174.5 tonnes | \$764,483 | 17 | \$4.38 kg |
| Total - Honey | 2216.1 tonnes | \$7,509,603 | | \$3.39 kg |
| Beeswax | 183.3 tonnes | \$1,088,445 | 10 | \$5.94 kg |
| Total - Beeswax/Honey | 2399.4 tonnes | \$8,598,048 | | |
| Total - Live Bees | | \$1,696,099 | 8 | |
| TOTAL EXPORTS | | \$10,294,147 | | |

* Source: NZ Customs

** FOB (free on board) - importer pays freight and/or insurance

A response one (initial not-negative sample) alert took place in the Waihi area in November 1992. All registered apiaries within a 3km radius of the suspect sites were inspected by MAF personnel and all other hives belonging to the beekeeper were quarantined on their sites. A subsequent culture of the original sample revealed the bacteria in question to be a "coagulase negative *Staphylococcus*"; a secondary invader bacteria not known to cause mortality in honey bee larvae. Officials from MAF Quality Management have

personally expressed their appreciation to the beekeeper who first brought the suspect larvae to a MAF officer's attention. The beekeeper sent the sample to MAF in response to an article requesting such samples which appeared in Buzzwords, the NBA newsletter.

5.0 SURVEILLANCE

The Honey Bee Exotic Disease Surveillance Programme, which also continues to be fully funded by central government is composed of three parts: 1) the apiary register, 2) hive sampling,

and 3) border protection (as part of the larger Border Protection Service).

5.1 Apiary Register

The maintenance of this register (in the form of a computer database) is a legal requirement of government under the current Apiaries Act. The database relies on accurate statements of inspection provided by beekeepers failed to provide such statements by the deadline of December 7. Programmes in addition to exotic disease surveillance (including the NBA AFB programme, EDPR, and export certification) depend on all beekeepers making this important statutory obligation.

the presence of exotic bee diseases and took samples for laboratory analysis for internal and external parasitic mites. Sixty-one samples were taken for EFB diagnosis and 2 samples were taken for Africanised honey bee analysis. Apiaries were sampled in "at risk" areas including seaports, garbage dumps, and areas frequented by overseas travellers. No specimens of exotic diseases/pests were found.

A further 609 samples of bees were provided by live bee exporters as part of the export certification programme. The samples were analyzed for the presence of exotic internal and

The National Flora and Fauna Investigation Unit (NFFIU) has now been formed as part of the Border Protection Service and will in future handle all investigations concerning the illegal importation of animals, plants and associated products into New Zealand. The unit is composed primarily of ex-Criminal Investigation Bureau officers from the NZ Police.

NFFIU was involved in a suspected case of queen bee smuggling in late 1992. Air passenger and mail surveillance was carried out and a number of bee hives were sampled during the investigation. Based on the evidence, representatives of

Table 4

PERFORMANCE OF MAF INSPECTORS* NBA AFB DISEASE CONTROL PROGRAMME YEAR ENDING 30 JUNE 1993

| Apiary Register Location | MAF Staff | Contract Inspectors | Apiaries Inspected | | Hives Inspected | AFB Found (% Inspected) | |
|--------------------------|-----------|---------------------|--------------------|----------------------|---------------------|-------------------------|--------------------|
| | | | Target** | Completed | | Hives (%) | Apiaries (%) |
| Whangarei | 3 | 3 | 128 | 132 (103.1) | 1078 | 46 (4.3) | 26 (19.7) |
| Hamilton | 4 | 5 | 130 | 134 (103.1) | 1198 | 64 (5.3) | 36 (26.9) |
| Tauranga | 4 | 1 | 149 | 149 (100.0) | 2404 | 184 (7.7) | 48 (32.2) |
| Palmerston North | 3 | 6 | 165 | 154 (93.3) | 1160 | 254 (21.9) | 36 (23.4) |
| Blenheim | 4 | 0 | 83 | 86 (103.6) | 1104 | 63 (5.7) | 26 (30.2) |
| Lincoln | 6 | 0 | 207 | 222 (107.2) | 1536 | 56 (3.6) | 31 (14.0) |
| Invermay** | 7 | 0 | 188 | 185 (98.4) | 1408 | 104 (7.4) | 51 (27.6) |
| TOTAL | 31 | 15 | 1050 | 1062 (101.1%) | 9888 (9.3%)+ | 771 (7.8%) | 254 (23.9%) |

* Includes beekeepers employed by MAF

** Based on programme target of 4.2% of apiaries per Apiary District

*** Previously Alexandra

+ Average hives per apiary (< 6 hives/apiary required)

A three year programme was also initiated this spring to improve the reliability of apiary location data by coding all registered apiaries to 260 series grid map references. The programme was undertaken as a result of recommendations by NBA members who took part in the Nelson Emergency Response in November 1991. Beekeepers have been very cooperative in this programme, with upwards of 50% of apiaries now coded in many districts. A spin-off from the programme is likely to be a reduction in the time required to clear apiaries for some types of export certification.

5.2 Hive Sampling

In the past twelve months MAF staff inspected 391 apiaries for

external parasitic mites. This is an excellent response from this segment of the beekeeping industry and MAF Quality Management wishes to thank all those who provided samples.

5.3 Border Protection

The beekeeping industry continues to have a high profile in the work of MAF's Border Protection Service, with numerous consignments of honey and other bee products being intercepted at the borders and the disease risks to honey bees being brought to the attention of the travelling public. A further 22 Border Protection Officers were given training in assessing risks to the beekeeping industry in 1992-93.

NFFIU now believe that an illegal importation **did not** in fact take place.

6. EXPORT CERTIFICATION

The split between policy and delivery for export certification of live bees and bee products was formalised this year in a written contract between MAF Regulatory Authority (the owner of the government seal and all NZ government export certificates) and MAF Quality Management (the contracted deliverer of export certification services.)

In this contract The Regulatory Authority (RA) requires the same performance criteria for the export certification of live bees and bee products that it does for all other New Zealand plant and

Table 5

**PERFORMANCE OF VOLUNTEER INSPECTORS
NBA AFB DISEASE CONTROL PROGRAMME
YEAR ENDING 30 JUNE 1993**

| NBA Branch | Warrants Issued | Warrants Used | Apiaries Inspected | | Hives Inspected | AFB Found (% Inspected) | |
|----------------------|-----------------|---------------|--------------------|--------------------|-----------------|-------------------------|------------------|
| | | | Target* | Completed (%)** | | Hives (%) | Apiaries (%) |
| Northland | 30 | 3 | 88 | 18 (20.5) | 53 | 2 (3.8) | 2 (11.1) |
| Auckland | 25 | 3 | 89 | 43 (48.3) | 533 | 2 (0.4) | 1 (2.3) |
| Waikato | 23 | 0 | 180 | 0 (00.0) | 0 | — — | — — |
| Bay of Plenty | 32 | 13 | 125 | 128 (102.4) | 1222 | 63 (5.2) | 17 (13.3) |
| Poverty Bay | 13 | 11 | 80 | 80 (100.0) | 732 | 66 (9.0) | 19 (23.8) |
| Hawkes Bay | 16 | 8 | 76 | 59 (77.6) | 219 | 7 (3.2) | 3 (5.1) |
| S'thern North Island | 16 | 12 | 151 | 119 (78.8) | 318 | 6 (1.9) | 5 (4.2) |
| Marlborough | 9 | 6 | 40 | 48 (120.0) | 290 | 4 (1.4) | 2 (4.2) |
| Nelson | 15 | 5 | 49 | 31 (63.3) | 111 | 1 (0.9) | 1 (3.2) |
| West Coast | 6 | 3 | 25 | 14 (56.0) | 75 | 0 (0.0) | 0 (0.0) |
| Canterbury | 18 | 16 | 196 | 145 (74.0) | 1081 | 44 (4.1) | 15 (10.3) |
| Sth Canterbury | 7 | 6 | 91 | 45 (49.5) | 210 | 7 (3.3) | 6 (13.3) |
| North Otago | 4 | 4 | 54 | 49 (90.7) | 350 | 4 (1.1) | 2 (4.1) |
| Otago | 15 | 6 | 136 | 49 (36.0) | 208 | 6 (2.9) | 5 (10.2) |
| Southland | 14 | 14 | 70 | 73 (104.3) | 426 | 5 (1.2) | 3 (4.1) |
| TOTAL | 243 | 110 | 1450 | 901 (62.1%) | 5828 | 217 (3.7%) | 81 (9.0%) |

* Based on programme target of 5.8% of apiaries in Apiary Districts

** As reported to MAF by Branch Disease Control Coordinators

Table 6

**APIARIES AND HIVES WITH AMERICAN FOURLBROOD
FOUND DURING NBA DISEASE CONTROL PROGRAMME OR REPORTED TO MAF BY BEEKEEPERS
TO 30 JUNE 1993
(1992 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 | 26 (5) | 3 (17) | 115 (127) | 144 (149) | 46 (20) | 4 (38) | 250 (249) | 300 (307) |
| Hamilton | 36 (12) | 0 (0) | 177 (305) | 213 (317) | 64 (46) | 0 (0) | 280 (735) | 344 (781) |
| Tauranga | 48 (8) | 36 (40) | 191 (331) | 275 (379) | 184 (37) | 129 (104) | 405 (695) | 718 (836) |
| Palmerston North | 36 (4) | 8 (1) | 76 (121) | 120 (126) | 254 (3) | 13 (6) | 75 (258) | 342 (267) |
| Blenheim | 26 (0) | 3 (3) | 116 (166) | 145 (169) | 63 (0) | 5 (4) | 205 (374) | 273 (378) |
| Lincoln | 31 (0) | 21 (15) | 134 (167) | 186 (182) | 56 (0) | 51 (77) | 223 (255) | 330 (332) |
| Invermay*** | 51 (0) | 10 (1) | 132 (165) | 193 (166) | 104 (0) | 15 (1) | 237 (258) | 356 (259) |
| Total | 254 (29) | 81 (77) | 941 (1382) | 1276 (1488) | 771 (106) | 217 (230) | 1675 (2824) | 2663 (3160) |

* Inspectors employed by MAF (including beekeepers)

** Beekeeper inspectors under MAF direction (diseasathons)

*** Previously Alexandra

Table 7
INCIDENCE OF AMERICAN FOULBROOD IN APIARY DISTRICTS
TO 30 JUNE 1993
(1992 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 | 144 (149) | 4.7 (4.9) | 300 (307) | 1.0 (1.0) | 193 (186) | 6.4 (6.1) |
| Hamilton | 213 (317) | 7.1 (10.4) | 344 (781) | 0.8 (1.7) | 134 (17) | 4.5 (0.6) |
| Tauranga | 275 (379) | 7.7 (10.6) | 718 (836) | 1.4 (1.6) | 357 (250) | 9.9 (7.0) |
| Palmerston North | 120 (126) | 3.0 (3.2) | 342 (267) | 0.9 (0.7) | 332 (75) | 8.4 (1.9) |
| Blenheim** | 145 (169) | 7.1 (8.3) | 273 (378) | 1.2 (1.6) | 179 (115) | 8.8 (5.6) |
| Lincoln | 186 (182) | 3.6 (3.7) | 330 (332) | 0.6 (0.6) | 412 (57) | 8.0 (1.2) |
| Invermay*** | 193 (166) | 4.4 (3.8) | 356 (259) | 0.7 (0.5) | 356 (36) | 8.1 (0.8) |
| TOTAL | 1276 (1488) | 5.1% (6.0%) | 2663 (3160) | 0.9% (1.0%) | 1963 (736) | 7.8% (2.9%) |

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

** Blenheim 1992 figures do not include emergency response inspections, November 1991

*** Previously Alexandra

animal exports. The criteria include the use by MAF Quality Management of an export certification quality system and the adherence to strictly auditable procedures in carrying out that certification.

What this means, in essence, is that MAF Quality Management, as the contractor, must ensure that the statements made on any export certificate which it issues are verified with supporting documentary evidence. Local knowledge and presumptions by certifying officers are no longer enough. MAF Quality Management is now subject to independent audits to check that such documentary evidence exists for all certificates.

The negotiation of protocols with governments of importing countries is one of the major roles performed by the RA. Importing country requirements which either the beekeeping industry or the NZ government believe are too stringent or unworkable can sometimes be altered as a result of these negotiations.

However, it must be realised that in all cases the initial establishment of these import requirements (and therefore the basis for the export certification) comes from the importing country, not the New Zealand government.

Mr Jim Edwards, National Advisor (Animal Exports) with the RA, who has considerable experience in this regard, carried out a number of such protocol negotiations for the industry in the past year. He has relied, from time to time, on technical advice provided on contract by Murray Reid from MAF Quality Management.

Importing country requirements are always changing, and a number of issues have recently emerged relating to several of our major markets for live bees and bee products. Some members of the beekeeping industry have also expressed concern about the design of the current export certification procedures.

National Beekeepers' Association representatives are now being asked by MAF officials to review these issues and come up with concrete suggestions which can be sent forward to the RA for their consideration. Provided these suggestions meet a) the negotiated requirements of the importing countries involved, and b) the performance criteria for NZ export certification systems set by the RA, there is every change of creating a certification system which both provides credible access to export markets and is acceptable to the beekeeping industry.

MARKETING GURUS SAY 1990s WILL BE 'DECADE OF THE BRAND'

The 1990s will be the decade of the brand, according to many of the marketers who determine the spending habits of millions of consumers worldwide.

The brand is a concept which has become of central importance to companies and their customers in a wide range of industrial sectors, including consumer goods such as cars, televisions, stereos, toiletries, soft drinks, foods, franchising, services and industrial products.

A brand is a simple thing: it is a trademark which through careful management, skilful promotion and wide use, in the minds of consumers comes to embrace a particular and appealing set of values and attributes. A brand represents much more than the product itself and is much more than a label.

To the consumer, it represents a whole host of attributes and a credible guarantee of quality and origin. To the brand owner it is a guarantee of future cash flows.

Branding in its current form evolved in the second half of the nineteenth century. Many of today's great brands, including Coca Cola and Kodak, owe their origins to the explosion of economic activity which resulted from the new, fast and efficient communications systems brought about by railways and steam-driven ships.

Until the advent of railways, manufacturers found it difficult to distribute their goods widely. Some trade in branded goods existed between ports and their immediate hinterlands but distribution systems were limited in scope.

This situation was radically changed by railways. In the UK, for example, in the mid-nineteenth century every village and hamlet had its own brewery distributing its products over a range of just a few miles. The introduction of the railways allowed the more powerful breweries to extend their influence. Now, leading beer brands are distributed worldwide.

Brands are increasingly being presented on company balance sheets as prized assets. They are the cause of some massive takeover bids and are now of increasing interest to directors, investors and bankers, rather than just brand managers and marketing specialists.

During the 1970's Jaguar Cars, a British luxury car manufacturer, suffered badly from changes of ownership and a serious neglect of product quality. However, the Jaguar name continued to enjoy enormous prestige, which contributed greatly to the survival of the company. Jaguar eventually recovered its market position, improved its efficiency and quality control and was bought by US giant Ford two years ago - largely because of the power of the brand.

Swiss chocolate manufacturer Nestle paid US\$4.5 billion dollars, more than five times book value, to buy British based chocolate and sweets manufacturer Rowntrees in 1988. Rowntrees owns brands such as Kit Kat and Polo mints.

Consumers are highly fashion conscious. They select brands in certain product categories, often on the basis of the types of lifestyle which the brand reflects and to which the consumer aspires.

Brands can be enhanced in consumer's minds in many ways. A highly successful example of this is the system of royal warrants in Britain.

To be given a royal warrant, which allows them to display the famous royal coat of arms, warrant holders must have supplied the royal household regularly for at least three years and they have to promise to be discreet.

Perhaps the most famous warrant holder is London's Harrods, one of the world's largest and most luxurious department stores. A huge royal coat of arms hangs above the entrance to Harrods, helping enhance the store's branding to millions of customers who walk through its door each year and associate Harrods products with royalty.
London Press Service



NEW ZEALAND BEEKEEPER, APIARY AND HIVE STATISTICS BY APIARY DISTRICT AS AT 30 JUNE 1993

| | 51-250 Hives | | |
|------------------|--------------|----------|-------|
| | Beekkeepers | Apiaries | Hives |
| Whangarei | 30 | 327 | 3948 |
| Hamilton | 24 | 214 | 3070 |
| Tauranga | 52 | 467 | 6319 |
| Palmerston North | 41 | 526 | 4776 |
| Blenheim | 25 | 373 | 3861 |
| Lincoln | 45 | 575 | 6435 |
| Invermay* | 45 | 586 | 5440 |
| NEW ZEALAND | 262 | 3068 | 33849 |

| | 6-50 Hives | | |
|------------------|-------------|----------|-------|
| | Beekkeepers | Apiaries | Hives |
| Whangarei | 278 | 637 | 3748 |
| Hamilton | 172 | 368 | 2576 |
| Tauranga | 157 | 358 | 2684 |
| Palmerston North | 370 | 878 | 5336 |
| Blenheim | 117 | 320 | 2057 |
| Lincoln | 180 | 514 | 2776 |
| Invermay* | 120 | 289 | 2050 |
| NEW ZEALAND | 1394 | 3364 | 21227 |

| Apiary Register Location | 1-5 Hives | | |
|--------------------------|-------------|----------|-------|
| | Beekkeepers | Apiaries | Hives |
| Whangarei | 926 | 1053 | 1976 |
| Hamilton | 366 | 426 | 862 |
| Tauranga | 354 | 412 | 825 |
| Palmerston North | 884 | 997 | 2069 |
| Blenheim | 317 | 355 | 661 |
| Lincoln | 494 | 608 | 1059 |
| Invermay* | 371 | 404 | 795 |
| NEW ZEALAND | 3712 | 4255 | 8247 |

| | More than 1000 Hives | | |
|------------------|----------------------|----------|--------|
| | Beekkeepers | Apiaries | Hives |
| Whangarei | 8 | 459 | 10410 |
| Hamilton | 11 | 1220 | 22408 |
| Tauranga | 14 | 1492 | 27676 |
| Palmerston North | 6 | 904 | 17067 |
| Blenheim | 3 | 252 | 4899 |
| Lincoln | 13 | 2003 | 29915 |
| Invermay* | 15 | 1592 | 23633 |
| NEW ZEALAND | 70 | 7922 | 136008 |

| | 501-1000 Hives | | |
|------------------|----------------|----------|-------|
| | Beekkeepers | Apiaries | Hives |
| Whangarei | 9 | 360 | 7252 |
| Hamilton | 12 | 528 | 10488 |
| Tauranga | 10 | 412 | 6932 |
| Palmerston North | 6 | 322 | 4872 |
| Blenheim | 7 | 310 | 4898 |
| Lincoln | 19 | 1182 | 14105 |
| Invermay* | 22 | 1123 | 15861 |
| NEW ZEALAND | 85 | 4237 | 64408 |

| Apiary Register Location | 251-500 Hives | | |
|--------------------------|---------------|----------|-------|
| | Beekkeepers | Apiaries | Hives |
| Whangarei | 13 | 197 | 3633 |
| Hamilton | 11 | 229 | 3781 |
| Tauranga | 19 | 452 | 8607 |
| Palmerston North | 12 | 334 | 4326 |
| Blenheim | 15 | 426 | 6072 |
| Lincoln | 14 | 261 | 3826 |
| Invermay* | 15 | 379 | 4998 |
| NEW ZEALAND | 99 | 2278 | 35243 |

| | Totals | | |
|------------------|-------------|----------|--------|
| | Beekkeepers | Apiaries | Hives |
| Whangarei | 1264 | 3033 | 30967 |
| Hamilton | 596 | 2985 | 43185 |
| Tauranga | 606 | 3593 | 53043 |
| Palmerston North | 1319 | 3961 | 38446 |
| Blenheim | 484 | 2036 | 22448 |
| Lincoln | 765 | 5143 | 58116 |
| Invermay* | 588 | 4373 | 52777 |
| NEW ZEALAND | 5622 | 25124 | 298982 |

| | More than 50 Hives | | |
|------------------|--------------------|----------|--------|
| | Beekkeepers | Apiaries | Hives |
| Whangarei | 60 | 1343 | 25243 |
| Hamilton | 58 | 2191 | 39747 |
| Tauranga | 95 | 2823 | 49534 |
| Palmerston North | 65 | 2086 | 31041 |
| Blenheim | 50 | 1361 | 19730 |
| Lincoln | 91 | 4021 | 54281 |
| Invermay* | 97 | 3680 | 49932 |
| NEW ZEALAND | 516 | 17505 | 269508 |

| Apiary Register Location | 1-50 Hives | | |
|--------------------------|-------------|----------|-------|
| | Beekkeepers | Apiaries | Hives |
| Whangarei | 1204 | 1690 | 5724 |
| Hamilton | 538 | 794 | 3438 |
| Tauranga | 511 | 770 | 3509 |
| Palmerston North | 1254 | 1875 | 7405 |
| Blenheim | 434 | 675 | 2718 |
| Lincoln | 674 | 1122 | 3835 |
| Invermay* | 491 | 693 | 2845 |
| NEW ZEALAND | 5106 | 7619 | 29474 |