



**2021/22 Season
Hub Weekly Farm Update
Date: 7/10/2021**

EVENTS



Southern Dairy Hub on-farm Field Day

Preparing for change, finding solutions and looking forward to what's next for SDH in 2022!

- We have guest **Northern Southland farmer Angela Reid** talking about her journey to **reducing N fertiliser on farm** and making it work practically without jeopardising on farm production; how do our low impact farmlets compare and compete having only received 50kg N/ha/yr for the last 3 seasons.
- **Catch crops for cleaner water:** hear about Plant and Food's catch crop research at SDH.
- **SDH and farmer involvement in the Participatory Research Project:** the easy wins for reducing nutrient loss to water and their impact on greenhouse gases and farm profitability.
- **Future farm systems:** what direction will our next farm systems comparison head?



Event Details

Wednesday 13 October

Registration 10:00am
10:30am start – 1:00pm
Southern Dairy Hub

Parking: 225 Branhholme Makarewa Road, Makarewa
(Opposite Alliance Group Plant)

For more information contact:
Nicole Cochrane
Senior Extension Partner
Central Southland
021 240 8529
nicole.cochrane@dairynz.co.nz

NOTE: This on-farm event will be held on farm unless we are back in Level 3 next Wednesday





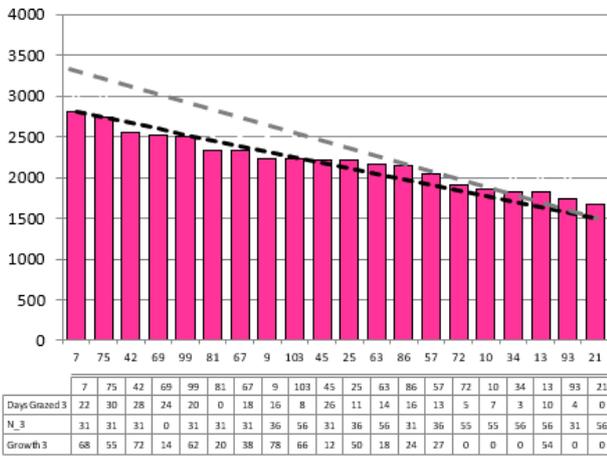
2021/22 Season Hub Weekly Farm Update Date: 7/10/2021

Date 06-10-21

Herd size (cows)	190	Average Cover	2200
Target residual (kg DM/ha)	1500	Average Growth	44
Target pasture intake (kg DM/cow)	13	Farmlet area	56.5
Target Area offered (ha/day)	1.90	Target rotation length	30
Last week actual rotation (d)	31	Target demand	44
Last week supp (kg DM/cow)	5.8	YTD supp (kg DM/cow)	194
Last week N (kg N/ha)	12	Fert N YTD	35
Milk yield (L/cow)	24.8	Effluent N YTD	0
Fat%	4.5	Last wk MS	1.7
Prot%	3.8	YTD MS/cow	104
SCC	88	YTD MS/ha	319
Average BCS	4.8	% less than BCS 4	4%

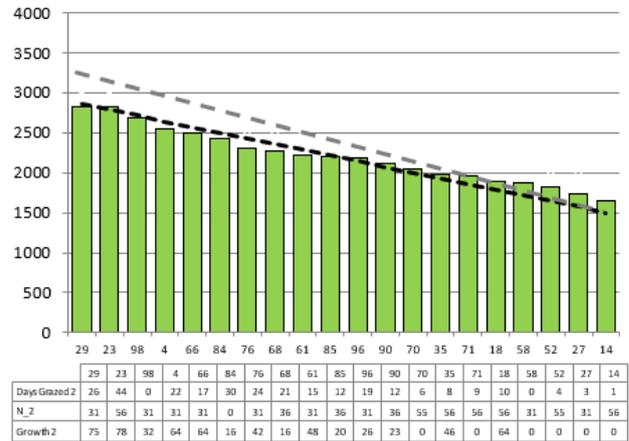
Herd size (cows)	184	Average Cover	2199
Target residual (kg DM/ha)	1500	Average Growth	44
Target pasture intake (kg DM/cow)	14	Farmlet area	57.7
Target Area offered (ha/day)	1.9	Target rotation length	30
Last week actual rotation (d)	29	Target demand	45
Last week supp (kg DM/cow)	5.3	YTD supp (kg DM/cow)	158
Last week N (kg N/ha)	13	Fert N YTD	35
Milk yield (L/cow)	22.6	Effluent N YTD	0
Fat%	4.3	Last wk MS	1.7
Prot%	3.8	YTD MS/cow	103
SCC	122	YTD MS/ha	307
Average BCS	4.5	% less than BCS 4	10%

Standard Kale



Farmlet notes: Visual APC 2186, GR 53; 4 cows left to calve; springer pdks now out of rotation; 3.36 cows/ha on available area; offering 4 kg inshed feeding plus baleage as required; N following grazing once/week; crop pdks for regrassing being worked; next metrichecking next week & will update tail paint to start pre mating heats; continuing with 10 n 7 milking

Standard Fodder Beet



Farmlet notes: Visual APC 2185, GR 41; 1 cow left to calve; springer pdks now out of rotation; 3.27 cows/ha on available area; offering 3 kg DM FB, 1.5 kg PKE plus baleage as required; crop pdks for regrassing being worked; metrichecking booked for next week & tail paint will be touched up in prep for pre mating heats; N applications continuing after grazing

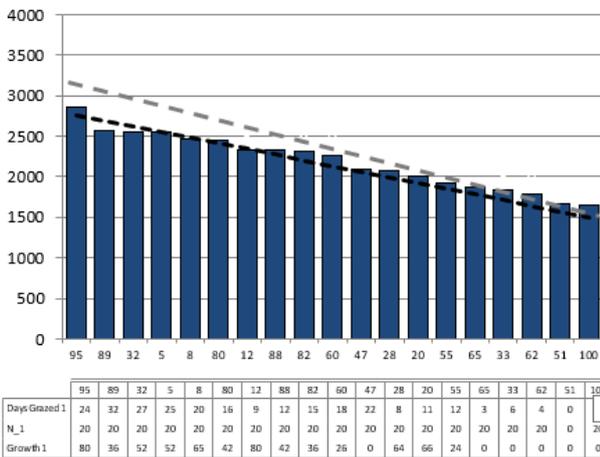


2021/22 Season Hub Weekly Farm Update Date: 7/10/2021

Herd size (cows)	150	Average Cover	2189
Target residual (kg DM/ha)	1500	Average Growth	51
Target pasture intake (kg DM/cow)	16	Farmlet area	55.2
Target Area offered (ha/day)	1.9	Target rotation length	29
Last week rotation avg	27	Target demand	43
Last week supp (kg DM/cow)	4.0	YTD supp (kg DM/cow)	137
Last week N (kg N/ha)	2	Fert N YTD	16
Milk yield	26.2	Effluent N YTD	0
Fat%	4.5	Last wk MS	2.1
Prot%	3.7	YTD MS/cow	118
SCC	55	YTD MS/ha	322
Average BCS	4.7	% less than BCS 4	3%

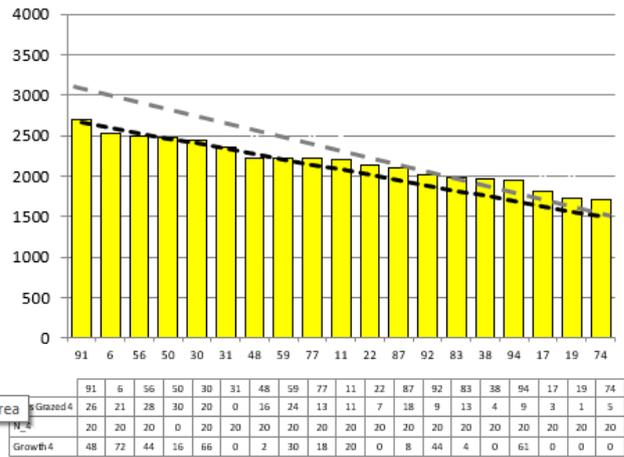
Herd size (cows)	147	Average Cover	2173
Target residual (kg DM/ha)	1500	Average Growth	33
Target pasture intake (kg DM/cow)	15	Farmlet area	55.1
Target Area offered (ha/day)	1.9	Target rotation length	29
Last week rotation avg	25	Target demand	40
Last week supp (kg DM/cow)	5.5	YTD supp (kg DM/cow)	152
Last week N (kg N/ha)	1	Fert N YTD	16
Milk yield	24.8	Effluent N YTD	0
Fat%	4.4	Last wk MS	1.8
Prot%	4.0	YTD MS/cow	108
SCC	89	YTD MS/ha	275
Average BCS	4.6	% less than BCS 4	2%

Low Impact Kale



Farmlet notes: Visual APC 2146, GR 49; 1 cow left to calve; springer pdks out of rotation so stocking rate on available area is now 2.97 cows/ha; offering 4 kg inshed feeding but ramping down over the next week as pre graze covers increase; crop pdks for regressing being worked; metricheck next week with tail paint update for pre mating heats; 10 n 7 milking

Low Impact Fodder Beet



Farmlet notes: Visual APC 2126, GR 44; 5 cows left to calve; springer pdks out of rotation so stocking rate on available area is now 2.9 cows/ha; offering 3 kg FB and 1.5 kg PKE inshed feeding but ramping down over the next wk as covers increase; crop pdks for regressing being worked; next wk will metricheck with tail paint update for pre mating heats; 10 n 7

Grey - - - - - target line is for 30 day rotation with 18.5 kg DM pasture intake and no supplements

Table 1: Key Herd Numbers 07/10/2021 – number of cows in each mob

DATE: 7 Oct 21	Std Kale	LI Kale	Std FB	LI FB	Total
Cows on Farm	199	163	197	163	722
Milkers	189	154	183	154	680
Colostrum/Sick	4	3	12	7	26
Springers	5	1	1	5	12
To be Culled	1	1	1	1	4
Slips/empty/deaths	2	3	12	3	20



2021/22 Season

Hub Weekly Farm Update

Date: 7/10/2021

General Farm Information

Table 2: Key Weather and Feeding Numbers 30th September 2021

Soil Temp (°C) (weekly average)	10.9°C			
Rainfall (mm)	3.2 mm			
Allocations kg DM/cow/day	Std. Kale	LI Kale	Std FB	LI FB
Milkers	18-19 kg DM 13 kg pasture 4 kg inshed + 2 kg baleage	18-19 kg DM 15-16 kg pasture 4-3 kg inshed	18-19 kg DM 14 kg pasture (3 kg FB + 1.5 kg PKE and baleage as required)	18-19 kg DM 15 kg pasture (3 kg FB + 1.5 kg PKE)
Colostrum	15-16 kg DM (11-12 kg DM pasture + 1.5 kg inshed + 3 kg baleage)			
Springers	4-5 kg pasture & 5-6 kg baleage			

Key Decisions: this week

- We would all have to agree that the sun shining and some warmth behind it has been welcomed this week. We can already see the benefits from last week's decision making along with increasing temperatures on our pasture growth rates and average pasture covers.
- Last week we decided to go to a 10n7 milking interval for a few weeks to allow cover to build in front of us, have enough time to ensure sufficient supplement was fed to keep cows well fet and be confident that conditions and weather had stabilised as we approach balance date.
- Implementing 10n7 has had its challenges with regards to pasture allocation and inshed feeding but the team are slowly putting systems in place and getting their head around the complexities of this milking frequency. The farm team has been basing their pasture allocation and paddock fencing on hours they are in the pdk between milkings. This is similar to what other farmers have been implementing which is a m²/hour area allocation of pasture.
- With minimal rain this week conditions on farm have improved resulting in better pasture utilisation and less reliance on supplementary feed. Looking forward we will be reducing the baleage fed as soon possible, hold the kale cows on a maximum of 3.5 kg inshed/milking (we found we cannot increase over this amount due to cows being unable to eat it all in one milking due to being a PKE: Barley mix), and hold 3kg DM FB (being wary we still have new calvers entering the herds).
- As conditions on farm improve there will be a small window of opportunity to fix pugged damaged paddocks and undersow pastures that have lost density and have bare ground before weeds establish. This week the team will do a walk around each paddock and rank them based off this criteria and whether they need undersowing or just have a small area i.e. gateways and trough areas that need a rough up and hoof and tooth.
- This week we noticed a drop in Std. FB milk production and a higher % of cows less than BCS 4 and lowest average BCS of 4.5. With the transition to 10n7 there was an initial teething stage of adjusting the Kale farmlets inshed feeding and hence some left over feed



2021/22 Season Hub Weekly Farm Update Date: 7/10/2021

was remaining in the bins. We feel perhaps the remaining PKE: Barley mix feed was finished off by FB cows increasing the risk of sub-clinical acidosis due to elevated starch in the diet combined with the sugar from the fodder beet. Now we have the correct systems in place we hope this will alleviate itself. Lighter animals will be monitored and hopefully the new milking frequency, better intake levels, and good weather will have them cycling strong and holding condition to mating.

- On average BCS was 4.8 for Std. Kale, 4.7 for LI kale, 4.5 for Std FB and 4.6 for LI FB.

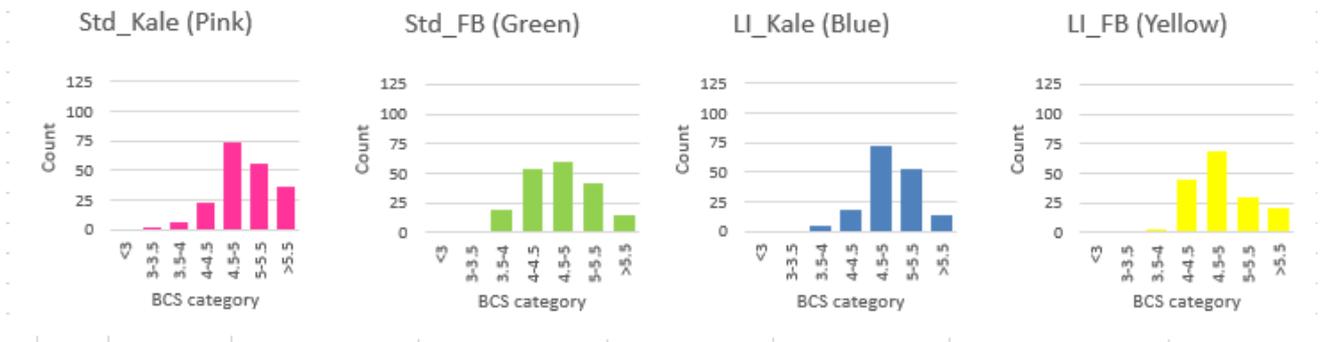


Figure 1: BCS spread for each farmlet

- Maintenance fertiliser applications will start in the next week
- The plan for winter 2022 is almost complete which will see us implementing a range of crop and baleage based wintering options.

General Notes:

- From the graphs below you can see the impact the last week has had on our average pasture cover. Holding our round, reduced milking frequency, increased supplementary feed, warm weather and fertiliser have all assisted in achieving this outcome and we are feeling a bit more comfortable with our feed position.

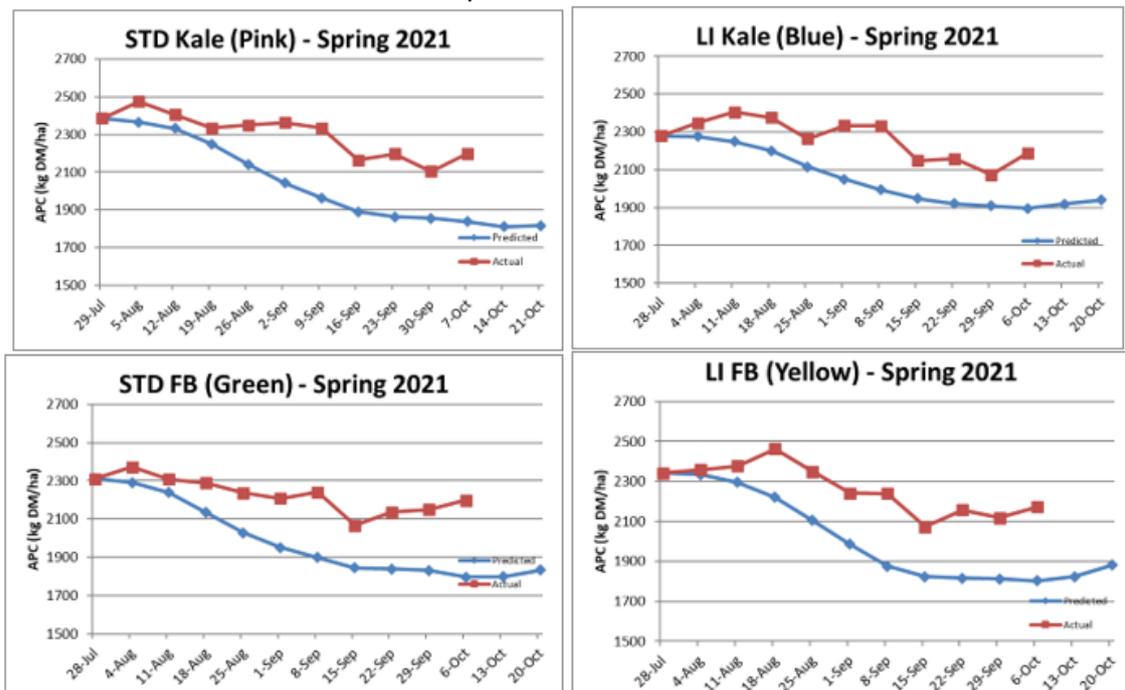


Figure 2: Average pasture cover for all farmlets this week

2021/22 Season Hub Weekly Farm Update

Date: 7/10/2021

- Many farmers around the region will be in a similar position to ourselves with just a few cows left to calve. We have x12 springers holding on and look forward to celebrating the last calf on the ground.
- As a result of sending the R2's off to grazing earlier we have been able to conserve X4 paddocks for baleage at the support block. With a round of N having been applied this should generate good quality for the calves as they transition onto more pasture.
- We will send another mob of calves to the support block Friday this week. Weather conditions make it easier to introduce calves outside and ensure they have the best chance.
- We were lucky to reduce our effluent pond level from 81% to 73% using the umbilical this week. It was looking quite full and hopefully ground conditions will allow for regular paddock spreading going forward. We took the opportunity to spread the effluent onto some of our lower terrace paddocks that cannot be accessed with the current effluent infrastructure.



Figure 3: Stirring the pond prior to spreading effluent via umbilical

- All crop and springer paddocks have now been subsoiled.
- Below shows pH and Olsen P soil test changes over the last 5 years since the farm was converted. Slowly pH range has become more condensed and slightly more acidic than immediately following the conversion. We are not seeing any negative effects of N fertiliser on pH between the Std and LI farmlets. Olsen P values have increased over time with the average now ranging between 25-40



**2021/22 Season
Hub Weekly Farm Update
Date: 7/10/2021**

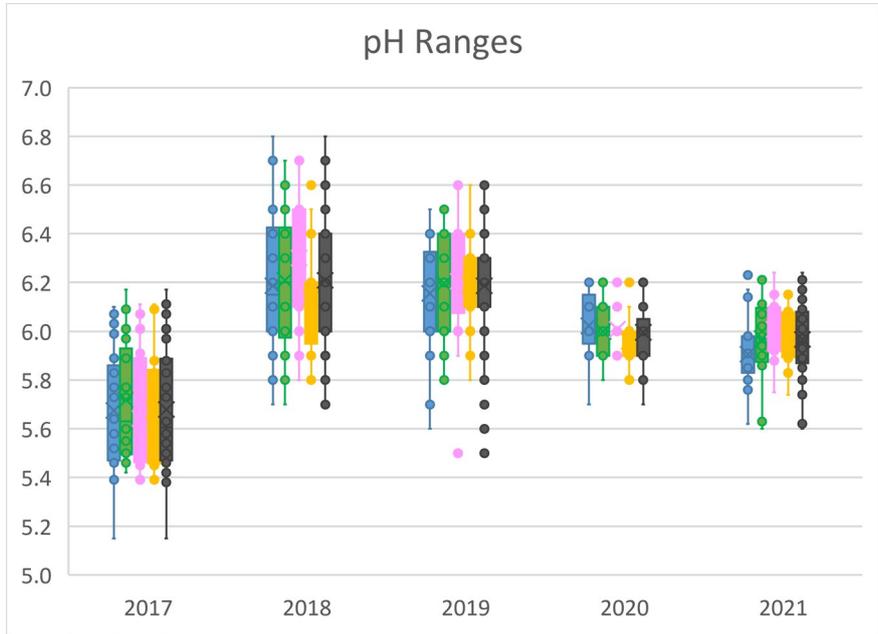


Figure 4: pH average change per farmlet over last 5 years

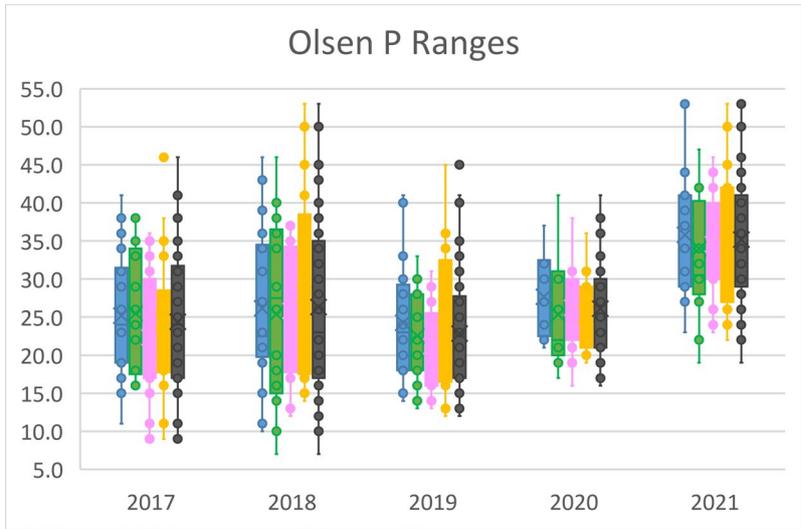


Figure 5: Olsen P average change per farmlet over last 5 years

- Below shows our milk production curves, highlighting the impact of the milking frequency change. Figure 6 is the actual pickup data and Figure 7 data has been smooth to a 24 hour production. The first figure shows the impact on kgMS from going OAD, back to TAD, then to 10n7.



2021/22 Season Hub Weekly Farm Update Date: 7/10/2021

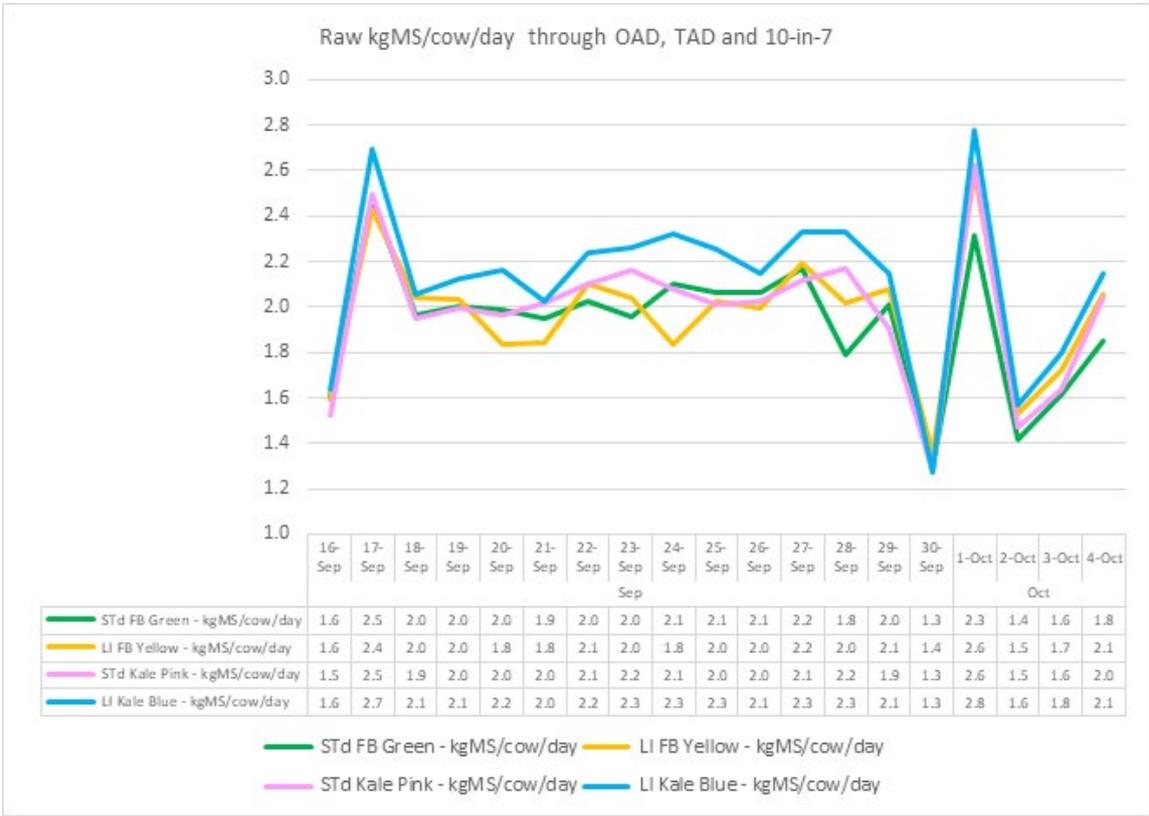


Figure 6: Impact of milking frequency changes on kg MS/cow/day

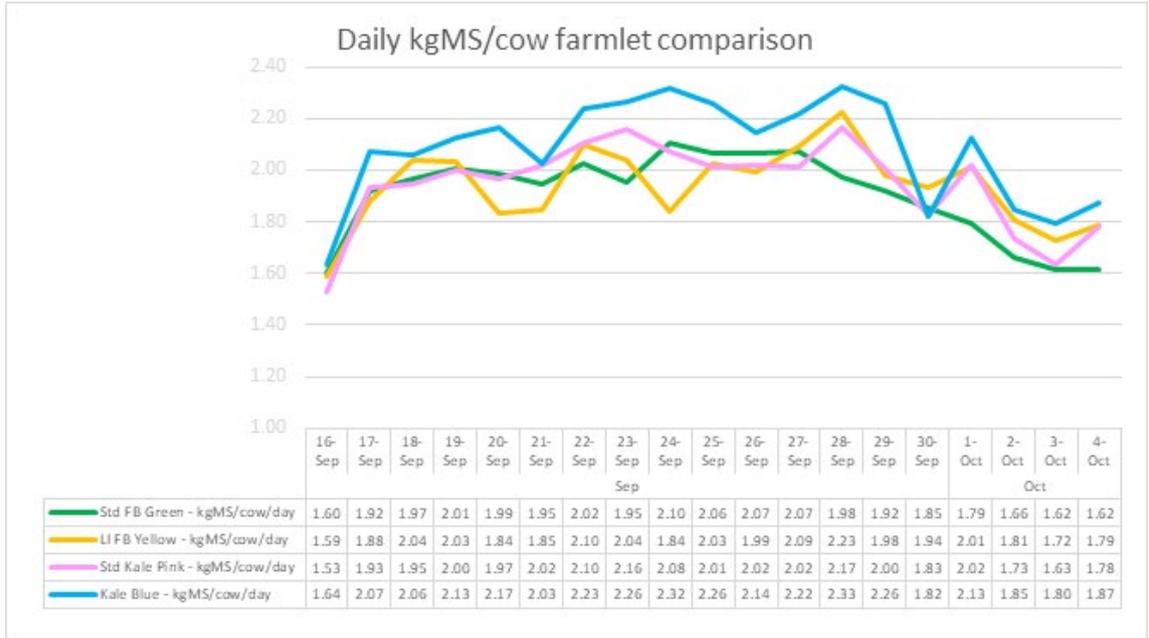


Figure 7: Average daily MS/cow for each farmlet



**2021/22 Season
Hub Weekly Farm Update
Date: 7/10/2021**

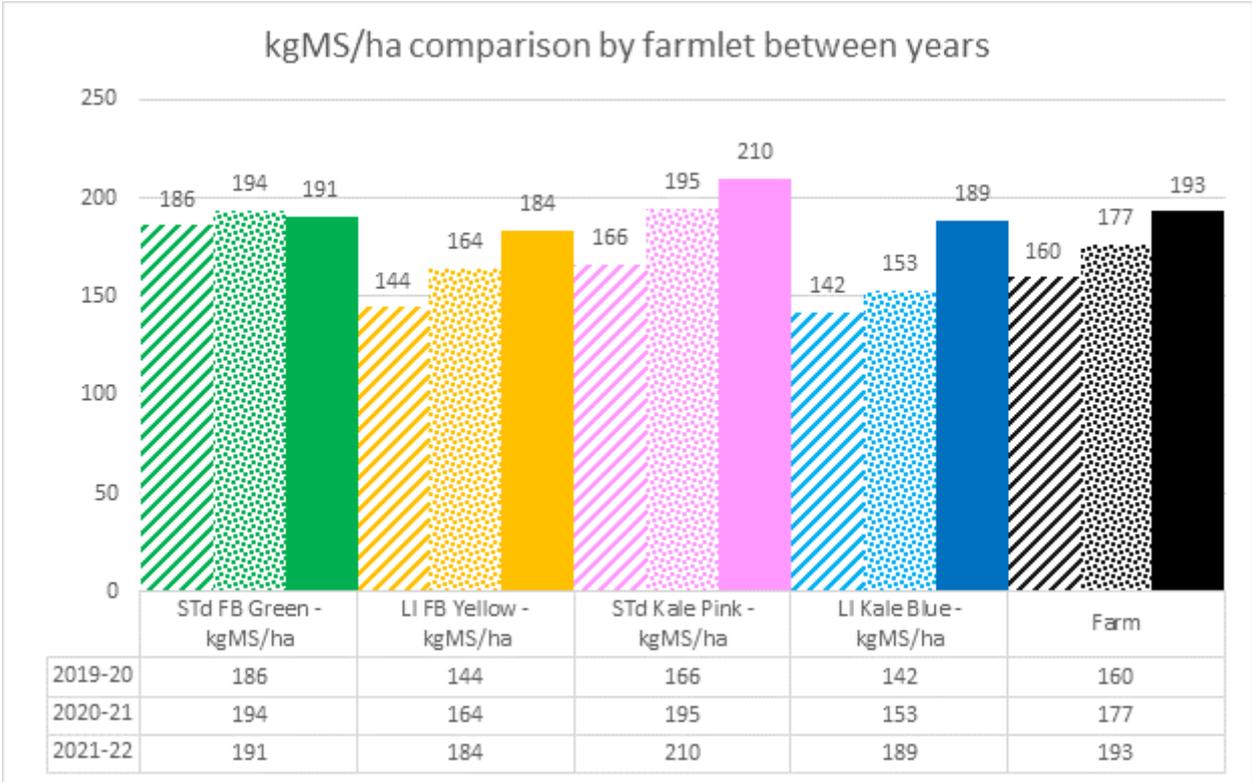


Figure 8: Season to date production comparison for all the herds

Animal Health

- One Johnes cow was culled this week and a couple of lame cows are under treatment.
- Our herd SCC is sitting at 110,000 for the FB herds and 76,000 for the kale herds. We are happy with this considering the changing of milking frequencies and will continue with our policy of stripping one quarter each day.
- X4 culls left the farm yesterday which included x1 from each farmlet. X3 were empty and x1 was a low producing heifer.

SDH Research & Demonstration

- Next week is the first of our animal sampling events for the season. This will involve collecting feed, blood, urine, faeces and milk samples for N determination on Monday afternoon and Tues next week. The techs have been busy preparing for this, including labelling all the necessary containers (see photo below!!)

**2021/22 Season
Hub Weekly Farm Update
Date: 7/10/2021**



Figure 9: printed labels ready to go onto containers for sampling next week.

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>