Weekly Farm Summary 1 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	140	208	233	136
Milking Area	43.5	82.0	69.5	52.1
Current Herd size (cows)	139	208	232	136
Pasture Stocking rate (current)	3.2	2.5	3.3	2.6
Winter Feed	Baleage	Baleage	Beet	Beet
Milking supplement	In-shed feed 500kg/cow + silage as required			
Average Cover (kgDM/ha)	2464	2649	2404	2471
Average Growth (kgDM/ha/d)	45	67	61	53
Target rotation length (d)	24	30	26	29
Last week actual rotation (d)	28	28	22	29
Last week supp (kgDM/c)	2.3	1.4	2.2	1.3
Latest Average BCS	4.6	4.5	4.5	4.6
% of herd on priority management	41.7%	42.4%	40.5%	38.2%
% in Milk	100%	100%	100%	100%
7-day Average Milk yield (L/cow)	24.1	23.8	24.6	24.5
7-day Average Milk yield (kgMS/c)	2.14	2.11	2.20	2.19
Nitrogen Cap kgN/ha/yr	**180**	**50**	**180**	**50**
% Nitrogen used (kgN/ha) YTD	14% (26kg)	14% (7kg)	14% (26kg)	18% (9kg)
Effluent N YTD	1	1	3	2
YTD Pasture growth TDM/ha	3.8	3.9	4.0	3.8
YTD supp (kg DM/c)	171	125	211	122
YTD MS/c	132	131	139	138
YTD MS/milk ha (YTD MS/farm ha)	417 (368)	332 (291)	457 (366)	363 (311)

Focus area	Current Status
Milk Production	All herds have come back about 0.1 kg MS/cow/day this week which we attribute to the cooler, wetter conditions but the fodder beet farmlets continue to outperform the baleage farmlets. Despite having the most feed on hand, the LI Baleage farmlet has the poorest milk production, a situation it has been in all season, and something we are looking into.
Pasture & Feed	This week saw more variation in pasture growth between the farmlets than previous weeks with the lowest growth on the Std Infrastructure and highest on the LI Baleage. Likely drivers of this growth rate difference are the average pasture cover and grazing rotation. With less paddocks in their system and a higher stocking rate the Std Infrastructure are under more grazing pressure. All cows are receiving 1 kg DM inshed to provide milking cow minerals with priority cows receiving additional 2.5 kg supplement.
Animals	Eleven purebred jersey bulls went out with the heifers last Friday (27 Oct) and mating of the cows starts tomorrow (3rd Nov). Sexed semen will be used for the first 2 weeks of mating and the bottom 15% of each herd based on genetic merit have been identified for beef semen. This year we will be using Charolais semen over the bigger framed cows and Murray Grey on the smaller ones. Another 54 calves were weaned on Mon giving a weaned mob of 84 animals.
Environment	Second round N applications have commenced on the LI farmlets. Decisions around N applications are forward looking. With a drier than normal summer predicted and a high requirement for baleage (especially for the baleage farmlets) we are capitalising on this high growth period to conserve feed for lactation and wintering, hence the N applications when we are in surplus in the LI farmlets.
Wintering	Fertiliser is on farm for our fodder beet paddocks and weather permitting they will be sown out next week along with the paddocks that are going back into pasture. One winter paddock from each farmlet received 9-12 loads of manure from the weeping wall.
People	After several months of staff shortages, we have successfully filled our last vacant farm assistant position, so the team are looking forward to having a full roster especially as we head into mating.
Research	This week we hosted James Standen, a Nuffield scholar from the UK. His main interest with regards SDH related to governance and management of the farm and the blending of research and commercial operations - something SDH has lots of experience with!!!

Milk production

Principles of Milk Production management this week

Milk production	The fodder beet herds are continuing to out produce the two herds wintered on baleage with the LI Baleage herd continuing to lag behind the others. The LI baleage herd has the highest proportion of the herd on OAD milking due to BCS. Our challenge as we head into the reproductive phase in our pastures is to continue to offer good quality pasture to minimise the decline from peak.
Key Influences of Milk Production	The drop in milk production from last week most likely reflects the increased number of cows being milked OAD in each herd to protect BCS loss. After BCS assessment at the beginning of this week the herds have between 18 and 23% of cows on OAD. This is more than at the same time last year following a revision to our decision rules around trigger points for R2 and R3's. The trigger for OAD milking for mixed age cows is BCS 4 and BCS 4.5 for R2's and R3's.
Cow Management	We are continuing to access the BCS of the cows on a fortnightly basis and adjust individual cow feeding and milking frequency as required.

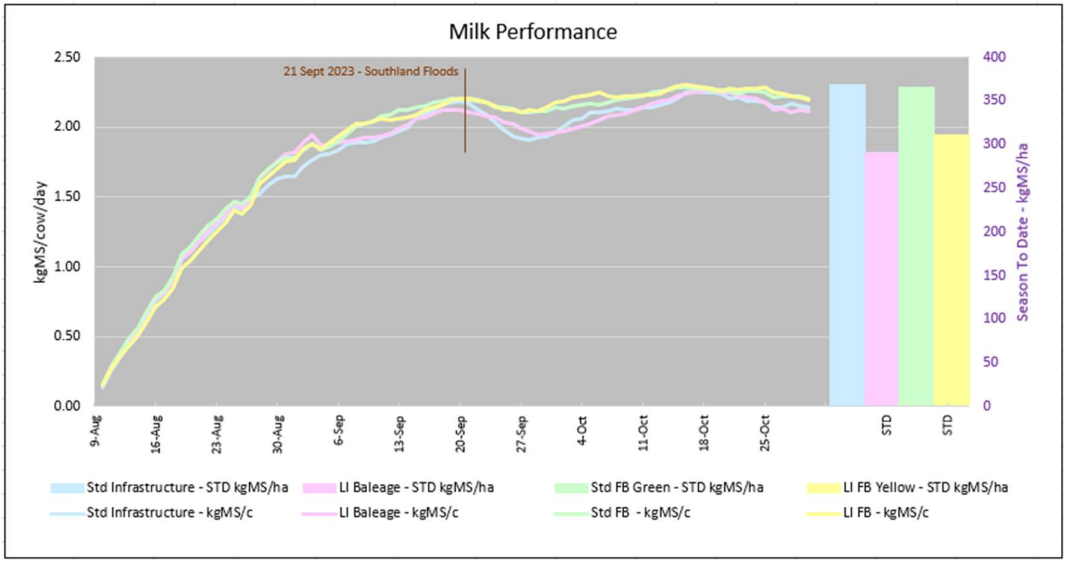

Figure 1. Milksolids per cow/day season to date and kgMS/ha season to date.

Feed management

Principles of Feed management this week

Feed Quality	We are waiting on the last round of pasture quality results to come back from the lab however we continue to see a range on quality based on how well paddocks were grazed last round. Clover growth has been strong across the farm. The latest monitor farm paddock dry matters ranged from 9 to 16%.
Growth Rate	Growth is continuing to exceed demand, especially in the LI farmlets that are stocked at 2.5 cows/ha. The LI baleage herd currently has 18% of their farmlet shut for conservation compared with non in the Std Infrastructure, 4% in the Std FB and 11% in the LI FB
Nitrogen Strategy	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.

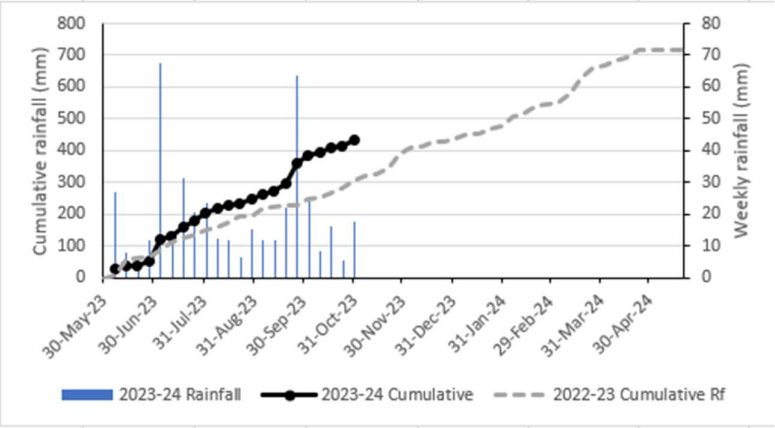

Figure 2. Season to date rainfall compared with cumulative rainfall 2022-23

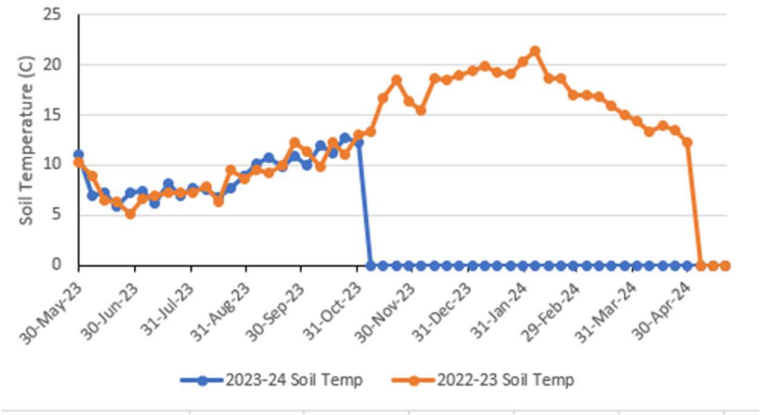

Figure 3. Soil temperatures 2023-24 vs 2022-23

Feed management

Figure 4. Plate meter feed wedges at 31 October 2023

Animal management

Mating Management Plan	• For the Mixed aged cows, we have taken a similar approach to last season regarding the Mating Strategy:
	  o PSM – 3 Nov for 10.5 weeks
	  o No Bulls, all AI
	  o Allflex collars with tail paint as a backup being used for animal selection
	  o Jersey semen (to produce a more cross bred animal)
	  • Breed = F16 & F15 J1 cows
	  o Cross-bred semen
	  • By Default – if cow has not already been identified for Jersey or Beef Semen
	  o Beef Semen
	  • Cow is in lowest 15% for BW for each herd
	  • Breeds
	  o Charolais for the bigger framed cows
	  o Murray Grey for the smaller framed cows
	  o Sexed semen (Fresh) for 14 Days, starting in week one
	  • Highest genetic merit AND is in the optimum breeding window (as identified via Allflex collar reports)
	• For the 2022 Borns:
	  o PSM 27 October
	  o Jersey Bulls
	  ▪ Fertility & BVD tested.

Calf Management	• Another 56 calves where weaned this week taking the total to 84. Weaning weight decision rules are based on breed as per industry recommendation figures:
	  o Friesians- 100 kg
	  o Crossbreds – 90 kg
	  o Jerseys - 80 kg.
	
	• Next weighing will be conducted on the 3rd November.