



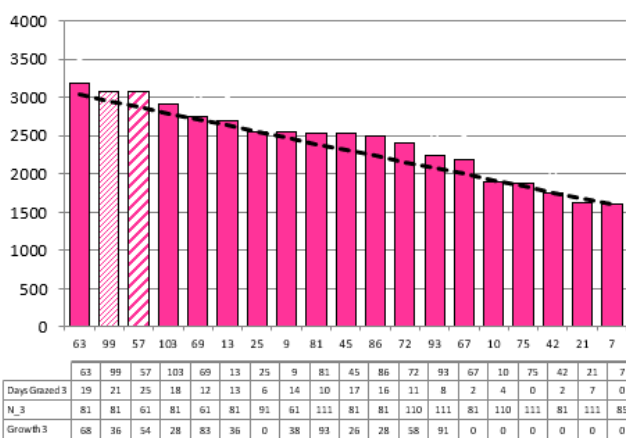
2021/22 Season Hub Weekly Farm Update Date: 2/12/2021

Date 01-12-21

Herd size (cows)	194	Average Cover	2418
Target residual (kg DM/ha)	1600	Average Growth	53
Target pasture intake (kg DM/cow)	17	Farmlet area	55.1
Target Area offered (ha/day)	2.30	Target rotation length	24
Last week actual rotation (d)	25	Target demand	60
Last week supp (kg DM/cow)	0.9	YTD supp (kg DM/cow)	294
Last week N (kg N/ha)	8	Fert N YTD	79
Milk yield (L/cow)	20.5	Effluent N YTD	3
Fat%	4.8	Last wk MS	1.9
Prot%	3.9	YTD MS/cow	215
SCC	131	YTD MS/ha	662
Average BCS	4.3	% less than BCS 4	14%

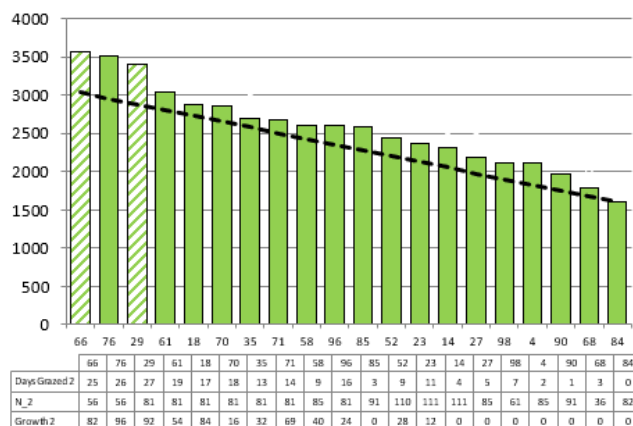
Herd size (cows)	194	Average Cover	2566
Target residual (kg DM/ha)	1600	Average Growth	52
Target pasture intake (kg DM/cow)	17	Farmlet area	57.7
Target Area offered (ha/day)	2.3	Target rotation length	25
Last week actual rotation (d)	27	Target demand	57
Last week supp (kg DM/cow)	0.9	YTD supp (kg DM/cow)	243
Last week N (kg N/ha)	6	Fert N YTD	74
Milk yield (L/cow)	19.2	Effluent N YTD	5
Fat%	4.7	Last wk MS	1.9
Prot%	3.9	YTD MS/cow	209
SCC	99	YTD MS/ha	625
Average BCS	4.3	% less than BCS 4	16%

Standard Kale



Farmlet notes: Visual APC 2246, GR 55; x2 pdks earmarked for conservation early next week; continue with 1 kg DM inshed feeding & post graze topping to reset residuals; 98.5% cows submitted after 4 weeks with bulls going out next week; Milk yield holding OK but pasture quality is still variable; holding a 25 day round; all new grass planted & pdks prepared for kale & swedes

Standard Fodder Beet



Farmlet notes: Visual APC 2327, GR 60; x2 pdks earmarked for conservation next week; cont. with 1 kg DM fodder beet & post graze topping to reset residuals; 96.9% of herd submitted after 4 weeks of AI with bulls going out next week; Milk yield still fluctuating depending on pdk being grazed; hold a 25 day rotation for this week; all new grass and winter fodder beet sown.

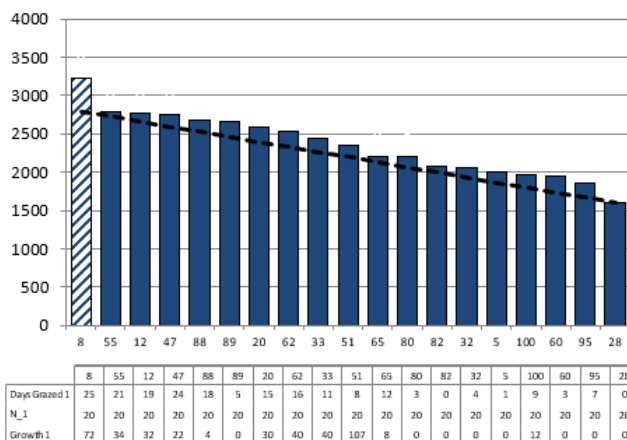


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Herd size (cows)	161	Average Cover	2350
Target residual (kg DM/ha)	1600	Average Growth	36
Target pasture intake (kg DM/cow)	17	Farmlet area	55.2
Target Area offered (ha/day)	2.3	Target rotation length	24
Last week rotation avg	25	Target demand	50
Last week supp (kg DM/cow)	1.5	YTD supp (kg DM/cow)	211
Last week N (kg N/ha)	0	Fert N YTD	17
Milk yield	19.8	Effluent N YTD	5
Fat%	4.9	Last wk MS	1.9
Prot%	3.9	YTD MS/cow	226
SCC	80	YTD MS/ha	615
Average BCS	4.2	% less than BCS 4	15%

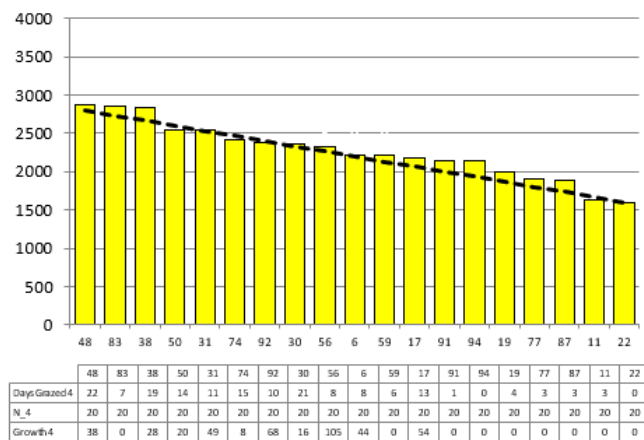
Herd size (cows)	162	Average Cover	2266
Target residual (kg DM/ha)	1600	Average Growth	43
Target pasture intake (kg DM/cow)	17	Farmlet area	55.1
Target Area offered (ha/day)	2.3	Target rotation length	24
Last week rotation avg	25	Target demand	50
Last week supp (kg DM/cow)	1.1	YTD supp (kg DM/cow)	214
Last week N (kg N/ha)	0	Fert N YTD	17
Milk yield	18.8	Effluent N YTD	7
Fat%	5.0	Last wk MS	1.8
Prot%	4.1	YTD MS/cow	208
SCC	134	YTD MS/ha	529
Average BCS	4.3	% less than BCS 4	7%

Low Impact Kale



Farmlet notes: Visual APC 2156, GR 45; x1 pdk earmarked for conservation early next week; continue with 1 kg DM inshed feeding & post graze topping to reset residuals; 98.1% cows submitted after 4 weeks with bulls out next week; Milk yield has dropped this week as low N pasture struggle to hold quality; hold a 25 day rotation; all new grass in & pdks ready for winter crop

Low Impact Fodder Beet



Farmlet notes: Visual APC 2037, GR 41; no pdks earmarked for baleage; continue with 1 kg DM fodder beet & post graze topping to reset residuals; 96.3% of herd submitted after 4 weeks with bulls going out next week; Milk yield has dropped as we struggle with seedhead & poor quality; holding a 25 day rotation for this week; all new grass and winter fodder beet sown.

Table 1: Key Herd Numbers 2/12/2021 – number of cows in each mob

DATE: 2 nd Dec 2021	Std Kale	LI Kale	Std FB	LI FB	Total
Cows on Farm	194	160	194	161	709
Milkers TAD	163	135	159	147	604
Milkers OAD	32	25	30	13	97
Sick OAD	2	0	4	1	7
Slips/empty/deaths	7	6	15	5	33

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General Farm Information

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

Soil Temp (°C) (weekly average)	16.8°C			
Rainfall (mm)	8.4mm			
Allocation Targetkg DM/cow/day	Std. Kale	LI Kale	Std FB	LI FB
Milkers	18 kg DM 17 kg pasture 1 kg inshed feed	18 kg DM 17 kg pasture 1 kg inshed feed	18 kg DM 17 kg pasture 1kgDM fodder beet	18kg DM 17 kg pasture 1kgDM fodder beet

Key Decisions and Why?

- The team have been tasked with being proactive with taking paddocks out of the round that are above the pre-graze target for 3 feeds. In all farmlets apart from the LI FB farmlet, the team have earmarked one or two paddocks that will be conserved next week.
 - Why: this is to regain full control over pasture quality in the coming week before heading into summer.
- The visual and plate meter data are much more aligned this week, indicating that the lignification in the stem is not as prominent as in previous weeks.
 - Why: we asked the contractor to adjust the height of the mower for the silage paddocks to remove more of the stem in the base of the sward and promote higher quality pasture in the regrowth.
- All farmlets will continue to receive supplementary feed this week at the same levels as last week (1kg of FB for the Fodder beet farmlets and 1kg of inshed feed for the Kale farmlets).
 - By keeping this feed in, the cows can go into lower covers which should in turn mean that paddocks are able to hold the quality better as the return time to the paddock will be less.
- Topping will be continued this week behind the cows in paddocks that require it, this will continue to be in the "racetrack" method (mowing the outside few laps of the paddock). The same criteria for topping will be used i.e. any paddocks with large clumps, significant seedhead and a high base residual.
- N Fertiliser will be increased for the standard farmlets as we move into the 4th round. Until now, N has gone on behind the cows at 25kg N/ha and for this round it will be increased to 35 kgN/ha.
- We have noticed that several paddocks, that missed their second round N application due to timing relative to silage removal are now throwing noticeably more seedhead than those that did receive their application.
- The second application of N fertiliser will start this week for the lower impact farmlets at a rate of 15kgN/ha. This is a week earlier than last year.
 - Why: Both low impact farmlets are getting tight on feed due to growth rates dropping to between 41-45kgDM/ha/day. This N application will also help with encourage tillering and and hopefully reduce seedhead emergence.

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General Notes:

- Baleage has been made again this week with over 130 bales made across the farm – x9 from Std Kale, x36 LI Kale, x33 Std FB and x59 LI FB



Figure 1: Contractors on site this week raking baleage

- All new grass paddocks have now been sown, as well as the Italian ryegrass buffer zones in the crop paddocks for next winter.
- Swedes and kale are not yet drilled as we wait for the precision drill to arrive. This is due to go in within the next week.
- We are now in week 5 of mating, with just under 10 days of AI to go. 97% of the total herd has now been put up for AI, however there is still a gap between the Kale and the FB herds.

Table 3: Week by week submission rates for each farmlet

	Green	Yellow	Pink	Blue	Farm
Week 1	36.9%	40.1%	46.7%	45.3%	42.2%
Week 2	68.7%	74.1%	71.1%	72.0%	71.3%
Week 3	92.8%	92.6%	97.0%	97.5%	95.0%
Week 4	96.9%	96.3%	98.5%	98.1%	97.5%

- There are still 14 cows that are yet to cycle and therefore be put up for AI. 7 of these cows did cycle in pre mating heats and are yet to come back on and the other 7 are yet to come on all together. Manual palpation will be used to see if this has any impact on them cycling and if not, the team are open to looking at other methods ie CIDR or PG shot to get them cycling.

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- Maintaining milk production continues to be a challenge as the seedhead present reduces quality. At this time of year the seed head are in full heading and we are seeing that even in the paddocks that have been mown, the seedhead is still returning a lot quicker than in previous seasons.

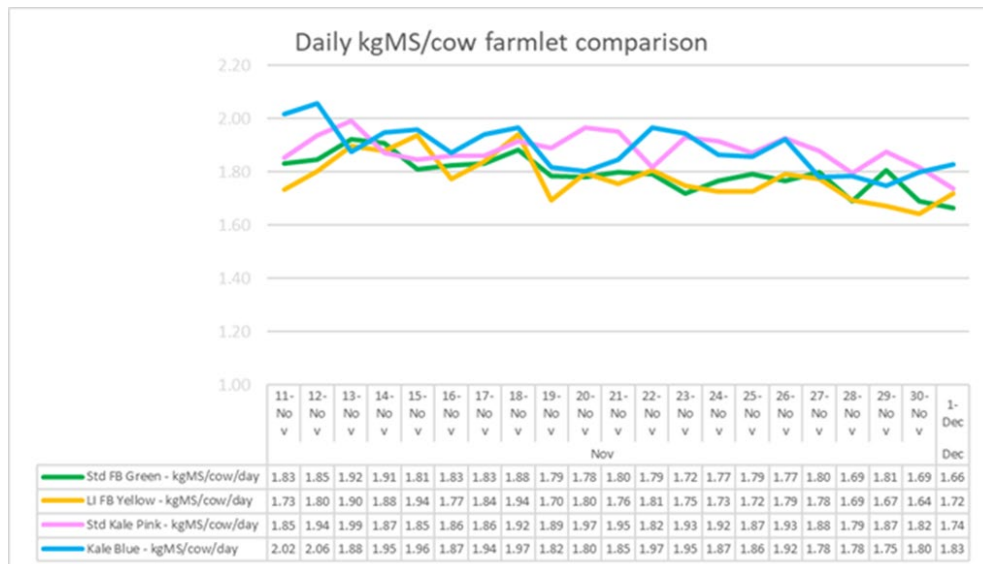


Figure 2: Milk production kgMS/cow/day for each farmlet

- Body condition scoring was completed this week. All herds are averaging between 4.2 and 4.3, however this has dropped back from a full herd average of 4.45 2 weeks ago. Interesting to note that over the past 2 weeks the Standard Kale herd have only lost 0.06 of a BCS unit compared to the standard fodderbeet herd who have lost 0.26 scores in the same time period.

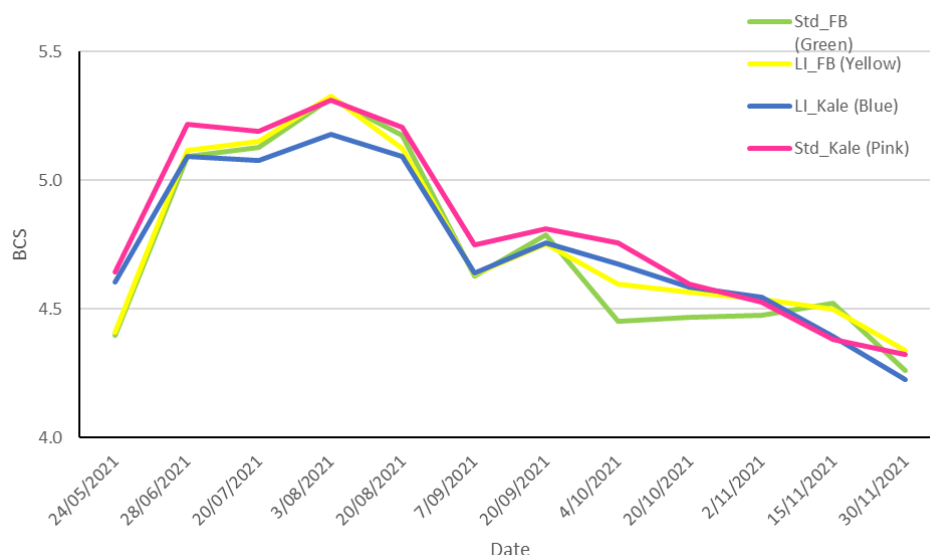


Figure 3: Average Body Condition Score for each farmlet

- There are now only 12 calves left on milk as a result of weaning this week. The average weight of the 72 calves weaned was 96.1kg which equates to an average daily weight gain from birth of 0.7kg/day.

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Figure 4: Calves at the support block after drenching

- As mentioned last week, PKE has now been added into the diet for these calves. This is currently being offered adlib as a way of getting it into the diet however once the calves are eating it, it will be capped at 1.5kg/calf/day.
- The calves are currently split into 2 weight ranges, there are 120 weighing between 120-135kg and 72 calves between 85-105kg. The bigger calves were drenched with “Turbo” this week and the remaining calves were drenched with “Arrest C” as part of the regular drenching programme.
- **Animal health:**
 - We are continuing to see a number of lame cows coming in each week so the use of Copper Sulphate on the mats at the edge of the yard will remain for the time being.
 - 3 cows were sent as culls this week, all of which had been in the sick herd with mastitis. Two of these cows were flagged as Staph cows



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SDH Research & Demonstration

- As part of the Alternative Wintering Systems project we held two workshops this week with farmers who are either considering or have built off paddock infrastructure for wintering. The aims of the workshops were to:
 - Understand the individual farmers journey with off paddock infrastructure
 - Seek input on the guiding principles for off paddock infrastructure investment
 - Seek feedback on potential design concepts for infrastructure at SDH for winter 2023

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>