



Providing knowledge.

ST PETER'S SCHOOL & LINCOLN UNIVERSITY
DEMONSTRATION DAIRY FARM



St. Peter's
CAMBRIDGE N. Z.



LINCOLN
UNIVERSITY
TE WHARE WĀNAKA O AORAKI

FARM FOCUS DAY

Thursday 26 February 2026

ravensdown 

DairyNZ 



 PGG Wrightson Seeds

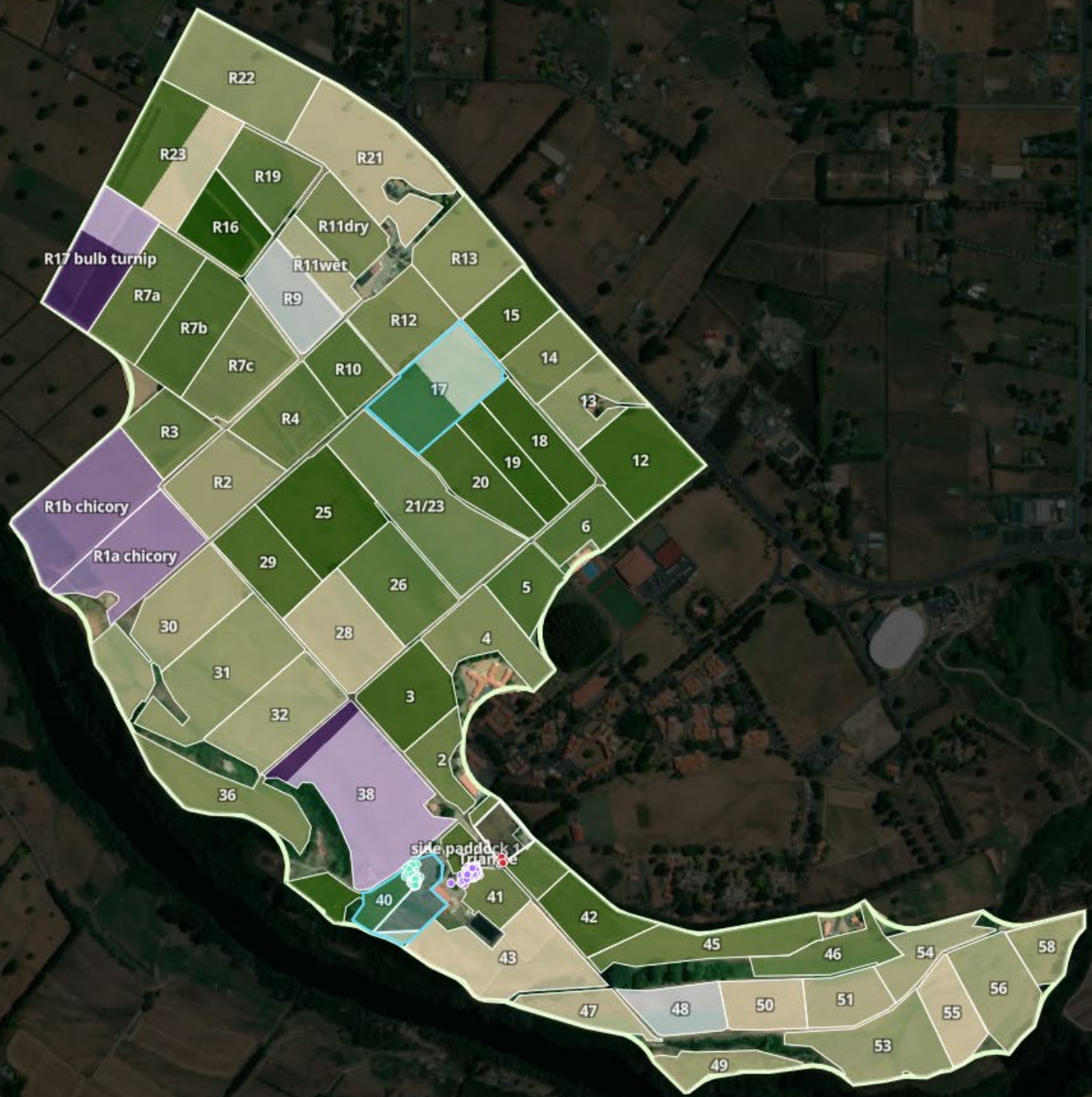


Owl Farm

APC
2410 kg DM/ha

Round length
23 days (3 day avg.)

Growth rate
57 kg DM/ha/d



Smarter farming starts here



HawkEye Pro leverages more on-farm data than ever before, using deep learning to harness, collate and present a recommendation to support the best outcomes for your farming operation.

Take out the guesswork. HawkEye Pro allows you to spot patterns and use data to create better economic outcomes for your farm. Built on a foundation of science, machine learning leverages Ravensdown's knowledge to create a tool that is precision agriculture in action.



Put it where it pays

HawkEye Pro drives profitability from every paddock with precision placement down to 10mx10m - this is more precise than anything currently on the market.

Precision you control

HawkEye Pro enhances your expertise, not replaces it—giving you transparent recommendations and allowing you to do more.

Smarter farming, better returns

Profit meets sustainability—powered by data and science, HawkEye Pro enable variable rate strategies which deliver proven gains of \$50–\$150 per hectare* and is considerate of sustainability goals.

Intergenerational precision

Built for today and tomorrow, HawkEye Pro links our over 40 years of soil science, proven on Kiwi farms, with the next generation of technology.

Proof in every pass

Seamless spreader integration delivers visible proof-of-placement maps, giving you confidence that every paddock gets exactly what it needs.

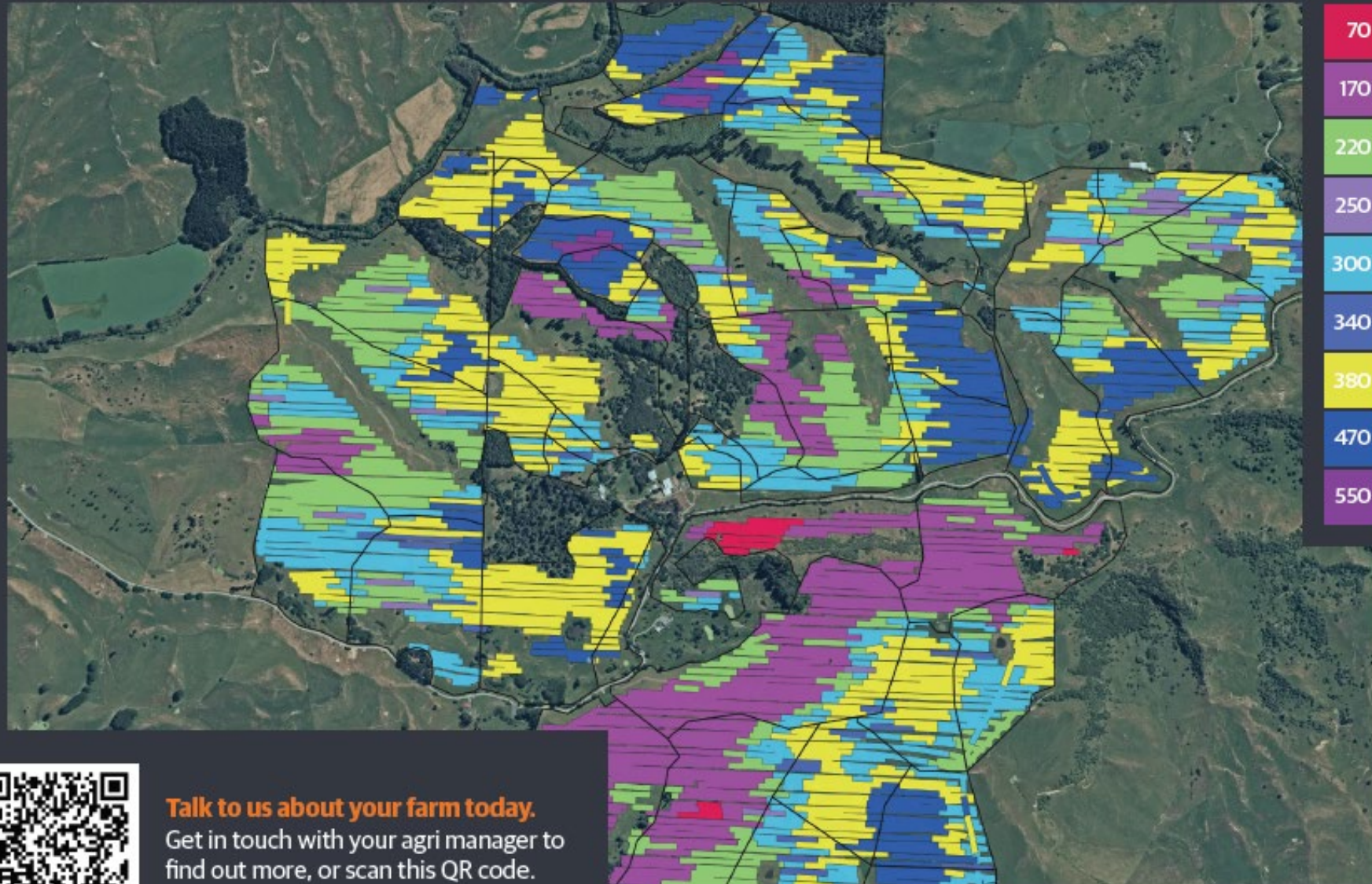
*Based on published, peer reviewed studies on variable rate strategies performed under NZ conditions and are representative of typical gains expected from variable rate strategies but actual gains will be farm specific.

HawkEyePro

by ravensdown 

HawkEye Pro gives us Spatial Intelligence to see what's really happening, a Smart Zone System to manage it better, and Precision Placement to make sure we put it where it pays. See It In action below.

The map below shows how Superphosphate can be applied across a farm, at different rates, for maximum efficiency.



Talk to us about your farm today.
Get in touch with your agri manager to find out more, or scan this QR code.

KPIs





ANIMAL WELL-BEING

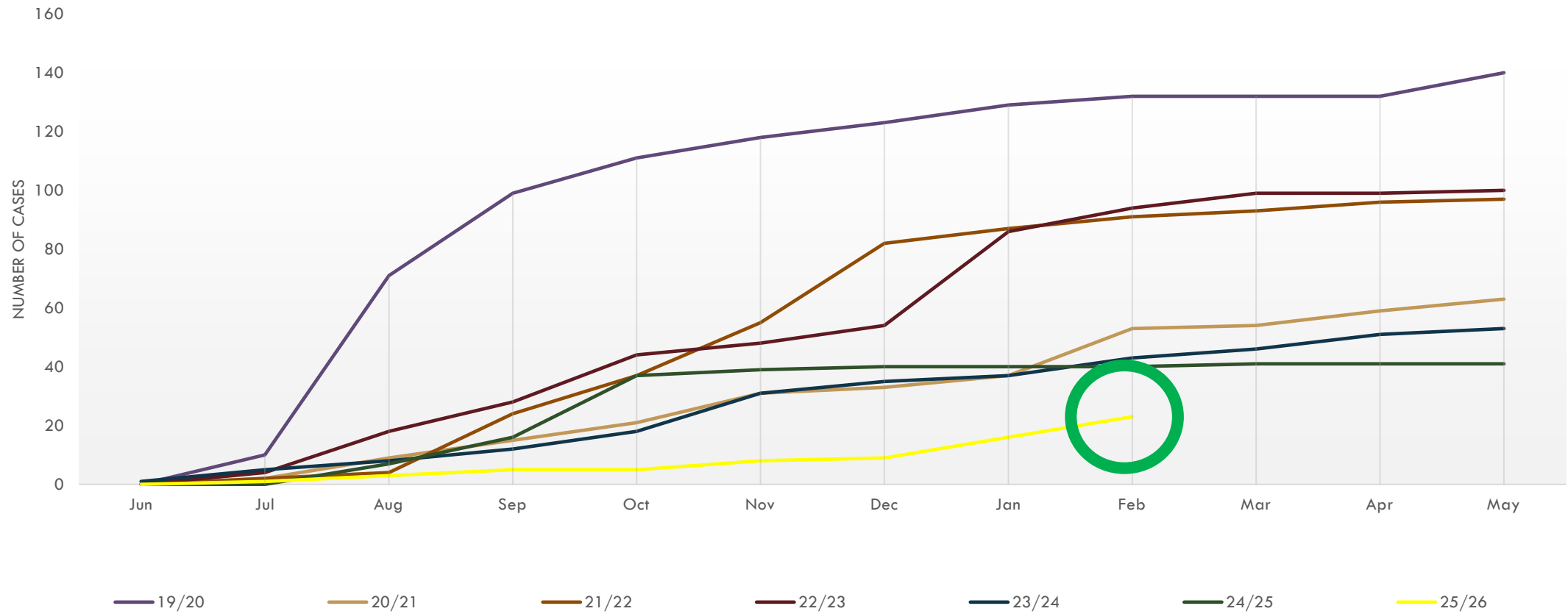
PRIMARY KPI'S

1. Healthy cows
2. Purposeful lives for calves
3. Replacements reared
4. Healthy calves

Lameness



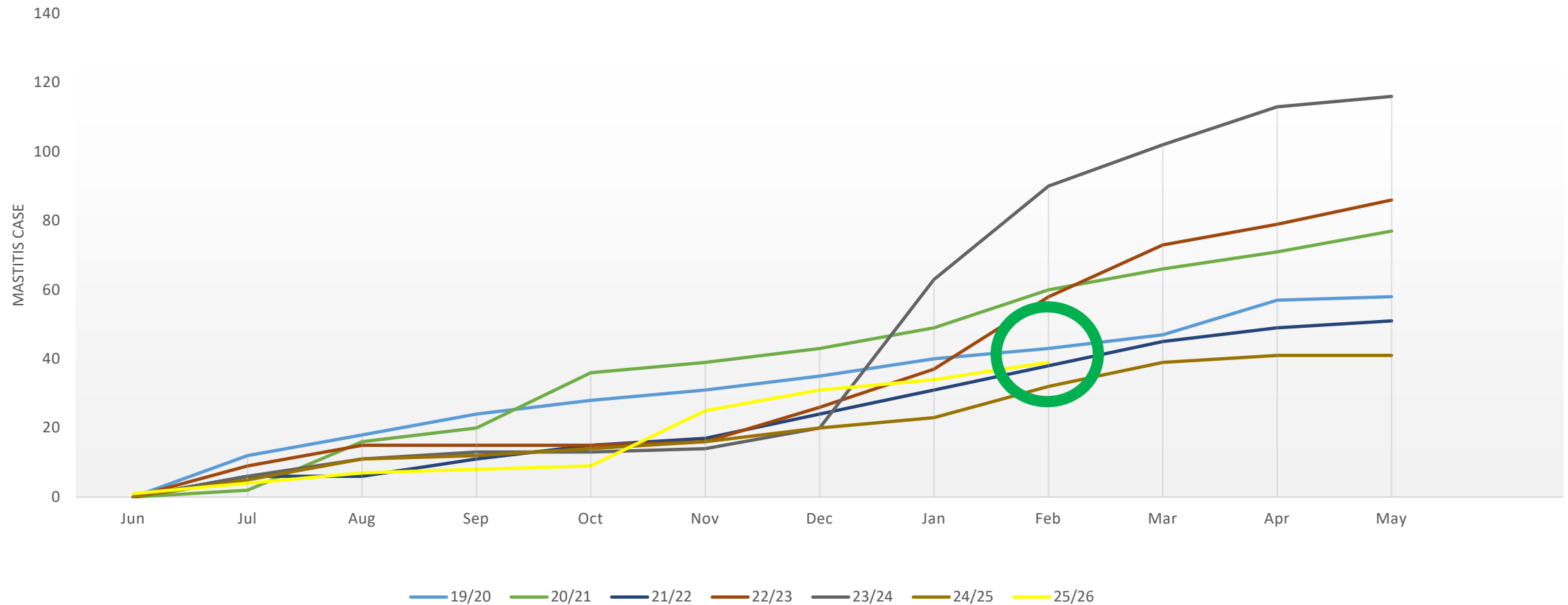
Lameness events



Mastitis



Mastitis - cases treated

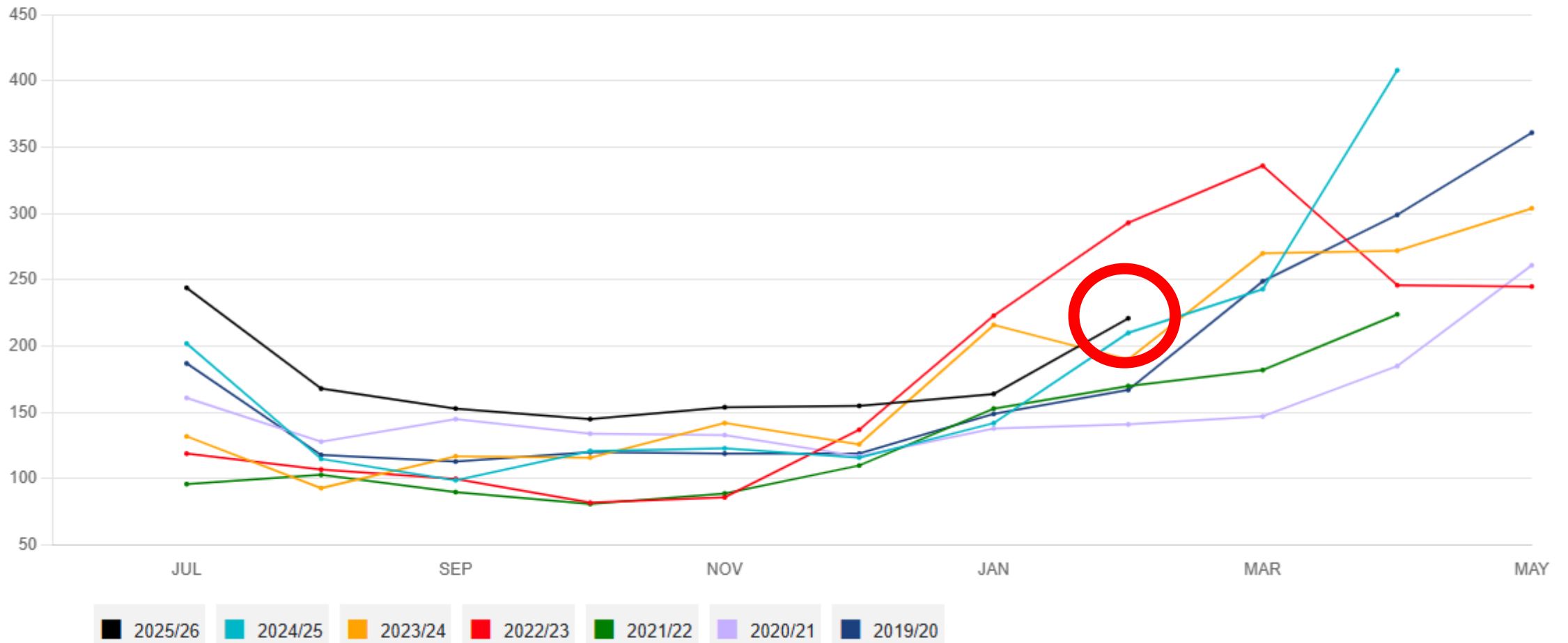


Somatic Cell Count



SCC

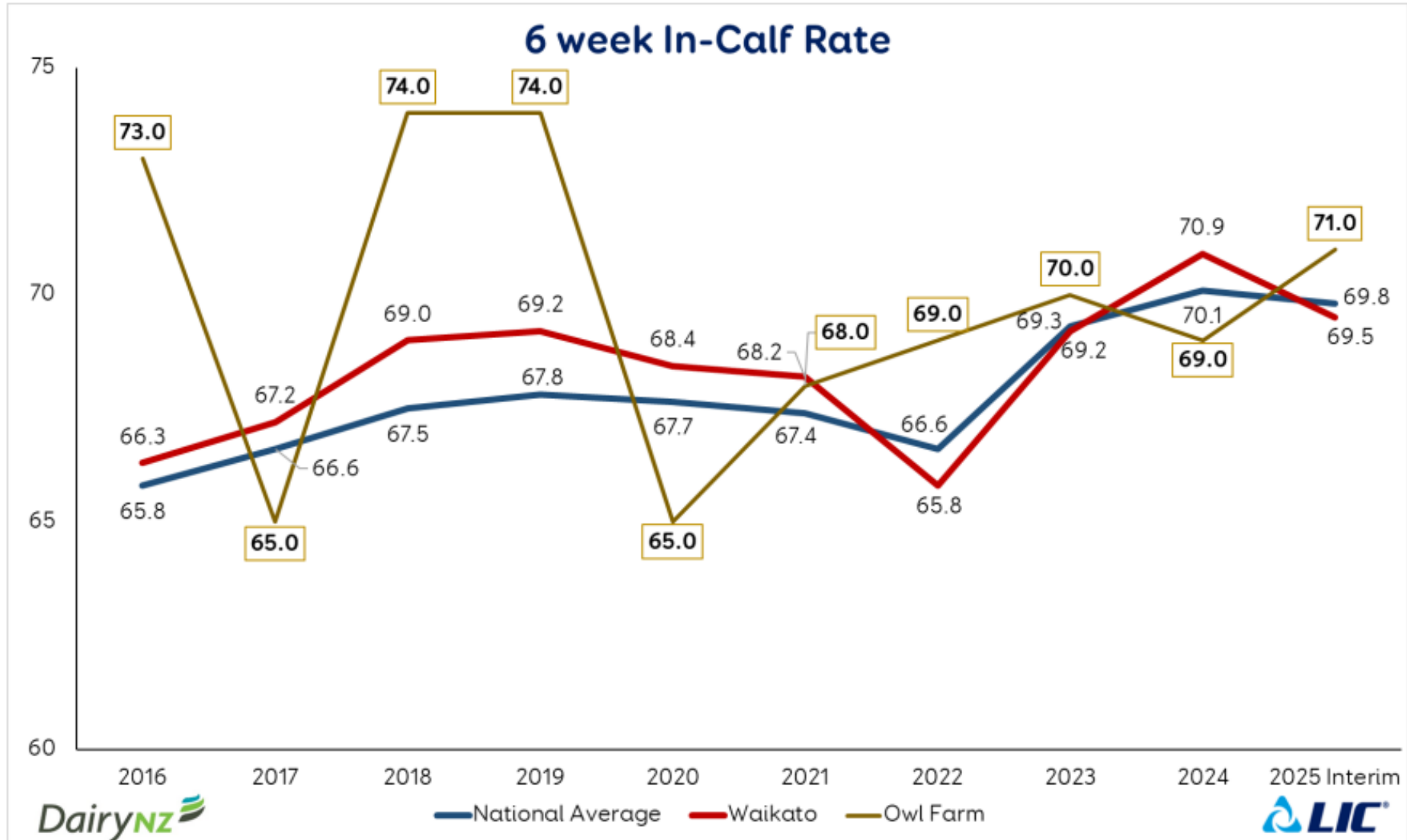
1 Jun - 31 May



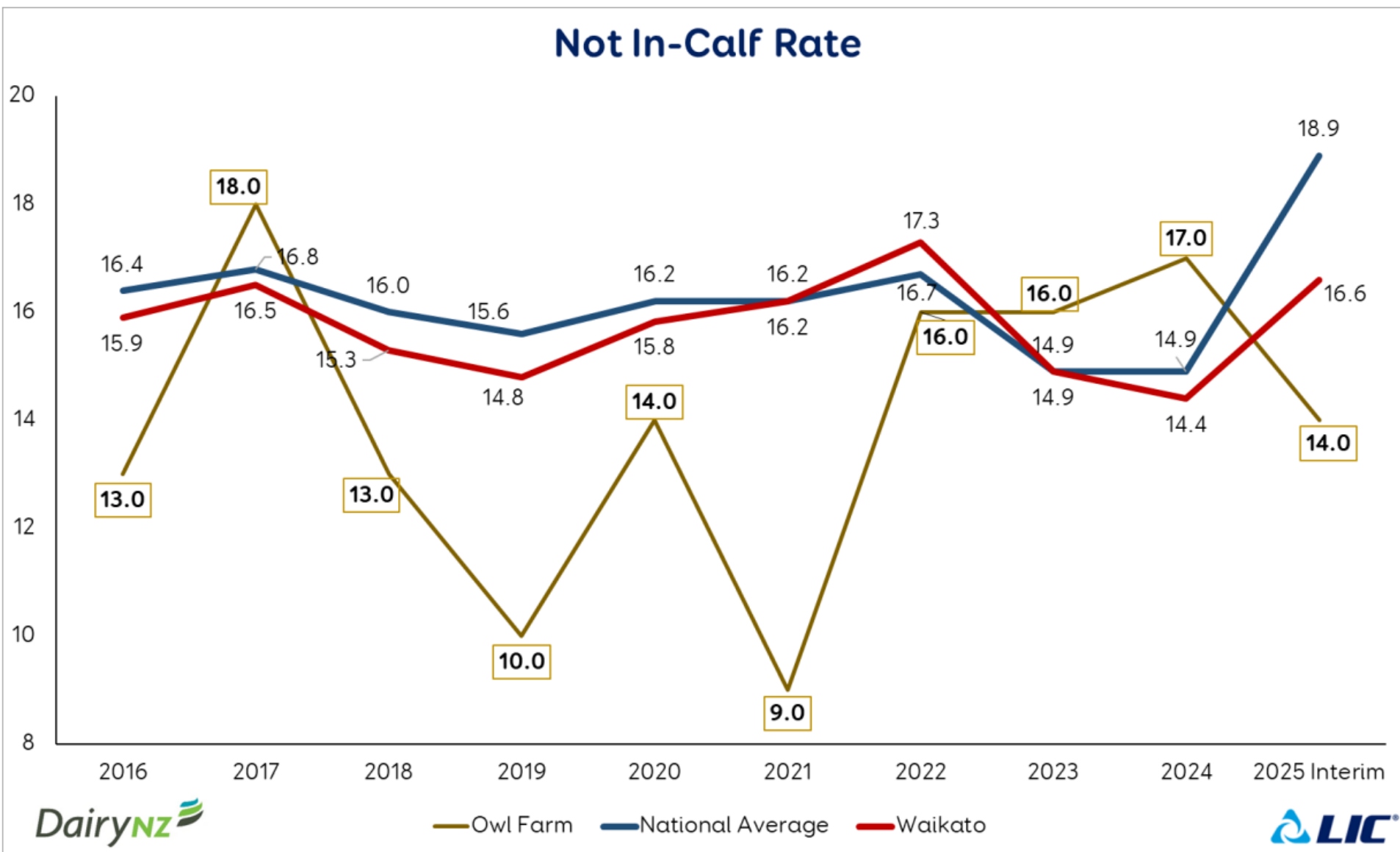
6 week In-Calf rate



ANIMAL WELL-BEING



Not In-Calf Rate



Comparison to previous years



In-calf rate

	3 Weeks	6 Weeks	9 Weeks	9+ Weeks	Not In-Calf Rate	
Spring 2025	52%	71%	81%	86%	14%	▲ LIC
Spring 2024	45%	69%	79%	83%	17%	▲ LIC
Spring 2023	43%	70%	79%	84%	16%	▲ LIC
Spring 2022	41%	60%	76%	85%	15%	▲ LIC

Fertility Focus 2025: Seasonal

Owl Farm
Tony Alarca

Report date: 29/01/26

PTPT: HPTT

Herd Code: 2/1884

No of cows included: 357

These cows calved between: 18/05/25 and 23/11/25

Mating start & end date:
(based on AB or pregnancy test data)
25/09/25 - 17/12/25

Next planned start of calving: 04/07/26

Duration of mating: 84 days

Duration of AB period: 84 days



Version 3.01



1 Overall herd reproductive performance

6-week in-calf rate

Percentage of cows pregnant in the first 6 weeks of mating

Your herd 71% (71-72%)



Aim above 78%

Not-in-calf rate

Percentage of cows not pregnant after 84 days of mating

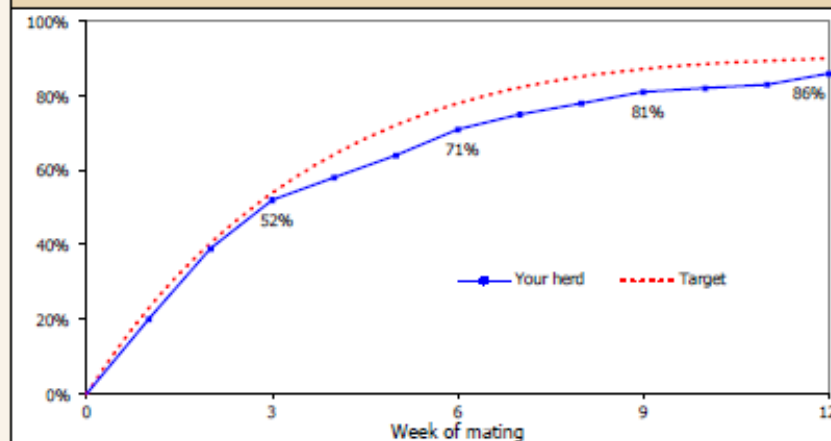
Your herd 14% (13-14%)



Aim for 9%

% of herd in calf

Cumulative by week of mating



2 Drivers of the 6-week in-calf rate

3-week submission rate

% of cows that were inseminated in the first 3 weeks of mating

Your herd 96%



Aim above 90%

Non-return rate

% of inseminations that were not followed by a return to heat

Your herd

Aim above

Conception rate

% of inseminations that resulted in a confirmed pregnancy

Your herd 51%



Aim above 60%

3 Key indicators to areas for improvement

Calving pattern of first calvers
Well managed heifers get in calf quickly and calve early.

Calved by	Week 3	Week 6
Your herd	67%	91%
Aim above	80%	95%
	★	★

Calving pattern of whole herd
Did late calvers reduce in-calf rates?

Calved by	Week 3	Week 6	Week 9
Your herd	53%	87%	99%
Aim above	67%	88%	98%
	★	★★★★★	★★★★★

Pre-mating heats
A high % of well managed cows will cycle before the start of mating.

Your herd	0%	★
Aim above	85%	

3-week submission rate of first calvers
Well managed heifers cycle early

Your herd	98%	★★★★★
Aim above	90%	

Heat detection
A high % of early-calved mature cows should be inseminated in the first 3 weeks of mating.

Your herd	95%	★★★★★
Aim above	95%	

Non-cycling cows
Treated non-cyclers get in calf earlier.

Treated	By MSD	Wks 1-3	Wks 4-6
Your herd	5%	0%	4%

Rating	What does it tell me?	What should I do?
★★★★★	Top result	Ideal - keep up the good work!
★★★★	Above average	Getting there - focus on getting the details right.
★★★	Below average	Plenty of room to improve - seek professional advice.
★	No result	Not enough information provided - seek help with records.

Performance after week 6
Expected not-in-calf rate helps assess management affecting performance after week 6 (including bull management and herd nutrition).

	Not-in-calf rate	
Your herd	14%	OK
Expected	14%	

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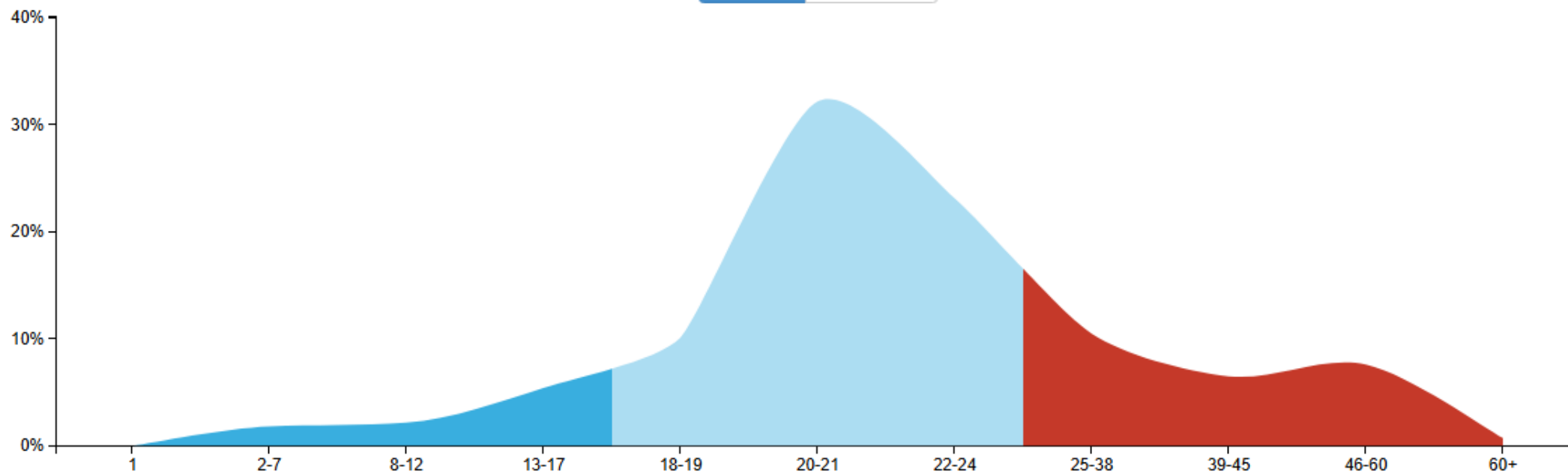
Heat Detection




Return Interval Analysis ?

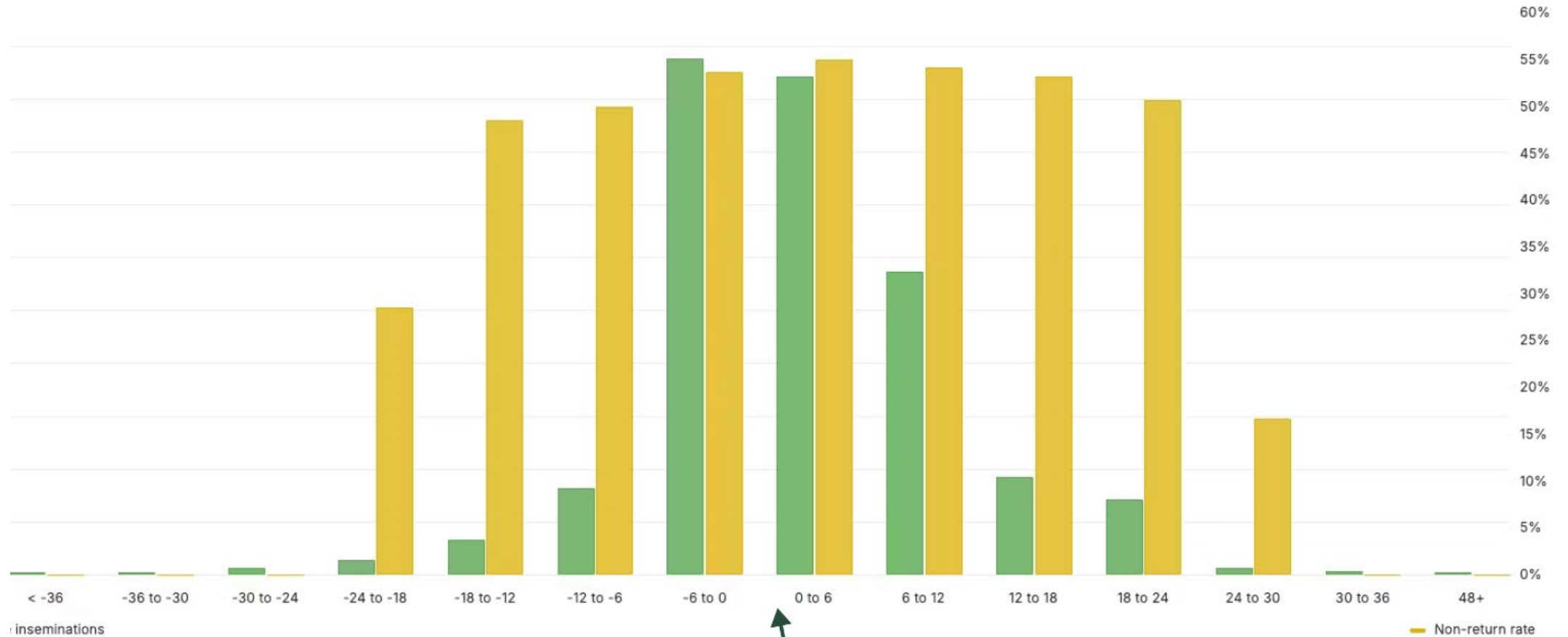
Print

AB Only All Matings

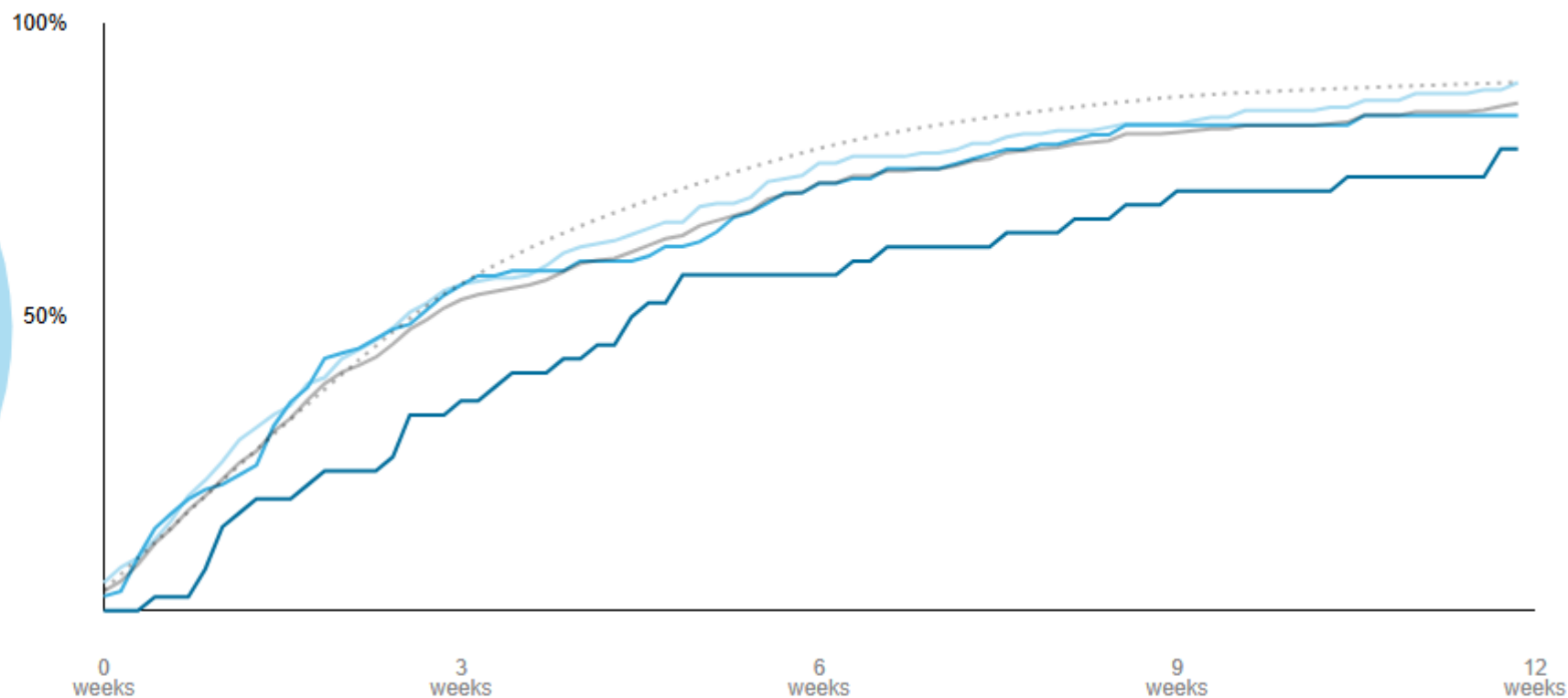
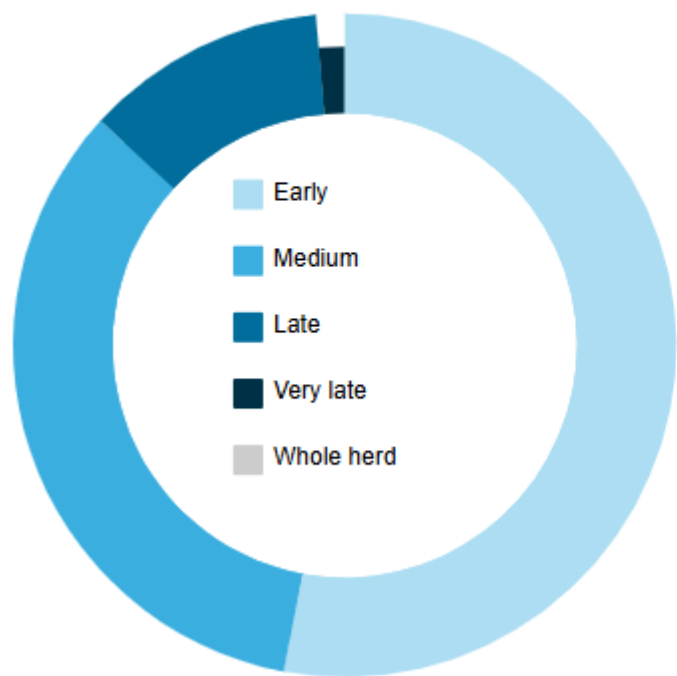


	Interval	Actual	Target
	Short 1-17 days	9%	< 13%
	Normal 18-24 days	65%	>= 69%
	Long 25+ days	25%	< 18%

NRR by AB timing



Time Stamp 0 = peak activity



In-calf rate

Calving Pattern				Count		3 weeks	6 weeks	9 weeks	9+ weeks	Not in-calf rate
Early calvers	< 3 weeks	24 Jul	189	53%	54%	74%	83%	90%	10%	
Medium calvers	3-6 weeks	14 Aug	121	34%	54%	71%	83%	84%	16%	
Late calvers	6-9 weeks	4 Sep	42	12%	33%	57%	69%	79%	21%	
Very late calvers	9+ weeks	25 Sep	5	1%	40%	80%	80%	80%	20%	

Heifer performance

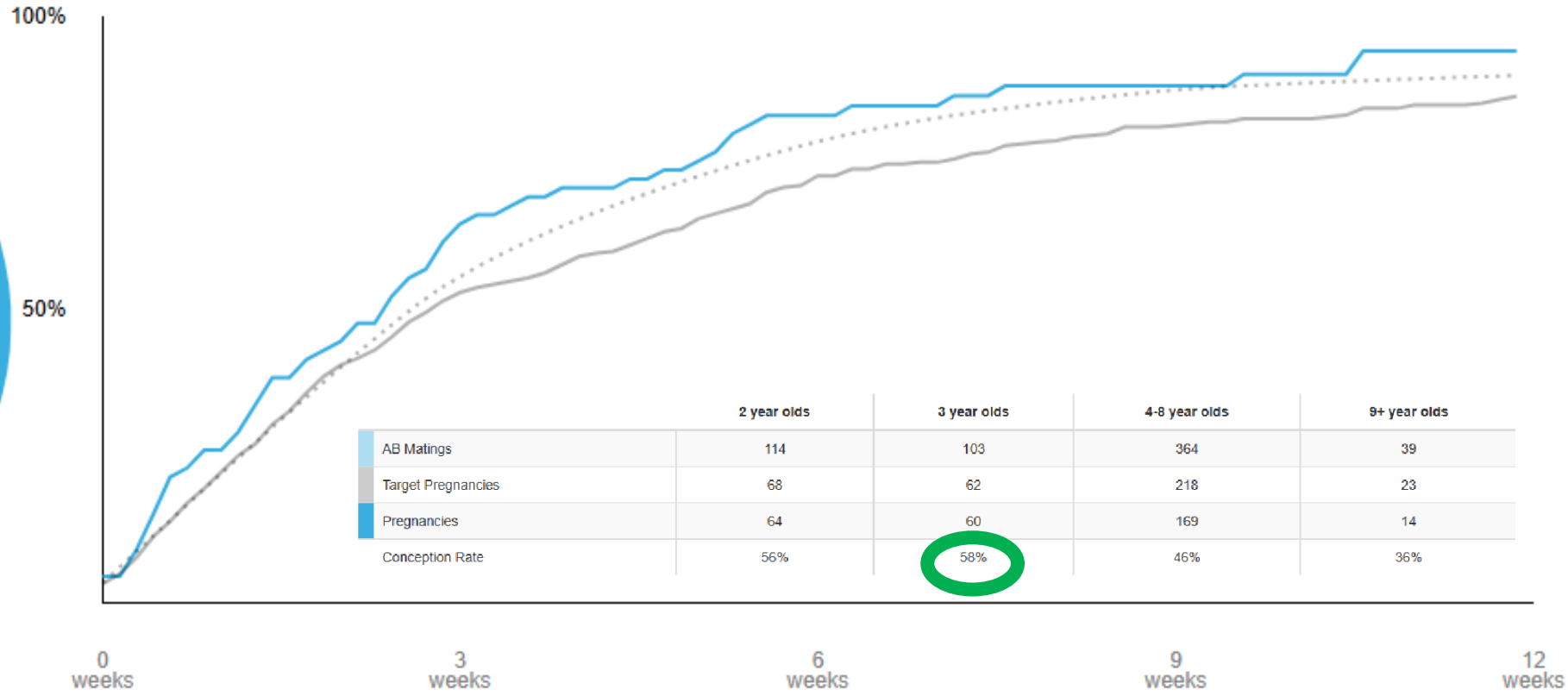
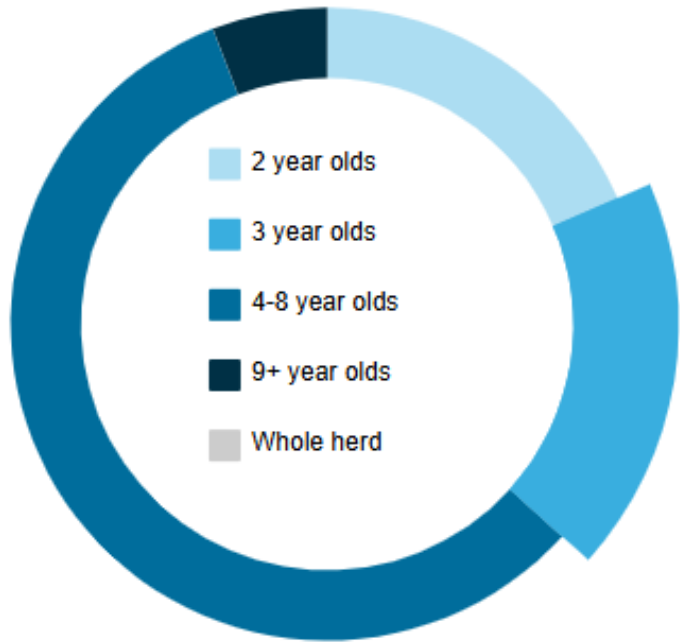


The 2023-born heifers achieved a calving pattern well behind industry targets (**80% calved by week 3** and **95% by week 6**).

2 Year old Calving pattern		COUNT		3 week Submission Rate		Pregnancy rate				NICR
				3 weeks	6 weeks	9 weeks	10+ weeks			
Early Calvers	1-3wks	44	67%	44	100%	61%	82%	91%	98%	2%
Medium Calvers	4-6 wks	16	24%	16	100%	44%	69%	88%	94%	6%
Late Calvers	7-9 wks	6	9%	5	83%	33%	67%	100%	100%	0%
Very Late Calvers	10+ wks	0	0%	0						
Group Total		66		65	98%	55%	77%	91%	97%	3%

This indicates that young stock management leading into mating is an area of opportunity for this farm to unlock an even higher level of performance.

Using a simple tool and assuming a repeat of the repro performance but using a target calving pattern for the two-year-olds instead we can see that the likely 6-week In-Calf Rate of the group would be 79%.

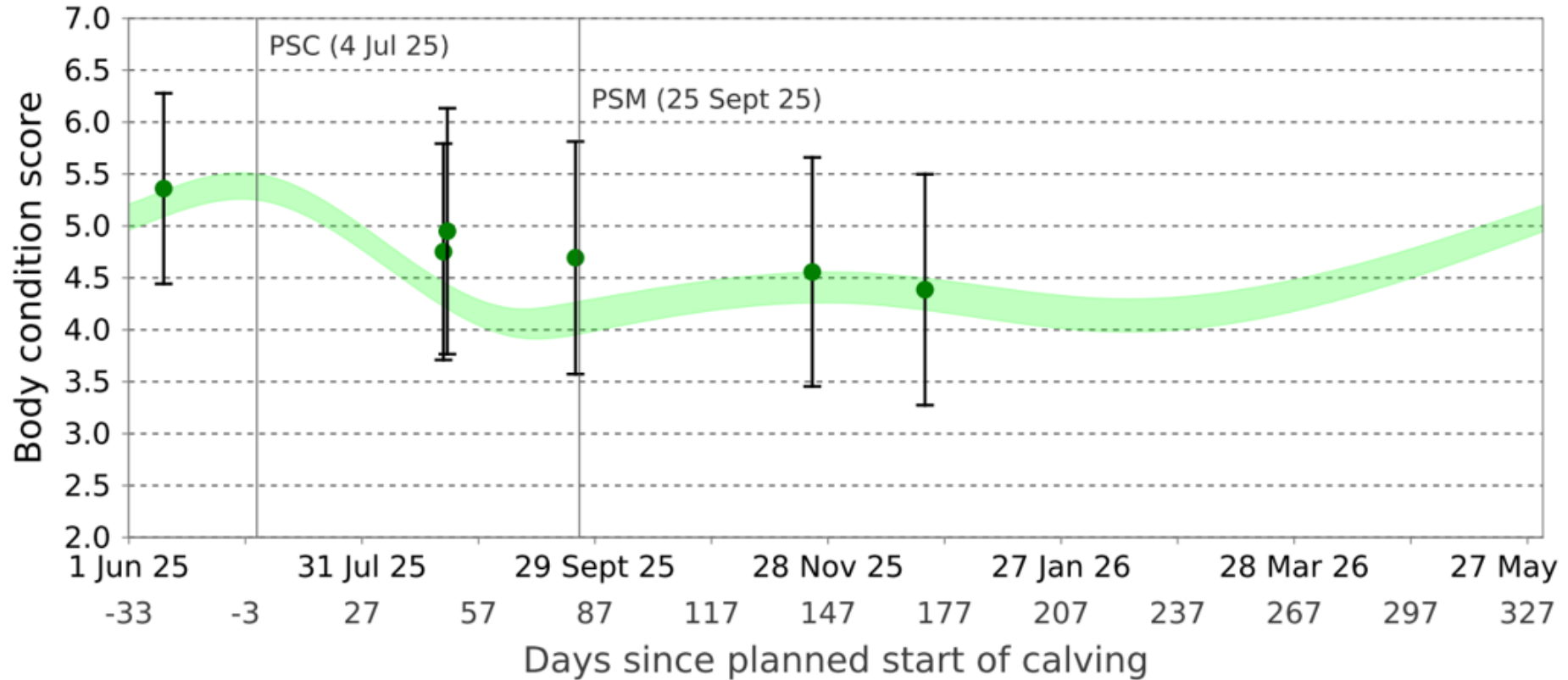


In-calf rate

Age Group	Count	3 weeks	6 weeks	9 weeks	9+ weeks	Not in-calf rate
Two year olds	66 18%	55%	77%	91%	97%	3%
Three year olds	65 18%	62%	83%	88%	94%	6%
Four to eight year olds	205 57%	48%	67%	78%	83%	17%
Nine+ year olds	21 6%	43%	52%	57%	68%	32%

BCS

Body condition score



● Optimal herd average (including heifers).

95% of animals lie within this range { ● Average

BCS at calving



Body Condition Scores

Age	4.5	5.0	5.5	6.0	6.5+	Average
2	5	13	18	35	3	5.6
3	2	30	23	1	0	5.2
4-8	7	55	81	22	0	5.4
9+	1	5	7	2	1	5.4
All	15	103	129	60	4	5.4

BCS at mating



Body Condition Scores

Age	3.5	4.0	4.5	5.0	5.5	6.0	Average	
2	0	4	11	25	16	8	5.1	-0.5
3	0	20	29	14	0	1	4.5	-0.8
4-8	7	44	72	51	19	4	4.6	-0.8
9+	2	4	5	13	3	3	4.8	-0.6
All	9	72	117	103	38	16	4.7	

Mating Plan



Replacement AB – 25/9/25 to 22/10/25 – Week 1-4

- 25/9/25 to 15/10/25 – 21 days @ 8 straws sexed per day (168 straws)
- 16/10/25 to 22/10/25 – 7 @ 4 straws sexed per day (28 straws)
- During this 4-week period approx. x2 cows a day need to go to Forward Pack Kiwicross (this is to ensure you get enough calves)
- Beef - Charolais Milestone into anything else on the day (low BW/late/ intervention cows)

Marker – Charolais- Milestone - 23/10/25 to 27/10/25

- 23/10/25 to 27/10/25 – 5 days

Performance Beef – 28/10/25 to 3/12/25

- 28/10/25 to 6/11/25 – 10 days Profit Maker
- 7/11/25 to 16/11/25 – 10 days (Changus - Genez)
- 17/11/25 to 26/11/25 – 10 days (Angus/Project - Genez)
- 27/11/25 to 3/12/25 – 10 days (Charolais/Sonic – Genez)

SGL Kiwicross – Week 11-12

- 4/12/25 to 17/12/25

Semen selection

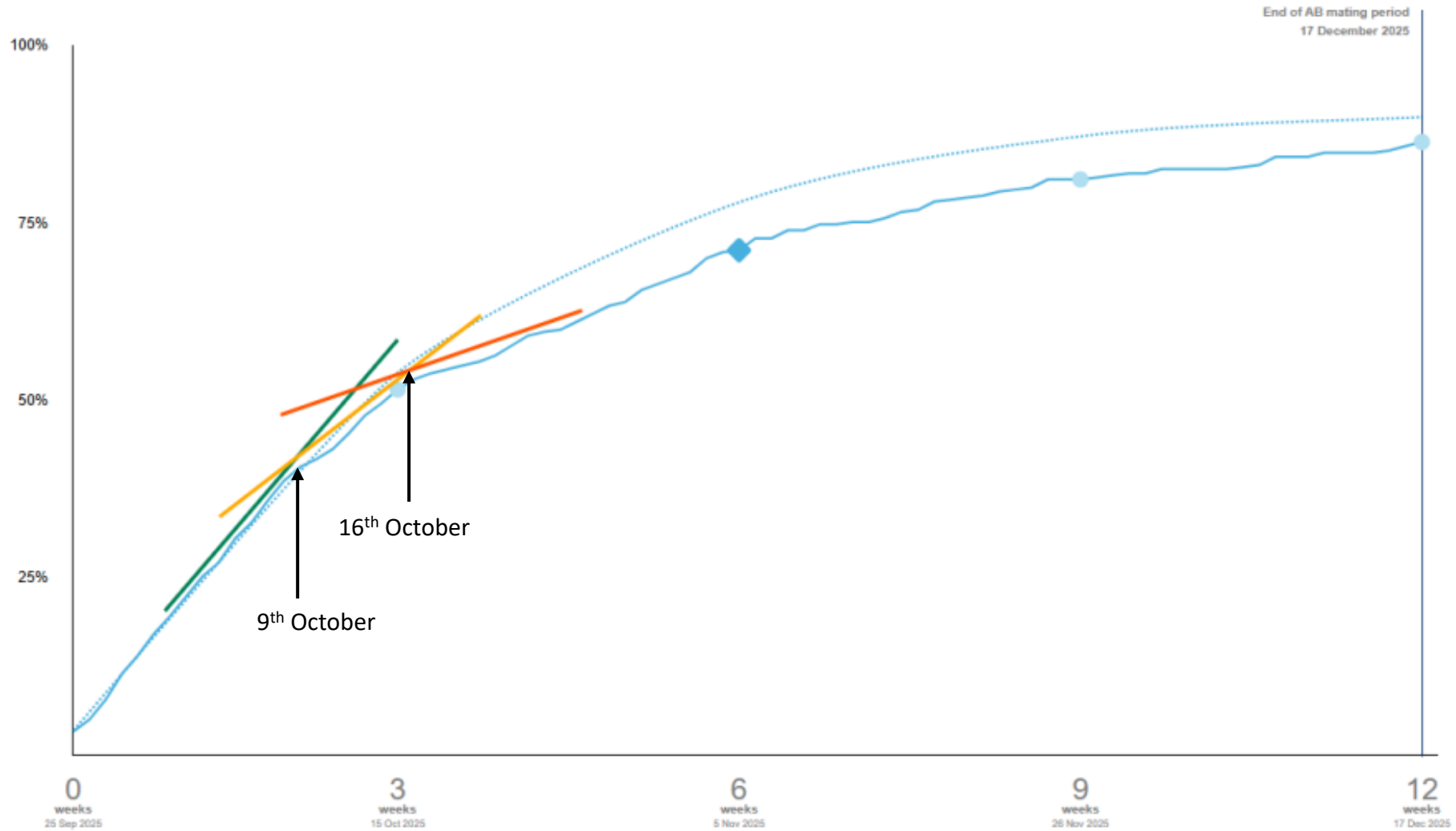


- Sexed Semen – 196 straws, 50% CR
 - Forward Pack – 53 straws, 62% CR
 - Charolais 722400 – 163 straws, 44% CR (includes CIDR cows)

 - Profit maker Pack – 75 straws, 51% CR
 - Changus 725057 – 44 straws, 43%
 - Angus 722144 – 24 straws, 46% CR & Angus 721282 – 10 straws, 40% CR
 - Charolais 723500 – 22 straws, 41%

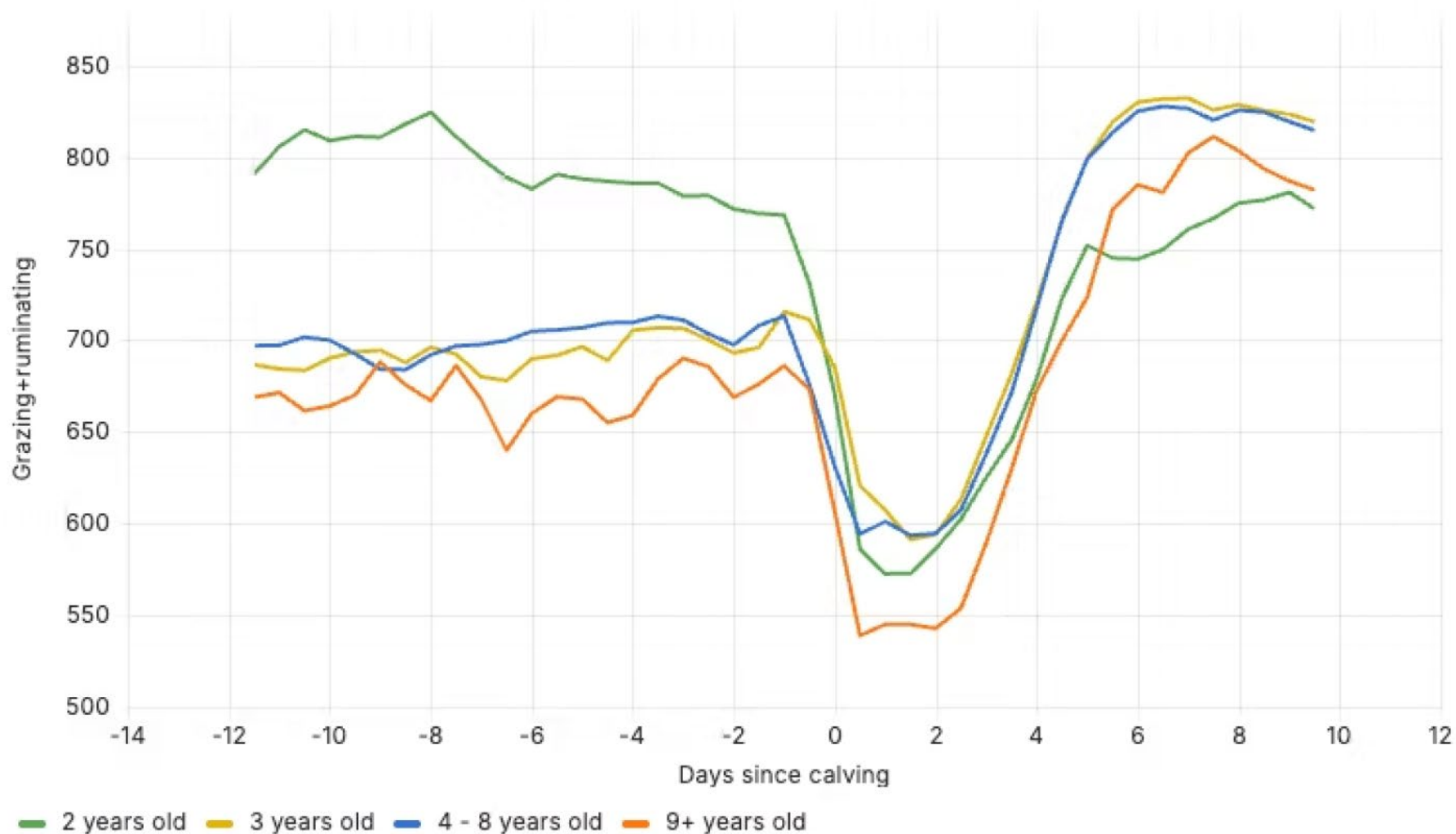
 - SGL Dairy – 36 straws – 36% CR (includes phantom cows)
-

Nutrition

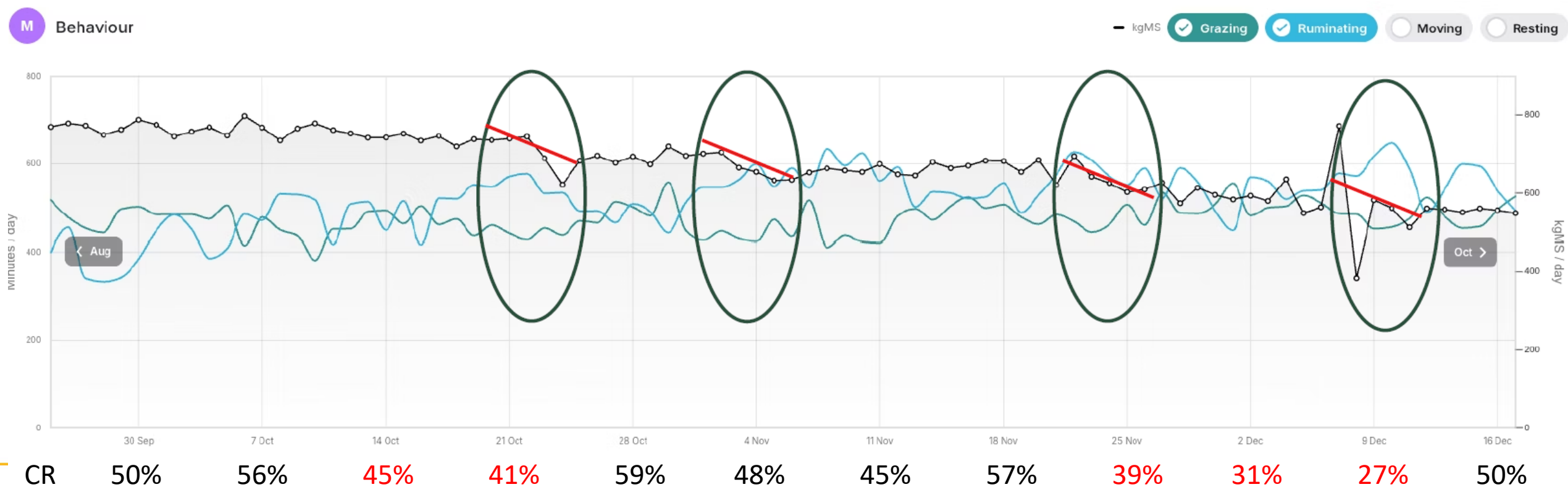


Rumination recovery

Calving transition graph by cow age - grazing + ruminating (Owl Farm, Spring 2025) ⓘ



Mob behaviour and milk production during mating

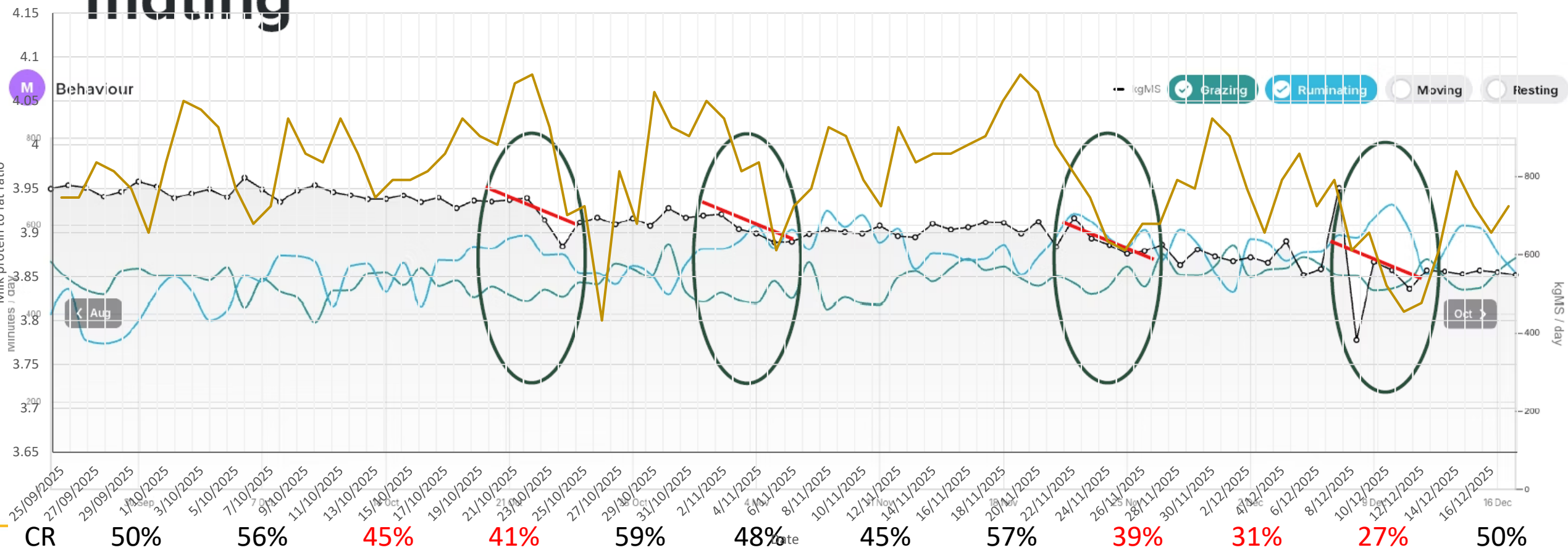


Milk protein % correlation

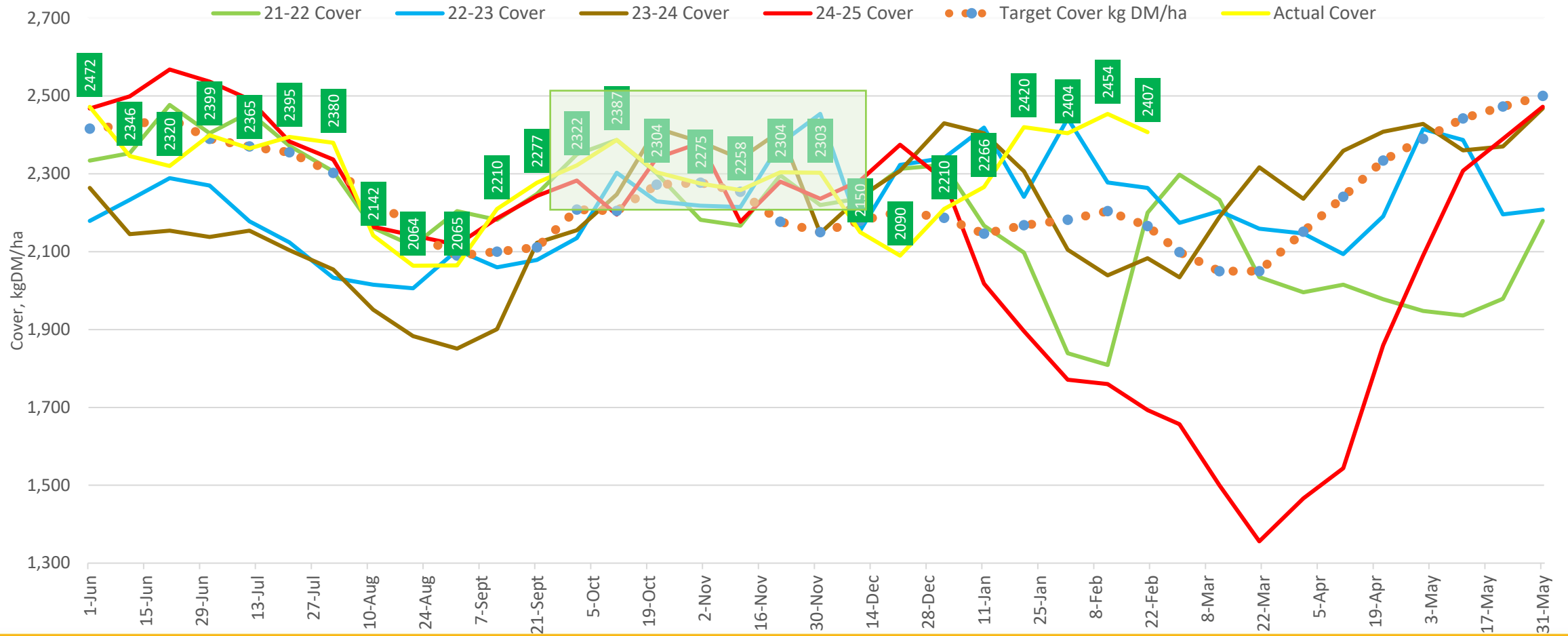


Mob behaviour and milk production during mating

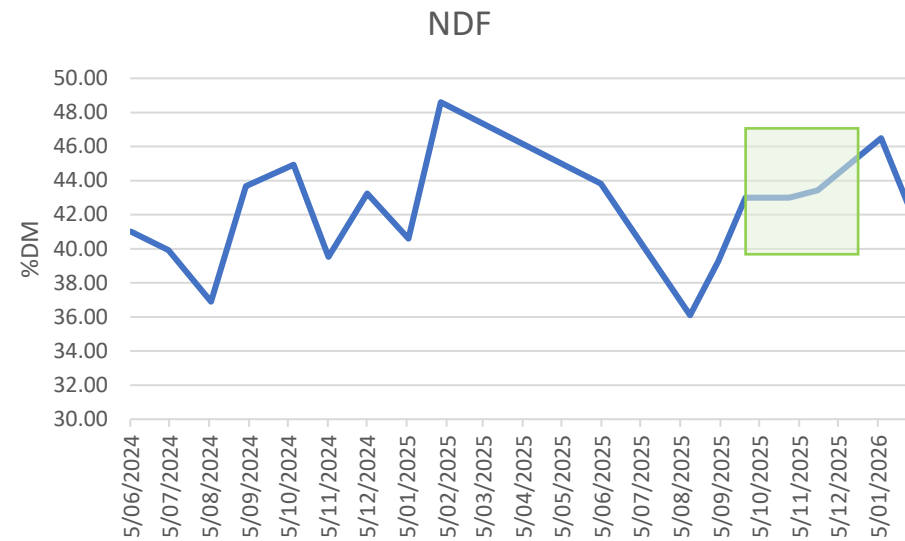
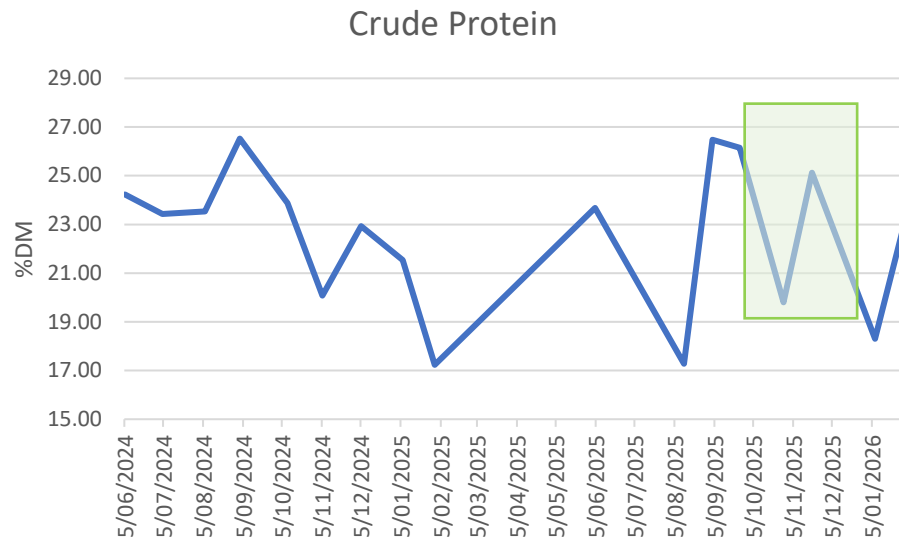
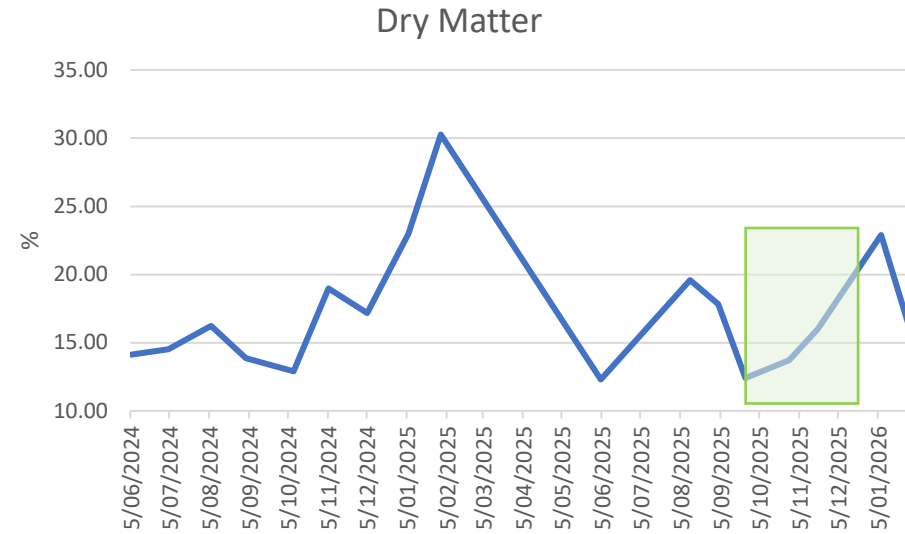
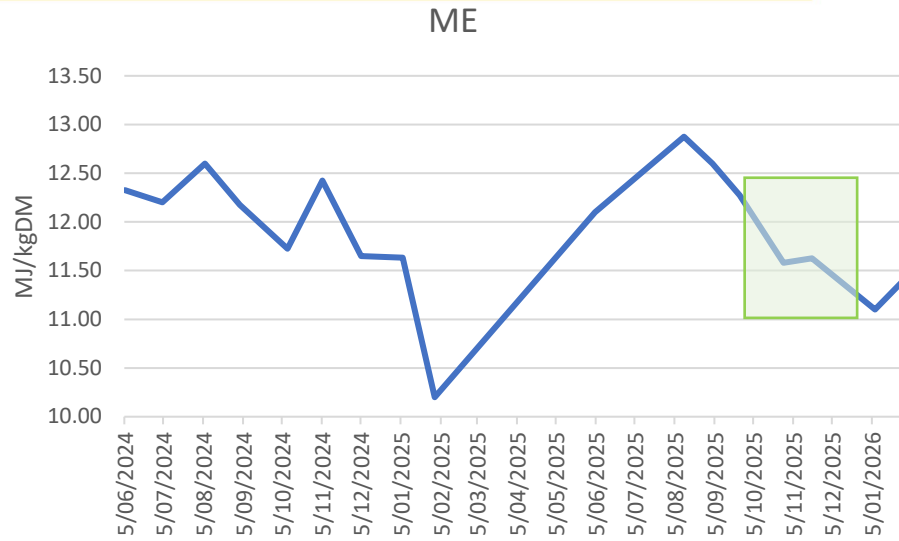
Owl Farm Milk Protein% 2025



Owl Farm Pasture Cover



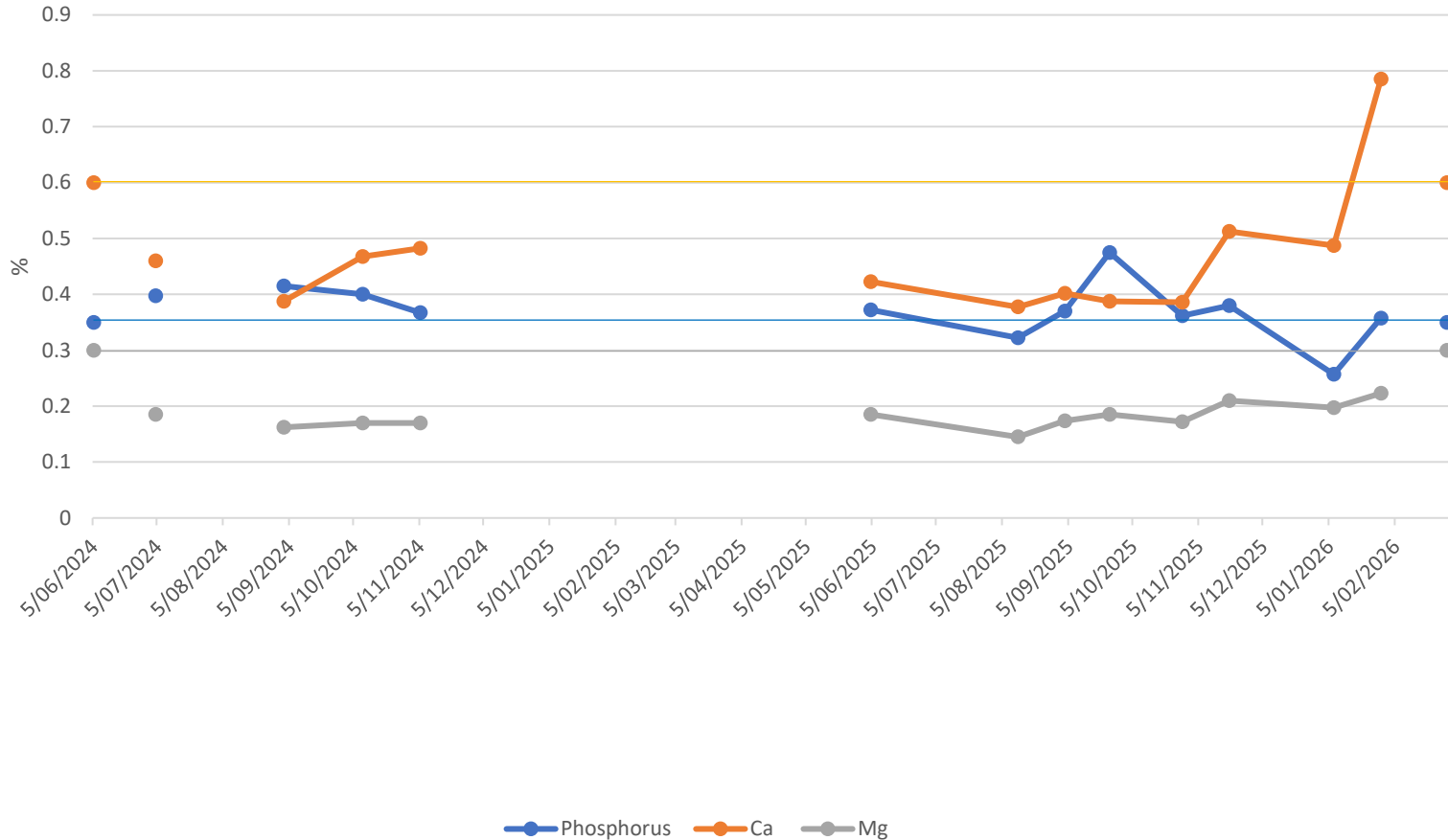
Feed quality



Pasture minerals



Minerals



Health and disease



- Calving assists 4.2% (vs 8.4% last year)
- RFM 0% (vs 2%)
- Metri-clean 5.7% (vs 8.5% last year)
- Down cow 2.5 % (vs 4% last year)
- Bloods taken in June, July and August
 - Magnesium and Calcium good
 - Selenium good
 - Iodine low

Calcium	Results	Units	Ref Range	Low	Adequate	High
Animal ID						
37	2.60	mmol/L	2.00 - 2.60			
68	2.34	mmol/L	2.00 - 2.60			
99	2.39	mmol/L	2.00 - 2.60			
140	2.45	mmol/L	2.00 - 2.60			
249	2.21	mmol/L	2.00 - 2.60			
283	2.44	mmol/L	2.00 - 2.60			
297	2.39	mmol/L	2.00 - 2.60			
341	2.48	mmol/L	2.00 - 2.60			
325	2.32	mmol/L	2.00 - 2.60			
330	2.35	mmol/L	2.00 - 2.60			
Average:	2.40					

Iodine	Results	Units	Ref Range	Low	Adequate	High
Animal ID						
Iodine Pool	63	ug/L	45 - 220			
Average:	63					

Magnesium	Results	Units	Ref Range	Low	Adequate	High
Animal ID						
37	1.02	mmol/L	0.60 - 1.23			
68	0.89	mmol/L	0.60 - 1.23			
99	1.07	mmol/L	0.60 - 1.23			
140	1.13	mmol/L	0.60 - 1.23			
249	1.00	mmol/L	0.60 - 1.23			
283	1.16	mmol/L	0.60 - 1.23			
297	0.63	mmol/L	0.60 - 1.23			
341	1.03	mmol/L	0.60 - 1.23			
325	1.06	mmol/L	0.60 - 1.23			
330	0.99	mmol/L	0.60 - 1.23			
Average:	1.00					

BOH	Results	Units	Ref Range	Low	Adequate	High
Animal ID						
C 251	0.96	mmol/L	0.00 - 1.00			
C 162	0.56	mmol/L	0.00 - 1.00			
C 77	0.46	mmol/L	0.00 - 1.00			
C 81	0.52	mmol/L	0.00 - 1.00			
C 91	0.96	mmol/L	0.00 - 1.00			
M 57	0.67	mmol/L	0.00 - 1.00			
M 250	0.61	mmol/L	0.00 - 1.00			
M 30	1.49	H mmol/L	0.00 - 1.00			
M 116	0.76	mmol/L	0.00 - 1.00			
M 335	0.75	mmol/L	0.00 - 1.00			
F 66	0.42	mmol/L	0.00 - 1.00			
F 331	0.40	mmol/L	0.00 - 1.00			
F 156	0.65	mmol/L	0.00 - 1.00			
F 326	0.55	mmol/L	0.00 - 1.00			
F 184	0.51	mmol/L	0.00 - 1.00			
Average:	0.68					

CIDR programme



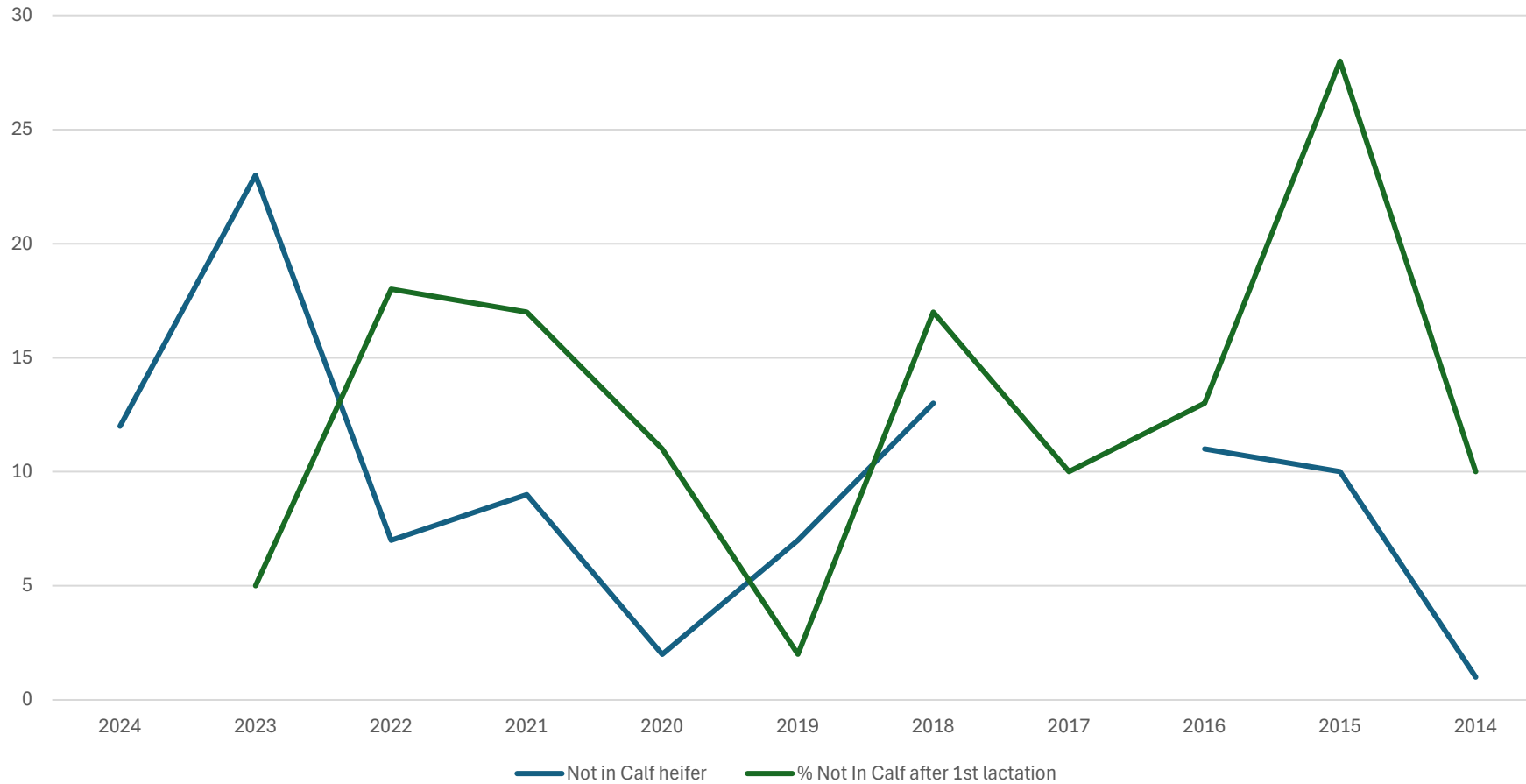
- CIDR date 18/9
 - 7/18 pregnant 38% CR final pregnant 83% in calf
 - CIDR date 3/10
 - 6/17 pregnant 35% CR final pregnant 71% in calf
 - CR to first service 37% vs target of 45% (vs last season 25%)
 - CIDRs used 9.8% vs 12.5% - no CIDR used on a cow CIDR'd the year prior
 - Strict on “must be calved more than 42 days” rule
-

Phantom cows

- Cows mated in the first 4 weeks assumed in-calf
- Scanned 10 days before end of mating (28th November)
- 13 cows AI'd, no subsequent heat, empty
- CIDR'd
- 5/13 in calf = 38%
- Also gave us accurate early pregnancy data

Heifer matings


Heifer Not In Calf and Not In Calf after 1st lactation



Opportunities to close the gap

Increase CR from 51% to 60%



Factor	Goal	Action
Heifers	Improve calving pattern of first calvers	Natural mate heifers starting a week early to drive compact and early calving 
Cow	Reduce variance in BCS	Manage late lactation dry-off decisions to ensure cows aren't over conditioned at PSC
	Improve the transition of early calving cows (4-8 year olds)	Endeavour to treat 4-8 year olds as we do young cows. Reduce competition and adjust feed system to ensure feed pinches are filled during early lactation – reduce the risk of cows buffering the feed system. Monitor milk protein % declines and respond.
	Transition recovery	Manage transition recovery 5 days after calving – increase days in colostrum mob to 8. Monitor recovery alerts.
	Balance minerals	Maintain Calcium in the diet (100g limeflour) for full lactation add MCP (Phosphorus) when diet is lacking in early lactation. Explore options for pre-calving feeding minerals through shed.

Opportunities to close the gap

Increase CR from 51% to 60%



Factor	Goal	Action
Intervention	CIDR	Useful if used on cows calved > 42 days early in mating. Requires programmed approach to reduce use
	Sexed Semen	Use fewer straws per day supported with 2 Forward Pack straws/day for smaller cows. Criteria 2+ heats/no intervention/optimum window for sexed/BW
	Artificial Insemination	Ensure facilities and process is optimum for tech use. Ensure team know bull codes and what bull is to be used. Work with LIC to mitigate risks over a prolonged AB period.
Semen	Bull fertility in straws	Explore results from bulls and ensure enough variety in dairy beef team to reduce risk on reduced CR with new bulls to the team. Alternative Changus breeds with full colour dilution to replace reliance on Milestone.



**FARM
PERFORMANCE**

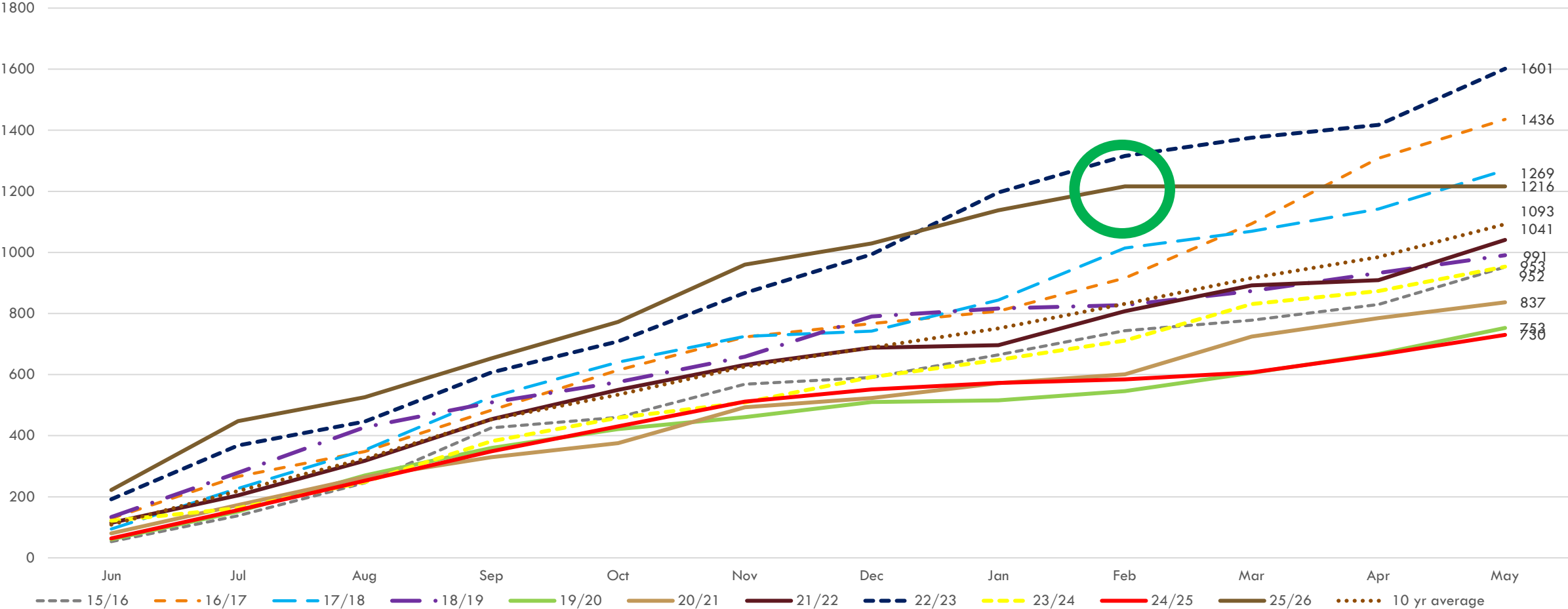
PRIMARY KPI'S

1. P&C harvested/ha
2. MS/ha to 31st Dec

Rainfall cumulative



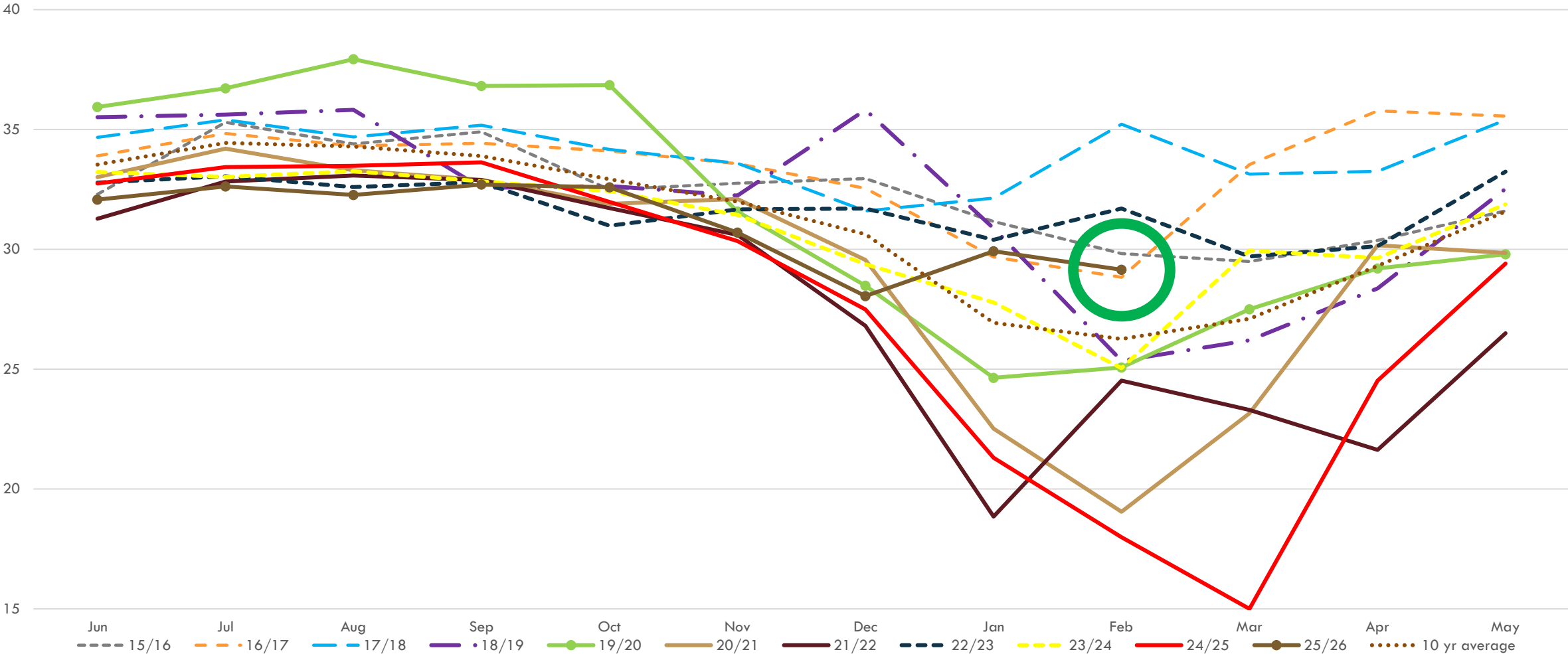
Rainfall - Farming Year



Soil moisture



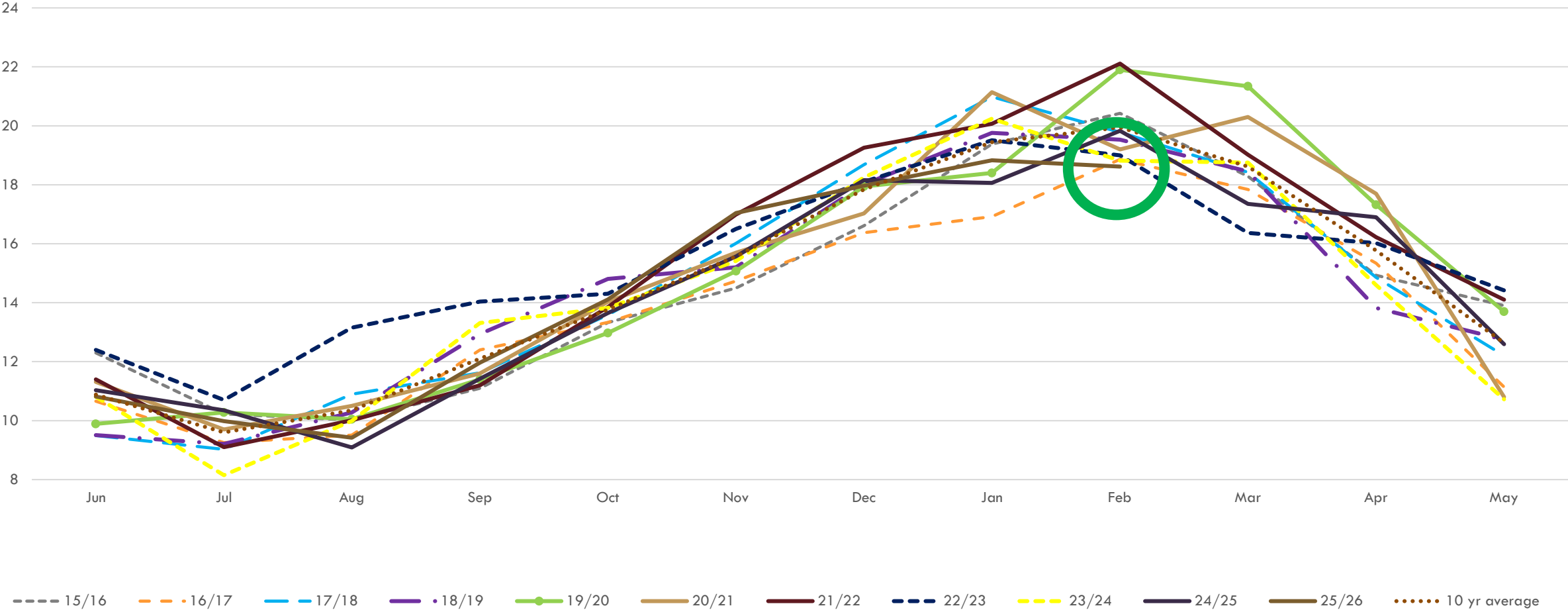
Average Soil Moisture



Air temperature



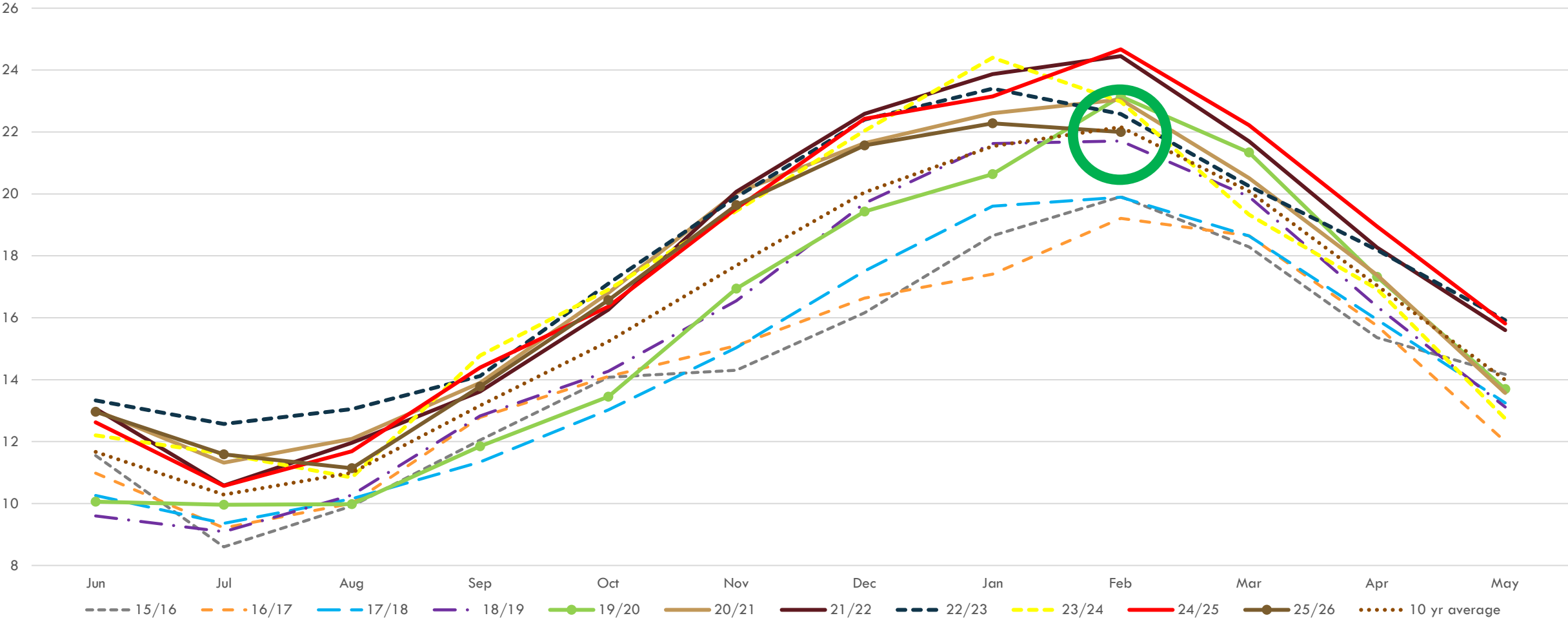
Average Air Temperature



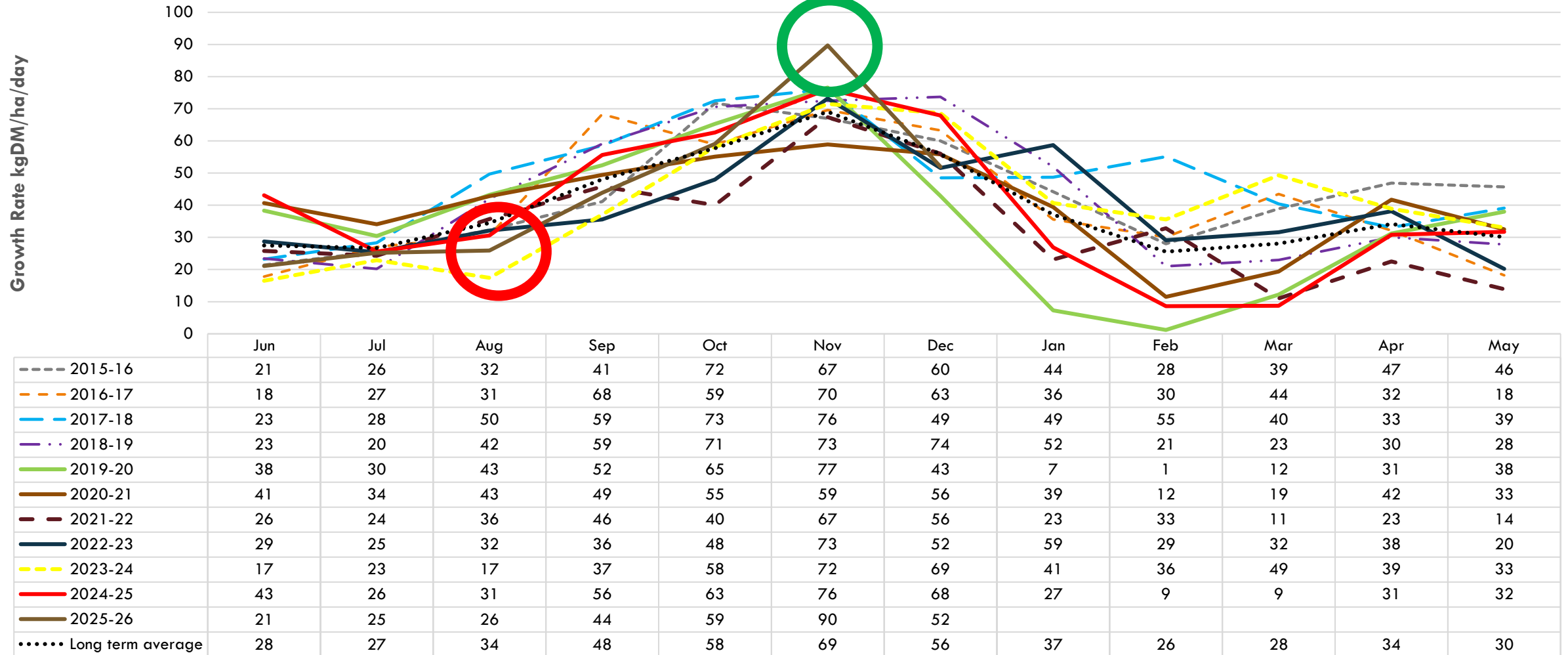
Soil temperature



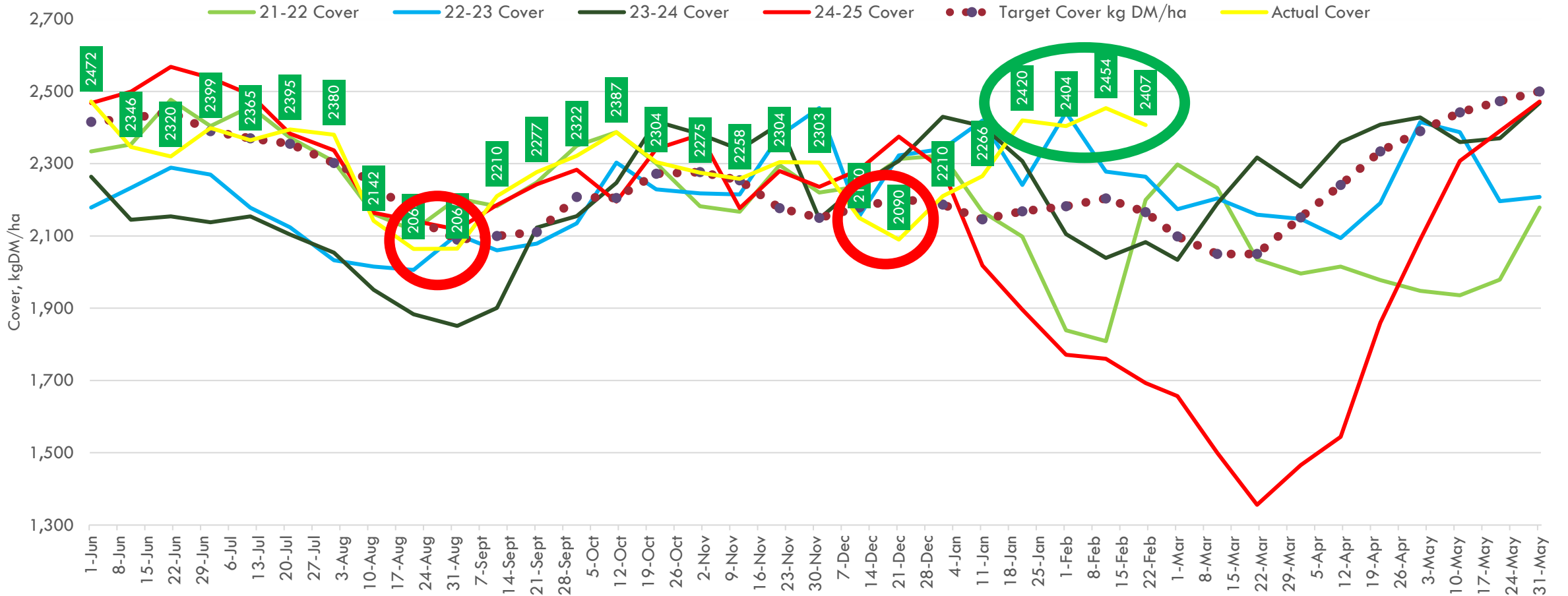
Average Soil Temperature



Farmax Potential Growth Rates



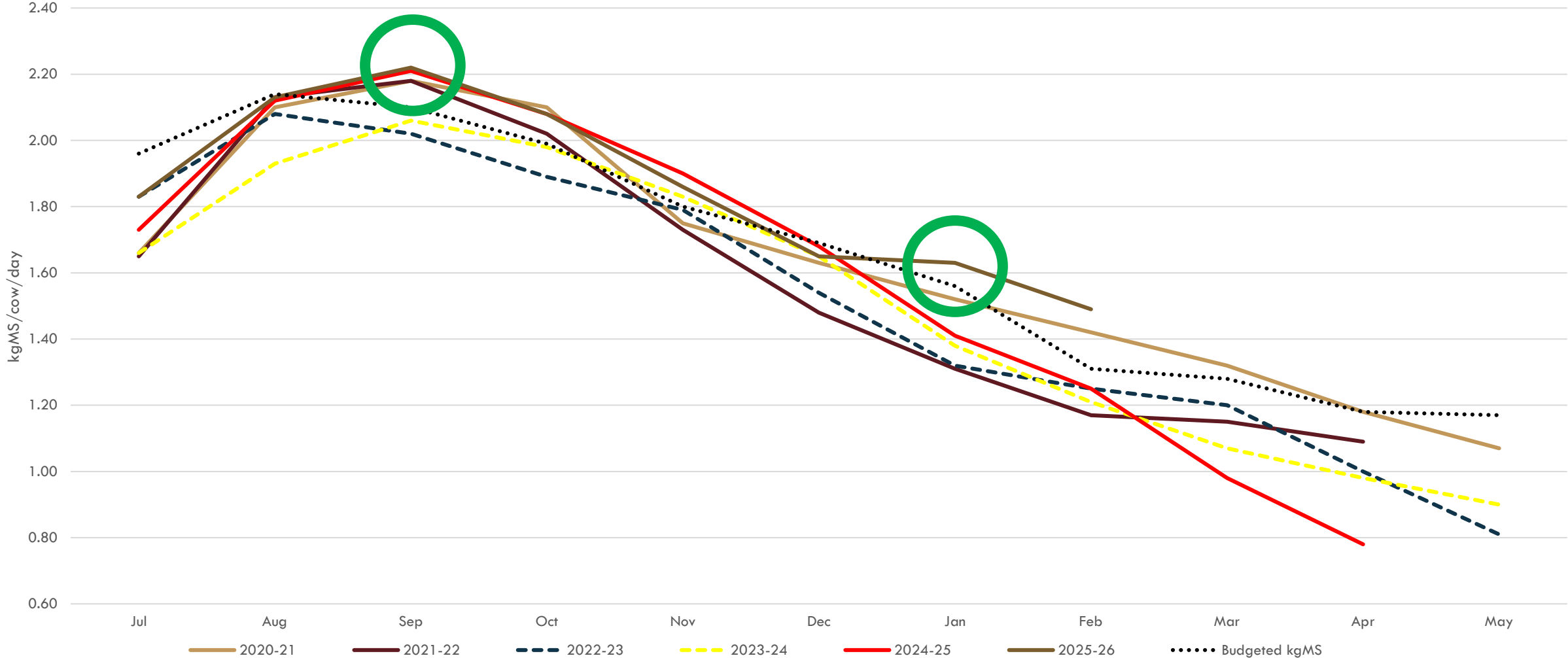
Owl Farm Pasture Cover



Milk Production



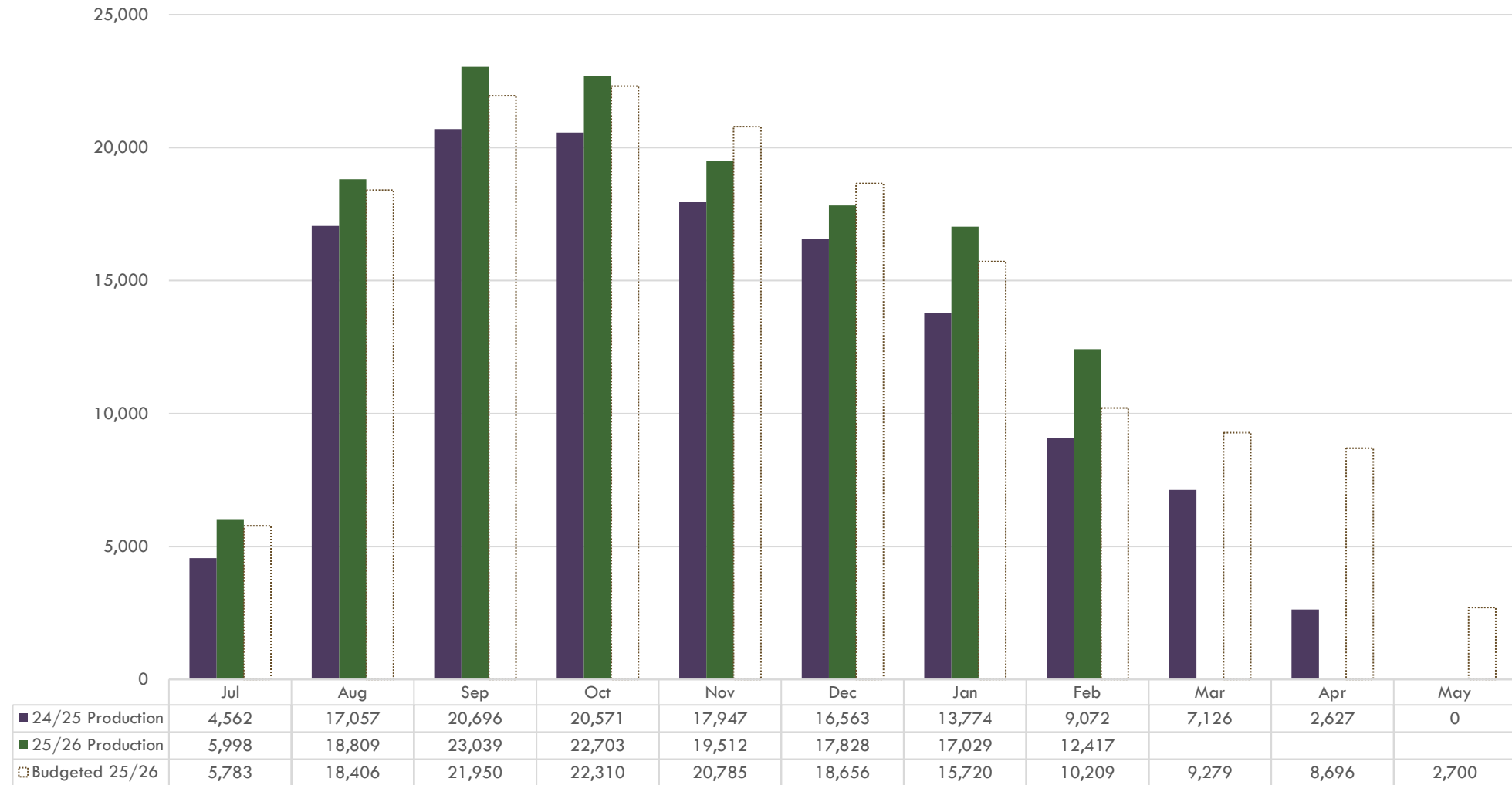
Production per cow: monthly average



Milk Production



Production: Monthly Performance



This activity is funded through your DairyNZ levy

DairyNZ 

Together.
Let's vote.

Shared knowledge is our advantage.

MILKSOLIDS LEVY
VOTE
16 FEB — 13 MAR





Providing knowledge.

ST PETER'S SCHOOL & LINCOLN UNIVERSITY
DEMONSTRATION DAIRY FARM



St. Peter's
CAMBRIDGE N. Z.



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29 April 2026 FARM FOCUS DAY

