

Farming Financials

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

Livestock and Arable Conversion to Irrigated Dairy (light soils)

Indicative annual farm budget for mixed livestock and arable and irrigated dairy (light soils) farms

	Part-irrigated livestock & arable (\$/ha/year)	Irrigated dairy (light soils) (\$/ha/year)
Income - stock		
Sheep sales	1,999	-
Cattle sales	911	457
Wool sales	107	-
Milk	-	9,954
Income - produce		
Barley	222	-
Peas	225	-
Miscellaneous	324	-
Total income	3,787	10,411
Less stock purchases:		
Sheep	1,205	-
Cattle	545	84
Total stock purchases	1,750	84
Gross farm income	2,037	10,327
Less farm expenses:		
Wages (incl. management)	425	1,317
Fertiliser and lime	250	502
Stockfeed purchased	-	2,507
Other expenses	784	1,847
Total farm expenses	1,459	6,173
Water charge (@ 27.5c/m ³)	-	1,196
Depreciation	165	287
Annual farm surplus	413	2,670

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%)	-	1,763
Annual farm surplus (post finance)	413	908

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.

Irrigated dairy (on light soil) farming systems are based on a fully irrigated 300 ha farm modelled using Udder. The farming system comprises of dairy milking (including winter milking) and cattle breeding. The farms are estimated to have 3.7 cows/ha and produce 17.5 tonne/ha of gross pasture (14 tonne/ha consumed), resulting in annual milk production of 1627 kg milk solids/ha.

Other assumptions include:

- Milk price - \$6.00/kg milk solids
- 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 4,350 m³ per ha

Indicative irrigation conversion costs for farm intensification

	(\$/ha)
Conversion investment	
On farm irrigation	3,407
Dairy specific costs	7,817
Associated costs	367
Livestock	5,479
Fonterra shares	7,354
Plant and equipment	(166)
Other costs (savings)	921
Total conversion investment	25,179

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	25,179
Annual increase in farm surplus	2,257
Annual return on conversion investment	9%

Farm budgets based on information from Macfarlane Rural Business Limited (budget reference 5a and 7b)

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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