



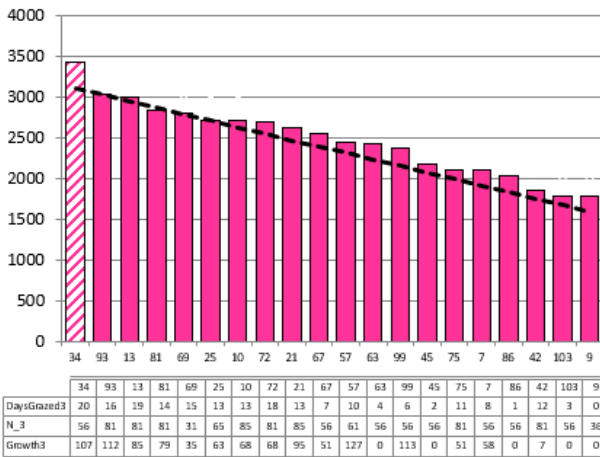
2021/22 Season Hub Weekly Farm Update Date: 18/11/2021

Date 16-11-21

Herd size (cows)	194	Average Cover	2456
Target residual (kg DM/ha)	1600	Average Growth	75
Target pasture intake (kg DM/cow)	18	Farmlet area	56.5
Target Area offered (ha/day)	2.30	Target rotation length	25
Last week actual rotation (d)	25	Target demand	62
Last week supp (kg DM/cow)	0.2	YTD supp (kg DM/cow)	282
Last week N (kg N/ha)	0	Fert N YTD	59
Milk yield (L/cow)	20.7	Effluent N YTD	2
Fat%	4.7	Last wk MS	2.0
Prot%	3.8	YTD MS/cow	188
SCC	90	YTD MS/ha	579
Average BCS	4.4	% less than BCS 4	11%

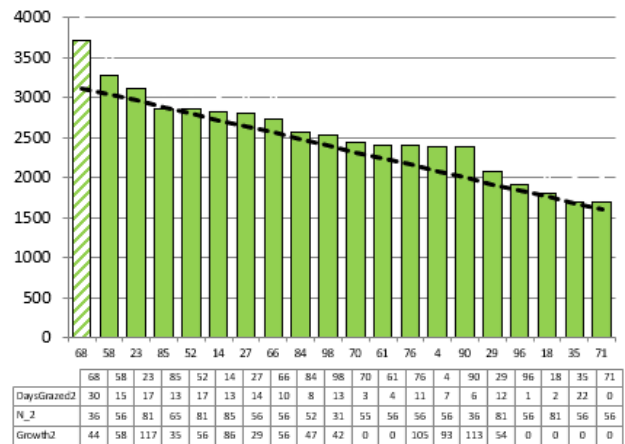
Herd size (cows)	194	Average Cover	2521
Target residual (kg DM/ha)	1600	Average Growth	67
Target pasture intake (kg DM/cow)	18	Farmlet area	57.7
Target Area offered (ha/day)	2.3	Target rotation length	25
Last week actual rotation (d)	25	Target demand	61
Last week supp (kg DM/cow)	0.3	YTD supp (kg DM/cow)	235
Last week N (kg N/ha)	0	Fert N YTD	54
Milk yield (L/cow)	20.6	Effluent N YTD	2
Fat%	4.6	Last wk MS	2.0
Prot%	3.8	YTD MS/cow	184
SCC	117	YTD MS/ha	550
Average BCS	4.5	% less than BCS 4	10%

Standard Kale



Farmlet notes: Visual APC 2326, GR 72; only 1 pdk earmarked for baleage but prepared to drop others out if growth takes off after the rain; seeding is rampant, affecting pre-graze pasture estimates & reducing green leaf; will offer 1 kg DM inshed feed to provide high quality suppl., especially for 3 grazing pdks; N still being applied after grazing; strategic topping

Standard Fodder Beet



Farmlet notes: Visual APC 2391, GR 61; only 1 pdk earmarked for baleage but prepared to drop others out if growth takes off after the rain; seeding is rampant, affecting pre-graze pasture estimates & reducing green leaf; will offer 1 kg DM fodder beet to provide high quality suppl., especially for 3 grazing pdks; N still being applied after grazing; strategic topping

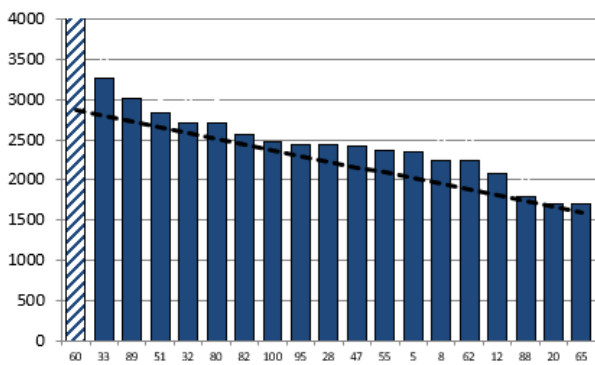


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Herd size (cows)	161	Average Cover	2505
Target residual (kg DM/ha)	1600	Average Growth	68
Target pasture intake (kg DM/cow)	18	Farmlet area	55.2
Target Area offered (ha/day)	2.3	Target rotation length	24
Last week rotation avg	27	Target demand	52
Last week supp (kg DM/cow)	0.2	YTD supp (kg DM/cow)	196
Last week N (kg N/ha)	0	Fert N YTD	17
Milk yield	21.3	Effluent N YTD	2
Fat%	4.8	Last wk MS	2.0
Prot%	3.9	YTD MS/cow	200
SCC	79	YTD MS/ha	546
Average BCS	4.4	% less than BCS 4	9%

Herd size (cows)	162	Average Cover	2460
Target residual (kg DM/ha)	1600	Average Growth	69
Target pasture intake (kg DM/cow)	18	Farmlet area	55.1
Target Area offered (ha/day)	2.3	Target rotation length	24
Last week rotation avg	25	Target demand	53
Last week supp (kg DM/cow)	0.3	YTD supp (kg DM/cow)	204
Last week N (kg N/ha)	0	Fert N YTD	17
Milk yield	20.3	Effluent N YTD	3
Fat%	4.8	Last wk MS	1.9
Prot%	3.9	YTD MS/cow	185
SCC	137	YTD MS/ha	470
Average BCS	4.5	% less than BCS 4	4%

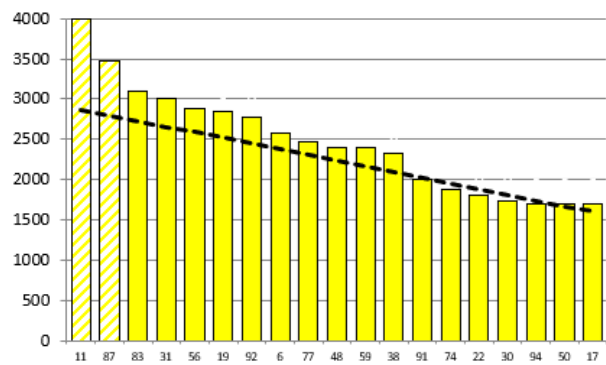
Low Impact Kale



	60	33	89	51	32	80	82	100	95	28	47	55	5	8	62	12	88	20	65
DaysGrazed1	28	19	13	11	13	8	7	15	13	13	9	6	12	10	1	4	3	0	17
N_1	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Growth1	96	93	33	44	86	21	42	79	56	40	120	110	65	63	0	0	0	0	0

Farmlet notes: Visual APC 2394, GR 57; only 1 pdk earmarked for conservation but prepared to drop others out if growth takes off after the rain; seedhead emergence is rampant, affecting pre-graze pasture estimates & reducing green leaf; will offer 1 kg DM inshed feed to provide high quality supplement, especially for 3 grazing pdks; strategic topping to control

Low Impact Fodder Beet



	11	87	83	31	56	19	92	6	77	48	59	38	91	74	22	30	94	50	17
DaysGrazed4	25	27	13	15	14	13	13	12	8	7	10	4	11	0	3	6	2	16	18
N_4	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Growth4	72	77	68	78	42	89	72	84	42	117	117	0	30	0	0	5	0	0	0

Farmlet notes: Visual APC 2423, GR 72; 2 pdks earmarked for baleage and prepared to drop others out if growth takes off after the rain; seedhead emergence is rampant, affecting pre-graze pasture estimates & reducing green leaf; will offer 1 kg DM FB to provide high quality suppl, especially for 3 grazing pdks; strategic topping to control seedhead in residuals

Table 1: Key Herd Numbers 18/11/2021 – number of cows in each mob

DATE: 18 th Nov 2021	Std Kale	LI Kale	Std FB	LI FB	Total
Cows on Farm	196	161	195	161	713
Milkers TAD	162	138	161	145	606
Milkers OAD	32	21	32	14	99
Sick OAD	2	2	2	2	8
Slips/empty/deaths	5	5	14	5	29



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General Farm Information

Table 2: Key Weather and Feeding Numbers 18th November 2021

Soil Temp (°C) (weekly average)	17.0°C			
Rainfall (mm)	43.2mm			
Allocations kg DM/cow/day	Std. Kale	LI Kale	Std FB	LI FB
Milkers	18 kg DM 18 kg pasture 1 kg inshed feed	18 kg DM 18 kg pasture 1 kg inshed feed	18 kg DM 18 kg pasture 1 kg fodder beet	18kg DM 18 kg pasture 1 kg fodder beet

Key Decisions and Why?

- Over the next week the farm team has been challenged with being aggressive when it comes to taking paddocks out of the round if they are above the pre-graze targets to ensure that the round length remains at 25 days. There are already x1 paddock locked up in both standard farmlets and the LI Kale and x2 in the LI FB farmlet. This will be harvested as soon as there is a suitable weather window to get it off.
- Due to the stem elongation and seedhead emergence over the last few weeks, as well as quality of the pastures declining, we are having some challenges with our plate meter readings. Lignification in the stem is holding the plate up and suggesting there is more feed in the paddocks than is available for the cows to consume and that our residuals are too high. We will continue to use a combination of plate and visual estimates and pasture appearance in developing the weekly feed plan.

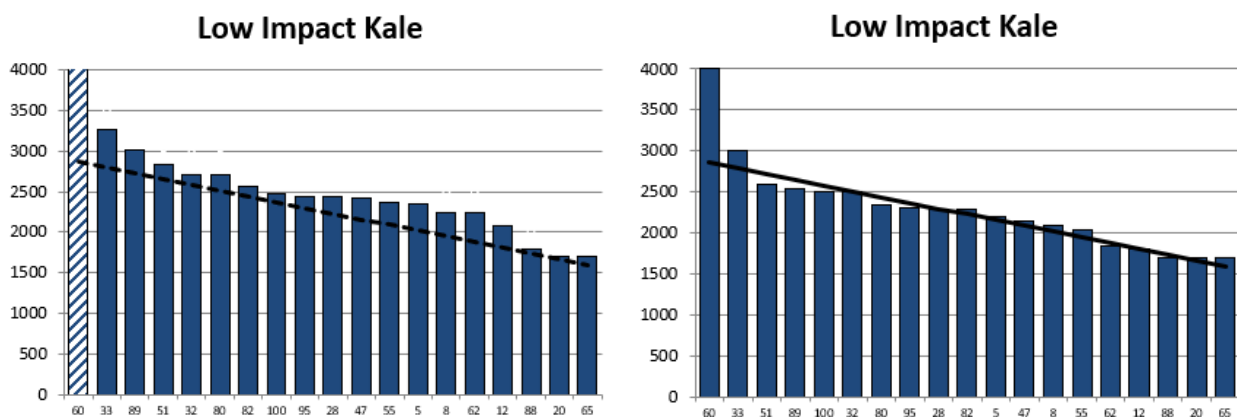


Figure 1: Comparison of the plate meter feed wedge (left) and visual wedge (right) for the LI Kale herd

- Supplement will be added back in to all 4 farmlets this week, with 1kg of inshed feed being offered to the Kale herds and 1kg of FB being offered to the FB herds in the paddock. This provides some buffer in the system to step over paddocks that are above

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target and are poor quality as mentioned above and will ensure that the cows are getting access to high quality feed to keep milk production constant.

- It was decided to stay at 25 day rotation as any longer and the pre graze covers are too high and any shorter, we may run in to issues pushing the round back out again as we move closer to summer and grass growth begins to slow down.
- Strategic topping will again be used this week as a method of controlling quality. In a number of paddocks, the base residual has been left too high, therefore topping is required to reset the paddock for the next round.

General Notes:

- Due to the weather over the past week, the maintenance fertilizer is yet to go on to the paddocks still needing it. For the N fertilizer applications for the Standard farmlets, 55kgs of coated N protect is still being applied behind the cows.
- This week the contractors have been in doing the ground work for next winters fodderbeet paddocks. We have had a buffer zone left at each end of the paddock as a break-out area to be used as a plan B option in periods of adverse weather. These will be planted in Italian ryegrass and harvested for baleage through until autumn. Flags were placed out as a way of indicating to our contractors where they needed to plough too. The fodderbeet is due to be drilled once the power harrowing has been completed.



Figure 2: Buffer area in fodder beet paddock to be used as a breakout area during adverse weather

- AI has been tracking well overall, with between 81 and 92% of cows submitted across the herds and 2 days left to go until 3 weeks.
- 26 cows with CIDR's in have had these removed this week and will be AI'd on Sunday after receiving a PG shot on Saturday afternoon. The Std FB herd are 10% behind the other farmlets for submission rates, however we have not determined why this is a reoccurring theme for this herd. This herd did lose the most condition



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between calving and mating however they have received more FB in early lactation than in previous seasons as a way to mitigate this BCS loss.

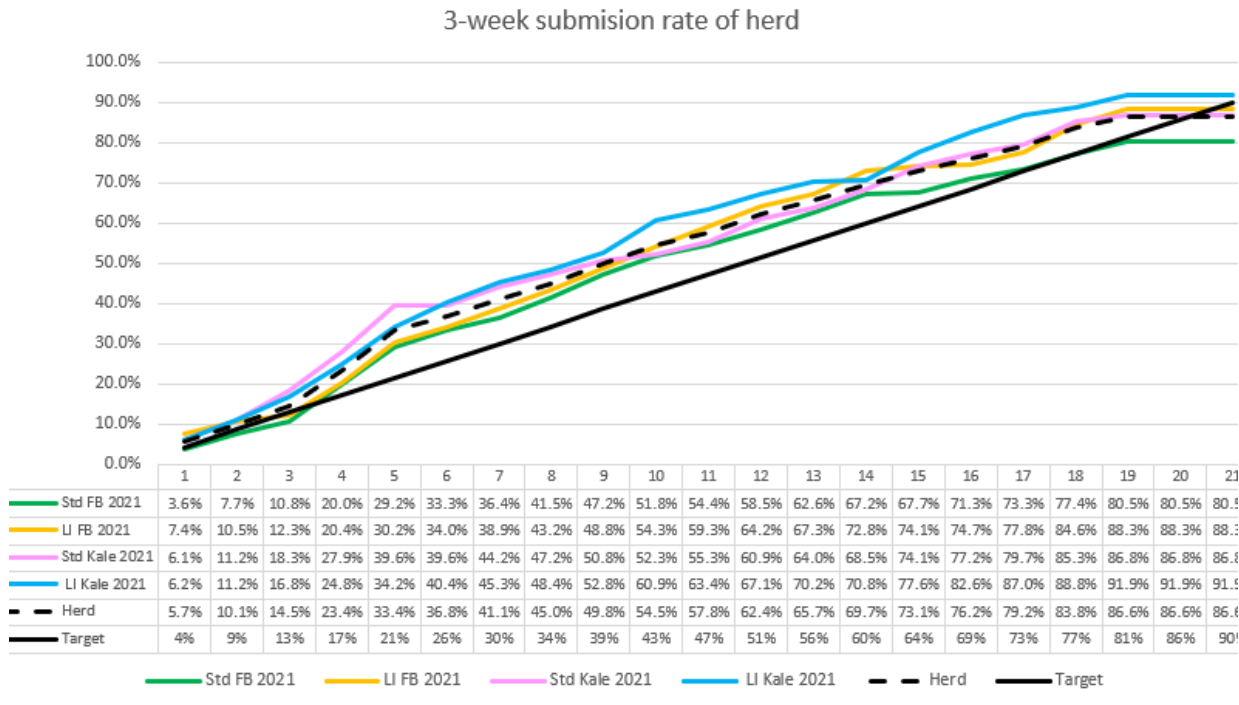


Figure 3: Comparison of submission rates season to date

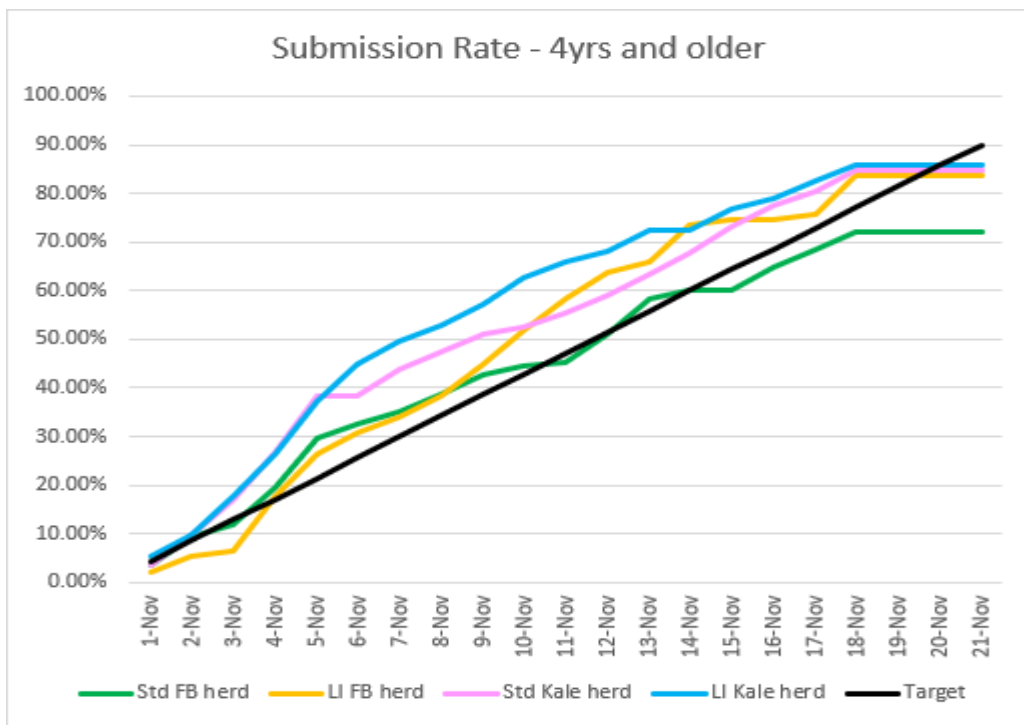


Figure 4: Submission rate comparison for cows 4 years and older

- Drainage work has been continuing at the runoff with novaflow being laid at a depth of 2 feet to aid the water flow out of some of the lower lying paddocks.

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Figure 5: Drainage works at the support block.

- As we head further into the season and feed gets tighter, the decision has been made to assess the future of any cows consistently producing less than 5 litres per day with the most likely outcome being early culling.
- We ended up with a section of bolters around some baleage remaining in the fodder beet paddock that was lifted for spring feeding. While not going back into fodder beet for next year it was important these were removed before the seed dropped and contaminated the soil for any future fodder beet crops in this paddock



Figure 6: Fodder beet bolters being removed before they dropped seed

- The LI FB herd got to enjoy the bulbs from the beet that was pulled

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Figure 7: LI FB cows enjoying the bulbs from the fodder beet bolters

- Milk production has continued to fluctuate depending on the quality of the paddocks the cows are grazing. This was one of the reasons for reintroducing supplementary feed.

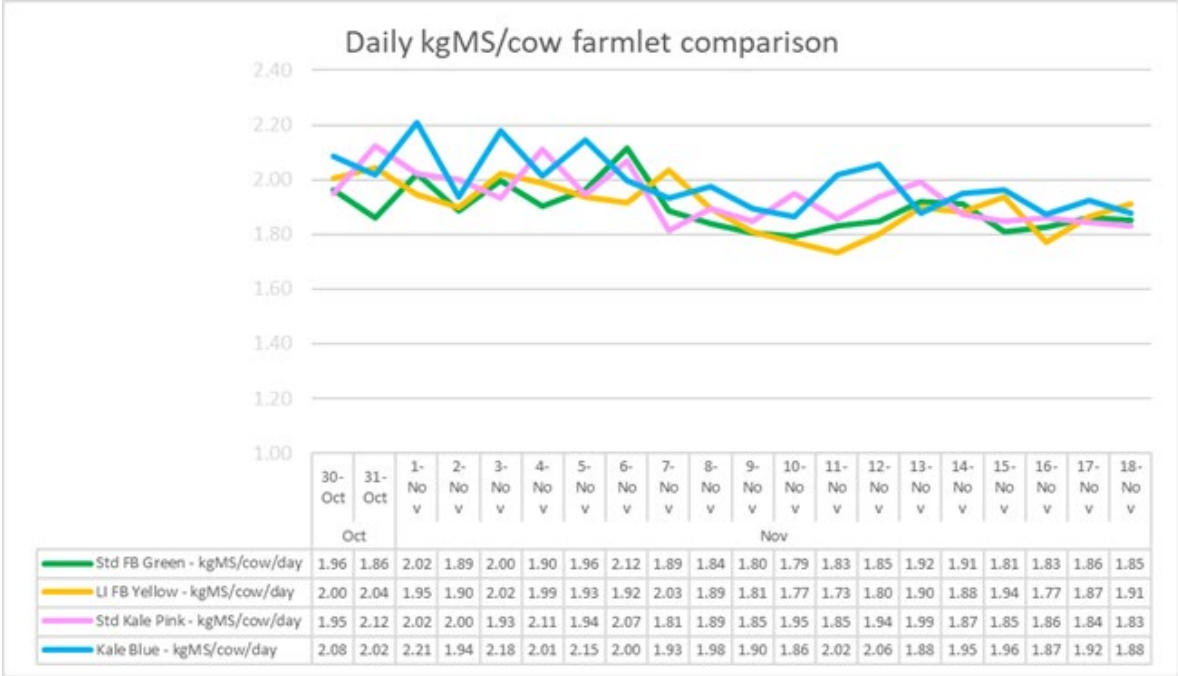


Figure 8: Herd average milk production for the last 3-weeks



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- Results of pasture samples collected last week indicate lower average quality pasture in the LI farmlets. This supports visual observations with all the seedhead that has emerged and lack of green leaf in many of these paddocks.
- Crude protein levels are relatively low across all the farmlets but especially in the 2 paddocks sampled for the Std FB herd.
- The 'silage' results are from pasture pre-ensiling to give an indication of the quality of the baleage that will result.

Table 2: Pasture and pre conserved baleage quality from last week

	Std Kale	LI Kale	Std FB	LI FB	'Baleage'
DM%	16.4	18.1	17.5	17.2	
Crude protein (%)	19.0	16.2	13.6	15.3	15.1
Lignin (%)	6.1	6.8	5.4	6.9	4.0
NDF (%)	42.3	44.9	42.3	44.9	45.1
ME (MJ/kg DM)	11.7	11.4	11.7	11.2	11.8

- These average results are not that dissimilar to samples collected in November in 2019 and 2020. Calcium and phosphorus levels are higher this year than in the previous 2 years.

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>