

Weekly Farm Summary 20 December 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	139	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)	2298	2320	2451	2436
Average Growth (kgDM/ha/d)	63	43	59	63
Target rotation length (d)	24	30	26	29
Last week actual rotation (d)	23	28	24	25
Last week supp (kgDM/c)	5.3	4.7	5.4	5.4
Latest Average BCS	4.9	4.7	4.8	4.9
% of herd on priority management	18.7%	27.1%	25.5%	18.5%
% in Milk	100%	100%	100%	100%
7-day Average Milk yield (L/cow)	21.0	20.6	22.0	21.5
7-day Average Milk yield (kgMS/c)	1.99	1.95	2.09	2.04
Nitrogen Cap kgN/ha/yr	180	50	180	50
% Nitrogen used (kgN/ha) YTD	41% (74kg)	64% (32kg)	39% (70kg)	68% (34kg)
Effluent N YTD	3	7	7	5
YTD Pasture growth TDM/ha	8.1	7.4	7.8	7.5
YTD supp (kg DM/c)	313	247	388	261
YTD MS/c	234	230	247	241
YTD MS/milk ha (YTD MS/farm ha)	771 (680)	571 (500)	816 (652)	632 (542)
Focus area	Current Status			
Milk Production	Cows are holding well with farm level production at 2.0 kgMS/cow/day (vs LY at 1.95). Year to date this is up 690 kgMS vs last year (0.4%), milking five more cows than same time last year.			
Pasture & Feed	Growth rates are holding OK now. Paddocks stepped over last week were mown mid-week. Target residuals of 1650 are being achieved more consistently this week although there are a few paddocks that need a residual reset. Ground conditions are drying out with some cracks appearing, so we made the decision this week to stop topping. To manage the use of contracted supplement we will feed extra silage if required. All cows are receiving 1.5 kg inshed feed with priority cows receiving 3 kg. At a herd level this equates to approximately 1.9 kg DM/cow.			
Animals	Cows are looking good with shiny summer coats. Lameness issues have reduced to only a couple this week. Protocols and separation of interdigital damage cases continues. Two new cases of mastitis were picked up during routine quarter stripping, with the 7-day farm SCC average being 96. Early scanning to identify phantom cows produced 17 rechecks (6% of animals scanned) of which 14 received a CiDR (See website for more detail). 2022 Borns to be weighed late this week.			
Environment	Pond level remains at 37% full. Have set triggers (<35% but > 30%) for when to reduce applications to OAD. <30% makes green wash water too thick, and we want to be able to manage levels so we can have a continued supply for use if it goes dry through summer. Will apply effluent at every opportunity under these decision rules and farmlet allocations.			
Wintering	Buffer zones have been sprayed and drilled in annual ryegrass and contractor booked to spray weeds in new grass and FB paddocks. The new grass paddocks will be later this season to have their first "nip" off due to late sowing and slower start. Planning is well underway to get the farmlet specific made baleage to their respective wintering paddocks.			
People	The team celebrated the end of another busy year with lunch out last Friday. Additional people have been organised to ensure there is plenty of cover over the festive period.			
Research	Planning for some paired paddock comparisons of baleage wintering for 2024 continues.			

Milk production

Principles of Milk Production management this week

Milk production	While we have come off peak production the cows are still milking well and are in good body condition. With a drop in litres, we have seen an increase in milk solids. Fat percent is ranging between 5 and 5.4% and protein between 4.1 and 4.2%. Milk urea N is fluctuating between 19 and 24.
Key Influences of Milk Production	The biggest impact on milk production this week has been a reduction in the amount of inshed feeding and increased silage. Unfortunately, we did not time our pre-Christmas silo top-up quite right so cows have had a couple of milkings without inshed feed. It was amazing to see how quickly cow behaviour changed when they realized there were no treats in the shed at milking time! They were in no hurry to get to the shed and even less inclined to come onto the platform.
Cow Management	No change, TAD milking frequency with continued monitoring cow BCS on the fortnightly basis and adjusting the priority feeding and OAD milking groups as required.

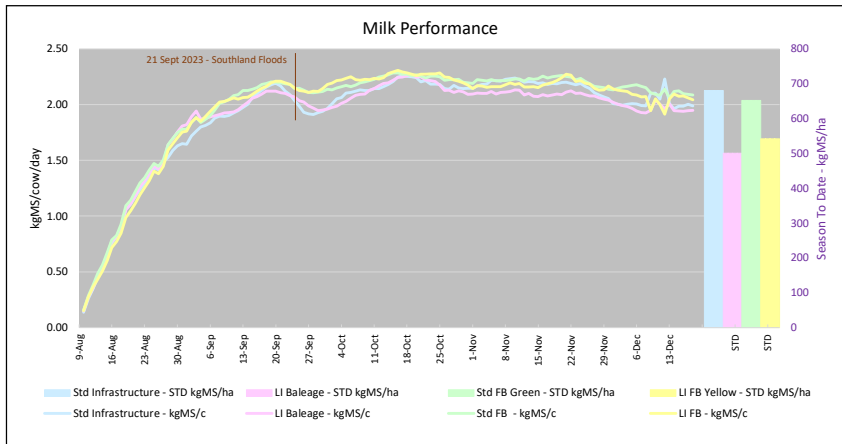


Figure 1. Milksolids per cow/day STD and kgMS/ha STD

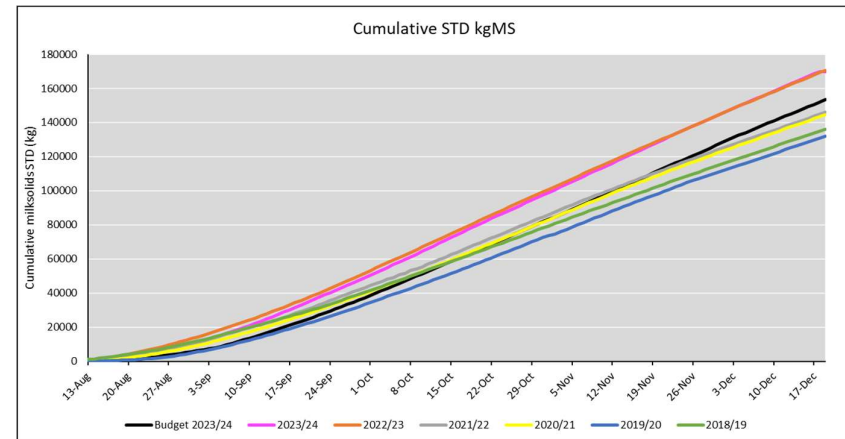


Figure 2. Cumulative kg Milksolids & Budget season to date

Feed Management

Principles of Feed management this week

<p>Feed Quality</p>	<p>Things have gotten very dry over the last week! The soil in all paddocks is dry and starting to crack. Pasture quality for the most part is still ok with lots of dark urine patches and dead in the base. Lots of clover in some paddocks with a big amount of it flowering. Also seeing lots of plantain and grass seed heads still. Residuals have been a mixed bag this week. Where they have left a good residual in the paddocks, they have left some silage behind- so overall thoughts are the cows have been well fed. Noticed a lot more pulling around but might have been the Poa, not just ryegrass.</p> <p>A lot of variation in quality between paddocks. Some with a lot of other grass species are starting to look very hard and dry, others are lush and green.</p>
<p>Growth Rate</p>	<p>After a drop in growth last week following the cold wet weather, we have seen it bounce back this week. Some of the increase may have been because mass was underestimated by the plate last week when it was very wet and windy. Topping will be stopped for the foreseeable future to minimise any additional stress on the plants. Currently paddocks topped or mown for baleage are taking approximately 4 days longer to get back to the top of the wedge compared with paddocks that were grazed at the same time but not mown. Ryegrass in the LI paddocks, with their lower N application, is starting to struggle, especially where cows grazed paddocks in wet conditions in the spring and they are compacted/pugged.</p>
<p>Nitrogen Strategy</p>	<p>The aim is to complete the third round of N fertiliser applications to the LI farmlets before Christmas, but we will need to reassess the 4th round applications to the standard farmlets</p>

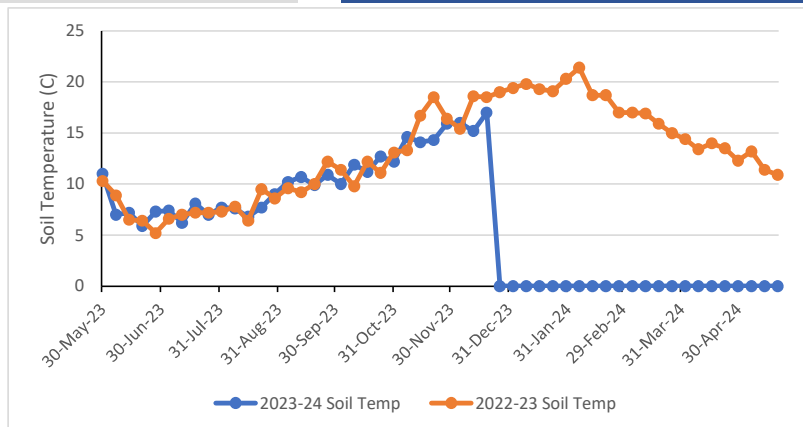


Figure 3. Soil temperatures 2023-24 vs 2022-23

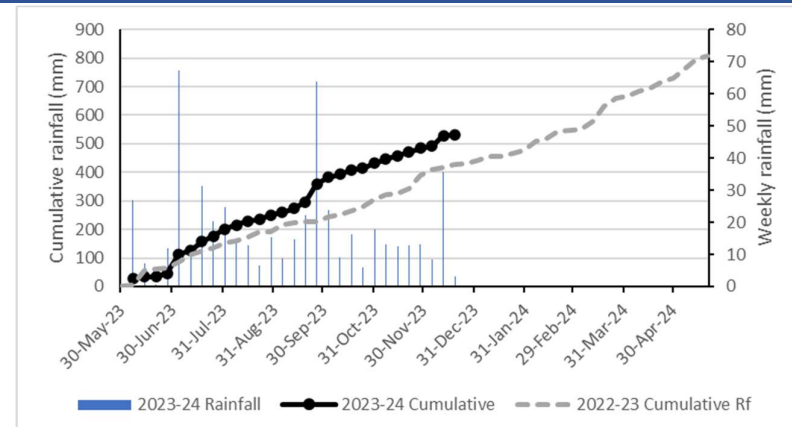


Figure 4. Season to date rainfall compared with cumulative rainfall 2022-23

Feed Management

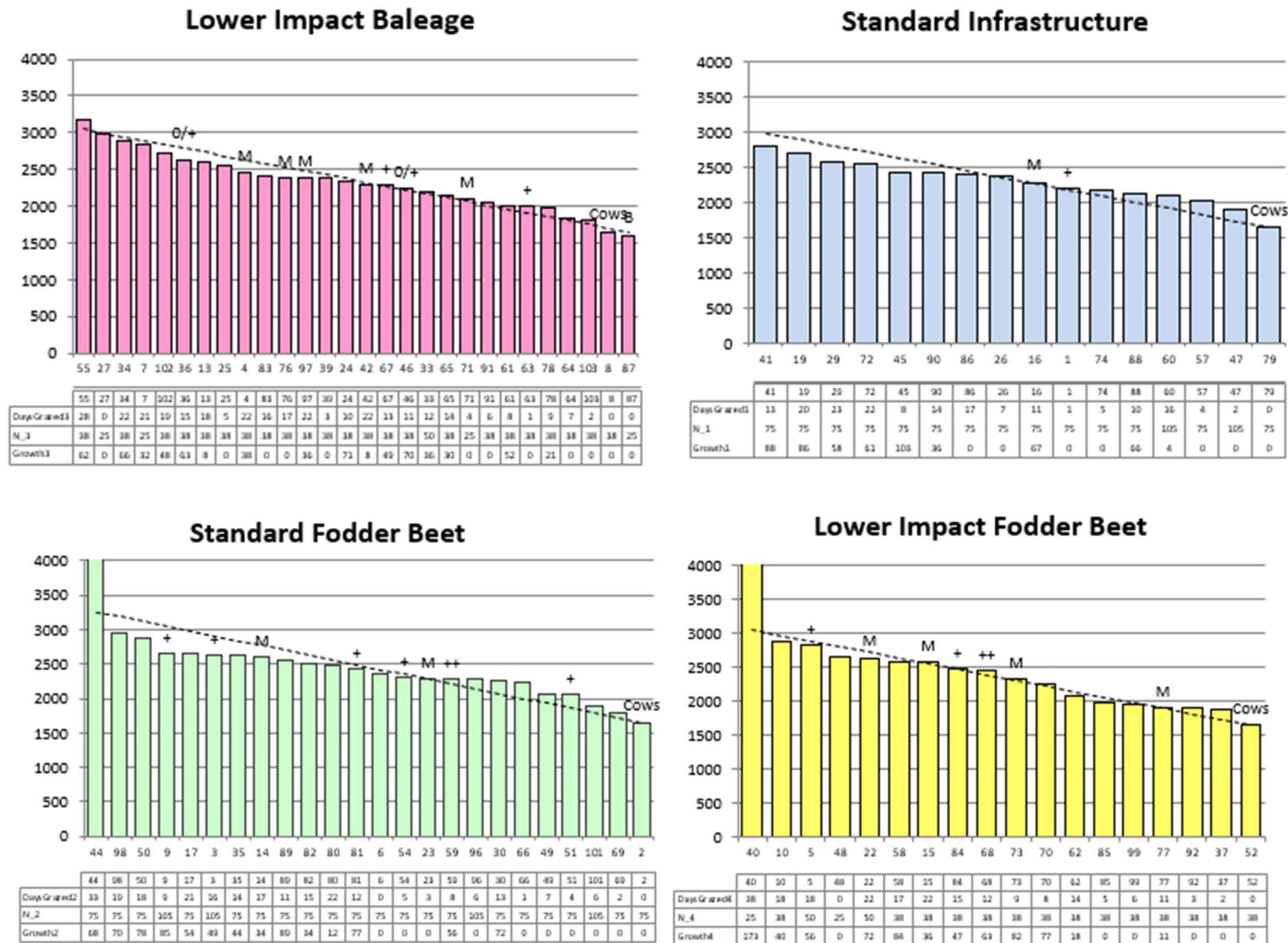


Figure 5. Plate meter feed wedges as at 19th December 2023

Feed Management

Principles of Supplement management

Throughout each season we often get asked to expand on why we sometimes get into a situation where we are making, feeding, and buying supplements at the same time. We can assure you that there is a lot of discussion & debate around our feeding decisions at our weekly meetings. Listed below are the predicaments we need to manage and how we manage them:

1. This season we came into spring with very high average pasture covers on all farmlets. Despite our best efforts we failed to get on top of it using minimal supplement feed in the first round, pushing pasture allocations as high as we could without completely compromising residuals and topping to maintain quality. As a result of strong spring growth and high APC, paddocks were getting above the pre-graze target for most of the herds and we didn't want to slow the rotation, so we had to drop paddocks for conservation while still feeding supplement in shed.
2. For the last 2 years we have used a vitalise product to provide our milking minerals (Mg & Ca) in early lactation. This is delivered in 1 kg supplement per cow per day up until Christmas. The reason for this is to ensure all cows are getting their required minerals. With 4 milking herds, 3 springer mobs plus colostrums in spring it was too difficult to dust MgO and Limeflour to them all reliably.
3. We utilise inshed feed to preferentially feed lighter than target BCS animals as again it is not practical to run 4 separate OAD mobs. While we do put cows on OAD they stay within their mob so don't have the advantage of less walking and preferential grass feeding like they would on a commercial farm. This year there was a change to the BCS trigger levels for priority feed or OAD & priority feed. For R2 & R3's they went onto priority feeding if their BCS dropped to 4.5 and onto OAD/priority feed if they dropped to a 4. For mixed age cows the triggers are 4 and 3.5 respectively. The change this year was to prevent our young animals dropping more than 1 BCS as it has been shown that repro performance is better in animals that lose less BCS between calving and mating.



Animals – Early pregnancy scan

Phantom Scanning (SDH Facebook Post 20th Dec 23)

Today (20th Dec 23) we did an early scan of all cows who were bred in the first 10 days who haven't returned, to identify potential phantom pregnancies. Phantom pregnancies are defined as animals who are cycling nicely in the lead up to mating and are submitted in the first round, but do not return with signs of heat and are later scanned as empty.

The main cause of phantom pregnancies in NZ is change in nutrition, normally a decrease in energy supply due to our difficult pastoral based environment and unstable spring weather.

The farm team were concerned with the low number of returns, and with the help of the MSD monitor training team, some easy analysis of our submissions using the Allflex collar software identified two herds were showing normal return rates, and two herds were only returning half the normal rate.

While we would love for these cows to be in calf, sometimes the adage of "if it's too good to be true, it probably is" applies. So, while we still have time to get these cows in calf, we scanned to 36 days post mating with the Vet South team, to be proactive with our mating results."

From the 267 cows scanned 14 cows received a CIDR suggesting a phantom rate of 5%. This is similar to the post from Lincoln University Dairy Farm (LUDF) just over a week ago



Animals - 2023 Borns Stats

Farmlet level statistics of 2023 Borns

DNA testing on the 2023 Borns has been completed. The replacement calves are assigned to the same treatment farmlet as their Dam in the season they were born. Below is a summary table showing the averages of each farmlet for each measure. Please note this also includes three animals that were planned to be replacements but have since been culled.

	Farmlet (based on Dams Farmlet)	Peak Cow No's	% Replacements Reared	Birth Date	BW- Value	BW- Reliability	PW- Value	PW- Reliability	Birth Weight	Weaning Date	Weaning Weight	ADG from Birth to Weaning	Latest Weigh Date	Latest Weight
Std Infrastructure	40	139	29%	2023-08-20	351	50	344	21	33	2023-11-06	88.7	0.71	2023-11-15	97
LI Baleage	61	208	29%	2023-08-18	356	50	351	21	33	2023-11-05	89.6	0.72	2023-11-18	100
Std FB	75	232	32%	2023-08-18	374	50	370	21	31	2023-11-05	87.6	0.71	2023-11-19	99
LI FB	44	136	32%	2023-08-19	351	50	340	21	32	2023-11-07	87.7	0.70	2023-11-20	98
2023 Borns	220	715	31%	2023-08-19	358	50	351	21	32	2023-11-06	88.4	0.71	2023-11-18	98

