

Backtrack Dairies – Weekly Summary

Week ending Saturday 23rd April 2016

Backtrack Dairies

Two farming systems. One biological (Whakapono) and one conventional (Waiora). Both farms have a stocking rate of 3.3 cows/ha at peak.

Week Ending	16/4/16		23/4/16	
Backtrack Dairies	Whakapono	Waiora	Whakapono	Waiora
Farm grazing ha	155	210	155	210
Peak Cows	506	690	506	690
Stocking Rate (cows in milk/ha)	3.0	3.0	2.9	2.9
Cows in Milk	467	618	443	614
Cows in Vat	459	607	435	610
Ave. Pasture Cover	2653	2837	2553	2811
Ave. Pasture Growth	49	36	43	52
Area Grazed	5.28	6.26	4.84	5.76
Grazing Interval	29	34	32	36
Pasture Intake (est kgDM/cow)	18	20	18	21
Grass Silage Fed (kgDM/cow)	1	1	1	1
Grain/PKE Fed (kgDM/cow)	2	2	2	2
Total Fed KgDM/cow	20	20	21	23
Milk Solids (Kg/cow/day)	1.73	1.61	1.67	1.58
MS/ha/day	5.14	4.71	4.69	3.27
Nitrogen applied (kg N/ha)	0	27	0	27
Rainfall (mm for week)	16	16	5	5
Irrigation applied	12672	24020	0	0
Soil Temperature at 9am	14	12	13	12
Soil Moisture (between 65-76%)	75	81	67	78
Cell count (000's)	123	114	131	152
Mastitis Cases	0	1	0	1
Lameness Cases	2	4	4	0
Body Condition Score	4.3	4.32	4.3	4.32
Totals To Date				
Milk Solids to factory	225396	292174	230486	303901
Milk Solids inclu calf milk	230499	301498	235589	313225
MS/ha	1462	1393	1495	1449
Nitrogen applied (kg N/ha)	119	160	119	160
Supplements Fed (kg/cow)	724	740	751	780
Deaths %	2	2	2	2
Culls %	12	14	16	14

Summary

- **Overseer** N loss to water 35kg/ha Whakapono / 36 kg/ha Waiora
- Per cow and per ha production has dropped to 1.67 kg MS/cow and 4.69 kgMS/ha on Whakapono, with Waiora holding at 1.58 kg MS/cow and 4.60 kgMS/ha.
- Moving to 36 days has meant cows are eating lower quality silage and PKE and grazing harder into the poorer quality of the base of pastures.
- Growth rates and weather very good for utilization
- Finishing last round of Sustain Ammo 30N to Waiora (27 units N)
- Will move to 48 days next week with pit silage 3- 4 kgDM/cow/day and 1kg PKE with Waiora herds coming together to make it easier to get to a 48 day round (600 cows get half a paddock and one load of silage)
- Still producing higher per cow than last season with 120 less cows over both farms (10%) and production down 3% on Whakapono and 8% on Waiora to factory.
- Overall 6.0% down to factory but less supplement used to date.
- 5mm rain so irrigation still off but moisture trending down overall.
- Whakapono decreased cover again from 2653 kgDM/ha to 2553 with a PGR of 43kgDM/ha/day, while Waiora has maintained its cover of 2837 kgDM/ha at 2811 at PGR of 52 kgDM/ha/day which seems correct given the growth rates and low levels of supplement fed.
- Able to back off silage to achieve target residuals of 1650 and still achieve 30+ day round.
- Residuals on both farms starting to look more acceptable around 1600 but are still plating high reflecting base carried forward. This should start to disappear with autumn change.
- 24 older culls not suitable for grazing went to works as space became available
- Delayed culling most MT cows a month due to high pasture covers available and opportunity to make cheap milk and reach our budgeted production target
- Have decided 90 cull cows will go to buyers for grazing winter feed on liveweight basis early May before we go to 48 day round. Lincoln has also decided to turn their high covers into milk.

Production

Whakapono production is ahead of Waiora in per cow and per ha/day probably due to better quality pasture available overall (more clover?).

PKE has been maintained at 2kg/cow/day with grain dropped out as considered not economic at new lower milk price.

Baleage is added as needed to help extend the round at 1- 2 kg DM/cow/day

Irrigation

5 mm rain this week and means irrigation is off although may need to shortly as moisture meters indicate

Have 1 day of stored water left but can purchase more at current price (8c/m³). This works out at about \$1000/day for both farms.

Animal Health

	Whakapono	Waiora
Mastitis %	0%	0%
Lameness %	0.4%	0%
Penicillin Herd %	1.8%	2.1%

There is minimal mastitis on both farms. Lameness still a problem on Whakapono with 4 new cases this week and none on the larger Waiora.

Whakapono does have disadvantage of one herd of 500 cows compared to two herds of 300-350 on Waiora so a lot less time on concrete.

Also Whakapono has longer walks on tracks which the two pivots go over and wet continuously whereas Waiora's four pivots don't cross any tracks so stay mostly dry and clean, which could be why there is less footrot there.

Pastures

Covers on Whakapono have decreased from 2653 to 2553 on a 32 day round moving to 36 days, while Waiora is down from 2837 cover to 2811 as we move to an average 36 day round with the first herd on Waiora and Whakapono receiving 1 kg of silage as baleage on average, while the second herd on Waiora makes use of the extra cover on their part of the farm we carried forward. Cows on Waiora go together next week to make management easier on long round and less labour required with milking, fences and feeding out.

Residuals on both farms are starting to look more acceptable around 1700 on Whakapono and 1800 on Waiora.

Growth rates (43 Whakapono / 52 Waiora kgDM/ha/day) seem to line up with the changes in cover but Waioras cover by eye appears similar to Whakapono but is maybe carrying more base. Extra N effect on Waiora is obvious with 250 extra cover available but Whakapono lower but appearing to satisfy cows and production still superior at same stocking rate and round length.

Whakapono maintaining higher per cow production but lower cover may mean quality is better to the base of the sward and is being turned into milk instead of being rejected or taking more energy to digest.

Herbage samples, two from each farm directly in front of cows to be grazed are remarkably similar, one excellent and one average from each farm so cast no more light on per cow differences

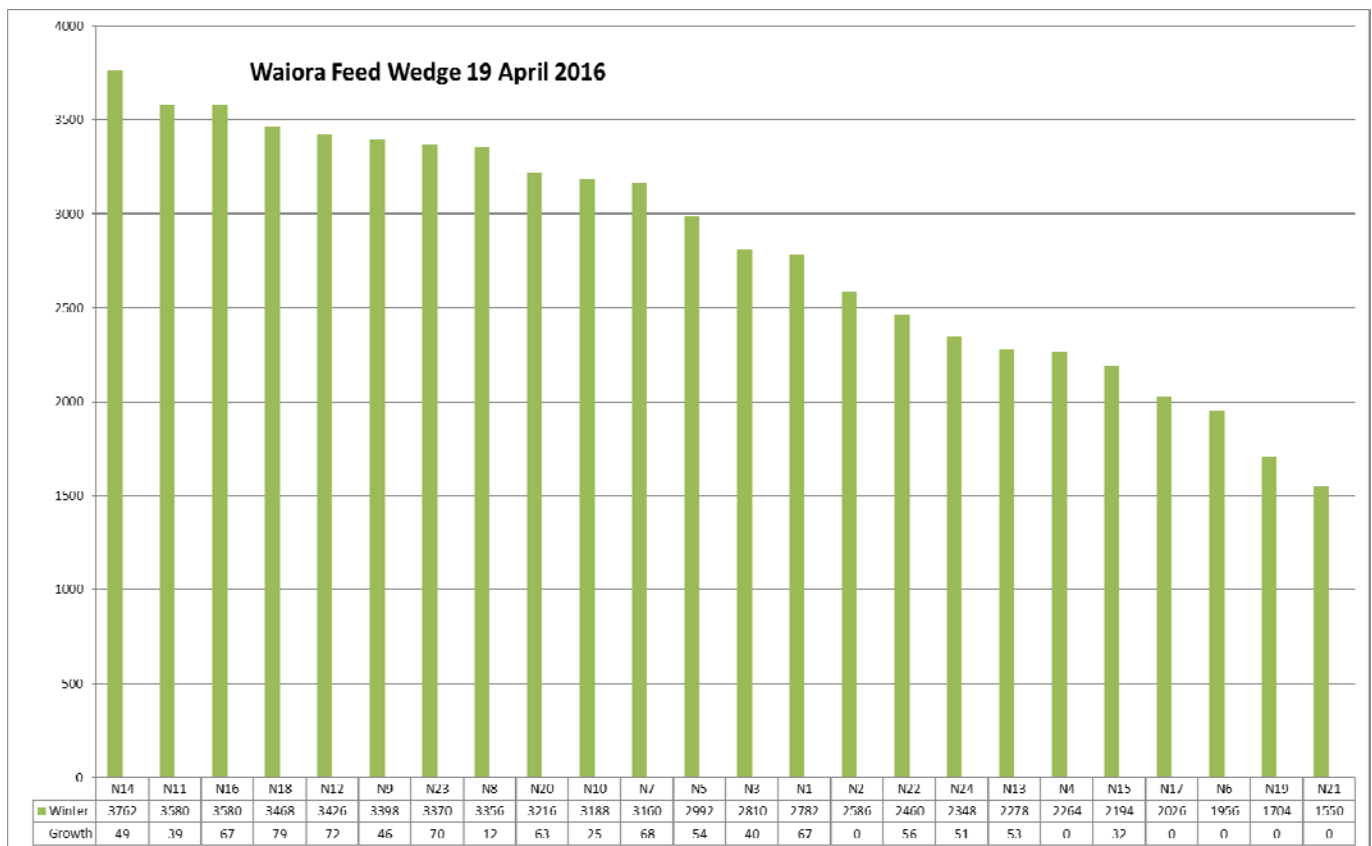
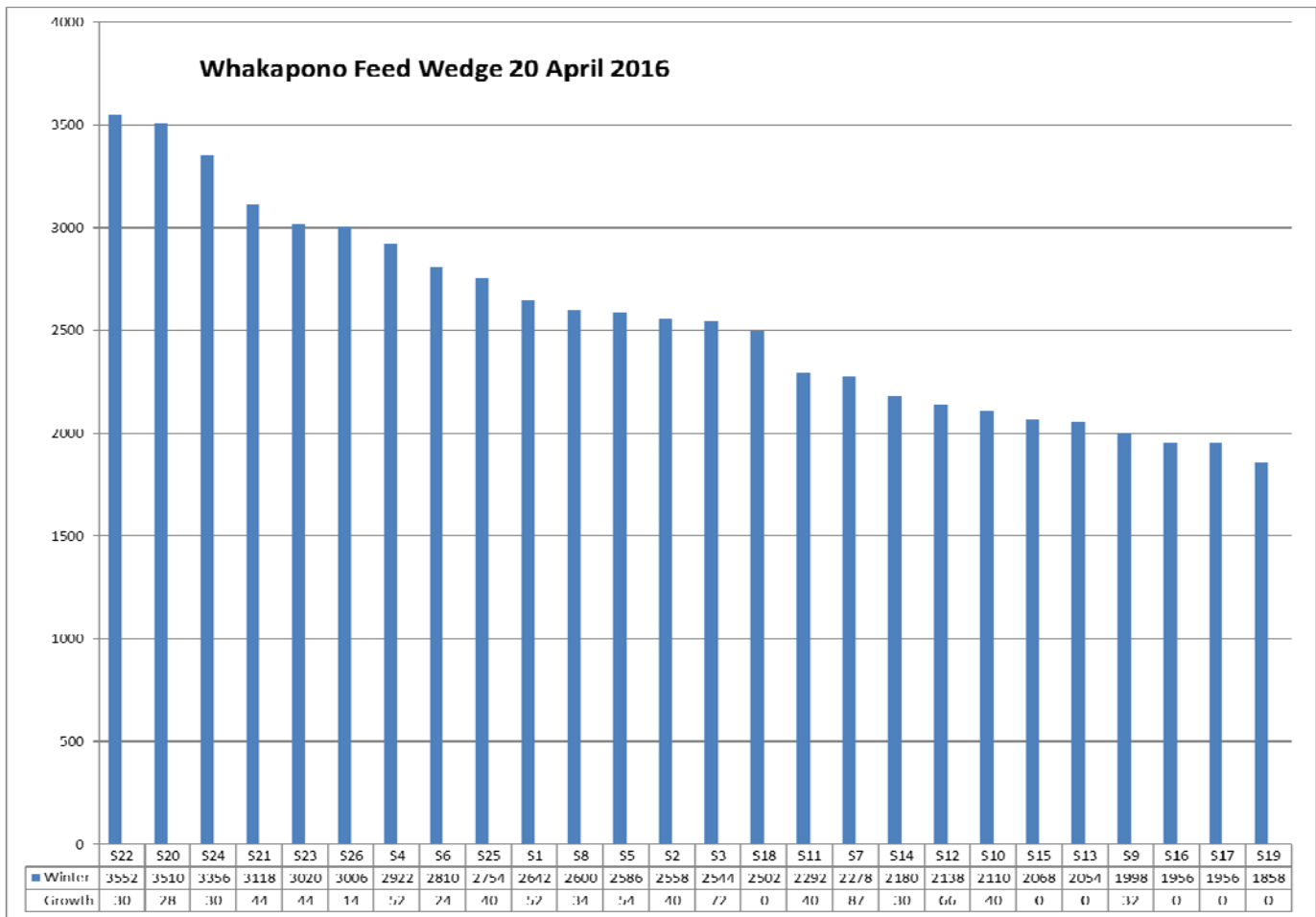
Check them below.

Demand at 3.0 cows x 18 kgDM/cow/day = 54 kgDM/ha/day so should be decreasing cover, with PKE in shed at 2 kg/hd/day and 1 – 2 kgDM silage helping to offset this pasture demand

Feed Wedges

Both wedges look similar with a healthy bow wave of feed ahead of us to use to finish the season meaning less reliance on supplement.

Waiora has higher middle which reflects the effect of 28 kg/ha urea applied last round and the nearly 200 extra cover produced from artificial N.



Mating

	Whakapono	Waiora
Submission Rate	84%	82%
Non-cyclers	9%	12%
AI length	8 weeks	8 weeks
Mating length	11 weeks	11 weeks
Detection Method	Manager/2IC checking cows every morning and tail paint	Manager/2IC checking cows every afternoon and tail paint

Timeframe of Mating	Dates
Planned Start of Mating	30 th October
Metri-checking & PG 1	23 rd November
PG 2	4 th December
Change to short gestation semen	10 th December
AI Finished	22 nd December
Bulls entered herd	22 nd December
Bulls removed from herd	10 th January
Pregnancy Scanning 1	2 nd February
Pregnancy Scanning 2	3 rd March

Pregnancy Test Results

1 st Scan	Whakapono	Waiora
Total Cows Scanned	493	652
August Calving (first four weeks)	304 (62%)	390 (60%)
September Calving (second four weeks)	105 (21%)	148 (23%)

Rechecks	84 (17%)	114 (17%)
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2 nd Scan	Whakapono	Waiora
Total Cows Rechecked	80 (16%)	117 (17%)
Late Oct to Bull	12 (2%)	19 (3%)
No of Cows Empty	68	98
% of cows Empty	14%	15%

So very disappointing results but appear to be quite common around the county and also Lincoln posted a similar result at 14% after 10 weeks. I will check how many of these are culls that I didn't mate until late on purpose, which will make me feel a bit better if they make up some of these MT's.

Good job the beef schedule is good and I have plenty of heifers (317).

Heifers on the three blocks ranged from 4-7% MT which is normal for us.

Fertiliser

Whakapono – Top Soils

Month	Fertiliser Product	Application Rate (kg/Ha)	N	P	K	S	Mg	Ca
July	Sulphate Ammonia	150	32			35		
	Mag Sulphate (K)	25				4	4	
October	Sulphur	10				9		
	Sulphate Ammonia	25	6			6		
	Pot Sulphate/KCL	25			12	3		
	DAP	75	14	15				
December	Urea	20	9.2					
	Sulphate Ammonia	50	11			12		
	Pot Sulphate/KCL	52			25	6.8		
	DAP	48	8.6	9.6				
	Sulphur	10				8.6		
	Lime	639						383

	Dolomite	1080					119	540
January	Urea	5	2.3					
	Sulphate Ammonia	64	14			15		
	Pot Sulphate/KCL	5			2.4	0.7		
	DAP	5	0.9	1				
February	Urea	5	2.3					
	Sulphate Ammonia	50	11			12		
	Pot Sulphate/KCL	5			2.4	0.7		
	DAP	5	0.9	1				
Total to Date Applied			114	27	41	112	123	923

Waioira - Ballance

Month	Fertiliser Product	Application Rate (kg/Ha)	N	P	K	S	Mg	Ca
July	Sustain Ammo 30N	100	30	1		13		
October	Muriate of Potash/Sustain Urea	100	25		22			
November	Serpentine Super/Sulphurgain Pure (Olsen P < 20)	526		22		40.5	16	53
	Serpentine Super/Sulphurgain Pure (Olsen P > 20)	626		15		28.5	11	37
December	Muriate of Potash/Sustain Urea	100	25		22			
January	Muriate of Potash/Sustain Urea*	100	25		22			
March	Sustain Urea	60	28					
April	Sustain Ammo 30N	90	27			12		
Total to Date Applied			160	38	67	94	27	90

*Waioira fertiliser going on mostly at 100 kg/ha which is a 50:50 mix of Sustain Urea and MOP with one third of paddocks only receiving 50 kg of Sustain urea if K levels were > 6.

March

Commenced applying fert to Waioira following cows as we prepare to head out to 30+ day rotation using Sustain Urea at 60 kg/ha or 28 kg/ha of nitrogen to boost cover. This will take total to 133 kg/ha of N to date.

A final application of Sustain Ammo 30N will go on in April taking N total to 160 units very similar to Lincoln at 167 units of N who are limited by their nutrient budget.

Total spend from Ballance including lime \$111,000 or \$529/ha well under our \$600/ha budget.

Also started applying autumn mix to Whakapono with low rate of nitrogen at 14 units and very small amounts of P, K and S and should be the final application this season to this farm.

This will take farm to total N use of 119kg/ha for season.

Despite this total spend for the season will total \$101,000 or \$653/ha well over the budgeted \$600/ha.

It is worth noting that of the \$200/ha spent on Ca/Mg on Whakapono to achieve the desired 68%/12% of base saturation that could be viewed as a capital application of nutrients. The next soil tests will show this as will Waiora's need for lime next season if pH drops below desired levels around 6.2.

One thing is for sure, given the current situation with dairying, next seasons budget will be tighter as we strive to be more efficient with nutrients and remain profitable.

I feel confident given the recommendations on both farms that we have nutrients "in the bank" that we can draw on if things get much tougher.

Started applying final round of Ammo 30N to Waiora following cows

Whakapono will receive no more fertiliser this season and will be very interesting to see what grows from this point on.

April

Completing last round of fert for Waiora which equates to 27 kg/ha N with total for season 160 kg/ha

Nutrient Budget

Overseer N loss to water show Whakapono at 35 and Waiora at 36.

Programme assumes if you grew the grass and did the production then the N must have come from clover

This N in feed still has to go through the cow and excess be excreted in the urine therefore able to be leached the same way fertiliser N is consumed and lost

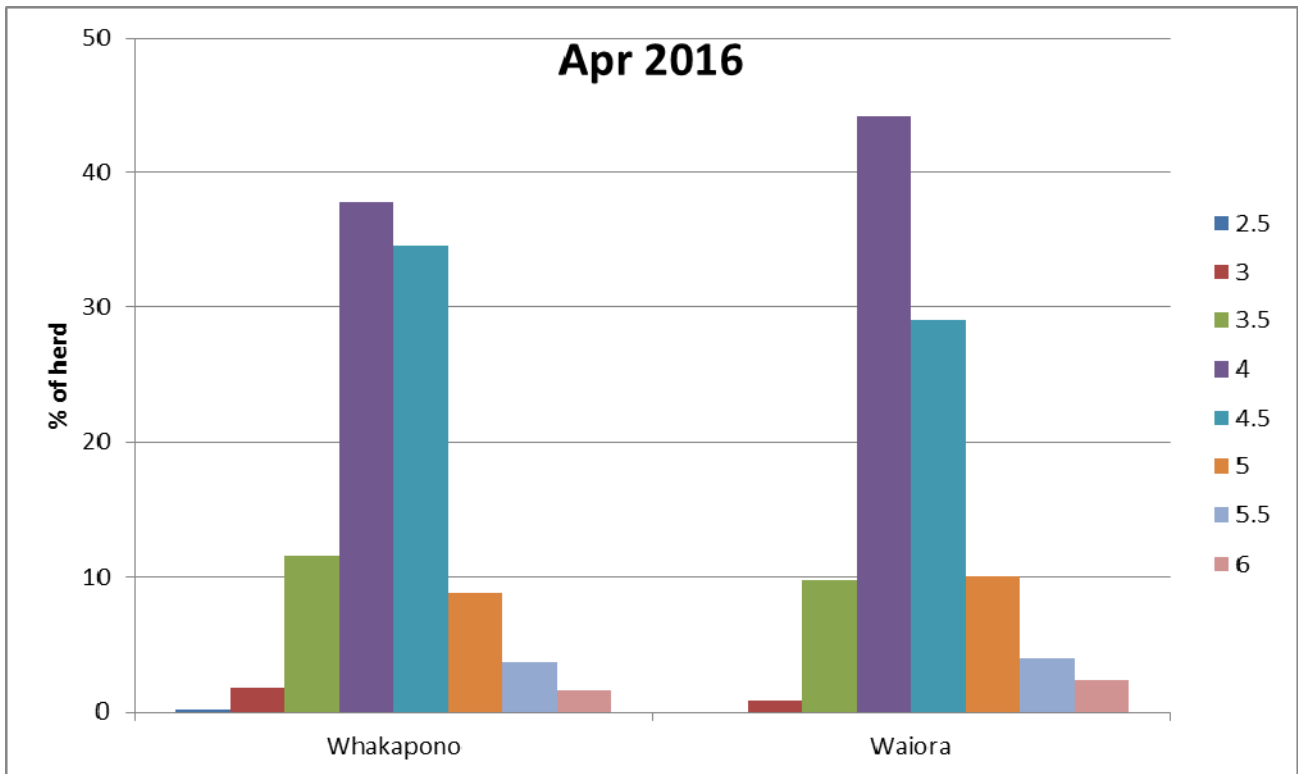
Previous years have given a 5 kg advantage to Whakapono with 50 units less N applied and a similar amount of supplement fed on each unit and milk produced.

Should be plenty of debate on this at the field day.

Check Overseer files attached below

Cow Condition

Cow condition has declined slightly on both farms with the average at 4.3. There is 13% of Whakapono cows below CS 4.0 and 11% on Waiora below CS 4.0. The industry target is no more than 10% of the herd below CS 4.0 at this time. This means that both farms are just over this target, but are still in a good position to make calving condition targets. The spread is shown in the graph below.



Herd Test Results

Farm	No. of herds	Herd Size	Milk (L)	Milkfat (%)	Milkfat (kg)	Protein (%)	Protein (kg)	Milk Solids (kg)
Whakapono		473	23.0	5.04	1.16	4.20	.97	2.12
Waiora		626	21	4.63	.97	4.06	.85	1.82
Canterbury	94	648	19.5	4.71	.92	3.92	.77	1.69

Management

Increase rotation to 36 days using supplement and reducing cow numbers.

Make use of N in fert on Waiora to boost growth rates while weather still warm.

Delay culling MTs except problem culls bearing in mind we still have our target production in mind and a relatively low stocking rate compared to previous years.

Still 35 heifer calves on farm plus 8 jersey bull calves.

64 R2year heifers split between farms grazing in front of cows.

Control weeds, Californian thistle and gorse on fence lines.

Irrigation K-line and pivots as per moisture meter.

River water available so maintain moisture levels at upper end of optimum in case of breakdown and to reduce need to use stored water unnecessarily.

Cancel final herd test as don't have scope with MT rate to cull too many more culls on low production.

We can still use our milk meters to find obvious ones and back that up with herd test data.

Same with high cell count cows.

Start preparing info for May 10th field day

