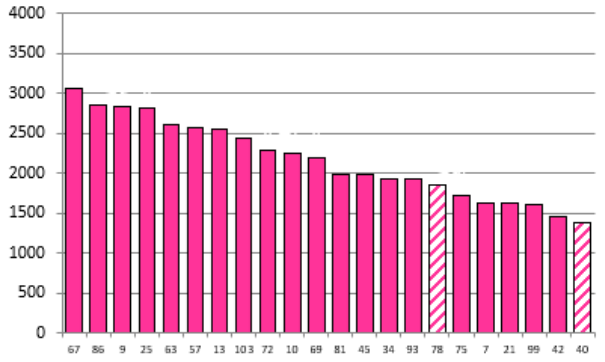
2021/22 Season
Hub Weekly Farm Update
Date: 2/09/2021

Date 15-09-21

Herd size (cows)	159	Average Cover	2165
Target residual (kg DM/ha)	1600	Average Growth	19
Target pasture intake (kg DM/co	14	Farmlet area	62.3
Target Area offered (ha/day)	1.45	Target rotation length	43
Last week actual rotation (d)	37	Target demand	36
Last week supp (kg DM/cow)	4.9	YTD supp (kg DM/cow)	99
Last week N (kg N/ha)	0	Fert N YTD	9
Milk yield (L/cow)	19.9	Effluent N YTD	0
Fat%	N	Last wk MS	W
Prot%	E	YTD MS/cow	E
SCC	X	YTD MS/ha	E
Average BCS	T	% less than BCS 4	K

Herd size (cows)	141	Average Cover	2068
Target residual (kg DM/ha)	1600	Average Growth	20
Target pasture intake (kg DM/co	15	Farmlet area	63.5
Target Area offered (ha/day)	1.45	Target rotation length	44
Last week actual rotation (d)	36	Target demand	33
Last week supp (kg DM/cow)	2.7	YTD supp (kg DM/cow)	49
Last week N (kg N/ha)	0	Fert N YTD	10
Milk yield (L/cow)	18.9	Effluent N YTD	0
Fat%	N	Last wk MS	W
Prot%	E	YTD MS/cow	E
SCC	X	YTD MS/ha	E
Average BCS	T	% less than BCS 4	K

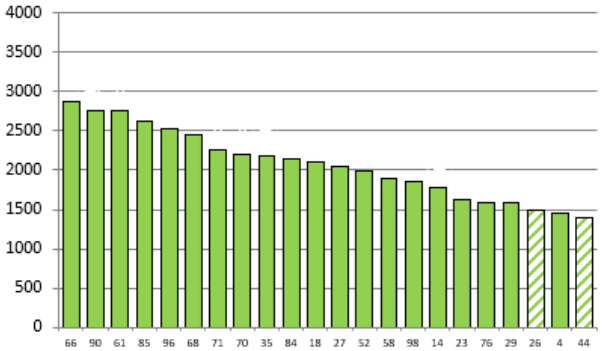
Standard Kale



	67	86	9	25	63	57	13	103	72	10	69	81	45	34	93	78	75	7	21	99	42	40
DaysGrazed3	116	119	2	33	114	122	29	23	18	34	3	11	5	16	9	35	9	1	14	0	7	32
N_3	0	0	0	0	31	0	31	31	31	31	0	0	0	31	0	0	0	0	31	0	0	0
Growth3	67	16	0	14	14	18	22	40	26	10	0	16	0	14	25	4	3	0	11	0	0	13

Farmlet notes: Visual APC 2193; Visual GR 29; 88% of the herd calved; maintaining current area allocation offering 4 kg DM 50% barley:PKE blend; 5 first round pdks remaining; N fertiliser to be flown on to all pdks below 2100 kg DM/ha that have not already had N; Kale & beet springers in one mob; late dries still separate; Metrichecked cows from first 3 wks

Standard Fodder Beet



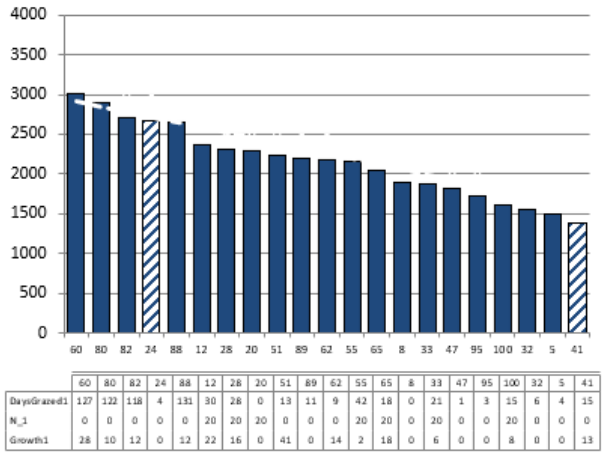
	66	90	61	85	96	68	71	70	35	84	18	27	52	58	98	14	23	76	29	26	4	44
DaysGrazed2	115	117	115	116	4	0	31	23	30	9	35	11	19	13	7	16	23	3	5	35	1	7
N_2	0	0	0	0	0	0	31	31	31	0	31	0	31	0	0	31	31	0	0	0	0	0
Growth2	28	25	40	20	0	0	26	8	14	4	7	41	22	16	0	11	18	0	0	0	0	0

Farmlet notes: Visual APC 2177; Visual GR 31; 81% of the herd calved; maintaining curent area allocation, offering 2.5 kg DM lifted beet, 1.5 kg DM PKE & baleage; 5 first round pdks remaining; N fertiliser to be flown on to all pdks below 2100 kg DM/ha that havent had N this season; Mixed springer mob with kales; all cows off crop; metrichecked 1st 3 wks cows

2021/22 Season
Hub Weekly Farm Update
Date: 2/09/2021

Herd size (cows)	127	Average Cover	2148
Target residual (kg DM/ha)	1600	Average Growth	16
Target pasture intake (kg DM/co	15	Farmlet area	61.0
Target Area offered (ha/day)	1.45	Target rotation length	42
Last week rotation avg	36	Target demand	31
Last week supp (kg DM/cow)	3.3	YTD supp (kg DM/cow)	73
Last week N (kg N/ha)	0	Fert N YTD	6
Milk yield	21.1	Effluent N YTD	0
Fat%	N	Last wk MS	W
Prot%	E	YTD MS/cow	E
SCC	X	YTD MS/ha	E
Average BCS	T	% less than BCS 4	K

Low Impact Kale

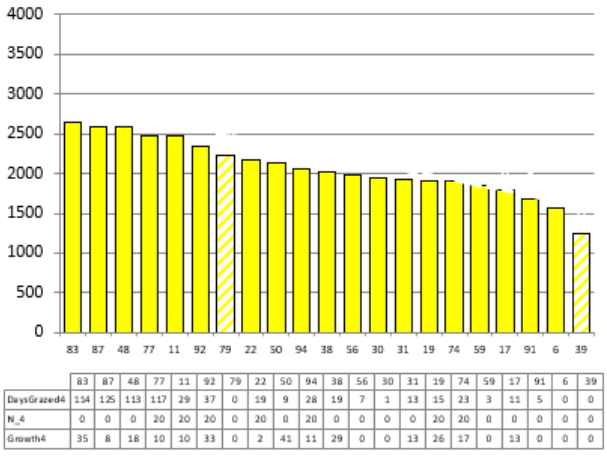


	60	80	82	24	88	12	28	20	51	89	62	55	65	8	33	47	95	100	32	5	41
DaysGrazed1	127	122	118	4	131	30	28	0	13	11	9	42	18	0	21	1	3	15	6	4	15
N_1	0	0	0	0	0	20	20	20	0	0	0	20	20	0	20	0	0	20	0	0	0
Growth1	28	10	12	0	12	22	16	0	41	0	14	2	18	0	6	0	0	8	0	0	13

Farmlet notes: Visual APC 2241; Visual GR 27; 85% of the herd calved; maintaining current area allocation offering 3 kg DM 50% barley:PKE blend 4 first round pdks remaining; N fertiliser to be flown on to all pdks below 2100 kg DM/ha that have not already had N; Kale & beet springers in one mob; late dries still separate; Metrichecked cows from first 3 wks

Herd size (cows)	132	Average Cover	2074
Target residual (kg DM/ha)	1600	Average Growth	19
Target pasture intake (kg DM/co	14	Farmlet area	60.9
Target Area offered (ha/day)	1.45	Target rotation length	42
Last week rotation avg	36	Target demand	30
Last week supp (kg DM/cow)	3.3	YTD supp (kg DM/cow)	49
Last week N (kg N/ha)	0	Fert N YTD	6
Milk yield	19.8	Effluent N YTD	0
Fat%	N	Last wk MS	W
Prot%	E	YTD MS/cow	E
SCC	X	YTD MS/ha	E
Average BCS	T	% less than BCS 4	K

Low Impact Fodder Beet



	83	87	48	77	11	92	79	22	50	94	38	56	30	31	19	74	59	17	91	6	39
DaysGrazed4	154	125	113	117	29	37	0	19	9	28	19	7	1	13	15	23	3	11	5	0	0
N_4	0	0	0	20	20	20	0	20	0	20	0	0	0	0	20	20	0	0	0	0	0
Growth4	35	8	18	10	10	33	0	2	41	11	29	0	0	13	26	17	0	13	0	0	0

Farmlet notes: Visual APC 2154; Visual GR 24; 84% of the herd calved; maintaining curent area allocation, offering 2.5 kg DM lifted beet, 1.5 kg DM PKE & baleage; 4 first round pdks remaining; N fertiliser to be flown on to all pdks below 2100 kg DM/ha that havent had N this season; Mixed springer mob with kales; all cows off crop; metrichecked 1st 3 wks cows

NB: Hatched paddocks are springer paddocks

Table 1: Key Herd Numbers 9/09/2021 – number of cows in each mob

DATE: 26 August 2021	Std Kale	LI Kale	Std FB	LI FB	Total
Cows on Farm	201	167	196	167	731
Current being milked	177	143	163	140	623
Springers	16	12	19	13	61
Late dries	8	12	14	13	47
Slips/empty/deaths	2	1	8	1	12

2021/22 Season
Hub Weekly Farm Update
Date: 2/09/2021

General Farm Information

Table 2: Key Weather and Feeding Numbers 2nd September 2021

Soil Temp (°C) (weekly average)	9.3°C			
Rainfall (mm)	51.0 mm			
Allocations kg DM/cow/day	**Std. Kale**	**LI Kale**	**Std FB**	**LI FB**
Milkers	18-19 kg DM (14-15 kg DM pasture + 4 kg inshed & baleage as required)	18-19 kg DM (15 kg DM pasture + 3 kg inshed + baleage as required)	18-19 kg DM (12-13 kg DM pasture + 2.5 kg FB + 1.5 kg PKE and baleage as required)	17-17.5 kg DM (13-14 kg DM pasture + 2.5 kg FB + 1.5 kg PKE and baleage as required)
Colostrum	15-16 kg DM (11-12 kg DM pasture + 1.5 kg inshed + 3 kg baleage)			
Springers & Late dries	4-5 kg pasture & 5-6 kg baleage			

Key Decisions: this week

- It has definitely been a challenging week on farm with 51 mm of rain being recorded. Ensuring cows were well fed and minimising damage to pastures has been a key priority and as such we decided to put all herds onto OAD milking last Saturday (11 September) for an initial period of 5 days. This allowed more time for the team to get baleage and fodder beet fed out to the four milking herds, springers and colostrums and reduced cow movement in and out of paddocks.
- A second milking occurred on Tuesday afternoon (14th September) to stimulate milk production and hopefully help reduce the impact of OAD milking
- Twice a day milking resumed on Friday 17th September.
- Fodder beet and kale springers are now being run as a single mob with all receiving magnesium and phosphorus supplementation
- The last of the fodder beet dry cows on crop were removed on Monday and have joined the late kale dries being fed pasture and baleage
- Fodder beet feeding started to the Std and LI FB herds last week and they have been transitioned up to 2.5 kg DM since Friday last week. The current beet was lifted with the beet bucket a week ago so contains leaf and bulb. We have estimated there is 15-20% soil contamination so this has been factored into the wet weight calculations.
- DCP is being dusted to the Std and LI FB milker herds along with MgO and limeflour now that we are feeding fodder beet to them
- Beet bucket beet will be replaced with the bulb harvested yesterday once it has all be fed out
- We completed an inventory on our baleage stocks and compared against the spring feed budget. All herds have fed more than budgeted but it is worse for the Std and LI FB herds where we haven't had the luxury of inshed feeding
- To protect pastures we offered more area than the spring rotation plan, especially in wet paddocks where utilisation was low so cows were moved on early. As a result we will finish

our first rotation about a week early than planned. With better conditions this week we plan to hold the area and top up with supplement but will increase area once we hit the second round paddocks

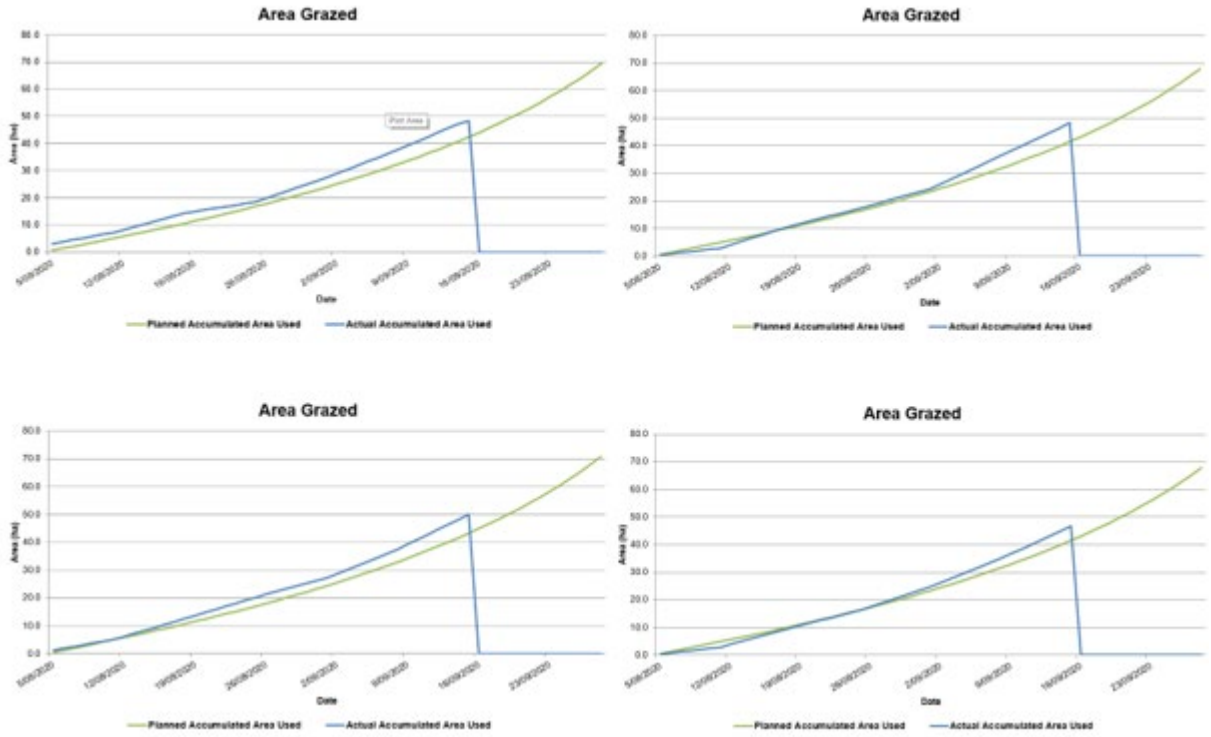


Figure 1: Area grazed compared to the SRP allocation (Std kale: top left, Std FB: bottom left, LI kale: top right, LI FB: bottom left)

- Based on APC, finishing the first round almost a week earlier than planned, pasture damage during grazing in wet conditions and not being prepared to feed more than 2.5 kg DM fodder beet to the milkers due to acidosis risk to cows entering from the colostrum mob each day we made the decision to start feeding 1.5 kg PKE/cow/day to these herds to increase the amount of high quality supplement in their diet so they are more comparable to the Kale herds.
- Nitrogen will be applied to any paddocks less than 2100 kg DM/ha that have not already received their first application. This will be applied by helicopter early next week.
- Colostrum area allocation will be decreased to 80 m2/cow and the cows offered 3 kg DM baleage and 1.5 kg DM inshed feeding to reduce the area they are grazing from paddocks ahead of the milkers
- The next springer draft will be done next Monday and all cows will have a BCS assessment at the same time.

General Notes:

- Despite our best efforts there are going to be quite a few areas around the farm that will need remediation of pugging damage once the conditions allow. This will probably be a combination of direct drilling and broadcasting of seed depending on the extent of the damage across the paddock

2021/22 Season
Hub Weekly Farm Update
Date: 2/09/2021

- We are down to our last two half paddocks for springers and dry cows; once these are grazed the late calvers will follow the milking herds.
- Amazingly conditions were dry enough yesterday for the beet harvester to get in and harvest the remainder of 2 paddocks that were too wet to finish grazing during winter. We were able to drop wires onto the laneway to reduce traffic in and out of the gateways. The remainder of the beet will be harvested within the next couple of weeks to avoid any quality issues with plants bolting.

Figure 2: We were lucky to get the FB lifted after such a wet period

- APC has dropped a lot in the last week as we offered more area and with increasing demand as early calving cows start to hit peak production. We are still tracking OK but pastures are going to be slower to respond after challenging first round grazing conditions so we are still monitoring closely.

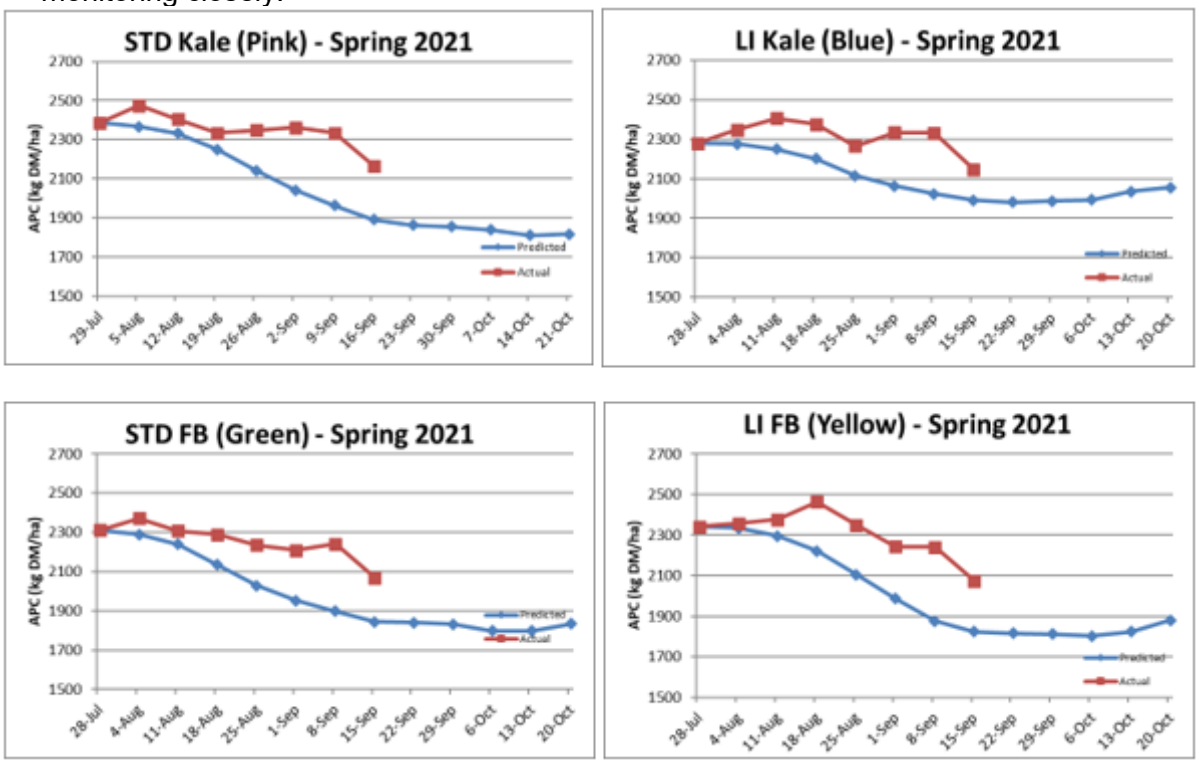
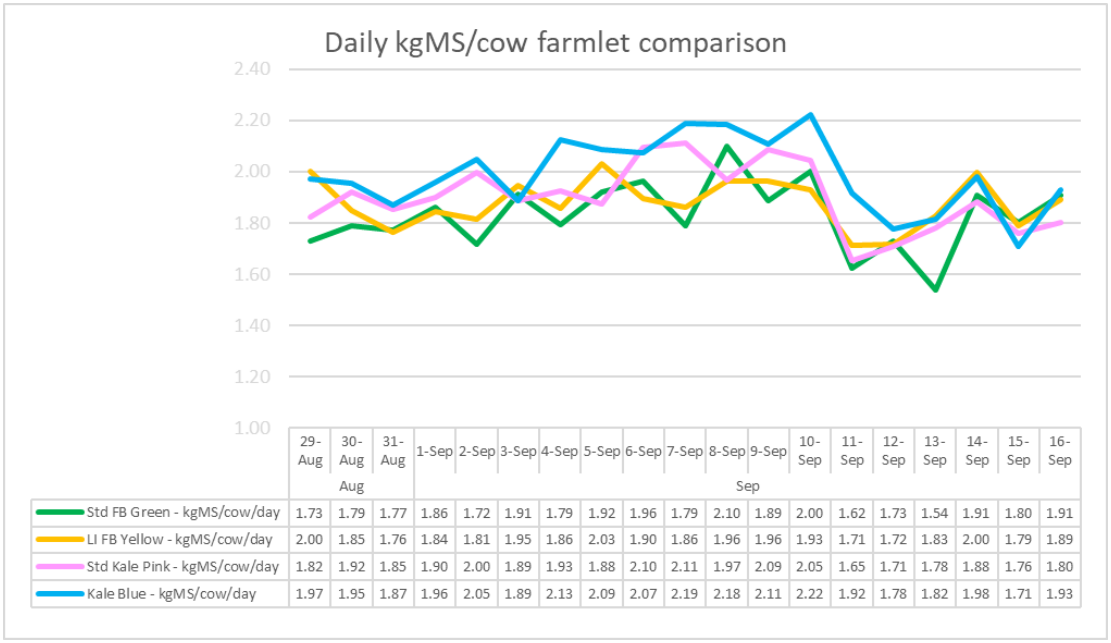


Figure 3: Actual vs. predicted average pasture cover between farmlets

2021/22 Season
Hub Weekly Farm Update
Date: 2/09/2021

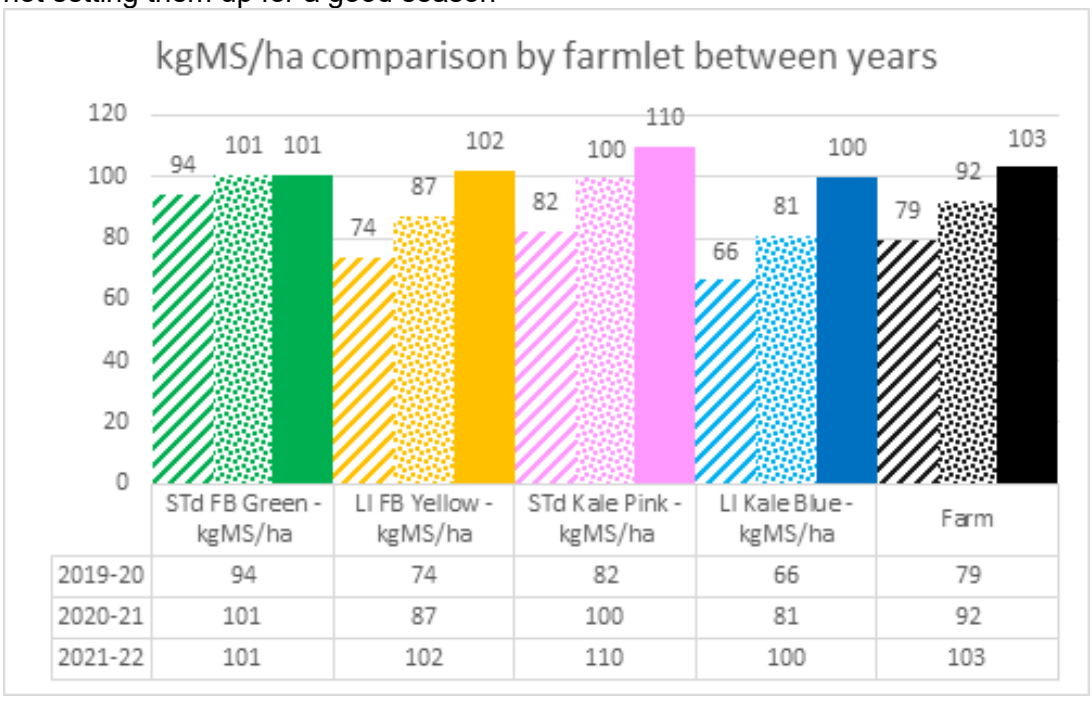
- Unsurprisingly milk production took a bit of a hit when we commenced OAD milking. The bigger drop with the Std FB we attribute to insufficient supplement feeding over last weekend. The decision to go OAD milking was not made lightly as we are fully aware of the impact of early lactation OAD on lactation performance, however we needed to make changes to ensure the team had sufficient time to feed out supplements to the 6 mobs on farm.



	29-Aug	30-Aug	31-Aug	1-Sep	2-Sep	3-Sep	4-Sep	5-Sep	6-Sep	7-Sep	8-Sep	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	16-Sep
	Aug			Sep															
Std FB Green - kgMS/cow/day	1.73	1.79	1.77	1.86	1.72	1.91	1.79	1.92	1.96	1.79	2.10	1.89	2.00	1.62	1.73	1.54	1.91	1.80	1.91
LI FB Yellow - kgMS/cow/day	2.00	1.85	1.76	1.84	1.81	1.95	1.86	2.03	1.90	1.86	1.96	1.96	1.93	1.71	1.72	1.83	2.00	1.79	1.89
Std Kale Pink - kgMS/cow/day	1.82	1.92	1.85	1.90	2.00	1.89	1.93	1.88	2.10	2.11	1.97	2.09	2.05	1.65	1.71	1.78	1.88	1.76	1.80
Kale Blue - kgMS/cow/day	1.97	1.95	1.87	1.96	2.05	1.89	2.13	2.09	2.07	2.19	2.18	2.11	2.22	1.92	1.78	1.82	1.98	1.71	1.93

Figure 4: Average daily MS/cow for each farmlet

- A long calving tail for the Std FB and also a higher early season attrition rate in this herd is not setting them up for a good season



	STd FB Green - kgMS/ha	LI FB Yellow - kgMS/ha	STd Kale Pink - kgMS/ha	LI Kale Blue - kgMS/ha	Farm
2019-20	94	74	82	66	79
2020-21	101	87	100	81	92
2021-22	101	102	110	100	103

Figure 5: Season to date production comparison for all the herds

- We are already seeing a divergence in the MS production per cow between the kale and fodder beet herds, most likely attributed to a lower ME diet being offered to the fodder beet herds before we started feeding fodder beet.

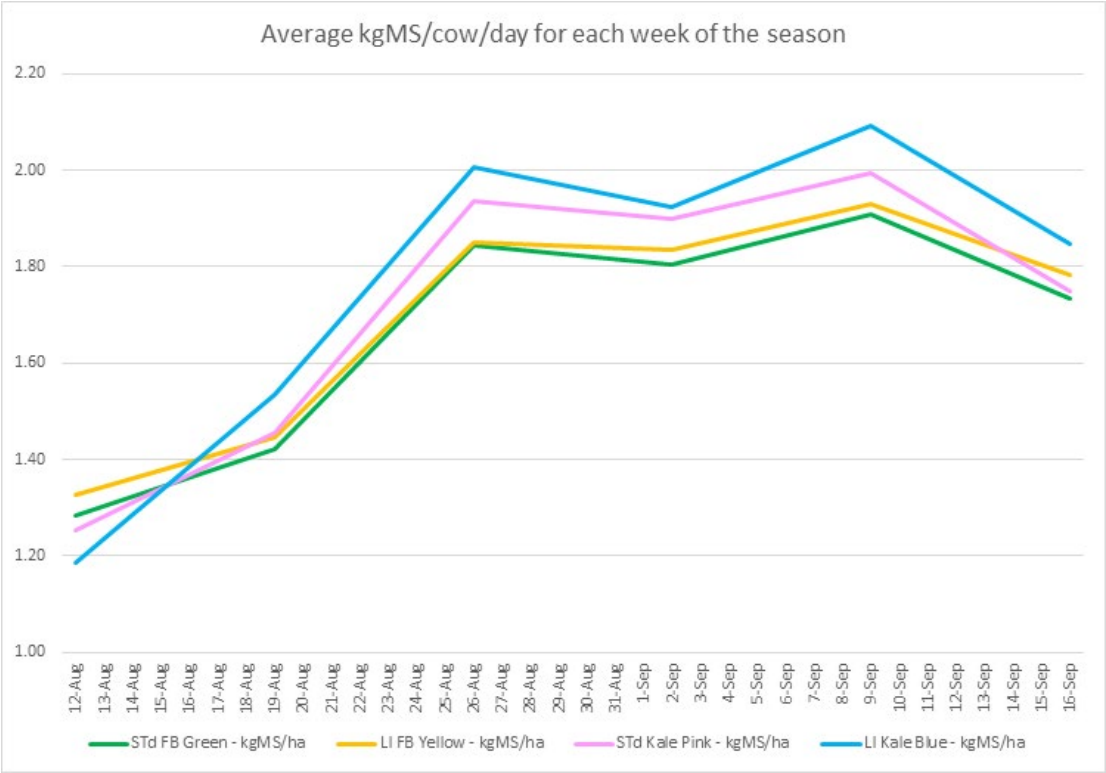


Figure 6: Weekly MS/cow season to date

Animal Health

- We are continuing to get 1-2 metabolic cases per day, predominantly but not exclusively, in the fodder beet cows within 24 hours of calving. The majority of animals respond quickly and are only treated once. We are discussing our springer management with the vets to see if there is anything we need to change.
- The first round of metrichecking was completed this week with x7 Std Kale, x8 LI kale, x8 Std FB and x8 LI FB cows being metricured.
- The poo samples taken from the calves last week came back positive for rotavirus so a management plan has been put in place to minimise the impact.
- Once the weather settles we will move x45 calves outside. They currently have access to the outside pen areas at the calf shed to acclimatise them for this move.
- There are a handful of cows at least 10 days past their due date that will be preg tested to confirm they are empty before being culled.
- Unfortunately we had 2 deaths in the Std FB herd this week. One was a heifer who went down on the platform during milking then fell heavily on the concrete damaging her back. Autopsy showed a rumen full of pasture but discoloured small intestines. The second was found dead in the colostrum paddock with the autopsy indicating heart failure possibly due to low blood calcium.
- Two heifers are producing less than 5 L/day so will be culled at the earliest opportunity.

- We have 3 bad attitude heifers that a decision is pending on.

SDH Research & Demonstration

- It was not a great week for N intake this week but at least we have pasture and supplement samples collected that will allow us to estimate the quality of the diets being offered. Not sure the pre and post plating data will be as robust as usual given the conditions it was done in!!
- We said goodbye to Nicole Coulter this week. She has been an integral member of the technical team supporting not only the SDH systems work but also two SFF projects across the region. Coming from a farming background Nicole has a passion for NZ dairy farmers and wanted to be involved in research benefiting the dairy sector. Nicole has decided to take an opportunity to move into a part time role to allow her more time to spend with her young family.

General Farm Systems information

The project farm systems comparison has been designed to better understand crop-based wintering in relation to consequences for environmental impact and profit

- *The four herds are split evenly on age, BW / PW, calving date and breed to ensure the herds are as even as possible.*
- *Each herd allocated a farmlet corresponding to their herd tag colour Green, Blue, Yellow and Pink.*
- *Farmlets have paddocks allocated so each herd has equal walking distance from the shed and the same proportion of each soil type and equal proportions of pastures in the FVI trial (forage value trial – refer web site section on research).*

Research Proposals

The SDH welcome research proposals for any sampling or research on the SDH, these are assessed by the Research Advisory Committee (RAC). Just send your request or ask for information via louise.cook@southerndairyhub.co.nz

For more information check out the DairyNZ link:
https://www.dairynz.co.nz/about-us/research/research-farms/southern-dairy-hub