

Weekly Farm Summary 8 November 2023

Farm-system impacts of: Bales vs Beet for winter AND Reducing N loss to water by 30%.

	Std Infrastructure Blue	LI Baleage Pink	Std FB Green	LI FB Yellow
Farmlet area including wintering	49.3	93.6	86.9	60.8
Peak cow numbers	138	208	233	136
Milking Area	43.5	82.0	69.5	52.1
Current Herd size (cows)	138	208	232	136
Pasture Stocking rate (current)	3.2	2.5	3.3	2.6
Winter Feed Milking supplement	Baleage	Baleage	Beet	Beet
	In-shed feed 500kg/cow + silage as required			
Average Cover (kgDM/ha)	2685	2830	2606	2724
Average Growth (kgDM/ha/d)	98	80	81	70
Target rotation length (d)	24	30	26	29
Last week actual rotation (d)	22	28	22	30
Last week supp (kgDM/c)	1.9	1.8	2.3	1.9
Latest Average BCS	4.6	4.5	4.5	4.6
% of herd on priority management	47.5%	53.3%	49.6%	50.7%
% in Milk	100%	100%	100%	100%
7-day Average Milk yield (L/cow)	25.1	23.7	24.6	24.1
7-day Average Milk yield (kgMS/c)	2.21	2.09	2.21	2.16
Nitrogen Cap kgN/ha/yr	180	50	180	50
% Nitrogen used (kgN/ha) YTD	19% (34kg)	22% (11kg)	19% (34kg)	26% (13kg)
Effluent N YTD	2	4	5	3
YTD Pasture growth TDM/ha	6.4	6.1	6.1	5.9
YTD supp (kg DM/c)	159	110	226	135
YTD MS/c	151	142	154	151
YTD MS/milk ha (YTD MS/farm ha)	486 (429)	359 (314)	501 (401)	413 (354)
Focus area	Current Status			
Milk Production	Milk production has held constant this week despite the variable weather conditions. Season to date production is now less than 1500 kg MS less than the same time last year. The SCC of the fodder beet vat has finally stabilised around 100 000 and we are getting fewer cases of mastitis.			
Pasture & Feed	With growth rates between 70 and 100 kg DM/ha/day over the last week we are in surplus across all the farmlets. Additional paddocks have been dropped for baleage. Paddocks were mown on the 8th Nov and will be baled ahead of the weather change due at the weekend. Second round N applications have continued on all farmlets. Third round pastures with Plantain in them are coming back lower in DM (12 compared with 16.5%) but ME and crude protein are similar around 12.5 and 21% respectively.			
Animals	Mating has started strongly with between 23 and 31% of each herd having been submitted in the first 5 days of mating. The team are currently using both the collar and tail paint information for cow selection while we sort out a few issues with the receiver stations across the farm. Another 68 calves were weaned today leaving only 66 calves on milk.			
Environment	Effluent is being applied at every opportunity, with the pond level currently sitting at 49% full. The latest effluent sample result came back at 0.26 kg N/m ³ , 0.039 kg/m ³ phosphorus and 0.38 kg/m ³ potassium			
Wintering	The four fodder beet paddocks were sown on the 6 November, 3 days earlier than last year, and the pre-emergence spray applied. Paddocks going back into pasture are close to getting seed in the ground as well.			
People	This week we farewell Andrea who has been our chief calf rearer this season and has done a great job with them under trying conditions at times.			
Research	We are in the process of investigating options to broadcast plantain seed in a couple of paddocks to see how it establishes as part of being a partner farm in the Plantain Potency and Practice project.			

Milk production

Principles of Milk Production management this week

<p>Milk production</p>	<p>After the slight drop in milk production last week all herds have now plateaued between 2.1 and 2.2 MS/cow/day. This week we have noticed that the LI farmlet herds have settled lower than the Std herds which is not what we would expect based on their feed supply and stocking rate.</p>
<p>Key Influences of Milk Production</p>	<p>While the proportion on each herd on OAD will be impacting overall herd milk production the lower production in the LI herds is most likely a result of the higher pre-graze pasture mass across these farmlets this week. While we dropped paddocks for conservation last week we have still been going into paddocks above their target pre-graze mass. While this means they are getting offered a lot of DM it is possible that the quality of this will be lower than if we were grazing at their target of 2800-2900 kg DM/ha based on their stocking rate and rotation length.</p>
<p>Cow Management</p>	<p>The priority for cow management at this stage of the lactation is around optimizing the opportunity for cows to get back in calf. We are continuing our strong focus on BCS monitoring and management through priority feeding in the shed and adjustments to individual cow milking frequency.</p>

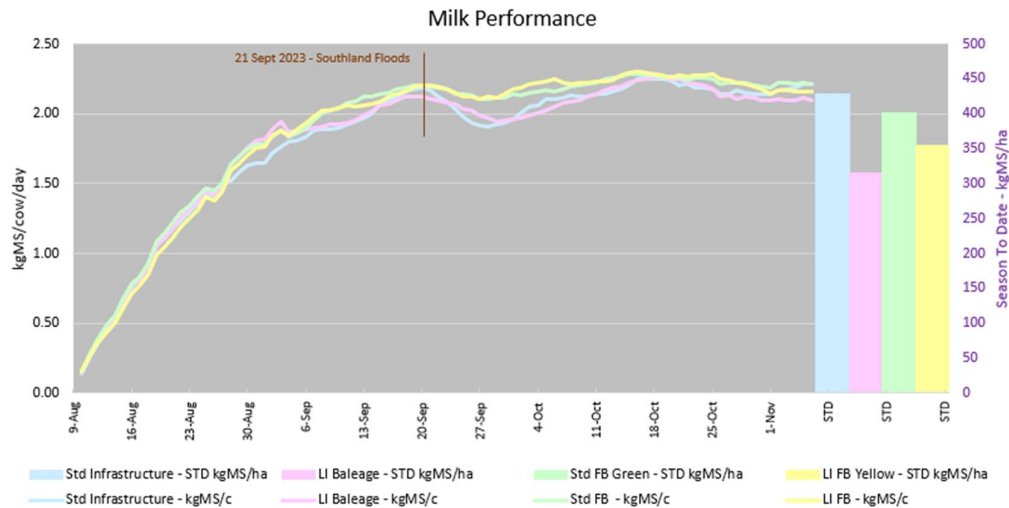


Figure 1. Milksolids per cow/day season to date and kgMS/ha season to date.

Feed Management

Principles of Feed management this week

<p>Feed Quality</p>	<p>The results of the first samples collected from the 3rd round are back from the lab and we are very pleased with the quality of the pasture on offer. ME was above 12 for all paddocks and crude protein between 19 and 21%. There is a lot of variation in DM content driven by pasture species and weather conditions at the time of sampling. Plantain pastures sampled so far have averaged 12 % DM and non plantain pastures 16.5%. Fibre levels are remaining relatively constant which is encouraging given the challenges we have had regarding achieving residuals in all paddocks.</p>
<p>Growth Rate</p>	<p>With growth well above demand for all herds we are being proactive in identifying and dropping paddocks for conservation. Soil temperature is continuing to increase and soil moisture is good for strong pasture growth. For us it is a balance between quantity (for maximum \$\$ value) and quality to ensure our winter diets meet animal requirements. We also need to take into consideration the impact on farmlet feed supplies if there are delays in getting the surplus baled due to contractor availability. 13 paddocks across the farmlets have been cut this week as we aim to get all herds going into the right pre-graze mass. So far this season we have topped approximately 20-25% of the LI farmlet area and 6-12% of the Std farmlet areas.</p>
<p>Nitrogen Strategy</p>	<p>With a big demand for winter baleage ie. approximately 2500 bales we are continuing with second round N applications to the Std paddocks and have started the second round for the LI paddocks. To achieve our BCS gain targets over winter it is essential we are offering baleage with sufficient crude protein and energy given it forms most of the diet of the baleage herds. For the fodder beet herds the baleage is also contributing to the crude protein requirements.</p>

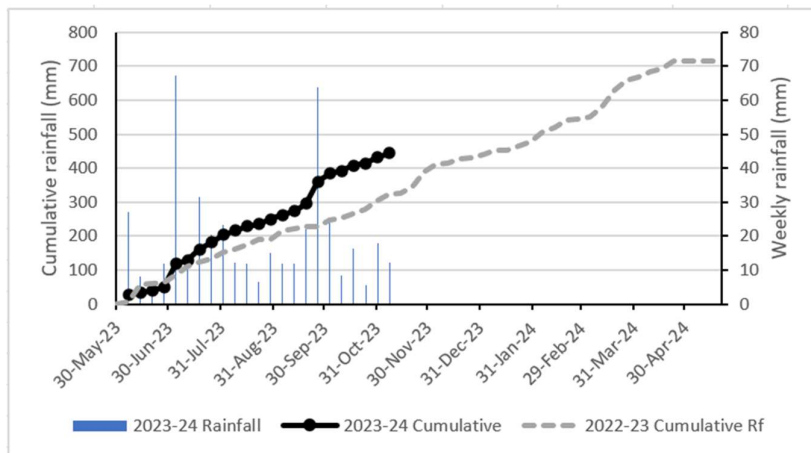


Figure 2. Season to date rainfall compared with cumulative rainfall 2022-23

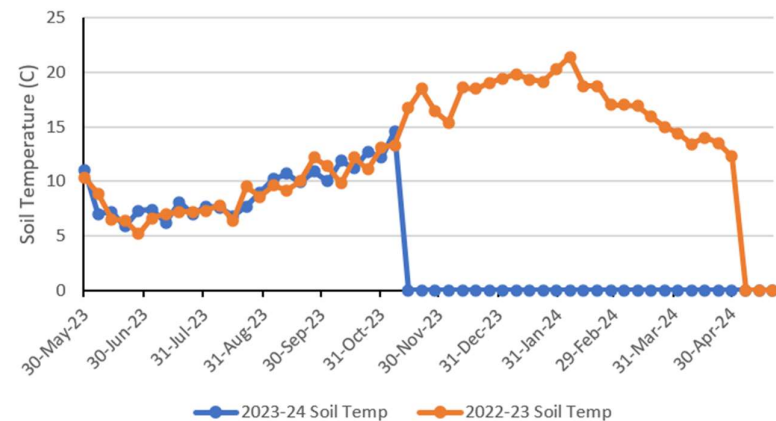


Figure 3. Soil temperatures 2023-24 vs 2022-23

Feed Management

Table 1: Pasture quality results from the first three grazing rounds

		DM (%)	ME (MJ/kg DM)	Crude protein (% DM)	NDF (% DM)	ADF (% DM)	Ash (%)	NSC (% DM)	Soluble Sugars (% DM)
With Plantain	1st round	17.0	12.1	21.2	40.6	20.8	10.3	24.2	10.4
	2nd round	18.2	12.4	23.8	38.9	20.7	10.9	23.1	11.0
	3rd round	16.5	12.7	21.6	37.8	20.9	9.9	27.7	13.9
No Plantain	1st round	17.8	12.3	19.3	38.1	19.5	9.8	29.4	12.4
	2nd round	16.3	12.0	21.7	39.7	21.0	11.1	24.2	12.2
	3rd round	12.0	12.4	22.0	37.7	20.0	10.7	26.3	11.8
Range		8.7-22.4	11.4-12.9	16.3-25.7	32.8-47.5	17.8-22.5	8.7-14.9	15.1-34.5	6.1-22.1

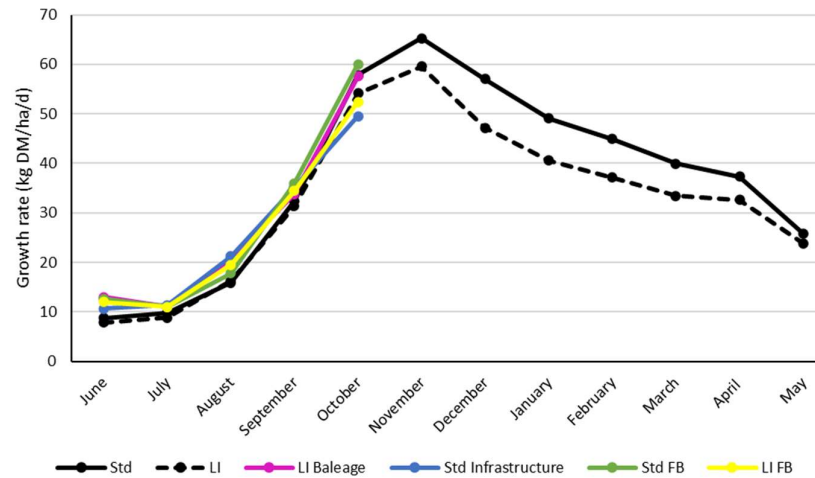


Figure 4. Monthly average pasture growth

Feed Management

Table 2: Average monthly growth rate and season to date cumulative pasture DM production per hectare

	180-190 kg N						50 kg N					
	Mean	2019-20	2020-21	2021-22	2022-23	2023-24	Mean	2019-20	2020-21	2021-22	2022-23	2023-24
June	9	6	12	10	7	13	9	7	9	11	5	11
July	10	12	7	12	10	11	9	10	8	9	9	11
August	17	13	19	19	13	19	17	14	19	18	15	20
September	30	29	31	31	39	35	29	26	32	30	37	35
October	57	56	50	65	61	55	53	50	50	58	59	55
November	65	69	67	59	66		59	62	61	53	63	
December	53	53	57	50	69		43	48	44	37	60	
January	55	50	73	43	31		44	44	52	37	30	
February	49	51	57	41	31		40	42	41	36	29	
March	39	42	51	23	43		32	32	42	22	39	
April	33	42	33	24	51		28	33	32	20	46	
May	24	23	24	25	31		22	20	21	24	30	
STD (kg DM/ha)	3775	3535	3628	4163	3969	4069	3575	3292	3590	3844	3802	4068
Total (kg DM/ha)	13408	13479	14535	12264	13744		11655	11776	12419	10816	12793	
Diff to Average						294						493

Feed Management

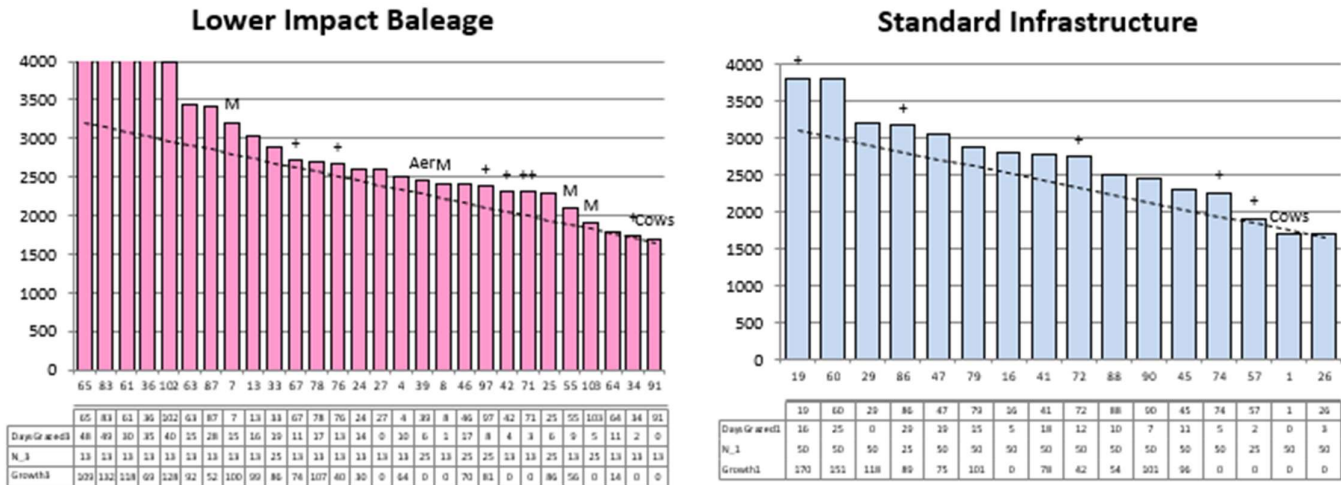


Figure 4. Plate meter feed wedges at 7 November 2023

