



Dairy Business of the Year 2018 National Supporters Event

Sulzberger Farms Ltd

Sulzberger Farms Ltd





DBOY17 NZ SUPREME WINNER



Best Taranaki Farm Performance



Low Input Farm with Best Financial Performance



Business Resilience – Lowest Cost of Production per Kg/MS



2018 BRONZE SPONSORS



SUPPORTING SPONSORS

Table of Contents

Health and Safety – Emergency Plan	4
The 2015/16 Production Season in Review	6
2015/16 Rainfall Summary	6
2015/16 Milk Production Summary	6
Summary of Key Performance Indicators	6
Physical and Financial	6
Environmental Management	7
People Management	7
History and Key Philosophies	8
Farm and Personal History	8
Farm Philosophy and Systems	9
Profitability and Resilience	10
Profit and Resilience Key Performance Indicators Table	10
Key Concepts of Profitability	10
Resilience - Cost Control Techniques	11
Red Sky Financial 2015/16 Dot Report Scorecard	12
Red Sky Financial 2016/17 Dot Report Scorecard	13
Livestock and Milk Production	14
Livestock and Milk Production Key Performance Indicators Table	14
Key Concepts	14
Livestock and Milk Production Key Concepts....cont.	15

Feed Management	16
Feed Management Key Performance Indicators Table	16
Key Concepts	16
Pasture Management	16
Supplement Management	17
Supplement Management...cont.	18
Environmental Performance	19
Environmental Key Performance Indicators Table	19
Environmental Management Key Concepts	19
Environmental Management Key Concepts ...cont.	20
2015/16 Environmental Impact Assessment Scorecard	21
People Leadership and Productivity	22
People Productivity Key Performance Indicators Table	22
Key Concepts	22
2015/16 People Productivity Scorecard	23
Current and Future Strategies	24
Business Optimisation Trend Line – the association between payout & ROC	25
Appendices	26
Definitions	26
Overseer Reports	28

Health and Safety – Emergency Plan

General Information

Property Address: 324 Pukearuhe Road, Urenui

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

Hosts Names: Andrew & Sibylle, Brad & Chris Sulzberger **Phone:** 027 628 6884

Evacuation Procedures

Evacuation Signal	Safe Assembly Area Location
Air Horn and/or Verbal Instruction	Tanker Turnaround Area

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: Waitara Medical Centre 06 754 8119 or
Taranaki Base Hospital 06 753 6139

Police / Fire / Ambulance: Dial 111

Hazardous and Restricted Areas

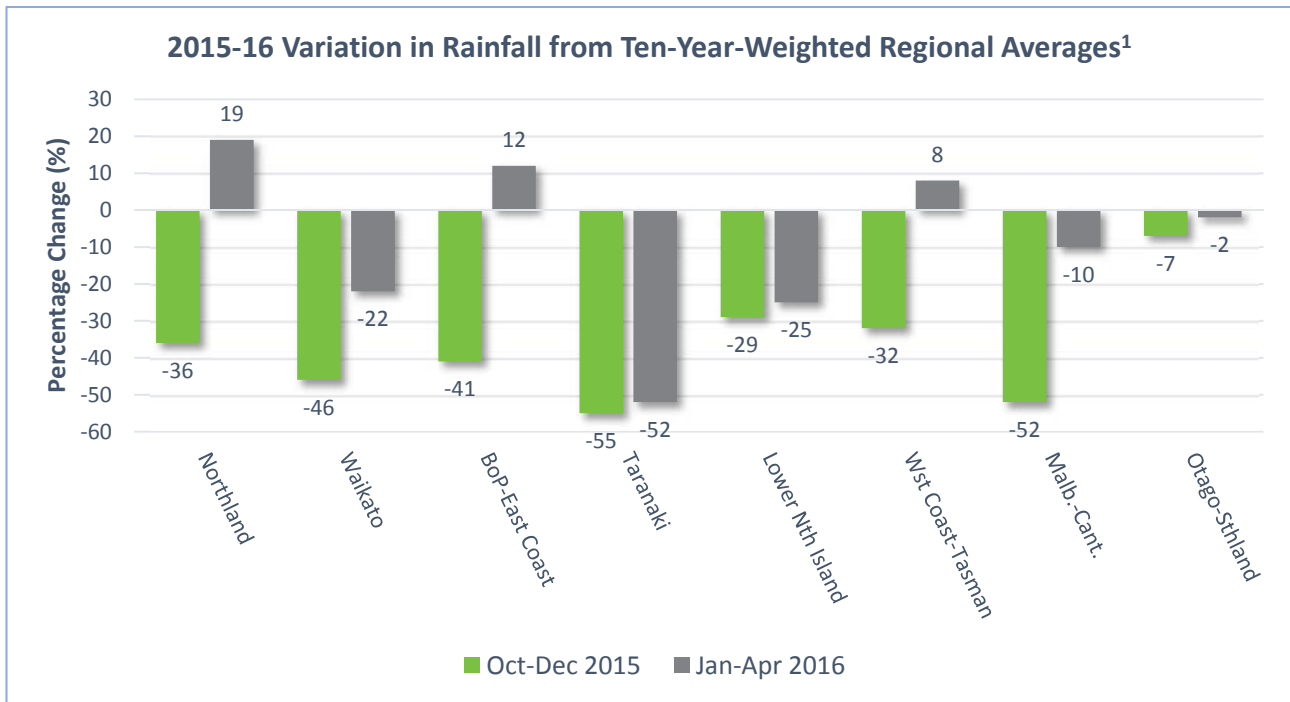
This is a working farm so please be aware of the following:

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.

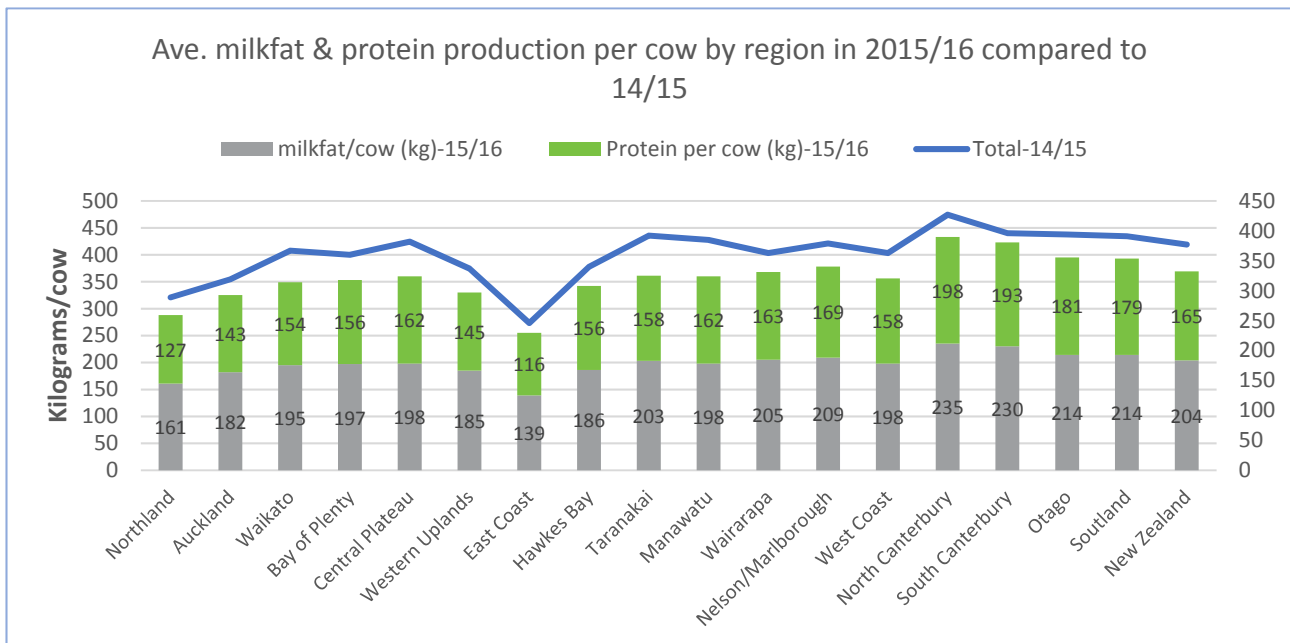


The 2015/16 Production Season in Review

2015/16 Rainfall Summary



2015/16 Milk Production Summary



¹ Source: NIWA, DairyNZ Economics Group, New Zealand Dairy Statistics

² Source: New Zealand Dairy Statistics 2015-16 and 2014/15

Summary of Key Performance Indicators

Physical and Financial

Key Performance Indicators	DBOY 2015/16 - Sulzberger	DBOY 2016/17 - Sulzberger	2015/16 DBOY Finalists (n = 12)
Profitability and Resilience			
Milk Price (\$/kgMS)	\$3.86	\$6.10	\$3.94
Return on Capital (%)	3.7%	6.9%	2.3%
Operating Profit Margin (%)	35.9%	49.5%	17.1%
Operating Profit per Hectare (\$)	\$2,166	\$4,082	\$1,087
Gross Operating Revenue per Hectare (\$)	\$6,040	\$8,249	\$6,380
Gross Operating Expenses per Hectare (\$)	\$3,873	\$4,168	\$5,292
Cost of Production per kgMS	\$2.50	\$2.84	\$3.43
Operating Expenses per kgMS (FWE+Adjst)	\$3.34	\$3.69	\$4.00
Livestock and Milk Production			
Peak Milking Cow Numbers	320	320	542
Core Costs per Cow (\$)	\$432	\$514	\$562
Stocking Rate (Cows/ha) (Kg/ha)	2.90	2.91	3.08
Milk Production per Cow (kgMS)	400	388	427
Milk Production as % of LW	85.2%	82.6%	90.7%
Milk Production per Hectare (kgMS)	1,161	1,128	1,318
Feed Management			
Pasture Harvested (tDM/ha)	12.60	12.60	12.94
Pasture as % of Diet	85.6%	88.6%	81.8%
Core Costs per ha per tDM pasture harvest (\$)	\$46	\$50	\$79
Total Consumed Per Cow (estimated tDM)	4.76	4.68	4.96
Pasture Consumed Per Cow (est. tDM)	4.07	4.13	3.99
Forage Consumed Per Cow (est. tDM)	0.37	0.33	0.57
Concentrate Consumed Per Cow (est. tAF)	0.36	0.24	0.43
Average Cost of All Consumed Feed (/tDM)	\$265	\$277	\$289
Pasture Cost (/ tDM Consumed)	\$266	\$275	\$276
Forage Cost (/tDM Consumed incl.wastage)	\$173	\$234	\$337
Concentrate Cost (/tDM Cons. incl. waste)	\$327	\$360	\$423

Environmental Management

Key Performance Indicators		DBOY 2015/16 - Sulzberger	DBOY 2015/16 National Average	DBOY 2015/16 Lowest Environmental Impact ³
Effluent	Effluent Pond	Lined or Verified as Sealed	Lined	Lined
	% of Farm Irrigated with Effluent	13%	31%	47%
	N Loading on Effluent Area (kg/ha)	156	125	34
Nitrogen	KgMS/ha per KgN Loss/ha	27	38	80
	N Leached (kg/ha)	40	51	21
	N Conversion Efficiency (%)	26%	32%	30%
	Soluble N Use (kg/ha)	121	142	188
Phosphorus	P Loss (kg/ha)	1.1	1.6	0.7
	Olsen P Levels	At optimum	At Optimum	At Optimum
Soil Protection	Winter Cropping % of Farm	0	0%	0%
	Winter Soil Management	Cows stood off on yard	Formal Standoff	Cows Moved Frequently
Overall Score	Score out of 15 points	9.0	-	12.0

People Management

Key Performance Indicators		DBOY 2015/16 - Sulzberger	DBOY 2015/16 Ave. across all entrants	DBOY 2015/16 Best People Leadership ⁴
Labour Utilisation	Staff Costs per Cow (\$)	\$456	\$360	\$402
	Cows per Full Time Equivalent (50hr FTE)	147	171	165
Training Spend	Training spend per FTE in Dollars (\$)	\$0.00	\$4.09	\$3.28
	Training spend per FTE in Time (hrs)	1.38	4.91	2.27
Unplanned Costs	Costs per FTE (\$)	\$0	\$162	\$0
	Unbudgeted Days Lost per FTE	0.46	4.00	4.26
Labour Turnover	Labour Turnover - Management Staff (%)	27%	6%	0%
	Labour Turnover - Non Management Staff (%)	0%	37%	0%
Healthy & Safety	% days lost due to injury per FTE	2%	2%	0%
Overall Score	Score Out of 15 points	5.71	-	10.7





³ BJ Caird Ltd/Grassy Banks, Timaru

⁴ Pan Farm Ltd, West Coast

















History and Key Philosophies

Farm and Personal History

-  Andrew - Taratahi 1991, ran the 30ha block at home as a self-contained unit for almost one year before breaking my back at a trail bike accident. Then went to Massey to do a DipAG, and then a Bachelor of Applied Science (Ag) degree as a fall back to do consultancy work if I had back issues later in life. Holiday jobs for various farmers, returned home in 1999.
-  Brad left school in 1964 and worked first for wages, then formed a partnership with his father George. Brad did a short course at Massey but most of his farming education came from Fielddays, conferences and discussion groups, but most of all by observation and trial and error.
-  Andrew's great-grandfather, Ern Sulzberger, bought the original 400-acre farm in 1926, milking 100 cows. The farm was just about lost in the Depression (1929-33) and it was a whole family effort to keep it going. The farm was cut in three for the three sons in 1946. George started with 48 cows on his 100 acres and employed a worker. Neighbours helped him build an 8-bale walk-through cowshed supplying cream and growing pigs. George had joined the army in 1940 but was captured in Egypt and sent to a POW camp in Northern Italy. He was moved to a working camp but escaped when Italy gave up fighting. He lived with the peasants doing some work for food but was recaptured one year later. He spent the last nine months in a Munich POW camp.
-  One farm was sold several years later and in 1970, Brad bought the other of his uncle's farm and this was joined again to George's. In 1992, the 30ha farm next door was purchased by Brad. After 2 years at home Brad talked his father into putting in a herringbone shed which Brad designed. This was extended in 1990 and then rebuilt in 2006. When Andrew returned home in 1999, Brad dissolved the partnership with his father and Andrew bought into a new partnership, and in 2004 they formed a company – Sulzberger Farms Ltd, with Andrew and Sibylle buying the 30ha block. Our kids are now the 5th generation Sulzbergers.



Farm Philosophy and Systems

-  Profit-driven monitoring of costs.
-  Return on any controllable expenditure.
-  Good attention to detail.
-  Have done most of our own development (track, water, buildings etc., 3x cowshed upgrades)
-  Team work
-  not over-capitalised with machinery, do most of our R+M
-  Do our own accounts and record keeping, don't be afraid to pay tax.
-  Happy healthy cows – tidy and attractive farm to work on.
-  It's got to be enjoyable.
-  Our financial success enables us to do other things off farm as well (work-life balance).
-  Involved in the business are Grandmother Eileen (98), parents Brad & Chris, wife Sibylle, myself and our three kids Maia (12), Sophia (11) & Olivia (11).
-  We run a System 2-3 farm depending on the season as it can get very summer dry.
-  Match pasture supply and demand.
-  Responsible supplement use.



Profitability and Resilience

Profit and Resilience Key Performance Indicators Table

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Key Concepts of Profitability

- Our main driver is profit. We are always thinking of things that will have an impact on it.
- We are always aware of our situation by doing partial cashflows to work out tax, GST payments, dividend and wages.
- We don't really have a strict budget that we stick to, but every time we open our wallet, I ask myself: "Is it a need or a want? Will it give a return? Will it make life easier? Will it cut costs?"
- You need to be realistic with the full costs e.g. adding in \$ for time, wear and tear on machinery, and extra capital costs that might creep in.
- Have a moderate production level to spread fixed costs over.
- Benchmark ourselves against others. That's one of the main reasons we entered this competition, we would never know where we were at if we never measured it against anything.

⁵ See Appendices >Definitions >Milk Revenue – Page 26



Resilience - Cost Control Techniques

-  Cost Analysis? Do a partial budget on any ideas we have, e.g. milking MT cows, rearing extra bulls or heifers, growing own maize, etc.
-  extra costs reduce costs
↓ income ↑ income
-  Make a plan and always plan to be flexible.
-  Keep a little bit of fat in the system. If you have to make a decision based on availability of money rather than the best financial decision, then you have lost an opportunity.
-  Grab opportunities when they arise, e.g. rearing extra stock when milk prices are down or when payout is looking to be going up as people might want to buy capital stock.
-  Try to have reliable plant and machinery and do a lot of our own R+M on it. But try to limit the amount of capital tied up, otherwise depreciation costs start to get too high.



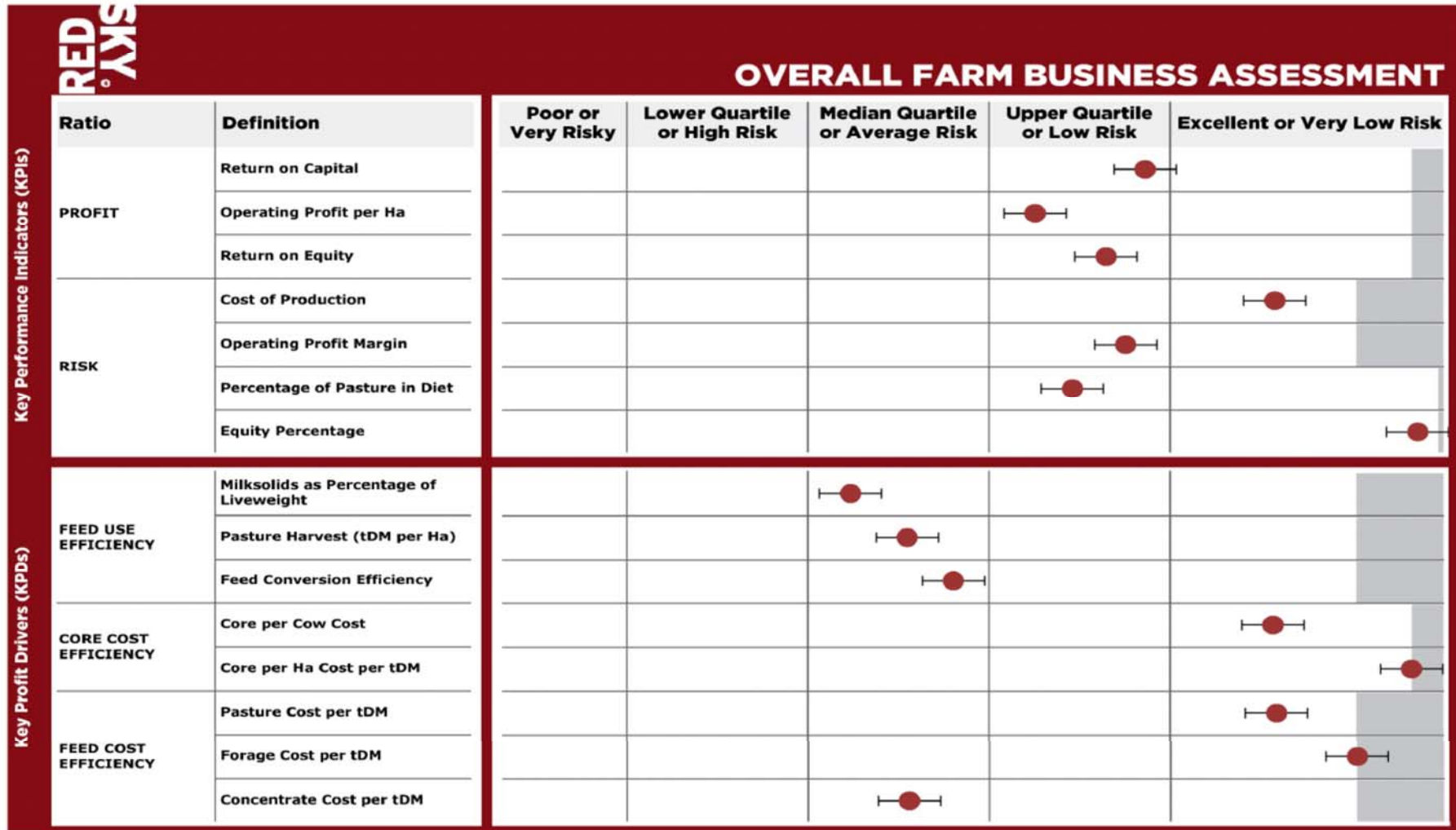
Farm Performance Assessment

Sulzberger Farms Ltd – 2015/16 Season – vs Taranaki Benchmark

	Definition	Poor or Very Risky	Lower Quartile or High Risk	Median Quartile or Average Risk	Upper Quartile or Low Risk	Excellent or Very Low Risk
PROFIT	Return on Capital					
	Operating Profit per Ha					
	Return on Equity					
RISK	Operating Expenses / kgMS					
	Operating Profit Margin					
	Percentage of Pasture in Diet					
	Equity Percentage					
FEED USE EFFICIENCY	KgMS as % of Liveweight					
	Pasture Harvest (tDM per Ha)					
	Feed Conversion Efficiency					
CORE COST EFFICIENCY	Core Cow Costs					
	Core per Ha Costs per tDM					
FEED COST EFFICIENCY	Pasture Costs per tDM					
	Forage Costs per tDM					
	Concentrate Costs per tDM					



Brad and Andrew Sulzberger
Sulzberger Farms Ltd
2016/17 Sulzberger DBOY Vs Taranaki Benchmark



Tuesday 19 Jun 2018 08:18



Livestock and Milk Production

Livestock and Milk Production Key Performance Indicators Table







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Key Concepts

- Want a good quality herd that is easy to milk. Treat all stock quietly from birth, no sticks used in the shed.
- Proactive with cow health, monitor minerals and supplement with SE, cobalt, Mag, Rumensin, zinc and iodine.
- Get animals up to condition at calving and then aim to feed well throughout the season.
- Put as much grass directly down their throats as we can. Try to grow as much grass as we can in a feed deficit by adjusting rotation length and using N. Try to maintain quality in surplus times (sometimes foregoing some growth to do so as it will cost to get it harvested) by going on a faster rotation with no N.
- Try to do as much production before Christmas as possible as it is a more reliable time of year for grass growth.
- Use farm consultant twice a year to act as a sounding board and give another perspective on past and future management decisions. Always picking the brains of our vet and others while they are here.
- PSC 22/7 (15/7 heifers). Compact calving with mid-point at 13-14 days and 85% at 6 weeks.
- 12 weeks mating (6 weeks AB + 6 weeks Friesian bulls)
- Jersey bulls are used for 12 weeks over heifers for ease of calving.
- BW 98 + PW 125.
- CS 5 MA cows, 5.5 heifers at calving.



Livestock and Milk Production Key Concepts....cont.

-  Friesian FX herd – all larger Holstein F get Jersey or Kiwi X used over them to help keep size down and help with fertility in young stock. Aim to get 100 (30%) AB heifer calves to select 70 from with a focus on BW and fertility.
-  Moving away from CIDR use, but use CIDRs to help mainly younger animals get in calf three weeks into AB. We attack fertility from both ends by not keeping calves from lower fertility cows and using higher than average fertility AB bulls. Aim is to keep calves from cows that cycle and get in calf easily.
-  Try to get a reasonable in-calf rate (herd average 7-9% empty, first calvers 6%). Our target is 5%, so we have plenty of choice to cull on, production (herd tests), age, feet, late calvers, sick, etc.
-  Sell low-producing culls and MTs early before we need to feed supplements, and also grab the higher schedule from the works.
-  Around 100 (30%) AB heifers are reared, through to in-calf, from which we will pick 67-70 (21-22%) for replacements based on family fertility history and BW. We reduce cost by rearing on a pasture, minimal milk and minimal meal programme which achieves good growth rates. The key is to get them outside ASAP. Weaned off milk at 70kg and meal at 90kg. Typically, 230 to 240kg LWT on 1st May. Last year's in-calf heifers on the 1st of May were 480kg which is a big step up from 400 to 420kg they used to get to. Another 30-odd F bull calves will get reared to 100kg, then sold.
-  No holdovers are kept.



Feed Management

Feed Management Key Performance Indicators Table

Key Performance Indicators	DBOY 2015/16 - Sulzberger	DBOY 2016/17 - Sulzberger	2015/16 DBOY Finalists (n = 12)
Pasture Harvested (tDM/ha)	12.60	12.60	12.94
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Total Consumed Per Cow (estimated tDM)	4.76	4.68	4.96
Pasture Consumed Per Cow (est. tDM)	4.07	4.13	3.99
Forage Consumed Per Cow (est. tDM)	0.37	0.33	0.57
Concentrate Consumed Per Cow (est. tAF)	0.36	0.24	0.43
Average Cost of All Consumed Feed (/tDM)	\$265	\$277	\$289
Pasture Cost (/ tDM Consumed)	\$266	\$275	\$276
Forage Cost (/tDM Consumed incl. wastage)	\$173	\$234	\$337
Concentrate Costs	\$327	\$360	\$423

Key Concepts















- CSR is around 75kg LWT/ton feed
- PSC is around seven weeks before balance date (10/9) with mid-point at five weeks.
- The aim is to have a large number of cows close to peak intake by balance date, so as to harvest as much grass straight into milk as possible.

Pasture Management

- Pasture first. We have set a stocking rate that suits our land to balance using peak grass growth with growth deficits. Don't like to spend too much on harvesting surplus grass, but also want to reduce the risks, relying too much on supplement with milk payouts, costs and too heavy a reliance on PKE.
- Focus on a high consumption of grass with a grass-first philosophy. Keep quality and manipulate your rotation length. Minimise costs on getting grass into cows.
- N boosted silage is expensive, so we try to stop N applications about three weeks before pasture balance date.









Supplement Management

-  Supplement feeding can help protect your post-grazing residuals and keep them between 1450-1600kgDM/ha, depending on the time of the year.
-  Use the 2 ½ to 3-leaf concept to grow good quality grass. Use combination of plate meter and eyeometer to assess pasture. Plus drive the whole farm twice weekly to see what the trends look like for growth. And also look at the 10-day weather forecast for moisture and average temperatures to get a gut feeling if future growth rates will be low, medium or high.
-  Winter target 120-day (end up closer to 100 days to allow for contour and odd wet day) round over winter to build cover for calving and feed supplement to allow us to reach target BCS.
-  Draft cows into thin/early and better condition/later mobs (put tail tape on any late 1/9) and feed appropriately, so they reach targets approx. one month before they calve.
-  In summer/autumn we aim to clean out any rank pasture before we use maize (harvest early March).
-  5-7 ha of maize is grown on farm, injecting 100-150tDM.
-  Costs are kept down by spraying and power-harrowing ourselves and utilising our effluent paddocks for nutrients.
-  Then we feed the maize in the paddock (in heaps) to whatever they need but make sure there is minimal wastage and continue to hit target pasture residuals.
-  Maize fits our system really well as it generally comes in when we are struggling for feed. Great for bulk feed that helps to put on body condition, protects residuals, and for extending rotations and building cover heading into winter.
-  The maize paddocks are then regressed with a medium rotation hybrid for two years, allowing us to get the fertility back up with effluent. Replanting is done by 20th March.
-  Be very strict with supplement and use. Key trigger levels based on residuals. Need to be strict on when to start and stop.
-  Mark paddocks on the whiteboard that have not met target residuals, due to too long pre-grazing length, wet weather, or just not enough mouths/time in paddock. These can then be remembered, then either fed off earlier, pre-mown, or shut up for supplement.
-  Use urea to fill foreseeable feed holes. July + August; December to extend rotation to 28 days to push grass into summer; Autumn to build winter feed.
-  If in doubt pull it out. If we can see a surplus, we pull paddocks out of the round for silage. These may be put back in if growth rates drop off and may be pre-mown beforehand



Supplement Management...cont.

-  We have changed our supplement strategy to allow for the new PKE milk grading system. Hold over more maize silage to use in higher demand periods. The system is designed to not fall apart if PKE imports cease, e.g. biosecurity issues.
-  Pregnancy test herd 6 weeks after mating so we know our numbers for culling decisions.
-  Use once a day milking if things get dry to help with body CS.
-  Do a winter feed budget in March and update regularly until balance date.
-  Drying off young light early calving animals early. Aim to reach target CS of herd by mid June.
-  Aim to feed cows well from day one, using the spring rotation planner and filling any holes with supplements. We hold the cows on a tight rotation, then slingshot them onto a pasture-only faster rotation when the grass growth rates lift. The aim is to get cows doing up to 2.2kg (on grass only) soon after balance date.



Environmental Performance

Environmental Key Performance Indicators Table

Key Performance Indicators		DBOY 2015/16 - Sulzberger	2015/16 DBOY National Average	2015/16 Lowest Environmental Impact ³
Effluent	Effluent Pond	Lined or Verified as Sealed	Lined	Lined
	% of Farm Irrigated with Effluent	13%	31%	47%
	N Loading on Effluent Area (kg/ha)	156	125	34
Nitrogen	KgMS/ha per KgN Loss/ha	27	38	80
	N Leached (kg/ha)	40	51	21
	N Conversion Efficiency (%)	26%	32%	30%
	Soluble N Use (kg/ha)	121	142	188
Phosphorus	P Loss (kg/ha)	1.1	1.6	0.7
	Olsen P Levels	At optimum	At Optimum	At Optimum
Soil Protection	Winter Cropping % of Farm	0%	0%	0%
	Winter Soil Management	Cows stood off on yard	Formal Standoff	Cows Moved Frequently
Overall Score	Score out of 15 points	9.0	-	12.0










Environmental Management Key Concepts

- We are very aware of our environmental impact and always looking at ways to reduce it. Have retired many of the steeper areas and started riparian fencing around 30 years ago. As an extra bonus this helps with keeping drains open once a tree canopy is formed (not having to spray) and has greatly reduced stock losses.
- We have added another paddock to our effluent area but aim to extend area even further within the constraints of topography and distance from the cowshed.

³ BJ Caird Ltd/Grassy Banks, Timaru



Environmental Management Key Concepts ...cont












-  We grow maize on our effluent block as it is excellent uptaker of K and N that might make it down past pasture root zone. These paddocks grow a great crop, while saving a considerable amount on fertiliser. Maize is then fed out around the farm which aids in nutrient distribution. Approximately 240kg N and around 300kg K are harvested (almost all of this is supplied from effluent) which is not accounted for in the Overseer modelling programme.
-  Want to leave the farm in better condition than we started with.
-  Staff are made aware of the importance of the environment and the effluent system we run.
-  Use a flag system at cowshed if anyone notices the sand trap or effluent spreader needing attention.
-  Automatic rain diversion for the shed.
-  Urea applications are written on a map and aim for paddocks to have no more than 200kgN but typically average 120kg/ha/yr.
-  Whole farm has been individually soil tested which will allow each paddock to achieve optimum P and K levels (30-35 Olsen P and 8 K levels).
-  We have used Fonterra effluent specialist and an effluent system company to develop a cheap but effective system. Approx. \$20,000 spent. Direct pumping onto paddock from the shed but with backup pond. The pump we purchased (plus our generator) is able to be used to pump out of the pond if we ever need to.
-  We have recently soil tested all paddocks at a cost of \$4,000 but saved \$6,000 in fertiliser in the first year, with more savings expected in the three years to follow. Quite a few paddocks were identified as having low pH and potassium levels, so the addition of capital applications of lime and potassium should improve pasture production.



Headlands Environmental Impact Assessment

Taranaki Scorecard

Sulzberger Farms Ltd

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						13	2
	N loading on the effluent area _{kgN/ha}						156	1
Nitrogen	KgMS/ha per kgN Loss/ha						27	1
	KgN Leached/ha ¹						40	3
	N Conversion Efficiency ¹ %						26	2
	Soluble N Use ¹ _{kgN/ha}						121	2
Phosphorus	P Loss per ha ¹						1.1	3
	Olsen P Levels						At optimum	4
Soil Protection	Winter Cropping Area ¹						0	5
	Winter Soil Management						Cows stood off on yard	4
Your Total Score (out of 55)								32
Your weighted DBOY Score (out of 15)								9






¹As defined by Overseer V6.2.1 ²Refer to appendices for criteria

People Leadership and Productivity

People Productivity Key Performance Indicators Table

Key Performance Indicators		DBOY 2015/16 - Sulzberger	DBOY 2015/16 Ave. across all entrants	DBOY 2015/16 Best People Leadership ⁴
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	Training spend per FTE in Time (hrs)	1.38	4.91	2.27
Unplanned Costs	Costs per FTE (\$)	\$0	\$162	\$0
	Unbudgeted Days Lost per FTE	0.46	4.00	4.26
Labour Turnover	Labour Turnover - Management Staff (%)	27%	6%	0%
	Labour Turnover - Non Management Staff (%)	0%	37%	0%
Healthy & Safety	% days lost due to injury per FTE	2%	2%	0%
Overall Score	Score Out of 15 points	5.71	-	10.7

Key Concepts

-  Rosters: 12 on, 2 off, plus a day off between milkings on pay day.
-  We motivate and engage staff by listening and asking for contribution to running of farm, give some simple thanks at the end of the day and recognition of a job well done. We provide staff training (ITO and on-farm). Note: the 2015/16 year was an unusual year with one long-term staff member leaving for personal reasons. His ITO fees had been paid in previous year, so not included in these figures.
-  As an employer we believe in honesty, the right positive attitude, people who are keen to learn and learn from mistakes. We want staff to feel like they are valued as they are vital, and there are major benefits if they stay on, as they know how the farm operates.
-  Federated Farmers contract
-  Use DairyNZ website for information on interview questions, orientations, job descriptions, etc.

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

⁴ Pan Farm Ltd, West Coast



HUMAN RESOURCES METRICS

Sulzberger Farms Ltd

No.8 ~~HR~~





SECTIONS	MEASURED BY	Lower Score		Median	Good performance		Your Farm Results	Group Average	Your Score
BUDGETED SPEND	Management and Staff Costs per Cow		■				\$456.00	\$360.18	0.65
UTILISATION	Cows per FTE			■			146.79	171.40	0.38
	Milk Solids per worked hour			■			22.61	27.55	0.43
TRAINING SPEND	Training spend per FTE in \$\$	■					\$0.00	\$4.09	0.00
	Training spend per FTE in Time	■					1.38	4.91	0.38
UNPLANNED COSTS	Costs per FTE (milk co fines, employment disputes costs etc)					■	\$0.00	\$162.04	1.25
	Unbudgeted Days Lost per FTE (i.e. sick / grievance/ suspension / breavement)					■	0.46	4.00	0.87
LABOUR TURNOVER	Management Staff	■					27%	6%	0.06
	Non Management Staff					■	0%	37%	1.25
HEALTH AND SAFETY	% days lost due to injury per FTE			■			2%	2%	0.44
OVERALL SCORE (out of 15)							5.71		

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Current and Future Strategies

Current

-  Keep fine tuning our system
-  Run a resilient but flexible system and tweak things if payout goes up or down
-  Keep improving our environmental footprint
-  Monitor MS cow/day and the fat/protein ratios on a daily basis (fill out a milk monitor table so we can pick up any changes in cow's energy intakes)

Future plan. Where to next?

-  To be in a good financial situation to allow us to take any opportunities either on or off farm.
-  Have off-farm investments that hopefully iron out the payout volatility

Business Optimisation Trend Line – the association between payout & ROC

- The DBOY dairy business performance optimisation trendline (**Figure 1**) compares the Return on Capital (ROC) against milk payout for all DBOY finalists and Supreme Winners from the 2008/09 season through to the 2015/16 season
- The lime green dots within the scatter plot (**Figure 1**) are the average ROC at various milk payouts for the DBOY finalists
- The light gold dots within the scatter plot (**Figure 1**) are the average ROC at various milk payouts for the Supreme Winners
- The inflation adjusted five-year average milk price from 2011/12 to 2015/16 was \$6.10
- The average ROC for finalists at a \$6.10 average payout was 6.3% (ROC)
- The average ROC for the Supreme Winners at a \$6.10 average payout was 9.1% (ROC)
- This trendline can be used to benchmark your ROC for a given milk payout against the most profitable and resilient dairy farmers who have entered DBOY over the last eight years

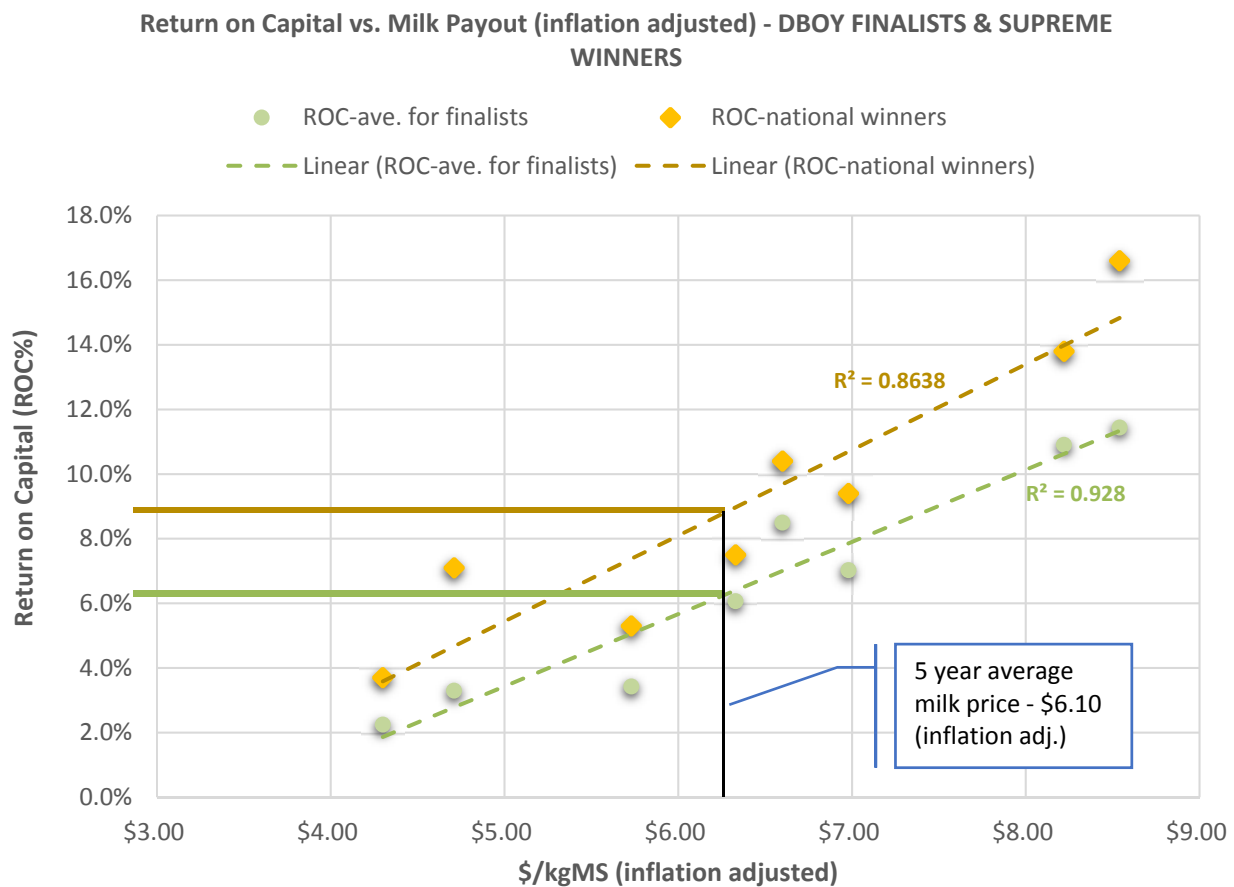


Figure 1: DBOY business performance optimisation trendline

Appendices

Definitions

Gross Revenue calculations for the DBOY competition are determined using an accrual basis, which means that the gross revenue is calculated on the milk produced the season that is being analysed times (multiplied by) the amount paid for the milk that was produced in that same season. It is important to note that this differs from the actual gross revenue that is received within the dairy farming enterprise, as income received in the season being analysed includes last year's deferred payments and a portion of the payments received for the season being analysed.

When measuring financial performance within a production season to determine business profitability, using non-accrual gross revenue is somewhat misleading when there is significant season to season variation in payout, and/or above normal variability in weather conditions, i.e. if the season prior to the production season being analysed had a higher payout it would bump up the gross revenue received in the production season being analysed. Because DBOY uses accrued revenue when calculating gross revenue, it provides a truer representation of the income generated in the season being analysed, so cost, production, and revenue, are more aligned.

Farm Working Expenses (FEW), Operating Expenses (OE) and Cost of Production (COP) 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 and 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) equals operating profit divided by total assets FARMED. The most important measure of profitability is Return on Capital (ROC). This is calculated by dividing operating profit by the total value of all assets (both owned and leased). The lease costs associated with any leased assets are included in the operating profit calculation. This generates a profitability value which can be compared across all business types, and accounts for farms with a lower milk production capability against those with a high milk production capability. To maximise ROC it is important not too over-capitalise as this in turn would require an increase in operating profit to achieve the same ROC. The capital includes; all land (milking and support), livestock, vehicles, plant and machinery, and dairy company shares and other farm related shares. Furthermore, ROC is comparable measure across different types and sizes of farm systems.

Return on Asset (ROA) is operating profit minus lease fees divided by total assets OWNED. This is all assets owned by the business, meaning it includes all assets whether financed or owned outright and excludes all leases.

Return on Equity (ROE) is operating profit, less lease fees, less interest, divided by equity. ROE includes all assets that are owned outright and excludes all leases and the financed portion of assets, providing a comparison to money invested in the bank. ROE provides the most important indicator of net wealth growth.

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 calculations for the DBOY competition are determined using an accrual basis, which means that the gross revenue is calculated on the milk produced the season that is being analysed times (multiplied by) the amount paid for the milk that was produced in that same season. It is important to note that this differs from the actual gross revenue that is received within the dairy farming enterprise, as income received in the season being analysed includes last year's deferred payments and a portion of the payments received for the season being analysed.

When measuring financial performance within a production season to determine business profitability, using non-accrual gross revenue is somewhat misleading when there is significant season to season variation in payout, and/or above normal variability in weather conditions, i.e. if the season prior to the production season being analysed had a higher payout it would bump up the gross revenue received in the production season being analysed. Because DBOY uses accrued revenue when calculating gross revenue, it provides a truer representation of the income generated in the season being analysed, so cost, production, and revenue, are more aligned.

Gross Expenses is the total operating expenses that are incurred during the production season being analysed and adjusted for feed/supplements on hand at opening and closing of the season, imputed (unpaid) labour and management, depreciation, and other expense adjustments. Gross Expenses 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.

Overseer Reports

Farm Summary

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Version 6.2.3, on 2017-06-20 07:51:43

Angela Ravagnani
Ballance Agri Nutrients

Client reference: SDWA4031272

Farm name: 43479-1516-F-X (15/16)

Farm Summary

	Units	Current Farm	Average NZ Farm
Nutrient loss indices (whole farm)			
Loss to water	kg N/ha/yr	40	24-42
	kg P/ha/yr	1.1	
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)	%	26	27-35
Effluent - area of pastoral farm			
Currently receiving effluent	ha	15	
Required to achieve application rate of 150 kg N/ha/yr	ha	16	
Greenhouse gas emissions (CO₂ equivalents (CO₂e))			
Total greenhouse gas emissions	CO ₂ e/ha/yr	11534	

Farm Nutrient Budget

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Angela Ravagnani
Ballance Agri Nutrients

Client reference: SDWA4031272
Farm name: 43479-1516-F-X (15/16)

Farm Nutrient Budget - Whole farm

	N	P	K	S	Ca	Mg	Na
	(kg/ha/yr)						
Nutrients added							
Fertiliser, lime & other	121	0	0	0	0	0	0
Rain/clover N fixation	101	0	3	5	4	8	36
Irrigation	0	0	0	0	0	0	0
Supplements imported	39	7	24	6	3	4	2
Nutrients removed							
As products	67	11	16	4	14	1	5
Exported effluent	0	0	0	0	0	0	0
As supplements	0	0	0	0	0	0	0
To atmospheric	58	0	0	0	0	0	0
To water	40	1.1	17	19	77	30	60
Change in internal pools							
Plant material	0	0	0	0	0	0	0
Organic pool	97	11	5	-11	2	1	0
Inorganic mineral	0	11	-13	0	-2	-1	-5
Inorganic soil pool	0	-27	1	0	-86	-19	-22

Block Nitrogen

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Angela Ravagnani
Ballance Agri Nutrients

Client reference: SDWA4031272
Farm name: 43479-1516-F-X (15/16)

Block Nitrogen

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)
Pastoral Main block	4503	45	6.6	202	156
Effluent	368	25	3.2	104	156
Other farm sources	250				
Whole farm	5121	40			
Less N removed in wetlands	0				
Farm output	5121	40			

* 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.

Block Phosphorus

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Angela Ravagnani
Ballance Agri Nutrients

Client reference: SDWA4031272
Farm name: 43479-1516-F-X (15/16)

Block Phosphorus

Block name	Total P lost (kg P/yr)	P lost (kg P/ha/yr)	P loss categories		
			Soil	Fertiliser	Effluent
Pastoral Main block	73	0.7	Medium	n/a	n/a
Effluent	18	1.2	Medium	n/a	High
Other farm sources	48				
Whole farm	138	1.1			

Effluent

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Angela Ravagnani
Ballance Agri Nutrients

Client reference: SDWA4031272
Farm name: 43479-1516-F-X (15/16)

Effluent Report

	Units	Current farm
Current effluent area		
Area of effluent blocks	ha	15
% of pastoral farm area	%	13
Area of farm to apply effluent to achieve rates of:		
150 kg N/ha/yr	ha	16
Maintenance K	ha	46
100 kg K/ha/yr	ha	25
Source of N applied to effluent blocks		
Average of N applied to effluent blocks	kg N/ha/yr	156
Effluent from farm dairy	%	100
Effluent from wintering pad	%	0
Effluent from feed pad	%	0
Average fertiliser N	kg N/ha/yr	0
Average other elements	kg N/ha/yr	0

Farm Greenhouse Gas Emissions

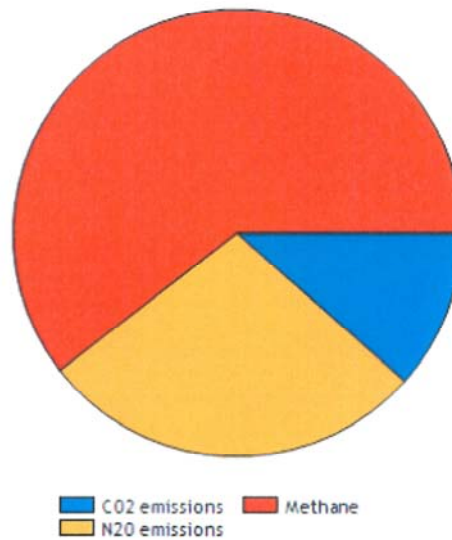
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Angela Ravagnani
Ballance Agri Nutrients

Client reference: SDWA4031272
Farm name: 43479-1516-F-X (15/16)

Farm Greenhouse Gas Emissions

Based on total farm area	Current farm
Units: CO2 equivalents (kg/ha/yr)	
Methane	6978
Enteric	6787
Dung	73
Effluent	118
N₂O emissions	3229
Excreta paddock	1699
Excreta effluent	120
N fertiliser	701
Crops	0
Indirect	708
CO₂ emissions	1327
Electricity	110
Fuel	48
N fertiliser	476
Fertiliser and organic inputs	0
Lime	0
Supplements	599
Animal transport	1
Other	95
Total	11534



This report has been developed using IPCC global warming potentials