



APICULTURE

KEY RESULTS FROM MAF'S 2011 HORTICULTURE AND ARABLE MONITORING PROGRAMME.

KEY POINTS

- › The New Zealand honey crop for 2010/11 was estimated at 9450 tonnes, down 3100 tonnes (25 percent) on 2009/10. Most regions, except the Northland/Auckland/Hauraki Plains region, experienced a decline in honey production mainly due to unfavourable weather conditions. The per hive production figure of 24.2 kilograms per hive in 2010/11 was the lowest recorded since 2002.
- › The number of registered beekeepers increased 10 percent from 2957 in May 2010 to 3267 in May 2011. Beekeepers with fewer than five hives recorded the greatest increase in number (15 percent). The number of hives registered increased by 13 850 over the same period.
- › Prices paid to beekeepers for most honey products (excluding active manuka) increased by 5 to 17 percent due to ongoing world demand.
- › Sugar, a major expense item for beekeepers, rose 15 to 45 percent compared with 2009/10.
- › A new fungal parasite, *Nosema ceranae*, was discovered in apiaries in the Coromandel and Christchurch.

»» TABLE 1: NEW ZEALAND HONEY CROP (ESTIMATES), 2006 TO 2011

YEAR ENDED 30 JUNE	2006 (T)	2007 (T)	2008 (T)	2009 (T)	2010 (T)	2011 (T)	6-YEAR AVERAGE (T)
Northland/Auckland/Hauraki Plains	1 337	1 252	1 186	1 756	1 285	2 000	1 469
Waikato/King Country/Taupo	1 124	1 270	1 436	1 864	1 584	1 400	1 446
Coromandel/Bay of Plenty/Poverty Bay	1 937	1 897	2 492	2 250	2 376	1 425	2 063
Hawke's Bay/Wairarapa/Manawatu/Taranaki	1 935	1 912	2 755	2 082	2 318	1 965	2 161
Marlborough/Nelson/West Coast	690	675	966	1 140	1 400	470	890
Canterbury	2 100	1 620	1 980	1 718	2 200	1 045	1 777
Otago/Southland	1 300	1 040	1 560	1 755	1 390	1 145	1 365
New Zealand	10 423	9 666	12 375	12 565	12 553	9 450	11 172
Yield/hive (kg)	34.7	30.7	36.0	34.7	33.3	24.2	32.3

Source
AsureQuality Limited.



FINANCIAL PERFORMANCE OF APICULTURE IN 2010/11

Unfavourable weather conditions impacted flowering and nectar flows reducing honey production in most parts of New Zealand in 2010/11. World honey prices continued to rise for most grades of honey and helped compensate somewhat for the reduced honey yields.

Beekeepers who provided pollination services, harvested manuka honey, or produced live bees for export all received improved prices in 2010/11 so were better placed to withstand lower honey yields. However, beekeepers with very low honey crops and no other income stream would have had to remedy cash flow problems through reducing staff numbers, seeking secondary employment or selling hives.

The price of imported inputs such as fuel and sugar increased, despite the buffering effect of the strong New Zealand dollar throughout 2010/11. Areas of increased expenditure were sugar, fuel, packaging containers and varroa treatments.

REVENUE

Revenue streams for beekeepers are diverse. Beekeepers are dynamic, moving to where the profits and cash flow is greatest.

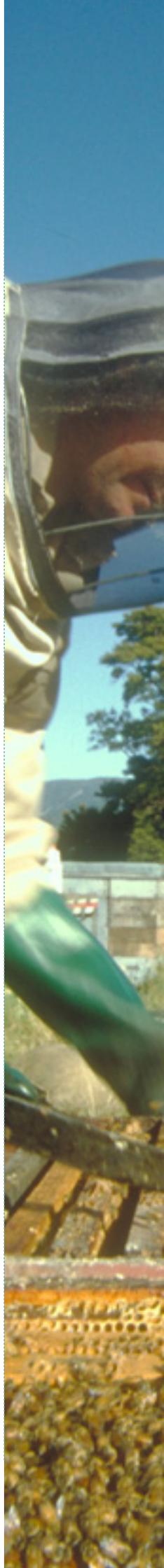
HONEY PRODUCTION HAMPERED BY WEATHER

The New Zealand honey crop for 2010/11 was estimated at 9450 tonnes; down 3100 tonnes on the 2009/10 crop of 12 553 tonnes. The per hive production figure decreased 27 percent from 33.3 to 24.2 kilograms per hive. This is the lowest hive production figure recorded since 2002 and is due to unfavourable weather conditions around much of New Zealand shortening the honey production season. The number of hives registered increased by 13 850 between 31 May 2010 and 31 May 2011.

Regional honey production figures for the past six years are summarised in Table 1. Most regions experienced a drop in honey production in 2010/11. The exception was the Northland/Auckland/Hauraki Plains region which recorded a 56 percent increase compared with 2009/10. This crop increase is due to most of this region's honey being produced before Christmas which coincided with one of the driest springs on record and above average temperatures, providing good weather conditions for honey production. Hive numbers are also increasing in this region.

Elsewhere in the North Island, honey production levels were down 11 to 40 percent on 2009/10. Beekeepers in the Western and Eastern Bay of Plenty experienced a very poor crop with yields of 5 to 10 kilograms per hive being reported due to a wetter summer than normal affecting nectar flows.

Beekeepers in Nelson, Marlborough and the West Coast harvested early kamahi crops but heavy rain late in December 2010 greatly affected yields from rata and manuka. The honey crop for this area was estimated at 470 tonnes, down 930 tonnes (66 percent) on the 2009/10 crop.



The 2010/11 honey crop for Canterbury initially looked promising with good pasture growth producing early honey crops from clover and honeydew, but with significant rain events in late December the nectar flow more or less stopped and didn't recover. The 2010/11 honey crop for Canterbury was down 53 percent compared with 2009/10 at 1045 tonnes.

Otago and Southland also experienced variable nectar flows and the final crop of 1145 tonnes was down 18 percent on 2009/10. Yields ranged from an average of 28 kilograms per hive in Central Otago, where thyme flowers produced a crop, to yields as low as 10 kilograms per hive in central Southland and North Otago. Some beekeepers in these regions did not harvest any honey at all and others kept what honey they did get for feeding back to the bees.

As happened in 2009/10 most regions experienced warm to hot weather with above average rainfall from February 2011 through to May 2011. This helped with late nectar flows in some regions and meant hives maintained strong bee numbers, queens were well mated and a small surplus of honey was produced for extracting or leaving as winter feed. It is expected this will set beekeepers up for an improved honey crop, weather permitting, in 2011/12.

HIVE NUMBERS

Hive numbers continued the trend of 2009/10 with another 4 percent increase in 2010/11. The number of registered beekeepers also increased from 2957 in May 2010 to 3267 in May 2011.

»» TABLE 2: NEW ZEALAND BEEKEEPER, APIARY AND HIVE STATISTICS¹, AS AT 31 MAY 2011

	BEEKEEPERS	APIARIES	HIVES
Northland/Auckland/Hauraki Plains	739	3 701	58 585
Waikato/King Country/Taupo	227	2 444	48 815
Coromandel/Bay of Plenty/Poverty Bay	324	3 618	74 678
Hawke's Bay/Wairarapa/Manawatu/Taranaki	694	4 563	75 117
Marlborough/Nelson/West Coast	295	1 997	28 543
Canterbury	571	3 793	55 716
Otago/Southland	417	3 333	49 069
New Zealand	3 267	23 449	390 523

Note

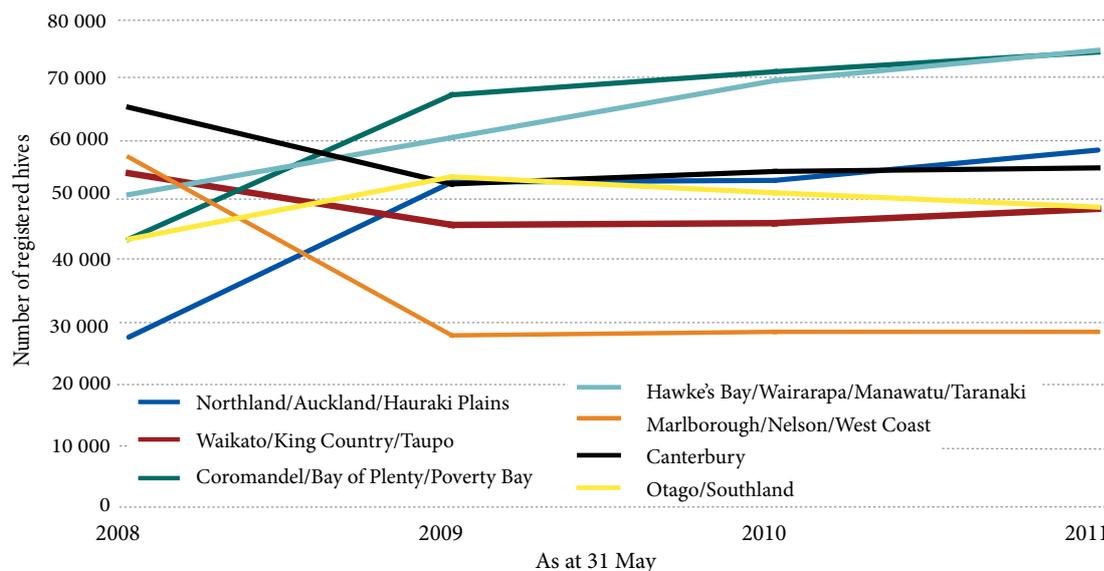
¹ Registered beekeepers, apiaries and hives under the National Pest Management Strategy for American Foulbrood.

Source

AsureQuality Limited.

The increase in the number of registered beekeepers and hives was primarily in the North Island. The number of hives in the North Island in 2010/11 increased by 6 percent compared with 2009/10 while in the South Island hive numbers were largely unchanged. Figure 1 shows the changes in hive numbers from 2008 to 2011 by region.

»» FIGURE 1: CHANGES IN HIVE NUMBERS¹, 2008 TO 2011



Note

¹ Registered hives under the National Pest Management Strategy for American Foulbrood.

Source

AsureQuality Limited.

GROWING DEMAND CONTINUES TO LIFT HONEY PRICES

Prices paid to beekeepers for most lines of honey rose again in 2010/11. This was due to world shortages of high quality honey and growing demand for natural sweeteners. Global honey supply continues to lag behind demand as adverse weather conditions and colony collapse disorder affected production in some of the major honey exporting countries.

Clover honey prices rose, on average 9 percent in 2010/11 for the lightest honey grades as they were in short supply, while dark honey prices remained around the same as those received in 2009/10.

New Zealand's high-end specialty honey products continued to achieve good returns. Early offers for bulk non-active manuka honey were \$8.00 to \$10.00 per kilogram but later in 2010/11 rose to \$11.50 to \$13.00 per kilogram. The bulk price for active¹ manuka honey ranged from \$12.50 up to a top price of \$80.00 per kilogram depending on the level of activity tested. Manuka honey receiving \$80.00 per kilogram would have had a very high activity rating and likely be used for medical purposes in wound dressings or blended with honey with lesser activity to extend higher activity range quantities. Honey at this higher activity range is only produced in very low volumes nationally, typically 1 to 2 tonnes. This explains the higher price point.

¹ The "activity" of manuka honey is based on the non-hydrogen peroxide activity and is expressed as points of activity using phenol as a reference point, for example, UMF™10+. Points of activity payments begin when the honey scores over ten points. An alternative method reports on the level of methylglyoxal, a compound with bactericidal properties, for example, MGO™ 250+.

Honey prices are expected to remain strong for the remainder of 2011 and into 2012 as world demand increases. Manuka honey continues to attract premium prices and many commercial beekeepers are looking to add manuka honey to their business, some even at great expense as more hives than ever were flown by helicopter to remote apiaries in 2010/11 than in previous years, at a cost of up to \$160.00 per hive.

EXPORT VOLUMES FOR HONEY ARE DOWN BUT VALUES ARE UP

Honey export volumes for the year to June 2011 were down 6 percent compared with the previous year, likely due to the reduced honey crop in 2010/11. However, the export value increased despite a higher New Zealand dollar over this period, reflecting higher prices paid in market.

Traditionally, the apiculture industry exported 20 to 40 percent of its total honey crop. In the last three years this figure has grown to 50 to 60 percent as a result of strong overseas demand and increased New Zealand honey production.

OTHER REVENUE SOURCES

POLLINATION

Pollination fees for green (Hayward) kiwifruit in 2010/11 remained similar to 2009/10 and ranged from \$110.00 to \$178.00 per hive, depending on the level of service provided. Pollination fees for the earlier flowering gold (Hort16A) kiwifruit averaged \$120.00 to \$150.00.

Pollination fees per hive reported for other crops were: onions \$120.00, pipfruit, stonefruit and berryfruit \$60.00 to \$120.00, avocados \$80.00 to \$115.00 and carrot seed crops \$120.00 to \$150.00. The large range in fees reflects regional differences, the likelihood of pesticide damage, or reduction in bee strength if hives are under netting as in some berryfruit blocks.

LIVE BEES SHIPMENTS TO CANADA REMAIN STRONG AND NEW MARKETS EMERGING

Shipments of live bees to Canada provided a good income stream for beekeepers able to deliver bees to collection centres in Central Hawke's Bay, Tauranga and Rotorua. In 2011, approximately 31 500 one kilogram packages of bees were exported to Canada, down 6 percent on the previous year.

Export of queen bees to Canada was up 8 percent to approximately 7590 in 2011. In addition, 4855 queen bees were exported to the United Kingdom and 1575 were sent to the United States (US). The US is a new market for New Zealand queen bees and there is potential growth in the US for queens as the demand for pollination hives in Californian almond orchards increases. In addition, six queen bees were sent to France which was the first time queen bees had been exported to that country.

Prices paid to suppliers of live bees rose 4 percent to \$26.00 to \$27.00 per kilogram for bulk bees, while prices for export queen bees remained at \$25.00 per queen.

POLLEN, PROPOLIS AND BEESWAX

Prices paid to suppliers of dried and cleaned pollen in 2010/11 rose 6 percent to an average of \$35 per kilogram. However, pollen production continues to fall. Only a few commercial producers now collect pollen as the best pollen production periods coincide with varroa treatments (varroacides). Pollen traps cannot be activated when varroacides are being used.

»» TABLE 3: HONEY EXPORT VOLUMES AND VALUE, 2002 TO 2011

YEAR ENDED 30 JUNE	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Export volume (tonnes)	3 028	3 233	2 394	3 273	3 927	4 411	5 366	7 384	7 147	6 721
Export value (\$ million fob ¹)	20.6	25.5	23.1	33.5	38.4	47.8	62.6	81.0	97.6	101.6
Average export price (\$ per kg fob)	6.80	7.87	9.65	10.23	9.77	10.83	11.66	10.97	13.66	15.11

Note

1 Free on board.

Source

Statistics New Zealand.

»» TABLE 4: RETURNS FOR APICULTURE PRODUCTS, 2008 TO 2011

YEAR ENDED 30 JUNE	2007/08	2008/09	2009/10	2010/11
BULK HONEY – COLOUR GRADE (\$/KG¹)				
Light (clover type)	2.80–3.75	3.50–5.60	4.00–6.00	4.10–6.80
Light amber	2.80–3.00	3.70–4.00	3.90–4.50	4.00–5.80
Dark, including honeydew	2.80–3.70	4.50–5.00	4.00–5.00	4.50–5.00
Manuka (non-active)	8.50–13.25	7.00–12.00	7.00–13.00	8.00–13.00
Manuka (active ²)	12.10–45.00	12.50–56.25	11.00–37.50	12.50–80.00
BEESWAX (\$/KG³)				
Light (residue-free)	6.50–7.00	7.00–8.10	6.80–8.50	8.90–9.00
Light	7.00–7.80
Dark	5.00–5.20	4.00–5.20	6.00–6.50	6.00–6.80
POLLEN (\$/KG³)				
Not dried or cleaned	16.00–18.00	18.00–20.00	13.00–20.00	16.00–20.00
Cleaned and dried	20.00–30.00	25.00–31.00	30.00–36.00	32.00–38.00
POLLINATION (\$/HIVE⁴)				
Pipfruit, stonefruit and berryfruit	60.00–96.00	55.00–96.00	52.50–96.00	60.00–120.00
Kiwifruit				
– Hawke's Bay	110.00–170.00	140.00–160.00	145.00–170.00	104.00–160.00
– Auckland	110.00–150.00	115.00–150.00	120.00–150.00	120.00–150.00
– Bay of Plenty	110.00–160.00	110.00–160.00	120.00–175.00	110.00–178.00
– Nelson	100.00–120.00	125.00–145.00	125.00–145.00	120.00–150.00
Canola and small seeds (carrots)	120.00–150.00	120.00–180.00	100.00–150.00	120.00–150.00
LIVE BEES³				
Bulk Bees (\$/one kilo package)	22.00	22.00	25.00–26.00	26.00–27.00
Queen Bees (per bee)	...	25.00	25.00	25.00

Notes

1 Prices paid to beekeepers for bulk honey. The beekeepers supply the drums/containers and cover the freight costs to exporter collection points/depots.

2 The "activity" of manuka honey is based on the non-hydrogen peroxide activity and is expressed as points of activity using phenol as a reference point, for example, UMF™10+. Points of activity payments begin when the honey scores over ten points. An alternative method reports on the level of methylglyoxal, a compound with bactericidal properties for example, MGO™ 250+.

3 Prices paid to beekeepers. The beekeepers supply some packaging and cover the freight costs to exporter collection points/depots.

4 Prices paid to beekeepers. The prices at the lower end of the range are for hives delivered to depot sites. At the upper end, prices include delivery into the orchard and sugar for 3–4 one-litre feeds to stimulate the bees to collect pollen.

... Data not available.

Source

AsureQuality Limited.

Propolis is a resin collected by bees from some tree species and marketed for its health benefits. Beekeepers gather the propolis off special mats placed in hives or by scraping boxes and frames. The recovery rate of pure propolis from raw propolis is approximately 40 to 55 percent and beekeepers expect to receive \$90.00 to \$120.00 per kilogram for the raw unprocessed product.

Export demand for light coloured beeswax and organic wax remained very strong. New Zealand beeswax not contaminated with varroa control chemicals is in high demand by the cosmetics industry. This wax now largely comes from the lower half of the South Island where varroa treatments are not yet widely used.

EXPENDITURE INCREASING

Operating costs continued to rise, especially for imported products such as sugar and diesel. Freight, steel honey drums, plastic packaging, varroa treatments and labour costs also contributed to an overall increase in expenses.

SUGAR

Beekeepers paid an extra 15 to 45 percent for bulk liquid sugar as world prices rose to a 29-year high. Drought again affected sugar production in India and Russia and wet weather affected sugar crops in Brazil and Australia. Sugar prices rose from \$980.00 per tonne wet weight in June 2010 to a peak of \$1500.00 per tonne in December 2010. Sugar prices have softened since December 2010 and although still high, further price reductions are expected as previous high prices are expected to encourage increases in planting and supply balances demand.

FUEL

Diesel prices remained at approximately \$1.20 per litre (including GST) from July to September 2010 before increasing markedly to peak at \$1.70 per litre in April 2011 before falling to \$1.48 in June 2011. The rise in diesel prices occurred mainly over the warmer months and hit beekeepers at their peak demand for fuel, leaving them with little opportunity to control transport costs. Beekeepers will continue to review vehicle usage, pollination contracts, apiary locations and revenue streams before the 2011/12 season.

HONEY DRUM PRICES

The price of honey drums increased 4 percent over last year as world steel prices firmed. Beekeepers paid on average between \$62.00 and \$72.00 per drum compared with up to \$65.00 last year and, with freight and pallets charges, beekeepers were paying up to \$80.00 and \$98.00 per new drum delivered. Many honey buyers only accept new drums, particularly for manuka honey. Export drums are not returned.

LABOUR

Beekeepers in varroa-infested areas are employing an average of one fulltime labour unit per 350–400 hives, while beekeepers without varroa can manage 800–1000 hives per labour unit. Varroa continued to spread throughout the lower South Island and is well established in Central Otago and has now been found south of Oamaru. Beekeepers will need to examine their labour expenses and income opportunities as varroa spreads further.

»» TABLE 5: ESTIMATED EXPENDITURE FOR BEEKEEPING OPERATIONS (\$ EXCLUDING GST), 2009/10 AND 2010/11

YEAR ENDED 30 JUNE			2009/10	2010/11
LABOUR	Worker	\$/hr	\$15–\$25	\$17–\$27
	Manager	\$/hr	\$27–\$35	\$30–\$40
	Average working week	hrs	45	45
	Average ratio of hives per fulltime equivalent with varroa present in hives (pre-varroa)		350:1 (800:1)	350:1 (800:1)
FUEL	Variable		variable	variable
SUGAR	\$ per tonne for bulk sugar: Variable depending on overseas prices and NZ exchange rate		\$980–\$1300	\$1426–\$1500
VARROA TREATMENTS	\$ range per hive: Variable according to hive strength and product(s) used. Varroa strips applied at recommended rates on the label and two treatments a year.		\$12–\$24	\$23–\$25
PROTEIN SUPPLEMENTS	\$ per 20 kilogram bag: Hives may require 1–2 kilograms per year.		\$155	\$162
CONTRACT EXTRACTION COSTS	\$ per frame	Higher cost in range are for manuka honey which requires pricking of the cells.	\$0.80–\$1.50	\$1.00–\$1.55
	\$ per frame	Average rate for clover.	\$1	\$1.20
HIVES	New	Includes 2 brood boxes and 1 honey super; no bees	\$185	\$225
	Secondhand	Reasonable condition, includes two brood boxes and 1–4 honey boxes with bees	\$180–\$385	\$200–\$385
	Repairs and maintenance	\$ per hive (7% of hive purchase price)	\$11–\$27 per hive	\$14–\$27 per hive
	Wax to coat plastic frames	\$ per kilogram	\$6–\$8	\$7–\$8
	Hive strappers	(number used as required): \$ each	\$10–\$12	\$10–\$12
QUEEN BEES	Queen bees	\$ per bee	\$25–\$35	\$25–\$35
	Select queens	\$ per bee	\$60–\$120	\$60–\$120
	Select tested breeder queens	\$ per bee	\$600–\$1250	\$600–\$1250
PROTECTIVE CLOTHING	Single piece suit		\$142–\$156	\$140
HONEY DRUMS	New or re-manufactured (holds approximately 300 kg of honey)		\$55–\$65	\$62–\$72
APIARY RENTALS PAID TO LANDOWNER	Manuka (Non-manuka: variable but often 500 grams honey per hive)	% of crop when sold	10%–25%	10%–25%
		% of gross crop or \$ per hive (whichever is greatest)	10% or \$40	10% or \$40
		% of gross crop if landowner owns the hives	50%–55%	50%–55%
		\$ if sole rights to a property	\$1000	\$1000
COMPLIANCE COSTS	Risk Management Programme (RMP) annual audit costs	\$ for processing RMP and \$ for a storage RMP	up to \$1300 up to \$750	up to \$1300 up to \$750
	NZ Food Safety Authority annual fees	\$ (if require export eligibility)	\$542	\$577.50
		\$ (if only processing for consumption in NZ)	–	\$258
	Tutin tests	\$ per first sample	\$125–\$170	\$125
		\$ per subsequent sample submitted at the same time (up to 10 samples total)	–	\$15
	American Foulbrood Pest Management Strategy	\$ per beekeeper	\$20	\$20
\$ per apiary		\$11.00	\$12.00	
NATIONAL BEEKEEPERS' ASSOCIATION MEMBERSHIP (Voluntary)	Hobby beekeeper (less than 11 hives)		\$115	\$117
	Commercial operations (251–3001+ hives)		\$144–\$3825	\$469–\$3910
	Corporate membership		\$239	\$244
BEEKEEPING INDUSTRY GROUP MEMBERSHIP (Voluntary – Affiliated with Federated Farmers)			\$104–\$424	\$98–\$434

Source:ASUREQuality Limited.

INDUSTRY ISSUES AND DEVELOPMENTS

BEEKEEPER MORALE AND BUSINESS VIABILITY PLANS

Generally the industry is in good heart despite a relatively poor production season for honey in 2010/11. Beekeepers had three good seasons in a row, prior to 2010/11, and increased prices for this season's crop should see most beekeepers remain profitable. Diversification of income streams is likely to continue where possible to help manage risk.

The bacteria *Pseudomonas syringae* pv. *actinidiae* (Psa) discovered in Bay of Plenty kiwifruit orchards in November 2010 has caused considerable concern to pollination beekeepers. While the 2010 pollination proceeded relatively smoothly, beekeepers are concerned about the ongoing viability of gold kiwifruit production and the possible impact on bees of any new treatments used to control Psa.

Hive numbers continued the trend of last year with another 4 percent increase. The number of registered beekeepers continued to increase but this was mainly in the group that own fewer than five hives.

»» TABLE 6: DISTRIBUTION OF BEEKEEPERS¹ BY HIVE NUMBER

AS AT 31 MAY	2009	2010	2011
[5 hives or less]	[1 529]	[1 745]	[2 004]
1 to 50 hives	2 185	2 440	2 722
51 to 500 hives	293	319	336
501 to 1000 hives	100	99	109
>1000 hives	91	99	100
Total number of beekeepers	2 669	2 957	3 267

Notes

Beekeepers with 1–50 hives are considered hobbyists.

¹ Registered beekeepers and hives under the National Pest Management Strategy for American Foulbrood.

Source

AsureQuality Limited.

BEEKEEPER RESPONSE TO INPUT PRICE CHANGES AND SHORTAGES

The main areas of increased expenditure in 2010/11 were due to price rises in diesel, sugar, vehicle running, varroa treatments, labour, freight and honey containers. It is difficult for beekeepers to reduce these inputs without compromising production. Relatively high sugar and diesel prices are expected to continue into 2011/12, which will impact on profitability. Beekeepers will continue to evaluate the cost of servicing distant apiaries against returns, especially those that used helicopters this past season. Others are considering leaving more honey on their hives rather than feeding sugar in order to save transport and extracting costs.

Beekeepers continue to find it difficult to recruit and hold experienced labour due to variable cash flows.

PESTS AND DISEASES

The apiculture industry remains very concerned about the risk of exotic bee pests and diseases being introduced to New Zealand via the importation of both foreign honey repackaged and sent from Australia and Australian-produced honey.

A new fungal parasite, *Nosema ceranae*, was discovered in 2010 from apiaries in the Coromandel and later in Christchurch. The parasite may be a factor in increased bee colony losses observed in spring 2010 and is closely related to *Nosema apis*, already widespread in New Zealand. There are some suggested links between *N. ceranae* and colony collapse disorder overseas. As New Zealand has only recently developed the capacity to test for *N. ceranae*, it is unknown whether this is a recent incursion or an organism that has been present for a long period without being detected.

American Foulbrood is a bacterial disease of bees caused by a strain of the spore-forming bacteria *Paenibacillus larvae*. This organism has been present in New Zealand since 1877 and is under a national control programme. The incidence of American Foulbrood in recent years is about 0.3 percent. American Foulbrood was recently discovered in some hives in Hawke's Bay which has highlighted the consistent vigilance required by industry in controlling this disease.

VARROA RESISTANCE TO MITICIDES

Resistance to the synthetic pyrethroid active ingredients in Apistan® and Bayvarol® was observed in some hives in the Waikato for the first time in 2010/11. These products are two of the most widely used and effective chemical treatments against varroa mites but they are in the same chemical family so mites become resistant to both chemicals at the same time. Beekeepers are encouraged to alternate non-related chemicals to slow the development and spread of resistant mites. It is not known how widespread the resistance is.

PESTICIDE SPRAYS

Beekeepers in intensive orchard regions report moderate to severe bee losses in some areas due to pesticide drift or over-spraying. Problems are worse in areas where early and late flowering varieties of kiwifruit are grown such as in the Bay of Plenty, or where kiwifruit blocks are adjacent to areas of berryfruit, grapes or apples. It is difficult for beekeepers to get compensation for colony losses from growers as the source of spray poisoning is often difficult to prove. Some beekeepers are considering giving up pollination servicing and instead moving into producing manuka honey with its premium prices.

FURTHER INFORMATION

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