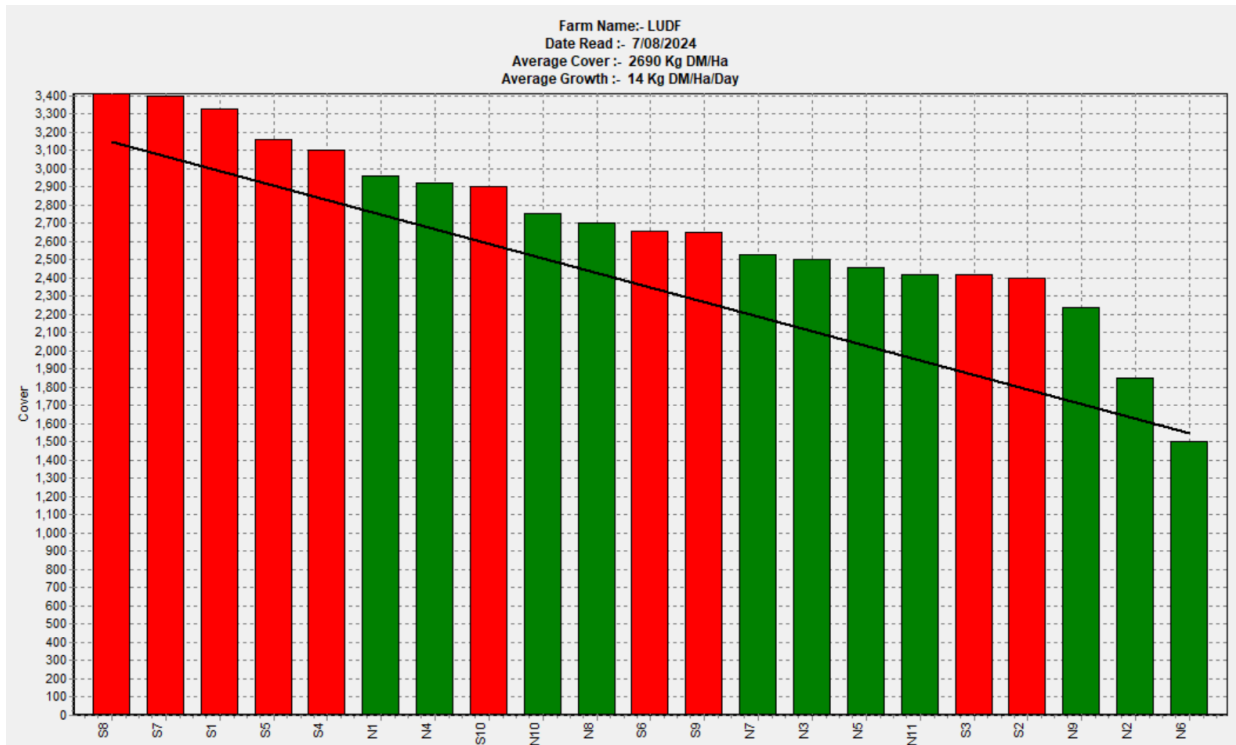


WHAT'S BEEN HAPPENING ON LUDF ?

PASTURE & FEED

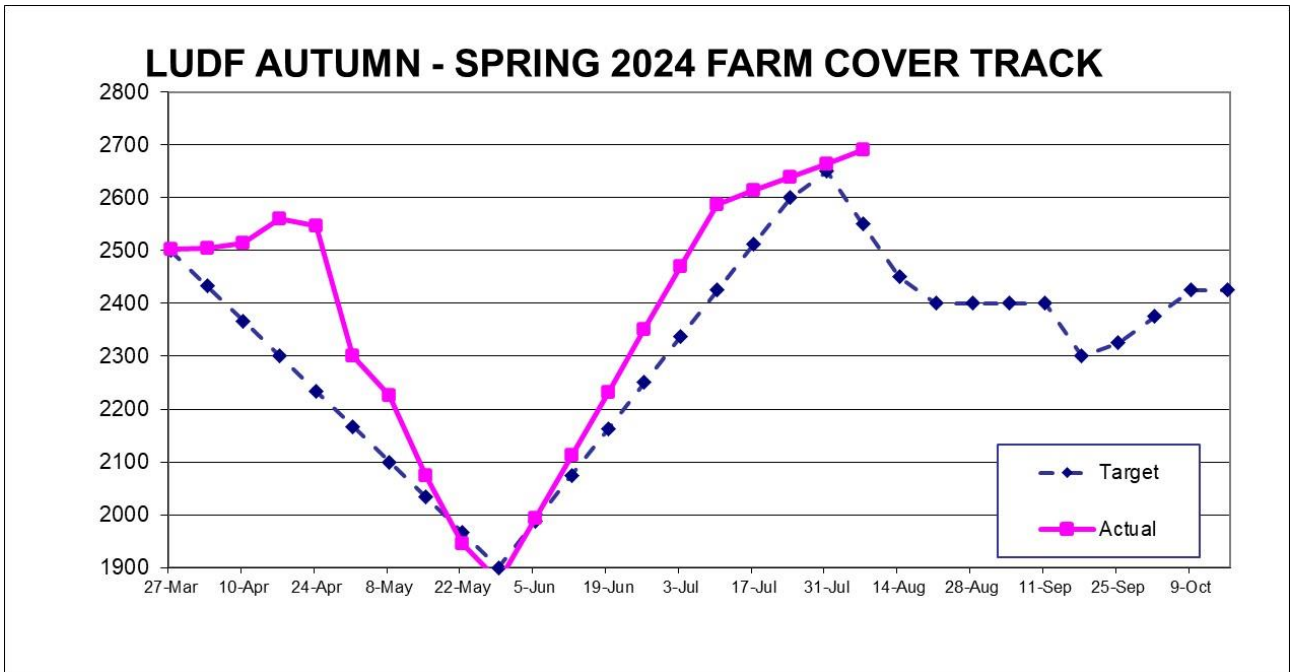
Our APC (Average Pasture Cover) on 10 July was 2558 kg DM/ha. Our target for calving is 2600 and our current APC at 7 August is 2690. We have had a growth of 14 kg DM/ha/day since 10 July, where we have had a number of frosts over this period.



Feed Wedge

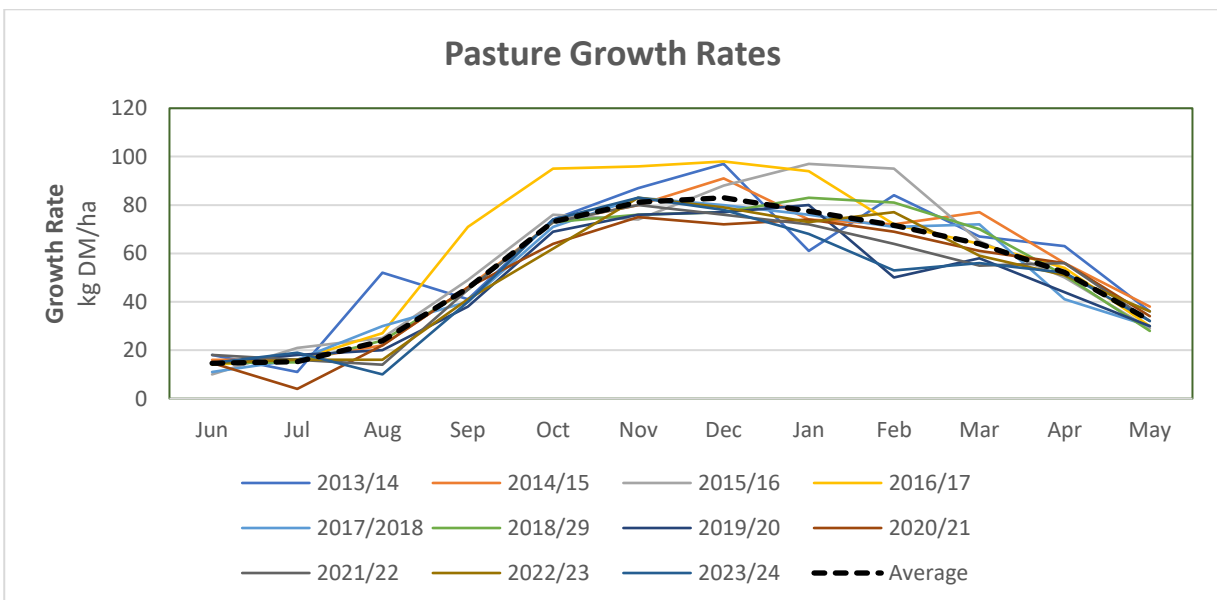


View from the LUDF office on a frosty Canterbury morning



We follow a spring rotation plan where we target an APC of 2300 kg DM/ha at balance date, which for LUDF, we expect to be the week of 24 September. We have grown on average 16 kg DM/ha/day (from 26 May to 10 July 2024), where the farms 10-year average over the winter has been 15 kg DM/ha/day.

We are currently sitting above our forecasted APC, however with a solid start to calving we are sure this will come back in line over the next fortnight. Pasture utilisation to date has been fair to good. We have had 22.3mm of rain since cows have been back on the platform.





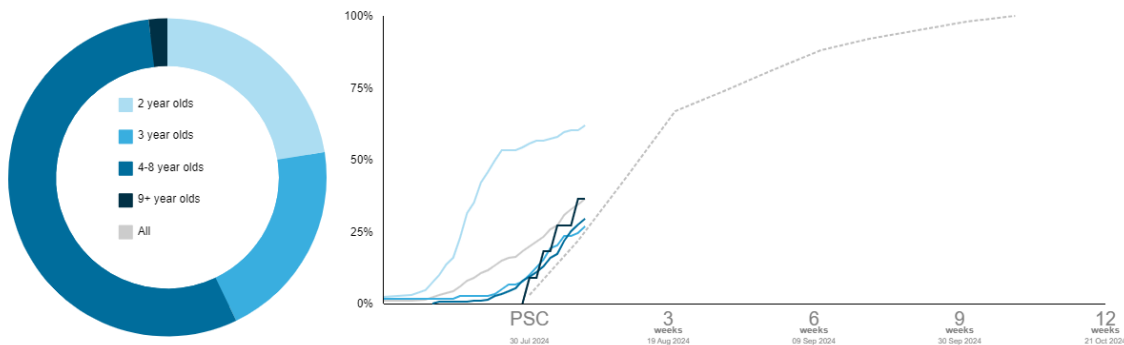
Farm walks will resume 28 August @ 9am

HERD & MILK PRODUCTION

We are right in the thick of calving as we are sure you are also. Our planned start of calving was 30 July for our main herd and 19 July for our R2's. As at the 7 August we were 36% calved, of which 81 are R2's (first calvers) and the balance 3+ year olds. Calving to date has gone very smoothly, however we have had a few bigger calves requiring assistance and have had four cows to date with milk fever which were treated with a bag of Calpro 375.

We are now up to 109 heifer replacements, which we are implementing a new farm policy of 15% replacement heifers into our herd for the 2026/27 season. This target has been put in place to help further reduce LUDF's GHG footprint, but also increases our financial performance by rearing less stock to R2's. With our improvements in our reproductive performance, see our reproduction benchmark project, we now believe we can implement a 15% replacement rate.

Calving Rate by Age



Number of Cows Calved by Week

Age	Count		< PSC	3	6	9	12	Total	
2 year olds	131	22%	54%	-	-	-	-	81	62%
2 Year Old Target				80%	95%	100%			
3 year olds	119	20%	8%	-	-	-	-	32	27%
4-8 year olds	322	55%	8%	-	-	-	-	95	30%
9+ year olds	11	2%	0%	-	-	-	-	4	36%
All	583	100%	18%	-	-	-	-	212	36%
Whole Herd Target				67%	88%	98%			



Tomorrow's herd – our replacement heifers



Our first milk collection was 29 July, where we supplied 123 kg MS or 1,247 L. Year to date, 7 Aug, we have supplied 1,147 kg MS or 11,480 L. In the 2023/24 season we did not supply milk in until August 6. This is a flow on of a very successful mating, and good results to sexed semen which has resulted in reaching our heifer replacement target a week before our midpoint.

Feeding:

We offer our springs approx. 6 kgs of pasture and 6kgs of silage and dust pasture with magnesium.



We offer adlib silage to colostrums to encourage rumination – we find they consume approx. 6 kgs of silage, over and above their 6 kg grass allocation. Colostrums are supplement with dusting pastures with magnesium and limeflour.



Colostrum cows at the bale feeder

For our colostrum herd we locate the bale feeder at the gate. From Peter, our Farm Manager, his observations are that if we back fence they will stand the gate (at reel) rather than eat baleage in the bale feeder. Whereas when he locates the feeder at the gate, they will happily eat the baleage. This has minimised pasture damage as we do not have the bale feeder throughout the paddock, our gateways have hardfill due to being high traffic areas, which assists in minimising the damage in that area.

An interesting observation is that some cows will chose to stay at the bale feeder even when given a new break of grass, or return when there is still pasture on offer but will consume baleage. Peter has commented that on occasion cows will consume a high proportion of silage, this is giving the cow an option to her diet and where she feels most comfortable. This strategy ensure that cows are eating to their capacity and giving her a good transition.

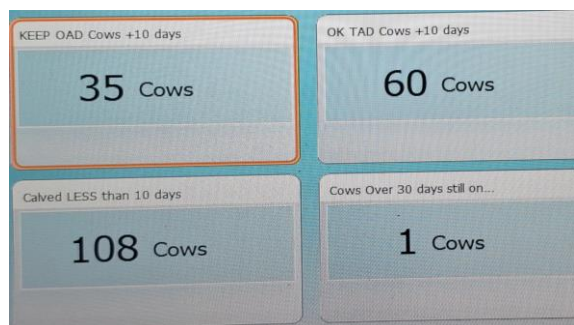


Milkers ready for milking

Our milking herd is offered approx. 16 kgs of feed, with a current target of 14 kgs pasture and 2 kgs of silage. Through our [reproduction benchmark project](#) and the way we fed our cows over winter, our springers, colostrums, transition cows and milkers, we managed to keep BCS loss to 0.2, however prior to the changes we employed we did see a drop of 0.6. This was primarily through the above feeding regime, but also through milking our colostrum and transition herd* OAD, monitoring their rumination. All cows are kept OAD for their first 10 days of lactation or until they reached 450 ruminations minutes. We expect to move to our main milking herd to 10 in 7 over the next week.

**Transition herd for LUDF are cows that can supply milk to the vat but have not yet reached 450 rumination minutes and therefore are milked OAD.*

When cows meet the criteria to move from colostrum herd to milking into the vat, we will have two milking (vat) herds, a transition herd and our main milking herd. Once cows have been in the transition herd for a minimum of 10 days and have reached 450 minutes of rumination per day, they will then move to the main milking herd (10 in 7) once we have a herd size big enough to separate.



We currently have 60 cows that meet the main milking herd criteria (for 10 in 7), 35 cows that need to stay in the transition herd (can supply milk, but not yet recovered by rumination minutes) and 108 that are either in the transition herd or colostrum.

As part of our reproduction benchmark project, we monitored the herds NEFA (non-esterified fatty acid) which is useful for detecting cows in negative energy balance (i.e. when body fat is being mobilised). Last season we had an improvement in our NEFA's and we will be testing cows in milk over the next fortnight to see how this is holding up this season.

WINTERING

Our cows and youngstock were all wintered at our grazier in Hororata. This winter everything was wintered on kale and crops averaged 12.05t (measured 30/5 & 10/06). We progressively bring cows back to East Block, our small runoff primarily used for youngstock, harvesting supplement which is also utilised for late winter grazing and to calve down on.

We winter our mobs based on BCS at dry off and feed to a level to target 5.0 BCS for 4+ mixed aged cows, and 5.5 for R2's and R3's and target feeding levels as below:

Mob	Number	BCS	Feed Allocation	Utilisation
Light	100	4.0	16 kg DM/cow/day	70%
Mid	252	4.5 & 4.0 (lates)	13.5 kg DM/cow/day	75%
Heavy	100	5.0 +	10.5 kg DM/cow/day	80%
IC Heifers	129	5.5	10.5 kg DM/cow/day	80%
Average	581		12.75 kg DM/cow/day	

We draft our cows based on calving date when they come back to East block (16 July for early calvers), where they return to a grass and silage diet. The balance of the herd returned 25 July.



Winter was mostly kind with good utilisation, however there were a few wet periods that reduced utilisation.

Test ID	Test Date	Result						
228810	30/05/2024	13.77 DM%						12,691 kg DM / ha
Sample Details								
Sample Type		Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	
Kale Wet Weight (Kgs)		8.40	7.80	9.30	11.50	10.80	7.50	
Test ID	Test Date	Result						
228808	30/05/2024	13.34 DM%						13,073 kg DM / ha
Sample Details								
Sample Type		Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	
Kale Wet Weight (Kgs)		7.50	8.50	12.50	9.60	12.00	8.70	
Test ID	Test Date	Result						
229243	10/06/2024	11.73 DM%						12,201 kg DM / ha
Sample Details								
Sample Type		Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	
Kale Wet Weight (Kgs)		6.60	8.60	7.10	8.80	10.05	8.55	
Test ID	Test Date	Result						
229105	10/06/2024	14.22 DM%						10,274 kg DM / ha
Sample Details								
Sample Type		Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	
Kale Wet Weight (Kgs)		5.15	9.80	7.05	5.70	6.85	8.80	

Average 12.05 t DM/ha

Winter crop yields

Body Condition Scoring (BCS):

We BCS all our stock over winter to confirm if we are on track for our required gain and if not amend where we can. The last 30 days of gestation (prior to calving) the cow diverts feed over and above maintenance to her calf and therefore BCS does not have a significant gain over this time.

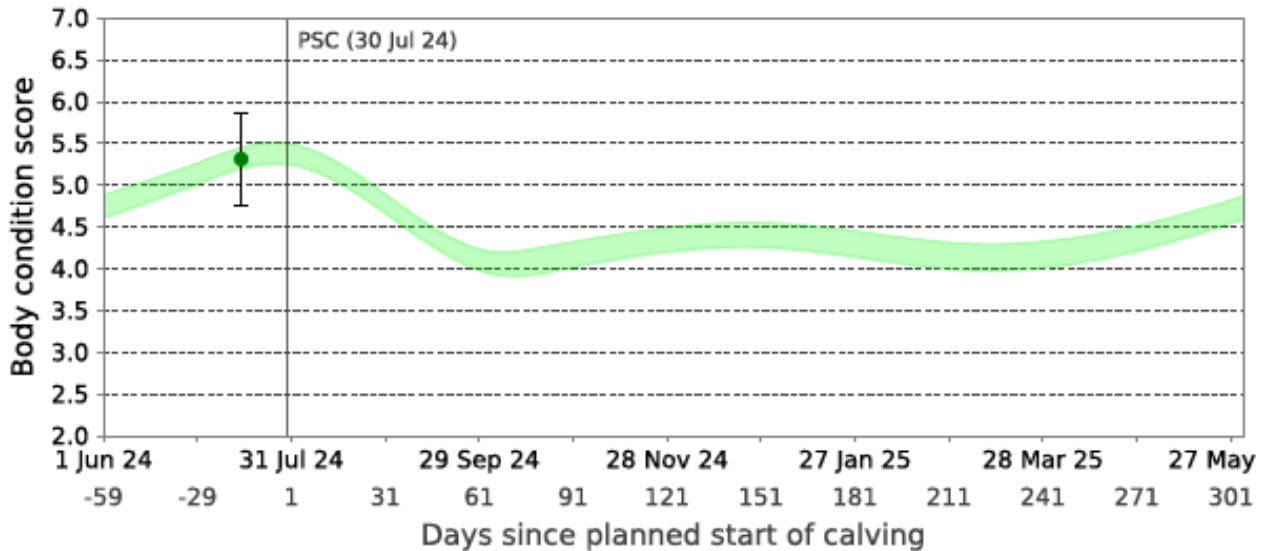
Our R2's were scored on 15 July 2024 at 5.3, slightly behind our target of 5.5. The range was 5.0-6.0. As we synchronised our R2's we expected 59% over our R2's to calve by 26 July (PSC – 19 July). And the remaining 41% to calve around our midpoint (14 August) and should be finished by 17 August.

Youngstock BCS – R2's

Animal group: Heifer BCS 15.7.24

Planned start of Calving: 30 Jul 24

Denominator is limited to the scored cows within the group.

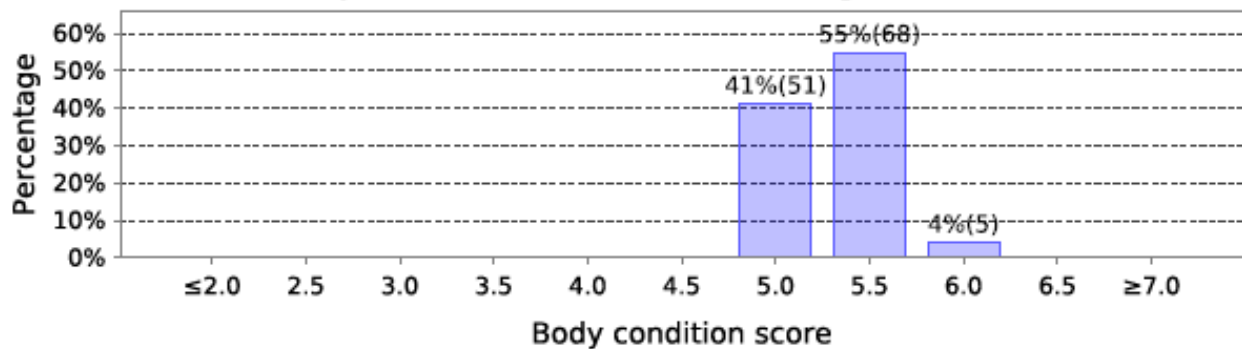


● Optimal herd average (including heifers).

95% of animals lie within this range { Average



15 Jul 24 (124 animals - identified, average: 5.3)



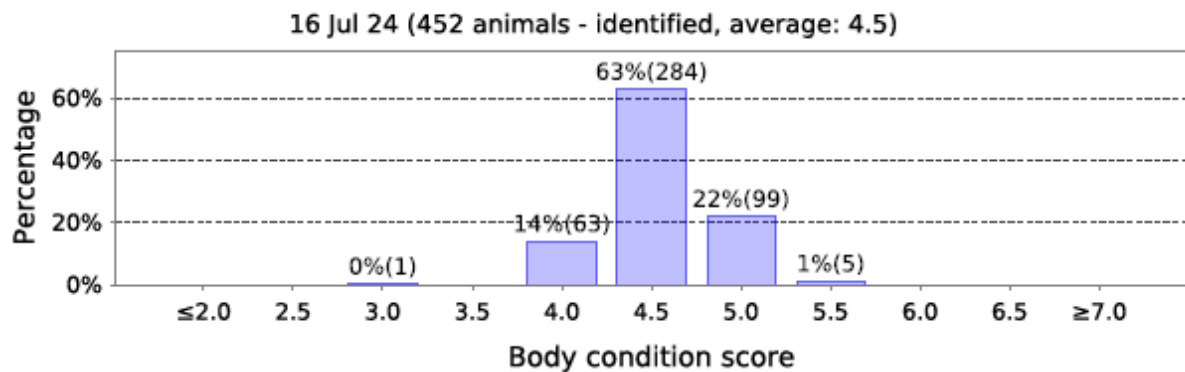
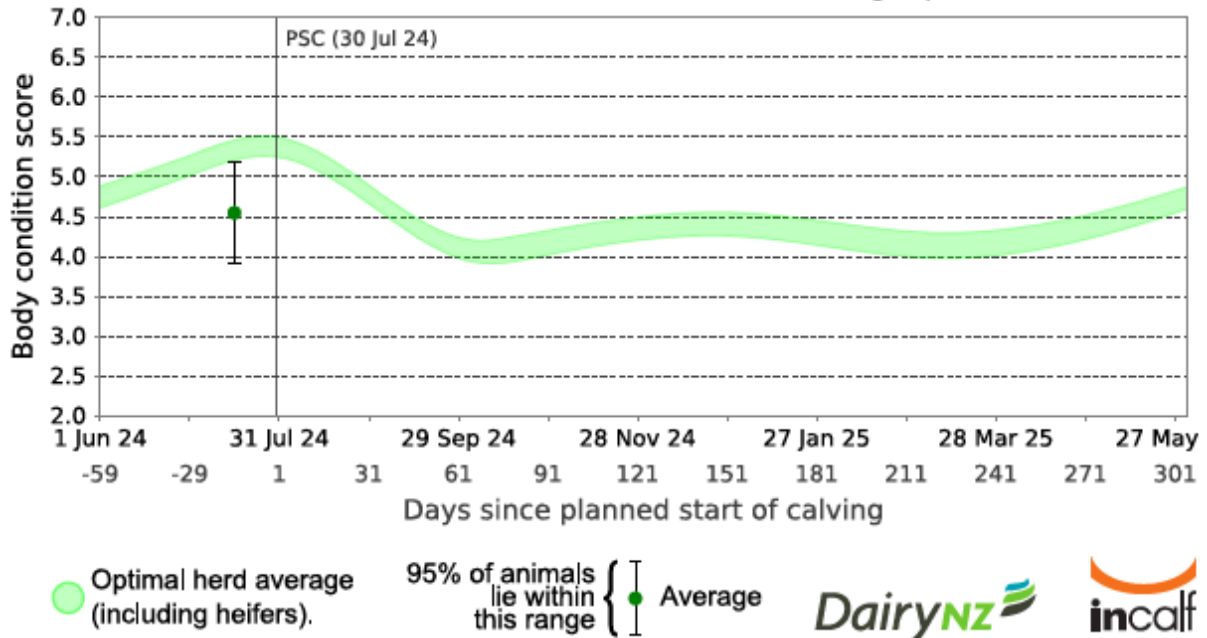
Our mixed aged herd BCS came back with an average of 4.5 which our target is 5.0. This was completed on 16 July, which is a month prior to our mid-point, which suggests half our herd does still have some capacity to increase their BCS prior to calving, however at best this could be 0.25 of a BCS, over half the herd and therefore it is unlikely that we could meet our target. The range was 4.0 to 5.5, with one outlier of 3.0.

Mixed Age Cows BCS

Animal group: 16.7.24 Herd BCS

Planned start of Calving: 30 Jul 24

Denominator is limited to the scored cows within the group.



The key now is to concentrate on ensuring our herd BCS loss post calving is kept to a minimum and to ensure cows do not fall below 4.0 post calving. We will continue our focus on feeding cows well to ensure there is a rising plane of nutrition prior to mating. We will continue to monitor BCS closely and focus on our dry off BCS to ensure we meet our targets.

PLANTAIN UPDATE

Our autumn sowing of plantain has occurred, and we will be monitoring the emergence rate between direct drilling and broadcasting. Our spring sowing will be sown in October/November. We have two paddocks on North block and two paddocks on South block to compare soil types. We will keep you updated as the information comes to hand.

OUR PEOPLE

Our team of four all managed to get some well-deserved rest after a good season, and to prepare for the busy time ahead. Our team roster is an all season, 5 and 2 roster, and we aim to have average hours over calving at 45 hours.



Weekly team meeting

We welcome to our new 2IC Patricio. Here's a note from Patricio...

Hi, my name is Patricio, originally from Chile. I came to NZ 12 years ago for farming opportunities, working in Southland on a 1200 cow farm. I started there as Farm Assistant and progressed to Farm Manager.

Why do I farm?

I enjoy the cows, being outside, the challenges of harvesting pasture to get the best from our cows. I love seeing cows full and happy in the paddock.

I really love the work-life balance that farming gives me. The opportunity to spend time with my family and to work on something I love.

I'm excited to join LUDF as another challenge in my career as a farmer. To share some of my working experience and to learn new ways of farming. I am looking forward to meeting some of you at our Demonstration Farm here at Lincoln University.



FARM VISITORS & EVENTS

SIDE was held at Lincoln University in June this year, which was their 20th SIDE conference. They had a great line of presenters that covered topics from managing a high performing team, health, safety and wellbeing, winter grazing systems, irrigation efficiency, N-losses to water, cow efficiency and non-replacement calves.

The South Island Dairying Demonstration Centre, who sets the strategy for LUDF, were invited to facilitate two SIDE sessions along with the field day held before the conference was opened. There was over 60 people at the field day which visited Lincoln Universities Ashley Dene Research and Development Station to have a look at the **Integral Health Dairy Farm Project**, which seeks to develop a new way of dairying that meets the needs of farmers, animals and consumers alike. The tour then went to Lincoln University Research Dairy Farm (LURDF), to hear about the **Low N Systems** programme of research and discuss the associated farmlet trial comparing a 'stacked' mitigation dairy farm system to a conventional dairy system. There was also an overview of the research associated with the **SFFF Plantain Potency and Practice Programme**. This concluded with an overview of the **EcoPond** farm dairy effluent system which has been shown to have shown reduce methane production by 99% and will contribute to reducing overall farm emissions by 4%. EcoPond was researched on LURDF and is currently installed at LUDF.

Reproductive project and flexible milking review in North Otago & South Canterbury



We had a great turnout and discussion in Papkaio and Temuka where we discussed our reproductive project results and also reviewing our 10 in 7 milking regime. A thanks to Ryan Luckman for his work on our repro project and LIC for the regional information provided. Click [here](#) to watch Ryans presentation. The 10 in 7 data is still being analysed but we hope to have a further review out by September. You can find our current data [here](#).

South Africa Large Herd Conference was held in May which DairyNZ scientist Dawn Dalley was invited to present on the drivers of energy efficiency in grazed dairy systems. This topic is front of mind for the South African dairy industry as they grapple with an energy crisis through a mismatch of supply and demand, born through lack of infrastructure and aged infrastructure. As you can imagine this has caused on farm disruption to dairy farmers. Dawn pulled on LUDF's flexible milking project findings to date, along with other NZ trial work around the cows' resilience to return to milk after a delayed milking period.

It is great to see the interest from a far of what LUDF is doing, enabling farmers to understand our system and challenges, whilst hearing about their challenges and ideas. There was some very valuable learnings around water use, alternative power sources, pasture species in an area experiencing higher ambient and soil temperatures, along with cow efficiency and reproduction work they are considering, which also follows LUDF's practices.