Photo: Bob Zuur.

2009 PASTORAL MONITORING

TARANAKI DAIRY

THIS REPORT CONTAINS THE KEY RESULTS FROM THE MINISTRY OF AGRICULTURE AND FORESTRY'S 2009 PASTORAL MONITORING PROGRAMME.

This model represents approximately 1800 dairy farms in the Taranaki region. The model is based on an owner-operated business with a predominantly cross-bred herd. It does not own a run-off but grazes replacement stock off-farm and buys in 8 to 12 percent of feed used.

KEY POINTS

- Production increased 10 percent in 2008/09 to 90 000 kilograms of milksolids following the previous year's drought, and is expected to remain at a similar level in 2009/10.
- Income plummeted in 2008/09 to $493 000 as a result of a substantial fall in the milk payout; a further reduction in income is expected in 2009/10.
- Farmers tried to rein in expenditure as the magnitude of the income decrease became apparent, but much expenditure had already been committed. For 2009/10, farmers are budgeting on substantial decreases in interest, tax, capital purchases and development.
- There was little cash available for reinvesting on farm, with a $188 300 decrease in farm surplus for reinvestment to $10 800 in 2008/09. It is expected to improve to $36 000 in 2009/10.
- Taranaki dairy farmers are generally still confident about long-term prospects for the industry and see the current downturn as temporary, although an estimated 10 to 20 percent will find the next few seasons difficult to survive.

TABLE1: KEY PARAMETERS, FINANCIAL RESULTS AND BUDGET FOR THE TARANAKI DAIRY MODEL[1]

YEAR ENDED 30 JUNE	2006/07	2007/08	2008/09	2009/10 BUDGET
Effective area (ha)	96	96	96	96
Cows wintered (head)	280	284	284	284
Replacement heifers (head)	69	69	69	69
Cows milked 15th December (head)	265	267	267	267
Stocking rate (cows/ha)	2.8	2.8	2.8	2.8
Total milksolids (kg)	87 900	81 900	90 000	90 000
Milksolids per ha (kg/ha)	916	853	938	938
Milksolids per cow milked (kg/cow)	332	307	337	337
MS advance to end June ($/kg)	3.65	6.62	4.15	3.77
MS deferred payment ($)	0.50	0.81	1.04	1.05
Net cash income ($)	395 700	651 400	493 000	468 200
Farm working expenses ($)	234 500	292 400	300 000	290 200
Farm profit before tax ($)	78 700	271 000	71 400	72 000
Farm surplus for reinvestment[2] ($)	27 500	199 000	10 800	36 000

Notes
1 Figures may not add to totals due to rounding.
2 Farm surplus for reinvestment is the cash available from the farm business, after meeting living costs, which is available for investment on the farm or for principal repayments. It is calculated as discretionary cash less off-farm income and drawings.

Ministry of Agriculture and Forestry
Te Manatū Ahuwhenua, Ngāherehere

TABLE 2: TARANAKI DAIRY MODEL BUDGET[1]

	2008/09			2009/10 BUDGET			CHANGE
	WHOLE FARM ($)	PER COW ($)	PER KG MILSOLIDS ($)	WHOLE FARM ($)	PER COW ($)	PER KG MILSOLIDS ($)	BETWEEN 2008/09 AND 2009/10 (%)
REVENUE							
Milksolids	458 700	1 718	5.10	433 800	1 625	4.82	–5
Cattle	38 400	144	0.43	38 400	144	0.43	0
Other farm income	1 200	4	0.01	1 200	4	0.01	0
LESS:							
Cattle purchases	5 200	19	0.06	5 200	19	0.06	0
Net cash income	**493 000**	**1 847**	**5.48**	**468 200**	**1 753**	**5.20**	**–5**
Farm working expenses	**300 000**	**1 124**	**3.33**	**290 200**	**1 087**	**3.22**	**–3**
Cash operating surplus	**193 000**	**723**	**2.14**	**177 900**	**666**	**1.98**	**–8**
Interest	88 700	332	0.99	70 200	263	0.78	–21
Rent and/or leases	0	0	0.00	0	0	0.00	..
Stock value adjustment	0	0	0.00	0	0	0.00	..
Minus depreciation	32 900	123	0.37	35 700	134	0.40	8
Farm profit before tax	**71 400**	**267**	**0.79**	**72 000**	**270**	**0.80**	**1**
Taxation	29 500	111	0.33	7 700	29	0.09	–74
Farm profit after tax	**41 900**	**157**	**0.47**	**64 400**	**241**	**0.72**	**54**
Add back depreciation	32 900	123	0.37	35 700	134	0.40	8
Reverse stock value adjustment	0	0	0.00	0	0	0.00	..
Off-farm income	17 000	64	0.19	17 000	64	0.19	0
Discretionary cash	**91 800**	**344**	**1.02**	**117 000**	**438**	**1.30**	**28**
APPLIED TO:							
Net capital purchases	41 000	154	0.46	15 000	56	0.17	–63
Development	5 000	19	0.06	0	0	0.00	..
Principal repayments	17 700	66	0.20	17 900	67	0.20	1
Drawings	64 000	240	0.71	64 000	240	0.71	0
New borrowings	0	0	0.00	0	0	0.00	..
Introduced funds	16 000	60	0.18	0	0	0.00	..
Cash surplus/deficit	**–19 900**	**–75**	**–0.22**	**20 100**	**75**	**0.22**	**–201**
Farm surplus for reinvestment[2]	**10 800**	**40**	**0.12**	**36 000**	**135**	**0.40**	**234**
ASSETS AND LIABILITIES							
Farm, forest and building (opening)	4 500 000	16 854	50.00	4 050 000	15 169	45.00	–10
Plant and machinery (opening)	136 000	509	1.51	156 600	587	1.74	15
Stock valuation (opening)	397 400	1 488	4.42	397 400	1 488	4.42	0
Dairy company shares	506 300	1 896	5.63	406 800	1 524	4.52	–20
Other farm related investments (opening)	50 000	187	0.56	0	0	0.00	..
Total farm assets	**5 589 700**	**20 935**	**62.11**	**5 010 800**	**18 767**	**55.68**	**–10**
Total liabilities (opening)	**970 000**	**3 633**	**10.78**	**990 000**	**3 708**	**11.00**	**2**
Total equity (assets-liabilities)	**4 619 700**	**17 302**	**51.33**	**4 020 800**	**15 059**	**44.68**	**–13**

Notes
1 Figures may not add to totals due to rounding.
2 Farm surplus for reinvestment is the cash available from the farm business, after meeting living costs, which is available for investment on the farm or for principal repayments. It is calculated as discretionary cash less off-farm income and drawings.

Symbol
.. Not applicable.

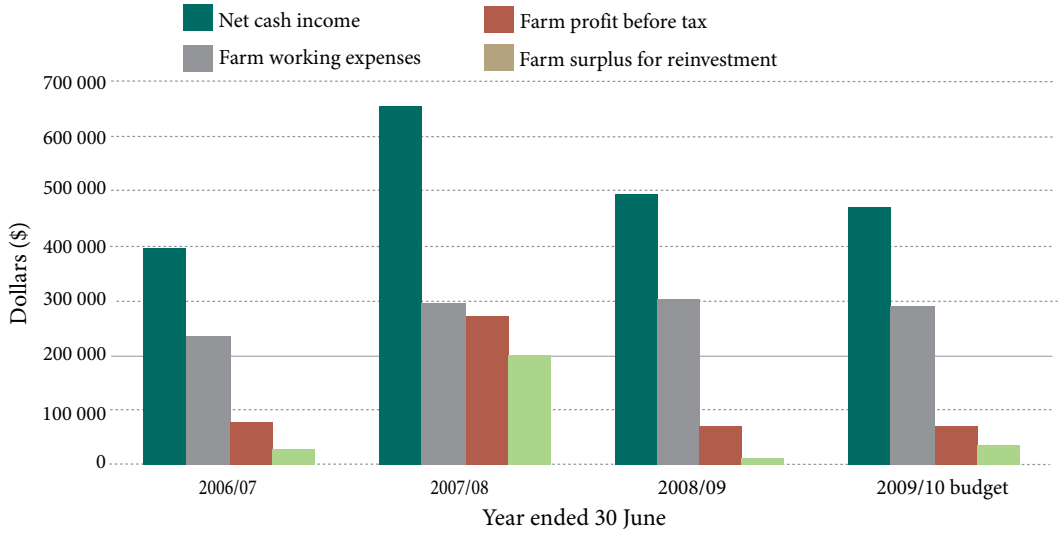
TABLE 3: TARANAKI DAIRY MODEL EXPENDITURE[1]

	2008/09			2009/10 BUDGET			CHANGE
	WHOLE FARM ($)	PER COW ($)	PER KG MILSOLIDS ($)	WHOLE FARM ($)	PER COW ($)	PER KG MILSOLIDS ($)	BETWEEN 2008/09 AND 2009/10 (%)
FARM WORKING EXPENSES							
Permanent wages	35 000	131	0.39	35 000	131	0.39	0
Casual wages	3 000	11	0.03	3 000	11	0.03	0
ACC	900	3	0.01	1 000	4	0.01	15
Total labour expenses	**38 900**	**146**	**0.43**	**39 000**	**146**	**0.43**	**0**
Animal health	18 900	71	0.21	19 000	71	0.21	0
Breeding	10 000	37	0.11	9 900	37	0.11	0
Dairy shed expenses	6 300	24	0.07	6 300	24	0.07	0
Electricity	10 600	40	0.12	10 800	40	0.12	2
Feed (hay and silage)	30 700	115	0.34	28 200	106	0.31	–8
Feed (feed crops)	2 700	10	0.03	2 700	10	0.03	0
Feed (grazing)	30 000	112	0.33	30 000	112	0.33	0
Feed (other)	25 100	94	0.28	23 700	89	0.26	–6
Fertiliser	48 700	183	0.54	43 200	162	0.48	–11
Lime	3 000	11	0.03	3 000	11	0.03	0
Freight (not elsewhere deducted)	2 400	9	0.03	2 400	9	0.03	0
Regrassing costs	2 800	10	0.03	2 800	10	0.03	0
Weed and pest control	2 500	9	0.03	2 500	9	0.03	0
Fuel	6 200	23	0.07	6 200	23	0.07	0
Vehicle costs (excluding fuel)	10 000	37	0.11	10 000	37	0.11	0
Repairs and maintenance	20 000	75	0.22	19 000	71	0.21	–5
Total other working expenses	**229 800**	**861**	**2.55**	**219 600**	**823**	**2.44**	**–4**
Communication costs (phone and mail)	3 000	11	0.03	3 000	11	0.03	0
Accountancy	3 900	15	0.04	4 400	16	0.05	13
Legal and consultancy	2 000	7	0.02	2 000	7	0.02	0
Other administration	1 100	4	0.01	1 100	4	0.01	0
Water charges (irrigation)	0	0	0.00	0	0	0.00	..
Rates	7 800	29	0.09	8 400	31	0.09	8
Insurance	5 500	21	0.06	5 500	21	0.06	0
Other expenditure[2]	8 000	30	0.09	7 000	27	0.08	–11
Total overhead expenses	**31 300**	**117**	**0.35**	**31 500**	**118**	**0.35**	**1**
Total farm working expenses	**300 000**	**1 124**	**3.33**	**290 202**	**1 087**	**3.22**	**–3**
Wages of management	85 000	318	0.94	85 000	318	0.94	0
Depreciation	32 900	123	0.37	35 700	134	0.40	8
Total farm operating expenses	**417 900**	**1 565**	**4.64**	**410 900**	**1 539**	**4.57**	**–2**
CALCULATED RATIOS							
Economic farm surplus (EFS[3])	75 100	281	0.83	57 300	215	0.64	
Farm working expenses/NCI[4]	61%			62%			
EFS/total farm assets	1.3%			1.1%			
EFS less interest and lease/equity	–0.3%			–0.3%			
Interest+rent+lease/NCI	18.0%			15.0%			
EFS/NCI	15.2%			12.2%			

Notes
1 Figures may not add to totals due to rounding.
2 Includes Dairy NZ levy and Accident Compensation Corporation (ACC) employer levy.
3 EFS (or earnings before interest and tax) is calculated as follows: net cash income plus change in livestock values less farm working expenses less depreciation less wages of management (WOM). WOM is calculated as follows: $38 000 allowance for labour input plus 1 percent of opening total farm assets to a maximum of $85 000.
4 Net cash income.

Symbol
.. Not applicable.

FIGURE 1: TARANAKI DAIRY MODEL PROFITABILITY TRENDS



FINANCIAL PERFORMANCE OF THE TARANAKI DAIRY MODEL FARM IN 2008/09

Cash operating surpluses reduced substantially over 2008/09 for dairy farmers in the region due to the reduced milk payout, even though milk production levels were much improved. Expenditure levels increased despite reductions in levels of purchased feed and fertiliser. The Taranaki dairy model's cash operating surplus fell 46 percent ($166 000) to $193 000 compared with 2007/08.

MASSIVE DROP IN REVENUE

Net cash income decreased significantly on all monitored farms in 2008/09 compared with 2007/08 driven by a large drop in the milk payout. Net cash income for the Taranaki dairy model fell 24 percent ($158 400) on the previous year.

The advance milk payout to June for 2008/09 was $4.15 per kilogram of milksolids compared with $6.62 in 2007/08. As a result of this drop ($2.47), milksolids revenue fell by $154 700. The deferred payout for milk supplied in 2007/08 was $1.04 per kilogram of milksolids, up from 81 cents on the previous year.

PRODUCTION BACK TO NORMAL LEVELS FOLLOWING DROUGHT YEAR

Milk production for the Taranaki region for 2008/09 is estimated to be up 10 percent on 2007/08, returning to pre-drought levels. Good conditions in late autumn and early winter in 2008 led to a good recovery from the drought, with reasonable cow condition and feed levels at the start of calving. The spring to early summer period in 2008 was moderate to good, and while January was hot and dry, a wet mid-February prevented any summer drought problems and resulted in good milk production levels. However, a dry March and April resulted in low autumn pasture growth and herds being dried off 10 to 15 days earlier than expected. Farmers reluctance to buy extra dairy company shares and their reluctance to spend money on extra feed also influenced late autumn milk production.

DROP IN STOCK INCOME

Cattle revenue (sales less purchases) fell 12 percent compared with 2007/08, to $33 200. The decline was a result of more cows sold as lower-priced "works cull cows" rather than as surplus "budget cows" compared

with 2007/08. Prices for most stock classes were higher than in 2007/08 except for budget cows which fell about $300, to $500. Works cull cow prices increased an average of $30 to $410, bobby calf prices increased from $13 to $24, non-bobby calf prices rose $10 to $110, and breeding bull purchase and sale prices both increased about $200.

EXPENDITURE UP 3 PERCENT

Farm working expenses increased by 3 percent on the previous year to $300 000. However, per kilogram of milksolids, expenditure was down from $3.57 in 2007/08 to $3.33 in 2008/09, due to the cost being spread over more milk production. This level of expenditure is 66 cents above the $2.67 per kilogram of milksolids level of 2006/07, for similar production levels, which is an increase of 25 percent over the two years.

Farmers spent more freely in the first half of the season before the extent of the fall in the milk payout was known; once aware that income was going to fall significantly, they sought to rein in expenditure. Increased expenditure on feed harvesting and increased fertiliser prices were the main contributors to the 3 percent increase.

FEED EXPENDITURE REMAINS HIGH

Expenditure on feed increased 4 percent compared with 2007/08 to $88 500. This was driven by increased expenditure on feed harvesting and grazing, while purchased feed expenditure decreased.

The amount of supplementary feed made on farm was well up on the previous season and generally above usual levels. Some harvesting costs per unit increased, and overall there was a large increase in harvesting expenditure.

Grazing costs for replacement stock were up by about $1.00 per head per week and, although not included in the Taranaki dairy model, winter cow grazing costs were also higher on some farms over the 2008 winter.

Levels of purchased feed were lower than in 2007/08 when drought and a high milk payout prevailed. However, overall, purchased feed levels were higher than average for past years, reflecting the trend for greater reliance on bought-in feed over the past decade. Palm kernel prices were lower than expected although many farmers were locked into contracts for higher priced palm kernel.

As expected, purchased hay and pasture silage prices were generally up on recent years while maize silage prices were much higher than 2007/08. Farmers were keen to purchase extra feed as needed during the first half of the season when predicted milk payouts were good. Later in the season farmers were reluctant to buy feed. However, the dry autumn forced some to buy in extra at the start of the 2009 winter.

REDUCED FERTILISER USE

Fertiliser expenditure (including lime) was up 18 percent ($7800) in 2008/09, despite applied nutrient levels being down on previous years. Regional fertiliser sale volumes were down around 30 percent on usual levels. This was partly in response to the high fertiliser prices and partly in response to the reduced milk payouts. Fertiliser prices increased to very high levels during spring 2008 and then eased back again over the summer and autumn, but are still near double the level of two years ago. Farmers generally reduced fertiliser use in the spring, initially as a consumer response to the high prices, and then because they knew prices would be coming down later in the season and intended to purchase then. In the summer and autumn, planned fertiliser use was reduced again as the predicted milk payout for the season fell.

Taranaki farmers are confident of maintaining pasture production with decreased fertiliser inputs because soil testing and nutrient budgeting shows that soil fertility levels are high and traditionally, excess fertiliser has

been applied. Also many farmers reduced fertiliser use on areas receiving dairy shed effluent and some farmers applied extra fertiliser in autumn 2008 knowing prices were going to increase. Some farmers reduced nitrogen use due to high prices and some used giberellic acid sprays as a replacement for a short-term feed boost. In some cases standard fertiliser use was reduced and the money put into lime applications, which is reflected in an estimated 25 percent increase in lime use in the region.

In the Taranaki dairy model, fertiliser application was reduced to 66 tonnes from 90 tonnes in 2007/08, and lime application increased from 10 tonnes to 40 tonnes. The price changes over the year averaged out at: an increase of $220 to $550 per tonne for 20 percent potassic super; an increase of $200 to $850 per tonne for urea; and an increase of $10 to $40 per tonne for lime.

ANIMAL HEALTH EXPENDITURE SIMILAR TO THE PREVIOUS YEAR

Expenditure on animal health was similar to the previous year. Cow condition was reasonable for most of the season and animal health problems were generally at usual levels except for some facial eczema problems in late February. Mating results were also on a par with recent years; empty rates were still moderately high, averaging around 10 percent but with a large range.

REPAIRS AND MAINTENANCE AT A MODERATE LEVEL

Repairs and maintenance expenditure was reduced by $7000 (26 percent) compared with 2007/08. Much of this was standard operating expenditure and many larger amounts were committed before the major reduction in the expected milk payout was apparent. Serious reductions in spending generally did not start occurring until later in the season. This was especially apparent on farms likely to run a cash deficit for the year and those concerned about their cashflow over the winter and early spring.

INTEREST AND DEBT SERVICING

Many farmers' loans on fixed interest were renewed during the year at much lower rates, typically moving from 9 percent down to 6.5 percent. The benefit of this occurs mainly in following years' budgets rather than in the 2008/09 season. Overdraft interest rates also reduced, but in general, overdraft levels through the year were low due to the high revenue in 2007/08.

The debt level on the model farm has been increased by $242 300 to bring it more in line with estimated average levels for farms in the region. This adjustment has increased interest payments substantially (up $26 700) in the model budget, however half the debt has changed to interest-only so principal payments have reduced.

NET RESULT PLUMMETS

Farm profit before tax decreased considerably, going from $271 000 in 2007/08 to $71 400 for 2008/09. This is $127 400 less than was budgeted for in last year's report and is less than in 2006/07.

FINE TUNING THE TAX BILL

Tax payments were down by $9500 in 2008/09 to $29 500. Farmers and their accountants managed to substantially reduce tax liabilities by reassessing projected income, using income equalisation deposits and changing livestock value schemes.

DEVELOPMENT SUFFERS

Development expenditure was well down as development plans were shelved when the lower milk payout

become more apparent. Capital purchases, however remained at the previous season's level with many farmers having committed themselves to capital expenditure when projected milk payouts were better.

Most farmers had extra income from redeeming dry shares and selling surplus dairy company shares at the start of the season. Share sales netting $16 000 in the model are shown in the "Introduced funds" line in the budget.

NOT MUCH SURPLUS FOR REINVESTMENT

Farm surplus for reinvestment fell 95 percent ($188 300) compared with 2007/08, to $10 800, indicating there will be further cut backs in capital purchases and development in 2009/10.

Overall, the model has a cash deficit of $19 900 for the year, compared with the $55 600 surplus expected at the beginning of 2008/09. Of the farms monitored, two-thirds had cash deficits for the year. A significant amount of this is covered by the previous season's large cash surplus and the remainder by increased overdrafts or new borrowing.

BUDGET FINANCIAL PERFORMANCE OF THE TARANAKI DAIRY MODEL FARM IN 2009/10

A lower advance milk payout in 2009/10 is expected to cause an 8 percent ($15 100) fall in the cash operating surplus to $177 900. The fall in revenue will be somewhat offset by a budgeted 3 percent cut in farm working expenses while production is anticipated to remain at a similar level to 2008/09.

REVENUE CONTINUES TO SHRINK

Net cash income is expected to fall 5 percent ($24 800) compared with 2008/09 to $468 200, due to the reduction in milk income. Farmers are expecting the final milk payout for 2008/09 to be $5.20 per kilogram of milksolids, giving a deferred payout of $1.05. The expected advance milk payout to June 2010 is $3.77, down 38 cents on 2008/09.

PRODUCTION STATIC

Milk production for 2009/10 is expected to remain at similar levels to 2008/09. Cows entered winter in good to moderate condition but pasture covers were 300 to 400 kilograms of dry matter per hectare below target. Early winter weather was cold so this reduced pasture growth further. Going into the winter many dairy farmers had feed budget deficits of 400 to 500 kilograms of dry matter per hectare. Supplement levels on farm are good but not sufficient to make up for these pasture deficits. Good levels of supplements are

available for purchase, but farmers will be reluctant to spend extra money at the anticipated payout level and some may reduce their stocking rate instead.

EXPENDITURE REDUCED

Farmers will try to reduce spending in 2009/10 in response to the lower milk payout. A 3 percent fall in farm working expenditure is expected compared with 2008/09. This is a reduction from $3.33 per kilogram of milksolids in 2008/09 to $3.22 per kilogram of milksolids. Falls in major input costs such as feed and fertiliser are the main contributors to the lower expenditure.

FEED PRICES DROP

Lower prices for some purchased feeds especially palm kernel, maize silage and winter grazing are expected to cause a 4 percent drop (down $3900) in feed expenditure in 2009/10. Farmers say they plan to reduce feed inputs but industry commentators believe minimal change is expected especially if farmers want to reach milk production targets. The feed shortage at the beginning of winter could lead to an increased need for purchased feed. If feed costs do not fall or decrease then farmers are likely to look at reducing feed inputs.

FERTILISER EXPENSES FALL

Expenditure on fertiliser is expected to fall 11 percent ($5500) compared with 2008/09. Fertiliser prices dropped considerably in the second half of 2008/09 and further smaller declines are expected in 2009/10. Most farmers are still planning on sub-maintenance application rates to reduce expenditure, especially those on tight budgets.

OTHER COSTS

Minimal changes in other costs are anticipated, with increases for electricity, rates and accountancy fees all expected. Similar levels of repairs and maintenance are budgeted, but are likely to be deferred to later in the season and reduced if possible to avoid or reduce cash deficits.

INTEREST AND DEBT SERVICING FALL

Interest payments are expected to fall by 21 percent ($18 500) compared with 2008/09 as a result of the lower interest rates, even with increased overdraft payments. The model's interest rate in 2009/10 is 7 percent and the overdraft has increased $20 000 compared with 2008/09.

NET RESULT IMPROVES

Farm profit before tax is expected to be similar to 2008/09, held at this level by the planned reduction in farm working expenses and less interest paid. Tax payments are expected to be significantly less (down $21 900) compared with 2008/09.

Capital purchases and development expenditure are expected to be reduced substantially in 2009/10 compared with 2008/09. However, a large number of farms are committed to some capital expenditure with the need to purchase dairy company shares at the end of the 2009 season.

Drawings are expected to remain at the same level as 2008/09.

IMPROVEMENT IN BOTTOM LINE

The lower expenditure planned for capital purchases and development in the model will help improve in the bottom line, with a $20 100 cash surplus expected in 2009/10. However, over a third of the 35 monitored farms

expect budget deficits in 2009/10 with 10 percent being significantly large deficits, generally as a result of very high debt servicing costs.

The farm surplus for reinvestment is expected to improve by $25 200, compared with 2008/09 to $36 000.

LAND PRICES FALL

The fall in the milk payout has caused a 10 percent fall in dairy land prices in the region. Average dairy land has sold for around $45 000 to $52 000 per hectare, which is equivalent to around $50 per kilogram of milksolids including shares. Further reductions are expected during 2009/10.

Farm sale activity has reduced substantially with both the falling milk payout and prospective buyers having difficulty in obtaining finance.

INFORMATION ABOUT THE MODEL

The Taranaki dairy model represents approximately 1800 dairy farms in the Taranaki region. The model is based on an owner-operated business with a predominantly cross-bred herd. It does not own a run-off but grazes replacement stock off-farm and buys in 8 to 12 percent of feed used.

The model is created from information drawn from 35 dairy farms and a wide cross section of agribusiness representatives. The aim of the model is to typify an average dairy farm for Taranaki. Budget figures are averaged from the contributing properties and adjusted to represent a real dairy farm. Income figures include off-farm income, new borrowing, and other cash income.

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