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**Northland  
Dairy** Development  
Trust

## **Far North Partner Farm**

*Final Field-day*  
*18<sup>th</sup> May 2017*

**Tony & Briar, Don & Linda Lunjevich**  
**Diggers Valley Rd,**  
**Takahue,**  
**Kaitaia**

**BIG Thanks to our Funders & Sponsors:**

**Funders: DairyNZ, Northland Dairy Development Trust,**  
**Sponsors: RD1, LIC, Rabobank, Top Vets, Johnston O'Shea Ltd, Ballance, Tru-Test**



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**TOPVETS**



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## Far North Partner Farm - Topics

### **TOPICS:** *Far North Partner Farm – Profit from Pasture*

- *Review of the 3 Years – What's Changed & Why*
- *What Were The Key Steps Other Farmers Can Follow?*

**10am Morning Tea**

**10:30am Welcome**

- *Chris Neill, DairyNZ Regional Leader, Northland*

**10:40am Far North Partner Farm Overview – Reviewing the Last 3 Years?**

- *Tony & Briar Lunjevich, Far North Partner Farmers*

**11:20am Farm Visit:**

- Stop 1: Financial & Pasture
- Stop 2: Livestock

**12:45pm Extension 350 & Wrap-Up & Evaluation**

**1:10pm Return to the Milking Shed for Lunch**

**\*Health and Safety** – The Owners have taken all reasonable care in making your visit to the property as safe as possible. They clearly point out that you enter the property at your own risk. The Owners & DairyNZ will accept no responsibility for any incident or injury to any person or property that takes place while you are visiting the property. DairyNZ promotes the safe use of quad bikes; carrying passengers will only be permitted provided they are travelling on safe, established tracks, in convoy at a low speed and are operated according to best practice safety standards (including helmets). All passengers on 4 WD Utes must be seated while the vehicle is moving – if carrying passengers on the transport tray, passengers must be seated on the deck (not the sides or tail gate).

### Far North Partner Farm - Background:

Farm owners, Don and Linda Lunjevich also run a large beef farm in Herekino. The dairy farm was purchased 11 years ago and has been run with 50:50 sharemilkers since being purchased. Tony's brother Paul share-milked on the farm for the first 5 years and was involved in a large proportion of the development. Tony started 50:50 share-milking on the farm in the 2011/12 season.

In May 2014 Tony purchased an adjoining block of land (effective area was around 45ha), which was rundown when purchased and has been developed, including fencing, fertiliser, logging and weed control. The plan had been to run youngstock or dairy support, but Tony did such a good job of development, that parts have come into the milking platform (18ha in 2015-16 with another 5 ha in 2016/17).

In May 2014 the farm was selected as the Far North Partner Farm. The management team for the partner farm includes: Scott Rumsey, Kerry Cutler, Alister and Lyn Candy, Clive Walden, Aaron Switzer, David Gray Joe King, Bob Campbell as well as Tony, Briar, Don & Linda Lunjevich.

## Farm Information:

The original dairy farm was 113 ha effective, with around 7 ha that is not milked off (steep paddocks), giving an effective milking area of 106 ha. The farm has continued developing in recent years; parts of the farm have been brought in from scrub within the last 10 years. In 2015/16 the milking platform increased to 120 ha (part-way through the season) and in 130ha in 2016/17.

Contour is variable; mostly rolling, with around 14% flats and some steeper areas. The cowshed is at the front of the farm, meaning long walks (up to 2.4km) and climbing a 50m ridge to access most paddocks:



## **Far North Partner Farm Goal (May 2014): Increase Equity by \$500,000**

Plans have changed over the course of the Partner Farm program, driven by the over-arching goal for Tony & Briar to increase equity by \$500,000 in 3 years. A key change was the realisation that bringing parts of the new block into the dairy farm could contribute to equity growth, through increasing cow numbers and underlying land value. Key changes from the Partner Farm Program included:

- **Pasture Management:**
  - 10 day pasture walks to allocate feed and fine tune supplement use
  - Achieve good post grazing residuals – either with the cows or a mower
  - Minimise pugging and use rotation length to drive pasture growth
  - Use nitrogen fertiliser proactively (targeting 120 – 150 kgN/ha/year)
  - Chicory to complement lower quality summer pasture
  - Mulching Italian ryegrass into kikuyu pasture
  - 2-4D Spray to remove pasture weeds with low summer feed quality (e.g. carrot-weed)

- **Livestock:**
  - Increase stocking rate from 2.2 cows to 2.5 cows/ha (helps with pasture quality)
  - Bring Calving Forward (by shifting calving date and tightening up calving)
  - Achieve cow condition score targets in cows & liveweight targets in youngstock
  - Reduce Empty Rate from 25% to 6% in 2016/17
  - Increase BW to district average (purchasing high BW replacements)
- **Financial:**
  - Benchmarking to identify where costs are high
  - Set an aggressive budget and share it with others
  - Tight Expenditure – minimise the losses

### Year 1: (2014/15) Key Changes:

- Increased cow numbers to peak at 285 cows (from 240 in spring the season before)
- 10-day pasture walks and use of the Spring Rotation Plan to ration pasture through winter
- Employed a full-time farm assistant and milked all cows Twice A Day
- Developed the new block

### Year 1: What Went Well:

- **Farm Walk:** Knowing what feed was available, where it was and how much supplement to offer
- **Spring Milk Production:** Milk production tracked close to target through spring (before Nov), contributing to an overall increase of ~9000 kgMS (14%) on the previous season
- **Employing Jordan:** This allowed new block development and getting more done around the farm
- **New Block Development:** Huge progress with development on the new block

### Year 1: What Didn't Go Well:

- **Lameness:** Major lame cow issues which persisted through summer, impacting on milk production, mating and creating extra work
- **Reproduction:** Mating moved forward 5 days, in hindsight, calving date should have stayed the same and worked on compacting calving first. The 30% empty rate & spread calving cost days in milk in the 2015-16 season and created a financial cost to Tony & Briar in replacing empty cows
- **Summer and Autumn Milk Production:** Despite the cows being milked TAD, daily milk production dropped below the previous year (3-in-2 milking). Exceptional growth in November meant the cows spent autumn chewing through poor quality feed which cost milk production.
- **Late Mulching:** Mulching into May contributed to low pasture cover heading into winter and an early dry-off

### Year 2: 2015-16 Season:

- Further increased cow numbers to peak at 295 cows (36% first calvers)
- Increased milking platform from 107 ha to 125 ha (from October)
- Milked all cows 3 times in 2 days (3 in 2) for the season
- Grew 14 ha of Chicory to complement pasture quality in the summer
- Labour shifted from full time to casual

## Year 2: What Went Well:

- **Pasture quality:** Pasture quality was excellent through the season, mulching set the base and the cows left good residuals or paddocks were topped. 2-4-D spray reduced weeds that contribute to lower pasture quality in spring (e.g. carrotweed).
- **Summer Milk Production:** Milk production lagged behind the previous season in early spring (slow calving and 3 in 2), but by late October daily milk production had lifted above 2014/15 and milk production held well through summer. Chicory played a significant role along with improved pasture quality and regular rain.
- **3 in 2:** 3 milkings in 2 days reduced labour and lameness. It's difficult to quantify the impact on milk production although there were challenges coordinating AI over mating.
- **Lameness:** Neil Chesterton visited the farm and gave Tony advice about treating and options to prevent lameness, races were worked on and the cows were milked 3-in-2 rather than TAD.
- **Farm Expenditure:** Tony & Briar set a challenging budget and monitored actual expenses against the budget making significant reduction in expenditure (\$1.64/kgMS).
- **Expanding the Milking Platform:** Adding area to the milking platform was not anticipated at the start of the season, but during feed pinch in October it made sense to add this area to the milking platform rather than purchase supplement. Along with the good season and chicory, the new block contributed to much less supplement being required.

## Year 2: What Didn't Go Well:

- **Low Pasture Cover at Calving:** Mulching late into autumn in 2015 contributed to low covers in winter. Even with grazing cows on the runoff, pasture cover was 2100 kgDM/ha at calving (target 2400 kgDM/ha), contributing to an early spring feed deficit just prior to mating.
- **Mating:** Tony worked hard on mating; mating date stayed the same, extra effort went into heat detection. Despite 3 in 2 milking, the low 3-week submission rate forced the decision to extend mating from 12 weeks to 14 weeks to reduce the number of empty cows. The empty rate was lower than the previous season, but there was still room for improvement
- **Low Cow Condition at Calving:** Low pasture cover heading into winter meant choosing between cow condition and pasture cover. It's difficult to feed supplement on the runoff, so once the decision was made to focus on pasture cover it was inevitable cow condition would suffer; the cows were ~0.5 BCS below target at calving.
- **Milk Price:** The milk price was a huge disappointment, despite making such good gains in milk production, pasture management and expense control, the low milk price made it tough

## Year 3: 2016-17 Season (Final Season):

- Further increased cow numbers to peak at 320 cows (34% first calvers)
- Increased milking platform to 130 ha
- Milked Once A Day all season
- Expanded the chicory area from 14 ha to 21 ha

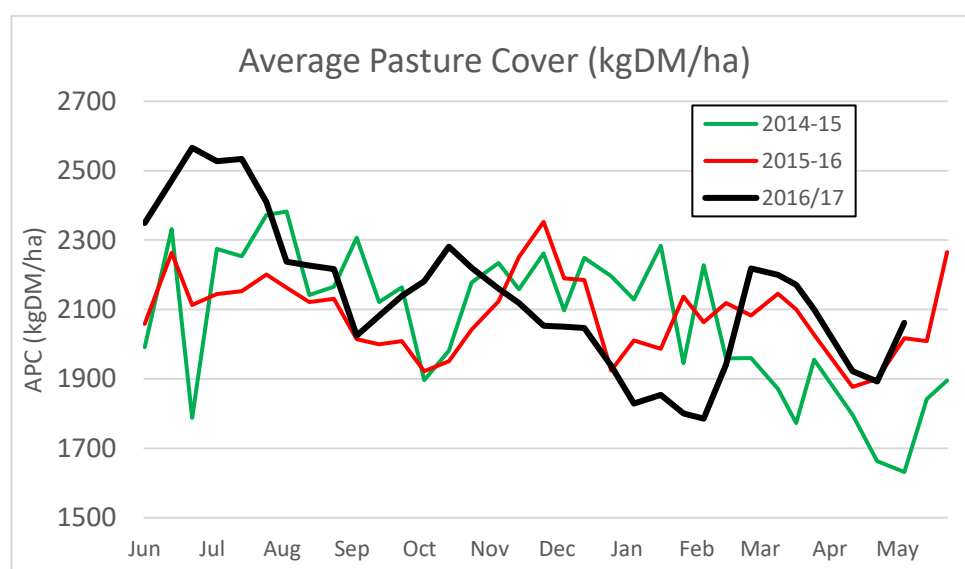
### Year 3: What Went Well:

- **Pasture Cover at Calving:** Mulching in autumn 2016 was completed by the end of April, pasture cover was on target heading into the winter and exceed target of 2400 kgDM/ha at calving. This good starting pasture cover, along with targeted supplementation meant no spring feed deficit
- **Cow Condition:** Cows were dried off early in the 2015-16 season to ensure they reached the BCS target of 5 at calving. This contributed to good early season milk production. The milkers are in excellent condition and only need to be fed maintenance through winter (BCS 4.9 on the 4<sup>th</sup> May).
- **Reproduction:** Huge gains in submission rate and conception rate contributed to an empty rate below 6%.
- **Genetic Gain:** After growing cow numbers for three seasons, Tony has a very young herd (59% first or second calvers in 2016/17) and BW has increased from -1 to 52. This creates room to select animals better suited to OAD milking and consolidate gains in breeding
- **Milk Production:** Despite this being the first season of OAD milking, milk production is 10% ahead of the previous season – in a year when many farms are behind the previous season.
- **Management Decisions:** Tony & Briar have been making great management decisions, it's been a tricky season, but they have built on the last two seasons to set themselves up for a great future.

### Year 3: What Didn't Go Well:

- **Difficult Spring Conditions:** As with most farms in the North Island, relentless wet weather in late September contributed to a drop in milk production. Production recovered in October, but it still took the gloss off the season.
- **Summer Drought:** Tony was proactive with supplement to fill the feed deficit caused by the dry summer; chicory and PKE helped buffer the impact of low pasture growth rates. This contributed to a slight drop in the amount of pasture and crop eaten this season.

### Average Pasture Cover: 3 Seasons



**Cropping:** A variety of crops have been used in the past with mixed success; maize silage, chicory, sorghum and turnips. Chicory was selected as a fast establishing crop with high feed quality to complement summer pasture. 21 ha of chicory was sown (6.5 ha per 100 cows), crop areas were taken out once average pasture cover across the farm reached 2200 kgDM/ha in the late spring (first paddock sown 7<sup>th</sup> November) with the first grazing in early December and a fast summer rotation.

## Feed Summary:

		Year 3	Year 2	Year 1	Year 0	
		2016/17 <sup>f</sup>	2015/16	2014/15	2013/14	2012/13
Peak Cows		320	295	285	240 <sup>1</sup>	230
Milking Platform		130	120	107	107	107
Milking Regime		OAD	3 in 2	TAD	3 in 2	3 in 2
Cows/ha		2.5	2.5	2.7	2.2	2.1
Milk Solids (kg)		87,593	80,044	72,095	63,106	60,930
kgMS/ha		673	667	682	589	569
kgMS/cow		273	271	256	262	264
Bought In Feed (tDM)	PKE	207	40	74	53	0
	Maize Silage	0	0	80	50	0
	Molasses/CDS	0	0	0	47	44
Total Bought in Feed (tDM/ha)		1.61	0.33	1.29	1.23	0.41
Crops (ha) grown on platform	Maize	0	0	0	0	1.7
	Millet/sorghum	0	0	0	7.4	0
	Chicory	21	14	0	0	10.9
	Turnips	0	0	4.9	0	0
Grass Silage (on platform) (tDM)		0	0	0	0	13.2
Dry Cow Grazing (tDM)		51	76	55	45	45
Total Feed Eaten (tDM/ha)		10.7	10.4	11.0	9.56	8.90
Pasture & Crop Eaten (tDM/ha)		9.1	9.2	9.2	7.9	8.1

<sup>2</sup> 240 cows for most of the season, 260 milked for a short period in late lactation.

**Reproduction:** The empty rate has historically been high. Results from the Fertility Focus report are summarised in the table below. Mating came forward 5 days for the 2014 mating. Tony & Briar chose to purchase high BW heifers rather than retain replacement heifers from low BW cows.

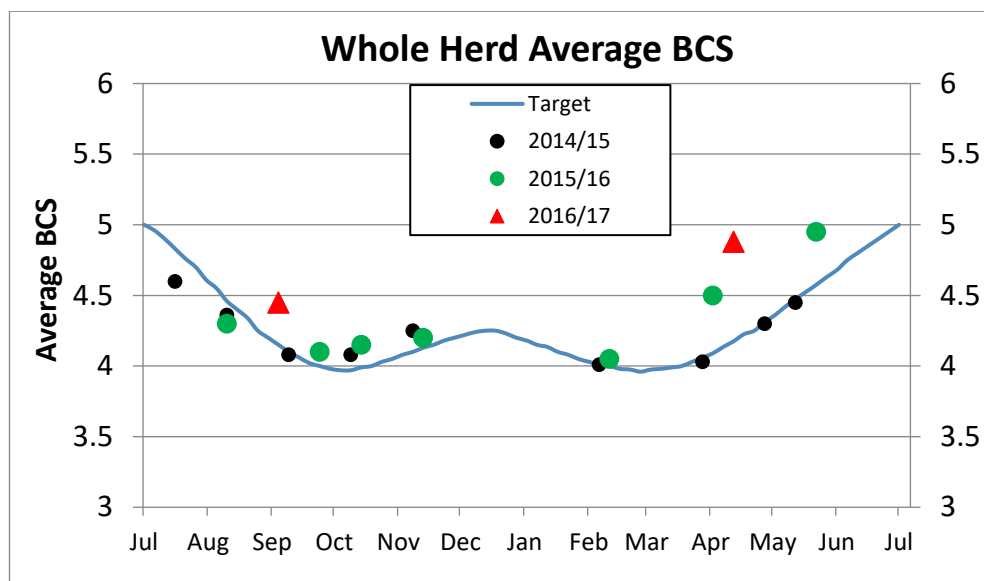
Partner Farm	Year	6 Week Incalf (%)	3 wk Submission Rate (%)	Conception Rate (%)	Not In Calf (%)
	2012	54	64		23
Year 0	2013	49 (47-50)	48	20	25
Year 1	2014	39 (38-48)	60	38	33
Year 2	2015	47 (45-51)	53	41	12
Year 3	2016	64 (63-68)	75	56	6
	Target	78%	90%	60%	<8%

\* 2015 was a 14 week mating (12 weeks for the other years)



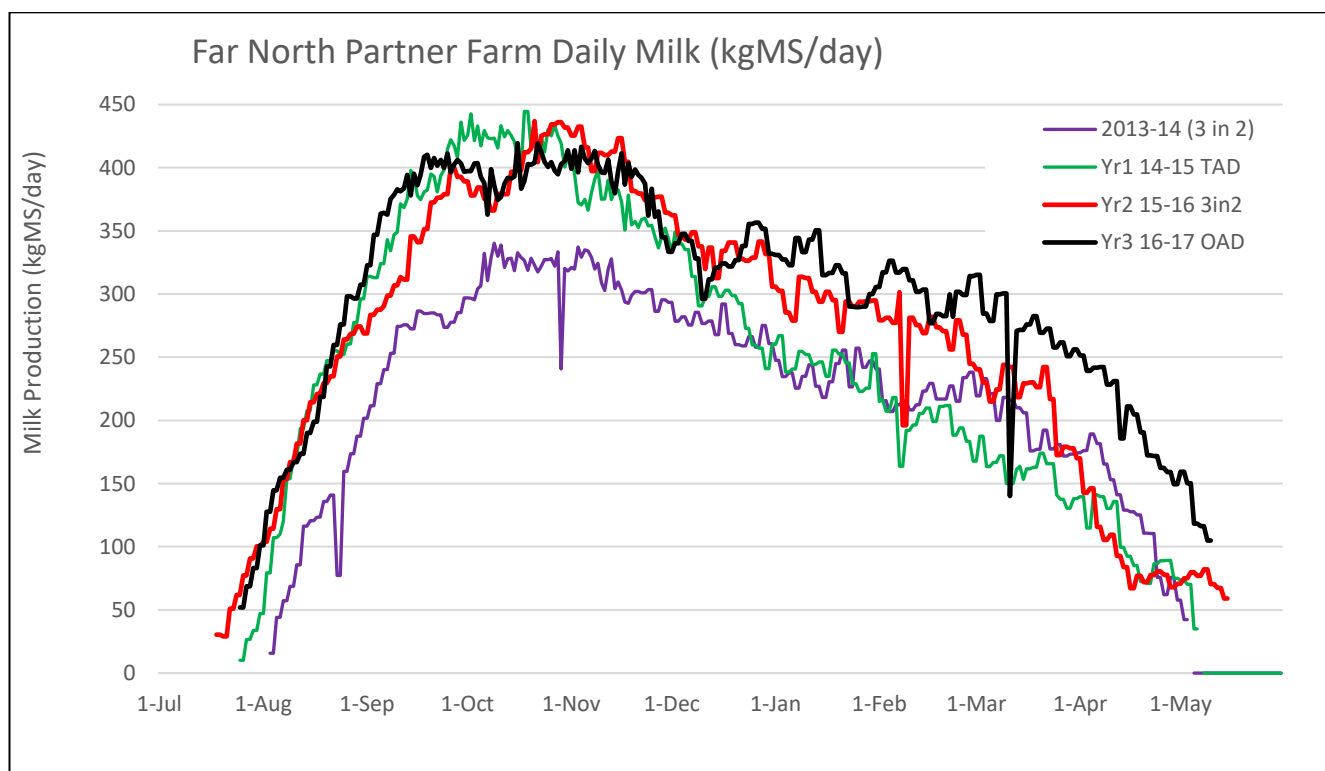
### Body Condition Score:

Cow condition has been assessed through the season. Cow condition has been well above target in 2016/17 (first season of OAD milking)



### Milk Production:

Milk production in 2016/17 (black line) indicates milk production has held well through the summer (chicory and PKE), despite the dry weather.





## Financials:

This project is about Profit from Pasture, so financial performance is a key factor. Most of the focus has been on Tony & Briar's business (50:50 sharemilking costs), but the figures in the following table represent the combined business (equivalent to an Owner Operator). Expenses are shown for Farm Working Expenses and for Operating Expenses (includes a theoretical management wage):

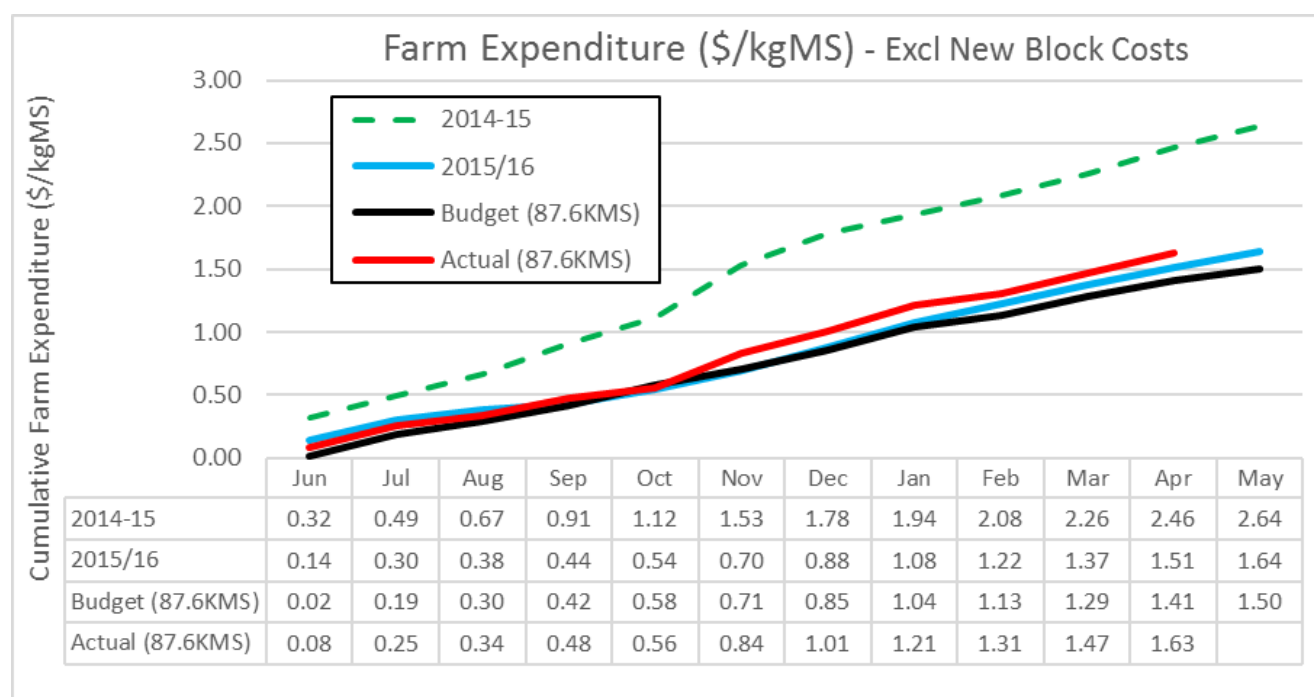
		Farm Working Expenses (\$/kgMS)		Operating Expenses (\$/kgMS)	
	Far North Partner Farm – Total FWE	Far North Partner Farm	DairyBase Benchmark <sup>1</sup>	Far North Partner Farm	DairyBase Benchmark <sup>1</sup>
2013/14	\$241,190	<b>\$3.82</b>	\$4.74	<b>\$4.62</b>	\$5.69
2014/15	\$307,094	<b>\$4.26</b>	\$4.23	<b>\$5.02</b>	\$5.23
2015/16	\$249,466	<b>\$3.12</b>	\$3.55	<b>\$3.81</b>	\$4.44
2016/17 <sup>2</sup> (est)	\$272,500	<b>\$3.11</b>	-	<b>\$3.76</b>	-

<sup>1</sup> Benchmark is DairyBase Northland Owner Operators

<sup>2</sup> Actual expenses to April – Estimate for May

The farm has historically operated with relatively low farm expenses. The dilution of costs through extra milk production has contributed to a further drop in expenditure on a \$/kgMS basis. Over the Partner Farm Project cash costs have increased 13%, but milk production has increased 39%. These operating expenses are expected to be well below the Northland benchmark in 2016/17.

Analysis of Tony & Briar's sharemilking costs are outlined in the graph below. The extra PKE used in 2016-17 has contributed to higher costs this season, but overall farm working expenses are still forecast to be less than \$1.80/kgMS for the season (benchmark for 50:50 sharemilkers is typically >\$2/kgMS)



## FAR NORTH PARTNER FARM FIELD DAY FEEDBACK FORM

<b>Hosts:</b> Tony & Briar Lunjevich	<b>Date:</b> 18/5/2016	<b>Region:</b> Northland
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**The objectives of this event were to:**

1. Demonstrate the steps to achieving Profit From Pasture
2. Identify the key changes which contributed to the gains
3. Outline the steps on Tony & Briars journey
4. Create an awareness of how this journey can benefit other farmers

**Did we meet our objectives?**

Yes	No

**Comments on the objectives most important to you:**


**If no, which objective(s) not met?**

1	2	3	4	5

**Comments on the objectives not met:**


**Please tick your role on farm:**

Farm Owner		Sharemilker		Farm Manager	
Farm Staff		VOSM		Rural Professional	
Contract Milker		Other please specify			

**How did you hear about this event?** (Please circle appropriate box(s))

Email		Website		Local CO		Text	
Flyer		Word of mouth		From another farmer		Facebook/Twitter	
Newspaper advert		Other (please specify)					

**Overall, how beneficial was today's event to you?**

Not beneficial at all				Highly beneficial
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

Please state what you found most beneficial?


**How likely to make changes on farm or to your farming business as a result of attending today's event?**

Won't make any changes		May make a few changes		Will definitely make changes
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

Please comment on what changes you will make:


**To improve the next Project, what areas and/or topics should be covered? (Some of the comments offered):***e.g. More results from the Region/Drying off/How to handle coming out of the drought/leave it the same*


**Would you recommend Partner Farm events to other farmers?**

Yes	No

**Any other comments?**
