

Weekly Farm Summary 16th December 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	222	137	221	135
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	2588	2469	2601	2546
Average Growth	76	67	77	64
Target rotation length	22	26	22	26
Last week act rotation (d)	19	26	22	23
Last week supp (kg DM/cow)	2.7	2.5	2.3	2.8
Average BCS	4.4	4.5	4.4	4.5
% of herd on priority feeding	7%	6%	7%	2%
Milk yield (L/cow)	22.2	23.6	22.2	21.8
Milk yield (kgMS/cow)	1.96	2.06	2.00	1.98
Nitrogen Cap kgN/ha/yr	180	50	180	50
% Nitrogen used (kgN/ha) YTD	42% (76kg)	52% (26kg)	43% (77kg)	44% (22kg)
Effluent N YTD	8	8	8	5
Profit/ha comp to Control	\$0	\$0	\$0	\$0
YTD supp (kg DM/cow)	408	266	358	301
YTD MS/cow	224	237	222	235
YTD MS/milk ha (YTD MS/farm ha)	675 (603)	589 (533)	666 (594)	577 (522)

Business Area	Current Status
Milk Production	Production continues to be relatively stable around 2 kg MS/cow/day. Pasture quality in the allocated paddocks this week for the Low Impact herds probably biggest driver for their albeit minor decrease.
Pasture & Feed	Still some seed head present but significantly less due to strategic mowing and end of reproductive stage of the plant. Pasture yields remain mostly overestimated by plate meter due to hardened stems in the base of the pasture and some seedhead. Visual assessment also used with feed allocation. Farm team considering the move to 36 hr grazings for the LI herds. Growth rates are continuing to be much higher than demand, resulting in the removal of in-shed feed except for that required to deliver essential minerals.
Animals	No significant animal health issues to report. Latest blood sampling results show magnesium levels are at a good level and iodine & copper are improving with the increase in inline supplement levels. Mating continues to go well.
Environment	Continuing with round 4 of nitrogen fertiliser for the Std farmlets. Round 3 for LI farmlets is continuing.
Wintering	PGGW and Agricom technical field reps coming in this week to discuss new grass establishment procedures and devise a plan for some of our 2023 new grass paddocks. Potential crop paddocks for winter 2024 identified for the new farmlets.
People	New milking times implemented. Cups on @ 6:30 am & 2:30 pm and combining that with some other potential time saving initiatives for cow management for e.g. use of gate release timers.
Research	Plans are under way for a heat stress monitoring project this summer. Technicians will monitor respiration/panting rates of 80 cows, 3 x/day for 5 days in both January and February with results compared to monitoring devices (SmaxTec, Allfex collars)

Milk Production

Principles of Milk Production management this week

Milk Production	Was a bit “wobbly” this week due to some inconsistent pasture quality and quantity but remains relatively stable at round 2 kg MS/cow/day. Continue to focus on quality to maintain production levels and minimize the decline.
Key Influences on Milk Production	Production changes continue to be more likely driven by pasture quality at this point in the season. In-shed feeding only to provide minerals. Increase in BCS suggests energy is also being partitioned to BCS gain.
Cow Management	Milking TAD, continuing to manage lighter BCS cows below 4 on OAD milking with priority in-shed feeding. Latest BCS is 4.4 for each Standard herd and 4.5 for each of the Lower Impact herds

	Std brassica/baleage Pink	LI Baleage Blue	Std Fodder beet Green	LI Fodder beet Yellow
kg Milksolids per cow this week / (last week)	1.96 (1.97)	2.06 (2.11)	2.00 (2.02)	1.98 (2.06)
kg Milksolids per ha this year / (same time last year)	675 (603)	589 (533)	666 (594)	577 (522)
% Var kg Milksolids per ha Season per ha to date vs last season to date	11.7	8.7	16.8	12.9
No. of Cows needing preferential feeding (% herd)	15 (7)	8 (6)	15 (7)	3 (2)
Animal Health peculiarities	None	None	None	None

Milk Production

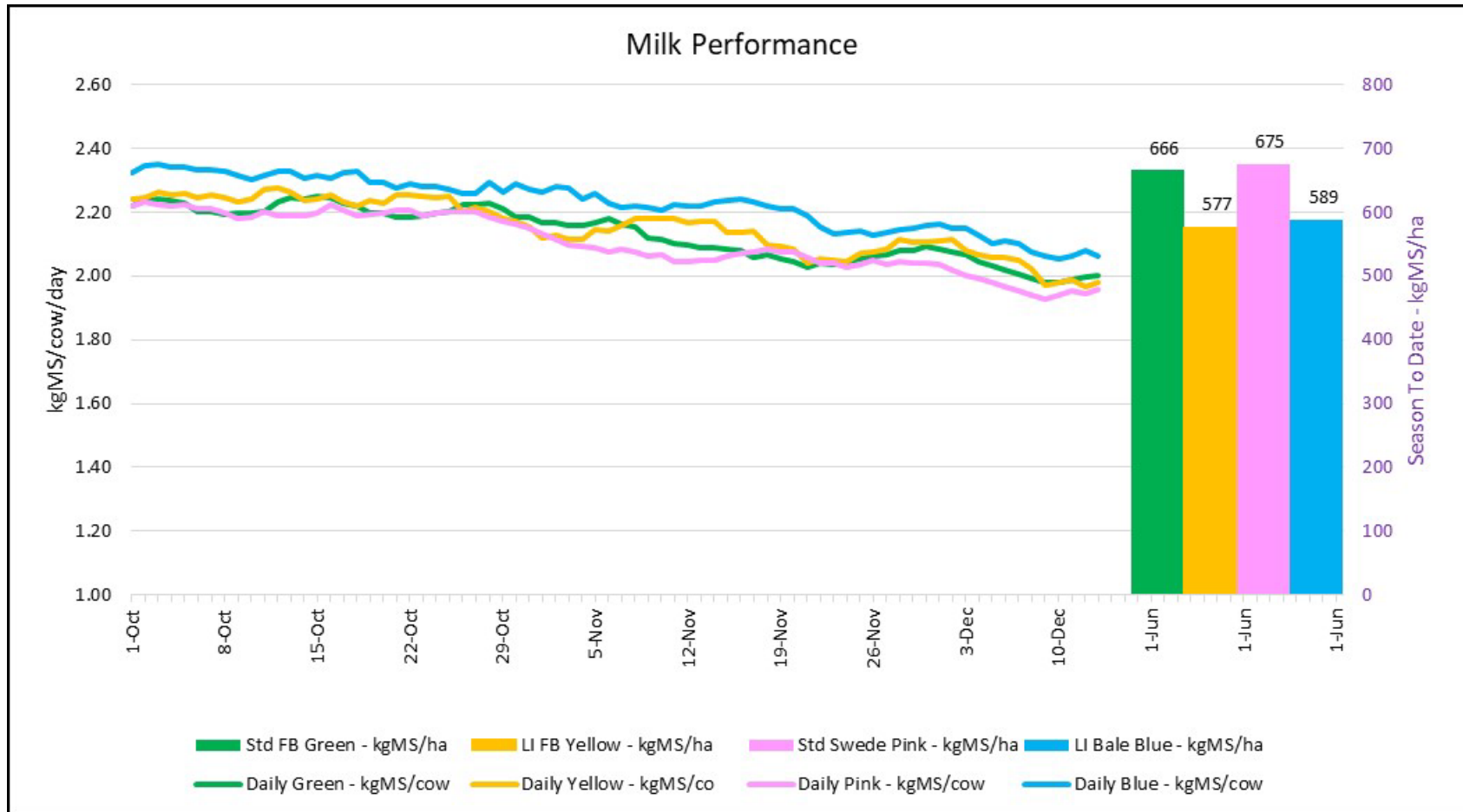


Figure 1: Milk solids production (/cow/day) plus cumulative season production (kg/ha)

Body condition score

As at 13th December 2022 – updated fortnightly

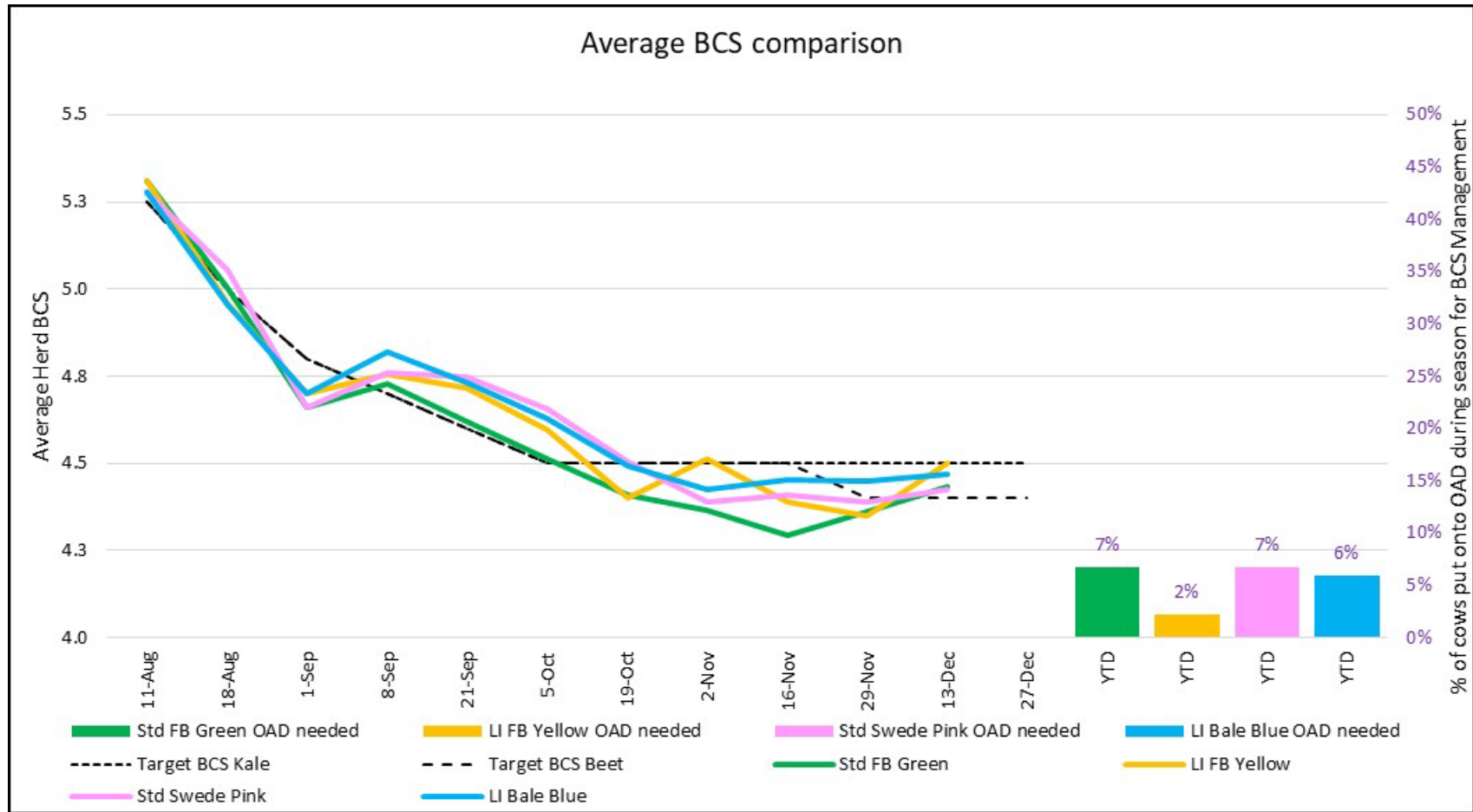


Figure 2: Fortnightly BCS trends and percentage of the herd requiring OAD milking season to date

Feed

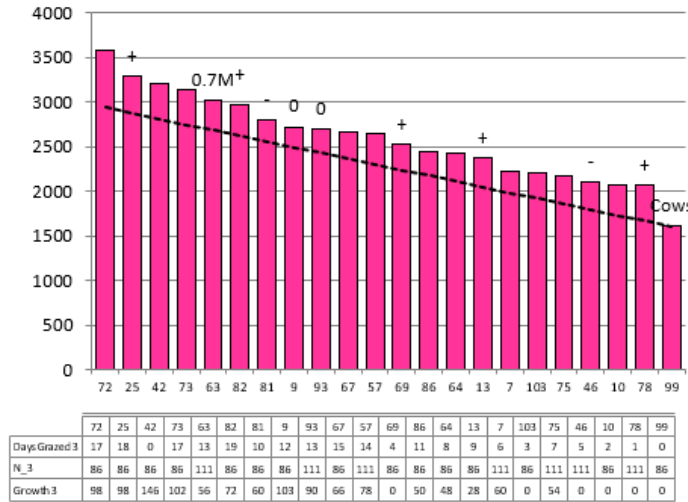
Principles of Feed management this week

Feed Quality	The presence of seed head is still evident, but not to the same degree as previous weeks. Pasture management strategy has worked well with the farm looking continuing to look very tidy. Most paddocks have excellent colour and clover. Latest pasture quality results indicate low crude protein in some paddocks i.e. less than 15% crude protein. ME has increased but most still only in the mid to high 11 MJ/kg DM
Growth Rate Management	Remaining on our pasture quality management strategy of stepping over any paddocks greater than pre-graze target for baleage and topping to meet residual. Reassessing paddocks towards the end of the 7 day walking interval and adjusting grazing order accordingly. Minimizing supplementary feeding to reduce the risk of substitution, knowing that cows reduce grazing time by 20 minutes per kg of supplement consumed.
Nitrogen Strategy	Std herds on 4 th round of Nitrogen applications (25 kg N/ha), Third round applications (12.5 kg N/ha) are continuing.

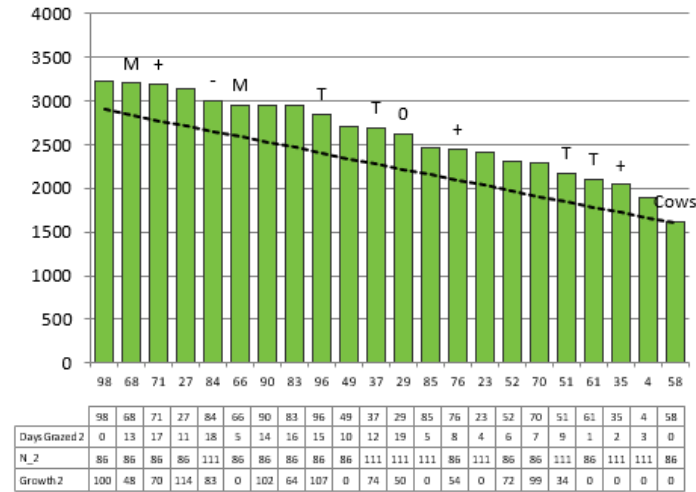
	Std brassica/baleage Pink	LI Baleage Blue	Std Fodder beet Green	LI Fodder beet Yellow
Quantity	Surplus	Surplus	Surplus	Surplus
Quality	Some stem elongation stalky base & Seed head also good colour and amounts of clover	Some stem elongation stalky base & Seed head also good colour and amounts of clover	Some stem elongation stalky base & Seed head also good colour and amounts of clover	Some stem elongation stalky base & Seed head also good colour and amounts of clover
Surplus Management	X2 pdk to conserve	X2 pdk to conserve	X2 pdk to conserve	X 2 pdk to conserve
Deficit Management - kgDM (diff from last week)	1.2 (-1.5)	1.2 (-1.3)	1.2 (-1.1)	1.2 (-1.6)
Target Rotation Length (days)	22	26	22	26

Feed

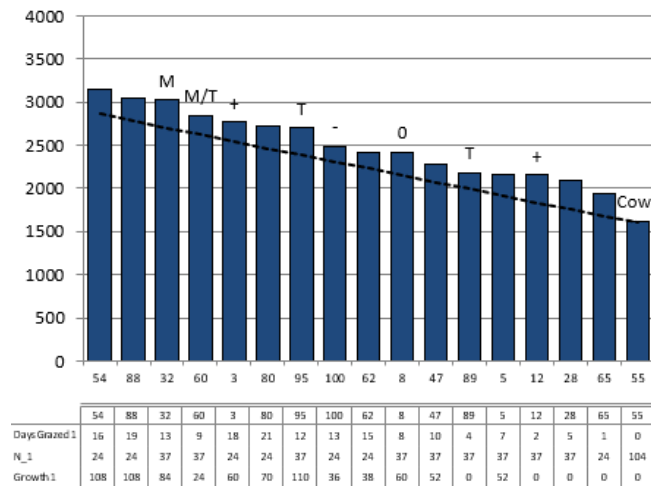
Standard Brassica/Baleage



Standard Fodder Beet



Lower Impact Baleage



Lower Impact Fodder Beet

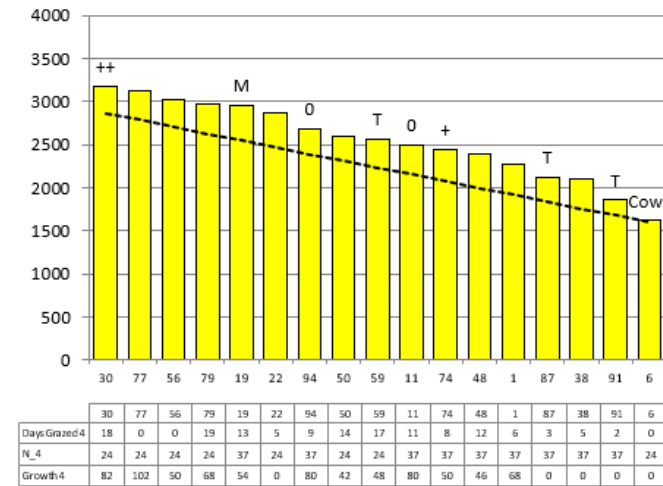


Figure 3: Feed Wedges as of 13th December 2022

Feed

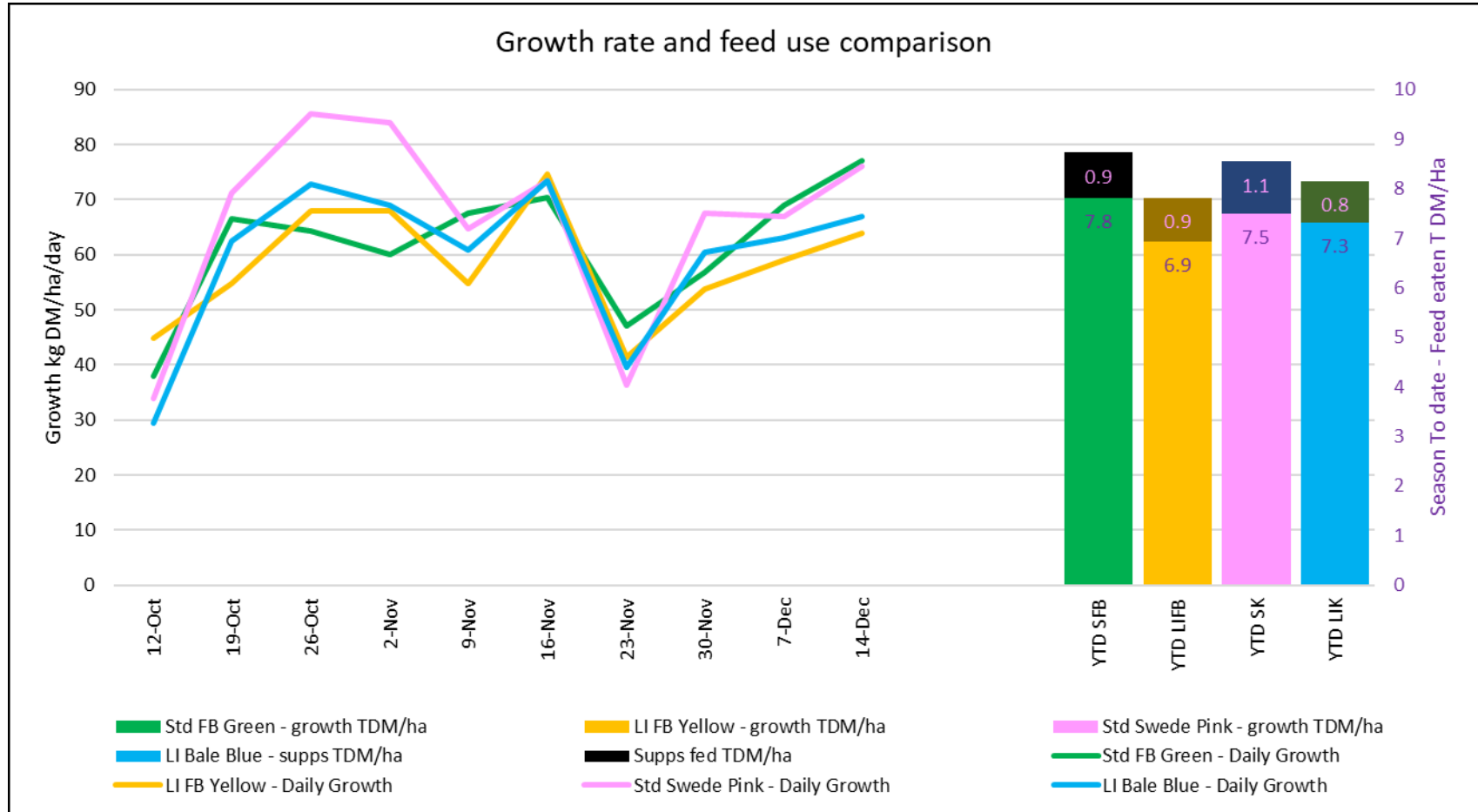


Figure 4: Weekly growth rate (kgDM/ha/d) & YTD feed use

Farm Walk Photos



Photo 1: Low Impact girls soaking up the sun



Photo 2: Cow "Beloved" doing an equipment check



Photo 3: New grass paddock drilling uneven. Consultation has been sort for next steps

Farm Walk Photos



Photo 4: Fodder beet is up with wet weather standoff area in foreground



Photo 5: Some pastures have responded well to residual management strategy implemented in early spring



Photo 6: Party cow “Violet” might have started to party a bit too hard a little early



Photo 7: DairyNZ Senior Research Technicians Nicole and Natasha completing another farm walk