



MINISTRY OF AGRICULTURE AND FORESTRY

# HORTICULTURE AND ARABLE OVERVIEW

SEPTEMBER 2011



Ministry of Agriculture and Forestry  
Te Manatū Ahuwhenua, Ngāherehere



## OVERVIEW

The Horticulture and Arable Monitoring Programme 2011 shows mixed outcomes for the sectors reported on.

Higher prices from Asian markets helped to lift returns for kiwifruit in the 2010/11 financial year ended 31 March, compensating for a drop in yields. Favourable climatic conditions have lifted kiwifruit yields for the 2011 harvest to record levels (2011/12 financial year), helping to buffer against the expected reduction in grower returns and increase in orchard expenses.

Kiwifruit growers are dealing with considerable uncertainty in the ongoing battle against the vine disease *Psa* (*Pseudomonas syringae* pv. *actinidiae*). *Psa*, in particular the virulent strain *Psa-V*, has spread further and faster than was hoped for in parts of the Bay of Plenty region over the autumn and winter months. The short-term impacts will become better known once the vines come into flower in October/November 2011. The medium to long-term impacts are less certain at this stage. *Psa* management programmes necessary to prevent the spread of *Psa* are contributing to a significant increase in budgeted orchard working expenses for 2011/12.

Many pipfruit growers suffered a financial loss in the 2010 calendar year as a result of adverse climatic conditions reducing yields combined with insufficient returns for late-season varieties sold in Europe. Despite most markets performing well in 2011, and higher export yields, pipfruit growers expect the high New Zealand dollar to erode export returns resulting in poor financial outcomes again for many in the year to December 2011.

Global oversupply of wine and tough economic conditions in the main markets continued to place downward pressure on grape prices in 2010/11 (year ended June). In Marlborough, favourable climatic conditions led to higher yields, more than compensating for the lower prices. Contract grape growers in Hawke's Bay suffered the impact of low yields as well as low prices.

As a result of low profitability, pipfruit and wine growers are deferring expenditure where they can and assessing alternative business models. Further rationalisation is likely to occur due to some unsustainable balance sheets.

Strong global commodity prices lifted uncontracted cereal prices in 2010/11 (year ended June) helping to compensate in part for lower cereal yields in the Canterbury region. Profit before tax fell 28 percent compared with 2009/10 but the cash position at year end improved due to a sell down of grain and seed stocks on hand. Cropping specialists are budgeting for a substantial increase in profit this coming year (2011/12) based on a return to better-than-average yields and the continuation of strong cereal prices. There is increasing interest amongst arable farmers in converting some of their land to dairying.

Budgeted results for 2011/12 are based on grower views collected in May 2011. These views are combined with input from those servicing the sectors to create short-term physical and financial forecasts for model enterprises in the kiwifruit, pipfruit, viticulture and arable farming sectors.





# FACTORS AFFECTING FINANCIAL PERFORMANCE

## MARKET DEMAND

### KIWIFRUIT

Prices paid to growers for green and gold kiwifruit improved further in 2010/11, with a record return for gold kiwifruit and the highest green kiwifruit returns since 2004/05. This was driven by strong market demand in Asia, a smaller than expected gold crop and the implementation of exchange rate policies that mitigated the impact of the weak euro.

Growers expect returns for green and gold kiwifruit to be lower in 2011/12, due to a combination of increased export volumes from New Zealand, particularly of gold kiwifruit, and unfavourable exchange rates.

### PIPFruit

Average export returns for most pipfruit varieties improved in 2010. However, they were less than growers had expected given the smaller export crop from New Zealand. Asian markets performed well with price increases compensating somewhat for the high New Zealand dollar.

The outcome from European markets for mid to late-season varieties like Braeburn, Jazz™ and Pink Lady® was disappointing for many growers in 2010. The lower than anticipated export returns were the result of an overhang of fruit from the Northern Hemisphere selling season, ongoing weaker consumer demand, a reduction in spot market opportunities for Braeburn, and the weak euro and UK pound.

Market performance in 2011 is generally good. Sales volumes into Europe are in line with expectations. New Zealand Royal Gala and Fuji experienced greater competition this season in Asian markets, however, demand is strong for the Pacific series of apple that is almost uniquely grown in New Zealand. Despite most markets performing well, the high New Zealand dollar

will erode export returns with growers budgeting on lower export returns in 2011 compared with last year.

### VITICULTURE

Grape supply continues to exceed market demand, resulting in an average reduction of 8 percent in grape prices per tonne paid to growers in 2010/11. Since the 2008 vintage, the average grape price per tonne for Marlborough Sauvignon Blanc has halved to \$1190 per tonne.

In the Hawke's Bay region, prices for red wine grape varieties softened as a result of not meeting ripeness requirements.

With indications that much of the historic wine surplus for Marlborough Sauvignon Blanc has been cleared and with new markets being developed, growers are hopeful of a lift in average grape prices in 2011/12 of around 5 percent.

### ARABLE

Grain prices began to rise from October 2010 in response to a general lift in commodity prices as well as concerns about limited global cereal supplies due to dry conditions in the main growing regions of the US, Australia and Canada. Pasture seed prices also increased during 2010/11 as global stocks cleared. Rising prices assisted with the clearance of grain and seed stocks on hand in New Zealand from the 2009/10 season.

Arable farmers are optimistic about the year ahead with expectations of cereal prices remaining at 2010/11 levels and good demand for pasture seed and other small seed crops. The improved dairy payout outlook in June 2011 compared to the same time last year is also providing more options for dairy support.



## EXCHANGE RATE

The relative value of the New Zealand dollar increased against the euro, UK pound and US dollar from July 2010 and reached unprecedented levels against these main currencies in late July/early August 2011. Over the same time period, the New Zealand dollar remained below the five-year average level against the Australian dollar and Japanese yen.

The weak performance of many large western economies and market concerns about sovereign debt levels are contributing to a weakening of the economic outlook and currencies of these countries. In contrast, recent economic data for New Zealand suggests stronger economic performance than previously expected, with relatively high global commodity prices a key driver. Inflation in New Zealand was also higher than anticipated in the first half of 2011 raising expectations of an earlier lift in interest rates and contributing to a strengthening of the New Zealand dollar.

Any significant increases in market prices for pipfruit, kiwifruit and wine to compensate for the high exchange rate will likely be resisted by overseas retailers, who have the option to revert to competing suppliers, and by consumers, who have options to substitute products.

The high value of the New Zealand dollar in the main selling period for pipfruit and kiwifruit has caused growers and exporters to revise their expectations downwards for 2011/12. The impact will be greatest where little or no forward exchange rate cover has been undertaken.

## CROP PERFORMANCE

### KIWIFRUIT

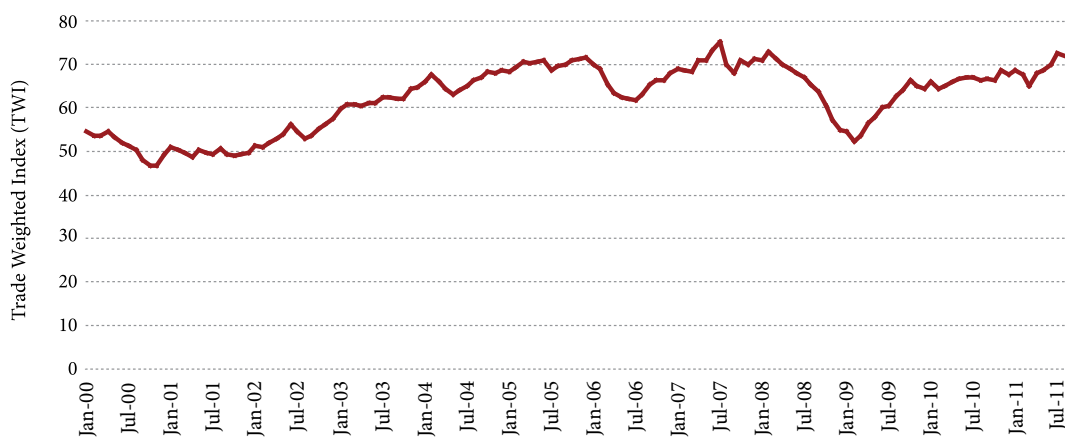
Unfavourable climatic conditions during the growing season for the 2010 crop resulted in production per hectare falling in 2010/11; by 3 percent for green kiwifruit and by 8 percent for gold kiwifruit. Average fruit size was lower with higher dry matter levels.

Favourable climatic conditions for flowering and fruit production of the 2011 crop have driven kiwifruit yields across the Bay of Plenty region to record levels.

### PIPFRUIT

The 2009/10 growing season in both Hawke's Bay and Nelson was extremely challenging with mixed results. Unfavourable weather conditions during spring 2009 (including hail damage in the Hawke's Bay region in late October 2009), and an increased presence of pests and diseases

»» FIGURE 1: TRENDS IN NEW ZEALAND'S TRADE WEIGHTED INDEX<sup>1</sup>




#### Note

<sup>1</sup> The Trade Weighted Index (TWI) is the weighted value of the New Zealand dollar in relation to the currencies of our major trading partners. Data shown are monthly TWI values from January 2000 to August 2011.

#### Source

Reserve Bank of New Zealand.





significantly reduced gross yields and export recovery rates for many varieties in 2010.

Favourable climatic conditions are expected to lift export volumes in 2011 by 17 percent and 9 percent for the Hawke's Bay and Nelson regions, respectively.

## VITICULTURE

Growing conditions in Marlborough were favourable for the 2011 vintage with a warm dry period for flowering, timely rainfall events that helped to increase berry size and a long dry harvest period. Many growers were able to harvest Marlborough Sauvignon Blanc at the higher end of the yield caps set for premium wine.

Whilst growing conditions were generally favourable in Hawke's Bay during the flowering period, crops were impacted by the La Nina weather pattern delivering continuous rain events at harvest. Rain fell when the berries were at their most vulnerable, resulting in crop losses from *Botrytis* infections particularly in the later harvested varieties.

Growers have been limiting yields from their vines, using pruning as their main tool for achieving their yield caps but also shoot thinning on some varieties. Growers are hoping to achieve average yields in 2011/12 within winery yield caps.

## ARABLE

Cereal yields in the year ended June 2010/11 in the Canterbury region fell on average by 15 percent due to unfavourable weather conditions; a wet autumn and winter, followed by a cold spring and then a hot dry period in early summer. Grass seed yields were also impacted by unfavourable weather conditions whilst later season crops such as brassica seed yielded well.

Cereal and small seed yields are expected to return to average levels in 2011/12, assisted by favourable rainfall and temperatures in autumn 2011.

## OPERATING COSTS

In spring 2010 kiwifruit growers refrained from using supplementary pollination when it came time to pollinate their green orchard blocks, concerned that it may be a vector for Psa. Pruning costs increased in 2010/11 as a result of significant vegetative growth during the wet summer.

Kiwifruit growers are being advised to budget for a programme of protectant sprays in 2011 which are required to help prevent Psa infection and spread. The cost of an intensive management programme of \$3000 per hectare is budgeted in the model for 2011/12 which, in part, drives a 14 percent increase in budgeted orchard working expenses.

The lower pipfruit crop of 2010 had a significant impact on unit costs for pipfruit growers. As a result of the poor financial outcomes in recent years and expectations of lower prices in 2011, growers are deferring expenditure where they can and assessing alternative business models.

Winegrowers are also keeping a tight rein on expenditure, with growers responding to lower grape prices by cutting back on wages, reducing inputs and deferring expenditure. Seasonal factors helped with the reduction in expenditure on frost protection and on electricity for irrigation in 2010/11.

For Canterbury arable farmers, farm working expenses in 2010/11 remained at similar levels to the previous season with price rises for some inputs being offset by the reduced crop area and lower yields requiring less contracted work. Irrigation demand declined over the early and late parts of the season in Canterbury due to regular rains and the absence of strong north-west winds apart from a period in early December. Arable farmers benefited from reduced chemical prices as some key products came off patent protection.

Most growers and farmers have switched to floating interest rates and are carefully considering when to re-fix term debt.

## SECTORAL AND REGIONAL VARIATION IN OUTCOMES

### KIWIFRUIT

The profitability of the Bay of Plenty kiwifruit orchard model improved again in 2010/11 with price increases more than compensating for lower yields. The orchard profit before tax on the model increased 48 percent in 2010/11 to levels not seen on the model since 2003/04.

The bacterial canker disease Psa, specific to kiwifruit, was confirmed in the Bay of Plenty region in November 2010. This disease has also been confirmed in other kiwifruit growing regions of New Zealand but the virulent strain of Psa, Psa-V, as at the end of August 2011, has only been detected in parts of the Bay of Plenty region. A pan-industry organisation jointly funded by government and industry, Kiwifruit Vine Health Incorporated, was set up in December 2010 to lead the New Zealand response to Psa.

For most growers to date, the impact of Psa is an increased cost of prevention, with protectant sprays and paints that are required to prevent further spread of the disease to buy time for research and development solutions. However, growers whose orchards are infected with Psa-V will be more severely impacted; many are likely facing vine removal and hence a significant loss of income. Some will be forced into a change of land use. The Psa disease has resulted in much uncertainty around orchard values, in particular in the parts of the Bay of Plenty region where Psa-V has been detected, with some being restricted to bare land values.

The kiwifruit model does not register an infection of Psa for the 2011/12 budget year. The model's profitability in 2011/12 is expected to reduce as a result of lower returns for both green and gold kiwifruit and additional orchard operating expenses for the Psa management programme.

### PIPFRUIT

A combination of lower export yields and below average returns for some varieties resulted in a small pre-tax loss in the Hawke's Bay pipfruit model in 2010. The Nelson model suffered its third year of pre-tax losses, due largely to poor market returns from varieties mainly sold in Europe.

Growers in the Nelson region are offsetting orchard losses through the sale of assets such as houses on orchards, land for sub-division or cash injections from other businesses and investments.

Several growers took up the 16 cents per kilogram price offers by juice processors as part of their business management strategy in 2011 to better manage orchard and post-harvest costs against anticipated reductions in export returns.

For 2011, growers in Hawke's Bay are budgeting for a small pre-tax profit. However, Nelson growers are looking at another loss-making year.

### VITICULTURE

Vineyard profitability lifted in Marlborough in 2010/11 as higher yields more than compensated for the drop in the average price paid for grapes. Contract grape growers in Hawke's Bay suffered the impact of low yields as well as low prices, resulting in a second consecutive year of losses for this model.

Growers believe they have cut their costs back as far as they can without impacting severely on vine health and fruit quality, and have deferred all non-essential repairs and maintenance. There is an increasing reliance on income sourced from off-vineyard wages, other businesses and investments. Many in the industry expect that it will take a further two to three years to achieve better alignment between grape supply and market demand, and potentially up to five years for the industry to return to more sustainable

profit levels. In the meantime, businesses with high debt levels may be forced into asset sales.

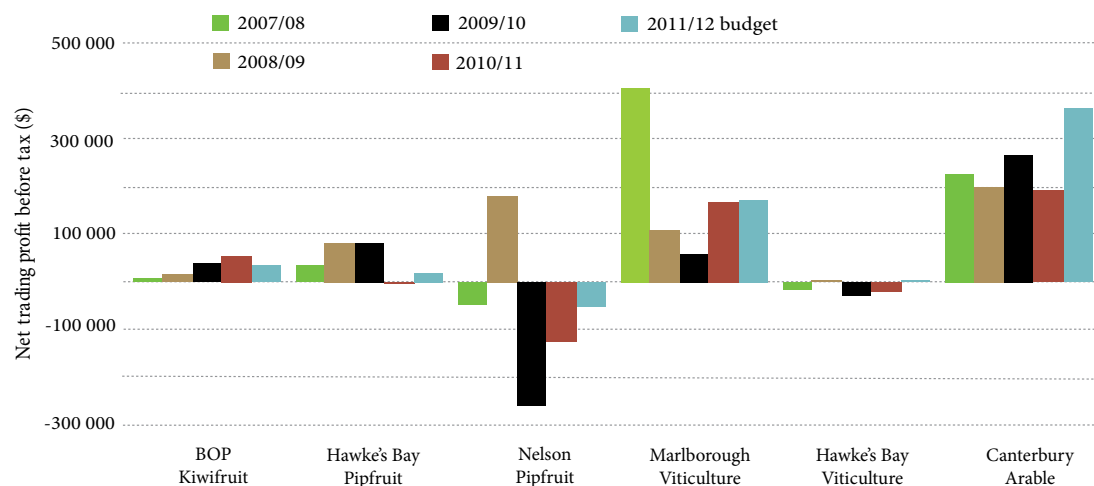
## ARABLE

The profitability of Canterbury cropping farms fell in 2010/11 as a result of lower yields and a reduction in cropping area. The outlook for 2011/12 is positive as farmers expect strong

market demand for a wide range of crops, giving them more options.

Canterbury arable farmers are moving away from livestock income, such as sheep breeding or lamb finishing, and moving towards contract grazing income linked to the dairy sector.

»» FIGURE 2: PROFIT BEFORE TAX PER BUSINESS UNIT, 2007/08<sup>1</sup> TO 2011/12<sup>1</sup> BUDGET



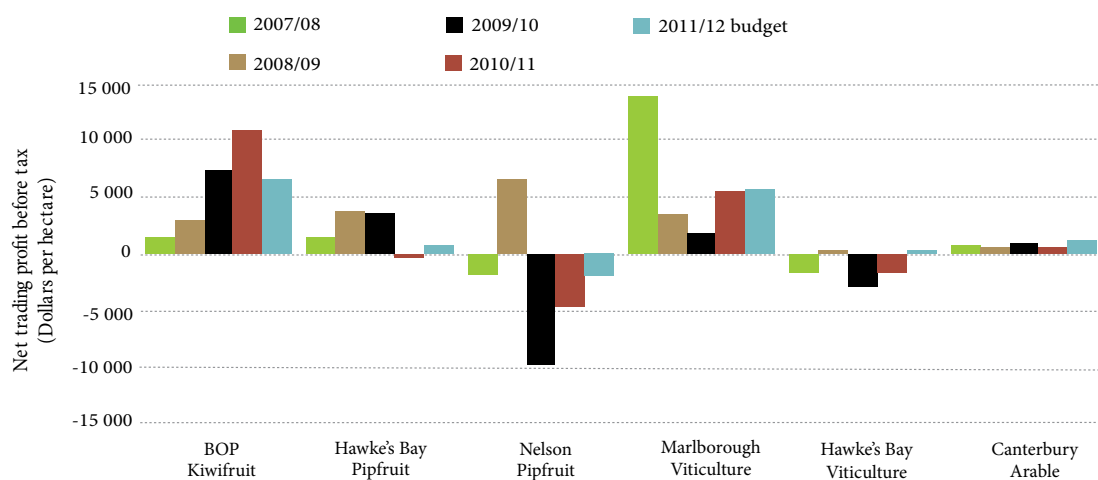
### Notes

1 The pipfruit models use a December year end. Hence data for 2007/08 to 2011/12 budget for the pipfruit models refer to the years ending December 2007 to 2011, respectively.

### Source

MAF Monitoring Reports; 2008 to 2011.

»» FIGURE 3: PROFIT BEFORE TAX PER PLANTED HECTARE, 2007/08<sup>1</sup> TO 2011/12<sup>1</sup> BUDGET



### Notes

1 The pipfruit models use a December year end. Hence data for 2007/08 to 2011/12 budget for the pipfruit models refer to the years ending December 2007 to 2011, respectively.

### Source

MAF Monitoring Reports; 2008 to 2011.



»» TABLE 1: KEY PARAMETERS AND FINANCIAL RESULTS FOR HORTICULTURE AND ARABLE MODELS, 2010/11<sup>1</sup> AND 2011/12<sup>1</sup> BUDGET

MODEL	BAY OF PLENTY KIWIFRUIT	HAWKE'S BAY PIPFRUIT <sup>2</sup>	NELSON PIPFRUIT <sup>2</sup>	MARLBOROUGH VITICULTURE	HAWKE'S BAY VITICULTURE	CANTERBURY ARABLE
YEAR END	MARCH	DECEMBER	DECEMBER	JUNE	JUNE	JUNE
Effective area (hectares)	5	22	27	30	12.5	300
Total production 2010/11	42 300 export trays <sup>3</sup>	38 200 export cartons <sup>4</sup>	54 730 export cartons <sup>4</sup>	363 tonnes	106 tonnes	...
Total production 2011/12 budget	45 700 export trays	44 680 export cartons	59 515 export cartons	349 tonnes	120 tonnes	...
Weighted average unit price 2010/11	\$4.24 per tray Green \$8.57 per tray Gold	\$22.00 per export TCE	\$21.10 per export TCE	\$1350 per tonne	\$1240 per tonne	...
Weighted average unit price 2011/12 budget	\$4.10 per tray Green \$7.50 per tray Gold	\$21.25 per export TCE	\$20.65 per export TCE	\$1415 per tonne	\$1320 per tonne	...
<b>NET CASH INCOME (\$)</b>						
2010/11	228 770	941 300	1 201 900	489 700	131 700	1 005 400
2011/12 budget	226 540	1 011 700	1 274 300	494 300	158 650	1 212 500
<b>ORCHARD/FARM WORKING EXPENSES (\$)</b>						
2010/11	148 050	848 000	1 143 100	230 200	99 450	567 000
2011/12 budget	168 300	892 500	1 193 400	235 400	104 500	612 700
<b>CASH OPERATING SURPLUS<sup>5</sup></b>						
2010/11	80 720	93 300	58 800	259 500	32 250	438 400
2011/12 budget	58 240	119 200	80 900	258 900	54 150	599 800
<b>CASH OPERATING SURPLUS/HECTARE</b>						
2010/11	16 144	4 241	2 178	8 650	2 580	1 461
2011/12 budget	11 648	5 418	2 996	8 630	4 332	1 999
<b>ORCHARD/FARM PROFIT BEFORE TAX (\$)</b>						
2010/11	54 840	-5 000	-126 200	167 300	-20 100	190 400
2011/12 budget	33 010	15 700	-54 100	171 700	3 900	362 700
<b>ORCHARD/FARM SURPLUS FOR REINVESTMENT (\$)<sup>6</sup></b>						
2010/11	-1 760	-25 000	-101 200	117 800	-48 600	208 900
2011/12 budget	-17 350	-4 900	-59 100	115 400	-25 600	213 300
<b>RATIOS 2010/11 (%)</b>						
Working expenses/net cash income	65	90	95	47	76	56
Equity ratio <sup>7</sup>	85	64	54	86	73	78
Return on equity <sup>8</sup>	2.6	-5.0	-12.9	2.3	-5.9	1.6
Return on assets <sup>9</sup>	3.2	0.8	-2.0	3.1	-2.4	3.2

#### Notes

Budgeted results for 2011/12 are based on grower views collected in May 2011, combined with input in June 2011 from those servicing the sectors.

1 The pipfruit models use a December year end. Hence data for 2010/11 and 2011/12 budget for the pipfruit models refer to the years ending December 2010 and 2011, respectively.

2 Prices (and hence net cash income) and orchard working expenses for the pipfruit models are at free alongside ship (FAS). Other models report prices and expenses at the orchard/vineyard/farm gate.

3 A tray contains approximately 3.6 kilograms of kiwifruit.

4 Carton refers to a tray carton equivalent (TCE) which is a measure of apple and pear weight. A TCE is defined as 18.6 kg packed weight which equates to 18.0 kg sale weight.

5 Net cash income less orchard/vineyard/farm working expenses.

6 Orchard/vineyard/farm surplus for reinvestment is the cash available from the business, after meeting living costs, which is available for investment on the orchard/vineyard/farm or for principal repayments. It is calculated as profit after tax plus depreciation, plus stock value adjustments if any, less drawings/living expenses.

7 Ratio of orchard/vineyard/farm assets less debt (equity) to total assets.

8 Economic orchard/vineyard/farm surplus less interest and lease as a percentage of equity.

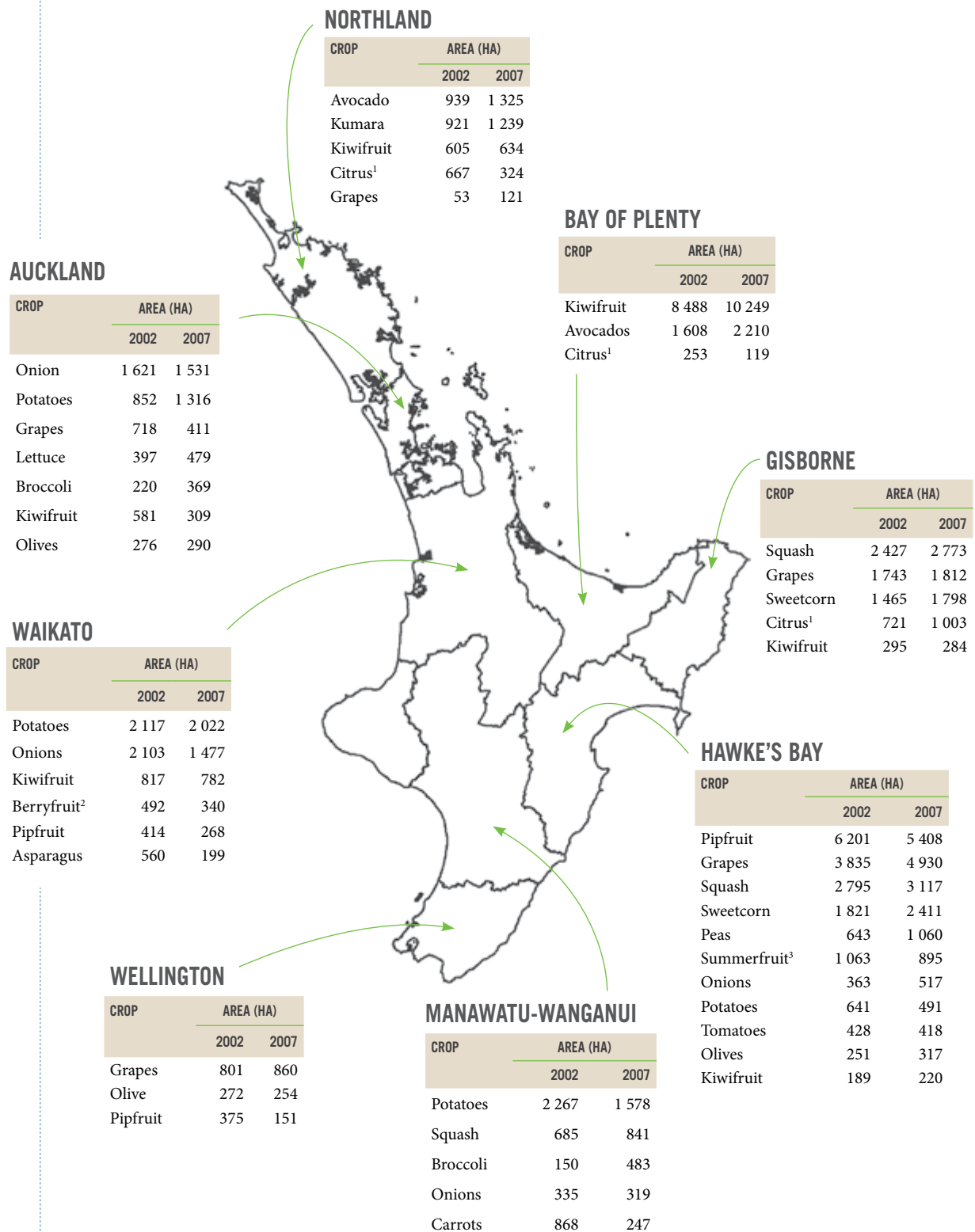
9 Economic orchard/vineyard/farm surplus divided by total assets.

#### Symbol

... Not applicable.



»» FIGURE 4: NORTH ISLAND HORTICULTURE STATISTICS, 2002 AND 2007



#### Notes

1 Citrus includes: oranges, grapefruit/goldfruit, lemons, mandarins and tangelos.

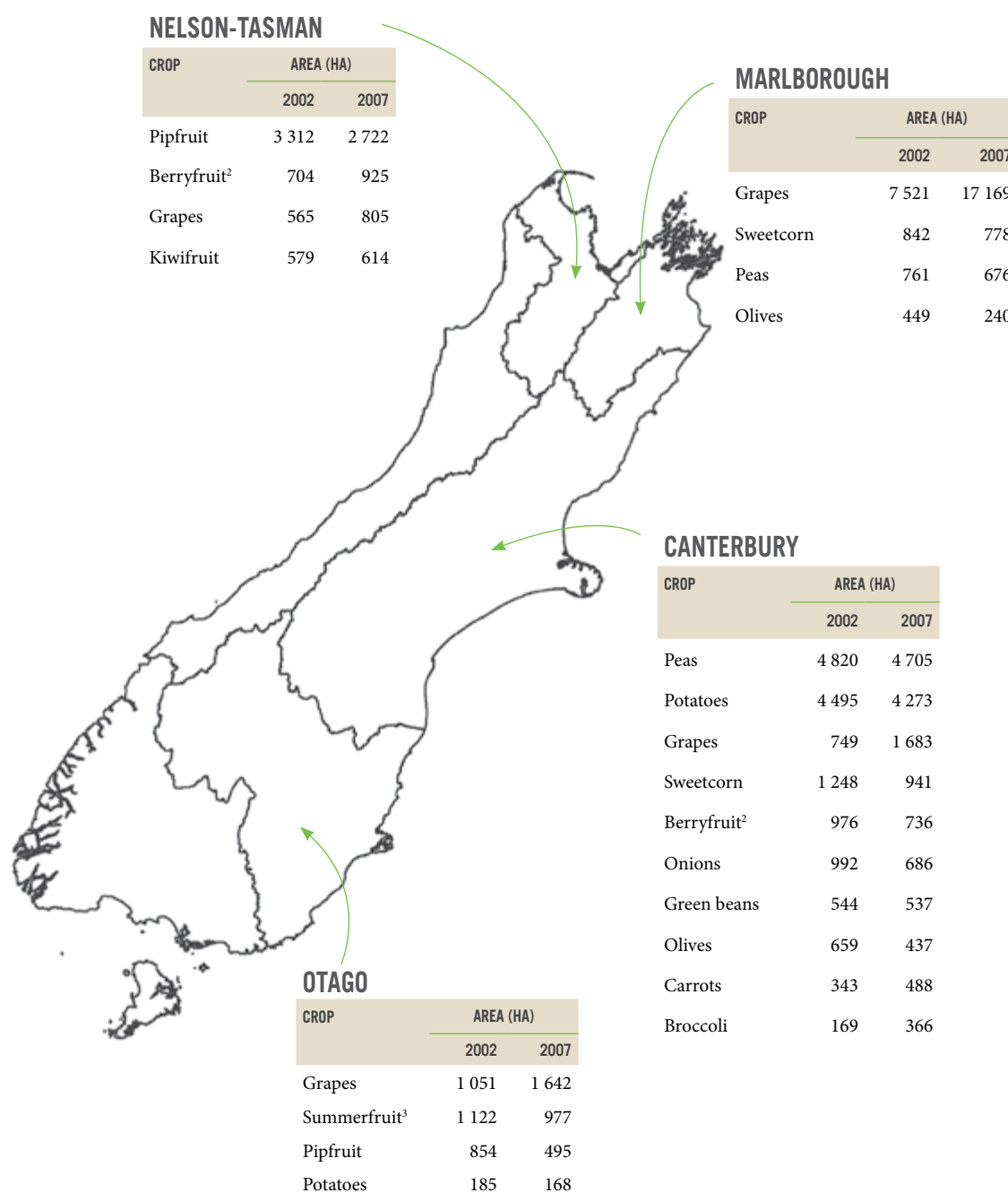
2 Berryfruit includes: blackcurrants, blueberries, boysenberries, raspberries and strawberries.

3 Summerfruit includes: peaches, apricots, nectarines, cherries and plums.

#### Source

Agricultural Production Statistics (census), Statistics New Zealand.

»» FIGURE 5: SOUTH ISLAND HORTICULTURE STATISTICS, 2002 AND 2007



**Notes**

1 Citrus includes: oranges, grapefruit/goldfruit, lemons, mandarins and tangelos.

2 Berryfruit includes: blackcurrants, blueberries, boysenberries, raspberries and strawberries.

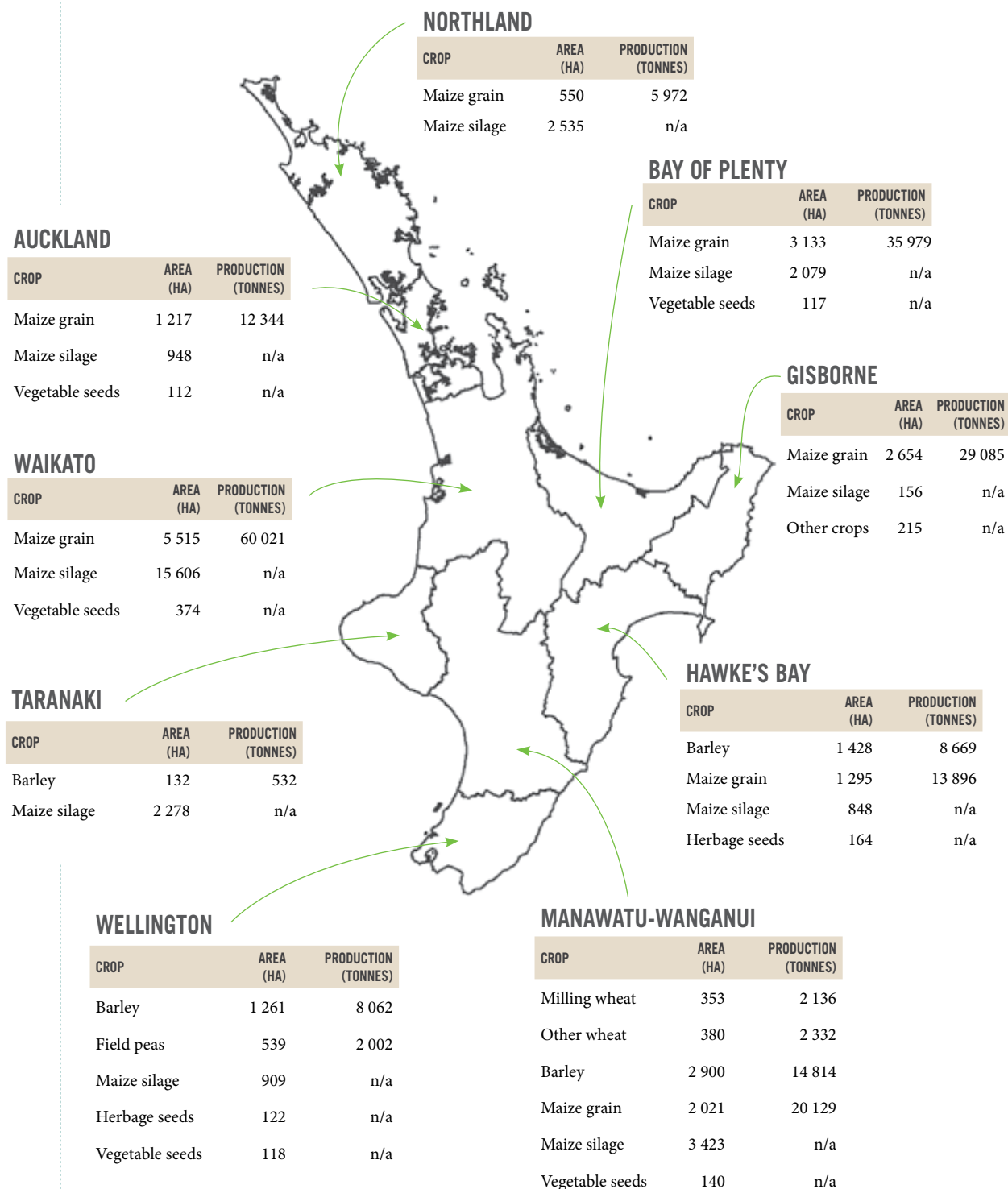
3 Summerfruit includes: peaches, apricots, nectarines, cherries and plums.

**Source**

Agricultural Production Statistics (census), Statistics New Zealand.



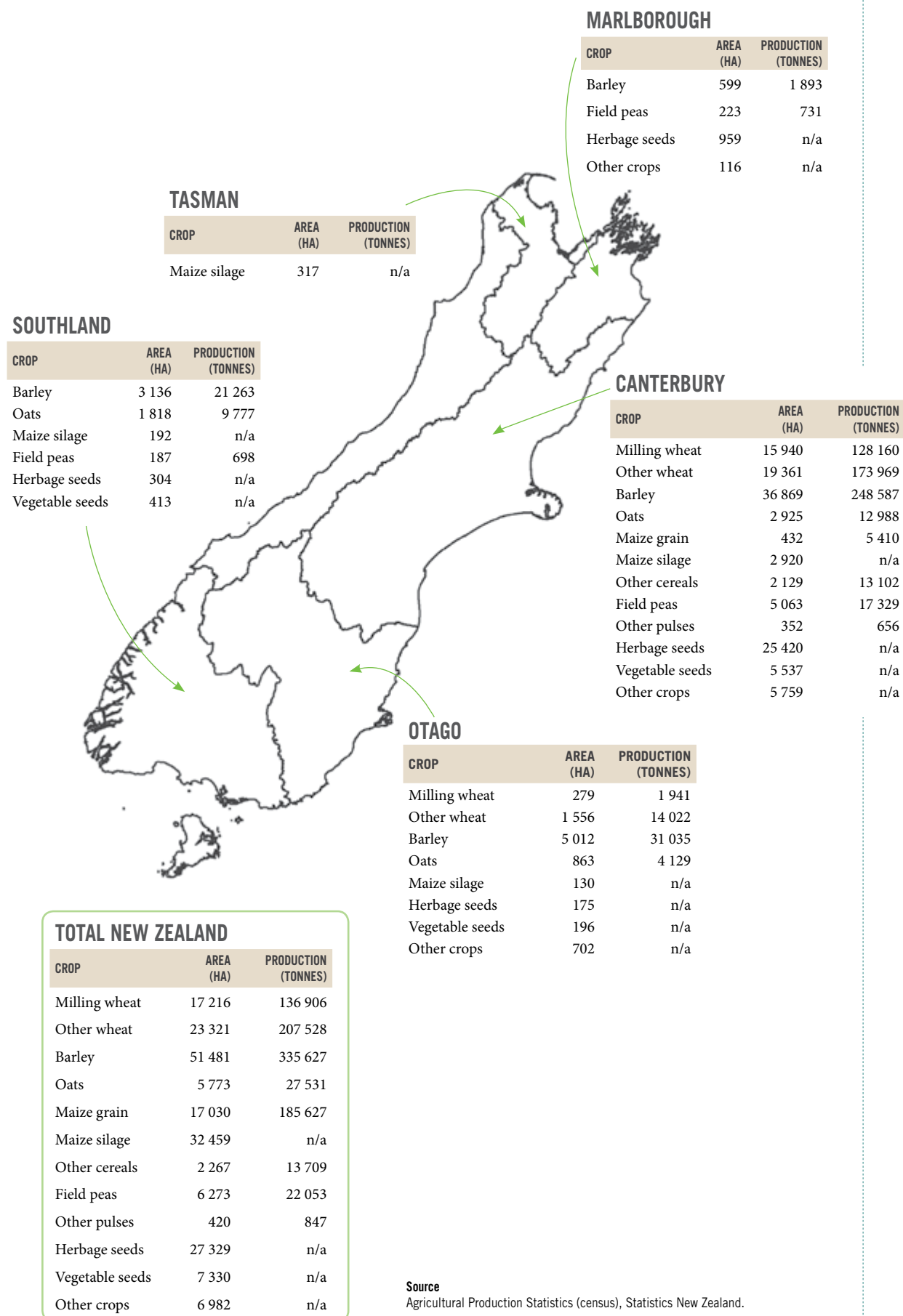
»» FIGURE 6: NORTH ISLAND ARABLE STATISTICS, JUNE 2007



**Source**

Agricultural Production Statistics (census), Statistics New Zealand.

»» FIGURE 7: SOUTH ISLAND ARABLE STATISTICS, JUNE 2007





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Thanks to South Pacific Seeds for the arable image on the front cover (flowering radish).

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