2021/22 Season
Hub Weekly Farm Update
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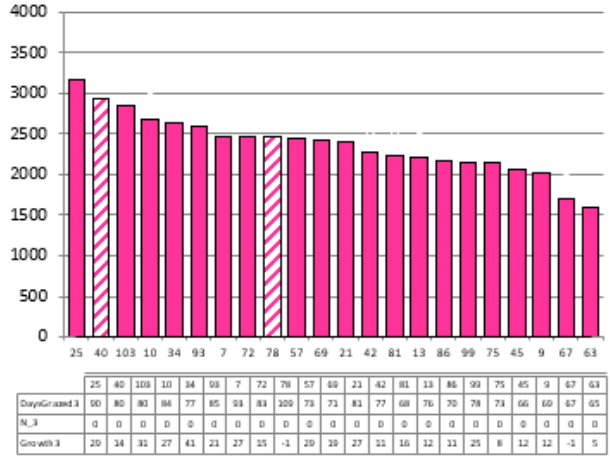
Date 28-07-21

Herd size (cows)	202	Average Cover	2362
Target residual (kg DM/ha)		Average Growth	18
Target pasture intake (kg DM/cow)		Farmlet area	62.3
Target Area offered (ha/day)		Target rotation length	#DIV/0!
Last week actual rotation (d)	2998	Target demand	0
Last week supp (kg DM/cow)	0.0	YTD supp (kg DM/cow)	0
Last week N (kg N/ha)	0	Fert N YTD	0
Milk yield (L/cow)	#####	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)	202	Average Cover	2313
Target residual (kg DM/ha)		Average Growth	17
Target pasture intake (kg DM/cow)		Farmlet area	63.5
Target Area offered (ha/day)		Target rotation length	#######
Last week actual rotation (d)	#####	Target demand	0
Last week supp (kg DM/cow)	0.0	YTD supp (kg DM/cow)	0
Last week N (kg N/ha)	0	Fert N YTD	0
Milk yield (L/cow)	0.1	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

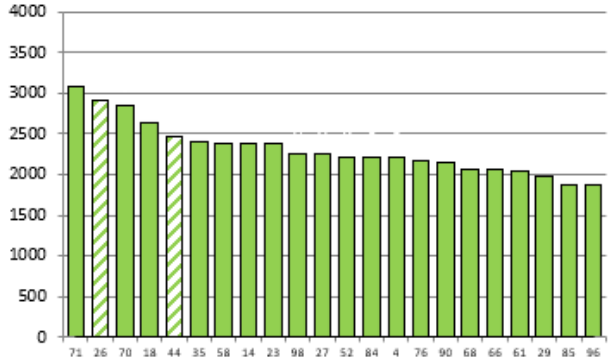
Standard Kale



	25	40	103	10	34	93	7	72	78	57	69	21	42	81	13	86	99	75	45	9	67	63
DaysGrazed 3	80	80	80	84	77	85	93	83	109	73	71	81	77	68	76	70	78	73	66	69	67	65
N_3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth 3	29	34	31	27	41	21	27	15	-1	29	19	27	11	16	12	11	25	8	12	12	-1	5

Farmlet notes: Visual APC 2429, GR 19: Increase kale allocation and reduce baleage to dries; next springer draft Tues 3rd Aug; pdk 10 for colostrums & 25 for milkers; combined colostrum & milker mob till 100 cows calved; R1's will finish crop around 12th Aug then head to grazier; combined late calving mob with LI Kale

Standard Fodder Beet



	71	26	70	18	44	35	58	14	23	98	27	52	84	4	76	90	68	66	61	29	85	96
DaysGrazed 2	85	108	77	66	71	60	76	65	71	88	76	73	82	65	81	68	84	66	66	72	67	70
N_2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth 2	34	6	8	20	26	24	26	20	20	23	22	11	6	20	13	24	9	13	21	8	2	9

Farmlet notes: Visual APC 2321, GR 14; Revise beet allocation to dries based on latest yield estimates; continue with P suppl to dries and DCP & MgO to springers; next springer draft Tues 3rd August; R1's will stay on fodder beet until the end of August then head to grazing. Pdk 71 for colostrums & 18 for milkers

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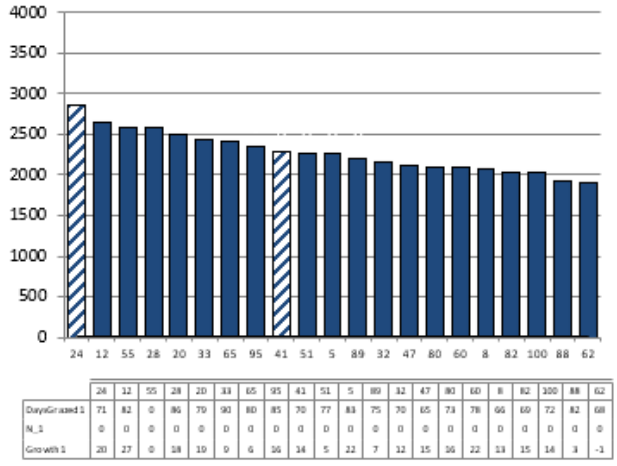
Herd size (cows)	167	Average Cover	2279
Target residual (kg DM/ha)		Average Growth	14
Target pasture intake (kg DM/cow)		Farmlet area	61.0
Target Area offered (ha/day)		Target rotation length	#DIV/0!
Last week rotation avg	1448	Target demand	0
Last week supp (kg DM/cow)	0.0	YTD supp (kg DM/cow)	0
Last week N (kg N/ha)	0	Fert N YTD	0
Milk yield	#####	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)	167	Average Cover	2337
Target residual (kg DM/ha)		Average Growth	17
Target pasture intake (kg DM/cow)		Farmlet area	60.9
Target Area offered (ha/day)	2.3	Target rotation length	26
Last week rotation avg	#####	Target demand	0
Last week supp (kg DM/cow)	0.0	YTD supp (kg DM/cow)	0
Last week N (kg N/ha)	0	Fert N YTD	0
Milk yield	#####	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

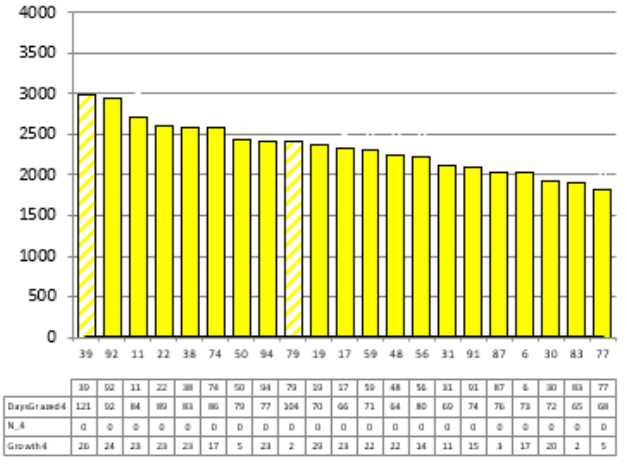
Low Impact Kale



	24	12	55	28	20	33	65	95	41	51	5	89	32	47	80	60	8	82	100	88	62
DaysGrazed 1	71	82	0	86	79	90	80	85	70	77	83	75	70	65	73	78	66	69	72	82	68
N_1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth 1	20	27	0	18	19	9	6	16	14	5	22	7	12	15	16	22	13	15	14	3	-1

Farmlet notes: Visual APC 2301, GR 12; Increase kale allocation and reduce baleage to dries; next springer draft Tues 3rd Aug; pdk 55 for colostrums & 12 for milkers; combined colostrum & milker mob till 100 cows calved; combined late calver mob with Std Kale; R1's will finish crop around 12th Aug then head to grazier

Low Impact Fodder Beet



	39	92	11	22	38	74	50	94	79	19	17	59	48	56	31	91	87	6	30	83	77
DaysGrazed 4	121	92	84	89	83	86	79	77	104	70	66	71	64	80	69	74	76	73	72	65	68
N_4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth 4	26	24	23	23	23	17	5	23	2	29	23	22	22	14	11	15	3	17	20	2	5

Farmlet notes: Visual APC 2381, GR 19; Revise beet allocation to dries based on latest yield estimates; continue with P suppl to dries and DCP & MgO to springers; next springer draft Tues 3rd August; R1's will stay on fodder beet until the end of August then head to grazing. Pdk 92 for colostrums & 11 for milkers

NB: Hatched paddocks are springer paddocks

Table 1: Key Herd Numbers 28/07/2021 – number of cows in each mob

DATE: 10 June 2021	Std Kale	LI Kale	Std FB	LI FB	Total
Cows on Farm	202	167	200	167	736
Current being milked	2	2	2	2	8
Springers	50	40	43	50	183
Dries	150	125	155	115	545
Slips/empty	1	1	2	1	5

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General Farm Information

Table 2: Key Weather and Feeding Numbers 28 July 2021

Soil Temp (°C) (weekly average)	Weather station has gone down since 22 July so no weather to report			
Rainfall (mm)				
Allocations kg DM/cow/day	**Std. Kale**	**LI Kale**	**Std FB**	**LI FB**
Colostrum	15-16 kg pasture			
Springers	3-5 kg pasture & 5-7 kg baleage			
Dry cows	Kale 11.8 kg DM/cow Baleage 3.3 kg DM/cow	Kale 11.8 kg DM/cow Baleage 3.3 kg DM/cow	Beet 10 kg DM/cow Baleage 3.3 kg DM/cow	Beet 10 kg DM/cow Baleage 3.3 kg DM/cow

Key Decisions: this week

- To minimise the amount of extra baleage going into the kale herds and with reducing demand on crop as springers are drafted we will be increasing the kale allocation for all the mobs back to approximately 12 kg DM/cow. Proportions will vary slightly based on mob sizes and baleage size in each paddock
- With another springer draft planned for Tuesday next week we will be consolidating our mobs on crops. Each herd will have a mid calving crop mob and then the lates for each crop type e.g kale or fodder beet will be consolidated into 1 herd giving us 3 cow mobs and 1 R2 mob for each crop type.
- The kale R1's will be heading off farm to grazing on the 16th August which is a few days after the kale crop will be finished. Fodder beet R1's will remain on crop until the end of September as they still have crop remaining. All animals will be weighed before the kale's head off farm and the fodder beet replacements will be reweighed before they leave as well.
- We are currently assessing the remaining fodder beet area on farm with the likely outcome that some will be lifted and sold as it is surplus to requirement. Yields were up 15% on last year which has contributed to the surplus. Beet for milking supplement to the Std and LI FB herds will be lifted and stored when conditions are right.
- Beet allocations will be reassessed based on recent yield estimates. The proportion of leaf has declined significantly during winter and is now averaging 18% across the last 5 paddocks that were yielded. The range is 13 to 25% between paddocks.
- We have selected our first 4 colostrum paddocks (one from each farmlet) as well as the first 4 milker paddocks. In making these selections we have considered paddock location relative to the springer mobs and will be keeping the colostrum cows as far away from the springer mobs as possible. With three springer mobs this is not an easy task.

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Figure 1: Springers grazing from the back of the paddock

- Complete the spring rotation plans and spring feed budgets using the farm walk information from this week and predicted calving dates.
- 'Spare' bales from crop paddocks will be used to top up the springer diets if pre-graze mass is below that required to achieve 5 kg DM/cow in the 20 sq m per cow that is being allocated.
- The calved cows will be split into milkers and colostrums when we have 100 cows calved.

General Notes:

- Allflex collars have been fitted to all the cows this week but we are still waiting on the software before we can start accessing the data.
- Maintenance on the five laneways exiting the dairy has been completed with some just requiring a scrape off and others needing resurfacing.
- We have had our walk over weigh scales serviced after experiencing some drifting of weights at the end of last season. While they are in good condition they are getting to the end of their lifespan so we will monitor their accuracy and if necessary replace the load bars.
- Average pasture for all the farmlets is remarkedly similar to the same time last year so we feel like we are in a good position feed wise.
- With 45% of the herd due to calve in the first 2 weeks there will be lots of pressure on our springer paddocks for the next couple of weeks but we are still aiming to get cows off crop at least 14 days pre-calving to minimise the risk of any calves being born on crop.

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Figure 2: Nice sized bull calf from a cow due to calve on 5th August

- The first herd test is scheduled for the 23/24th August

Animal Health

- We had two down cows in the fodder beet springers on Thursday so decided to get some blood samples taken from a few others in the group when the vet was on site to check on some lame cows. Pasture samples will also be taken to look at the mineral profile of all the springer paddocks as several this year are in the effluent block.
- With two down cows we revisited the springer mineral supplementation and will discuss options with the vets. Cows are currently getting 50 g DCP and 50 g MgO dusted onto pasture daily. MgCl is also going through the water system.
- The five lame cows have been reassessed by the vet with three returning to the springers. The others will stay in the paddock by the shed.

SDH Research & Demonstration

- Measurements on the 2 crop establishment pilot project paddocks have finished and the data is currently being entered and collated.
- We are seeing good evidence of lying in our crop paddocks this week as conditions have dried out

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Figure 3: Lying bowls behind the back fence in a fodder beet paddock

- looking back across some of the paddocks you can see where the wet periods were

Figure 4: Changes in soil appearance across a fodder beet paddock. Left hand side grazed in drier conditions

- This week the farmer reference group met to discuss results of farm systems modelling on potential farm systems options for the farm from the start of the 2022-23 season. At an earlier meeting it was decided the main theme for consideration was reducing greenhouse gas emissions. Scenarios modelled ranged from refinement of our current Std Kale and LI FB systems to:
    - No winter cropping
    - Fully self-contained with youngstock on and no purchased feed for lactation
    - A modified full season OAD system
    - Off paddock wintering
    - Stacked mitigations including plantain, off paddock wintering, reduced N fertiliser, lower replacement rates and no PKE
- The table below summarises some of the modelling results against a range of key performance indicators.

- The challenge now is to narrow down the farm system options to four and further socialise the options with the dairy sector in the south
- If you are interested in being involved in this process through the farmer reference group or focus groups please let us know by emailing dawn.dalley@dairynz.co.nz

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

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Focus Area	Farm System	Operating profit	N loss	Nitrous Oxide	Methane	Purchased N surplus	People at the centre	Future customer focus	Forefront of Animal Care	Forefront of environmental sustainability	Science stretch	Iwi values
Status Quo	Current Std Kale – 3.1 cows/ha, wintered on kale, 180 kg N fert	3256	38	2523	7777	131	No	No	No	No	No	YTBD
Optimised cropping	Combination of FB & kale (direct drilled), reduced N fertilizer to 150 kg/h onto pasture	3439 +6%	32 -15%	2343 -7%	7684 -1%	102	No	No	Yes	Yes	No	YTBD
LI fodder beet refinement	Current LIFB but with inshed feed for shoulders & FB wintering only	2847 -13%	20 -47%	1804 -28%	7115 -9%	44	No	No	No	Yes	Some	YTBD
No winter cropping	Current Std kale with a few less cows and no crop	3315 +2%	20 -47%	2289 -9%	7811 +0.4%	106	Partly	No	Partly	Yes	Some	YTBD
Full season OAD	Revised Std kale system, 3 cows/ha	2702 -17%	19 -50%	2223 -12%	7365 -5%	103	Yes	No	Yes	Yes	No	YTBD
Off paddock wintering	Current Std kale with infrastructure	2817 -14%	17 -56%	2223 -12%	7986 +3%	108	No	No	Yes	Partly	Some	YTBD
Self Contained	No purchased supplement, youngstock on, wintering crops + baleage sys	2865 -12%	23 -39%	2200 -12%	6957 -11%	90	No	Yes	Yes	No	Yes	YTBD
Stacked mitigations	Lower stocking rate, plantain, no PKE, no winter cropping, low N fertilizer use	1832 -44%	11 -71%	1689 -33%	6797 -13%	5	Partly	Yes	Yes	Yes	Yes	YTBD

SOUTHERN DAIRY HUB

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