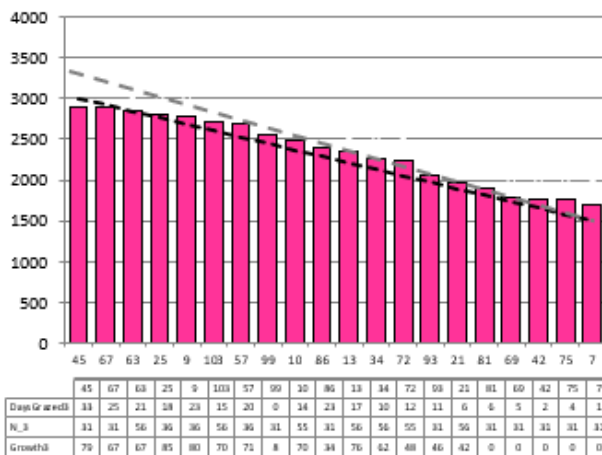


Date 13-10-21

Herd size (cows)	190	Average Cover	2343
Target residual (kg DM/ha)	1500	Average Growth	60
Target pasture intake (kg DM/co)	15	Farmlet area	56.5
Target Area offered (ha/day)	1.90	Target rotation length	30
Last week actual rotation (d)	29	Target demand	50
Last week supp (kg DM/cow)	4.7	YTD supp (kg DM/cow)	224
Last week N (kg N/ha)	1	Fert NYTD	36
Milk yield (L/cow)	21.2	Effluent NYTD	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

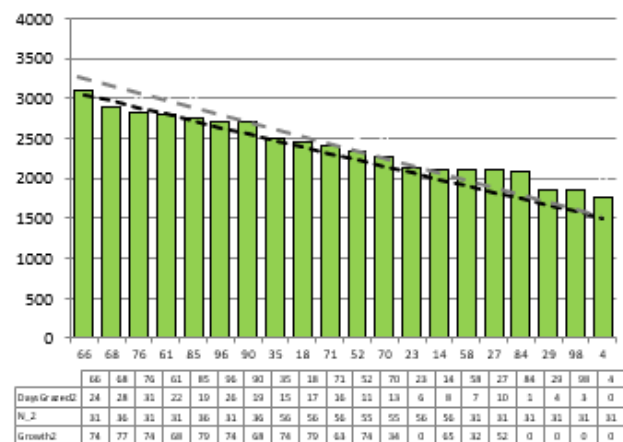
Herd size (cows)	189	Average Cover	2383
Target residual (kg DM/ha)	1500	Average Growth	66
Target pasture intake (kg DM/co)	15.5	Farmlet area	57.7
Target Area offered (ha/day)	1.9	Target rotation length	30
Last week actual rotation (d)	30	Target demand	51
Last week supp (kg DM/cow)	4.9	YTD supp (kg DM/cow)	190
Last week N (kg N/ha)	1	Fert NYTD	37
Milk yield (L/cow)	20.5	Effluent NYTD	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



Farmlet notes: Visual APC 2338, GR 68; x1 cow left to calve; resuming TAD milking as pre-graze mass significantly improved; targeting 3 kg DM inshed feeding; holding rotation length at 28-30 days for another week then reassess; increased incidence of mastitis so milking machine check completed; new grass pdks being prepared for sowing; x3 metricured

### Standard Fodder Beet

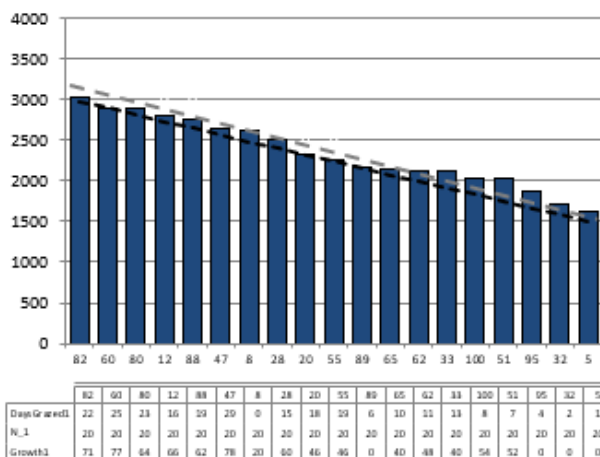


Farmlet notes: Visual APC 2402, GR 72; x1 cow left to calve; resuming TAD milking as greatly improved pasture cover; reducing inshed feeding to 1 kg DM/cow & holding beet at 3 kg DM/cow; sold surplus lifted beet; increased mastitis so machine check completed; still 1-2 lame cows each week; x2 metricured; crop pdks being prepared for regrassing

Herd size (cows)	156	Average Cover	2343
Target residual (kg DM/ha)	1500	Average Growth	55
Target pasture intake (kg DM/co)	18	Farmlet area	55.2
Target Area offered (ha/day)	1.9	Target rotation length	29
Last week rotation avg	31	Target demand	51
Last week supp (kg DM/cow)	3.0	YTD supp (kg DM/cow)	154
Last week N (kg N/ha)	1	Fert NYTD	17
Milk yield	22.2	Effluent NYTD	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

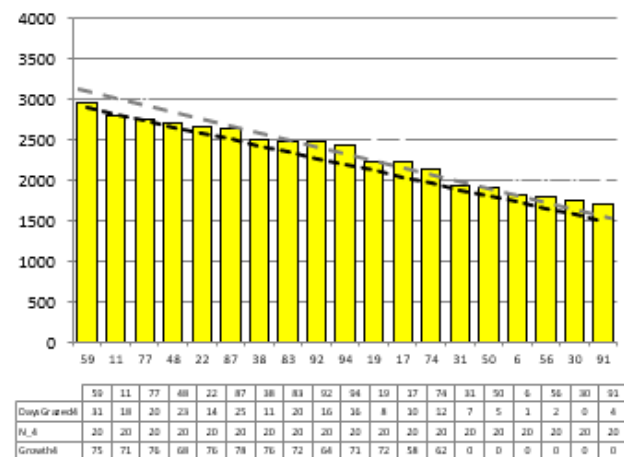
Herd size (cows)	156	Average Cover	2313
Target residual (kg DM/ha)	1500	Average Growth	71
Target pasture intake (kg DM/co)	17	Farmlet area	55.1
Target Area offered (ha/day)	1.9	Target rotation length	29
Last week rotation avg	29	Target demand	48
Last week supp (kg DM/cow)	4.6	YTD supp (kg DM/cow)	179
Last week N (kg N/ha)	1	Fert NYTD	17
Milk yield	20.3	Effluent NYTD	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



Farmlet notes: Visual APC 2302, GR 63; all cows calved; reducing inshed feeding to 2 kg DM/cow, no baleage required; x3 cows metricured; holding rotation length at 28-30 days; regular assessment of pdks to ensure residuals being achieved; pdks identified for patching up or direct drilling if badly pugged; milking machine check after increased

### Low Impact Fodder Beet



Farmlet notes: Visual APC 2298, GR 63; x1 cow left to calve; no inshed feeding for this week & beet at 3 kg DM/cow/day but likely to decrease next week; plate possibly overestimating pasture mass at the moment so calibration cuts scheduled to check this; increased mastitis this week still lame cows being picked up; No metricures; pdk preparation

Grey - - - - - target line is for 30 day rotation with 19 kg DM pasture intake and no supplements

Table 1: Key Herd Numbers 14/10/2021 – number of cows in each mob

DATE: 14 Oct 21	Std Kale	LI Kale	Std FB	LI FB	Total
Cows on Farm	198	161	193	162	714
Milkers 10n7 (last wk)	188	157	180	154	709
Colostrum/Sick OAD	8	4	12	6	30
Springers	1	0	1	1	3
To be Culled	1	1	2	1	5
Slips/empty/deaths	2	4	13	3	22

## General Farm Information

Table 2: Key Weather and Feeding Numbers 14<sup>th</sup> October 2021

<b>Soil Temp (°C)</b> (weekly average)	13.2°C			
<b>Rainfall (mm)</b>	27.4 mm			
<b>Allocations</b> kg DM/cow/day	<b>Std. Kale</b>	<b>LI Kale</b>	<b>Std FB</b>	<b>LI FB</b>
<b>Milkers</b>	19-19.5 kg DM 16 kg pasture 3 kg inshed	19-19.5 kg DM 17.5 kg pasture 2 kg inshed	19-19.5 kg DM 15 kg pasture (3 kg FB + 1.5 kg PKE)	19-19.5 kg DM 16 kg pasture (3 kg FB plus baleage as required)
<b>Colostrum</b>	15-16 kg DM (11-12 kg DM pasture + 1.5 kg inshed + 3 kg baleage)			

### Key Decisions: this week

- Thank you to all that attended our field day this week. The weather was not ideal and it is a busy time of year so we appreciate all your support. We had some super interesting topics and guest speakers including: Angela Reid, dairy farmer in Five Rivers, talking about reducing N fertiliser on her farm and maintaining production and performance; Brendan Malcolm discussing catch-crops for cleaner water trial underway at SDH, and of course Dr Dawn Dalley and Louise Cook who spoke through our spring update, lower impact farm systems results from the last 3 seasons, future farms systems research, and the Community of Practise participatory research project.



Figure 1: Brendan talking to the group about the Catch-crops for cleaner water trial

- Our decision making to go 10n7, stay on a 30-day round, warmer weather and applying N fertiliser post grazing last week have all contributed to better looking feed wedges across all the farmlets. Pre-graze mass is now closer to 3000 kg DM/ha rather than 2400-2600 kg DM two weeks ago. We feel in a much more comfortable position and are now much closer to balance date. Based on this we made the decision to return to twice a day milking.
- Current pasture demand across the farmlets is around 50kg DM/ha/d based on current levels of supplementary feed. Growth this week was estimated between 55 – 77kg DM/ha/day with APC rising.
- TAD will make for simpler management on farm especially with paddock breaks and inshed feed allocations. We will continue to stay on a 28-30-day round, though this may be faster at times as we implement 2 grazings vs. 3 grazings in some paddocks.
- We have observed that some of our heifers are starting to get a bit uncomfortable under 10n7 so the increased milking frequency will hopefully create some relief on their udders and settle them more in the dairy at milking.
- Although going to TAD we still expect pasture utilisation to be challenge over the next 7 days as the weather continues to be wet. We have sufficient supplement on hand to keep cows well fed but will be looking to reduce the amount of baleage being offered as soon as possible and concentrate on feeding fodder beet to the beet herds and inshed feeding to the kales.
- Springer paddocks have been subsoiled so are now out of the grazing round, the result of which is an increase in the effective SR of the farmlets. Based on the available area and cows on farm the effective stocking rates are 3.4/3.5 for the Std herds and 3.0 for the LI farmlets.
- We have drafted our wintering plan for 2022 and are putting together our detailed paddock plans ahead of the spray contractor coming in. It is our first winter not in the 2x2 factorial farmlet trial with FB and kale so we have some flexibility over what we can do. Based on this we will be planting fodder beet and swedes and dipping our toes in the baleage based winter in preparation for our new farm systems comparison commencing August 2022. The current plan is to have 170 cows on an optimised crop feeding system based on fodderbeet, 340 wintering on swedes and 235 wintering on baleage. Which cows go on what wintering system is yet to be determined so more details will be available as we work through these details.

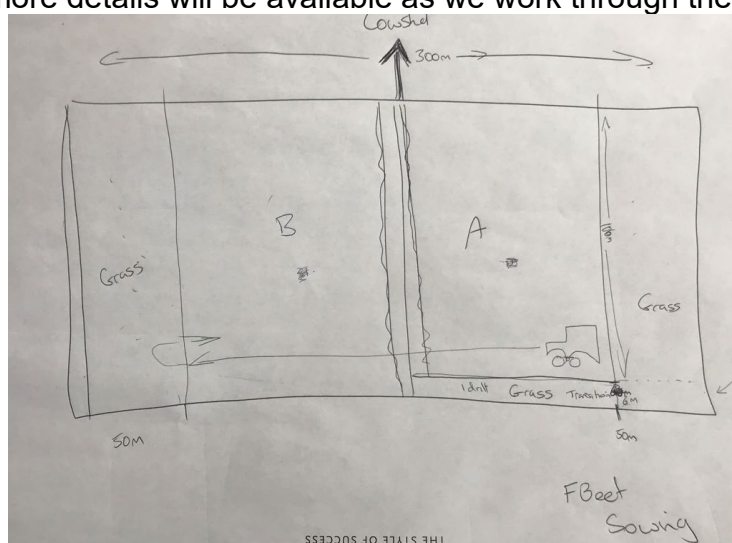


Figure 2: Schematic of a paddock to be planted in fodder beet

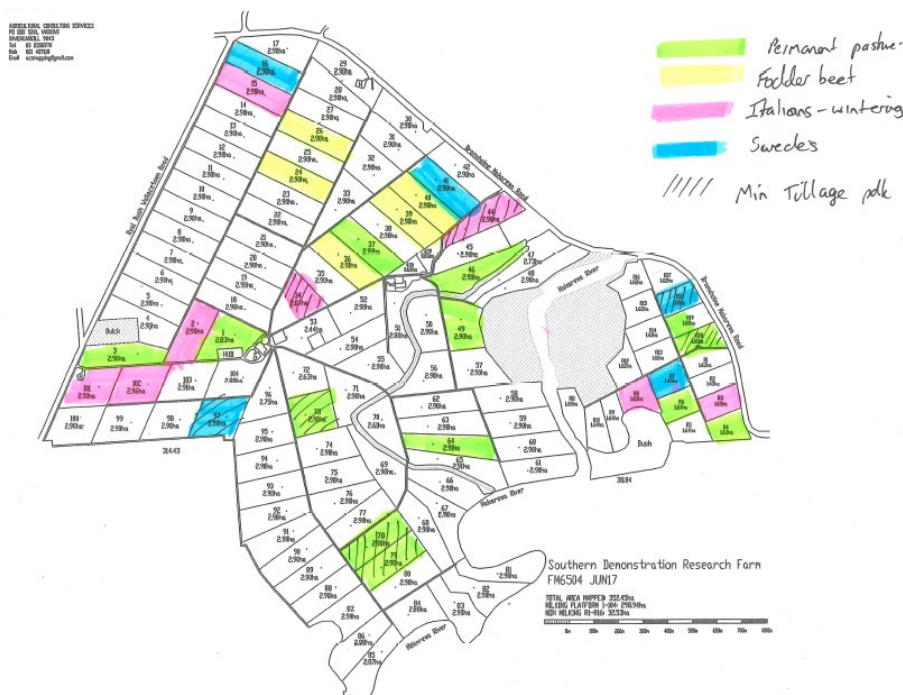


Figure 2: Paddocks identified for regrassing and winter 2022 cropping

### General Notes:

- Living up to the true uncertainties with spring weather we have experienced another week of rain, hail and wind after what felt like summer last week! Soil temperatures still remain high at 13.2°C which is great for grass growth but we also received 27.4mm rain.
- Over the last week the Std. FB are once again up to some funny business. We budgeted all the farmlets supplementary feed requirements for the week based on pre-graze covers and stocking rate. For the Std. FB herd this week we thought they would need 10 bales of baleage but they only needed half this. In contrast the other 3 farmlets ate very close to what was budgeted. The Std FB milk production has also not fully caught up and continues to show some variability each week. We have looked at their pasture residuals and they are good so perhaps there is more grass in the paddocks that were grazed or they are not eating as much as we think the could.

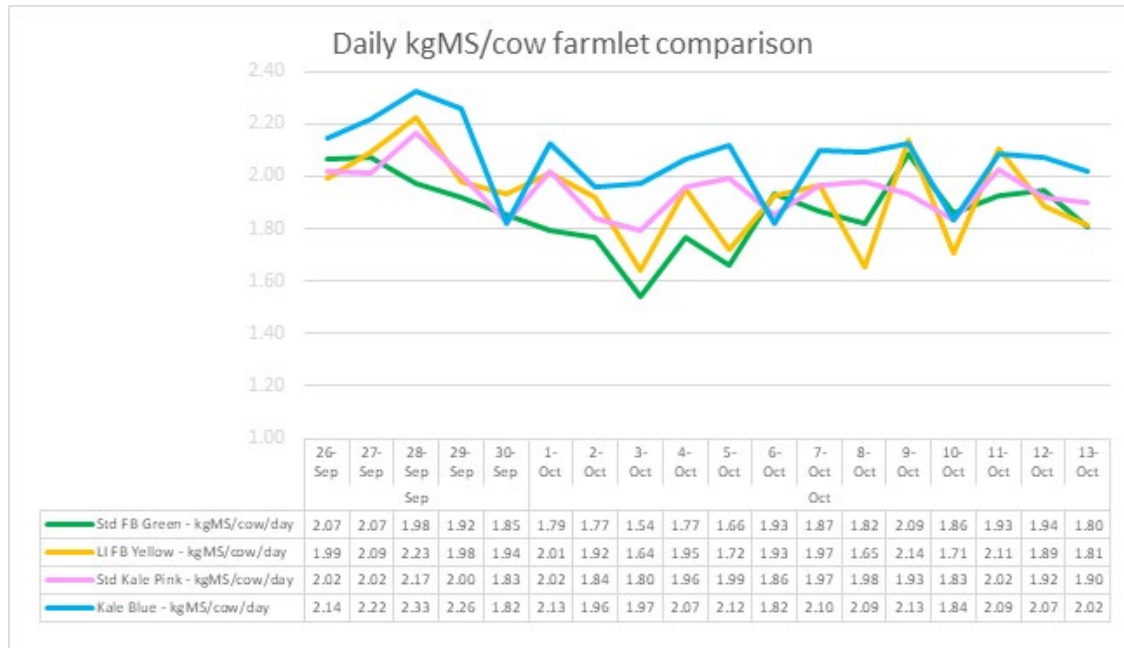


Figure 4: Average daily MS/cow for each farmlet

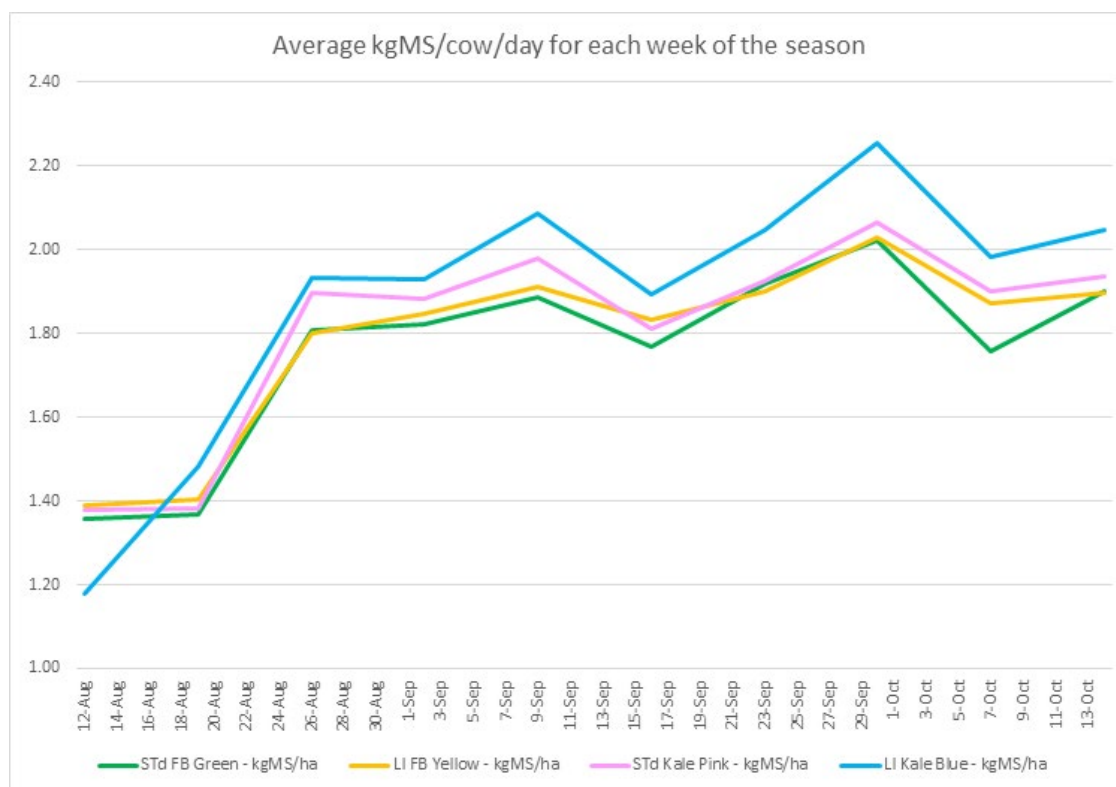


Figure 5: Average kg MS/cow/day for each week of the season

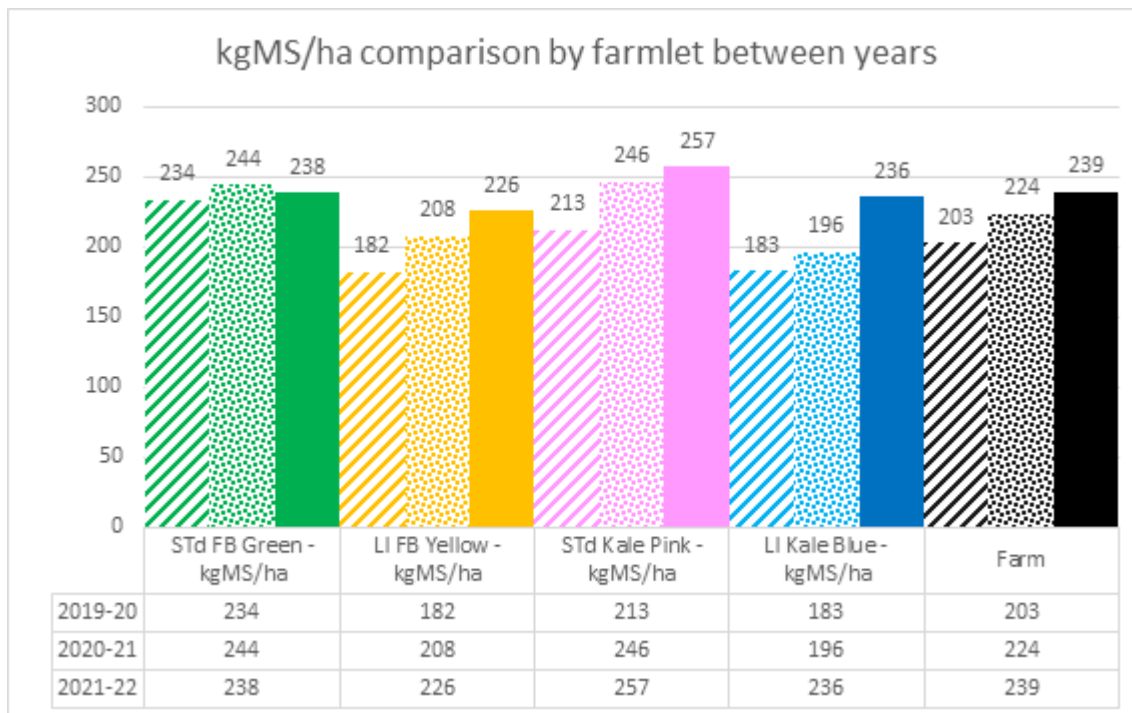


Figure 6: Season to date production comparison for all the herds

- With only 3 cows left to calve and tail paint on for pre-mating heats we jump from one big on farm event to another this week! Our remaining x7 priority replacement heifers at the support block have had their CIDRs inserted and they are heading to the grazier join the rest of the heifers grazing there.
- N fertiliser will continue to follow the Std cows and we are looking into pricing regarding applying some of our maintenance fertiliser via helicopter particularly to paddocks with wet areas in them.
- A large hole has appeared in one of our paddocks and appears to be an historical dead animal hole and unfortunately our effluent spreader found it first; it is currently under repair.
- From the surplus pasture at the support block we were able to make 29 bales.
- Although hesitant to get the mower out so soon we will likely need to post graze mow some of the 2020 new grass paddocks that were not grazed to the correct residual pre-winter; they are clumpy and of poor quality that needs a good reset.

## Animal Health

- We've had a spike in mastitis this week with 10 cases being picked up. We are getting the shed checked and a milking monitored to ensure there are no issues around cup alignment or setup as we have noticed the infections are all occurring in the back quarters.
- One cow has been euthanised due to toxic environmental mastitis and one cow was culled due to a positive Johnes test.
- Metri-checking of the mid calving group of cows was completed Thursday with a few of them having CIDR's inserted.

## SDH Research & Demonstration

- In preparation for the field day this week we pulled out some summary information from the LI farmlets. Below are a few graphs that were discussed at the field day.

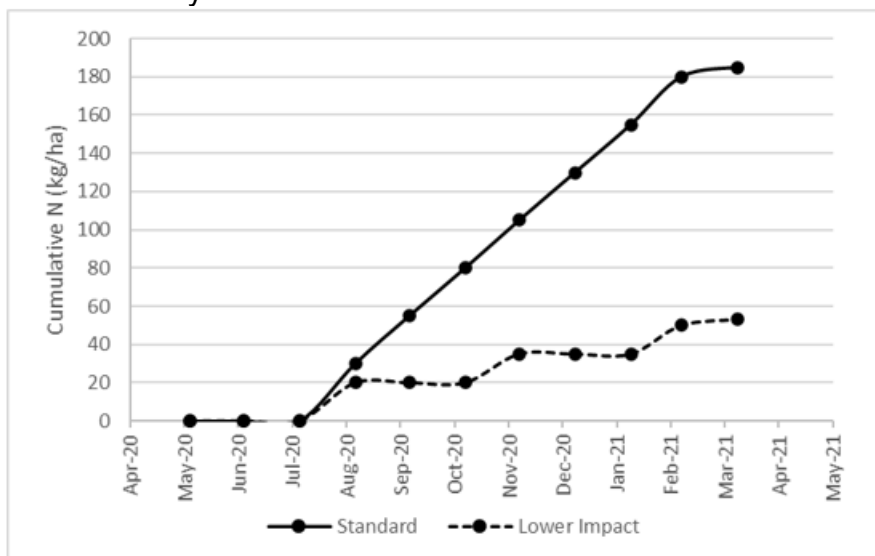


Figure 7: Cumulative N fertiliser application for standard and lower impact farmlets

- Average monthly growth rates during June, July, August and September do not differ between the Std and LI farmlets but from November onwards and especially through the summer months the average growth rate lines start to deviate. Differences in growth reduce again in the autumn.

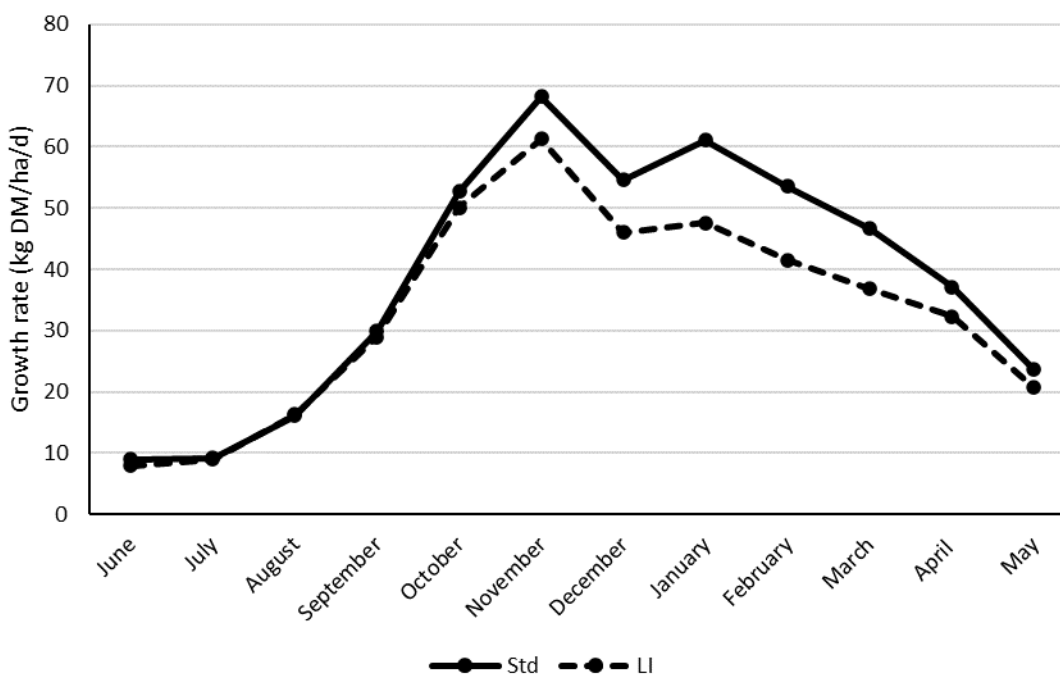


Figure 8: Average monthly pasture growth rates for the Standard and LI farmlets for the last two seasons



- There are no major trend differences in pasture quality between the Std and LI systems (from samples collected monthly for 3 seasons; Figure 7). There are bigger differences between individual paddocks within farmlets than between farm systems due to different cultivars, soil types and cropping history across the farm.

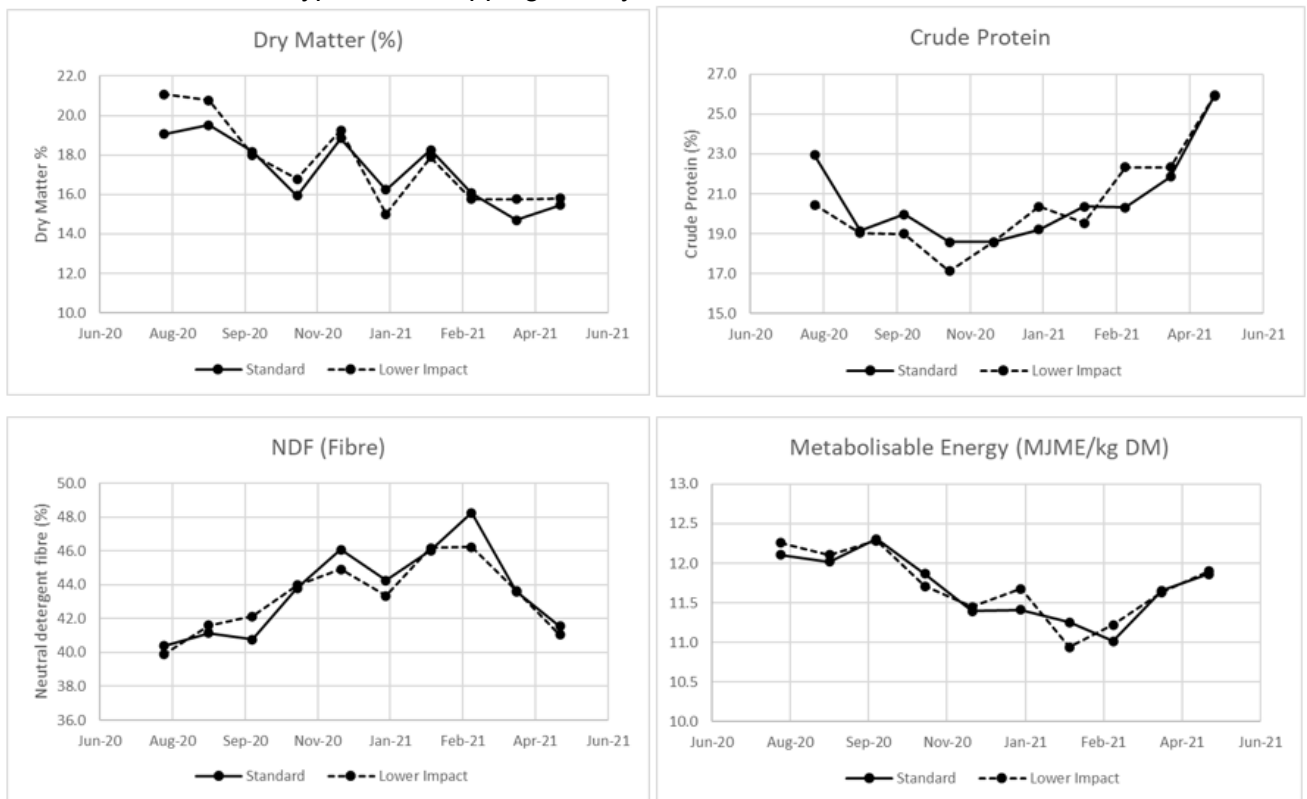


Figure 9: Average monthly pasture quality from spring 2018 till Spring 2021 for the Standard and Lower impact farmlet



## 2021/22 Season Hub Weekly Farm Update Date: 14/10/2021

### 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](mailto: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>