Backtrack Dairies

End of Season 15/16

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.

	Whakapono 14/15	**Waiora 14/15**	**Whakapono 15/16**	**Waiora 15/16**
Effective Area	155	210	155	210
Stocking Rate	3.6	3.6	3.3	3.3
Peak Cows	552	748	506	690
Treatment	Kinsey-Albrecht	Conventional	Kinsey-Albrecht	Conventional
Total MS/ha	1772	1751	1670	1662
Total MS/cow	498	492	511	506
Somatic Cell Count	106,300	136,200	120,000	150,000
Total N Applied	152	189	117	160
N Leaching	35	39	35	40
Total Pasture Grown (T DM)	14	14	15	15.3
Supplements Offered (kgDM/cow)	984	1110	737	669
Supplements made on farm (kgDM/cow)	0	0	44	0
Irrigation applied			537	573
Total Rainfall	388 (from 24 Aug)	388 (from 24 Aug)	625	625
Deaths %	1.3	1.5	2.6	2.2
Culls %	17.6	23	24	24
Mastitis %	5.25 (from 1 Oct)	5.6 (from 1 Oct)	11	12
Lameness %	7.8 (from 1 Oct)	12.2 (from 1 Oct)	28.5	17.2
Submission Rate %	92	89	84	82
Non cyclers %			9	12
AI length	6 weeks	6 weeks	8 weeks	8 weeks
Mating length	10 weeks	10 weeks	11 weeks	11 weeks
6 week in-calf rate %	75	71	83 (8 weeks)	83 (8 weeks)
Empty Rate %	8	10	14	15

Summary

- Finished the official season with an average pasture cover of 2210 KgDM/ha on Whakapono and 2320 KgDM/ha on Waiora at May 31st.
- Milk production ended up at 511 MS/cow for Whakapono and 506 KgMS/cow for Waiora to May 31st.
- Somatic cell count average for the season was 120,000 on Whakapono and slightly higher on Waiora at 150,000.
- Supplements offered per cow for Whakapono was 737 KgDM/cow and slightly lower on Waiora at 669 KgDM/cow.
- Whakapono was able to be make supplement (22t) in spring equating to 44kg/ha able to be fed back so reduces 737 total used to 695 kg vs 669kg/ha on Waiora so very close
- Whakapono also used 43 kg less N/ha to produce a very similar amount of feed in the season (15.0 vs 15.3 t/ha) and the lack of a final N round in May put it 200 cover behind Waiora if you include the extra feed the heifers ate to lower cover.
- Use of Nitrogen actually appears marginal this autumn also with response of only 200 kgDM/ha over Whakapono with cost of N applied $1. 20/kgN including spread x 43kg/ha extra N spread compared to Whakapono equals $52 /ha divided by 200 kgDM/ha equals 0.26 c/kgDM not much different from cost of PKE fed in shed. Also utilisation of this feed was compromised by the heavy base it created forcing cows to work harder to clean it up meaning a loss in production.
- Mastitis was similar on both farms at 11-12%.
- Lameness is higher on Whakapono due to laneways getting wet from irrigation and more time spent on the yard as all cows are in one herd and not split like on Waiora.
- Cows continued to milk well into June with good covers needing to get down around 2000 on each farm with another 50 t of pit silage fed to milkers then straw fed to cows about to dry off.
- Light cows (CS 4.0-4.5) and younger cows 360 from both farms dried off on June 3rd and sent directly off farm to neighbours on pasture and baleage diet of 14 kg with aim to put on 1.0 CS.
- Fat cows (CS 4.5-5.0) 340 dried off on 10/6 and sent next door to another neighbour to kale 8kg with straw 4kg initially to dry off then later onto oat silage 4kg of pretty average quality for the rest of winter.
- Late calvers 240 including 25 young MTs dried off on the 12/6 and moved next door to kale 8 kg and straw 2kg then later baleage 2kg which we soon increased to 10/2 as this group was lighter than expected at dry off.
- Heifers already next door on kale 8kg and baleage 2kg and pretty happy with good utilisation of 6t/ha dryland kale.
- Wintering relatively easy with only straw or baleage to feed before winding up fence on kale and only four mobs.
- Waiora ended up at dry off mid-June with cover 2100kgDM/ha, while Whakapono ended up on 2000kgDM/ha.
- Heifers (317) ate one 11ha pdk (2000kgDM/ha available) so 22tDM on Waiora while transitioning to kale next door over one week.

- Waiora credited $4400 for heifers (317) grazing at $14/week (10 kg at 0.20c x7 days) or 22tDM for one week which equated very close to two more days milking 500 cows at 1.2 kg at $4.00 equals $4800 with no supplement less shed/labour costs. Also can check with 2000kgDM/ha available at 0.20 c x 11ha (winter grazing market) equals $4400 so no money in milking on with supplements at that rate.

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

Waiora - 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) Serpentine Super/Sulphurgain Pure (Olsen P > 20)	526 626		22 15		40.5 28.5	16 11	53 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

*Waiora 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.

Nutrient Budget

Overseer N loss to water show Whakapono at 35 and Waiora at 40.

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.