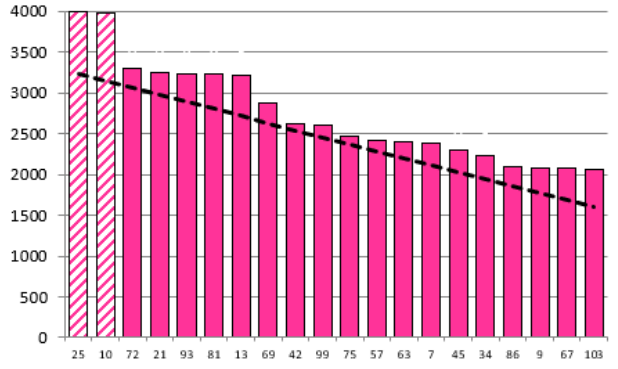
2021/22 Season
Hub Weekly Farm Update
Date: 28/10/2021

Date 27-10-21

Herd size (cows)	197	Average Cover	2754
Target residual (kg DM/ha)	1600	Average Growth	86
Target pasture intake (kg DM/cow)	19	Farmlet area	56.5
Target Area offered (ha/day)	2.30	Target rotation length	25
Last week actual rotation (d)	31	Target demand	66
Last week supp (kg DM/cow)	0.7	YTD supp (kg DM/cow)	278
Last week N (kg N/ha)	5	Fert N YTD	47
Milk yield (L/cow)	23.2	Effluent N YTD	2
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)	194	Average Cover	2754
Target residual (kg DM/ha)	1600	Average Growth	94
Target pasture intake (kg DM/cow)	19	Farmlet area	57.7
Target Area offered (ha/day)	2.3	Target rotation length	25
Last week actual rotation (d)	30	Target demand	64
Last week supp (kg DM/cow)	1.3	YTD supp (kg DM/cow)	232
Last week N (kg N/ha)	4	Fert N YTD	46
Milk yield (L/cow)	22.3	Effluent N YTD	2
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

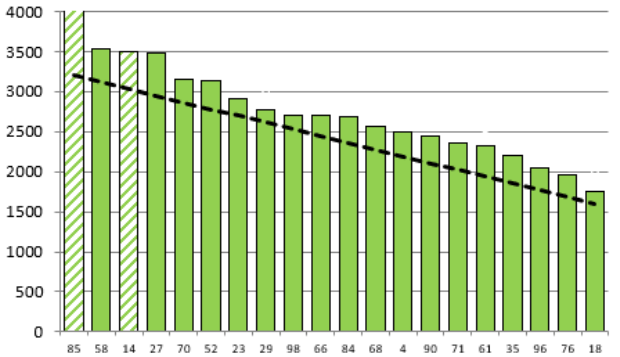
Standard Kale



	25	10	72	21	93	81	13	69	42	99	75	57	63	7	45	34	86	9	67	103
Days Grazed 3	32	28	3	20	25	20	1	19	16	13	18	11	5	15	9	0	3	0	8	5
N_3	36	55	55	56	56	56	56	31	56	56	56	36	56	56	56	56	56	36	56	56
Growth 3	143	148	0	132	102	120	0	78	120	64	58	30	0	72	30	0	0	0	16	0

Farmlet notes: Visual APC 2623, GR 90; pasture growth exceeding demand so no inshed feeding; rotation length target of 25 days & 10% of available area shut for conservation & to be mown early next week; 9% of herd has been cidred with 13% put up for vet checking; crop pdks worked & new grasses to be sown next week; Treated with Topline for parasites.

Standard Fodder Beet



	85	58	14	27	70	52	23	29	98	66	84	68	4	90	71	61	35	96	76	18
Days Grazed 2	33	21	22	24	27	25	20	18	17	9	15	10	13	4	3	7	2	4	12	0
N_2	36	56	56	56	55	55	56	56	31	56	31	36	56	36	56	56	56	56	56	56
Growth 2	156	130	132	140	78	56	102	92	92	48	52	42	134	0	0	0	0	0	56	0

Farmlet notes: Visual APC 2581, GR 86; pasture growth exceeding demand so no beet feeding; rotation length target of 25 days & 10% of available area shut for conservation & to be mown early next week; 7% of herd has been cidred with 10% put up for vet checking; crop pdks worked & new grasses to be sown next week; Treated with Topline for parasites.

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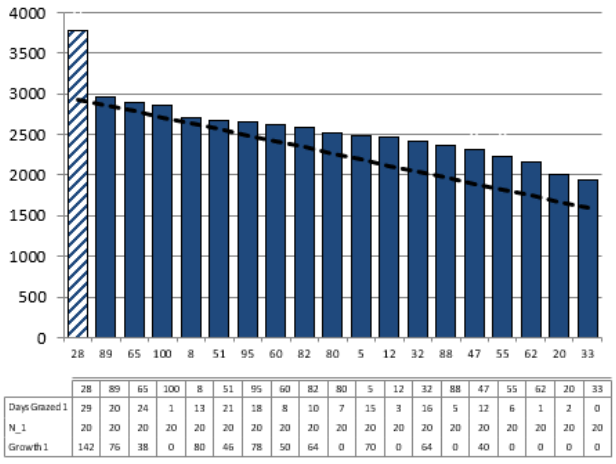
Herd size (cows)	161	Average Cover	2560
Target residual (kg DM/ha)	1600	Average Growth	68
Target pasture intake (kg DM/cow)	19	Farmlet area	55.2
Target Area offered (ha/day)	2.3	Target rotation length	24
Last week rotation avg	24	Target demand	55
Last week supp (kg DM/cow)	0.4	YTD supp (kg DM/cow)	192
Last week N (kg N/ha)	0	Fert N YTD	17
Milk yield	24.3	Effluent N YTD	2
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)	162	Average Cover	2593
Target residual (kg DM/ha)	1600	Average Growth	69
Target pasture intake (kg DM/cow)	19	Farmlet area	55.1
Target Area offered (ha/day)	2.3	Target rotation length	24
Last week rotation avg	26	Target demand	56
Last week supp (kg DM/cow)	0.9	YTD supp (kg DM/cow)	202
Last week N (kg N/ha)	0	Fert N YTD	17
Milk yield	21.6	Effluent N YTD	3
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

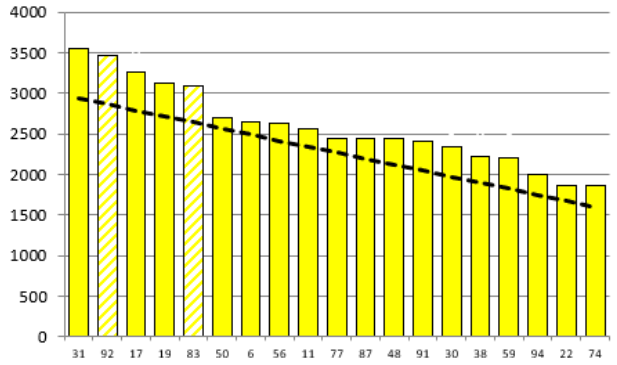
Low Impact Kale



	28	89	65	100	8	51	95	60	82	80	5	12	32	88	47	55	62	20	33
Days Grazed 1	29	20	24	1	13	21	18	8	10	7	15	3	16	5	12	6	1	2	0
N_1	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Growth 1	142	76	38	0	80	46	78	50	64	0	70	0	64	0	40	0	0	0	0

Farmlet notes: Visual APC 2413, GR 71; pasture growth exceeding demand so no inshed feeding; rotation length target of 25 days & 5% of available area shut for conservation & to be mown early next week; 4% of herd has been cidred with 9% put up for vet checking; crop pdks worked & new grasses to be sown next week; Treated with Topline for parasites.

Low Impact Fodder Beet



	31	92	17	19	83	50	6	56	11	77	87	48	91	30	38	59	94	22	74
Days Grazed 4	21	30	24	22	34	19	15	16	5	10	7	8	18	13	1	12	0	4	3
N_4	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Growth 4	150	95	98	96	38	40	94	44	0	32	0	54	62	58	0	36	0	0	0

Farmlet notes: Visual APC 2497, GR 72; pasture growth exceeding demand so no beet feeding; rotation length target of 25 days & 10.5% of available area shut for conservation & to be mown early next week; 4% of herd has been cidred with 7% put up for vet checking; crop pdks worked & new grasses to be sown next week; Treated with Topline for parasites.

Hatched bars are paddocks stepped over for conservation.

Table 1: Key Herd Numbers 28/10/2021 – number of cows in each mob

DATE: 21 Oct 21	Std Kale	LI Kale	Std FB	LI FB	Total
Cows on Farm	198	161	194	162	715
Milkers TAD	192	159	191	158	700
Sick OAD	6	2	3	4	15
Springers	0	0	0	0	0
Slips/empty/deaths	3	5	14	4	26

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General Farm Information

Table 2: Key Weather and Feeding Numbers 28th October 2021

Soil Temp (°C) (weekly average)	15°C			
Rainfall (mm)	9mm			
Allocations kg DM/cow/day	**Std. Kale**	**LI Kale**	**Std FB**	**LI FB**
Milkers	18 kg DM 18 kg pasture	18 kg DM 18 kg pasture	18 kg DM 18 kg pasture (FB if required in individual pdks)	18kg DM 18 kg pasture (1-1.5kg FB if required in individual pdks)

Key Decisions: this week

- Finally, the grass has arrived, and we are now putting measures in place to deal with a surplus to maintain quality feed going forward.
- As a way of maintaining pasture quality and round length, the decision has been made to take 7 paddocks out of the round (2 in LI FB, 2 in Std FB, 2 in Std Kale and 1 in LI Kale) and these will be mowed for baleage next week.
- Discretionary topping will be used for individual paddocks that don't hit residual targets which is a flow on effect from wet conditions and poor utilisation from the previous round.
- Hitting consistent residuals has been a challenge over the past week with the level of feed being offered, so from today all supplementary feed from the four farmlets has been removed (with the exception being around 20 lighter cows on OAD milking still getting priority in-shed feed).
- We are targeting a 25-day round length, which has meant that the grazing plan for the next week has a mixture of 2 or 3 feeds per paddock depending on pre graze residual. For ease of management for the paddocks that will only be getting 2 feeds per day (24 hour grazing) no fence will be put up. However, for paddocks requiring 3 feeds, the farm team will be required to put up on break fence so the cows will have 1x 12 and 1x 24 hour grazing.
- Based on residuals and improved utilisation with better paddock and weather conditions the target pasture intake has been reduced to 18 kg DM/cow/day. With the mature size of our cows, we do not believe herd average intake is greater than this. We will reassess next week based on how cows graze this week. Individual cows will be consuming more than 18 kg but younger animals will be eating less.
- Groundwork is well underway with an Italian being sown today for baleage and grass wintering next winter. Ploughing has also started this week for paddocks going back into permanent pastures.
- Baleage has been cut at the support block and there are more paddocks booked in to be mowed next week.

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- Cows below BCS 4 are being milked OAD and those from the kale herds get priority inshed feeding. There are currently x10 Std kale, x10 LI kale, x15 Std FB and x5 LI FB in the OAD group at the moment.

General Notes:

- We put CIDR's in this week to cows that had not cycled but were more than 50 days post calving. Cows were identified from data extracted from the Allflex collars and weekly pre-mating heat recordings using tail paint. The team are excited to have the collar data to assist with heat detection going forward. After consultation with the vets 46 of the 71 cows identified had a CIDR put in.
  As shown in the table below the number of cows that ended up with a CIDR were highest in the Std Kales (18) and Std FB (14), with only 7 CIDR's being required in both the LI Kale and LI FB herds.

Table 3: Number of cows CIDR per farmlet

Row Labels	Pink	Blue	Green	Yellow	Grand Total
CIDR	18	7	14	7	46
Vet Wait	7	7	2	1	17
No CIDR - Age Cull	1	1	3	3	8
Grand Total	**26**	**15**	**19**	**11**	**71**

- As mentioned last week, the Allflex team were in to provide training and are due back on the 3rd November for further training with the whole team.
- Due to above demand growth rates and the current pasture surplus that we are facing the decision has been made to sell the fodderbeet that is in the bunker (around 1/3 of a bunker). However, we still have a pile in the paddock that we will keep and use as required for the FB herds.

Figure 1: Left over fodderbeet to be sold

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- Due to the new farm systems research starting next season, there has been a reduction in the area going into fodderbeet due to no longer requiring FB as a supplement on the shoulders of the milking season.
- N will continue to be applied (25 kg N/ha) to the Std farmlets following grazing
- Maintenance fertiliser applications are continuing
- All calves are now outside enjoying this great weather. There are only a handful of calves left on the platform which will be moved to the support block in the coming weeks.
- This week, we have had the digger in emptying out the weeping wall and the solids are being spread over the paddocks that will be going into winter crop next year. Manure samples will be taken to determine the nutrient content in the solids, and then fertilizer applications rates can be altered accordingly if need be.

Figure 2: Weeping wall solids being emptied and spread onto next year's crop paddocks

- Milk production for the LI FB has started to pick back up again after both FB farmlets lagging last week. We hope they continue to take a positive turn up and must ensure that the pasture remains of good milking quality to achieve this.

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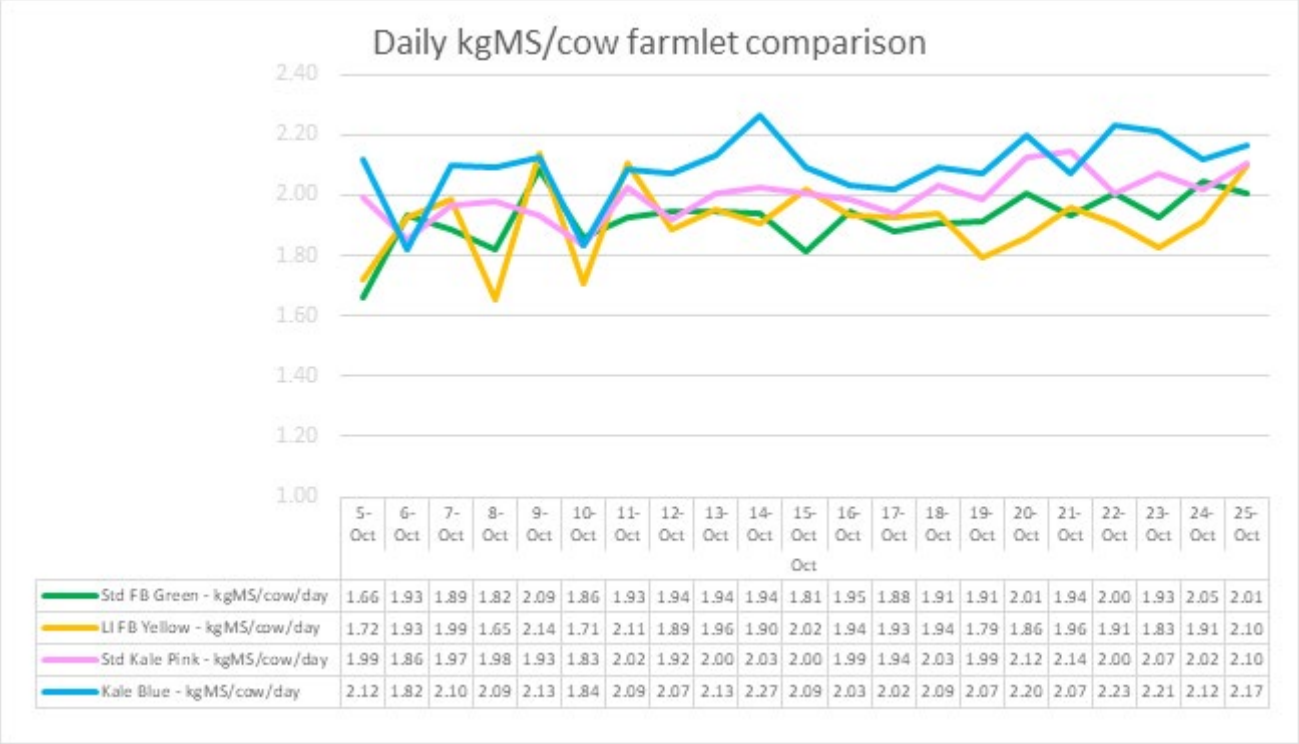

	5-Oct	6-Oct	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct	23-Oct	24-Oct	25-Oct
Std FB Green - kgMS/cow/day	1.66	1.93	1.89	1.82	2.09	1.86	1.93	1.94	1.94	1.94	1.81	1.95	1.88	1.91	1.91	2.01	1.94	2.00	1.93	2.05	2.01
LI FB Yellow - kgMS/cow/day	1.72	1.93	1.99	1.65	2.14	1.71	2.11	1.89	1.96	1.90	2.02	1.94	1.93	1.94	1.79	1.86	1.96	1.91	1.83	1.91	2.10
Std Kale Pink - kgMS/cow/day	1.99	1.86	1.97	1.98	1.93	1.83	2.02	1.92	2.00	2.03	2.00	1.99	1.94	2.03	1.99	2.12	2.14	2.00	2.07	2.02	2.10
Kale Blue - kgMS/cow/day	2.12	1.82	2.10	2.09	2.13	1.84	2.09	2.07	2.13	2.27	2.09	2.03	2.02	2.09	2.07	2.20	2.07	2.23	2.21	2.12	2.17

Figure 3: Average daily kg MS/cow for each farmlet

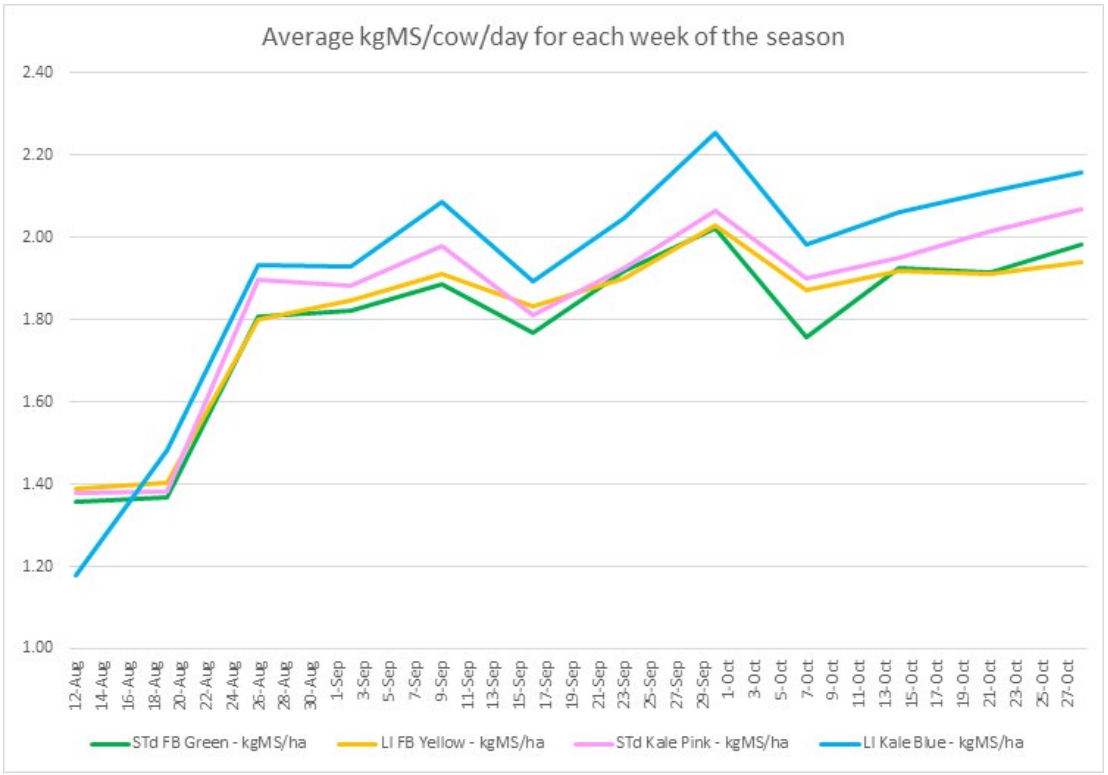

Figure 4: Average kg MS/cow/day for each week of the season

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- Daily milk production is currently tracking along nearly the exact same as this time last year.

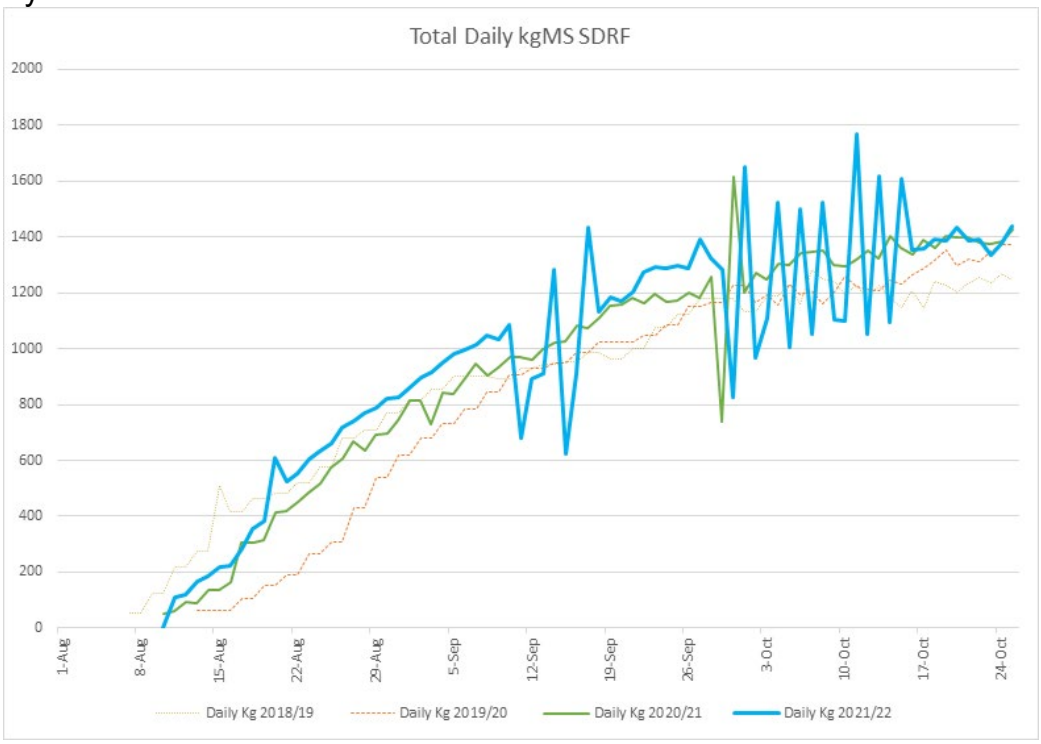

Figure 5: Total daily milk production comparison

Animal Health

- Herd test results picked up 5 subclinical mastitis cases, these cows have since been treated. There was a small number of other mastitis cases that have had samples taken and the results are still pending.
- All four herds were drenched with TopLine pour on (25mls) primarily for lice control last week as there has been lots of scratching going on.
- A preventative drench programme is due to start in the coming weeks on the calves at the support block.
- A group of calves will be weighed this week and collection of DNA samples will commence

SDH Research & Demonstration

- On a fortnightly basis Nicole and Tash do calibration cuts for the rising plate meter to confirm our pasture mass estimates from the weekly farm walk. This involves selecting paddocks across the range of pasture mass, cutting all the pasture to ground level from within 24x 0.259 m^2 quadrat then washing the pasture to remove any soil contamination and drying for at least 24 hours at 100 °C.
- The relationship between pasture height and mass is determined and compared with the winter plate meter calibration of height x 140 + 500
- Currently the calibration cuts are indicating that there is less total DM present than the winter equation is predicting across the range of pasture mass, however when we

look at the difference between pre- and post-grazing predictions i.e. the available pasture dry matter there is very little difference between the two equations so we are continuing to use the winter equation for decision making.

- This does mean however, that the APC across the farmlets is not as high as the wedges suggest and residuals are close to the target of 15-1600 kg DM/ha
- Possible reasons for the differences between the winter equation and our calibration cuts are:
    - the openness of many of our pastures following pugging during wet conditions
    - stem elongation holding the plate higher during measurement
    - variability in the pasture cultivars across the farm.

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