

Weekly Farm Summary 26th May 2022

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

	Std Kale Pink	LI Kale Blue	Std FB Green	LI FB Yellow
Farmlet area including wintering	75.0	72.1	75.0	69.2
Peak cow numbers	195	162	194	162
Milking Area	63.4	60.5	63.4	60.5
Current Herd size (cows)	125	97	135	115
Pasture Stocking rate	2.0	1.6	2.1	1.9
Winter Feed Milking supplement	Kale In-Shed feed		Fodder beet Fodder beet/Baleage	
Average Cover	2038	1877	2057	2022
Average Growth	21	22	18	17
Target rotation length				
Last week act rotation (d)	26	22	23	32
Last week supp (kg DM/cow)	1.6	1.2	1.5	1.4
Average BCS	4.7	4.5	4.5	4.5
% of herd on priority feeding	14%	20%	8%	5%
Milk yield (L/cow)	9.9	8.9	9.4	9.7
Milk yield (kgMS/cow)	1.18	1.07	1.11	1.12
Nitrogen Cap kgN/ha/yr	190	50	190	50
% Nitrogen used (kgN/ha) YTD	84% (162kg)	106% (53kg)	79% (152kg)	108% (54kg)
Effluent N YTD	16	12	19	19
Profit/ha comp to Control	\$0	-\$731	-\$1,423	-\$1,238
YTD supp (kg DM/cow)	905	723	800	757
YTD MS/cow	418	412	392	393
YTD MS/ha	1,286	1,103	1,198	1,053
Business Area	Current Status			
Feed	All cows are now dried off and the majority are transitioning onto their winter diet - either FB, swedes, kale, or baleage/grass. APC at dry off was around 100kgDM/ha higher than target. Ground conditions this week were too wet to graze the last couple of paddocks at the top of each wedge.			
Milk Production	The cold, wet snap of weather played havoc with our last week of milk production. FB herds were dried off on Monday and Kale cows dried off Tuesday.			
People	Big shout out to the SDH farm team who have handled a complex season very well. Final winter prep being done by the team this week.			
Animals	10 culls sent this week, with 39 remaining on farm. R2's measured, vaccinated, drenched, collared, bloods taken this week. Average weight of 385 kg and height is very similar to our current R3's so they are well grown. 1 down cow in the kale herd just after dry-off. P supplementation of FB cows and other minerals via dosatron.			
Environment	Soil moisture levels lifted this week with 58mm rainfall in the last 7 days. Effluent pond levels lifted to 48%. Effluent applications paused however may resume if soil temps stay high and soil moisture reduces again.			
Wintering	MA cows now all on crop or grass & baleage. Transitioning occurring over the next week onto FB, kale, and swedes.			
Research	Nicole and Tash have been busy taking end of season measurements of animals and crops. R2 measured (length, height & girth), bloods taken, crop yields completed.			

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Feed

Principles of Pasture Management this week

Feed Quality	Pasture quality samples have halted for the winter. There have been a few paddocks left with untdy residuals this week which may impact on pasture quality at the start of next season but overall we are happy with where the season has ended.
Growth Rate Management	APC for all farmlets apart from the LI Kales finished higher than the target at dry off as seen below. If low growth through the winter doesn't rectify this, the level of supplements will be altered in the first round to reset residual for the remainder of the season.
Nitrogen Strategy	Effluent applications may resume over the coming days if soil moisture levels reduce to a comfortable level. If not, N applications won't start again until soil temperatures are above 7 deg C and rising in spring - likely late August/early September

	Standard Kale Pink	Low Impact Kale Blue	Standard Fodder beet Green	Low Impact Fodder beet Yellow
Quantity	APC excluding springer paddocks: 2075	APC excluding springer paddocks: 1890	APC excluding springer paddocks: 2084	APC excluding springer paddocks: 2043
Quality	DM % decreasing	DM % decreasing	DM % decreasing	DM % decreasing
Surplus Management	Too wet for cleaning up paddocks now			
Feed Allocation	0.9 kg inshed	0.3 kg inshed	0.8 kg inshed 1.2 kg FB	0.7 kg inshed 1.2kg FB
Rotation Length	NA	NA	NA	NA

Milk Production

Principles of Milk production management this week

Milk Production	Milk production finished 3% down on last season, however considering the season this is better than expected. Although this has come at significant cost to the business. The Std Kale herd have produced 85kgMS/ha higher than any previous year, whilst the other 3 herds have succumbed to the wet spring and dry autumn.
Key influences on milk production	With the range of wet and cold weather over the past week, the milk supply fluctuated significantly as a result.
Cow Management	Cow management in the last week has focused on preparing animals for drying off and transitioning onto their winter diets. The 10 cull cows selected to go were the highest SCC animals. Remaining culls have been dried off and are being offered predominantly baleage with a small amount of pasture.

	Standard Kale Pink	Low Impact Kale Blue	Standard Fodder beet Green	Low Impact Fodder beet Yellow
kg Milksolids per cow this week / (last week)	1.18/(1.18)	1.07/(1.14)	1.11/(1.14)	1.12/(1.14)
kg Milksolids per ha this year / (this time last year)	1286/(1316)	1103/(1080)	1198/(1269)	1053/(1047)
Season to date compared to last year	Up 0.2% total milk	Down 2.3% total milk	Down 5.1% total milk	Down 3.6% total milk.
Culls so far	29 cows	25 cows	33 cows	22 cows
Animal health peculiarities	None	None	None	None

Wintering

Transitioning onto Crop

As the cows are moving onto their winter diet, to avoid any risk of acidosis or nutritional upsets from the brassica's we are following industry guidelines to transition the cows onto crop

Cows on Brassicas - Starting on 3kgs DM/cow/day and increasing 1kg a day up to target crop intake.

Cows of Fodder Beet - If cows have not been milking off FB, start with 2kg DM/cow/day and increase by 0.5kg DM/day (or 1kg DM every second day). To achieve the required protein and mineral intakes it is suggested that FB makes up no more than 70% of the diet, unless being offered with a higher protein supplement. Once fully transitioned our cows will be offered a diet with approximately 70% fodder beet.

It is very important to note that the remainder of the diet through the transition period needs to add up to their targetted DM intake. E.g. if targetting 12kgDM/cow/day and FB offered initially is only 2kg then 10kgs must be provided in supplementary feed to maintain BCS while transitioning.

Implementing Plan B at the Hub

This year we have set our crop paddocks up with pasture breakout areas for use during adverse weather event. The trigger points for determining when these areas will be utilized are currently being refined. The factors that will be considered when developing the decision rules include:

- Amount of surface water pooling
- Predicted weather conditions
- Structure of the soil & pugging depth
- How much of the breakout area should be allocated
- Logistics of allowing access so that cows can still access crops.

By creating decision rules, it will ensure that we do not use all allocated breakout areas at the start of winter and having no options further down the track AND that everyone on the team knows the triggers

Crop Yielding

Crop yielding will be completed every 2 weeks for the paddocks being grazed at the time and also prior to cows entering new crop paddocks. With the growth seen over the last few weeks, re-yielding as we go will allow fine tuning of allocation levels to achieve intake targets and BCS gain.

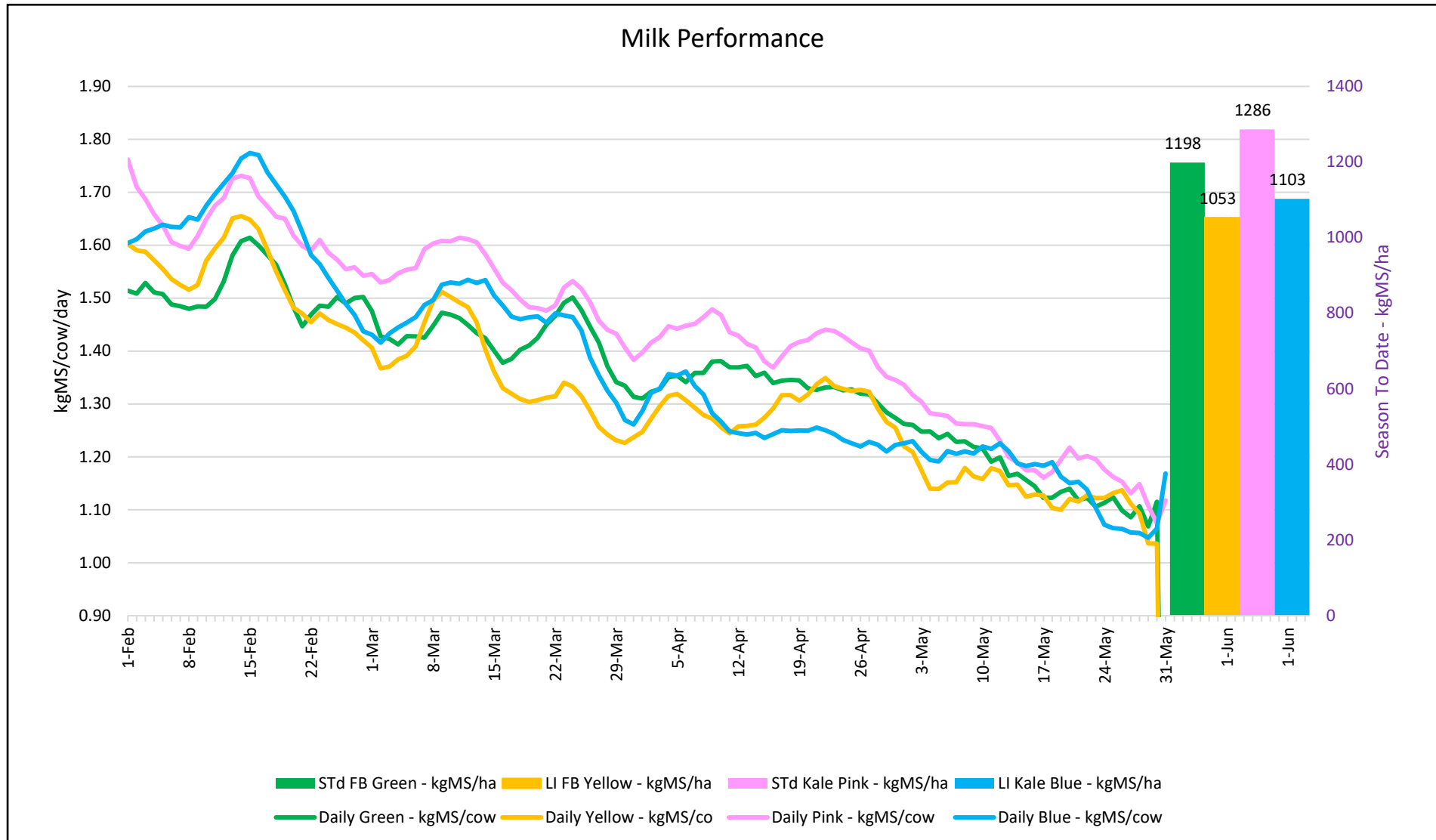
Wintering

In addition to our paddock plans we utilise a summary table for the team to ensure the correct break allocations and baleage requirements on a daily basis for each of the 11 wintering mobs.

25-May-22																										
		Std Kale Swedes/Earlies				Std Kale Kale/rape/Lates				LI Kale Cows				Heifers - Swedes			Calves Swedes			Trial heifers						
		Pdk 24				Pdk 16				Pdk 15				Pdk 101			Pdk R7			Pdk 16						
		Yield 12 t DM/ha				15 t DM/ha				Baleage 150 m				14.5 t DM/ha			18 t DM/ha			15 t DM/ha						
		Face 130 m				160 m				106				127 m			90 m			98 m						
		Animals 85				89				106				88			107			35						
		Crop DM Sq m/d break w Baleage reqd				Crop DM Sq m/d break w Baleage reqd				Crop DM Sq m/d break w Baleage reqd				Crop DM Sq m/d break w Past Baleage			Crop DM Sq m/d break w Past Baleage									
Day		DM	Sq m/d	break w	Baleage reqd	DM	Sq m/d	break w	Baleage reqd	DM	Sq m/d	break w	Baleage reqd	DM	Sq m/d	break w	Past Baleage	DM	Sq m/d	break w	Past Baleage	DM	Sq m/d	break w	Past Baleage	
Day 1	Thu	26/05/2022	3	213	1.6	3.5	0	0	0.0	0.0	594	4.0	6.0	3	184	1.4	3.6	1.5	94	0.7	2.4	3	70	0.5	1.4	
Day 2	Fri	27/05/2022	4	283	2.2	3.1	3	178	1.1	3.6	594	4.0	6.0	4	246	1.9	3.2	1.5	94	0.7	2.4	4	93	0.7	1.3	
Day 3	Sat	27/05/2022	5	354	2.7	2.7	4	237	1.5	3.2	594	4.0	6.0	5	307	2.4	2.8	2	126	0.9	2.2	5	117	0.9	1.1	
Day 4	Sun	28/05/2022	6	425	3.3	2.3	5	297	1.9	2.8	594	4.0	6.0	6	368	2.9	2.4	2	126	0.9	2.2	6	140	1.0	1.0	
Day 5	Mon	28/05/2022	7	496	3.8	1.9	6	356	2.2	2.4	594	4.0	6.0	7	430	3.4	2.0	2.5	157	1.1	1.9	7	163	1.2	0.8	
Day 6	Tue	29/05/2022	8	567	4.4	1.7	7	415	2.6	2.1	594	4.0	6.0	7.5	460	3.6	1.8	2.5	157	1.1	1.9	8	187	1.4	0.7	
Day 7	Wed	29/05/2022	9	638	4.9	1.6	8	475	3.0	2.1	594	4.0	6.0	7.5	460	3.6	2.0	3	189	1.3	1.7	8.7	203	1.5	0.5	
Day 8	Thu	30/05/2022	10	708	5.4	1.7	9	534	3.3	2.1	594	4.0	6.0	7.5	460	3.6	2.0	3	189	1.3	1.7	8.7	203	1.5	0.5	
25-May-22																										
		Std FB Heavies/Lates				Std FB Lights/Earlies				LI FB Cows				Heifers - Baleage			Calves Baleage									
		Pdk 26				Pdk 39				Pdk 41				Pdk 2			R8									
		Yield 25 t DM/ha				24 t DM/ha				23 t DM/ha				Baleage			Baleage									
		Face 135 m				120 m				120 m				112 m face			?? m face									
		Animals 88				85				106				108			100									
		Crop DM Sq m/d Break w Baleage reqd				Crop DM Sq m/d Break w Baleage reqd				Crop DM Sq m/d Break w Baleage reqd				Crop DM Sq m/d Break w Past Baleage			Crop DM Sq m/d Break w Past Baleage									
Day		DM	Sq m/d	Break w	Baleage reqd	DM	Sq m/d	Break w	Baleage reqd	DM	Sq m/d	Break w	Baleage reqd	DM	Sq m/d	Break w	Past Baleage	DM	Sq m/d	break w	Past Baleage	DM	Sq m/d	break w	Past Baleage	
Day 1	Thu	26/05/2021	2	70	0.5	4.0	2	71	0.6	3.9	2	88	0.7	4.8	0	496	4.4	5.0	0	344	#DIV/0!	2.5	0	344	#DIV/0!	2.5
Day 2	Fri	27/05/2021	2.5	88	0.7	3.8	2.5	89	0.7	3.7	2.5	110	0.8	4.6	0	496	4.4	5.0	0	344	#DIV/0!	2.5	0	344	#DIV/0!	2.5
Day 3	Sat	28/05/2021	3	106	0.8	3.6	3	106	0.9	3.5	3	133	1.0	4.3	0	496	4.4	5.0	0	344	#DIV/0!	2.5	0	344	#DIV/0!	2.5
Day 4	Sun	29/05/2021	3.5	123	0.9	3.4	3.5	124	1.0	3.3	3.5	155	1.1	4.1	0	496	4.4	5.0	0	344	#DIV/0!	2.5	0	344	#DIV/0!	2.5
Day 5	Mon	30/05/2021	4	141	1.0	3.2	4	142	1.2	3.1	4	177	1.3	3.9	0	496	4.4	5.0	0	344	#DIV/0!	2.5	0	344	#DIV/0!	2.5
Day 6	Tue	31/05/2021	4.5	158	1.2	3.0	4.5	159	1.3	2.9	4.5	199	1.5	3.6	0	496	4.4	5.0	0	344	#DIV/0!	2.5	0	344	#DIV/0!	2.5
Day 7	Wed	1/06/2021	5.5	194	1.4	2.8	5	177	1.5	2.9	5	221	1.6	3.6	0	496	4.4	5.0	0	344	#DIV/0!	2.5	0	344	#DIV/0!	2.5
Day 8	Thu	2/06/2021	6	211	1.6	2.8	5.5	195	1.6	2.9	5.5	243	1.8	3.6	0	496	4.4	5.0	0	344	#DIV/0!	2.5	0	344	#DIV/0!	2.5

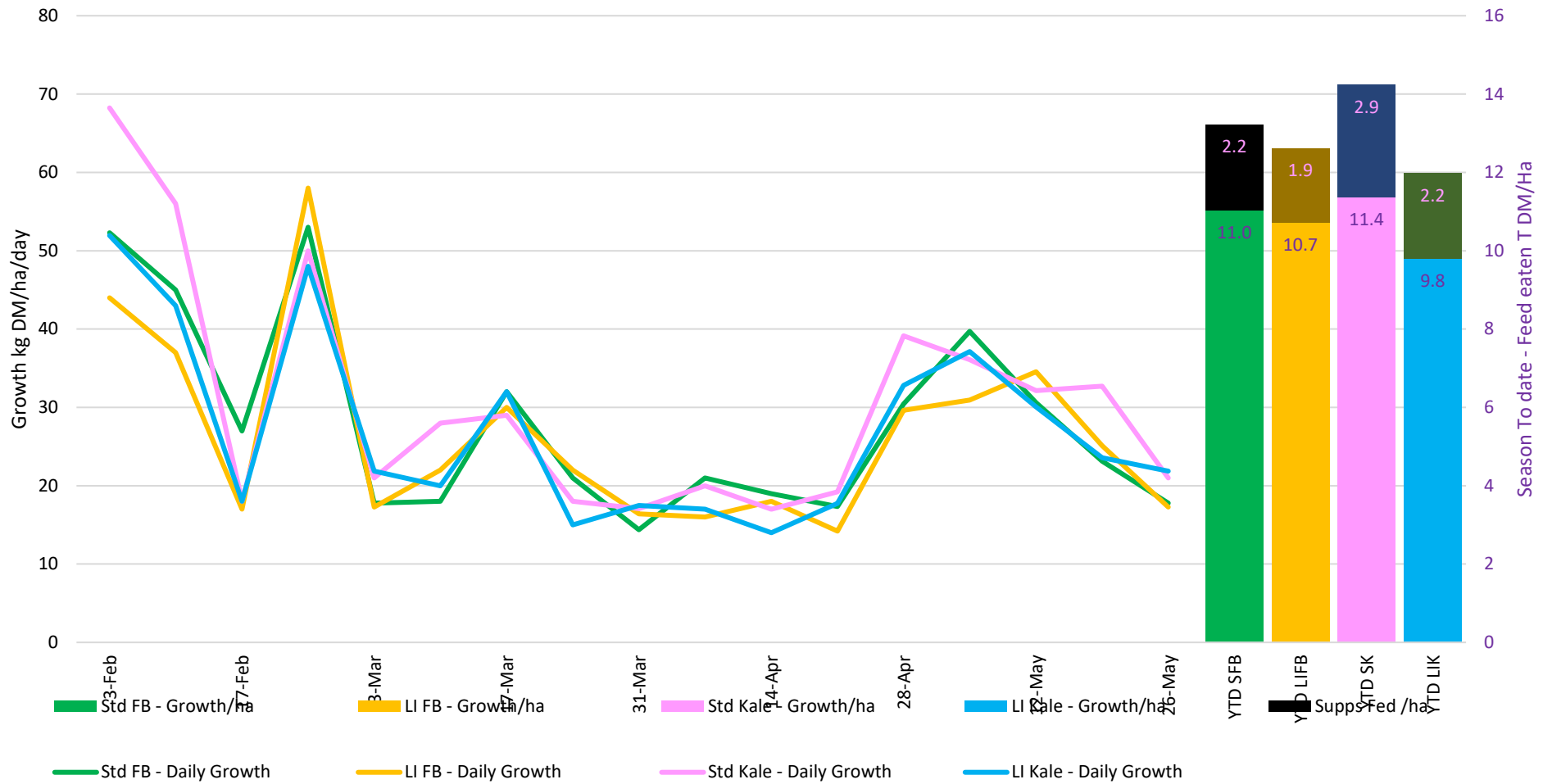
Figure 1: Transition Plan for cows in their wintering mobs for the next week.

**Farm system impacts: of Kale vs Fodder beet for winter AND Reducing N loss to water by 30%.
 Kale, Winters on kale - in-shed feed available. Fodder beet, winters on Beet, Beet as lactation supp. Low
 impact (LI) limited Max 50kg N/ha/year vs Std 193kg N/ha/year**



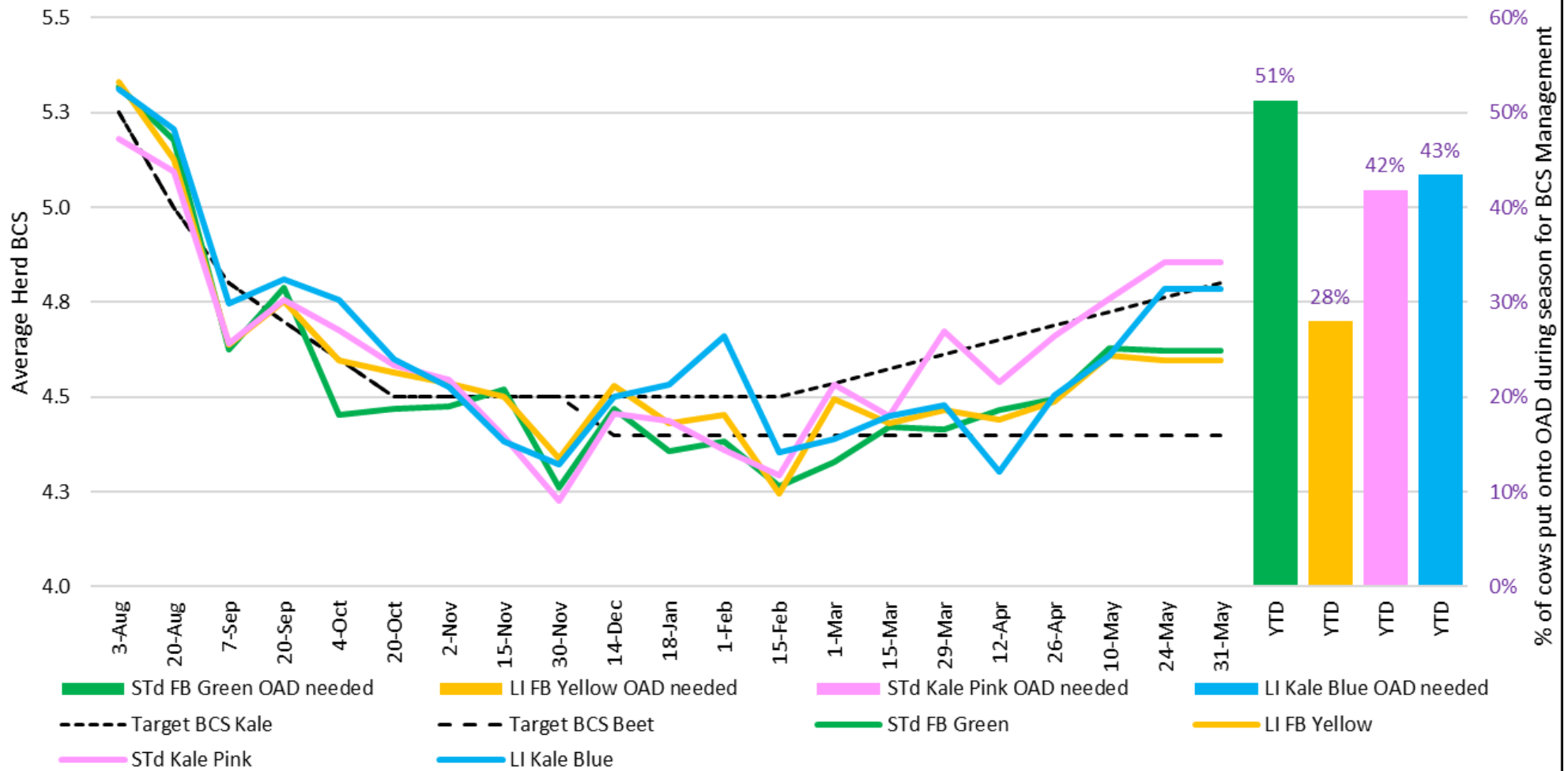
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Growth rate and feed use comparison



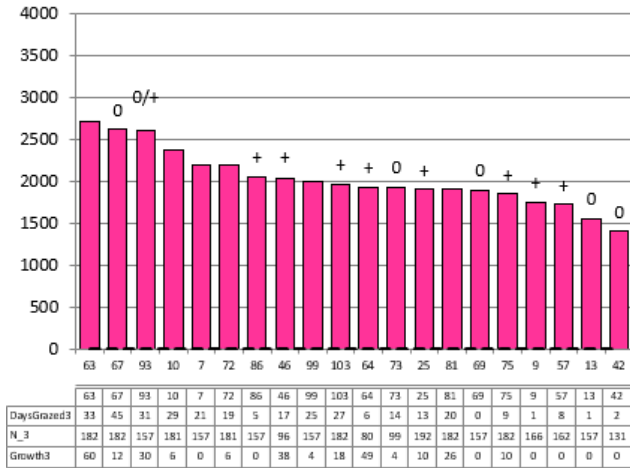
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Average BCS comparison

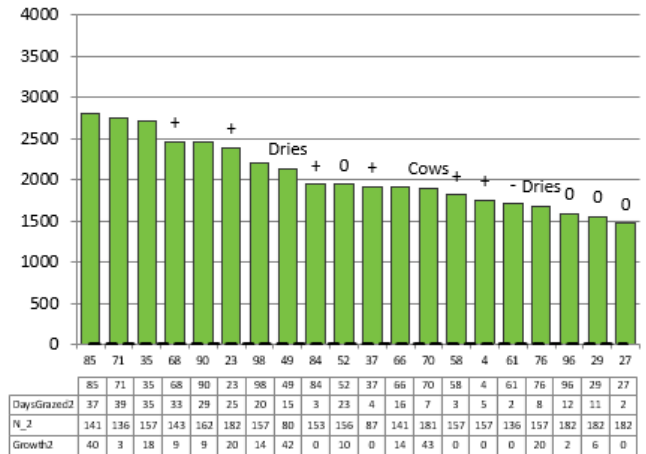


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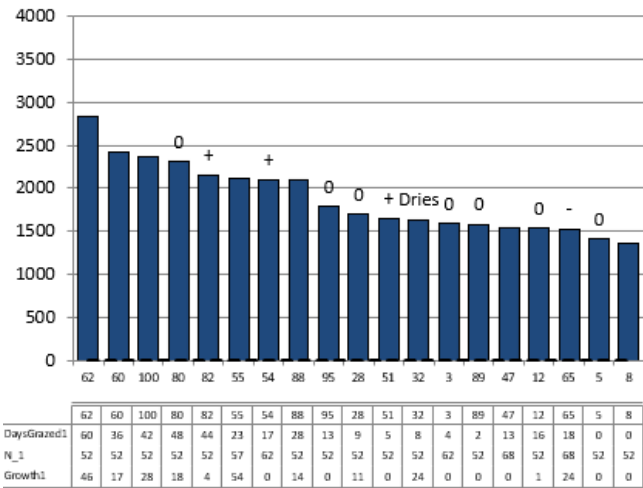
Standard Kale



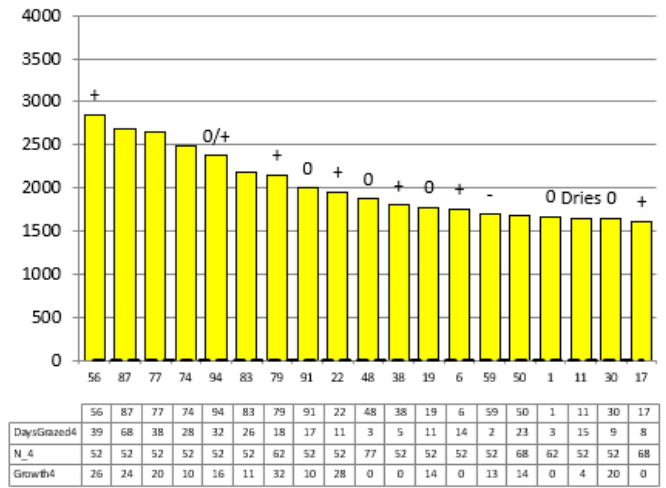
Standard Fodder Beet



Low Impact Kale



Low Impact Fodder Beet



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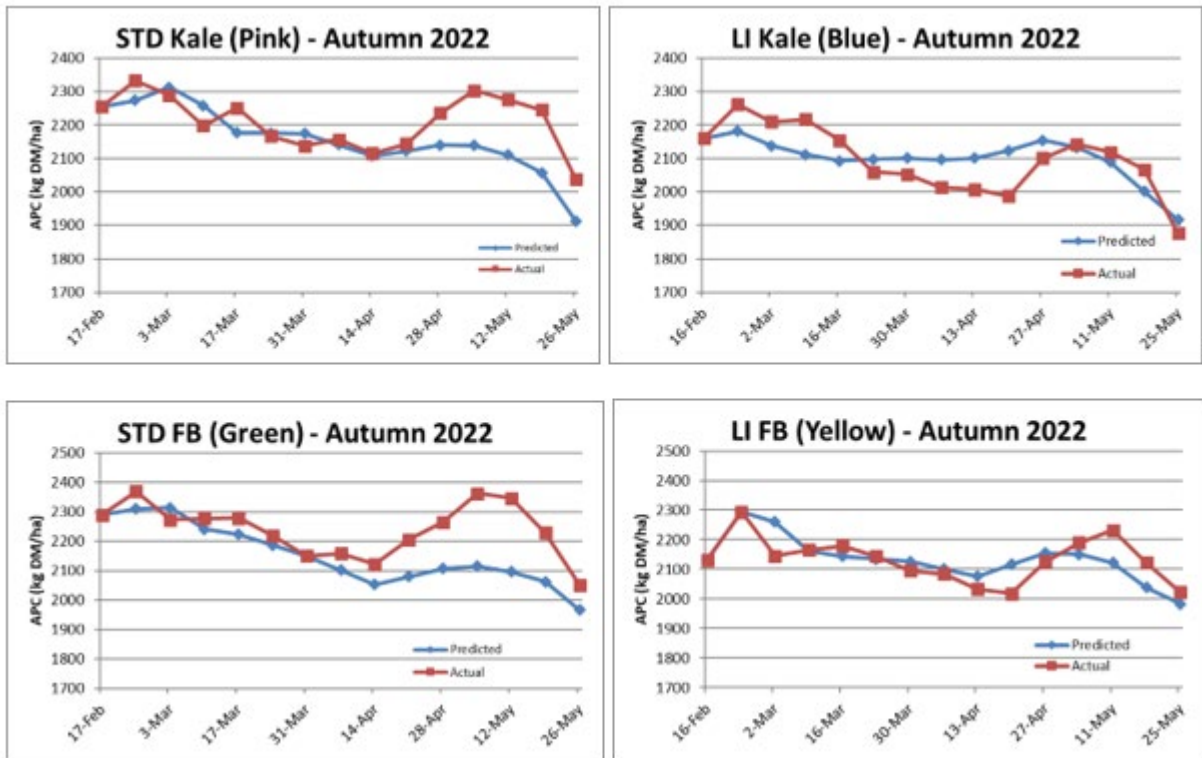


Figure 2: Girth measurements on the R2's this week.

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Figure 3: Preparing the R2's for joining their herds.