NUMBER CRUNCHING
NO ONE-HIT WONDER

Setting up resilient systems, for the long-term game

Six KPIs for the farm biz
Steering business in the right direction

Systems to reduce nitrate leaching
New research programme underway
over the fence...

Roman philosopher Cicero should have been talking to a farmer when he said that no-one can give you better advice than yourself. I think what he really meant was that after taking advice and considering the options, you need to listen to yourself.

Fortunately, there is a lot of good advice out there. Farmers share freely and are willing to help others learn. That’s one of the true hallmarks of our industry, setting us apart from many others.

DairyNZ also seeks to give you good advice – but ultimately, it’s the farmer who makes the decisions.

In this issue of Inside Dairy, you’ll find some useful insights from farmers, and industry and DairyNZ experts. In particular, see the stories on pg 6 – a top low input West Coast farmer, and pg 4 – a top high input Waikato farmer.

They give good insight into maximising profit in their systems. I hope it helps you decide what to focus on in your farming business, as we face lower milk prices.

A DairyNZ colleague commented that the current situation reminds him of weather forecasting. Everyone agrees on the long range forecasts… it’s the short-term stuff that trips us up!

Right now we are all focused on the immediate and getting through what looks to be a tight season. Cost control will be key and many farmers are re-working budgets, line-by-line. It’s worth remembering the adage ‘a good plan today is better than the perfect plan tomorrow’. So take action early and focus on what will contain farm working expenses and maximise profit.

As you’re aware, supply and demand growth are not entirely matched right now. For the next 18 months or so, it’s likely supply will exceed demand growth, leading to softer prices.

After that, we are likely to flip to a demand-led dynamic and it’s important we don’t lose sight of the long-term forecast. Demand for dairy products is expected to grow by 36 percent in the next 10 years.

In the meantime, let’s keep the advice flowing – it helps with getting the ‘weather forecast’ right and making important decisions!

I welcome your feedback. Feel free to email me at tim.mackle@ceo.dairynz.co.nz.

Tim Mackle
CEO DairyNZ

Contents

FEATURES...

2  Cover story
Number crunching no one-hit wonder.

12  Fluctuating global production behind price volatility
What’s causing the changeable milk prices New Zealand dairy farmers now face?

19  Setting up summer pastures
To set pasture up for summer, management in spring is crucial.
just quickly...

Van der Poel returns as director
At the recent DairyNZ annual general meeting (AGM), Jim van der Poel was elected by farmers as a director on DairyNZ’s board. He previously served on the Dexcel/DairyNZ board and now replaces Barbara Kuriger, who resigned to focus on her new role as a National MP. Jim brings a wealth of experience, with farming interests in the Waikato, Canterbury and United States, and winner of industry awards including the AC Cameron Memorial Award and Sharemilker of the Year. He is also retiring as a Fonterra director. The DairyNZ AGM was held in Timaru on October 16.

Pasture competition returns
Entries are now open for the Pasture Renewal Persistence Competition which is looking for the best dairy pasture in the Waikato and Bay of Plenty. Competition organisers are keen to discover what farmers did to manage their pasture and pasture renewal so well during the past two years, despite consecutive summer droughts in 2013 and 2014. Two $1500 pasture renewal prize packages are up for grabs, provided by Agriseeds, Agricom and Farmlands. Entries are now open. To register or for more information go to dairynz.co.nz/pasture-comp.

Swedes in Southland
Across Southland, a number of cases have been reported of cows becoming ill, and in some cases dying, while grazing on swede crops (or shortly after). Research is currently underway to understand the reasons for the issue this season. The research involves analysing animal (blood and tissue) and plant samples, a literature review of relevant publications, as well as farmer interviews. Updates will be provided as information becomes available over the next six months. A joint working group is coordinating activities. The group, chaired by DairyNZ, includes representatives from Southland veterinary practices, Federated Farmers, Beef+Lamb NZ, Ministry for Primary Industries and PGG Wrightson Seeds. For more information go to dairynz.co.nz/swedes.

We appreciate your feedback
Email insidedairy@dairynz.co.nz or call us on 0800 4 DairyNZ (0800 4 324 7969). Alternatively, post to: Inside Dairy, Private Bag 3221, Hamilton 3240. For information on DairyNZ visit dairynz.co.nz.
NUMBER CRUNCHING NO ONE-HIT WONDER

SETTING UP RESILIENT SYSTEMS, FOR THE LONG-TERM GAME
THIS MONTH’S INSIDE DAIRY PROFILES TWO FARMERS WHO ARE RESPONDING TO THE REDUCED FORECAST MILK PRICE.

Both operate efficient systems – one a low input Westland supplier, one a high input Tatua supplier. One focuses on production, one on the cost of production. Both are profitable.

Supplying different milk companies creates different opportunities, as it has for Foster Kalma and Michael Hart.

Both have proven profitable long-term, partly by responding to milk price in ways that are relevant to their system.

Like Foster and Michael, we encourage you to fine-tune your system (low input or high) for where greater efficiencies can be achieved – not just for this season, but for the long-term game. See pg 16-17 for more on system efficiency.

Turn the page to read Foster and Michael’s stories >
Waikato farmer Foster Kalma has made a career out of crunching numbers. Having worked as an agricultural economist, he returned to his farming roots 20 years ago, before setting up a farm business with wife, Karen. Now, he works the numbers on one of the most efficient high input farms around.

Managing those inputs is challenging, particularly in the face of a reduced payout, but Foster has established a simple system that works well with the ups and downs of weather, milk and feed prices.

The Kalma family farms 115ha (effective) at Waitoa, near Morrinsville, peak milking 635 jersey cows on a split calving operation (500 in spring, 135 in autumn).

As a system five farm, imported feed makes up just over 50 percent of the cows’ diets year-round.

For the last six years, a leased support block has provided 48ha maize silage (1000t) and 100t grass silage, plus 750t palm kernel expeller (PKE) is also fed during the year. During lactation, the cows are fed 16kg DM/cow/day, including pasture. Three-hundred cows are also wintered on the support block for six weeks.

Foster says fluctuations, particularly profit, are greater with high input systems and require focus on every detail. So where last season’s high payout benefited the farm with an income increase, this year Foster will have his eye on feed costs during the reduced payout.

“One of the big risks for me is relying on the 1000 tonne-plus of maize from the runoff. In the last two years we’ve had a poor harvest, due to weed problems, drought and a new planting system,” says Foster. “Preparing that crop is critical to my system, but more so in a low payout year.”

Foster says a plus of his system is flexibility to manage through dry-off, carry over, cull or stock purchases in different seasons.

“If milking cows are leaving too much feed, the dries can follow. With the lower payout, we cull more heavily and earlier to get rid of old, empty, low production or mastitis-prone cows,” says Foster. “The 30 cows I’ve removed already means a feed reduction of 15 tonne per month.

“Right now (September), the milkers get 8kg grass, 4kg maize and 4kg PKE. We keep increasing the pasture as the spring flush hits. We base our pasture decisions on leaf emergence, which determines rotation speed and maximises growth by grazing at the 2.5-3 leaf stage.”

The rotation will speed up from a 25 day round to 21 days and, in an exceptional year, may provide a small amount of silage. “In the last two years, our nitrogen (N) fert has decreased from 250 to 50kg N/ha/yr. Instead, effluent is applied to recently-grazed paddocks.”
Reducing extra costs

The more expensive feed will be cut down this year, to ensure grass is well-utilised. This means cottonseed – a protein source for calving cows – may be cut back for the autumn herd calving in February.

“At around $700 per tonne it’s very expensive, so we may only use a small amount for newly-calved cows and find a cheaper option.”

Last year Foster fed 240t DDG (dried distillers grain), kibbled maize, cottonseed and soyhulls to lift production, due to the poor maize harvests. It’ll only be fed to early calving cows this year.

During last year’s high payout, Foster carried feed over from the previous year (2012/13) and purchased an extra $200,000 of feed – helping lift production 10 percent and providing additional feed this season.

Foster checks PKE prices monthly and contracts around 200t three times a year. Delivered PKE under $300/t is contracted – otherwise smaller amounts are secured to ensure supply. Contracts in place mean no chasing feed mid-drought.

One thing won’t be cut in a tight season though – his team of five.

“We have 128 cows per full-time equivalent, that’s a lot of staff for our farm size, but reducing it is not an option. Two have been with me for 14 years and we’ve created a good system together. Plus, we have staff for time off and their days aren’t excessively long.”

Advice and information is key

Foster says good advice helps with key decisions and his consultant, Bill Rys, identifies mistakes and provides comparisons with other farms.

“Bill has helped balance the feeding and stocking rate, and ensure we fully utilise homegrown and imported feed,” says Foster. “I have seen a lot of high input systems where extra feed is put in and the milk solids don’t come out the end. The feed replaces grass and grass is wasted.”

Benchmarking against other farms has provided gains.

“Benchmarking helps identify the farm’s strengths and weaknesses, by analysing your numbers. I’ve used Red Sky and DairyBase for financial analysis and enter Dairy Business of the Year to compare myself against others.”

The Kalma farm has previously fared well in the competition – having won the Australasian title in 2010 and the 2013 ‘environmental high input’ title and ‘best high input system’ awards.

System efficiency

“For me, it’s about creating a system that works well. I tend to work on a five-year basis for making decisions. I’m running good cashflow systems and do spend quite a bit on repairs and maintenance, rather than capital investment,” says Foster.

Because half the diet is supplement, Foster also has less concern about drought.

“The whole aim is to get through to March, when the maize silage comes off, then we’re pretty right for another year.”

### By the numbers

<table>
<thead>
<tr>
<th></th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cows milked at peak</td>
<td>650</td>
<td>635</td>
<td>635</td>
</tr>
<tr>
<td>Production/cow (kg MS/cow)</td>
<td>423</td>
<td>440</td>
<td>485</td>
</tr>
<tr>
<td>Production/ha (kg MS/ha)</td>
<td>2433</td>
<td>2472</td>
<td>2728</td>
</tr>
<tr>
<td>Farm working expenses ($/kg MS)</td>
<td>4.49</td>
<td>4.48</td>
<td>4.76</td>
</tr>
<tr>
<td>Revenue/kg MS</td>
<td>7.12</td>
<td>7.43</td>
<td>8.43</td>
</tr>
<tr>
<td>Operating profit/ha</td>
<td>$6362</td>
<td>$5735</td>
<td>$9016</td>
</tr>
<tr>
<td>Operating profit/ha benchmark (Waikato region)</td>
<td>$2932</td>
<td>$1752</td>
<td>$3066 (estimate)</td>
</tr>
</tbody>
</table>

### The Kalmas’ high input system

- Pasture harvest and cost of production is key (currently $4.76/kg MS).
- Strategic contracting of PKE.
- Analysing accounts is vital: comparing a farm against the best highlights strengths and weaknesses.
- Keeping cows fully fed. “It’s inefficient to get them fat, then lose the weight.”
- A support block has secured a reliable feed source with controlled costs.
- Have a system that’s simple and repeatable year in and year out – a no-fail system.
Sticking to a simple yet flexible system and keeping the lid on costs is key to coping with volatile payouts, says West Coast farmers Michael and Christine Hart.

“We have always managed to have a reasonable profit, high payout or low payout and we want this to be sustainable year-on-year,” says Michael.

He and Christine bought their 102ha Totara Flat farm from his parents in 2000. Previously 50:50 sharemilking on two farms Michael helped convert, they sold half the cows to take over the farm his family moved to in 1980, from Taranaki.

“Dad was a good farmer, the fertiliser levels were high and all the grass was pretty good. It’s always generated a nice profit and that’s through low costs and growing plenty of quality pasture. We try not to use too much urea – we’d rather get the clover to put in the nitrogen because we can do it for free that way.”

Michael says the first European in the area, explorer Thomas Brunner, noted that Totara Flat was one of only two places where natural pastures grew. “It’s always wanted to grow grass,” he says.

“If you can get the quality and quantity right in your pastures and use the cows to harvest it, this feed is low cost and it’s our country’s competitive advantage.”

Michael’s a fan of DairyNZ’s Spring Rotation Planner to help get feeding right. “It helps plan out the important grazing round, from when you start calving to when your grass grows quick enough to feed all your cows fully. It’s a fabulous tool.”

And he gets hugely valuable information from the four West Coast monitor farms, both from weekly growth data and the end-of-season field days.

“It’s been quite a revelation to some farmers that the higher producing farms are not necessarily the most profitable and having good sound data is worth its weight in gold.”

System decisions

When the payout’s higher, Michael will buy in some extra feed to extend milking days but he’s wary of getting locked into a system requiring expensive infrastructure to maintain and purchase.

“Once it’s there, you’ve basically got to use it to justify the cost. We may waste a wee bit more because we just feed out palm kernel in bins and buy in a bit of extra baleage, but our infrastructure cost is very low.”
As well as concentrating on pasture quality, Michael grows winter and summer crops, each taking about four percent of the milking platform. He looked at growing fodder beet but after crunching the numbers, decided to stick with swedes.

“We can grow 20 tonnes/ha of swedes so it’s more cost-effective and, if we’re short, to buy in a bit of palm kernel.”

Farm irrigation

The farm is irrigated by a K-Line system that draws from a pond, so Michael has no trouble growing grass.

Adding summer turnips to the diet extends the round from 21 days to 30, usually late January, when the production drops to between 1.45kg MS/day and 1.5kg MS/day.

At this time of the year, he switches to 16 hour milking (three milkings each 48 hours), 5am and 8pm one day, 2pm the next. On every second day, plenty of time is available for off-farm activities.

“The production drop off is minimal and we can suddenly increase our grazing round and get that out to what we want. Your costs come down, you’re running the shed less and the cows have one less trip to the shed every two days, so their condition improves,” says Michael. “In our situation it’s a win-win.”

Sharemilkers onboard

Early this year Michael and Christine moved up to Nelson with their son Alexander and employed contract milkers, Paul and Doris Awaikera. They’re now in their second season as a lower order sharemilkers. Michael spends about six days a month on the farm. That’s meant a few changes and now the young stock that used to stay home are grazed off-farm.

“We’re milking more cows and we’re buying in a bit of extra feed, should it be required for those extra cows. When we ran the farm, our production was 960kg MS/ha, now we’ve got the sharemilker on, we’re doing about 1100kg MS/ha.”

Before he had sharemilkers, Michael would cut back cow numbers to reduce the need for bought-in feed in low payout years, but he doesn’t feel he can do that as aggressively now.

“If I was screwing down my tight management, I wouldn’t do as many kilograms of production, but to me that would be unfair on the sharemilker because he gets paid on kilograms of production,” says Michael.

“You have to find a happy median – we’ve got to be happy and the sharemilkers need to be happy but you can’t go too much one way. It’s just trying to strike that balance.”

---

By the numbers

<table>
<thead>
<tr>
<th></th>
<th>2010/11</th>
<th>2011/12</th>
<th>2012/13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cows milked at peak</td>
<td>325</td>
<td>316</td>
<td>303</td>
</tr>
<tr>
<td>Production/cow (kg MS/cow)</td>
<td>342</td>
<td>388</td>
<td>371</td>
</tr>
<tr>
<td>Production/ha (kg MS/ha)</td>
<td>829</td>
<td>915</td>
<td>1103</td>
</tr>
<tr>
<td>Farm working expenses ($/kg MS)</td>
<td>$2.56</td>
<td>$2.73</td>
<td>$2.75</td>
</tr>
<tr>
<td>Revenue/kg MS</td>
<td>$8.18</td>
<td>$7.04</td>
<td>$5.20</td>
</tr>
<tr>
<td>Operating profit/ha</td>
<td>$3943</td>
<td>$3248</td>
<td>$2168</td>
</tr>
<tr>
<td>Operating profit/ha benchmark (West Coast region)</td>
<td>$2315</td>
<td>$2016</td>
<td>$689</td>
</tr>
</tbody>
</table>

---

Michael Hart says having “good sound data is worth its weight in gold”.
How resilient is your farm business?

Dairy farmers in New Zealand face an increasingly turbulent business environment – costs, exchange rate, climate, prices – as well as added uncertainty around other external factors such as local and national government legislation.

Research by the Centre of Excellence in Farm Business Management has analysed farmer feedback, alongside DairyBase data, to determine how well farmers manage such volatility.

What we have found is that during a positive shock – a low price year to high price year – certain farms make the most of that opportunity.

Those farms typically:
• have a significantly higher operating profit margin and asset turnover ratio
• generate and use (invest) more liquidity – cash
• produce more milk/ha
• were more intensive, larger and irrigated
• had a significantly higher debt to asset ratio but debt servicing capacity was no different. They used debt or non-equity capital to leverage their business.

Drop to low prices

Conversely, when there is a negative shock – from a high price year to low price year – the farms that minimise the effect typically:
• have a significantly higher return on equity, operating profit margin and discretionary cash/ha
• have lower farm working expenses/kgMS – liquidity
• produced less milk/ha, were more extensive and smaller
• had a significantly lower debt to asset ratio and debt servicing capacity. They avoided using debt to leverage their business.

Not surprisingly, the farmers who best captured the upside risk were not the same farmers who best survived the downside risk.

The metric both groups did excel at was the operating profit margin. This makes sense, as this measure (operating profit/gross farm revenue) reflects how the farm responds to price, by adjusting costs, both up and down.

We then looked for farmers who did not excel in either extreme situations but were the most resilient overall and who out-performed their peers over time.

Ability to flex

Using six years of DairyBase data and a sophisticated statistical method, it was found that mostly system three farms had consistently better performance, due to the ability to flex with the season.

Over the six years, the dominant financial KPI (key performance indicator) was operating profit margin. This is a dynamic indicator (the outcome of spending connected to revenue), so is hard to target but is a critical benchmark on how well decisions have been made.

Operating profit margin is in DairyBase – check out your latest reports and see how well you compare to the benchmarks. The better the operating profit margin, the better you are managing turbulence.

This work was part of the Transforming the Dairy Value Chain Primary Growth Partnership Programme, funded by DairyNZ and the Ministry for Primary Industries.

Nicola Shadbolt is Professor of Farm and Agribusiness Management, and DairyNZ chair in farm business management at Massey University.
Survey finds record season could benefit 2014/15

A recent survey of 26 Waikato and Bay of Plenty dairy farms showed that most farms should survive the 2014/15 season, although adjustments will be required. Thanks is mainly due to the record production and milk prices of 2013/14. AgFirst’s Phil Journeaux and DairyNZ senior economist Matthew Newman explain.

The AgFirst financial survey (completed in September and also funded by DairyNZ and Ministry for Primary Industries) showed most farms recovered quickly from the 2013 drought. Per hectare production reached record levels in 2013/14, after an excellent winter and spring, and despite another very dry 2014 summer.

“A large volume of supplement made on-farm in spring and the record high milk price ($8.40/kg MS) enabled farmers to buy significant amounts of feed to counter the region’s dry conditions,” says Phil.

“This resulted in a healthy cash surplus, with farmers using it for debt repayment, upgrading plant and machinery, investing in infrastructure (particularly effluent management), something nice for the family and/or simply to build a buffer for tougher years.”

Most farms surveyed had a zero overdraft at the start of the 2014/15 season – a real advantage, given rising interest rates.

Deferred payment a relief

Last season’s high milk prices also meant a significant deferred payment into the 2014/15 season, which will bolster low milk prices this season. See table 1, where the $1.50 carried forward to this season is considerably higher than the usual deferred payments.

“Waikato farmers are expected to make a determined effort to control farm working expenses in 2014/15, with an average budgeted reduction expected of around 40 cents/kg MS to $4.10/kg MS,” says Matthew.

“The main items farmers have targeted are bought-in supplementary feed, fertiliser and repairs and maintenance, which all increased in 2013/14.

“The Fonterra milk price at the time of the survey was $6, although it has since dropped to $5.30/kg MS. A quarter of Waikato farmers will struggle to meet their farm working expenses and interest payments without an injection of funds, due to the lower milk prices this season, and this is before talk of a dry summer. Overdrafts will once again build throughout this season.

“The concern will be 2015/16 if milk prices remain low, coupled with the reduced deferred payment of $1/kg MS.”

To view the full AgFirst Waikato/Bay of Plenty Financial Survey 2014 visit dairynz.co.nz/agfirstsurvey.

Table 1: Milk price levels $/kg MS

<table>
<thead>
<tr>
<th>Season</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred payment from the previous season</td>
<td>$0.85</td>
<td>$0.68</td>
<td>$1.50</td>
</tr>
<tr>
<td>Advance to end of June</td>
<td>$5.15</td>
<td>$6.90</td>
<td>$4.30*</td>
</tr>
<tr>
<td>Total milk payment**</td>
<td>$6.00</td>
<td>$7.58</td>
<td>$5.80</td>
</tr>
</tbody>
</table>

* Based on a $5.30/kg MS milk price ($4.05 advance + 25c capacity adjustment)
** Ignores production differences between years
Six KPIs for the farm biz

Farm owners, governors, sharemilkers and operations managers should have a small number of financial key performance indicators (KPIs) to monitor and steer their businesses in the desired direction.

The specific KPIs and their set levels will be determined by the owners’ goals and aspirations. However, there are six financial KPIs to consider putting on the list.

1. Equity growth over time
   This is the ultimate financial KPI, however it is often not discussed or calculated. A high level of wealth creation or equity growth over time comes from:
   - investing in productive assets
   - not paying too much for them
   - operating them efficiently
   - investing the resulting profits wisely
   - capital gain.
   Many dairy farmers significantly underestimate their wealth creation growth rate over time.
   At DairyNZ Mark and Measure courses, most people estimate their equity growth at around 6-7 percent. But when they actually calculate it, typical results are 10-20 percent, often over long periods of time.
   Many businesses and investors aim for a 15 percent annual compounding growth rate and to achieve this rate, equity must double every five years on average. Look at your own business to see if this has been achieved.

2. Break-even milk price
   Focusing on cashflow is essential and can be done by calculating break-even milk price.
   Table 1 shows the average farm owners in the 2012/13 season, with a $6.33/kg MS milk price, had 31c/kg MS surplus to pay down debt and invest to grow their businesses. Deducting this surplus gives a break-even milk price of approximately $6.00, i.e. the surplus would have been $0 if milk price was $6.00/kg MS.
   The top 25 percent in 2012/13 had three times this surplus to grow their business and subsequently broke-even at a much lower payout of $5.40.
   To improve the cash surplus and reduce the break-even milk price requires a focus on all aspects of the business, from increasing milk solids at as little cost as possible to reducing farm costs and controlling personal expenditure.

<table>
<thead>
<tr>
<th>Table 1: owner-operators 2012/13 – cash analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cashflow per kg milksolids sold</td>
</tr>
<tr>
<td>NZ average</td>
</tr>
<tr>
<td>Net milk income</td>
</tr>
<tr>
<td>Stock</td>
</tr>
<tr>
<td>Net dairy cash income</td>
</tr>
<tr>
<td>Farm working expenses</td>
</tr>
<tr>
<td>less interest and rent</td>
</tr>
<tr>
<td>less tax</td>
</tr>
<tr>
<td>less net drawings</td>
</tr>
<tr>
<td>*Cash surplus available for debt or investment in growth areas</td>
</tr>
<tr>
<td>Break-even milk price</td>
</tr>
</tbody>
</table>

*Off-farm income and introduced funds have been excluded

<table>
<thead>
<tr>
<th>Table 2: operating profit /kg MS 2012/13</th>
</tr>
</thead>
<tbody>
<tr>
<td>$/kg MS</td>
</tr>
<tr>
<td>Gross farm revenue</td>
</tr>
<tr>
<td>Operating expenses</td>
</tr>
<tr>
<td>Operating profit</td>
</tr>
<tr>
<td>Operating profit margin</td>
</tr>
<tr>
<td>Operating return on assets</td>
</tr>
</tbody>
</table>
3. Operating profit

To look more thoroughly at the farm business’s underlying operating efficiency, some other non-cash items need to be included, such as depreciation, change in stock numbers, unpaid labour and feed inventory.

Operating profit is the best KPI to compare efficiency between farms and can be expressed on a per cow, per kg MS or per hectare basis.

Table 2 shows the top 25 percent of farmers have a $2.65 operating profit/kg MS compared to the $1.77 average – an 88c difference. To improve operating profit, some farm businesses can lift revenue with little, if any, increase in costs and others require cost control.

4. Operating profit margin

The operating profit margin indicates the gap between operating expenses and gross farm revenue – and the higher the gap, the better. The average is 28 percent and the top quartile, 38 percent.

This KPI is a risk measure and having as wide a gap as possible helps cope with fluctuations in milk prices, milk production and input prices.

5. Operating return on assets (ROA)

Operating return on assets is calculated by taking the operating profit and dividing by the dairy assets. It measures whether the business is generating enough profit, in relation to the value of the assets invested, and is often compared to the return on money ‘in the bank’.

However, this KPI does not include capital gain or loss. The top 25 percent group in 2012/13 achieved 7.8 percent ROA, with the average at 4.5 percent. As a rule of thumb, if the ROA is lower than bank interest, be cautious about borrowing too much.

6. Debt to asset percentage

Debt to assets ratio or percentage was approximately 44 percent in 2012/13 for both the average and top 25 percent group. It is not a measure of performance but can assess an important area of risk in the business.

Farmers who operate profitably and have high return on assets are able to withstand higher debt levels and still continue to grow their business.

For farmers not currently in the top profitability group, be very cautious about increasing debt, even with high equity levels.

---

How do you rate?

Table 3 summarises the six KPIs. Record your performance in the blank column. Utilise DairyBase and rural professionals if you require support to calculate these or to develop plans to improve your financial performance.

**Table 3**

<table>
<thead>
<tr>
<th>Owner-operators 2012/13</th>
<th>Average KPI</th>
<th>Top 25% KPI target</th>
<th>Your farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Equity growth over time</td>
<td>10%*</td>
<td>15%/yr*</td>
<td></td>
</tr>
<tr>
<td>2 Break-even milk price</td>
<td>$6.00/kg MS</td>
<td>$5.40/kg MS</td>
<td></td>
</tr>
<tr>
<td>3 Operating profit/kgMS</td>
<td>1.77/kg MS</td>
<td>2.65/kg MS</td>
<td></td>
</tr>
<tr>
<td>4 Operating profit margin</td>
<td>26%</td>
<td>38%</td>
<td></td>
</tr>
<tr>
<td>5 Operating return on dairy assets</td>
<td>4.5%</td>
<td>7.8%</td>
<td></td>
</tr>
<tr>
<td>6 Debt to assets</td>
<td>44%</td>
<td>44%</td>
<td></td>
</tr>
</tbody>
</table>

*Estimate: we do not know precisely what the average equity growth is over time, as we do not track individuals as they progress through the dairy industry.
Fluctuating global production behind price volatility

In 2007, the situation for dairy commodities changed. Increased demand for dairy products out-paced global production, leading to higher milk prices. This situation has continued, although fluctuating global dairy production has meant increased price volatility, albeit at higher milk price levels. DairyNZ senior economist Matthew Newman explains.

Global powder prices peaked in this current cycle (in May 2013) with whole milk powder (WMP) prices reaching $5600 US/tonne. However, since April 2014, powder prices declined sharply due to increased production in key exporting countries such as the US, EU and New Zealand, some demand offset following very high prices, and a temporary quiet period of powder demand from China, due to build up of stocks.

The graph below shows global WMP prices and the higher price levels over the last seven years, increased volatility and what appears to be a three-year cycle emerging. WMP prices seem to be peaking every three years between US $4500 and $5600 per tonne.

Milk production

Only 7 percent of global milk production (644 million tonnes) is traded each year, of which New Zealand accounts for one-third of the export volume. This means the bulk of dairy product is consumed in the country or market it is produced and a good amount is milk (70 percent). However, traded milk products have a major impact on global milk prices.

Global milk production in 2014 has increased rapidly. New Zealand’s favourable pasture growing conditions increased production by 10 percent for the year ending May 2014. Meanwhile, US production has accelerated, as low feed prices and high domestic milk prices have encouraged farmers to increase production.

US milk production has risen during the first eight months of 2014, a combined increase of 1.9 percent on the same period last year, adding to US dairy exports.

European milk production continues to be above last year’s. For the first six months of 2014, milk production increased a staggering 5.1 percent following favourable weather conditions (equivalent to 20 percent of New Zealand’s annual production). Most of this increased production was processed into powders for export.

The Russian ban on dairy imports from a number of countries has put further pressure on dairy prices. For example, EU
milk that would have been produced into cheese for Russia may be converted to another dairy product and consumed in a different market.

**China**

Milk production in China declined 6 percent in 2013, as some small farmers culled cows and exited the industry due to increased costs from compliance, forage prices, competing beef prices and foot and mouth disease.

In fact, cow numbers have reportedly declined 10 percent in 2013, adding to the reliance on imported powders.

Although the Chinese Government has introduced regulatory reforms, confidence in locally-sourced supplies of dairy products remains a concern. Consequently, consumers appear motivated to pay premium prices for imported products such as milk powder and milk (primarily UHT [ultra-heat treated]).

Demand for fresh milk in Asia and Central and South America has increased rapidly in the past decade, fuelling strong demand for dairy ingredients, such as milk powders.

But demand for dairy has remained challenging in 2014, as most economies under-performed. China’s milk demand slowed as consumers’ responded to less rapid income growth and last year’s high prices. A build-up in powder stocks also impacted on China’s purchasing.

China’s per capita consumption of dairy products is only one-third of the world average, so this market has significant growth potential.

**Looking ahead**

Over the next five years demand for dairy products looks positive, reflecting a continued shift to western diets in developing countries and rising incomes in the Middle East, North Africa, South East Asia and China.

The trade of dairy products is anticipated to increase to meet Asia’s growing demand, with most of this coming from existing exporters.

Based on the market situation with strong production growth in trading countries and current low grain prices worldwide, dairy product prices are unlikely to begin recovering until the second half of 2015, according to many market commentators.

This means farmers need to adjust from the record milk prices received last year to milk prices nearer $5/kg MS – i.e. survival mode.

The graph above shows the annual New Zealand dairy company payout (including dividend) for milksolids. The gap between the highs and the lows is widening. However, at $5.60, current milk payouts are still within the band of expectations.

Farmers need to prepare their businesses for continued milk price volatility.

Regardless of how low milk prices go, the message is clear – understand your farm business and determine what needs to be done to survive the tough times in order to enjoy the good times.

For many this means having a long-term plan and concentrating on the basics of farming.

Perhaps the next peak could be in 2016/17?

**Price volatility**

- Global milk production in 2014 has increased rapidly, impacting global milk prices.
- As most economies under-performed, demand for dairy has remained challenging in 2014.
- While demand for dairy looks positive over the next five years, farmers should develop a long-term plan and concentrate on the basics of farming in the meantime.
Budgeting ahead for 2015/16

Despite a favourable winter and early spring, thanks to weather and cashflow from last year’s record milk price, this season's reduced forecast milk price demonstrates how quickly things can change. DairyNZ economist Angie Fisher says farm budgets are key.

Uncertainty of the final payout is nothing new for New Zealand dairy farmers. Many commentators and farmers are discussing and speculating what the final 2014/15 payout will be.

But the 2015/16 milk price is also on many farmers’ minds and the impact a second year of low milk prices could have on 2015 income, particularly through winter with low retrospective payments.

“Knowing your liquidity from now until the end of the season can help give peace of mind and control over the situation, as you put a plan in place to monitor cash and production targets,” says Angie.

An updated 2014/15 monthly cashflow budget will show where action may be required and an annual 2015/16 cash budget will also highlight risk areas for the business and spark ideas for potential actions on-farm.

Where to start

Planning – it’s a good idea to plot out cashflow from now until the end of May by updating or starting a new budget. DairyNZ has a budget template which works from a one-page annual cash budget to a monthly cashflow.

Plan income and spending through summer and autumn, and consider options if the summer is dry – feed budgets, fertiliser, repairs and maintenance, development on-farm and so on.

Autumn and winter 2015 could be tight, especially if next season’s payout is below $6/kg MS. Get ahead of the game and calculate cash income and expenses for 2015/16, with an annual cash budget.

The DairyNZ budget template gives a breakdown of the season’s total expenses (see pie chart) which will identify large areas of spend if cutbacks are needed. The template’s sensitivity table shows where changes to payout, production and farm working expenses impact cash surplus.

This enables a revisit of the budget, a chance to consider ways to reach physical and financial targets, and establish risk management strategies to protect cash surplus.

Milk prices and the weather are beyond anyone’s control, but minimising risks and looking at farm working expenses can mean a 5 or 10 percent change which will affect the bottomline.

Taking action

Whatever budgeting template is used, farmers should test out a few milk price scenarios for 2015/16. This gives confidence and alleviates some stress and uncertainty. It also helps to know what is being faced before approaching the accountant, farm consultant and banker.

Milk price isn’t a sure thing until after the season is complete, but having an idea about the long-term break-even payout, what needs to be covered this season and the business’s cashflow pattern are all part of longer term risk management.
DairyNZ budgeting templates
dairynz.co.nz/budgets

The most popular template is the annual and monthly cashflow budget. The annual budget sheet is connected to a pie graph of total expenses and a sensitivity table. The table is a relatively quick way to consider how changes to production, payout and expenses will affect cash surplus.

Cashflow Budgeting Workshops
DairyNZ are running Cashflow Budgeting Workshops throughout the country in autumn 2015.
Visit dairynz.co.nz/cashflow for more details and to register.

Interest rates
Interest rates form a large part of dairy farm expenses. At time of writing, the official cash rate was held by the Reserve Bank at 3.5 percent. Banks and commentators expect this to increase again in the first half of 2015.
This will have an impact on debt servicing for a majority of dairy farmers on floating mortgage rates. Chat with the bank about the potential impact, discuss fixed rates if preferable for some debt and add the increased payments into the budget.
Move up the profit line, not across systems

Rather than changing supplement or considering intensifying, farmers should move up the profit line within their farm system, making their business more robust and able to withstand payout variability. DairyNZ consulting officer Wilma Foster explains.

For the last four years, the Bay of Plenty Focus on Dairying Trust has used DairyNZ’s benchmarking tool, DairyBase, to collect and monitor financial and physical information to identify top-performing farms and identify trends in the region. Last season, the common factors for the highest profit farmers were identified.

“The results showed a large variation in profit within each farm system and a relatively small variation in average operating profit between farm systems,” says Wilma, who worked closely with DairyBase extension specialist Jenny Ritchie on the analysis. “The previous three years showed the same trend. Essentially, there is more room to improve farm profit within your current management, than changing system to increase profit.”

Common features of top-performing farms

This season, the top-performing farms were compared against their group peers. There were several factors in common across the top-performing farms, detailed at right.

High profit farm KPIs (key performance indicators)

<table>
<thead>
<tr>
<th>System 1&amp;2</th>
<th>System 1&amp;2</th>
<th>System 3</th>
<th>System 3</th>
<th>System 4&amp;5</th>
<th>System 4&amp;5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top farm</td>
<td>Average</td>
<td>Top farm</td>
<td>Average</td>
<td>Top farm</td>
<td>Average</td>
</tr>
<tr>
<td>Std operating profit/ha</td>
<td>$4046</td>
<td>$1806</td>
<td>$3893</td>
<td>$1960</td>
<td>$3394</td>
</tr>
<tr>
<td>Operating expenses /kg MS</td>
<td>$3.16</td>
<td>$4.47</td>
<td>$3.94</td>
<td>$4.68</td>
<td>$4.50</td>
</tr>
<tr>
<td>MS/cow</td>
<td>354</td>
<td>335</td>
<td>386</td>
<td>358</td>
<td>429</td>
</tr>
<tr>
<td>MS/cow/day whole season</td>
<td>1.68</td>
<td>1.42</td>
<td>1.44</td>
<td>1.53</td>
<td>1.75</td>
</tr>
<tr>
<td>10 day average peak/cow</td>
<td>2.11</td>
<td>1.79</td>
<td>2.01</td>
<td>1.95</td>
<td>2.21</td>
</tr>
<tr>
<td>MS/cow % liveweight</td>
<td>77%</td>
<td>74%</td>
<td>86%</td>
<td>73%</td>
<td>89%</td>
</tr>
<tr>
<td>Cows lame</td>
<td>&lt;1%</td>
<td>1.8%</td>
<td>1.1%</td>
<td>3.3%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Stocking rate: cows/ha</td>
<td>3.2</td>
<td>3.0</td>
<td>3.8</td>
<td>3.3</td>
<td>4.0</td>
</tr>
<tr>
<td>kg MS/ha</td>
<td>1133</td>
<td>1002</td>
<td>1455</td>
<td>1168</td>
<td>1707</td>
</tr>
<tr>
<td>kg MS/ha to December 31</td>
<td>840</td>
<td>660</td>
<td>913</td>
<td>801</td>
<td>1135</td>
</tr>
<tr>
<td>Homegrown feed eaten t/ha</td>
<td>14.1</td>
<td>12.8</td>
<td>15.6</td>
<td>14.0</td>
<td>13.9</td>
</tr>
<tr>
<td>Bought in feed eaten t/ha</td>
<td>1.08</td>
<td>0.87</td>
<td>2.58</td>
<td>1.22</td>
<td>6.07</td>
</tr>
</tbody>
</table>

Std = standardised for milk price

A summary of the on-farm KPIs (key performance indicators) for the top farmers and the group average.
Having clear focus

All the top-performing Bay of Plenty farms focus on running a high profit business, enabling the lifestyle they want. ‘With a high profit we have options for what to do with the money.’ They say putting lifestyle first won’t grow the business to fund their lifestyle.

Control costs

The most profitable farms used cheaper alternatives and proven methods, rather than changing the way they run the farm.

Consistency of performance

The top-performing farmers are consistent about how the farm is run. They know their system and understand what to do to achieve success.

Key on-farm factors for success

The top-performing farmers, regardless of system intensity, do the following things.

- Produce high milk production (kg MS/ha and kg MS/cow) by achieving higher peak production and sustaining it for longer.
- Produce a higher percentage of milksolids before Christmas.
- Harvest more homegrown feed and use supplement to fill the gap.
- Have a higher stocking rate than their group peers.
- Purchase supplement based on price (c/MJME).
- Have a low incidence of lameness (minimal milk wastage).

By assessing a farm business with tools such as DairyBase, the key differences between a business and the top-performers can quickly be identified.

“The real change will lie between your ears – changing what you have always done is difficult,” says Wilma. “Take little steps. High profit farms achieve both business and on-farm factors together. Take the challenge to move up the profit line.”

Regional focus for DairyBase

The data analysis for the Bay of Plenty Focus on Dairying project was carried out by Jenny Ritchie, one of four regional DairyBase specialists.

Jenny covers the Bay of Plenty, Taranaki and Lower North Island, working with dairy farmers and their rural professionals to ensure DairyBase reports are adding value to farm businesses.

Other regional DairyBase specialists are Carolyn Nicholson (Waikato), Kathryn George (South Island) and Paul Bird (Northland).

Jenny is heartened to see more farmers using DairyBase. Around 2500 New Zealand dairy farm businesses (about 20 percent) received a DairyBase analysis last season. This is a 25 percent lift from the year before.

“Taranaki is one region where we’ve had a big increase in DairyBase analysis – up by 50 percent,” says Jenny. “This means we’ve got more benchmarks from the 2012/13 data than ever before.”

Farmers can compare their information across more areas of the farm business and within narrower geographical areas. “We have 2012/13 benchmarks for many district council areas which means, for example, more uniform land classes than when we benchmark at a regional level.”

More benchmarks

A good example of the range of different benchmarks is the availability of data to winter milk farmers.

“Winter milk farmers used to be able to benchmark themselves against other winter milk farmers on a North or South Island basis. Now there are enough farmers to create benchmark comparisons on a regional basis and, in some areas, at a district level.”

Farmers’ DairyBase reports can identify any farm working expenses that are high, compared with their benchmark group.

“Understanding the reason and what scope there is to cut back is powerful information,” says Jenny.

“The value of benchmarking key physical data should not be forgotten. The annual profit is the result of a year’s hard work in the business but to understand the profit differences between farms, we need to look at the physical KPIs (key performance indicators). For example pasture eaten, production achieved by December 31, days in milk and lameness.”

Jenny encourages dairy farmers to contact the DairyBase team or their local consulting officer with any questions about DairyBase. She also suggests farmers talk to their local consulting officer or accountant about events where DairyBase data is used and discussed.

dairynz.co.nz/dairybase.
Playing the long-term game

Farming has, and always will be, a long-term game. The results of calf rearing won’t show until 2017. This year’s mating decisions won’t impact until next year. So why do so many farmers let milk price announcements alter their plans?

AgFirst’s James Allen says while there’s a need to be responsive, there’s also a need to remember we are playing the long game.

Planning

The first step in playing the long game is knowing the business’s long-term direction. So, what is the five-year plan? Does it include lifting productivity or profitability, business growth or succession?

Clarity here will set the boundaries for how to play the game. Create a simple (one page) long-term strategic plan, outlining what to achieve from the farm business.

Then define this season – clarify the targets and key actions to start realising those goals.

Risk management

The next step is recognising the dairy industry’s significant volatility with regard to milk price and, to a lesser extent, annual production. Volatility brings risk, so work out where there is risk.

Climate risk, payout, interest rates, staff, environmental risk? All the above? Risk can be mitigated, but it can come at a cost. Balance the business’s potential to cope with risk against the cost of mitigation.

Farm system design

When the milk payout has a big rise or fall, there can be a tendency to alter the farm’s feed system, e.g. from a system three to a system five, or vice versa. Be cautious with this.

Plenty of evidence demonstrates that each dairy system can be highly profitable – but profitability varies more within systems, than between systems. Optimise profitability within the system and use DairyBase to measure progress.

A farm business should be profitable every year. Work out the long-term direction, design a profitable farm system, focus on the business (not the neighbour’s) and get on with it!

<table>
<thead>
<tr>
<th>Risk</th>
<th>Way to mitigate risk</th>
<th>Cost of mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climatic risk affecting production e.g. drought, flood.</td>
<td>Supplement reserves on-hand e.g. rolling 100 day buffer. Effective feed budgeting and early decision-making.</td>
<td>Cost of carrying extra feed. Potential for inefficiencies in the feed system. No cost.</td>
</tr>
<tr>
<td>Financial risk e.g. drop in milk payout.</td>
<td>Fixed milk price. Preparing cashflow budgets for 2014/15 and 2015/16. Early and clear communication with financiers.</td>
<td>Lost opportunity if payout is high. No cost. No cost (especially if they supply the biscuits!).</td>
</tr>
<tr>
<td>Rising interest rates</td>
<td>Fixed rate mortgage. Low-moderate debt levels.</td>
<td>Additional interest paid if interest rates drop. Lost opportunity cost of not expanding business (lazy equity).</td>
</tr>
<tr>
<td>Staff risk e.g. staff under-performing or leaving.</td>
<td>Develop: a staff performance plan farm policy manuals a culture of long-term staff retention.</td>
<td>Only cost is time and effort to develop good culture and policy. For ideas to retain good people or be a better manager, visit dairynz.co.nz/people.</td>
</tr>
</tbody>
</table>

The five-year view and what to do

- Know the business’s long-term direction. What is the five-year plan?
- Define what is to be achieved this season.
- Work out where the risk lies: climate risk, payout, interest rates, staff or environment?
- Optimise profitability within the system and use DairyBase to measure progress.

Get your planning underway with DairyNZ’s QuickPlan: dairynz.co.nz/quickplan

For more information visit dairynz.co.nz or dairynz.co.nz/dairybase.
Setting up summer pastures for production, persistence

To set pasture up to produce and persist well through the challenging summer months, a focus on management during the late spring is crucial to maximise quality.

Pasture grows fastest when it is seeding in spring and management at this stage has a direct impact on pasture quality, production and persistence for the rest of the season.

Frequent and intense grazings from October to December reduces the number of tillers entering a reproductive phase, maintaining pasture quality.

Common practice in New Zealand is to graze pasture down to a consistent residual of 7-8 clicks on the rising plate meter (1500-1600kg DM/ha). Beyond this grazing technique, there are several options farmers can use to manage any pasture surplus in spring.

During a surplus, making silage/baleage is a great way to retain pasture quality (while providing for future feed deficits) or another option is shortening the grazing round by dropping paddocks out of grazing for spring sown crop.

Mowing – a viable option?

If pasture cover is left too long (pre or post-grazing), pasture digestibility deteriorates. Subsequently, the dead and/or older plant material builds up, decreasing pasture quality. This in turn creates issues at subsequent grazings.

When post-grazing residuals rise above target levels, immediate action needs to be taken. Mowing pre-grazing or immediately post-grazing can regain control and maintain subsequent pasture quality.

When grazing pre-mown pastures, cows’ eating behaviour changes as they can be less selective and there is less opportunity to reject stem. In addition, small high quality leaves like clover can be mown and will drop below grazing height, decreasing the quality of pasture eaten at that grazing.

Pre-grazing mowing is not a strategy to increase immediate dry matter intakes, unless used when increasing the daily area offered (a faster rotation) during periods of rapid pasture growth.

Mowing after grazing allows animals to be more selective and choose what they eat. The herd can be moved onto a fresh pasture and the mower used afterward to control the uneaten, lower quality, pasture.

The best way to mow is to cut as close as possible to 7-8 clicks on the rising plate meter, which will set the following post-grazing residual.

Spring-summer transition

During the transition from spring into summer, pastures need sufficient nitrogen to convert from their reproductive phase back to vegetative production of high quality leaf.

While pastures are still actively growing and before soil moisture is limited, strategic use of early summer nitrogen can help establish strong pastures for summer.

Nitrogen promotes vegetative tiller growth and reduces tiller population decline in summer. These are both important for summer production and improving pasture persistence by ensuring pasture is in a good, healthy state before the summer stresses arrive.

Mark Brown – Pasture Improvement Leadership Group member and Agricom representative

For more information

Visit the DairyNZ website for more pasture management info – dairynz.co.nz/pasture.

Do you have great pasture?

Enter the Pasture Renewal Persestence Competition at dairynz.co.nz/pasture-comp.
Forage systems to reduce nitrate leaching

Canterbury farmers are participating in a research programme led by DairyNZ to develop profitable solutions that reduce nitrate leaching.

The six-year programme ‘Forages for Reduced Nitrate Leaching’ aims to reduce nitrate leaching losses by 20 percent by delivering proven, adoptable and profitable pasture and forage crop options.

Dairy, arable (crop) and sheep and beef farms are involved in the cross-sector project which is focusing on three areas – alternative pasture species, crops and farm systems.

**Alternative pasture species**

Experimental research is underway on crop and pasture species now available to farmers and initial results can be expected within a year.

Alternative pasture species with lower nitrogen (N) content, cool-season growth or which are deeper rooting (including chicory, plantain, Italian ryegrass and lucerne) are being compared for yield, N uptake and plant characteristics, such as N content.

**Crop and pasture management**

The effect of management on crop and pasture yield and quality is also being investigated, which includes irrigation, grazing, fertiliser application, crop establishment, crop rotations and effluent management.

The research will look at how management can improve the plant N uptake from the soil and reduce surplus intake of N by grazing animals, ultimately reducing N excretion and nitrate leaching.

**Farm systems**

Another focus involves co-developing farm systems that incorporate new mitigation options developed through the programme.

Research results will be built into plant, animal and farm system models (such as the DairyNZ whole farm model) to test scenarios and new mitigation options will be demonstrated on-farm.

**Farmer participation**

A network of monitor farms in Canterbury has been established, with farmers selected through regional field teams within the industry.

The group consists of farmers who are keen to adopt new ideas, have an interest in sustainability and a long-term commitment to their farm.

At present nine farms are in the Canterbury monitor farm network, spread across the region: four dairy farms, two arable farms, two sheep and beef farms, and one mixed arable and dairy farm.

Monitor farmers will contribute to the direction of the research, influence priorities, share experiences and provide a practical check to research.

This first season of the project, the farmers are monitoring current practice to establish base data.

Information being collected includes daily grazing and supplementary feed records, application levels of irrigation, effluent and fertiliser, as well as stock and feed movements on and off the property.

After base data is collected, each farm will be modelled and nutrient loss estimated. Different scenarios from the research will be evaluated with the farmers, with one or more adopted on-farm.

The farmers will also play an important part in identifying risks, barriers to adoption and whether new skills or resources are required for implementation on-farm. Later, farm field days will be held so other farmers can see first-hand how the mitigation options work in practice.

The geographic spread of the monitor farms and range of systems represented means every farmer in Canterbury should have a farm they can identify with.

**Research aims**

- Reduce livestock urinary N excretion.
- Sustain high levels of feed and animal production.
- Hold more N in soil and reduce the amount of potentially leachable N.
- Maximise yield and N use efficiency in forage crops.
- Provide solutions that can be readily integrated into dairy, arable, beef/sheep or mixed farming systems.
Monitor farmers add value

Grant and Jan Early
Dairy farm owners
Mayfield, Canterbury

Why did you decide to join the project?
“Nutrient management is going to affect everyone. The sooner we have some tested solutions on how we can mitigate nitrate leaching, while still farming profitably, the better it will be for the industry as a whole. It’s our way of learning more ourselves as well as helping the industry in a small way.”

What do you hope to get out of the project?
“We hope to find the best nitrate leaching mitigations specific to our farm and area, while maintaining or improving profitability.”

How will farmers and the industry benefit?
“We see the monitor farms as a way of integrating experimental and modelling work and applying it at a whole working farm level. Hopefully it will engage farmers at a grass roots level and get them thinking about how different options could fit into their own farming business.”

Farm facts
Area: 375ha, 90% irrigated
Number of cows: 1465
Production: budgeting 680,000kg MS 2014/15 season
Support block: 550ha dry land (250ha pasture, 150ha barley/wheat, 135ha kale, 15ha fodder beet)

Community groups
Around each monitor farm, a wider community group will be established, consisting of several local farmers and rural professionals. The community groups will provide practical advice when adopting new mitigation options and share results and information with their network of contacts.

Interested in participating?
To register your interest to be part of a community group (surrounding your local monitor farm) please email paul.edwards@dairynz.co.nz. Community groups will be established in 2015.

Cross-sector approach
The cross-sector approach is the first of its kind on this scale and is a commitment from the industry to work together to improve environmental and economic sustainability.

Forages for Reduced Nitrate Leaching is a DairyNZ-led programme in partnership with AgResearch, Foundation for Arable Research, Landcare Research, Lincoln University and Plant & Food Research. The principal funder is the Ministry of Business, Innovation and Employment; all partners co-fund the programme.
THE MYTH:
You can squeeze more into the cow’s rumen if you fill it using the philosophy of rocks first, followed by pebbles, sand and then beer!

BUSTED.
This statement shows a lack of understanding of intake regulation. There is no problem applying the rock, pebbles, sand and beer philosophy to prioritising your time.

But to say you can fit more into the rumen of a cow that is eating pasture (rocks) by adding in hard feeds or concentrates (i.e. pebbles or sand) and that there is room left for liquid feeds like molasses (i.e. the beer) is incorrect.

The rumen is not a closed container
As feed passes into the rumen it is broken down (i.e. fermented or degraded) and the products are either absorbed through the rumen wall or passed out into the small intestine.

Good quality pasture can be degraded very quickly and passes through the rumen relatively quickly. Therefore, it doesn’t take up a lot of room in the rumen.

In contrast to what is often suggested, the amount of fibre in pasture (i.e. the bulkiness of the feed) is not the main factor limiting intake.

In fact, with typical pasture, the fibre content (or space) explains less than 10 percent of the variation in intake. This means that more than 90 percent of the intake variation in cows grazing good quality pasture is caused by factors other than the fibre or bulkiness of the pasture.

Intake regulation is complex
The cow’s brain tells her when to start and stop eating. As a cow eats and the feeds are digested in the rumen, the products of digestion and hormones released inform the brain about how much the cow has eaten.

The cow’s brain then calculates how much energy she still requires and whether expending the energy to harvest extra feed is worth it.

If the cow is fed a supplement (i.e. concentrates or molasses), signals are sent to the brain that she has eaten energy and other important nutrients and she will reduce the time spent grazing. This is known as substitution.

For every kilogram of supplement the cow is fed, she will graze for approximately 12 minutes less and, therefore, leaves more pasture behind in the paddock.

Although some people would like you to believe this does not happen with concentrate or liquid feeds, this is not true.

Substitution happens even in hungry cows and the amount of pasture substituted increases as the animal becomes better fed.

Conclusion
Intake regulation in the dairy cow is complex and the rocks, pebbles, sand and beer philosophy does not apply.

With high quality pasture, voluntary intake is primarily regulated by the brain and rumen space plays only a minor role. The best advice is to forget about trying to ‘squeeze more in’ and drink the beer yourself!
Informed investing – simple tests to full analysis

Opportunities to invest in machinery and infrastructure can have far-reaching impacts and need to be fully evaluated. But when should owners or directors of a business do heavy-duty analysis on a potential development?

Appreciating assets

In the past, over 90 percent of a farm business’s value has been in appreciating assets such as land and cows, with a bare minimum in depreciating assets such as sheds, plant and machinery.

Simple financial tools were adequate for farmers and their advisors to assess an investment – such as operating profit, return on assets, return on capital, return on equity, debt per kg milksolids, and interest per kg of milksolids.

As long as the debt could be funded, the appreciating nature of the investment meant it could always be sold for more than it was bought for.

These calculations are still sufficient for investments developing the land’s productive capacity, such as water rights and irrigation infrastructure.

Depreciating assets

Depreciating assets such as concrete, steel, machinery and technology often have a large capital cost, a long lifespan and a long payback period.

These investments are hard to undo and sell to recover capital, and do not always add to the farm’s value.

Unless the additional cashflow generated from the investment allows for a quick payback, it can be hard to avoid losing equity.

To properly analyse these types of capital outlay, commercial investment tools are needed to quantify the investment’s costs and benefits over time. These tools include internal rate of return (IRR), net present value (NPV) and discounted cash flow (DCF).

Because several critical assumptions must be correct or the results will be misleading, find an advisor who is proficient with these tools. They are often found in the commercial divisions of large accountancy firms, banks, valuation businesses and large consultancy firms.

Making investment decisions

- Simple measures, such as operating profit, return on capital and debt per kg milksolids, remain sufficient for investments developing the land’s productive capacity.
- Depreciating assets require a full analysis to evaluate capital outlay. Tools for this include internal rate of return (IRR), net present value (NPV) and discounted cash flow (DCF).
- Find an advisor who is proficient with these tools – they are often found in the commercial divisions of large accountancy firms, banks, valuation businesses and large consultancy firms.
Time to set up winter crops

Now is the ideal time to set up a winter crop and, with a little careful management, sediment and phosphorus losses can be reduced during grazing.

DairyNZ research from South Otago has shown that strategic grazing and careful management of wet areas such as gullies and swales (critical source areas) in winter forage crops can reduce losses of sediment and phosphorus (P) to surface runoff by 80-90 percent.

“Setting up a winter crop for strategic grazing now can significantly reduce next winter’s sediment and P loss,” says DairyNZ developer Maitland Manning.

“Swales and gullies are where overland flow and seepage converges to form small channels of running water, which may then flow to streams and rivers. By minimising stock movements and soil treading damage in these areas, any rainfall and runoff that occurs is more likely to infiltrate the soil, reducing the amount of runoff and loss of sediment and P.”

Strategic grazing means the cows graze the drier parts of the paddock first and the wetter parts last. This usually means that cows enter at the top of catchments/gullies and graze their way downhill towards the gully or swale.

What can be done now to set up paddocks?

Start by selecting winter cropping paddocks that don’t have large gullies or swales. But if they do, leave those areas uncultivated.

Fence off the gully or swale before the crop gets too high and provide as much buffer as possible – at least 10m wide and as long as possible. Leaving the area uncultivated and fenced off will reduce the amount of soil treading damage by stock.

Work out a grazing strategy before putting up break fences, thinking about where to put them in relation to the gully or swale, where baleage will go in relation to break fences, where the stock water sources are and if portable water troughs are needed.

What is the grazing strategy to use over winter?

Back-fence as much as possible to help minimise soil pugging and compaction damage, and reduce the volumes of surface runoff.

If the gully or swale is cultivated, leave as the last break or on-off graze any crop left near the area at a time when soil moisture content is not too high.

Establishing winter crops

- Setting up a winter crop for strategic grazing now can significantly reduce next winter’s sediment and P loss.
- Fence off gullies or swales before the crop gets too high and provide as much buffer area as possible.
- Work out a grazing strategy before putting up break fences, thinking carefully about where to put them in.

For more information

Visit dairynz.co.nz/p21 for more information on reducing surface runoff of grazed forage crops.

This research was funded by the Pastoral 21 programme – a collaborative venture between DairyNZ, Fonterra, Dairy Companies Association of New Zealand, Beef + Lamb NZ and the Ministry of Business, Innovation and Employment. The support of Telford Dairy Farm and AgResearch and DairyNZ research staff is also gratefully acknowledged.
Dear DairyNZ

I’ve started thinking about planning the Christmas rosters and task list – do you have any tips that will keep everyone motivated and help us all enjoy Christmas?

Reply: Now would be the perfect opportunity to plan a team barbecue to celebrate the Christmas season and acknowledge the hard work the team have put in during the season. Everyone enjoys a celebration and what better excuse than Christmas.

Remember to book a relief milker to cover staff rostered off during the Christmas period. Don’t forget to include yourself when it comes to having some time off.

If staff are working on statutory holidays they should be getting the leave and pay they are entitled to. No-one wants to be thought of as the Christmas Grinch! Check out mbie.govt.nz if you are unsure what the regulations are.

Over the Christmas break, children are more likely to be on the property. Kids can have so much fun on a farm but you might want to think about how you will manage hazards and pay particular attention to your health and safety policy, so no-one gets hurt.

All the best for the festive season! Have fun and keep safe.

The People Team, DairyNZ

>> Send your people-related questions to deardairynz@dairynz.co.nz.

dairynz.co.nz/people

News scoop

Fast track your career: enter the 2015 dairy awards

Entries are now being accepted in the 2015 New Zealand Dairy Industry Awards, including the Sharemilker/Equity Farmer of the Year, Farm Manager of the Year and Dairy Trainee of the Year competitions.

National convenor Chris Keeping says the competition leads to many employers actively looking for staff who have been involved in the Dairy Industry Awards.

“People have nothing to lose and everything to gain from entering these awards. Participants consistently tell us what they learn through the preparation and judging process is invaluable in improving their skills and career prospects.”

Chris says in 2014, the sharemilker/equity farmer contest celebrated 25 years and is the longest-running dairy farming competition. “It has a huge following and is highly regarded.”

The awards are supported by national sponsors Westpac, DairyNZ, Ecolab, Federated Farmers, Fonterra, Honda Motorcycles NZ, LIC, Meridian Energy, Ravensdown, RD1 and Triplejump, along with industry partner Primary ITO. Entrants first compete in regional competitions New Zealand-wide, with winners progressing to the nationals.

Visit dairyindustryawards.co.nz to learn more and to enter.

WEB WATCH

Ranking of active sires

Herd test information is flowing in and new bulls are qualifying for the RAS (ranking of active sires) list. Keep up-to-date and check out the best bulls online today.

Visit dairynz.co.nz/ras-list.

Jargon

Hydrologically-isolated plot

A site that captures any drainage and channels it through a single point for measurement (a useful tool for measuring paddock-scale losses of N and P through drains).
the seasonal diary

NOVEMBER

**Feed**

Nitrogen applications
- Consider applying 30kg N/ha in late November/December.
- If the farm is prone to summer dry, N application coupled with longer rotations (27-30 days), will improve feed availability through late January and February.

Visit dairynz.co.nz/pasture.

**Feeding supplements**
- Remove genuine culls before feeding supplements.
- Calculate what you can afford for supplement, using the online DairyNZ Supplement Calculator.
- Feed supplements only when cows are grazing less than 7 clicks RPM or 1500kg DM/ha, using the winter formula.

Visit dairynz.co.nz/supplement-calc.

**Stock**

Heifer weights
- Re-check calf and heifer liveweight targets and involve graziers in a plan to achieve growth rate targets during summer and autumn. Use liveweight BV formula for mature cow liveweight = 500kg + Lwt BV to customise weight-for-age targets for each age group (InCalf Book pg 42-44).

Visit dairynz.co.nz/incalf.

**People & business**

Complete performance appraisals
- Identify skills for the team to develop, to improve business performance. Also discuss skills they want to build.
- Develop a training plan with staff to meet these needs. Consider on and off-farm training.

Performance appraisal templates are available in DairyNZ’s People Productivity Kit, visit dairynz.co.nz/quickstart.

**Environment**

Effluent management
- Storage capacity is critical to managing effluent system risk. Keep the ponds empty by applying effluent at all available opportunities. If the pond is full, there’s no storage.
- Use the regional Compliance Checklist to identify areas at-risk of non-compliance or where improvements could be made.

For more information, visit dairynz.co.nz (environment section) and the DairyNZ Compliance Checklist dairynz.co.nz/checklists.

For more seasonal information or to order your copy of the Seasonal Diary poster, visit dairynz.co.nz.

dairynz directory...

**ANNUAL REPORT SUMMARY**

Find out where your levy is invested in the 2013/14 Annual Report Summary. It is available online and includes regional statistics, highlights of the year, financial statements, key dairying figures and a seasonal review from chairman John Luxton and chief executive Tim Mackle.

Visit dairynz.co.nz/annualreport.

**FARMFACTS**

DairyNZ Farmfacts are quick reference guides providing dairy information to help support your farm management decisions. They are available for all aspects of farm management including animal health, farm infrastructure, budgeting, breeding and reproduction, effluent and nutrient management and more.

Visit dairynz.co.nz/farmfacts.

**INSIDE DAIRY ONLINE**

Past issues of *Inside Dairy* are available online at dairynz.co.nz/insidedairy.

Each issue is available to download, giving you the opportunity to catch up on any Inside Dairy publications you missed or track down an article you’d like to revisit. The Technical Series is also available online at dairynz.co.nz/technicalseries.

Order your publications online at dairynz.co.nz or call 0800 4 DairyNZ (0800 4 324 7969).
The field days will focus on identifying and managing environmental risks on-farm and helping farmers demonstrate good management practice.

DairyNZ catchment engagement leader, Tony Fransen, says the events are about being proactive so farmers have confidence their systems meet regulations.

“Farmers will receive practical solutions to take home and implement on their farm,” says Tony.

Four sessions will be held throughout the day focusing on nutrient management, research and development, soils, effluent and irrigation, and land management.

The nutrient management session will focus on the nutrient budget as a tool for understanding nitrogen movement through a farm system and the key drivers for nutrient loss.

Options to reduce nutrient loss and the financial implications of changing systems will be covered by DairyNZ scientist Dawn Dally during the research and development session.

Paddock sessions will include understanding soil type and moisture levels, managing effluent and irrigator systems efficiently, the benefits of on-farm planting, waste management and identifying high-risk areas on-farm.

Rural professionals on-hand

Certified professionals will be available on the day to provide one-on-one advice to farmers.

These include effluent and irrigation designers from accredited companies, effluent WOF (warrant of fitness) assessors, nutrient management advisors, soil specialists, native plant suppliers and recycling depot representatives. A list of staff training courses will also be available.

Sustainable Milk Plan

DairyNZ’s Sustainable Milk Plan has been approved by Environment Canterbury as a farm environment plan that meets the regulatory requirements of the Land and Water Regional Plan.

Tony says the field days will give farmers a chance to start preparing for their Sustainable Milk Plan with support on-hand.

“Many of the good management practices farmers will be implementing already – the next step is to demonstrate this by recording them in a Sustainable Milk Plan,” says Tony.

Canterbury EnviroReady events

No need to register, just come along on the day.

**Hinds**

**Tuesday, November 25**

9.30am-2pm

Golden Dairies

104 Winslow Willowby Rd, SN 2252

**Dunsandel**

**Thursday, November 27**

9.30am-2pm

Synlait Farms – Tapatoru

250 Waikimihia Rd, SN 1104

A barbecue lunch will be provided.

Visit dairynz.co.nz/enviroready for more information.

Matrix of Good Management

Environment Canterbury’s Matrix of Good Management project will deliver nitrogen and phosphorus loss targets under agreed good management practices for various sectors by July 2015.

It is expected that, over time, farmers will be required to comply with these targets. DairyNZ is closely involved to ensure the targets set are practical and science-informed.
DairyNZ runs a wide variety of farm system discussion groups, field days and specialist events. To find the full list of what’s on near you, visit dairynz.co.nz/events.

### NOVEMBER EVENTS

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
<th>SATURDAY</th>
<th>SUNDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>17</td>
<td>SOUTH WAIKATO</td>
<td>Taking the employment bulls by the horns</td>
<td>19 LOWER NORTH ISLAND</td>
<td>South Wairarapa discussion group</td>
<td>20 NORTHLAND</td>
<td>Whangarei heads discussion group</td>
</tr>
<tr>
<td></td>
<td>CANTERBURY</td>
<td>Rangiora under 500 farm systems group</td>
<td></td>
<td></td>
<td>25 CANTERBURY</td>
<td>EnviroReady field day, Ashburton</td>
</tr>
<tr>
<td></td>
<td>BAY OF PLENTY</td>
<td>Tauranga Hills discussion group</td>
<td></td>
<td></td>
<td>27 TOP OF SOUTH/WESTLAND</td>
<td>Richmond-Waimea farm systems group</td>
</tr>
</tbody>
</table>

### NORTH WAIKATO

A series of specialist workshops aimed at employers will be held in Morrinsville (November 19), Gordonton (November 20) and Paeroa (November 21).

The ‘Taking the Employment Bull by the Horns’ events will provide farmers with answers to their burning employment questions. The interactive workshops are designed to help farmers feel more confident and informed when it comes to compliance. Recruitment advice will also be provided by John Brosnan, a specialist on the topic.

### SOUTH WAIKATO

Looking to invest in a barn for housing cows? An event in Putaruru on November 14 will help farmers make an informed decision about the risks and returns of such an investment.

This event will take farmers through the implications building a barn can have on a farm system and introduce the tools available to help with the decision, ultimately ensuring the investment meets the farm’s goals and solves the issues they want to address.

A similar event will also be held in Morrinsville on November 13. For more information visit dairynz.co.nz/events.

### CANTERBURY

Rangiora under 500 farm systems group

### BAY OF PLENTY

Tauranga Hills discussion group

### SOUTH WAIKATO

Taking the employment bulls by the horns

### NORTH WAIKATO

Rangiora under 500 farm systems group

### SOUTH WAIKATO

Taking the employment bulls by the horns

### CANTERBURY

Rangiora under 500 farm systems group

### SOUTH WAIKATO

Taking the employment bulls by the horns
TARANAKI

DairyNZ is looking to establish another Taranaki Focus Farm, following on from a successful three years on Chris and Kathy Prankerd’s farm at Tariki.

A final field day was held on the Prankerd’s farm in July, which provided a summary of the project. This included a look at how the farm lifted their six-week in-calf rate and significantly lowered the not-in-calf rate.

The first step is to establish a community of interest among farmers who would like to help drive the project. Those interested can contact Taranaki regional leader Katrina Knowles on 021 831 944 or katrina.knowles@dairynz.co.nz.

LOWER NORTH ISLAND

A free DairyNZ workshop in Pahiatua on November 13 will help farm owners improve their governance skills.

The Demystifying Governance workshop will provide farmers with ideas to manage critical risks in their farm business and a taste of what is involved in the year-long DairyNZ governance course.

The workshop will show what is working well in other farming businesses and how simple processes are used to run these businesses more effectively, to achieve agreed outcomes for their families.

Places are limited and registration is required for this workshop. Visit dairynz.co.nz/events for more information.

SOUTHLAND/SOUTH OTAGO

A series of events in Southland will give farmers the opportunity to have questions on nutrient budgets and nutrient management answered.

The events will also cover Overseer, how it works and provide suggestions on how to reduce nutrient loss from the farm. Presented for DairyNZ by Miranda Hunter, the workshops will include a Water and Land 2020 policy update from Environment Southland.

The events are in Gore (November 17), Winton (November 18), Otautau (November 19), Mossburn (November 20) and Invercargill (November 21).

WEST COAST/TOP OF THE SOUTH

DairyNZ farm system groups are in full swing on the West Coast and Top of the South. Groups will focus on summer management topics including feed quality, raising young stock and monitoring herd reproductive performance.

Some West Coast groups will also include information on farm security, with a guest speaker talking about site monitoring systems.

For information on the latest discussion groups visit dairynz.co.nz/events or contact your local consulting officer.

DAIRYNZ CONSULTING OFFICERS

<table>
<thead>
<tr>
<th>Region</th>
<th>Leader Name</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northland</td>
<td>Tafi Manjala</td>
<td>027 499 9021</td>
</tr>
<tr>
<td>Far North</td>
<td>Kylie Hannett</td>
<td>027 243 6503</td>
</tr>
<tr>
<td>Lower Northland</td>
<td>Mark Forsyth</td>
<td>021 242 5719</td>
</tr>
<tr>
<td>Whangarei West</td>
<td>Corey Thorn</td>
<td>021 816 365</td>
</tr>
<tr>
<td>North Waikato</td>
<td>Phil Irvine</td>
<td>027 483 9820</td>
</tr>
<tr>
<td>South Auckland</td>
<td>Jamie Haultain</td>
<td>027 486 4344</td>
</tr>
<tr>
<td>Hamilton North</td>
<td>Jaimee Morgan</td>
<td>021 245 8055</td>
</tr>
<tr>
<td>Matamata</td>
<td>Aleisha Broomfield</td>
<td>027 474 3258</td>
</tr>
<tr>
<td>Paeroa/Te Aroha</td>
<td>Joan Barendsen-Heald</td>
<td>027 293 4401</td>
</tr>
<tr>
<td>Hauraki Plains</td>
<td>Fiona Wade</td>
<td>021 242 2127</td>
</tr>
<tr>
<td>South Waikato</td>
<td>Wade Bell</td>
<td>027 285 9273</td>
</tr>
<tr>
<td>Te Awa Munutu</td>
<td>Willy Burnell</td>
<td>027 475 0918</td>
</tr>
<tr>
<td>Otorohanga</td>
<td>Sarah Dirks</td>
<td>021 770 859</td>
</tr>
<tr>
<td>South Waikato</td>
<td>James Burrows</td>
<td>027 483 2205</td>
</tr>
<tr>
<td>Bay of Plenty</td>
<td>Sharon Morrell</td>
<td>027 492 2907</td>
</tr>
<tr>
<td>Western Bay of Plenty</td>
<td>Wilma Foster</td>
<td>021 246 2147</td>
</tr>
<tr>
<td>Central Bay of Plenty</td>
<td>Kevin McKinley</td>
<td>027 288 8238</td>
</tr>
<tr>
<td>Central Plateau</td>
<td>Moana Puha</td>
<td>021 225 8345</td>
</tr>
<tr>
<td>Taranaki</td>
<td>Katrina Knowles</td>
<td>021 831 944</td>
</tr>
<tr>
<td>South Taranaki</td>
<td>Stephen Canton</td>
<td>021 246 5663</td>
</tr>
<tr>
<td>Central Taranaki</td>
<td>Shirley Kissick</td>
<td>027 704 5562</td>
</tr>
<tr>
<td>Coastal Taranaki</td>
<td>Michelle Taylor</td>
<td>021 276 5832</td>
</tr>
<tr>
<td>North Taranaki</td>
<td>Sophie Parker</td>
<td>027 839 0428</td>
</tr>
<tr>
<td>Lower North Island</td>
<td>James Muwunganinwa</td>
<td>027 499 9020</td>
</tr>
<tr>
<td>Horowhenua/Wanganui/ South Taranaki</td>
<td>Scott Cameron</td>
<td>027 702 3760</td>
</tr>
<tr>
<td>Wairarapa</td>
<td>Leo Hendrikse</td>
<td>021 286 4346</td>
</tr>
<tr>
<td>Tararu/Coastal/Southern Manawatu</td>
<td>Abby Scott</td>
<td>021 244 3428</td>
</tr>
<tr>
<td>Southern Hawke’s Bay/Central/ Northern Manawatu/Rangitikei</td>
<td>Julie Morris</td>
<td>021 222 9023</td>
</tr>
<tr>
<td>Top of South Island/Westland</td>
<td>Wade Bell</td>
<td>027 285 9273</td>
</tr>
<tr>
<td>Nelson/ Marlborough</td>
<td>Stephen Arends</td>
<td>021 287 7057</td>
</tr>
<tr>
<td>West Coast</td>
<td>Ross Bishop</td>
<td>021 277 2894</td>
</tr>
<tr>
<td>Canterbury/North Otago</td>
<td>Virginia Sera</td>
<td>021 932 515</td>
</tr>
<tr>
<td>North/Coastal Canterbury</td>
<td>Noelie Fox</td>
<td>021 246 2775</td>
</tr>
<tr>
<td>Central Canterbury</td>
<td>Juliette Lee</td>
<td>021 323 834</td>
</tr>
<tr>
<td>Mid Canterbury</td>
<td>Natalia Benquet</td>
<td>021 287 7059</td>
</tr>
<tr>
<td>South Canterbury</td>
<td>Erin Sinclair</td>
<td>021 243 7337</td>
</tr>
<tr>
<td>North Otago</td>
<td>Chriisy Williams</td>
<td>021 227 6476</td>
</tr>
<tr>
<td>Southland/South Otago</td>
<td>Richard Kyte</td>
<td>021 246 3166</td>
</tr>
<tr>
<td>South Otago</td>
<td>Richard Kyte</td>
<td>021 246 3166</td>
</tr>
<tr>
<td>Western Southland</td>
<td>Monique O’Connell</td>
<td>027 702 2219</td>
</tr>
<tr>
<td>Hokonui/Northern Southland</td>
<td>Tessa Geddes</td>
<td>021 309 563</td>
</tr>
<tr>
<td>Eastern/Southern Southland</td>
<td>Nathan Nelson</td>
<td>021 225 6931</td>
</tr>
<tr>
<td>Tuatapere/Dipton</td>
<td>Anna Kempthome</td>
<td>027 220 6691</td>
</tr>
</tbody>
</table>
MOBILISE YOUR CAREER

Enter the Dairy Industry Awards to get your career moving.

SHAREMILKER EQUITY FARMER OF THE YEAR

FARM MANAGER OF THE YEAR

DAIRY TRAINEE OF THE YEAR

Win one of six iPhone 5S® and iPad® bundles

Enter at dairyindustryawards.co.nz before 10th November to be in the draw*

* Early bird prize draw terms and conditions apply, see our website for details.