

# Farming Financials

Indicative farm financial information for assessing returns in Hawke's Bay from conversion of dryland finishing farms to irrigated arable and process vegetable farm system

## Dryland Finishing Conversion to Irrigated Arable and Process Vegetables

Indicative annual farm budget for dryland finishing and irrigated arable and process vegetable farms

	Dryland finishing (\$/ha/year)	Irrigated arable & process vegetables (\$/ha/year)
<b>Income - stock</b>		
Sheep sales	743	2,364
Cattle sales	2,435	-
Wool sales	13	61
<b>Income - produce</b>		
Barley	107	-
Feed wheat	-	720
Squash	-	1,013
Potatoes	-	1,287
Peas	-	589
Beans	-	1,238
Maize grain	-	844
Italian ryegrass	-	612
Miscellaneous	-	530
<b>Total income</b>	<b>3,299</b>	<b>9,258</b>
<b>Less stock purchases:</b>		
Sheep	539	1,820
Cattle	1,400	-
<b>Total stock purchases</b>	<b>1,939</b>	<b>1,820</b>
<b>Gross farm income</b>	<b>1,360</b>	<b>7,438</b>
<b>Less farm expenses:</b>		
Wages (incl. management)	213	506
Fertiliser and lime	107	707
Animal health	23	43
Seeds and treatment	-	596
Weed and pest control	-	682
Other expenses	397	1,726
<b>Total farm expenses</b>	<b>740</b>	<b>4,260</b>
Water charge (@ 27.5c/m <sup>3</sup> )	-	842
Depreciation	83	407
<b>Annual farm surplus</b>	<b>537</b>	<b>1,929</b>

### Indicative financing costs assuming investment 100% funded through bank loan

Finance costs represent interest payments if the conversion was funded entirely through a bank loan. However, taking out a loan for conversions will depend on individual farmer circumstances and farmers are advised to seek advice from their bank.

	(\$/ha/year)	(\$/ha/year)
<b>Less conversion financing costs</b> (Interest @ 7%)	-	844
<b>Annual farm surplus</b> (post finance)	<b>537</b>	<b>1,085</b>

### Farm model assumptions

Dryland finishing farming systems are based on a 300 ha farm, modelled using FARMAX. The farming system is an unirrigated system comprising of lamb and beef finishing, rape-fed summer and winter. The farms are estimated to have 12 stock units/ha and 8.2 tonne/ha gross pasture production. The system also includes production of 25ha of feed barley (5 tonne/ha yield, \$380/tonne sale price).

Irrigated arable and process vegetables farming systems are based on a 300 ha farm, also modelled using FARMAX. The intensive farming system is 90% irrigated, and comprised of 270 ha of crop and process vegetable produce production on a five year rotation cycle, and 30 ha of dry lucerne. Produce grown includes wheat (10 tonne/ha, \$400/tonne), squash (15 tonne/ha, \$750/tonne), potatoes (65 tonne/ha, \$220/tonne), peas (8.5 tonne/ha, \$385/tonne), beans (16 tonne/ha, \$430/tonne), maize grain (12.5 tonne/ha, \$375/tonne), and ryegrass seed (2 tonne/ha, \$1,700 tonne). Ryegrass straw and lucerne balage is sold. The system also includes intensive lamb finishing, with irrigated pasture production of 13 tonne/ha gross.

#### Other assumptions include:

- Store lamb - \$2.70/kg • Lamb - \$6.00/kg • Wool - \$4.00/kg
- Water price of 27.5c per m<sup>3</sup>
- Annual irrigation requirement of 3,400 m<sup>3</sup> per ha

### Indicative irrigation conversion costs for farm intensification

	(\$/ha)
<b>Conversion investment</b>	
On farm irrigation	4,564
Dairy-specific costs	360
Associated costs	495
Plant and equipment	1,834
Working capital	2,112
Other costs (savings)	2,694
<b>Total conversion investment</b>	<b>12,059</b>

### Financial summary for investment in farm conversion

The financial summary details annual return on conversion investment, which will be equal to return on equity if the conversion investment is 100% equity funded.

	(\$/ha)
Conversion investment required	*12,059
Annual increase in farm surplus	1,393
<b>Annual return on conversion investment</b>	<b>12%</b>

\*Equivalent cost per ha for 300 ha farm with 270 ha of irrigation

Farm budgets based on information from Macfarlane Rural Business Limited (budget reference 3a and 5b)

Detailed budgets can found in appendices to 16-01-27 RWSS Farm Profitability Report FINAL v2, 27 January 2016, Macfarlane Rural Business. Available at [www.hbrc.govt.nz](http://www.hbrc.govt.nz)



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