

Weekly Farm Summary 14th October 2022

Farm-system impacts of: Kale vs Fodder beet for winter AND Reducing N loss to water by 30%.

	Std Brassica/ Baleage Pink	LI Baleage Blue	Std Fodder beet Green	LI Fodder beet Yellow
Farmlet area including wintering	82.7	60.9	82.7	60.9
Peak cow numbers	223	137	223	137
Milking Area	73.8	55.1	73.8	55.1
Current Herd size (cows)	222	133	215	134
Pasture Stocking rate (current)	3.0	2.4	2.9	2.4
Winter Feed Milking supplement	Swede/Bale	Baleage	Beet 80 days	Beet 60 days
	In-shed feed 500kg/cow + baleage as required			
Average Cover	2235	2212	2293	2318
Average Growth	34	29	38	45
Target rotation length	22	26	22	26
Last week act rotation (d)	19	20	19	20
Last week supp (kg DM/cow)	1.9	1.8	3.2	2.0
Average BCS	4.7	4.6	4.5	4.6
% of herd on priority feeding	5%	4%	6%	4%
Milk yield (L/cow)	24.4	26.1	24.4	25.2
Milk yield (kgMS/cow)	2.22	2.34	2.24	2.25
Nitrogen Cap kgN/ha/yr	180	50	180	50
% Nitrogen used (kgN/ha) YTD	27% (49kg)	18% (9kg)	27% (49kg)	18% (9kg)
Effluent N YTD	2	1	2	2
Profit/ha comp to Control	\$0	\$0	\$0	\$0
YTD supp (kg DM/cow)	240	157	213	149
YTD MS/cow	96	102	94	103
YTD MS/milk ha (YTD MS/farm ha)	291 (260)	253 (229)	285 (254)	255 (231)

Business Area	Current Status
Milk Production	Started to flatten but continues to be stable for all herds. Very little effect of polar blast on milk production suggesting feeding strategy was effective in protecting production
Pasture & Feed	Growth has been variable. Several paddocks above pre-graze target for several farmlets but wholes coming in the wedge for several herds. In-shed supplements variable between the herds and top up silage as required in individual paddocks. Conservation and post graze topping strategies resume.
Animals	A lot of cows displaying very strong heats, with a couple of injuries as a result. Tidying up of tail paint to ensure non-cyclers are identified for CiDRs in the coming weeks if they meet all the criteria. Bulls organised for the 2021 Borns.
Environment	Effluent applications have restarted after a 10-day break and will follow the cows. Standard paddocks on 2 nd round of N fertiliser (25 kgN/ha). Lower Impact paddocks will begin 2 nd round approx. 20 th Oct.
Wintering	7 cows to calve. Finalising herd numbers, crop types, paddocks, and proposed Infrastructure plans for 2023.
People	Annual leave booked for the team for the next week/10 days to clean up time off before mating starts
Research	Refining details for 2023-24 farm systems setup.

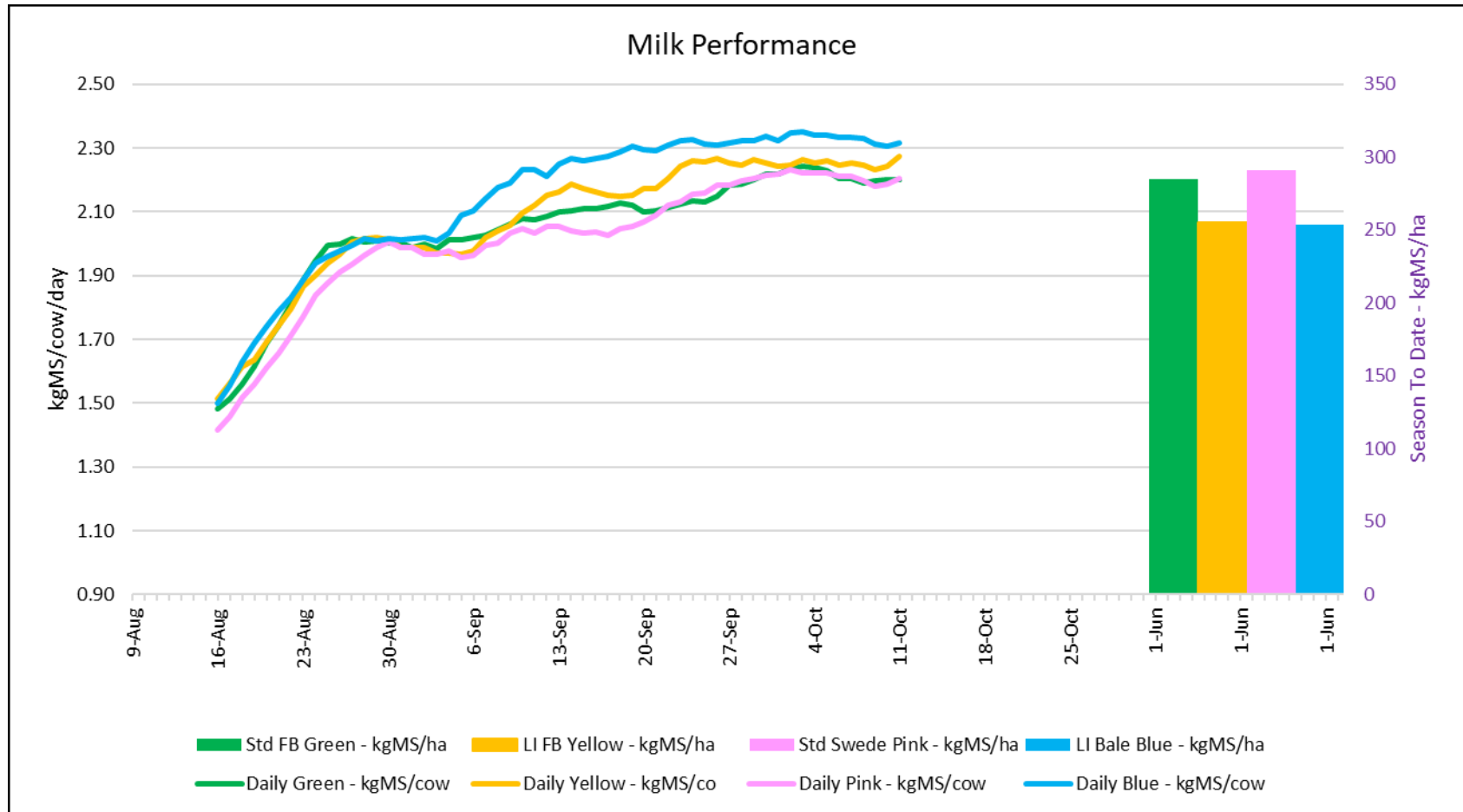
Milk Production

Principles of Milk Production management this week

Milk Production	Year to date (YTD) production (kgMS/ha) for the standard herds continues to be higher than the lower impact herds, with all herds significantly ahead of last season. All herds on a kgMS/cow/day basis are producing within 0.1 kg MS/cow of each other and is stable
Key Influences on Milk Production	Continued emphasis on feed quality management and stepping over paddocks above a pre-graze target. Cows being fully feed with high quality pasture, inshed feed and silage if required
Cow Management	A few extra cows on OAD to protect BCS and aid recovery post calving

	Std brassica/baleage Pink	LI Baleage Blue	Std Fodder beet Green	LI Fodder beet Yellow
kg Milksolids per cow this week / (last week)	2.22 (2.21)	2.34 (2.33)	2.24 (2.24)	2.25 (2.25)
kg Milksolids per ha this year / (same time last year)	291 (260)	253 (229)	285 (254)	255 (231)
% Var kg Milksolids per ha Season per ha to date vs last season to date	15.9	10.1	22.1	15.3
No. of Cows needing preferential feeding (% herd)	12 (5)	5 (4)	12 (6)	5 (4)
Animal health peculiarities	None	None	None	None

Milk Production



Feed

Principles of Feed management this week

Feed Quality	Will only post graze mow where clumps of pasture need to be managed or residuals reset.
Growth Rate Management	<p>Keeping pressure on the wedges were possible. Conservation strategy is stepping over a paddock at the top of the wedge that is higher than target pre-graze cover and there is enough in-front to graze without getting into a pasture deficit.</p> <p>Will continue to keep herds on their fastest rotation over the next week (22-26 days for the standards versus the lower impacts, excluding springer paddocks)</p>
Nitrogen Strategy	Round two applications (25 kgN/ha) for the standard herds have commenced, targeting paddocks no more than 7 days since last grazing. Second round (12.5 kg N/ha) for the LI herds will commence around the 20 th of October.

	Std brassica/baleage Pink	LI Baleage Blue	Std Fodder beet Green	LI Fodder beet Yellow
Quantity	OK	OK	OK	OK
Quality	Second round good, DM 17%	Second round good, DM 17%	Second round good, DM 17%	Second round good, DM 17%
Surplus Management	Baleage to be made	Baleage to be made	Baleage to be made	Baleage to be made
Deficit Management - kgDM (diff from last week)	3.5 (1.7)	2 (0.2)	1.5 (-1.7)	32 (1.1)
Target Rotation Length (days)	22	26	22	26

Feed

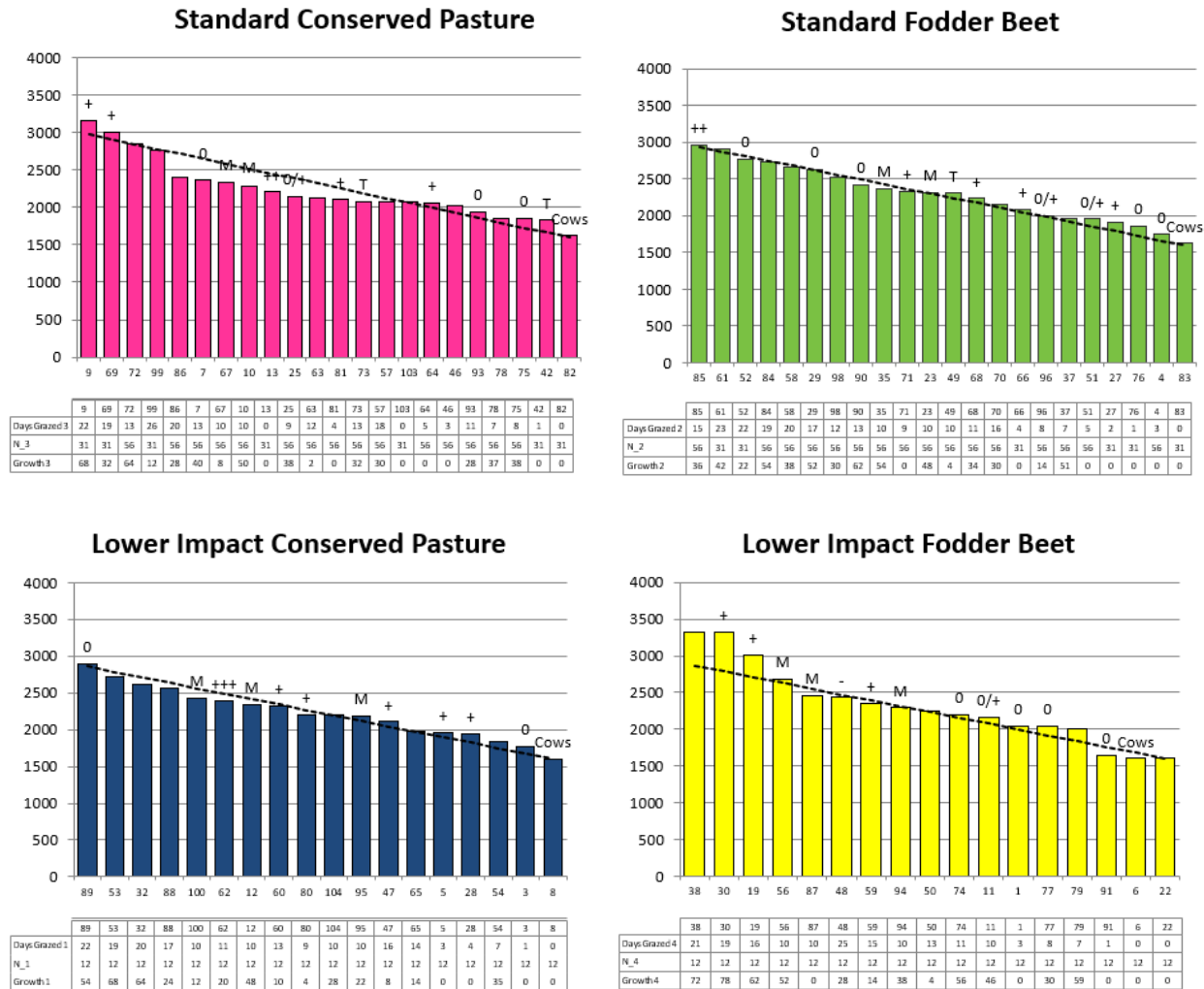
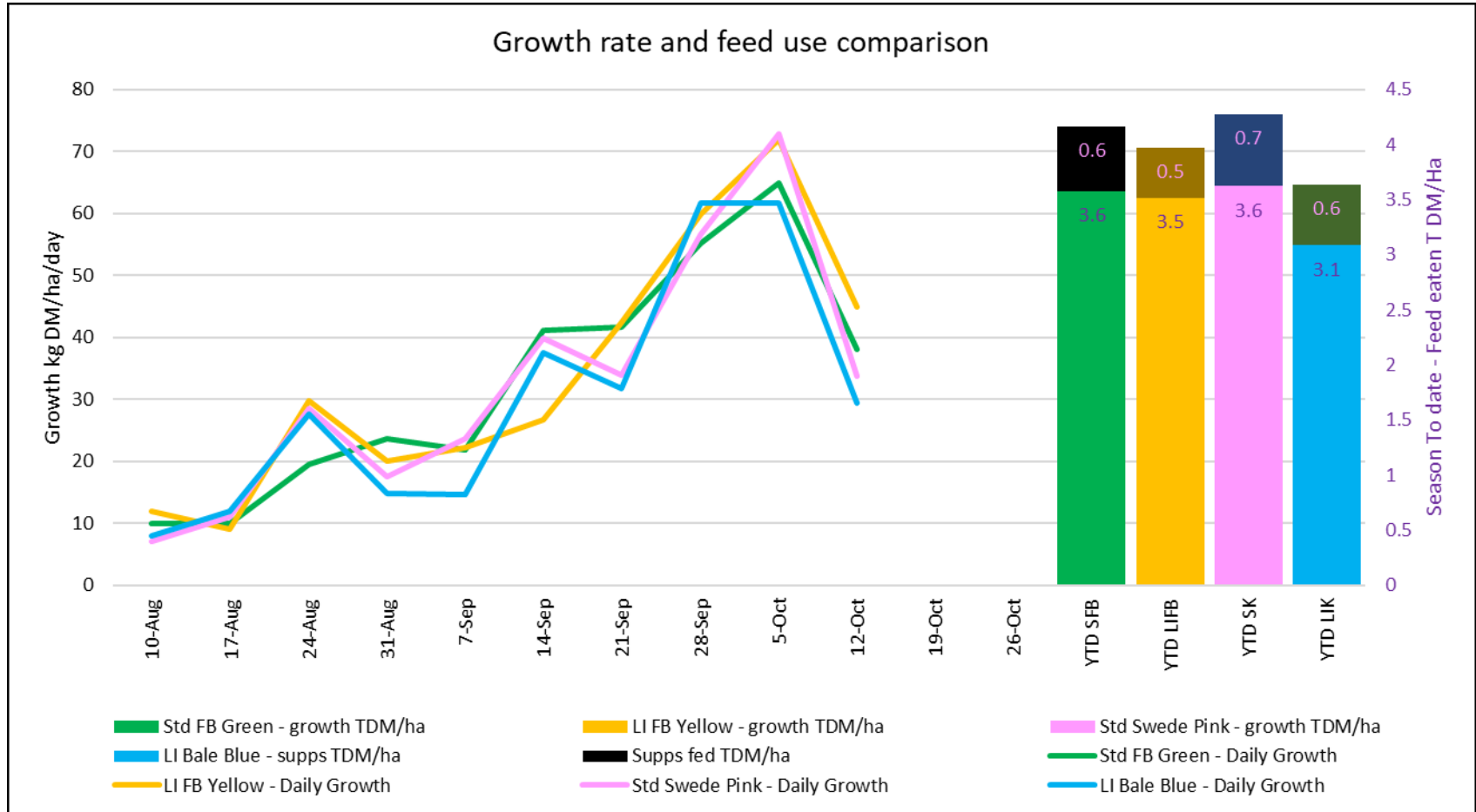


Figure 2: Feed Wedges as of 11th^h October 2022

Feed



Early Lactation

Importance of early lactation management	<ul style="list-style-type: none">• To balance feed demand with supply and ensuring cows get adequate energy to produce well, cycle strongly and get back in calf
Key Principles of early lactation feeding	<ul style="list-style-type: none">• Pasture Quality<ul style="list-style-type: none">○ Amount of milk produced is limited by the nutrient that is in shortest supply compared with requirement. Therefore, increasing the supply of non-limiting nutrients will not increase production<ul style="list-style-type: none">▪ In early lactation, most common limiting nutrient in pasture-based systems is energy – the predominate source being ruminal fermentation of carbohydrates. This can be sourced from good quality leafy spring pasture that are highly digestible<ul style="list-style-type: none">• As pastures move into their reproductive phase, quality declines thus contain less metabolisable energy and protein decreases<ul style="list-style-type: none">○ fibre increases making it more difficult to digest○ intake is less as fibre sits in the gut longer• Protein <i>can</i> be a limiting nutrient if production levels increase above 2.4 kgMS/cow/day – you need to calculate if energy or protein is the limiting production and the likely response▪ Have rotational grazing rounds that enable the pasture to be grazed younger (less likely to go to seed), harvest surplus pasture if this is more fibrous▪ Use a nitrogen application strategy that is consistent with supporting vegetative growth• Minerals<ul style="list-style-type: none">○ Five trace elements recommended for supplementation from 2-3 weeks pre-calving until 4 months post-calving:<ul style="list-style-type: none">▪ Copper, Cobalt, Selenium, Iodine & Zinc.▪ Speak to your vet to determine your herds requirements• Reproduction<ul style="list-style-type: none">○ Monitoring BCS to identify animals below target and using management strategies (milking frequency, priority feeding) to ensure they are in a positive energy balance through the mating period
Strategies being used at SDH	<ul style="list-style-type: none">• Fast rounds, 22 -26 days• Emphasis on meeting residual targets, pre-graze cover targets<ul style="list-style-type: none">○ Using post graze mowing or stepping over paddocks for conservation when cows don't meet residuals• Regular BCS monitoring (fortnightly)<ul style="list-style-type: none">○ OAD milking to protect BCS

For more information and tools please visit the DairyNZ website: <https://www.dairynz.co.nz/feed/nutrition/early-lactation/>

SDH Field Day Photos



Photo 1: Dr Dawn Dalley discussing paddock-based wintering



Photo 2: Field Day participants in paddock to hear about research projects past & present