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Manatū Ahu Matua



DAIRY
BUSINESS
OF THE YEAR



Dairy Business of the Year 2017

National Supporters Event

Landcorp Moutoa Ruapehu

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Manatū Ahu Matua



DAIRY
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DBOY2016 Supreme Winners

- ✓ Best Manawatu Farm Performance
- ✓ Lowest Environmental Impact
- ✓ High Input System with Best Financials

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Health and Safety – Emergency Plan

General Information

Property Address: 275 Whirokino Road, Levin

DBOY Officer: David Densley **Phone:** 027 748 2327

Hosts Names: Landcorp Moutoa Ruapehu **Phone:** 0272 188138

Evacuation Procedures

Evacuation Signal	Safe Assembly Area Location
Air Horn and/or Verbal Instruction	Center of tanker turn around

Accident Procedures

1. **Stay Calm.**
2. **Shut Down** any plant or equipment.
3. Provide first aid if someone is injured.
4. **Dial 111** and ask for the appropriate emergency Services.
5. **Arrange** for someone to meet them at the front of the site when they arrive.

Earthquake Procedures

1. **Seek Shelter** under a table or solid object that will provide protection from falling debris.
2. **Keep Clear** of collapsible structures.

Other Emergencies Procedures:

In the event of a Fire, Chemical Spill, Gas Leak, Electrical Event or any other Emergency:

1. **Evacuate the Site** to a Safe Assembly Area.
2. **Dial 111** and ask for **FIRE**.
3. **Report** to the Officer or Host.

Health and Safety Kit

“Red Box” located prominently at the event meeting place contains:

- ✓ First Aid Kit(s).
- ✓ Fire Extinguisher or Fire Blanket.
- ✓ Air Horn.
- ✓ Sun Block.

Emergency Contacts

First Aider on Site:

Nearest Medical Centre/ Hospital: Foxton Medical Centre 06-363 6030 or
Palmerston North Hospital 06-356 9169

Police / Fire / Ambulance: Dial 111

Hazardous and Restricted Areas

This is a working farm so please be aware of the following:

1. Stay clear of tanker tracks.
2. Do not touch electric fences as they may be live.
3. Stay clear of any drains and culverts - these will be pointed out to you.
4. Watch for bulls on farm, do not aggravate.
5. Do not enter paddocks or cross fences unless instructed to do so.
6. When in a paddock tread carefully and watch for rabbit holes and uneven surfaces.
7. Stay clear of effluent ponds, do not pass fences or climb structures.
8. Where children have been brought along, please supervise at all times in locations.

Summary of Key Performance Indicators

Physical and Financial

Key Performance Indicators	2013/14	2014/15	2015/16	2014/15 DBOY Finalists
Profitability and Resilience				
Milk Price (\$/kgMS)	8.32	6.17	4.81	4.92
Return on Capital (%)	11.8	7.1	2.1	3.2
Operating Profit Margin (%)	51.9	38.5	16.4	26.4
Operating Profit per Hectare (\$)	6,694	4,191	1,290	2,392
Gross Operating Revenue per Hectare (\$)	12,896	10,875	7,856	8,819
Gross Operating Expenses per Hectare (\$)	6,201	6,685	6,565	6,427
Cost of Production per kgMS	3.78	3.61	3.95	3.45
Operating Expenses per kgMS (FWE+Adjst)	4.20	4.08	4.35	
Livestock and Milk Production				
Peak Milking Cow Numbers	871	871	901	857
Core Costs per Cow (\$)	627	658	729	616
Stocking Rate (Cows/ha) (Kg/ha)	3.44	3.44	3.56	3.67
Milk Production per Cow (kgMS)	429	476	424	430
Milk Production as % of LW	89	99	88	92
Milk Production per Hectare (kgMS)	1,476	1,638	1,508	1,592
Feed Management				
Pasture Harvested (tDM/ha)	12.0	14.4	14.4	14.5
Pasture as % of Diet	65	71	74	78
Core Costs per ha per tDM pasture harvest (\$)	74	78	81	76
Total Consumed Per Cow (estimated tDM)	5.05	5.53	5.09	4.94
Pasture Consumed Per Cow (est. tDM)	3.23	3.83	3.73	3.80
Forage Consumed Per Cow (est. tDM)	1.33	1.25	0.80	0.66
Concentrate Consumed Per Cow (est. tAF)	0.55	0.49	0.60	0.53
Average Cost of All Consumed Feed (/tDM)	306	304	290	310
Pasture Cost (/tDM Consumed)	279	261	267	292
Forage Cost (/tDM Consumed incl.wastage)	350	382	364	332
Concentrate Cost (/tDM Cons. incl. waste)	367	462	341	460

Environmental Management

Key Performance Indicators		2014/15	2014/15 DBOY Finalists
Effluent	Effluent Pond	Lined	-
	% of Farm Irrigated with Effluent	38	30
	N Loading on Effluent Area (kg/ha)	84	105
Nitrogen	N Leached (kg/ha)	19	40
	N Conversion Efficiency (%)	30	36
	Soluble N Use (kg/ha)	116	129
Phosphorus	P Loss (kg/ha)	2.0	1.2
	Olsen P Levels	Above & Decreasing	-
Soil Protection	Winter Cropping % of Farm	0	-
	Winter Soil Management	Formal Standoff	-
Overall Score	Score out of 15 points	11	-

People Management

Key Performance Indicators		2013/14	2014/15	2015/16	2014/15 DBOY Ave. across all entrants
Labour Utilisation	Staff Costs per Cow (\$)	318	358	339	392
	Cows per Full Time Equivalent (50hr FTE)	150	150	155	170
Training Spend	Training spend per FTE in Dollars (\$)	-	539	-	271
	Training spend per FTE in Time (hrs)	-	1.90	-	3.52
Unplanned Costs	Costs per FTE (\$)	-	21	-	301
	Unbudgeted Days Lost per FTE	-	5.24	-	4.49
Labour Turnover	Labour Turnover - Management Staff (%)	-	0	-	9
	Labour Turnover - Non Management Staff (%)	-	38	-	29
Overall Score	Out of 15 points	-	7.0	-	8.3



History and Key Philosophies

Farm and Personal History

- Six years ago, Ruapehu was a low performer in the Landcorp group of farms. Milk production has since increased by 40%, attributed to a focus on pasture quality and quantity through a re-grassing programme and applications of lime.
- Glenn Weitenberg, the Farm Manager at the time DBOY16 was judged, has always been farming, starting on his father's farm. He spent two seasons with a 200 cow herd, then three seasons managing an 850 cow dairy operation. Before moving onto another dairy farming enterprise at the start of the 17/18 season, Glenn had spent four years managing this Landcorp farm.
- Glenn had a large focus on the basics of farming. He has a motto of "focusing on the little things and the big things will just happen". Glenn has always treated everywhere dairy enterprise he has been involved with as he would his own.

Farm Philosophy and Systems

- The emphasis has switched in the last few years to growing quality pasture, resulting in a marked lift in pasture performance.
- Pasture is supported in summer by turnip and rape crops, home grown maize silage which is fed in late lactation, and the strategic use of PKE.
- Their pasture focus has been on how to offer the best possible pasture for the cows every grazing to fully maximise their performance. Pre-topping has been one of the tools that has allowed them to achieve this.
- Rural professionals involved in the business include Helwi Tacoma (Intelact Farm Consultant) and the business manager of the complex.
- This Landcorp business runs at a System 4. They have chosen this system as they grow a lot of pasture from spring to Christmas, where they supplement just 2kg of palm kernel (soon to be grain). Because they can grow really good summer crops, these supplements are used to support the dips in and around the summer period. Maize silage is used in late lactation for weight gain. 600 cows are left on farm through winter which require a lot of feed. By having a higher stocking rate, they are better able to utilise all the pasture growth they achieve through spring.

Profitability and Resilience

Profit and Resilience Key Performance Indicators Table

Key Performance Indicators	2013/14	2014/15	2015/16	2014/15 DBOY Finalists
Milk Price (\$/kgMS)	8.32	6.17	4.81	4.92
Return on Capital (%)	11.8	7.1	2.1	3.2
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Operating Profit per Hectare (\$)	6,694	4,191	1,290	2,392
Gross Operating Revenue per Hectare (\$)¹	12,896	10,875	7,856	8,819
Gross Operating Expenses per Hectare (\$)	6,201	6,685	6,565	6,427
Cost of Production per kgMS	3.78	3.61	3.95	3.45
Operating Expenses per kgMS (FWE+Adjst)	4.20	4.08	4.35	

Key Concepts of Profitability

- Glenn stated that he is a great believer in spending money to make money. Obviously, this must be very controlled but I do not shy away from costs that will benefit the cows, people or the environment he says.

Resilience - Cost Control Techniques

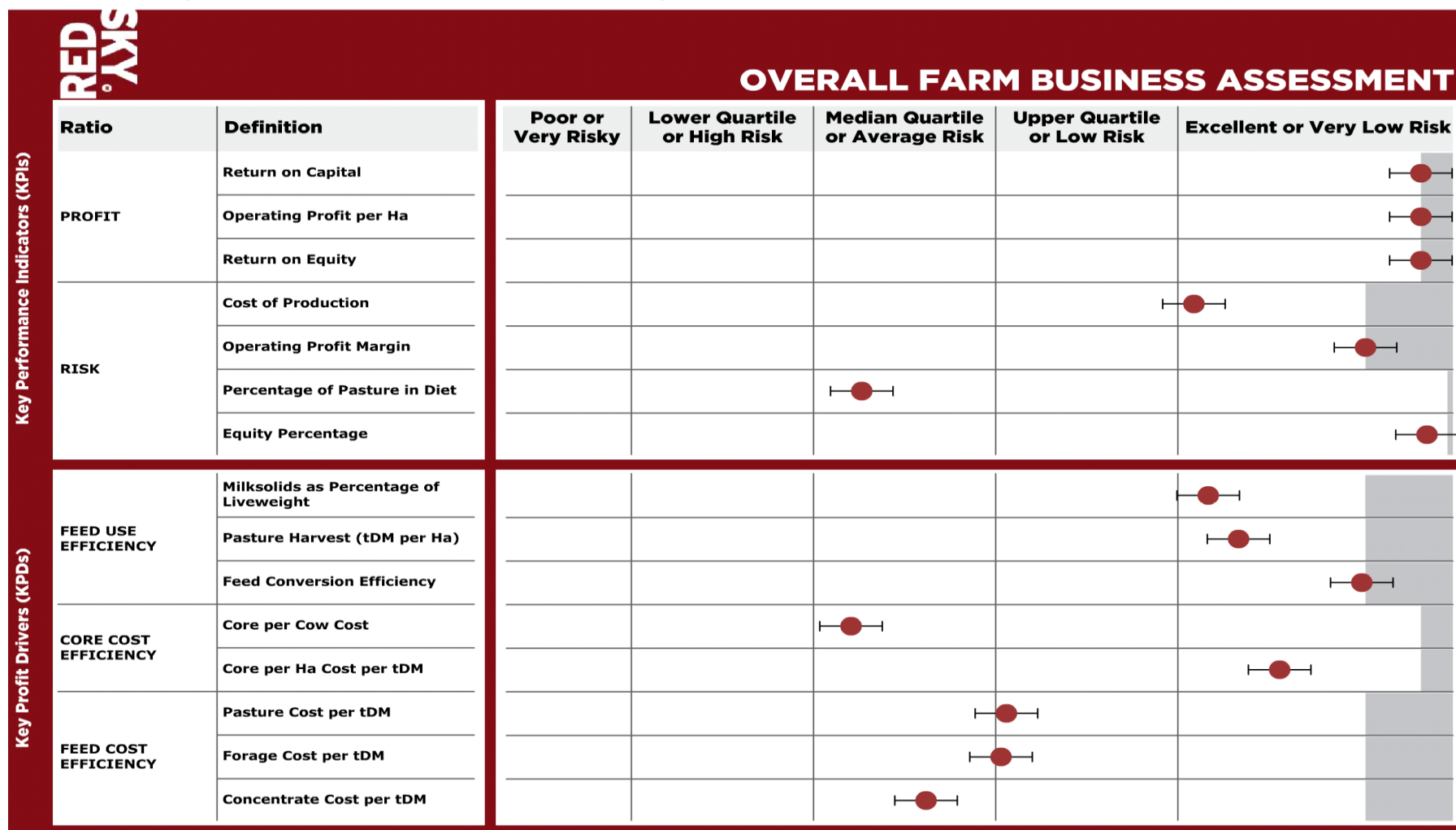
- Utilise the pasture well to increase milk production without increasing costs (spend the same money whilst achieving higher milk production).
- This farm business has three budget reviews each year and they try to stick to the original budget as much as possible. Payouts and weather have the major influences on expenditure changes.
- A big focus for Glenn has been can we spend the same money but produce more milk. "This went a little bit against what most farmers were doing with low payouts, but more milk can mean additional savings. Basically, being smarter with the money we had" Says Glenn.
- On the other side, they also don't spend money just because it's in that section of budget.
- Landcorp has a website they can view their budgets daily which are constantly updated with what is spent, making it very easy to keep an eye on how they are tracking.

¹ See Appendices >Definitions >Milk Revenue – Page 17

Red Sky Financial 2014/15 Scorecard



Brian Wilkinson and Glenn Weitenburg
Landcorp Ruapehu Farm
2014/15 Ruapehu DBOY Vs Manawatu-Wairarapa Benchmark

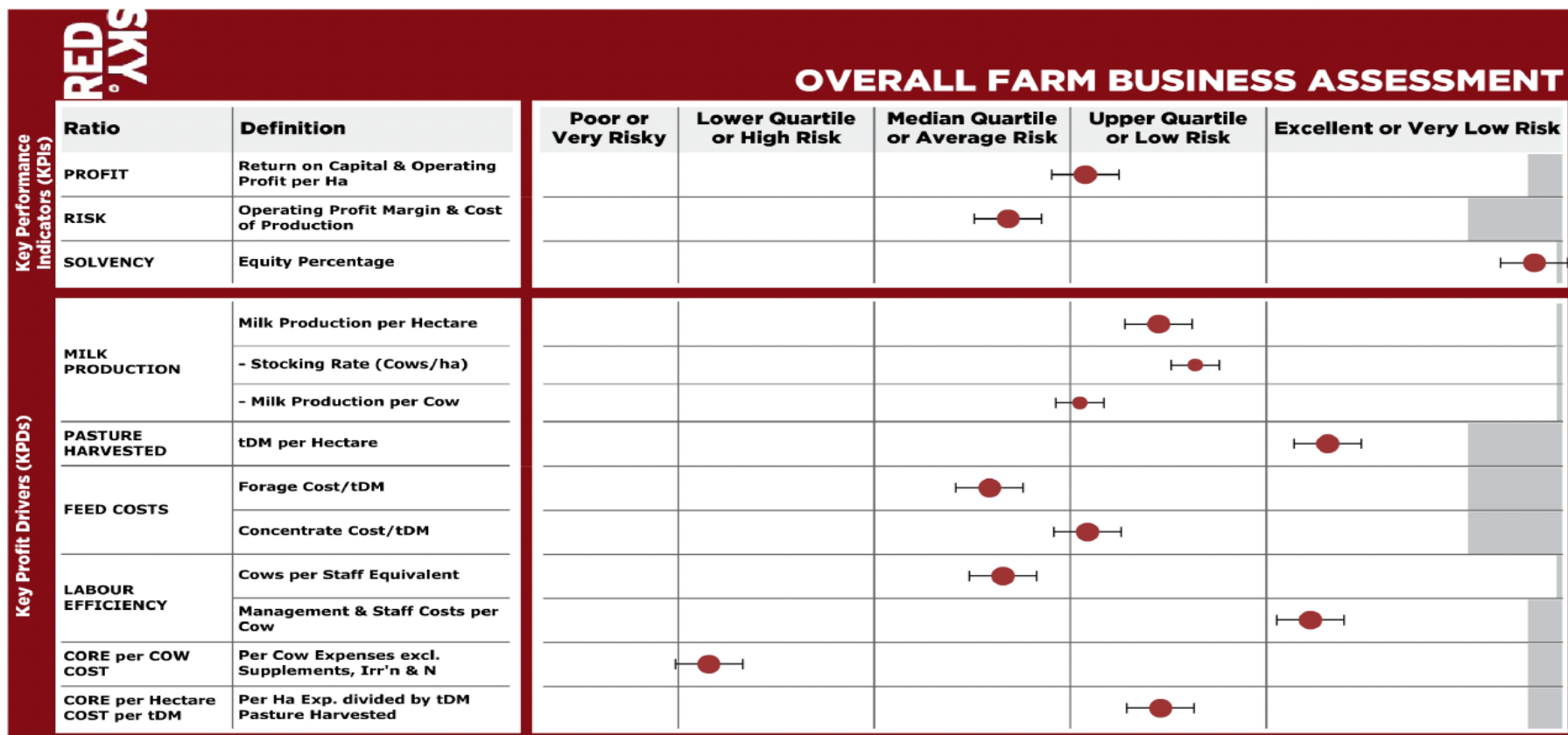


Red Sky Financial 2015/16 Scorecard



Brian Wilkinson and Glenn Weitenburg
Landcorp Ruapehu Farm
2015/16 Ruapehu DBOY Vs Manawatu-Wairarapa Benchmark

DAIRY BUSINESS
OF THE YEAR



Core per Cow Cost = (Animal Health + Breeding + Dairy Shed Expenses + Electricity + Grazing/Agistment + Freight + Other Expenses + 50% Repairs & Maintenance + 30% Standing Charges + 70% Vehicle Expenses + 50% Depreciation) / Peak Milking Cow Numbers

Core per Hectare Cost per tDM Pasture Harvested = (Administration + Cropping (green feed) + Phosphate & All Other Fertiliser + Pasture Maintenance & Renovation + 50% R&M + 70% Standing Charges + 30% Vehicle Expenses + Weed & Pest + 50% Depreciation) / Effective Milking Hectares / tDM Pasture Harvested per Hectare

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Livestock and Milk Production

Livestock and Milk Production Key Performance Indicators Table

Key Performance Indicators	2013/14	2014/15	2015/16	2014/15 DBOY Finalists
Peak Milking Cow Numbers	871	871	901	857
Core Costs per Cow (\$)	627	658	729	616
Stocking Rate (Cows/ha) (Kg/ha)	3.44	3.44	3.56	3.67
Milk Production per Cow (kgMS)	429	476	424	430
Milk Production as % of LW	89	99	88	92
Milk Production per Hectare (kgMS)	1,476	1,638	1,508	1,592

Cow Management

- Focus in recent years on cow performance and udder quality has resulted in obtaining a uniform herd that has reduced milking times and lifted per cow production. MilkHub technology is used to assist culling decisions during the season based on production performance.
- The kiwi cross herd uses LIC Bull of the day plus 300 straws of Friesian semen across the smaller cows to maintain herd size. On average, 30 young empty cows are carried over as winter milkers, which are then combined with those from other Landcorp farms where they are milked through one shed, returning to the respective home farms at the start of calving. 300 cows are wintered off.
- Condition score targets 5.0 at calving (5.5 for heifers). In October Glenn and his team make a third smaller herd of non-cyclers and light cows, and feed that herd a greater portion of Palm Kernel.
- Culling over the last few years has been focused around tidying the appearance of the herd, which meant removing angus cross cows, split or low udders and lameness cows. The focus is now changing onto more finer details such as no more empty carryover cows, and culling older cattle and/or 3 titters whose performance is below the average.
- Glenn says they have incredible pasture growth rates from August through to Christmas, which is utilised efficiently by direct grazing. They grow high yielding summer crops to support higher stocking rates.
- Rural professionals are used when making stock management decisions including Helwi Tacoma (Intelact Consultant), as well as using WellFarm through their vets to gather more information

Young Stock Management

- Calves are either sent to the runoff or to dedicated grazers in early December at an average weight of 120kg. A team member with a special interest in rearing calves develops a health and growth plan for all mobs and monitors them on a regular basis, including monthly weighing.
- All heifer calves are reared then the numbers are cut back as there is not the need for as many replacements now than there was in the past. The farming team have tried rearing extra bulls but didn't find it that worthwhile. Instead, they send calves to a private farmer who rears them to weaning at a set price, which the farm then receives the profits from the sale of the animals.
- Growth targets are set each year before calving starts and a plan put in place for the whole year which is monitored by Claudia and Cleo from the office. Glenn aims to have all his calves weaned by ten weeks of age.
- All replacement calves are reared on a Queen of Calves program from day one to weaning. This helps with the aim to have the best possible stock performing at high levels from day one, and Queen of Calves helps achieve this objective.



Feed Management

Feed Management Key Performance Indicators Table

Key Performance Indicators	2013/14	2014/15	2015/16	2014/15 DBOY Finalists
Pasture Harvested (tDM/ha)	12.0	14.4	14.4	14.5
Pasture as % of Diet	65	71	74	78
Core Costs per ha per tDM PH (\$)	74	78	81	76
Total Consumed Per Cow (estimated tDM)	5.05	5.53	5.09	4.94
Pasture Consumed Per Cow (est. tDM)	3.23	3.83	3.73	3.80
Forage Consumed Per Cow (est. tDM)	1.33	1.25	0.80	0.66
Concentrate Consumed Per Cow (est. tAF)	0.55	0.49	0.60	0.53
Average Cost of All Consumed Feed (/tDM)	306	304	290	310
Pasture Cost (/ tDM Consumed)	279	261	267	292
Forage Cost (/tDM Consumed incl. wastage)	350	382	364	332
Concentrate Costs	367	462	341	460

Key Concepts

- Feed budgets are made with Helwi Tacoma (Intelact Consultant) who visits the farm approximately every 6 weeks. These feed budgets are regularly reviewed by both Glenn and Helwi.
- Glenn refuses to feed supplements in paddocks when they have a feed pad available. They try to keep a bit of consistency in supplement feeding, for example not in one day and out the next.

Pasture Management

- In recent years pre-graze topping from spring to Christmas has turned patchy grass growth into even pasture, while at the same time raising the ME by an estimated 0.5-1.0 MJ/kgDM.
- This strategy, combined with a policy of grazing at 2.5-3.0 leaf emergence and the use of small and regular urea applications, has recently lifted pasture harvest further to an estimated 14.0tDM/ha.
- Milk production through the pre-graze topping period remains consistent compared to the production dips experienced in the years prior to using this practice. A lift of around 20,000 kgMS during October-December is attributed to the improved pasture quality.
- A crop to pasture re-grassing programme follows 16ha turnips and/or rape, and 25ha maize annually. Pasture supply is now even across the season, compared to the 'feast or famine' supply in previous years.

Supplement Management

- Palm Kernel is strategically used at a rate of 2kg per cow/day.
- Home-grown maize silage is fed in late lactation.
- Grass silage fed through summer until the start of maize silage in late lactation



Environmental Performance

Environmental Key Performance Indicators Table

Key Performance Indicators		2014/15	2014/15 DBOY Finalists
Effluent	Effluent Pond	Lined	-
	% of Farm Irrigated with Effluent	38	30
	N Loading on Effluent Area (kg/ha)	84	105
Nitrogen	N Leached (kg/ha)	19	40
	N Conversion Efficiency (%)	30	36
	Soluble N Use (kg/ha)	116	129
Phosphorus	P Loss (kg/ha)	2	1.2
	Olsen P Levels	Above & Decreasing	-
Soil Protection	Winter Cropping % of Farm	0	-
	Winter Soil Management	Formal Standoff	-
Overall Score	Score out of 15 points	11	-

Environmental Management Key Concepts

- Landcorp, as is evident by their DBOY16 Environmental Management Award, has a strong focus on minimising the impact their farming practices have on the environment.
- New Smartfarm technology and effluent storage facilities have 'bullet-proofed' the effluent system allowing optimum timing and rate of application. In combination with a larger effluent spreading area and improved scheduling of urea applications, N leaching projections based on Overseer have decreased since the introduction of Smartfarm.
- N is applied at a lighter rate of 20kgN/ha per application, and they follow the grazing plan and avoid wet conditions. ProGibb is utilised in autumn and winter, which has markedly improved pasture growth rates.
- 1.5ha of the farm has been retired and planted with native trees. All drains are fenced off.
- The next stage for this farm would be to further increase effluent area to reduce P loading.
- Winter crops are never used on farm.

Environmental Management Key Concepts ...cont.

- Staff are responsible for all effluent management, which includes ensuring the irrigator is moved and maintained etc. Everyone is aware of Landcorp's effluent management good practice guidelines and practices. As part of these guidelines, Landcorp have an effluent training plan which staff sign up for once they are trained in certain areas.
- Glenn records the applications of all fertiliser and effluent, which in turn informs the farming team of the N application and loading for each paddock over the farm. This information is then used to provide guidance on the paddocks to target for effluent and nitrogen fertiliser application, which Glenn writes up on a white board so the team know which paddocks to go to.

2014/15 Environmental Impact Assessment Scorecard

Headlands Environmental Impact Assessment

Wairarapa Non Irrigated Scorecard

Landcorp Ruapehu Farm

Category	Best Management Practice Criteria	High Risk	Med-high Risk	Medium Risk	Med-Low Risk	Low Risk	Your Result	Your Score ²
Effluent	Lined/sealed effluent pond					■	Lined or Verified as Sealed	5
	% of farm irrigated with effluent				■		38	4
	N loading on the effluent area ^{kgN/ha}				■		84	4
Nitrogen	KgMS/ha per kgN Loss/ha				■		86	4
	KgN Leached/ha ¹					■	19	5
	N Conversion Efficiency ¹ %		■				30	2
	Soluble N Use ¹ ^{kgN/ha}			■			116	3
Phosphorus	P Loss per ha ¹	■					2	1
	Olsen P Levels			■			Above optimum and decreasing	3
Soil Protection	Winter Cropping Area ¹					■	0	5
	Winter Soil Management					■	Herd home, feed pad or winter stand off yard	5
							Your Total Score (out of 55)	41
							Your weighted DBOY Score (out of 15)	11

¹ As defined by Overseer V6.2.1 Refer to appendices for criteria



People Leadership and Productivity

People Productivity Key Performance Indicators Table


Key Performance Indicators		2013/14	2014/15	2015/16	2014/15 DBOY Ave. across all entrants
Labour Utilisation	Staff Costs per Cow (\$)	318	358	339	392
	Cows per Full Time Equivalent (50hr FTE)	150	150	155	170
Training Spend	Training spend per FTE in Dollars (\$)	-	539	-	271
	Training spend per FTE in Time (hrs)	-	1.90	-	3.52
Unplanned Costs	Costs per FTE (\$)	-	21	-	301
	Unbudgeted Days Lost per FTE	-	5.24	-	4.49
Labour Turnover	Labour Turnover - Management Staff (%)	-	0	-	9
	Labour Turnover - Non Management Staff (%)	-	38	-	29
Overall Score	Out of 15 points	-	7.0	-	8.3

People Management Philosophies

- The team is relatively young with a good mix of strengths. During busy months tasks are delegated according to individual talents to improve job satisfaction and self-esteem. In quieter months duties are spread wider amongst the team to allow individuals to develop their weaker areas and broaden their skill base.
- The calving to Christmas roster is 3 days off a fortnight, and then extends to 4 days for the rest of the season. Regular rest is considered important; the breakfast break is one hour all year, and the lunch break one to two hours.
- Weekly team meetings are used for planning and ideas sessions. Annual reviews and bonus incentives for individuals are followed up a month later with new objectives which become a goal sheet for the coming year.
- Training and development on and off farm is encouraged across the team, taking particular advantage of courses offered within Landcorp.
- What is important to Glenn as an employer is that everyone is getting home safely and everyone is partaking in a range of jobs across the business (not just been a milker and that's it for example). He like to encourage and support staff to partake in sports or something similar to get them away from the farm and in to a different environment.
- Landcorp offers training programs for managers to aid in the management of staff which have been very successful from Glenn's experience.

This section is managed by No8HR for further information on the people leadership scorecard or for advice with your own staffing please contact No8HR on 07 870 4901 or visit www.no8hr.co.nz

2014/15 People Productivity Scorecard

HUMAN RESOURCES METRICS							No.8  HR		
LANDCORP - RUAPEHU DAIRY - Glenn Weitenberg									
SECTIONS	MEASURED BY	Some Risk		Median	Good performance		Your Farm Results	Group Average	Your Score
LABOUR UTILISATION / COSTS	Staff Costs per Cow			■			\$358.00	\$391.55	1.8
	Cows per FTE			■			150.00	170.00	0.6
TRAINING SPEND	Training spend per FTE in \$\$					■	\$538.85	\$271.31	1.0
	Training spend per FTE in Time		■				1.90	3.52	0.5
UNPLANNED COSTS	Costs per FTE (milk co fines, employment disputes costs etc)					■	\$21.38	\$301.50	1.1
	Unbudgeted Days Lost per FTE (i.e. sick / grievance/ suspension / breavement)			■			5.24	4.49	0.3
LABOUR TURNOVER	Management Staff - three year average					■	0%	9%	1.3
	Non Management Staff - three year average		■				38%	29%	0.4
							OVERALL SCORE (out of 15)		
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Current and Future Strategies

- No big changes to the current farm system with the current system still profitable even in low milk-price seasons
- Maintain staffing levels
- Growing grass to the 3-leaf stage to maximise pasture growth and production
- Make little cost saving gains in many areas including;
 - Repairs and Maintenance – essential work only
 - Direct drill turnips which may reduce yield by 1-2tDM/ha but will be offset by savings in cultivation costs
 - Not using CIDRs for anoestrus cows
 - Shorten AI period by one week
 - Rear 30 fewer heifer calves
 - Weighing supplements before it is feed to the cows to know exactly what is being feed as well as weighing all supplements arriving on farm to assess wastage between arrival and feeding.
 - Using the feedpad all year round for best utilisation of feed, including PKE

Appendices

Definitions

Milk Revenue in Red Sky is the money paid for the milk produced in that season and doesn't include deferred payments. It is calculated by the kilograms of milksolids times by the average price paid for that milk. This is specific to each farm as it is adjusted for demerits and bonuses.

Farm Working Expenses, Operating Expenses and Cost of Production per kilogram of Milk Solid - Understanding the differences;

- FWE/kgMS: is all the expenses physically paid expenses (real cash payments).
- OE/kgMS: is the FWE +/- non cash adjustments including depreciation, imputed labour.
- COP/kgMS: is the OE less non milk revenue to give the cost to produce the milk solids alone.

Return on Capital (ROC) is the operating profit divided by the total assets under management (owned and leased - includes support blocks). This percentage measure of profitability records the return on total assets employed in the business, and is arguably the most important measure of business performance. Furthermore it is comparable between different types and sizes of farm systems.

Effective Milking Hectares is the true area over which the milking cows graze. When young stock graze even briefly on farm, this grass they consume is no longer available for milking cows, hence the milking platform is effectively reduced. This makes the KPIs comparable between farms that graze heifers on farm and those who graze off.

Operating Profit Margin is the percentage of revenue that is retained after operating expenses are removed. Once debt serving and tax are paid from this, the remaining money is considered true profit.

Operating Profit is calculated as the gross revenue less gross expenses. This is a measure of profit and can be used for comparative farm analysis when divided by farm area (OP/ha). Note it needs to be interpreted in light of the wide variation in land capabilities and therefore values.

Gross Revenue is the total operating revenue plus livestock value adjustment and other revenue adjustments. See Milk Revenue

Gross Expenses is the total operating expenses adjusted for feed/supplements on hand at opening and closing of season, imputed (unpaid) labour and management, depreciation and other expenses adjustments. This does not include financing costs.

Pasture, Concentrate & Forage Cost includes direct purchase (or making) costs, variable expenses (the costs associated to feeding out including R&M on equipment) and capital cost (the cost of owning land and any infrastructure such as silage pits, in-shed feeding or Herd Homes. This calculation is also adjusted for wastage of feed during storage and feeding.

Red Sky Reports

Summary Farm Performance - Dairy
Brian Wilkinson and Glenn Weitenburg
Landcorp Ruapehu Farm

DAIRY BUSINESS
OF THE YEAR

	2013/14 Ruapehu	2014/15 Ruapehu DBOY	2015/16 Ruapehu DBOY	2014/15 Man- Wai Average	2014/15 Man- Wai Top 10%
PHYSICAL PARAMETERS					
Peak Milking Cow Numbers	871	871	901	504	555
Total Effective Dairy Hectares	253.0	253.0	253.0	170.0	167.1
Effective Milking Hectares	253.0	253.0	253.0	167.3	163.3
Cows per Milking Hectare	3.44	3.44	3.56	3.01	3.40
Milksolids per Cow	429	476	424	407	468
Milksolids per Milking Hectare	1,476	1,638	1,508	1,224	1,591
Milksolids Price (\$/kgMS)	\$ 8.32	\$ 6.17	\$ 4.81	\$ 4.41	\$ 4.41
Pasture Dry Matter Harvested (tDM/Ha)	12.0	14.4	14.4	11.8	14.3
REVENUE					
Milk Sales	\$ 3,108,181	\$ 2,557,175	\$ 1,835,802	\$ 945,457	\$ 1,201,024
Total Operating Revenue (TOR)	\$ 3,227,468	\$ 2,685,186	\$ 2,052,452	\$ 1,037,841	\$ 1,315,845
GROSS REVENUE (GR)	\$ 3,262,568	\$ 2,751,486	\$ 1,987,502	\$ 1,055,917	\$ 1,334,300
Gross Revenue per Hectare	\$ 12,896	\$ 10,875	\$ 7,856	\$ 6,310	\$ 8,173
Gross Revenue per Cow	\$ 3,746	\$ 3,159	\$ 2,206	\$ 2,095	\$ 2,404
EXPENSES					
Total Operating Expenses (TOE)	\$ 1,442,257	\$ 1,568,871	\$ 1,529,337	\$ 794,059	\$ 847,550
GROSS OPERATING EXPENSES (GOE)	\$ 1,568,959	\$ 1,691,244	\$ 1,661,029	\$ 999,088	\$ 1,032,187
Gross Operating Expenses per Hectare	\$ 6,201	\$ 6,685	\$ 6,565	\$ 5,970	\$ 6,322
Gross Operating Expenses per Cow	\$ 1,801	\$ 1,942	\$ 1,844	\$ 1,982	\$ 1,860
Debt Servicing & Non-Operating Expenses					
Total Debt Servicing & Non-Operating Exp	\$ 16,500	\$ 37,147	\$ 45,792	\$ 361,862	\$ 396,101
Operating Surplus (TOR - TOE)	\$ 1,785,211	\$ 1,116,315	\$ 523,115	\$ 243,783	\$ 468,294
Change in Working Capital	\$ 212,464	\$ 963,813	\$ 351,489	(\$ 99,222)	(\$ 57,367)
KEY PERFORMANCE INDICATORS					
OPERATING PROFIT (GR - GOE)	\$ 1,693,609	\$ 1,060,242	\$ 326,473	\$ 56,829	\$ 302,113
Operating Profit per Hectare	\$ 6,694	\$ 4,191	\$ 1,290	\$ 340	\$ 1,850
Operating Profit per Cow	\$ 1,944	\$ 1,217	\$ 382	\$ 113	\$ 544
Total Assets per Ha at Start of Year (4-Yr Av Values)	\$ 58,515	\$ 58,940	\$ 60,067	\$ 53,958	\$ 54,439
Total Assets per Ha at Start of Year (Market Values)	\$ 58,515	\$ 58,940	\$ 60,067	\$ 54,498	\$ 54,985
Total Assets at End of Year at 4-Yr Av Values	\$ 13,761,873	\$ 14,046,994	\$ 13,921,044	\$ 8,214,466	\$ 8,121,422
Total Liabilities at End of Year	(\$ 874,482)	(\$ 874,482)	(\$ 874,482)	\$ 3,229,818	\$ 3,162,966
EQUITY at 4-Yr Av Values at End of Year	\$ 14,836,355	\$ 14,921,476	\$ 14,795,526	\$ 4,984,649	\$ 4,958,456
EQUITY % at 4-Yr Av Values	106.4 %	106.2 %	106.3 %	60.7 %	61.1 %
Change in Equity at 4-Yr Av Values	\$ 1,358,553	\$ 285,121	(\$ 125,950)	(\$ 792,831)	(\$ 712,457)
RETURN ON CAPITAL (ROC) at 4-Yr Av Values	11.8 %	7.1 %	2.1 %	1.3 %	3.8 %
Return on Assets (ROA) at 4-Yr Av Values	12.9 %	7.4 %	2.0 %	1.1 %	3.7 %
ROA including Capital Gain at 4-Yr Av Values	23.1 %	9.0 %	1.6 %	-8.1 %	-4.7 %
RETURN ON EQUITY (ROE) at 4-Yr Av Values	12.6 %	7.0 %	1.9 %	-3.1 %	0.9 %
ROE including Capital Gain at 4-Yr Av Values	22.6 %	8.5 %	1.5 %	-17.1 %	-12.0 %
OPERATING PROFIT MARGIN	51.9 %	38.5 %	16.4 %	5.4 %	22.6 %
Cost of Production per kg Milksolids	\$ 3.78	\$ 3.61	\$ 3.95	\$ 4.34	\$ 3.46
Financing Costs per kg Milksolids	\$ 0.04	\$ 0.09	\$ 0.12	\$ 1.44	\$ 1.15
Cost of Prod'n + Financing Cost per kgMS	\$ 3.83	\$ 3.70	\$ 4.07	\$ 5.47	\$ 4.43
Total Operating Expenses per kg Milksolid	\$ 4.20	\$ 4.08	\$ 4.35	\$ 4.88	\$ 3.97
Total Operating Expenses as % Gross Revenue	44.2 %	57.0 %	77.0 %	75.2 %	63.5 %
Financing Costs as % Gross Revenue	0.5 %	1.4 %	2.3 %	28.0 %	22.4 %
Core per Cow Cost	\$ 627	\$ 658	\$ 729	\$ 653	\$ 602
Core per Hectare Cost	\$ 892	\$ 1,114	\$ 1,174	\$ 1,181	\$ 1,201
Core per Hectare Cost per tDM Pasture Harvest	\$ 74	\$ 78	\$ 81	\$ 100	\$ 84
Management + Staff Costs per Cow	\$ 318	\$ 358	\$ 339	\$ 450	\$ 382
Cows per Full Time Staff Equivalent	150	150	155	148	179
Total Feed/Supplement Costs per Cow	\$ 716	\$ 790	\$ 733	\$ 640	\$ 654
Pasture as % of Total Consumed	65.4 %	70.8 %	74.1 %	75.1 %	73.7 %
Average Cost of All Consumed Feed (/tDM)	\$ 306	\$ 304	\$ 290	\$ 305	\$ 266
Pasture Cost (Per tDM)	\$ 279	\$ 261	\$ 267	\$ 275	\$ 231
Forage Cost (/tDM Consumed incl.wastage)	\$ 350	\$ 382	\$ 364	\$ 393	\$ 357
Concentrate Cost (/tDM Consumed incl.wastage)	\$ 367	\$ 462	\$ 341	\$ 400	\$ 374

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Physical Summary - Dairy
Brian Wilkinson and Glenn Weitenburg
Landcorp Ruapehu Farm

DAIRY BUSINESS
OF THE YEAR

	2013/14 Ruapehu	2014/15 Ruapehu DBOY	2015/16 Ruapehu DBOY	2014/15 Man- Wai Average	2014/15 Man- Wai Top 10%
PHYSICAL PARAMETERS					
Peak Milking Cow Numbers	871	871	901	504	555
Effective Milking Hectares	253.0	253.0	253.0	167.3	163.3
Cows per Milking Hectare	3.44	3.44	3.56	3.01	3.40
Cow Liveweight per Milking Hectare	1,652	1,652	1,709	1,464	1,649
Comparative Stocking Rate (Red Sky)	128.3	111.8	110.4	117.1	108.9
Comparative Stocking Rate (DairyNZ)	99.5	86.0	85.6	90.0	88.8
Milksolids Price (\$/kgMS)	\$ 8.32	\$ 6.17	\$ 4.81	\$ 4.41	\$ 4.41
Total Milksolids (Milkfat + Protein)	373,339	414,453	381,622	204,891	259,825
Milksolids per Cow	429	476	424	407	468
Milksolids as Percent of Cow Liveweight	89.3 %	99.1 %	88.2 %	83.6 %	96.5 %
Milksolids per Milking Hectare	1,476	1,638	1,508	1,224	1,591
Milkfat Percentage	5.23 %	5.21 %	5.26 %	5.00 %	4.95 %
Protein Percentage	3.78 %	3.84 %	3.85 %	3.77 %	3.77 %
Protein as a Percentage of Milkfat	72.3 %	73.7 %	73.2 %	75.4 %	76.2 %
PRODUCTIVITY MEASURE					
Red Sky Dairy Productivity Ratio	1.00	1.12	1.08	0.86	1.07
PASTURE & SUPPLEMENTS					
Pasture Dry Matter Harvested (tDM/Ha)	12.0	14.4	14.4	11.8	14.3
Estimated Dryland Pasture Harvest (tDM/Ha)	12.0	14.4	14.4	11.8	14.3
Estimated Irrigated Pasture Harvest (tDM/Ha)	0.0	0.0	0.0	12.3	15.0
Nitrogen Applied per Hectare	170.0	209.0	160.0	164.2	200.2
Pasture as % of Total Consumed	65.4 %	70.8 %	74.1 %	75.1 %	73.7 %
Supplement as % of Total Consumed	34.6 %	29.2 %	25.9 %	24.9 %	26.3 %
- Forage as % of Total Consumed	23.3 %	20.0 %	13.7 %	14.7 %	15.2 %
- Concentrate as % of Total Consumed	11.4 %	9.2 %	12.2 %	10.2 %	11.1 %
Pasture Consumed Per Cow (estimated tDM)	3.23	3.83	3.73	3.75	4.00
Forage Consumed Per Cow (estimated tDM)	1.33	1.25	0.80	0.85	0.96
Concentrate Consumed Per Cow (estimated tAF)	0.55	0.49	0.60	0.50	0.59
Total Consumed Per Cow (estimated tDM)	5.05	5.53	5.09	5.05	5.50
Feed Conversion Efficiency (kgDM/kgMS)	11.31	11.19	11.69	12.03	11.37
Total Feed/Supplement Costs per Cow	\$ 716	\$ 790	\$ 733	\$ 640	\$ 654
Average Cost of All Consumed Feed (/tDM)	\$ 306	\$ 304	\$ 290	\$ 305	\$ 266
Pasture Cost (Per tDM)	\$ 279	\$ 261	\$ 267	\$ 275	\$ 231
- Direct Pasture Cost (Per tDM)	\$ 48	\$ 50	\$ 47	\$ 55	\$ 52
- Variable Pasture Cost (Per tDM)	\$ 44	\$ 38	\$ 40	\$ 48	\$ 37
- Capital Pasture Cost (Per tDM)	\$ 187	\$ 174	\$ 181	\$ 171	\$ 141
Average Cost of All Supplements (/tDM Consumed)	\$ 356	\$ 407	\$ 354	\$ 396	\$ 365
Forage Cost (/tDM Consumed incl.wastage)	\$ 350	\$ 382	\$ 364	\$ 393	\$ 357
- Purchased Forage Cost (Per tDM)	\$ 229	\$ 267	\$ 254	\$ 263	\$ 247
- Variable Forage Cost (Per tDM)	\$ 39	\$ 33	\$ 33	\$ 47	\$ 37
- Capital Forage Cost (Per tDM)	\$ 22	\$ 25	\$ 31	\$ 32	\$ 25
Home Produced Forage as Percent of Total	35.5 %	53.6 %	69.4 %	40.7 %	51.0 %
Concentrate Cost (/tDM Consumed incl.wastage)	\$ 367	\$ 462	\$ 341	\$ 400	\$ 374
- Purchased Concentrate Cost (Per tDM)	\$ 323	\$ 412	\$ 300	\$ 362	\$ 342
- Variable Concentrate Cost (Per tDM)	\$ 11	\$ 9	\$ 9	\$ 11	\$ 9
- Capital Concentrate Cost (Per tDM)	\$ 26	\$ 32	\$ 25	\$ 8	\$ 6
Pasture Cost (Cents Per MJ ME)	2.54	2.37	2.43	2.50	2.10
Forage Cost (Cents Per MJ ME Consumed)	3.34	3.64	3.50	3.74	3.44
Concentrate Cost (Cents Per MJ ME Consumed)	3.06	3.85	3.10	3.34	3.12
Pasture Dry Matter Harvested / Megalitre (tDM)	0.0	0.0	0.0	1.2	1.5
Megalitres Used per Hectare	0.0	0.0	0.0	10.1	9.7
MANAGEMENT & STAFF					
Total 50-Hour Week Equivalent Full Time Staff	5.9	5.9	5.9	3.7	3.4
Cows per Full Time Staff Equivalent	150	150	155	148	179
Management + Staff Costs per Cow	\$ 318	\$ 358	\$ 339	\$ 450	\$ 382
Revenue per Full Time Staff Equivalent	\$ 552,978	\$ 486,354	\$ 336,865	\$ 288,368	\$ 397,243
Revenue per \$1 of Employment Expense	\$ 11.77	\$ 8.82	\$ 6.51	\$ 4.64	\$ 6.28
Total Hours Worked per Week	295.0	295.0	295.0	183.1	167.9
Total Imputed Labour & Management	\$ 0	\$ 0	\$ 0	\$ 72,196	\$ 73,047

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Operating Profit Per Hectare - Dairy
Brian Wilkinson and Glenn Weitenburg
Landcorp Ruapehu Farm

**DAIRY BUSINESS
OF THE YEAR**



	2013/14 Ruapehu	2014/15 Ruapehu DBOY	2015/16 Ruapehu DBOY	2014/15 Man- Wai Average	2014/15 Man- Wai Top 10%
REVENUE					
Manufacturing Milk Sales	\$ 12,277	\$ 10,107	\$ 7,255	\$ 5,400	\$ 7,018
Quota/Contract/Dividends for Milk	\$ 0	\$ 0	\$ 0	\$ 250	\$ 338
Livestock Revenue	\$ 618	\$ 767	\$ 600	\$ 571	\$ 746
Other Revenue	\$ 0	\$ 1	\$ 1	\$ 89	\$ 70
Gross Revenue	\$ 12,896	\$ 10,875	\$ 7,856	\$ 6,310	\$ 8,173
EXPENSES					
Administration	\$ 78	\$ 108	\$ 120	\$ 119	\$ 120
Animal Health	\$ 366	\$ 341	\$ 321	\$ 312	\$ 328
Breeding & Herd Testing	\$ 169	\$ 150	\$ 173	\$ 160	\$ 190
Dairy Shed Expenses	\$ 70	\$ 59	\$ 71	\$ 78	\$ 88
Electricity	\$ 187	\$ 196	\$ 178	\$ 120	\$ 134
Feeds / Supplements (Total)	\$ 2,463	\$ 2,719	\$ 2,611	\$ 1,927	\$ 2,223
- Grazing / Support Area	\$ 708	\$ 856	\$ 1,187	\$ 604	\$ 630
- Cropping (green feed)	\$ 28	\$ 48	\$ 51	\$ 37	\$ 35
- Grains, Pellets & Concentrates	\$ 617	\$ 729	\$ 737	\$ 576	\$ 726
- Forages (incl. hay, silages, byproducts)	\$ 1,110	\$ 1,085	\$ 636	\$ 710	\$ 831
Fertiliser (Total)	\$ 431	\$ 508	\$ 463	\$ 476	\$ 541
- Nitrogen	\$ 327	\$ 257	\$ 216	\$ 202	\$ 248
- Phosphate & All Other Fertiliser	\$ 104	\$ 251	\$ 247	\$ 273	\$ 293
Freight	\$ 53	\$ 79	\$ 57	\$ 45	\$ 41
Irrigation	\$ 0	\$ 0	\$ 0	\$ 15	\$ 15
Other Expenses	\$ 14	\$ 19	\$ 14	\$ 25	\$ 25
Pasture Maintenance & Renovation	\$ 79	\$ 99	\$ 100	\$ 96	\$ 105
Repairs & Maintenance	\$ 334	\$ 263	\$ 278	\$ 231	\$ 220
Standing charges	\$ 251	\$ 267	\$ 284	\$ 240	\$ 247
Vehicle Expenses (including fuel & oil)	\$ 220	\$ 164	\$ 129	\$ 244	\$ 261
Management & Staff Expenses	\$ 1,096	\$ 1,233	\$ 1,207	\$ 1,355	\$ 1,299
- Wages, Salaries & Employment Exp.	\$ 1,096	\$ 1,233	\$ 1,207	\$ 923	\$ 851
- Imputed Labour & Management	\$ 0	\$ 0	\$ 0	\$ 431	\$ 447
Depreciation	\$ 389	\$ 481	\$ 557	\$ 529	\$ 485
Gross Expenses	\$ 6,201	\$ 6,685	\$ 6,565	\$ 5,970	\$ 6,322
Gross Exp excl. Imputed Labour/Mgmt & Dep'n	\$ 5,812	\$ 6,204	\$ 6,008	\$ 5,010	\$ 5,389
Core per Hectare Cost	\$ 892	\$ 1,114	\$ 1,174	\$ 1,181	\$ 1,201
OPERATING PROFIT (LOSS)	\$ 6,694	\$ 4,191	\$ 1,290	\$ 340	\$ 1,850

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Operating Profit Per Cow - Dairy Brian Wilkinson and Glenn Weitenburg Landcorp Ruapehu Farm

DAIRY BUSINESS OF THE YEAR

	2013/14 Ruapehu	2014/15 Ruapehu DBOY	2015/16 Ruapehu DBOY	2014/15 Man- Wai Average	2014/15 Man- Wai Top 10%
REVENUE					
Manufacturing Milk Sales	\$ 3,566	\$ 2,936	\$ 2,037	\$ 1,793	\$ 2,065
Quota/Contract/Dividends for Milk	\$ 0	\$ 0	\$ 0	\$ 83	\$ 99
Livestock Revenue	\$ 180	\$ 223	\$ 168	\$ 189	\$ 219
Other Revenue	\$ 0	\$ 0	\$ 0	\$ 30	\$ 21
Gross Revenue	\$ 3,746	\$ 3,159	\$ 2,206	\$ 2,095	\$ 2,404
EXPENSES					
Administration	\$ 23	\$ 31	\$ 34	\$ 39	\$ 35
Animal Health	\$ 106	\$ 99	\$ 90	\$ 104	\$ 96
Breeding & Herd Testing	\$ 49	\$ 44	\$ 49	\$ 53	\$ 56
Dairy Shed Expenses	\$ 20	\$ 17	\$ 20	\$ 26	\$ 26
Electricity	\$ 54	\$ 57	\$ 50	\$ 40	\$ 39
Feeds / Supplements (Total)	\$ 716	\$ 790	\$ 733	\$ 640	\$ 654
- Grazing / Support Area	\$ 206	\$ 249	\$ 333	\$ 200	\$ 185
- Cropping (green feed)	\$ 8	\$ 14	\$ 14	\$ 12	\$ 10
- Grains, Pellets & Concentrates	\$ 179	\$ 212	\$ 207	\$ 191	\$ 214
- Forages (incl. hay, silages, byproducts)	\$ 322	\$ 315	\$ 179	\$ 236	\$ 245
Fertiliser (Total)	\$ 125	\$ 147	\$ 130	\$ 158	\$ 159
- Nitrogen	\$ 95	\$ 75	\$ 61	\$ 67	\$ 73
- Phosphate & All Other Fertiliser	\$ 30	\$ 73	\$ 69	\$ 91	\$ 86
Freight	\$ 15	\$ 23	\$ 16	\$ 15	\$ 12
Irrigation	\$ 0	\$ 0	\$ 0	\$ 5	\$ 4
Other Expenses	\$ 4	\$ 5	\$ 4	\$ 8	\$ 7
Pasture Maintenance & Renovation	\$ 23	\$ 29	\$ 28	\$ 32	\$ 31
Repairs & Maintenance	\$ 97	\$ 76	\$ 78	\$ 77	\$ 65
Standing charges	\$ 73	\$ 77	\$ 80	\$ 80	\$ 73
Vehicle Expenses (including fuel & oil)	\$ 64	\$ 48	\$ 36	\$ 81	\$ 77
Management & Staff Expenses	\$ 318	\$ 358	\$ 339	\$ 450	\$ 382
- Wages, Salaries & Employment Exp.	\$ 318	\$ 358	\$ 339	\$ 307	\$ 250
- Imputed Labour & Management	\$ 0	\$ 0	\$ 0	\$ 143	\$ 132
Depreciation	\$ 113	\$ 140	\$ 156	\$ 176	\$ 143
Gross Expenses	\$ 1,801	\$ 1,942	\$ 1,844	\$ 1,982	\$ 1,860
Gross Exp excl. Imputed Labour/Mgmt & Dep'n	\$ 1,688	\$ 1,802	\$ 1,687	\$ 1,664	\$ 1,585
Core per Cow Cost	\$ 627	\$ 658	\$ 729	\$ 653	\$ 602
OPERATING PROFIT (LOSS)	\$ 1,944	\$ 1,217	\$ 362	\$ 113	\$ 544

Monday 19 Jun 2017 20:15



**Operating Profit Per MilkSolids
Brian Wilkinson and Glenn Weitenburg
Landcorp Ruapehu Farm**

**DAIRY BUSINESS
OF THE YEAR**

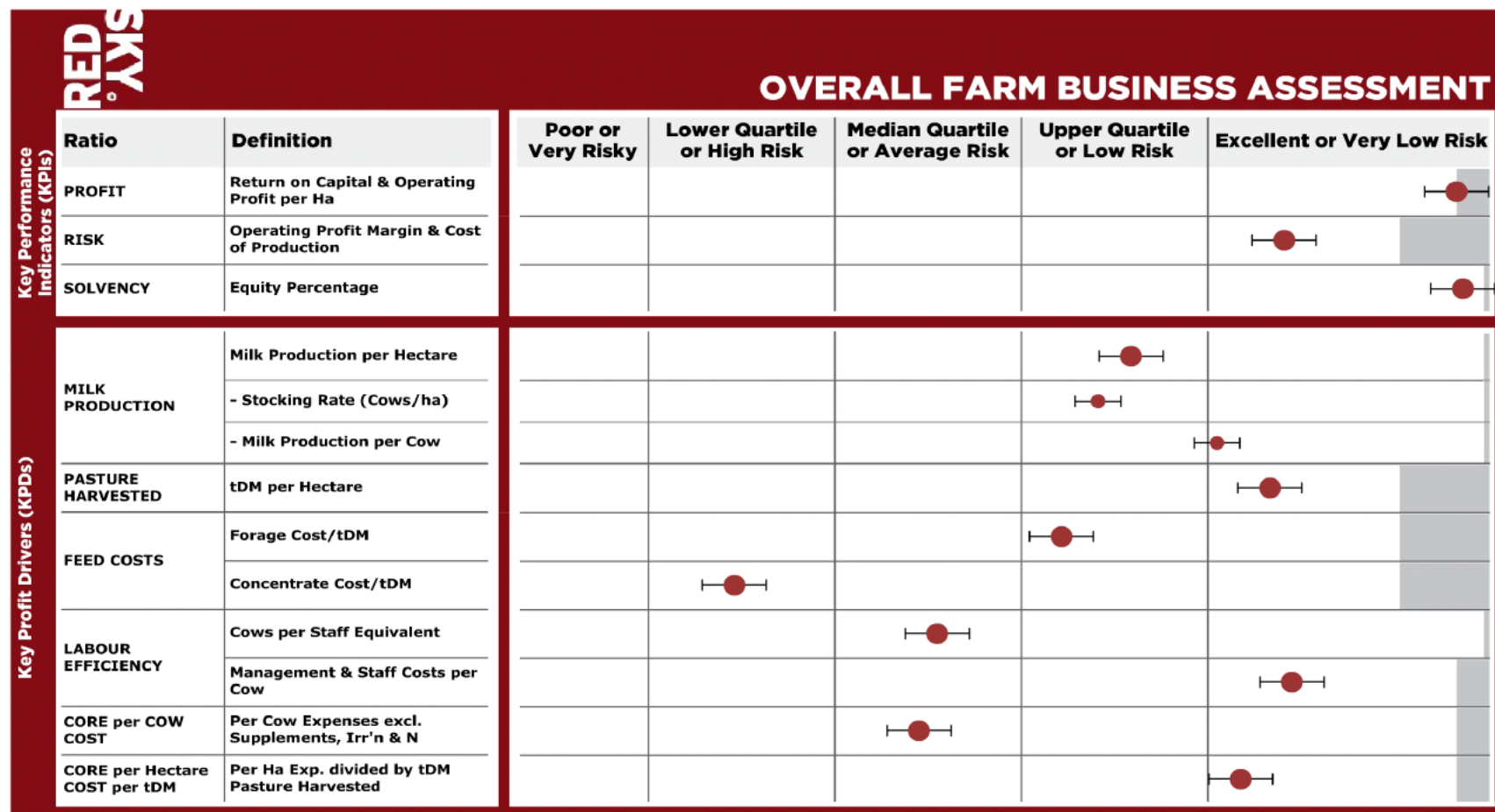
	2013/14 Ruapehu	2014/15 Ruapehu DBOY	2015/16 Ruapehu DBOY	2014/15 Man- Wai Average	2014/15 Man- Wai Top 10%
REVENUE					
Manufacturing Milk Sales	\$ 8.32	\$ 6.17	\$ 4.81	\$ 4.41	\$ 4.41
Quota/Contract/Dividends for Milk	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.20	\$ 0.21
Livestock Revenue	\$ 0.42	\$ 0.47	\$ 0.40	\$ 0.47	\$ 0.47
Other Revenue	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.07	\$ 0.04
Gross Revenue	\$ 8.74	\$ 6.64	\$ 5.21	\$ 5.15	\$ 5.14
EXPENSES					
Administration	\$ 0.05	\$ 0.07	\$ 0.08	\$ 0.10	\$ 0.08
Animal Health	\$ 0.25	\$ 0.21	\$ 0.21	\$ 0.26	\$ 0.21
Breeding & Herd Testing	\$ 0.11	\$ 0.09	\$ 0.11	\$ 0.13	\$ 0.12
Dairy Shed Expenses	\$ 0.05	\$ 0.04	\$ 0.05	\$ 0.06	\$ 0.05
Electricity	\$ 0.13	\$ 0.12	\$ 0.12	\$ 0.10	\$ 0.08
Feeds / Supplements (Total)	\$ 1.67	\$ 1.66	\$ 1.73	\$ 1.57	\$ 1.40
- Grazing / Support Area	\$ 0.48	\$ 0.52	\$ 0.79	\$ 0.49	\$ 0.40
- Cropping (green feed)	\$ 0.02	\$ 0.03	\$ 0.03	\$ 0.03	\$ 0.02
- Grains, Pellets & Concentrates	\$ 0.42	\$ 0.45	\$ 0.49	\$ 0.47	\$ 0.46
- Forages (incl. hay, silages, byproducts)	\$ 0.75	\$ 0.66	\$ 0.42	\$ 0.58	\$ 0.52
Fertiliser (Total)	\$ 0.29	\$ 0.31	\$ 0.31	\$ 0.39	\$ 0.34
- Nitrogen	\$ 0.22	\$ 0.16	\$ 0.14	\$ 0.17	\$ 0.16
- Phosphate & All Other Fertiliser	\$ 0.07	\$ 0.15	\$ 0.16	\$ 0.22	\$ 0.18
Freight	\$ 0.04	\$ 0.05	\$ 0.04	\$ 0.04	\$ 0.03
Irrigation	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.01	\$ 0.01
Other Expenses	\$ 0.01	\$ 0.01	\$ 0.01	\$ 0.02	\$ 0.02
Pasture Maintenance & Renovation	\$ 0.05	\$ 0.06	\$ 0.07	\$ 0.08	\$ 0.07
Repairs & Maintenance	\$ 0.23	\$ 0.16	\$ 0.18	\$ 0.19	\$ 0.14
Standing charges	\$ 0.17	\$ 0.16	\$ 0.19	\$ 0.20	\$ 0.15
Vehicle Expenses (including fuel & oil)	\$ 0.15	\$ 0.10	\$ 0.09	\$ 0.20	\$ 0.16
Management & Staff Expenses	\$ 0.74	\$ 0.75	\$ 0.80	\$ 1.11	\$ 0.82
- Wages, Salaries & Employment Exp.	\$ 0.74	\$ 0.75	\$ 0.80	\$ 0.75	\$ 0.53
- Imputed Labour & Management	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.35	\$ 0.28
Depreciation	\$ 0.26	\$ 0.29	\$ 0.37	\$ 0.43	\$ 0.30
Gross Expenses	\$ 4.20	\$ 4.08	\$ 4.35	\$ 4.88	\$ 3.97
Gross Exp excl. Imputed Labour/Mgmt & Dep'n	\$ 3.94	\$ 3.79	\$ 3.98	\$ 4.09	\$ 3.39
Core Cost Structure per kg MilkSolid	\$ 2.81	\$ 2.82	\$ 3.30	\$ 3.65	\$ 2.83
OPERATING PROFIT (LOSS)	\$ 4.54	\$ 2.56	\$ 0.86	\$ 0.28	\$ 1.16

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Brian Wilkinson and Glenn Weitenburg
Landcorp Ruapehu Farm
2014/15 Ruapehu DBOY Vs Manawatu-Wairarapa Benchmark

DAIRY BUSINESS
OF THE YEAR



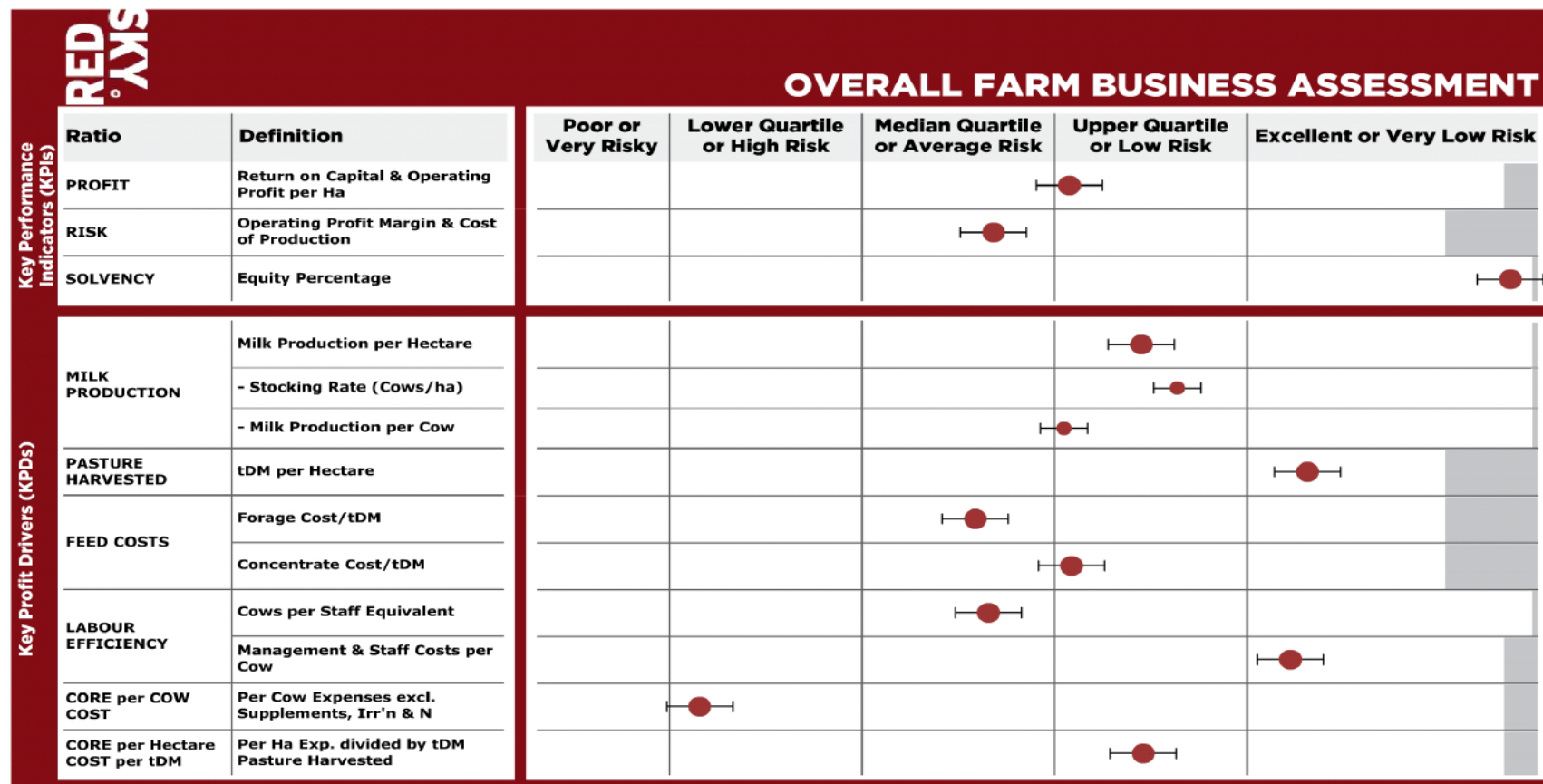
Core per Cow Cost = (Animal Health + Breeding + Dairy Shed Expenses + Electricity + Grazing/Agistment + Freight + Other Expenses + 50% Repairs & Maintenance + 30% Standing Charges + 70% Vehicle Expenses + 50% Depreciation) / Peak Milking Cow Numbers

Core per Hectare Cost per tDM Pasture Harvested = (Administration + Cropping (green feed) + Phosphate & All Other Fertiliser + Pasture Maintenance & Renovation + 50% R&M + 70% Standing Charges + 30% Vehicle Expenses + Weed & Pest + 50% Depreciation) / Effective Milking Hectares / tDM Pasture Harvested per Hectare

Monday 19 Jun 2017 20:16

Brian Wilkinson and Glenn Weitenburg
Landcorp Ruapehu Farm
2015/16 Ruapehu DBOY Vs Manawatu-Wairarapa Benchmark

DAIRY BUSINESS
OF THE YEAR



Core per Cow Cost = (Animal Health + Breeding + Dairy Shed Expenses + Electricity + Grazing/Agistment + Freight + Other Expenses + 50% Repairs & Maintenance + 30% Standing Charges + 70% Vehicle Expenses + 50% Depreciation) / Peak Milking Cow Numbers

Core per Hectare Cost per tDM Pasture Harvested = (Administration + Cropping (green feed) + Phosphate & All Other Fertiliser + Pasture Maintenance & Renovation + 50% R&M + 70% Standing Charges + 30% Vehicle Expenses + Weed & Pest + 50% Depreciation) / Effective Milking Hectares / tDM Pasture Harvested per Hectare

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Overseer Reports

Farm Summary

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Landcorp Moutoa Ruapehu Dairy Unit

Damian Hart
Ballance Agri-Nutrients
LNI

Client reference: 45378

Farm name: Moutoa Ruapehu Nutrient Budget 2015_1 (2014)

Farm Summary



	Units	Current Farm	Average NZ Farm
Nutrient loss indices (whole farm)			
Loss to water	kg N/ha/yr	20	24-42
	kg P/ha/yr	2	
Includes loss from effluent pond of:	kg N/ha/yr	0	
	kg P/ha/yr	0	
Production efficiency indices			
Farm N surplus (pastoral)	kg N/ha/yr	195	123-191
N conversion efficiency (pastoral)	%	35	27-35
Effluent - area of pastoral farm			
Currently receiving effluent	ha	96	
Required to achieve application rate of 150 kg N/ha/yr	ha	80	
Greenhouse gas emissions (CO₂ equivalents (CO₂e))			
Total greenhouse gas emissions	CO ₂ e/ha/yr	22276	

Farm Nutrient Budget

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Version 6.2.2, on 2016-05-31 09:38:35

Landcorp Moutoa Ruapehu Dairy Unit

Damian Hart
Balance Agri-Nutrients
LNI

Client reference: 45378

Farm name: Moutoa Ruapehu Nutrient Budget 2015_1 (2014)



Farm Nutrient Budget - Whole farm

	N	P	K	S	Ca	Mg	Na
	(kg/ha/yr)						
Nutrients added							
Fertiliser, lime & other	116	14	0	28	23	0	0
Rain/clover N fixation	86	0	3	6	4	8	48
Irrigation	0	0	0	0	0	0	0
Supplements imported	95	17	66	12	12	9	6
Nutrients removed							
As products	103	17	25	6	22	2	7
Exported effluent	0	0	0	0	0	0	0
As supplements	0	0	0	0	0	0	0
To atmospheric	72	0	0	0	0	0	0
To water	20	2	51	36	77	1	25
Change in internal pools							
Plant material	-18	-1	-13	0	0	-1	0
Organic pool	63	5	4	4	0	1	0
Inorganic mineral	0	17	-20	0	-51	-1	-2
Inorganic soil pool	58	-11	22	0	-9	15	23

Farm Nitrogen

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Landcorp Moutoa Ruapehu Dairy Unit

Damian Hart

Balance Agri-Nutrients

LNI

Client reference: 45378

Farm name: Moutoa Ruapehu Nutrient Budget 2015_1 (2014)

Farm Nitrogen



	Units	Benchmark farm	Current farm
Inputs (farm average)			
Clover N	kg N/ha/yr		84
Fertiliser N	kg N/ha/yr		116
Other N added	kg N/ha/yr		97
Indices			
Average N loss to water	kg N/ha/yr	24-42	20
includes N lost as effluent	kg N/ha/yr		0
N ₂ O emissions	kg N/ha/yr		22.5
For pastoral area of farm:			
Farm N surplus	kg N/ha/yr	123-191	195
N conversion efficiency	%	27-35	35

Block Nitrogen

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Landcorp Moutoa Ruapehu Dairy Unit

Damian Hart
Balance Agri-Nutrients
LNI

Client reference: 45378

Farm name: Moutoa Ruapehu Nutrient Budget 2015_1 (2014)

Block Nitrogen

OVERSEER®

Block name	Total N lost (kg N/yr)	N lost to water (kg N/ha/yr)	N in drainage * (ppm)	N surplus (kg N/ha/yr)	Added N ** (kg N/ha/yr)
Non-Effluent ##	2107	15	5.5	168	150
Effluent	1955	20	5.0	180	133
Turnip	215	17	5.7	45	127
Stock excluded	3	3	N/A		
Maize	501	24	8.2	146	389
Other farm sources	539				
Whole farm	5320	20			
Less N removed in wetlands	0				
Farm output	5320	20			

* Estimated N concentration in drainage water at the bottom of the root zone. Maximum recommended level for drinking water is 11.3 ppm (note that this is not an environmental water quality standard).

** Sum of fertiliser and external factory effluent inputs.

N/A: N in drainage not calculated for easy and steep pastoral blocks, or for tree and shrubs, riparian, wetland or house blocks.

Has a fodder crop rotating through, results for pastoral block component only

Farm Phosphorous

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Landcorp Moutoa Ruapehu Dairy Unit

Damian Hart
Balance Agri-Nutrients
LNI

Client reference: 45378

Farm name: Moutoa Ruapehu Nutrient Budget 2015_1 (2014)

Farm Phosphorus



	Units	Benchmark farm	Current farm
Inputs (farm average)			
P added as fertiliser	kg P/ha/yr		14
P imported as supplements	kg P/ha/yr		17
Other P added	kg P/ha/yr		0
Indices			
Average P loss to water	kg P/ha/yr		2
P lost from effluent pond	kg P/ha/yr		0
P surplus	kg P/ha/yr		-17
For pastoral block, % of area with high or extreme:			
Soil P loss risk category	%		0
Fertiliser P loss risk category	%		0
Effluent P loss risk category	%		41

Block Phosphorus

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Landcorp Moutoa Ruapehu Dairy Unit

Damian Hart
Balance Agri-Nutrients
LNI

Client reference: 45378

Farm name: Moutoa Ruapehu Nutrient Budget 2015_1 (2014)



Block Phosphorus

Block name	Total P lost (kg P/yr)	P lost (kg P/ha/yr)	P loss categories		
			Soil	Fertiliser	Effluent
Non-Effluent ##	163	1.2	Medium	Low	n/a
Effluent	214	2.2	Medium	n/a	Extreme
Turnip	12	0.9	n/a	n/a	n/a
Stock excluded	0	0.1	n/a	n/a	n/a
Maize	21	1	n/a	n/a	n/a
Other farm sources	135				
Whole farm	544	2			

Has a fodder crop rotating through, results for pastoral block component only

Effluent

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Landcorp Moutoa Ruapehu Dairy Unit

Damian Hart
Balance Agri-Nutrients
LNI

Client reference: 45378

Farm name: Moutoa Ruapehu Nutrient Budget 2015_1 (2014)

Effluent Report

OVERSEER®

	Units	Current farm
Current effluent area		
Area of effluent blocks	ha	96
% of pastoral farm area	%	41
Area of farm to apply effluent to achieve rates of:		
150 kg N/ha/yr	ha	80
Maintenance K	ha	164
100 kg K/ha/yr	ha	119
Source of N applied to effluent blocks		
Average of N applied to effluent blocks	kg N/ha/yr	84
Effluent from farm dairy	%	100
Effluent from wintering pad	%	0
Effluent from feed pad	%	0
Average fertiliser N	kg N/ha/yr	49
Average other elements	kg N/ha/yr	0