Weekly Farm Summary 19th August 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	83	61	83	61
Peak cow numbers	229	141	228	140
Milking Area	64	49	64	50
Current Herd size (cows)	228	140	227	140
Cows in Milk*	105	67	96	73
Pasture Stocking rate	3.0	2.5	3.0	2.5
Winter Feed Milking supplement	Kale In-Shed feed		Fodder beet Fodder beet/Baleage	
Average Cover	2345	2282	2431	2301
Average Growth	6	7	7	10
Target Rotation Length	78	69	77	69
Last week actual rotation (d)	66	267	144	57
Milker pasture (kg DM/cow/d)	16.0	16.0	16.0	16.0
Milker supplement kg DM/cow/d)	1.1	1.2	0.9	0.8
Dry cow crop (kg DM/cow/d)	0	0	9.0	9.0
Dry cow baleage (kg DM/cow/d)	11.0	11.0	4.0	4.0
Average BCS all cows (08/08/22)	5.3	5.3	5.3	5.3
% of herd on priority feeding	0	0	0	0
Milk yield (L/cow)**	15.8	16.1	15.1	16.0
Milk yield (kgMS/cow)**	1.5	1.5	1.4	1.5
Nitrogen Cap kgN/ha/yr	**180**	**50**	**180**	**50**
% Nitrogen used (kgN/ha) YTD	0	0	0	0

Business Area	Current Status
Feed	APC are tracking close to target in our SRP. Aiming for milking mobs to have 100m2/day, residuals of 1650 kgDM and total intakes of 17 kgDM cow of which 16 kg is pasture. Where this cannot be achieved, in-shed feed will be increased to ensure we don't speed up the round.
Milk Production	Milking mobs were split this week into the four farmlets and are being milked TAD. All fresh cows entering their respective milking mobs from the colostrum herd, will be milked OAD for an additional 7 days unless they have any underlying health issues when they will remain on OAD milking in the colostrum mob.
Animals	We have had an increase in metabolic cases this week, especially in the FB herds but most cows are responding quickly to treatment. For a few, other underlying health issues have delayed their recovery.
Wintering	One mob remains on fodder beet. Unused breakout areas remain available to stand off colostrum cows in wet conditions, minimizing pugging in pasture paddocks. We areas in crop paddocks have been ripped to help dry them out.
People	Farm team are all working well together, with all hands-on deck through this busy period
Environment	Still have capacity in the pond, but will look at applying effluent on days when soil and weather conditions are appropriate
Research	Data sets from the 2018-2021 farm systems comparison are currently being checked ahead of statistical analysis and publication preparation.

*Includes all calved cows, **Data Source: Delpro

Feed

Principles of Pasture & Feed management this week

Feed Quality	The pastures are showing typical signs of late winter/early spring composition and quality. While some paddocks are lush and green, others are showing effects of frosting. Days since grazing in autumn is being used to inform the grazing order and which mob paddocks are grazed by. After an increase in the incidence of metabolic issues across the herds we have collected pasture samples from our springer paddocks and will have them tested for mineral content. Several of our springer paddocks this year are in the effluent area increasing the risk of high potassium concentrations having a negative effect on magnesium metabolism. In the interim until the results are back, we have decreased the proportion of pasture in the springer diet.
Growth Rate Management	Growth rate is currently being managed using the spring rotation planner and adhering to our weekly area allocations. Where paddocks are short of pasture for the target intake within the area allocation cows are being topped up with either in shed feeding or baleage. We are targeting 1650 kg DM/ha residuals with the milkers. If necessary, the late calvers on baleage are being used to tidy up any long residuals if weather and ground conditions allow. Rotation lengths are variable across the farmlets as it depends on which farmlet paddocks are grazed by springers and colostrum's each week. Variability in pasture cover within paddocks and farm walk conditions are making accurate mass assessments more challenging.
Nitrogen Strategy	Average soil temperatures are still too inconsistent to consider applying N fertilizer. The average temperature for this week was 6.4 C, down from 7.4-7.8 C for the last 3 weeks

	Standard Kale Pink	Low Impact Kale Blue	Standard Fodder beet Green	Low Impact Fodder beet Yellow
Quantity	Currently OK	Currently OK	Currently OK	Currently OK
Quality	Variable depending on paddock history	Variable depending on paddock history	Variable depending on paddock history	Variable depending on paddock history
Surplus Management	None	None	None	None
Deficit Management	2.0 kg (up 1kg from last week)	3.0 kg (up 1kg from last week)	2.0 kg (up 1kg from last week)	2.0 kg (up 1kg from last week)
Rotation Length	66 days	267 days	144 days	57 days

Milk Production

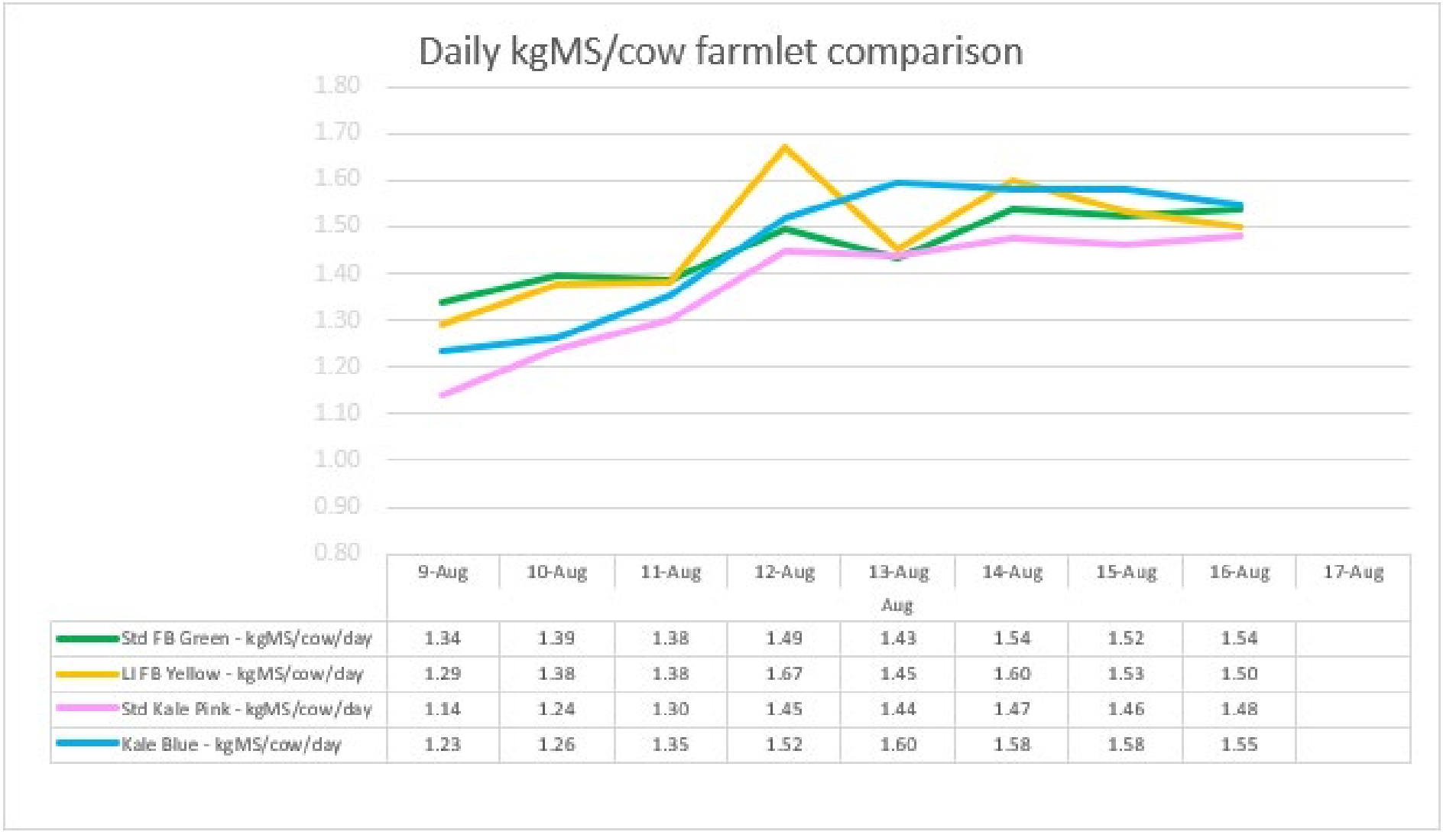
Principles of Milk Production Management this week

Milk Production	Variability in milk production between the herds is being driven by the rate of calving in each farmlet and the proportion of heifers that have calved in each herd. As of 18th of August we had 59% of the LIFB and LI Kale herds, 52% of the Std kale and 49% of the Std FB herds calved. Not bad for an official start of calving of the 5th August for heifers and 8th August for cows.
Key Influences on Milk Production	With the splitting of the herds into their farmlets and increased milk production in the early calving cows we moved to twice a day milking on the 18th of August, two days earlier than in the 2021-22 season. Maintaining consistent, but increasing feeding allocations, and using supplements to top up the diet when there is insufficient pasture available in any individual paddocks will be the key to achieving a good peak milk production.
Cow Management	This year we have made the decision that all fresh cows entering their respective milking mobs from the colostrum herd, will be milked OAD for an additional 7 days unless they have any underlying health issues when they will remain on OAD milking in the colostrum mob. The Allflex rumination data will be used to monitor freshly calved cows and anything not returning to pre-calving rumination levels will stay on OAD milking for longer.

	Standard Kale Pink	Low Impact Kale Blue	Standard Fodder beet Green	Low Impact Fodder beet Yellow
kg Milksolids per cow this week/ (last week)	1.41/ ()	1.49/ ()	1.47/ ()	1.50/ ()
kg Milksolids per ha this year/ (same time last year)	0/ (0)	0/ (0)	0/ (0)	0/ (0))
Season to date vs last season to date				
Cows needing preferential feeding (% herd)	0 cows (0%)	0 cows (0%)	0 cows (0%)	0 cows (0%)
Animal health peculiarities	None	None	Increased metabolics	None

Source: Delpro Data

Milk Production



	9-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	15-Aug	16-Aug	17-Aug
					Aug				
Std FB Green - kgMS/cow/day	1.34	1.39	1.38	1.49	1.43	1.54	1.52	1.54	
LI FB Yellow - kgMS/cow/day	1.29	1.38	1.38	1.67	1.45	1.60	1.53	1.50	
Std Kale Pink - kgMS/cow/day	1.14	1.24	1.30	1.45	1.44	1.47	1.46	1.48	
Kale Blue - kgMS/cow/day	1.23	1.26	1.35	1.52	1.60	1.58	1.58	1.55	

Source: Delpro Data

Animals

Principles of Animal management this week

Animal Health Issues **Down Cows**	We have had 6% of the cows go down with metabolic issues and several assisted calving's. On review we have noted that while most are occurring within 24 hours of calving, some have been up to 5 days post calving. We have reviewed the springer dusting rates and increased the MgO to 75g/cow/day. This is the first year we have included Mg and Ca in our in-shed feed because all herds get in shed feeding this year, so we have a bit of fine tuning to do to get mineral intakes right. As previously mentioned, we have sent pasture samples off to determine the levels of potassium (K) as many of the paddocks being grazed are effluent paddocks. If K is high this will be having a detrimental effect on mineral absorption and will require a rethink of our mineral supplementation program.
Pre-Mating Health – **Technical Information**	**Why are we focusing in on this now?** Endometritis is an infection or inflammation of the uterus that can persist beyond the third week of calving There are two forms of Endometritis, one is detected by metri-check Research has shown that cows with uterine infections approx. 4-5 weeks prior to mating starting have lower conception rates, 6-week in-calf rates and higher empty rates Treating infected cows, does take time and will improve fertility, and even though many cows will self-cure with increasing time post calving, cows should be treated at least 4 weeks before the start of mating
Pre-Mating Health – **Metri-checking Score**	 *Metricheck™ scores where 1 = clear mucus with no pus; 2 = mucus with flecks of pus, 3 = mucus with <50% pus; 4 = mucus with ≥50% pus; 5 = mucus with ≥50% pus and foul odour. Photo sourced from Dr S. McDougall (Anexa FVC).*
Pre-Mating Health – **SDH Metri-checking Plan**	**What is our Plan?** A metric-checking plan is currently being implemented to ensure that all cows reproductive systems are checked, and any issues addressed early and corrected well before mating Current milkers will be tail painted this week for metri-checking in 3 weeks' time – this will include all cows calved in the first three weeks (Metri-check Group 1), then in three weeks will be group 2 etc.

For more information and tools please visit the DairyNZ website: https://www.dairynz.co.nz/animal/reproduction-and-mating/

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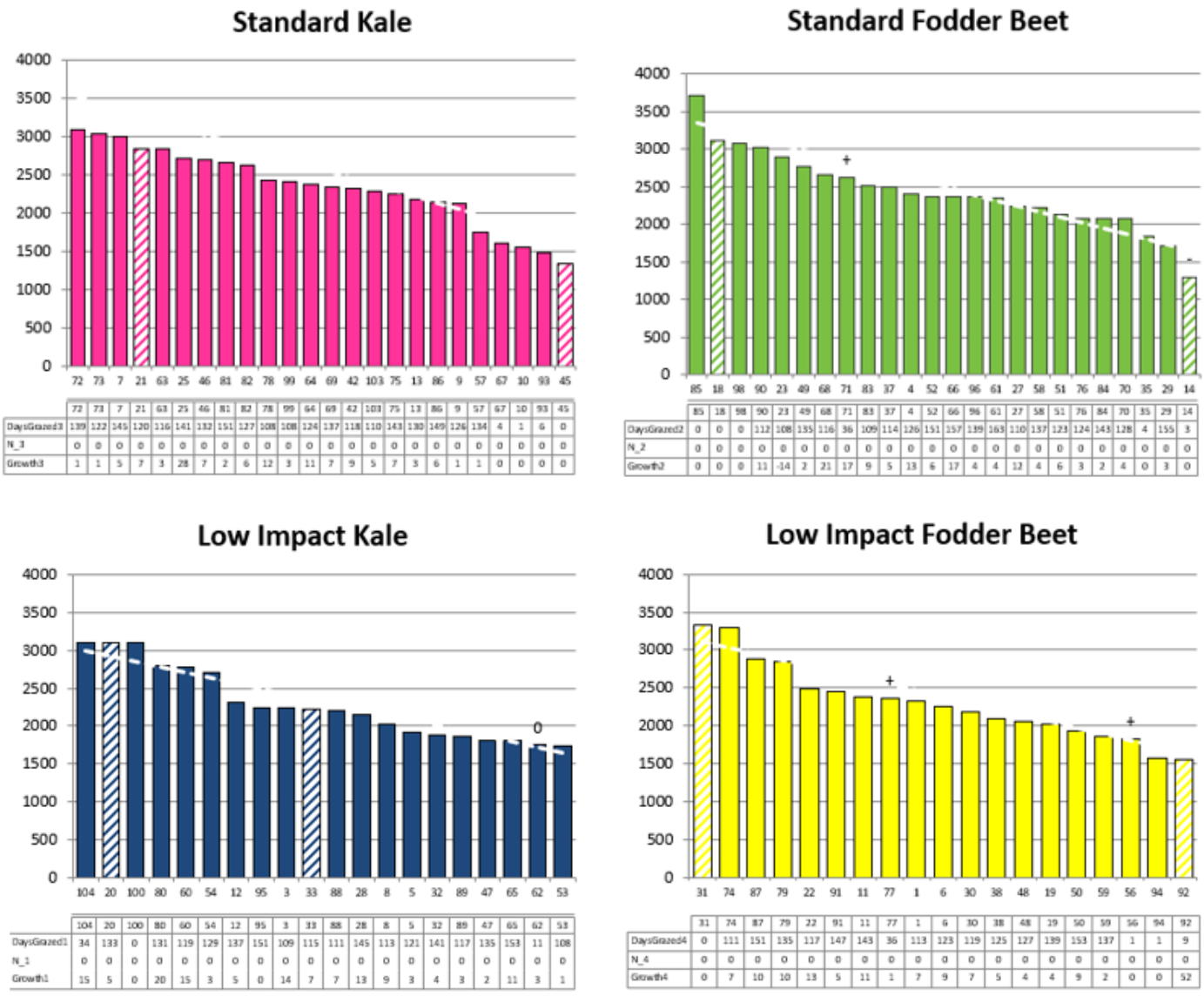

Figure 1: Feed Wedges as of 16th August 2022

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

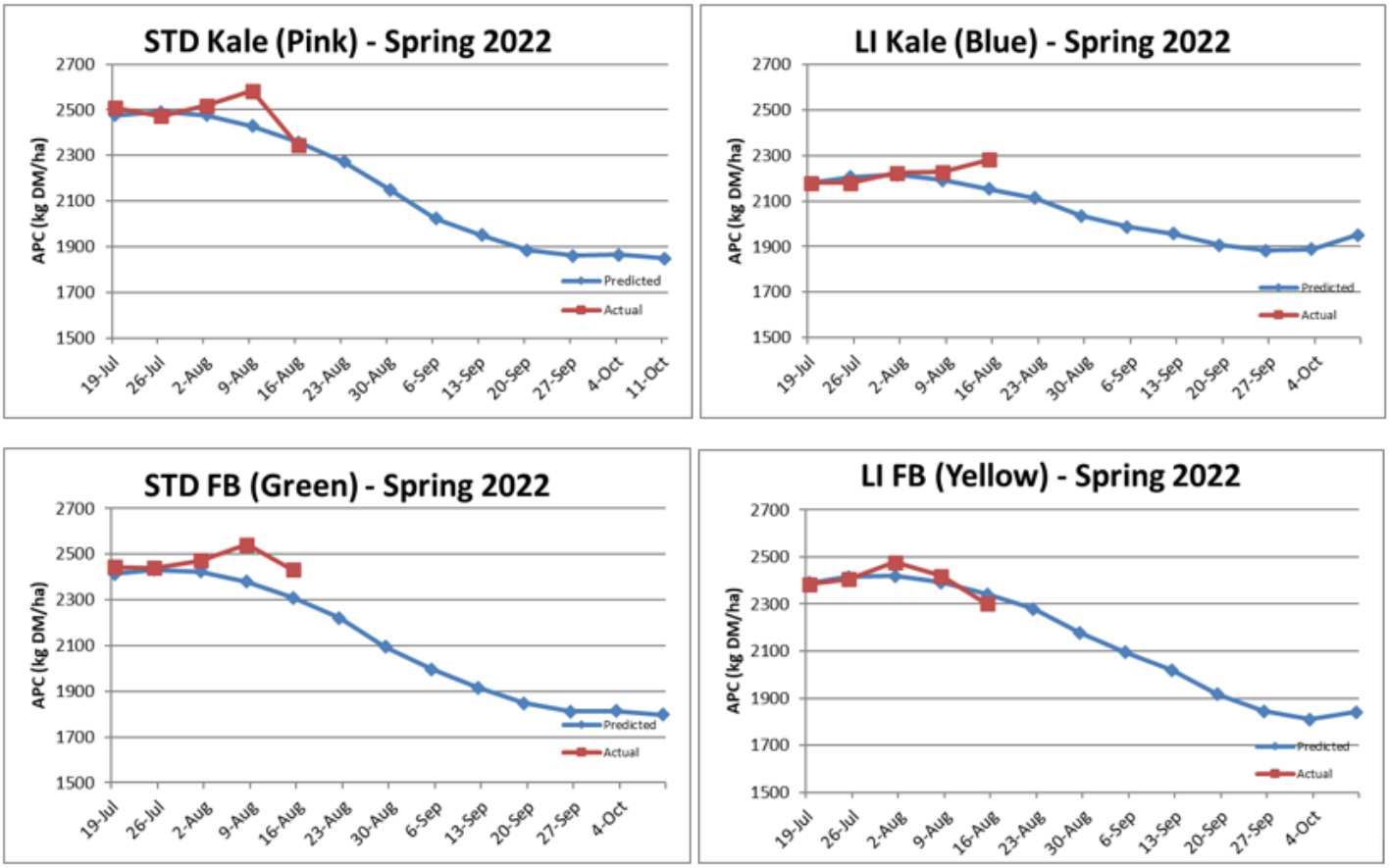

Figure 2: Spring feed budget APC targets vs actual – 16th August 2022

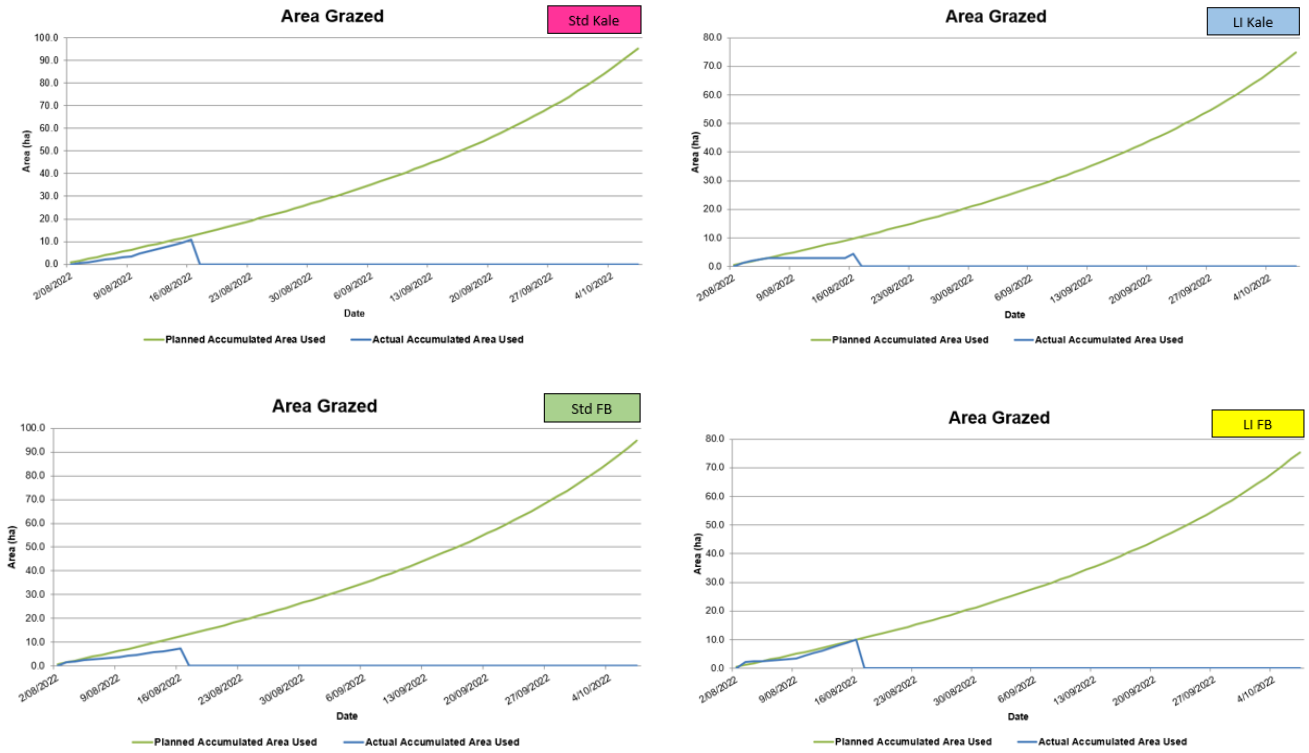

Figure 3: Area grazed vs predict from SRP by Farmlet - 16th August 2022

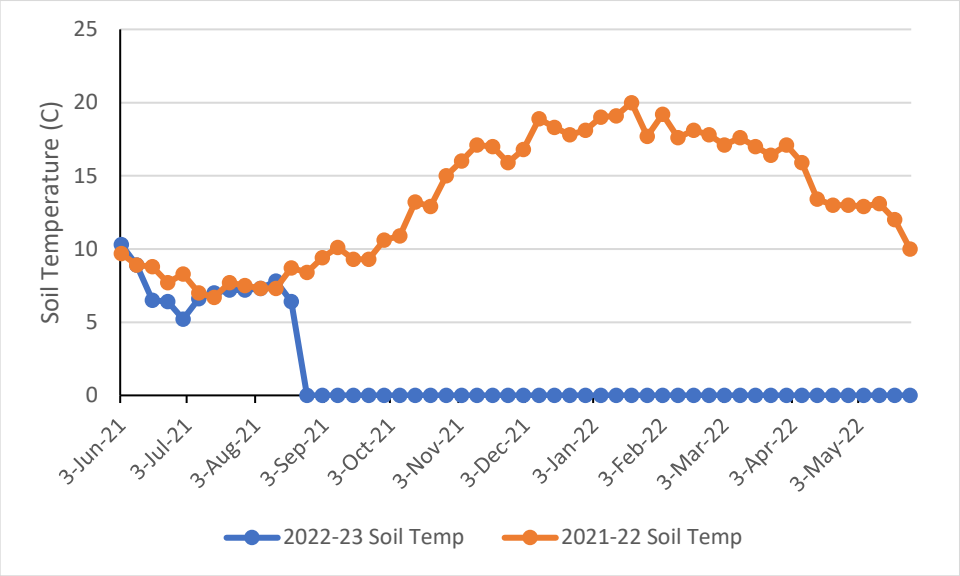

Figure 4: Weekly average soil temperature for this season relative to 2021-22