

Farming Financials

Indicative farm financial information for assessing returns in Hawke's Bay from conversion of part-irrigated mixed livestock and arable farms to an orchard

Livestock and Arable Conversion to Orchard

Indicative annual farm budget for mixed livestock and arable farms and orchards

	Part-irrigated livestock & arable (\$/ha/year)	Irrigated orchard (\$/ha/year)
Income - stock		
Sheep sales	1,999	-
Cattle sales	911	-
Wool sales	107	-
Income - produce		
Pacific Rose / Fuji apples	-	90,000
Barley	222	-
Peas	225	-
Miscellaneous	324	-
Total income	3,787	90,000
Less stock purchases:		
Sheep	1,205	-
Cattle	545	-
Total stock purchases	1,750	-
Gross farm income	2,037	90,000
Less farm expenses:		
Wages (incl. management)	425	4,050
Fertiliser and lime	250	400
Cartage	-	33,060
Weed and pest control	-	2,900
Contracting	-	14,428
Other expenses	784	5,210
Total farm expenses	1,459	60,048
Water charge (@ 27.5c/m ³)	-	1,129
Depreciation	165	1,600
Annual farm surplus	413	27,223

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)
Less conversion financing costs (Interest @ 7%)	-	10,136
Annual farm surplus (post finance)	413	17,087

Farm model assumptions

Mixed livestock & arable farming systems are based on a 300 ha farm, modelled using FARMAX. The farming system is comprised of dryland lamb breeding, lamb and bull finishing, dairy cow wintering, and 50 ha of irrigated crops and pasture. Crops grown include spring barley (7 tonne/ha yield, \$380/tonne sale price) and peas (7 tonne/ha, \$385/tonne), and rape winter feed, on a 12 year rotation. Dryland pasture production is 8 tonne/ha gross, while irrigated pasture is 12.9 tonne/ha gross.

Orchards are based on a fully irrigated 50 ha apple orchard. Apple varieties grown include Fuji, Pacific Rose, and Pacific Queen, yielding 2,200 packed tce/ha rising to 3,000 tce/ha.

Other assumptions include:

- Apples - \$30/tce • Weaner bull - \$4.20/kg
- Manufacturing beef - \$4.50/kg • Store bull beef - \$2.00/kg
- Store lamb - \$2.70/kg • Lamb - \$6.00/kg • Wool - \$4.00/kg
- Water price of 27.5c per m³
- Annual irrigation requirement of 4,106 m³ per ha

Indicative irrigation conversion costs for farm intensification

	(\$/ha)
Conversion investment	
On farm irrigation	13,593
Orchard specific (e.g. trees)	60,667
Working capital	44,160
Frost protection	12,500
Plant and equipment	7,667
Buildings	5,000
Other costs (savings)	1,216
Total conversion investment	144,803

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	144,803
Annual increase in farm surplus	26,810
Annual return on conversion investment	19%

Farm budgets based on information from Macfarlane Rural Business Limited (budget reference 5a and 8b)

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



HAWKE'S BAY REGIONAL INVESTMENT COMPANY LTD



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