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AGRIQUALITY LIMITED REPORT TO THE ANNUAL CONFERENCE OF THE NATIONAL BEEKEEPERS' ASSOCIATION OF NEW ZEALAND: CHRISTCHURCH 5 JULY 2005

1 PERSONNEL

Apiculture Officers AgriQuality Limited

Murray Reid	Hamilton	Phone (07) 850 2881; Fax (07) 850 2801; Mob (021) 972 858	Email reidm@agriquality.com
Byron Taylor	Hamilton	Phone (07) 850 2867; Fax (07) 850 2801; Mobile 021 918 400	Email taylorby@agriquality.com
Tony Roper	Christchurch	Phone (03) 358 1835, Fax (03) 358 6222, Mobile (021) 283 1829	Email ropert@agriquality.com
David McMillan	Mosgjel	Phone (03) 489 0066; Fax (03) 489 0071; Mob (021) 951 625	Email mcmillan@agriquality.com

2 REGISTRAR OF APIARIES AGRIQUALITY LIMITED

Byron Taylor or Murray Reid Registrars for the North Island.
 Carole Lasseter Registrar for the South Island Phone (03) 358 1732; Fax (03) 358 1733 Email lasseterc@agriquality.com

3 BEEKEEPER, APIARY AND HIVE NUMBERS

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 There were 2911 beekeepers, 19281 apiaries and 294886 hives on the 20th of June 2005 (see Table 2 and attached hard copy of district statistics). This compares to 3211 beekeepers owning 292530 hives on 19592 apiaries this time last year. Beekeeper numbers are continuing to track downwards with a net reduction of over 300 beekeepers for the year ending June 2005. This compares with a net reduction of just over 100 in the previous 12-month period. Interestingly, hive numbers appear to be stabilising, which is good news for industries that rely on the active or passive pollination services of honey bees. Beekeepers are still entering the industry with a similar number of registrations during this contract period as was seen last year (160 compared to 173 in 2003-2004). Table 1 shows the changes in the number of beekeepers from May 2000 to May 2005. The arrival of varroa in April 2000 and the introduction of apiary and hive levies for the two Pest Management Strategies has contributed to the decline in beekeeper numbers.

Table 1 Changes in New Zealand Beekeeper, apiary and hive statistics since varroa arrived in 2000

May-00				May-05			
Location	Beekeeper	Apiary	Hives	Location	Beekeeper	Apiary	Hives
Blenheim	414	1741	28443 317	Blenheim	284	1647	25966
Canterbury	727	4748	60356 28	Canterbury	524	4075	55987
Hamilton	486	2800	49863 56	Hamilton	213	2275	39117
Otago/Southland	451	3495	50823 22	Otago/Southland	350	3209	46566
Palmerston North	1214	3655	43534 36	Palmerston North	771	3420	45241
Tauranga	496	2971	51008 47	Tauranga	263	2715	51666
Whangarei	1168	3033	36086 53	Whangarei	542	1878	28385
New Zealand	4956	22443	320113	New Zealand	2947	19219	292928

**Table 1
continued**

***Loss of beekeepers, apiaries & hives from 2000 to 2005**

Location	Beekeeper	Apiary	Hives
Blenheim	130	94	2477
Canterbury	203	673	4369
Hamilton	273	525	10746 ^{1/2}
Otago/Southland	101	286	4257 ^{1/3}
Palmerston North	443	235	-1707
Tauranga	233	256	-658 ^{1/2}
Whangarei	626	1155	7701 ^{1/2}
New Zealand	2009	3224	27185

* the varroa bee mite was discovered in NZ in April 2000, an apiary levy was introduced in 2003 for the American foulbrood Pest Management Strategy (PMS) and a hive levy was introduced (for South Island beekeepers only) in 2005 for the varroa PMS

Source: AgriQuality Limited

***Table 2 Beekeepers, apiaries & hives as at 20 June 2005**

Location	Beekeeper	Apiary	Hives
Blenheim	279	1629	25404
Canterbury	521	4150	57034
Hamilton	215	2281	39158
Otago/Southland	348	3216	46579
Palmerston North	753	3372	44663
Tauranga	259	2713	52497
Whangarei	531	1920	29551
New Zealand	2906	19281	294886

4 HONEY CROP

The spring and early summer months were the worst for many years. The season looked to be heading for a disaster but a period of settled weather in mid to late January saw a honey crop being produced in most districts. Some exceptionally good yields were recorded in Northland, the West Coast of the South Island and Central Otago. Yields in these areas ranged from 20-90 kg per hive. The New Zealand honey crop was calculated at 9689 tonnes, up 801 tonnes from the 2003-04 season of 8888 tonnes (see Table 3). The 6-year average is 9044 tonnes.

Table 3 New Zealand Honey Crop (tonnes)

	2000	2001	2002	2003	2004	2005	6-year av
Northland, Auckland, Hauraki Plains	982	869	593	1066	1047	1221	963
Waikato, King Country, Taupo	1434	672	708	2210	1164	1095	1214
Bay of Plenty, Coromandel, Poverty Bay	1300	794	319	2064	2052	1498	1338
Hawkes Bay, Taranaki, Manawatu, Wairarapa	1323	1735	750	1607	1330	1440	1364
Marlborough, Nelson, Westland	705	606	300	1350	550	800	719
Canterbury, North Otago	2310	2743	921	2400	1500	1500	1896
South and Central Otago, Southland	1555	1725	1091	1555	1245	2135	1551
New Zealand	9609	9144	4682	12252	8888	9689	9044
Yield/Hive (kg)	30.0	29.4	15.0	40.8	30.2	33.1	29.6

Source: AgriQuality Limited

5 EXPORT CERTIFICATION

AgriQuality Limited achieved accreditation by JASANZ as a certifying and verification body for export certificates. The apiculture officers are seeking accreditation from the New Zealand Food Safety Authority to verify export certificates and export processes.

Joint Accred Systems
Scope Ext - Individuals
ongoing audits - internal - External
o RMP's - accred - Food Safety/HACCP
causes.

6 DISEASE REPORTS

Between June 1 2004 and May 31 2005, 778 cases of American foulbrood (AFB) were found by beekeepers and/or AgriQuality staff in 421 apiaries. This is an average disease rate of 0.26% of hives. Of these AFB reports only 33 cases were found and reported by beekeepers who are not DECA holders. This represents 0.22% of the total number of hives held by non-DECA holders.

A small number of hives reported to have AFB were robbed out. Notices were sent to beekeepers with hives within 5 kilometres of these sites, or the relevant beekeepers were phoned and advised.

7 DISEASE CONFORMITY AGREEMENTS (DECA'S) & CERTIFICATE OF INSPECTION (COI)

2911
741

As at the end of June 2005 there were 2170 beekeepers with DECA's and a Certificate of Inspection Exemption (75% of beekeepers). These beekeepers are able to inspect their own hives for AFB and make reports to AgriQuality on the authorised forms. No DECA's were revoked in the reporting period.

There were 741 beekeepers who owned 14916 hives on 1476 apiaries that required a COI at the end of May 2005. This is a reduction in beekeeper numbers but interestingly the number of hives that are owned by these beekeepers has increased slightly. The average hive-holdings of beekeepers without a DECA increased to 20 hives per beekeeper compared with 17 last year.

8 REPORTABLE STATISTICS

8.1 Beekeeping statistics

As at June 20th 2005 there were 2911 beekeepers that owned 294886 hives on 19281 apiaries. For the year ending June 2005 160 new beekeepers registered while 461 deregistered.

8.2 Total reported AFB

778 cases of AFB were reported by beekeepers or found by AgriQuality representing an infection level of 0.26%.

8.3 DECA's

There are a total of 2170 beekeepers that currently hold DECA's. Of these, 103 were issued in this contract period. This means that 302 DECA holders exited the industry in the previous 12 months. There are 1230 beekeepers who hold DECA's that have not sat their exam. This is 57% of the total number of DECA holding beekeepers.

8.4 Total Number of DECA's Reviewed / Amended / Revoked

27 DECA's have been reviewed with 4 being amended and none being revoked. There are also another two DECA reviews currently being processed. Several more unofficial reviews took place in response to lab results with Apiculture Officers (AO's) being satisfied that full reviews were unnecessary. The DECA review process this year was focused on current problems rather

o $534 = 8 + \text{acc} + \text{fines / cas}$
 150×4
 600
 $+$
 2400

8000
1500
 2400
 11900
\$12K + 6 audits
audits @ \$1000 time
2 x \$3K more to come + exp
JASANZ
2818 K

than historic information, which made the process more useful from a disease management perspective.

8.5 Beekeepers requiring Certificates of Inspection.

There are 14916 hives on 1476 apiaries owned by 741 beekeepers that require a certificate of inspection. These beekeepers reported 33 cases of AFB (0.22%).

8.6 Number and Percentage of AFB found & reported by AgriQuality & AFB-PMS AP's

AgriQuality and its contractors inspected 534 hives on 50 apiaries during the last year. 116 cases of AFB were found (22%).

8.7 Number of apiaries / hives inspected by AFB-PMS AP2's

During the national inspection program a total of 3781 hives were inspected on 366 apiaries.

8.8 Number of unregistered apiaries found and instructions to register sent to the registrar

5 unregistered apiaries were found and subsequently registered during this contract period.

8.9 Number of abandoned apiaries found / destroyed by AgriQuality.

Two abandoned apiaries were found and dealt with as part of the inspection program.

8.10 Number of beehives infected with AFB destroyed on default of a notice issued

27 hives on 10 apiaries were destroyed on default of a notice issued

8.11 Number of restricted place notices sent to beekeepers under the AFB-PMS

No restricted place notices were sent to beekeepers in this contract period.

8.12 Number of apiaries and hives inspected on default of a notice

No apiaries were inspected.

8.13 Number of AFB robbed out hives found or reported

4 hives were found with AFB that had been robbed out. These are as a result of some of the issues covered in 5.4.

8.14 ADR & COI defaulters

There are currently 1719 ADR defaulters (59%). This is higher than the normal level of non-compliance expected prior to the reminder letters being sent out. There are 637 COI defaulters (86%). This is a situation that is unlikely to improve without a more focused effort (ie: reminders) in this part of the strategy.

8.15 Number of GNA's outstanding

13 GNA's are currently outstanding.

8.16 Number of neglected apiaries currently reported

22 neglected apiaries have been reported to AgriQuality this contract period. Please note that the assessment of an apiaries condition with respect to it neglect or otherwise is very subjective. The service provider recommends that this figure be treated only as an approximation of the true situation. All these cases were followed up with the owners.

9 EXOTIC HONEY BEE DISEASE SURVEILLANCE

9.1 1 Field Inspection and Sampling

Field surveillance was late starting this year, as the programme could not be designed until it was known whether or not the South Island Varroa Pest Management Strategy was going ahead. The strategy was notified in February 2005, which meant the surveillance for exotic bee diseases in the South Island could be carried out in conjunction with the varroa surveillance programme. Sharing costs resulted in significant savings for both programmes.

In previous years beekeepers were asked to inspect and sample their own hives. Unfortunately many beekeepers had not been trained in exotic honey bee disease recognition and surveillance or didn't complete their assigned inspections. As a result Biosecurity New Zealand chose to use beekeepers trained and warranted as Authorised Persons this season.

The number of sites for sampling and inspection had to be reduced from 400 to 350 high risk sites with no beekeeper home apiary sites (down from 100 last year) because of budget restrictions.

The surveillance contract required that the hives on each site:

- Be inspected for exotic honey bee disease symptoms with any symptoms being sampled (namely European foulbrood, small hive beetle and other subspecies of bees).
- Have a sample of about 50 adult bees taken from each hive to be examined for internal mites
- Have a 24-hour sticky board and miticide sample taken for external mites.

Over and above this programme, a further 300 apiaries were sampled by beekeepers who export live bees. These samples were tested for external and internal mites. Due to the late start sampling is not yet complete but all samples submitted to date are negative for exotic bee diseases and pests.

9.2 2 Reports and articles

Each year, reports on surveillance activity are written for Biosecurity New Zealand and the New Zealand Beekeeper magazine. These are used to meet our international reporting requirements for New Zealand's bee health status and also to keep beekeeper's informed of surveillance activities. These articles covered issues relating to surveillance and exotic pests and diseases and their relevance to the New Zealand beekeeping industry

9.3 3 Apiary Database

Biosecurity New Zealand contributes to the cost of the management and maintenance of the apiary database through the exotic disease surveillance contract.

9.4 5 Screening of Exotic Disease Inquires

Each year Biosecurity New Zealand and AgriQuality Limited receive a number of calls regarding suspect exotic diseases or strange symptoms that beekeepers find in their hives. AgriQuality works with the National Centre for Disease Investigation (NCDI) to screen these calls and determine whether a sample needs to be taken. Often a phone diagnosis can be made which rules out an exotic bee disease or pest.

10 HONEY BEE EXOTIC DISEASE AND PEST RESPONSE (EDPR)

10.1 1 Cape honey bee simulated exercise

AgriQuality and NBA-BIG members carried out a Cape honey bees simulated incursion exercise in Dunedin during March 2005 using knowledge gained by Murray Reid and Tony Roper who visited South Africa to study this bee. During this simulation AgriQuality staff and beekeepers practised inspection, sampling and feral bee baiting and eradication activities

Department of Environment and Conservation
 New Zealand beekeeper, apiary and hive statistics by apiary district as at 1-Jul-2005

<i>Apiary Register Location</i>	<i>Category 0 - 5 Hives</i>		
	<i>Beekeepers</i>	<i>Apiaries</i>	<i>Hives</i>
Blenheim	162	183	386
Canterbury	334	385	716
Hamilton	120	133	237
Otago/Southland	189	212	486
Palmerston North	436	481	1070
Tauranga	109	130	275
Whangarei	362	414	733
<i>New Zealand</i>	1712	1938	3903

<i>Apiary Register Location</i>	<i>Category 6 - 10 Hives</i>		
	<i>Beekeepers</i>	<i>Apiaries</i>	<i>Hives</i>
Blenheim	31	44	237
Canterbury	56	111	451
Hamilton	24	38	194
Otago/Southland	41	53	319
Palmerston North	154	224	1171
Tauranga	27	49	237
Whangarei	51	83	371
<i>New Zealand</i>	384	602	2980

<i>Apiary Register Location</i>	<i>Category 11 - 50 Hives</i>		
	<i>Beekeepers</i>	<i>Apiaries</i>	<i>Hives</i>
Blenheim	33	83	772
Canterbury	41	114	856
Hamilton	23	59	537
Otago/Southland	39	86	929
Palmerston North	76	230	1918
Tauranga	35	56	769
Whangarei	49	109	1038
<i>New Zealand</i>	296	737	6819

<i>Apiary Register Location</i>	<i>Category 51 - 250 Hives</i>		
	<i>Beekeepers</i>	<i>Apiaries</i>	<i>Hives</i>
Blenheim	20	179	2711
Canterbury	23	258	2509
Hamilton	14	136	1881
Otago/Southland	33	302	3696
Palmerston North	30	309	3591
Tauranga	34	229	4070
Whangarei	29	269	3533
<i>New Zealand</i>	183	1682	21991

<i>Apiary Register Location</i>	<i>Category 251 - 500 Hives</i>		
	<i>Beekeepers</i>	<i>Apiaries</i>	<i>Hives</i>
Blenheim	16	326	6112
Canterbury	25	603	8925
Hamilton	10	244	3778
Otago/Southland	14	381	5515
Palmerston North	12	283	4494
Tauranga	16	233	4523
Whangarei	7	145	3234
<i>New Zealand</i>	100	2215	36581

<i>Apiary Register Location</i>	<i>Category 501 - 1000 Hives</i>		
	<i>Beekeepers</i>	<i>Apiaries</i>	<i>Hives</i>
Blenheim	10	395	6964
Canterbury	26	1159	17457
Hamilton	13	648	11145
Otago/Southland	19	888	12826
Palmerston North	6	271	4667
Tauranga	18	617	12800
Whangarei	9	279	6440
<i>New Zealand</i>	101	4257	72299

<i>Apiary Register Location</i>	<i>Category 1000+ Hives</i>		
	<i>Beekeepers</i>	<i>Apiaries</i>	<i>Hives</i>
Blenheim	6	414	8307
Canterbury	14	1510	25908
Hamilton	6	1001	20625
Otago/Southland	12	1292	22755
Palmerston North	11	1546	27791
Tauranga	16	1394	29237
Whangarei	10	596	14242
<i>New Zealand</i>	75	7753	148865

<i>Apiary Register Location</i>	<i>Total</i>		
	<i>Beekeepers</i>	<i>Apiaries</i>	<i>Hives</i>
Blenheim	278	1624	25489
Canterbury	519	4140	56822
Hamilton	210	2259	38397
Otago/Southland	347	3214	46526
Palmerston North	724	3326	44452
Tauranga	255	2708	51911
Whangarei	517	1895	29591
<i>New Zealand</i>	2850	19166	293188