



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

## Tuesday 26 May 2026





**FARM  
PERFORMANCE**

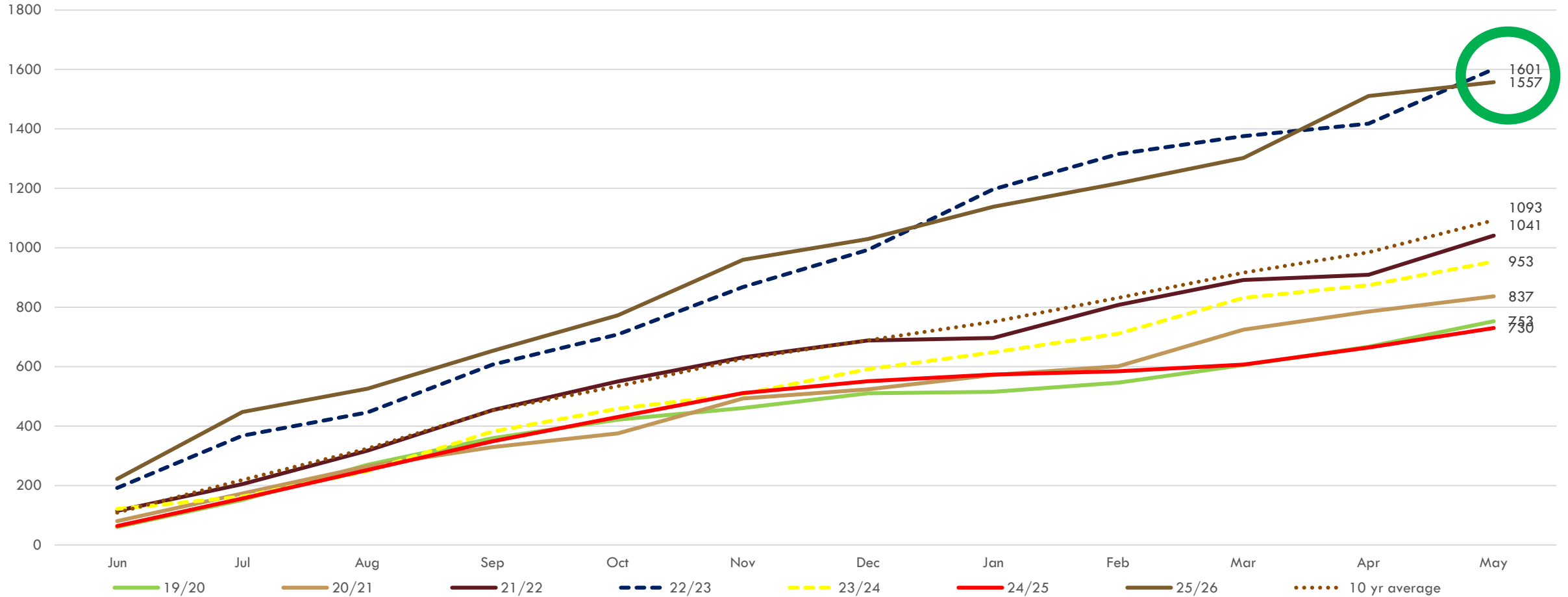
**PRIMARY KPI'S**

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

# Rainfall cumulative



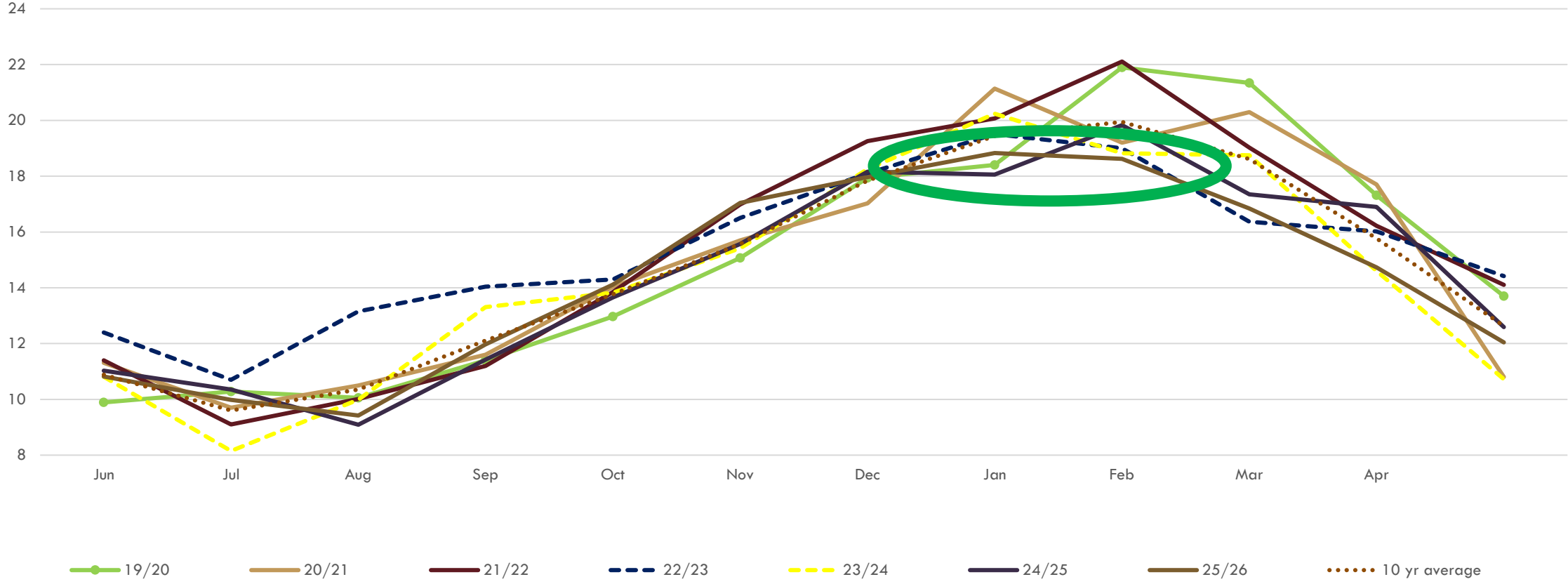
Rainfall - Farming Year



# Air temperature



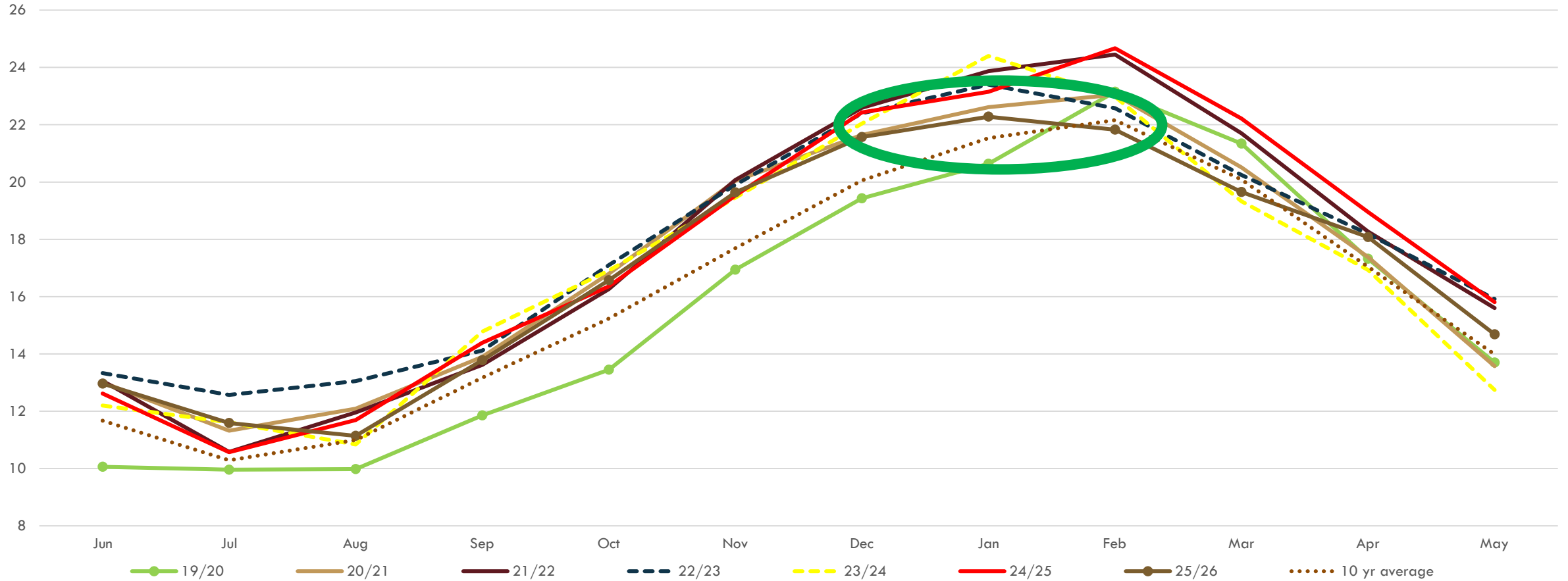
Average Air Temperature



# Soil temperature



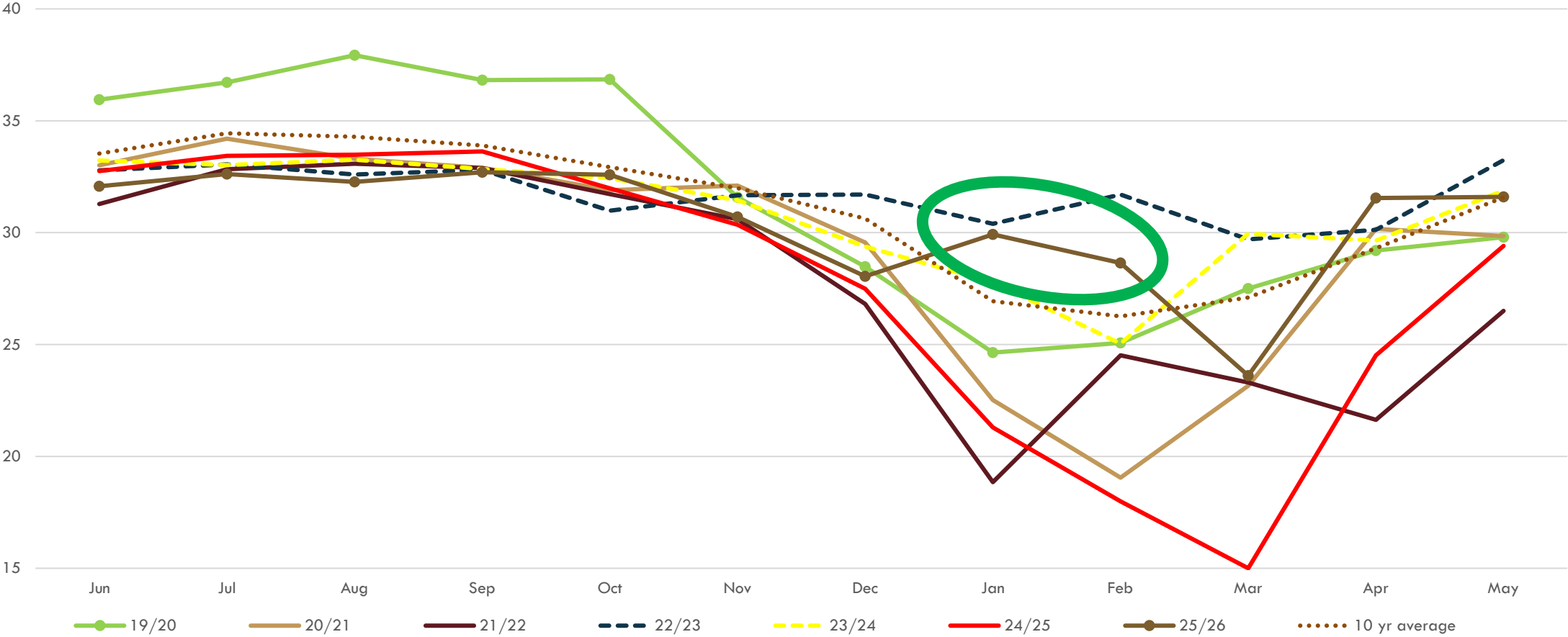
Average Soil Temperature



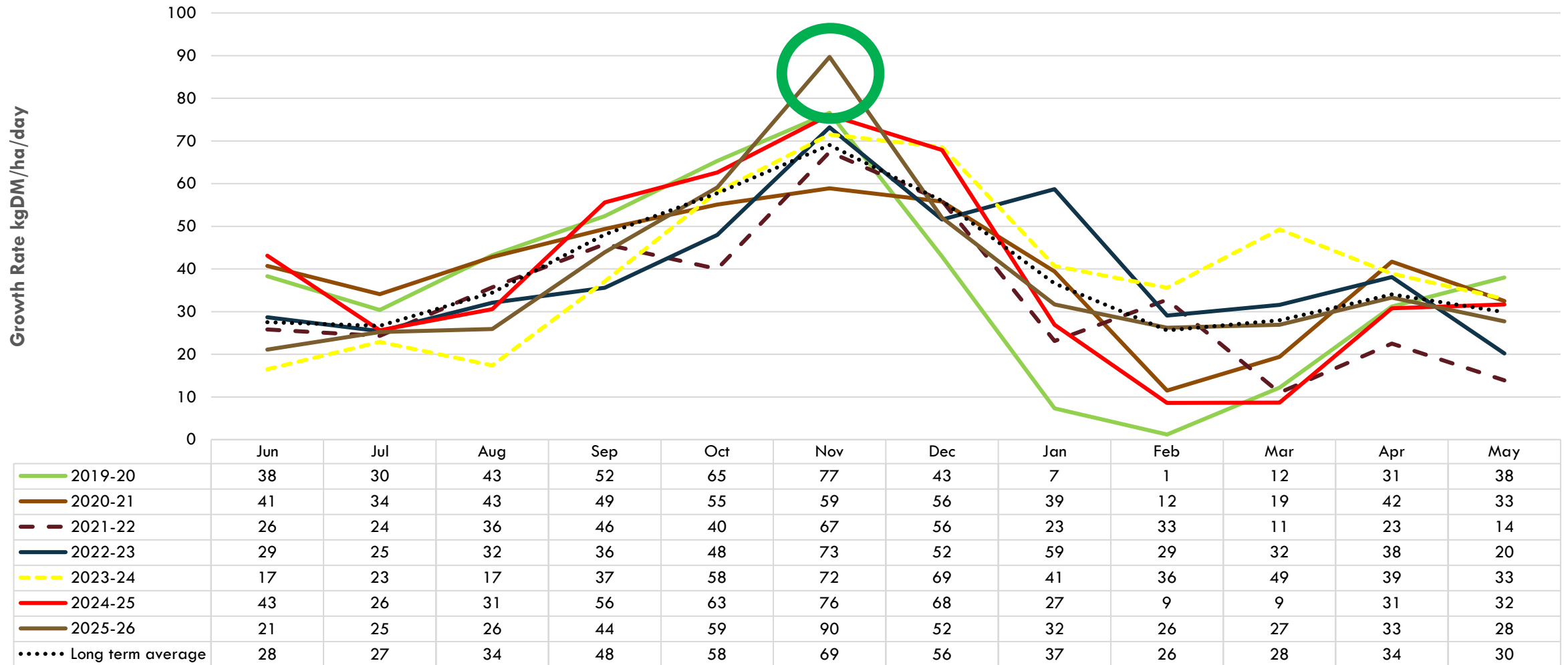
# Soil moisture



Average Soil Moisture



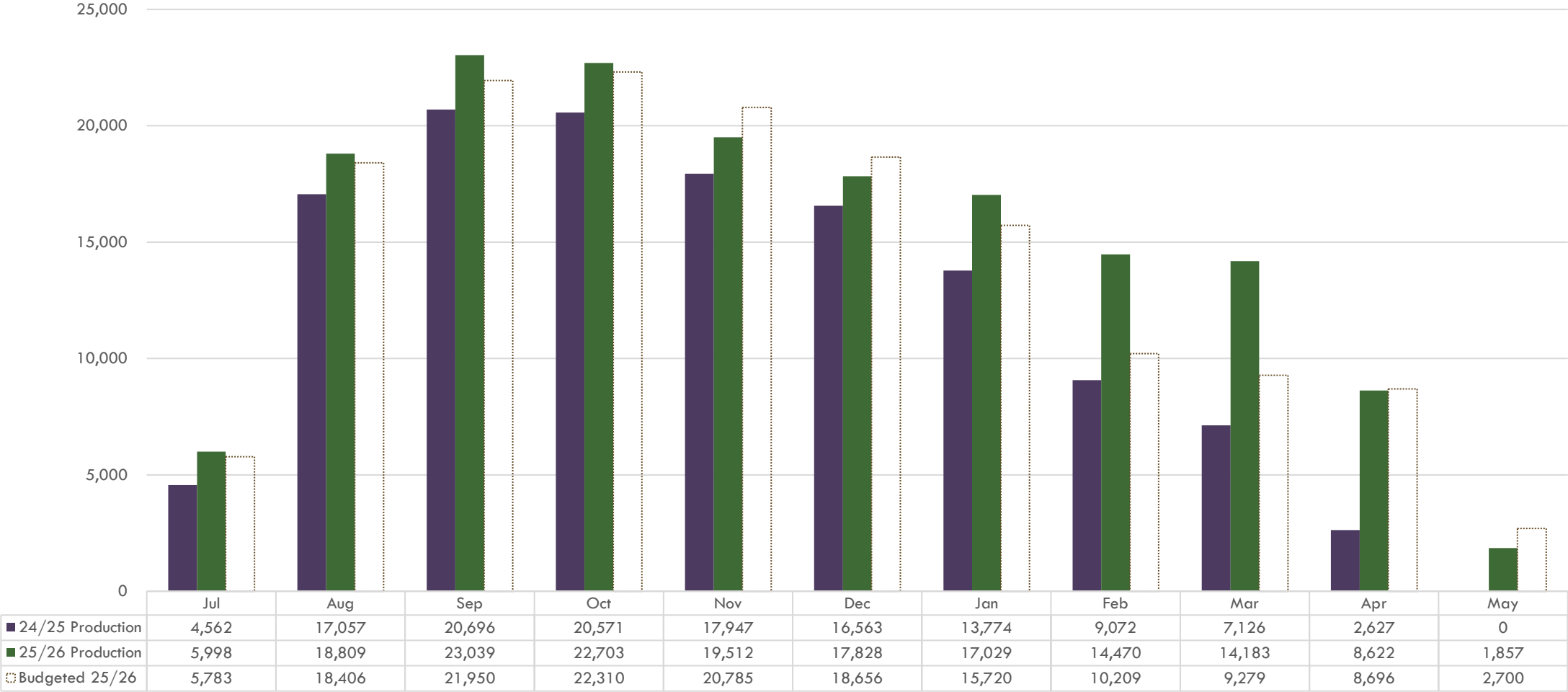
## Farmax Potential Growth Rates



# Milk production



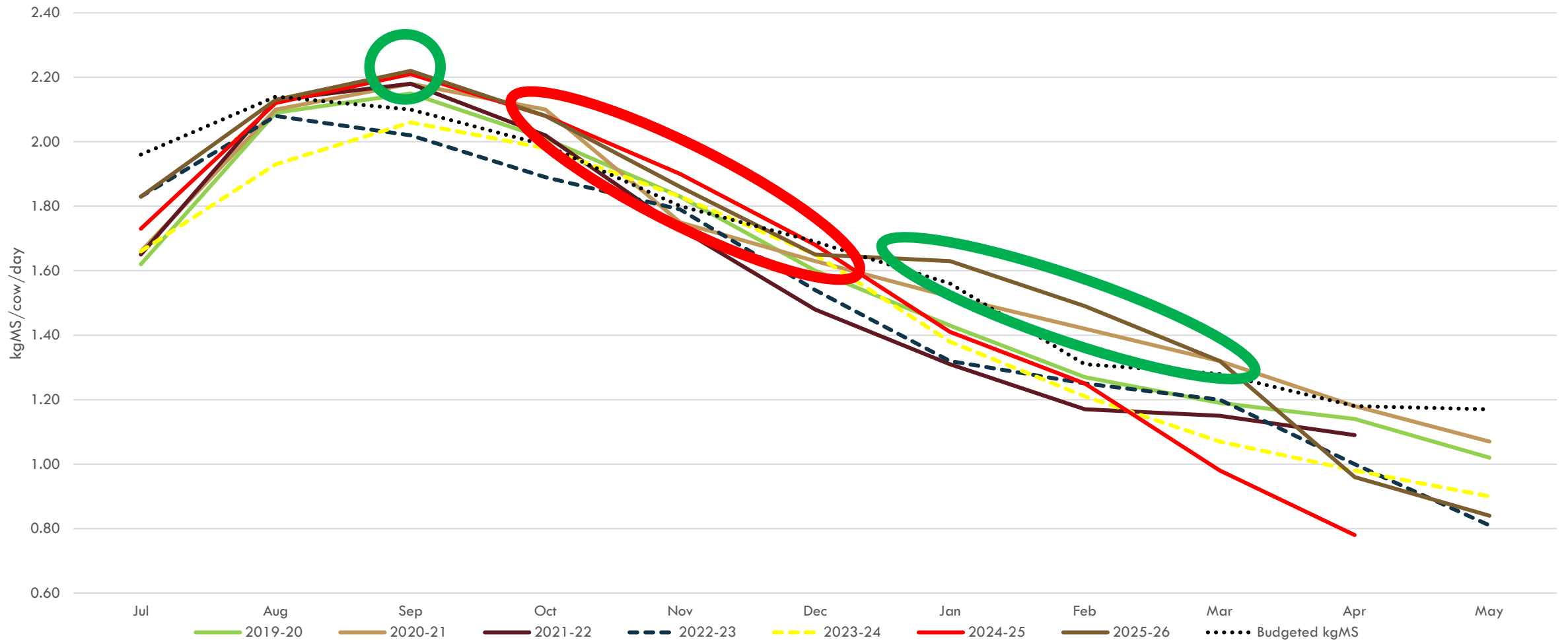
Production: Monthly Performance



# Milksolids/cow



Production per cow: monthly average





## ANIMAL WELL-BEING

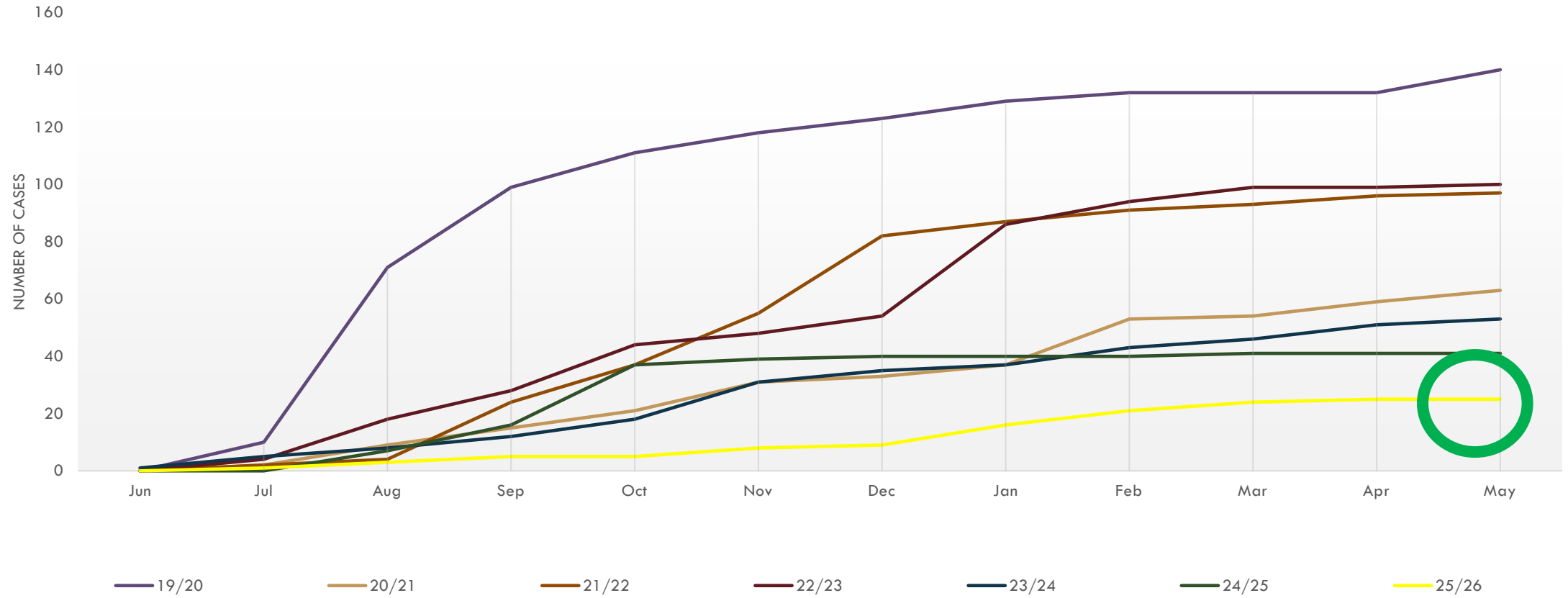
### PRIMARY KPI'S

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

# Lameness



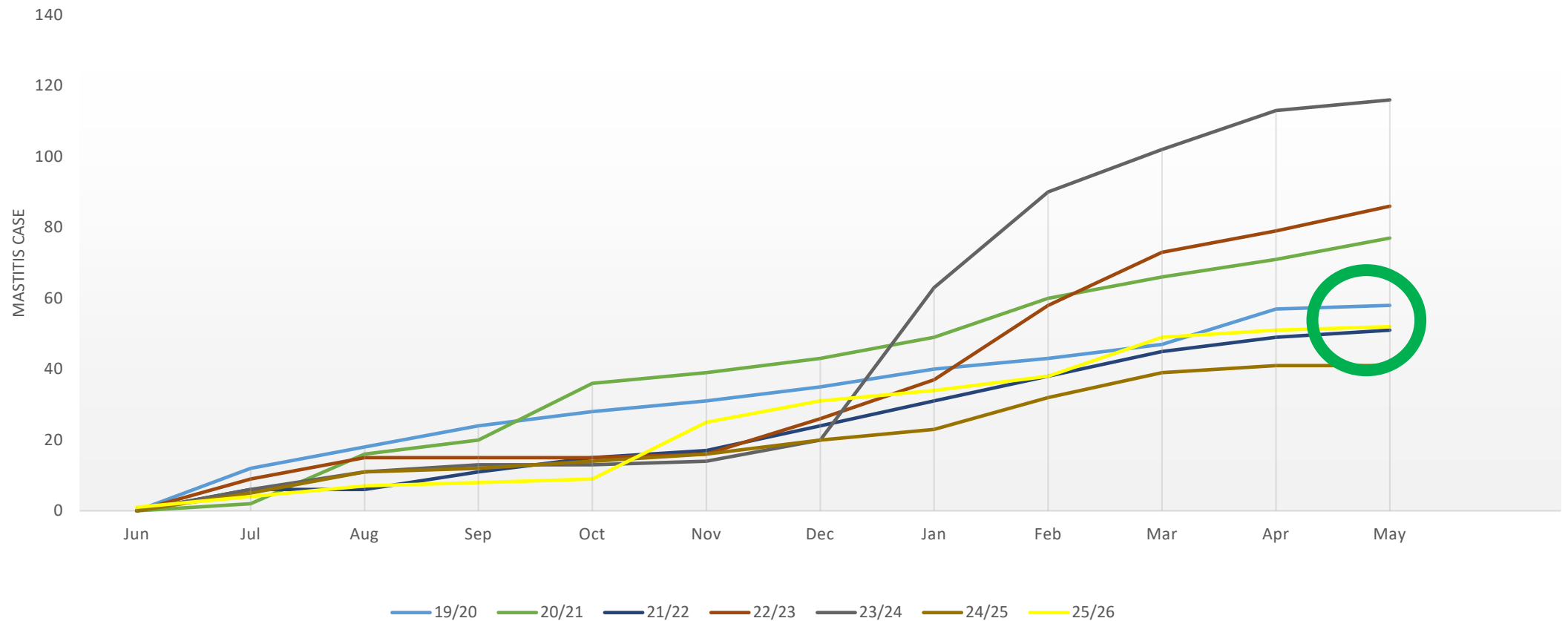
Lameness events



# Mastitis



Mastitis - cases treated

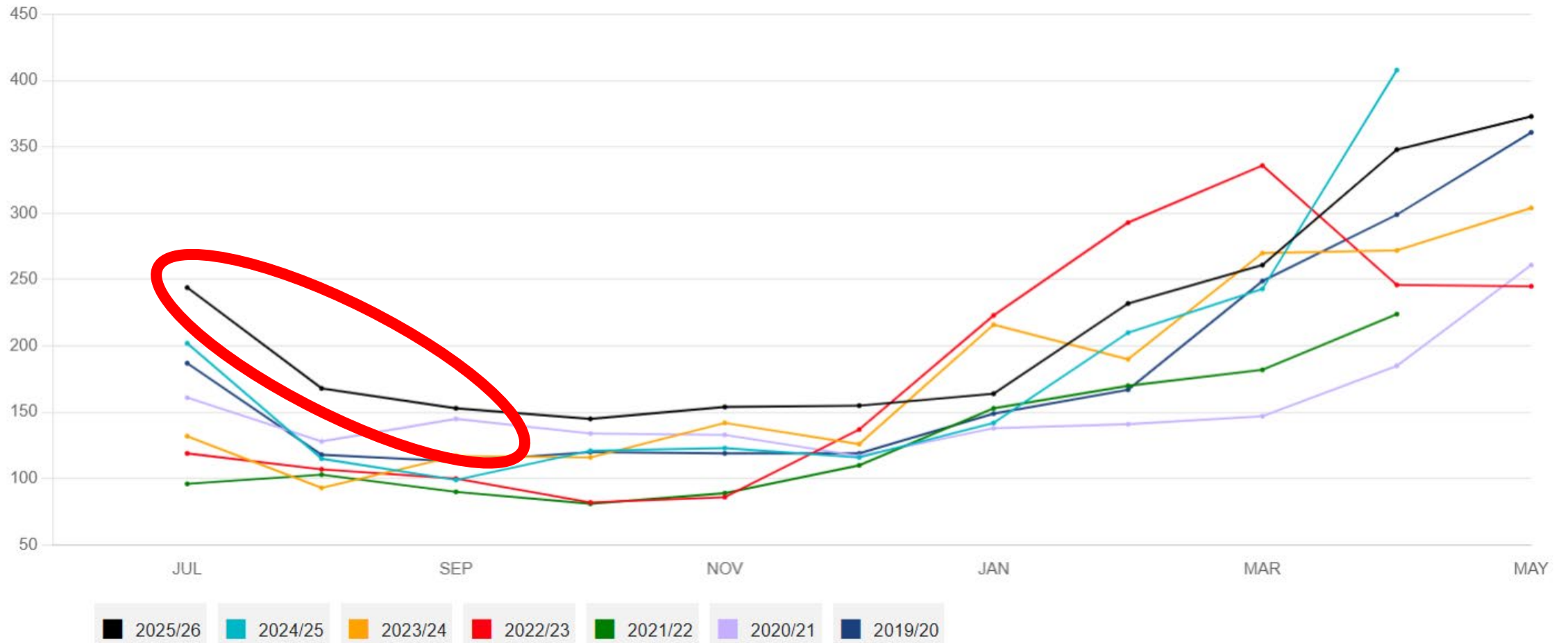


# Somatic Cell Count



## SCC

1 Jun - 31 May





**OWL  
FARM**

Providing knowledge.



# Wetland Outlet planting

## Planting

Receive up to \$1,500 in funding to support planting projects through a nursery or provider of your choice and towards plants that are capable of reaching a five metre maturity height. This support helps you to enhance environmental outcomes on-farm.



Table 7: Planting schedule recommended for MU6c; constructed wetland.

Species	Common name	Preferred Grade	Spacing (m)	No. (approx.)
<i>Austroderia fulvida</i>	toetoe	0.5L	1	90
<i>Baumea articulata</i>	jointed twig-rush	0.5L	1	180
<i>Carex geminata</i>	rautahi, cutty grass	0.5L	1	270
<i>Carex secta</i>	pukio	0.5L	1	90
<i>Carpodetus serratus</i> <sup>1</sup>	putaputaweta	1.5L/PB3	3-5	18
<i>Coprosma robusta</i>	karamū	0.5L	1	90
<i>Cordyline australis</i>	tī kōuka, cabbage tree	0.5L	1	126
<i>Cyperus ustulatus</i>	upoko-tangata, giant umbrella sedge	0.5L	1	90
<i>Dacrycarpus dacrydioides</i> <sup>1</sup>	kahikatea	1.5L/PB3	3-5	18
<i>Kunzea robusta</i>	kānuka	0.5L	1	180
<i>Laurelia novae-zealandiae</i> <sup>1</sup>	pukatea	1.5L/PB3	3-5	18
<i>Leptospermum scoparium</i>	mānuka	0.5L	1	180
<i>Pittosporum eugenioides</i>	tarata, lemonwood	0.5L	1	90
<i>Pittosporum tenuifolium</i>	kōhūhū	0.5L	1	90
<i>Phormium tenax</i>	harakeke	0.5L	1	180
<i>Veronica stricta</i>	koromiko	0.5L	1	90
<b>Total</b>				<b>1,800</b>





## BUSINESS HEALTH

### PRIMARY KPI'S

1. Farm Working Expenses
2. Op profit/ha (eff dairy)
3. ROA

# DRAFT Cashflow update to 31 May



Providing knowledge.

ST. PETER'S SCHOOL & LINCOLN UNIVERSITY  
DEMONSTRATION DAIRY FARM



St. Peter's  
CAMBRIDGE, N. Z.



LINCOLN  
UNIVERSITY  
TE WHARE WAKAHA O AORANGI



	YTD Total	YTD Budget	YTD Variance	Original Full Year Budget
Milksolids KG	164,052	156,200	(7,852)	151,794
Total Milk Receipts	(1,517,241)	(1,477,595)	39,646	(1,437,563)
Dividends Received	(147,629)	(113,092)	34,537	(85,168)
All Cattle Sales	(129,754)	(83,300)	46,454	(83,300)
All other Income	(4,560)	-	4,560	-
<b>Total Income</b>	<b>(1,799,184)</b>	<b>(1,673,986)</b>	<b>125,198</b>	<b>(1,606,031)</b>

Wages	294,510	245,152	(49,358)	245,152
Animal Health	54,260	47,800	(6,460)	47,800
Breeding & Herd Improvement	84,696	80,570	(4,126)	80,570
Farm dairy	4,490	5,740	1,250	5,740
Electricity	17,806	28,200	10,394	28,200
Silage made	36,596	34,320	(2,276)	34,320
Supplements purchased	146,363	145,209	(1,154)	145,209
Calf rearing	37,324	31,774	(5,550)	31,774
Young & dry stock grazing	80,261	108,908	28,647	108,908
Fertiliser (incl. N)	90,059	68,402	(21,657)	68,402
Regrassing & cropping	46,581	33,600	(12,981)	33,600
Weed and pest	5,401	10,400	4,999	10,400
Planting	596	4,300	3,704	4,300
Effluent spreading	29,997	12,000	(17,997)	12,000
Vehicles - Fuel and R&M	22,826	23,100	274	23,100
R&M (land, buildings, plant, machinery)	59,432	55,600	(3,832)	55,600
Freight and general farm expenses	45,086	49,260	4,174	49,260
Administration	20,319	20,663	344	20,663
Rates, Insurance, ACC	36,449	48,876	12,427	48,876
<b>CASH Farm Working Expenses</b>	<b>1,113,052</b>	<b>1,053,874</b>	<b>(59,178)</b>	<b>1,053,874</b>
<b>Surplus before Finance charges</b>	<b>(686,132)</b>	<b>(620,112)</b>	<b>66,020</b>	<b>(552,157)</b>

# DRAFT Cashflow update to 31 May



	Budget 26/27	Budget 26/27	Draft 25/26	Actual 24/25	Actual 23/24	Actual 22/23	Actual 21/22	Actual 20/21
	Total	\$/kgMS	\$/kgMS	\$/kgMS	\$/kgMS	\$/kgMS	\$/kgMS	\$/kgMS
Milksolids KG	160,800	160,800	164,052	129,995	143,023	154,062	164,163	178,125
Total Milk Receipts	(1,553,585)	(9.66)	(9.25)	(10.14)	(8.11)	(8.54)	(9.16)	(7.34)
Dividends Received	(82,466)	(0.51)	(0.90)	(0.92)	(1.50)	(0.38)	(0.31)	(0.15)
All Cattle Sales	(144,280)	(0.90)	(0.79)	(1.01)	(0.57)	(0.84)	(0.98)	(0.52)
All other Income	-	-	(0.03)	(0.11)	(0.44)	(0.29)	(0.29)	(0.24)
<b>Total Income</b>	<b>(1,780,331)</b>	<b>(11.07)</b>	<b>(10.97)</b>	<b>(12.18)</b>	<b>(10.62)</b>	<b>(10.06)</b>	<b>(10.75)</b>	<b>(8.25)</b>
Wages	270,079	1.68	1.80	1.98	1.81	1.93	1.35	0.93
Animal Health	59,627	0.37	0.33	0.47	0.41	0.34	0.29	0.29
Breeding & Herd Improvement	75,320	0.47	0.52	0.52	0.53	0.55	0.44	0.25
Farm dairy	18,200	0.11	0.03	0.09	0.05	0.02	0.05	0.01
Electricity	28,200	0.18	0.11	0.22	0.17	0.16	0.09	0.07
Silage made	38,000	0.24	0.22	0.26	0.13	0.18	0.13	0.11
Supplements purchased	150,609	0.94	0.89	1.01	0.30	0.69	0.97	0.75
Calf rearing	24,000	0.15	0.23	0.44	0.32	0.15	0.18	0.08
Young & dry stock grazing	121,920	0.76	0.49	0.52	0.47	0.44	0.44	0.34
Fertiliser (incl. N)	81,496	0.51	0.55	0.48	0.46	0.52	0.51	0.42
Regrassing & cropping	28,200	0.18	0.28	0.38	0.33	0.30	0.33	0.23
Weed and pest	6,400	0.04	0.03	0.04	0.06	0.06	0.06	0.00
Planting	3,000	0.02	0.00	0.01	0.01	0.06	0.07	0.03
Effluent spreading	5,000	0.03	0.18	0.01	0.10	0.06	0.10	0.08
Vehicles - Fuel and R&M	26,700	0.17	0.14	0.15	0.16	0.21	0.23	0.18
R&M (land, buildings, plant, machinery)	94,700	0.59	0.36	0.70	0.72	0.60	0.48	0.45
Freight and general farm expenses	54,650	0.34	0.27	0.39	0.35	0.32	0.33	0.28
Administration	19,870	0.12	0.12	0.14	0.14	0.12	0.10	0.10
Rates, Insurance, ACC	27,000	0.17	0.22	0.18	0.19	0.08	0.11	0.17
<b>CASH Farm Working Expenses</b>	<b>1,132,971</b>	<b>7.05</b>	<b>6.78</b>	<b>7.98</b>	<b>6.71</b>	<b>6.80</b>	<b>6.26</b>	<b>4.77</b>
<b>Surplus before Finance charges</b>	<b>(647,360)</b>	<b>(4.03)</b>	<b>(4.18)</b>	<b>(4.21)</b>	<b>(3.91)</b>	<b>(3.26)</b>	<b>(4.49)</b>	<b>(3.48)</b>



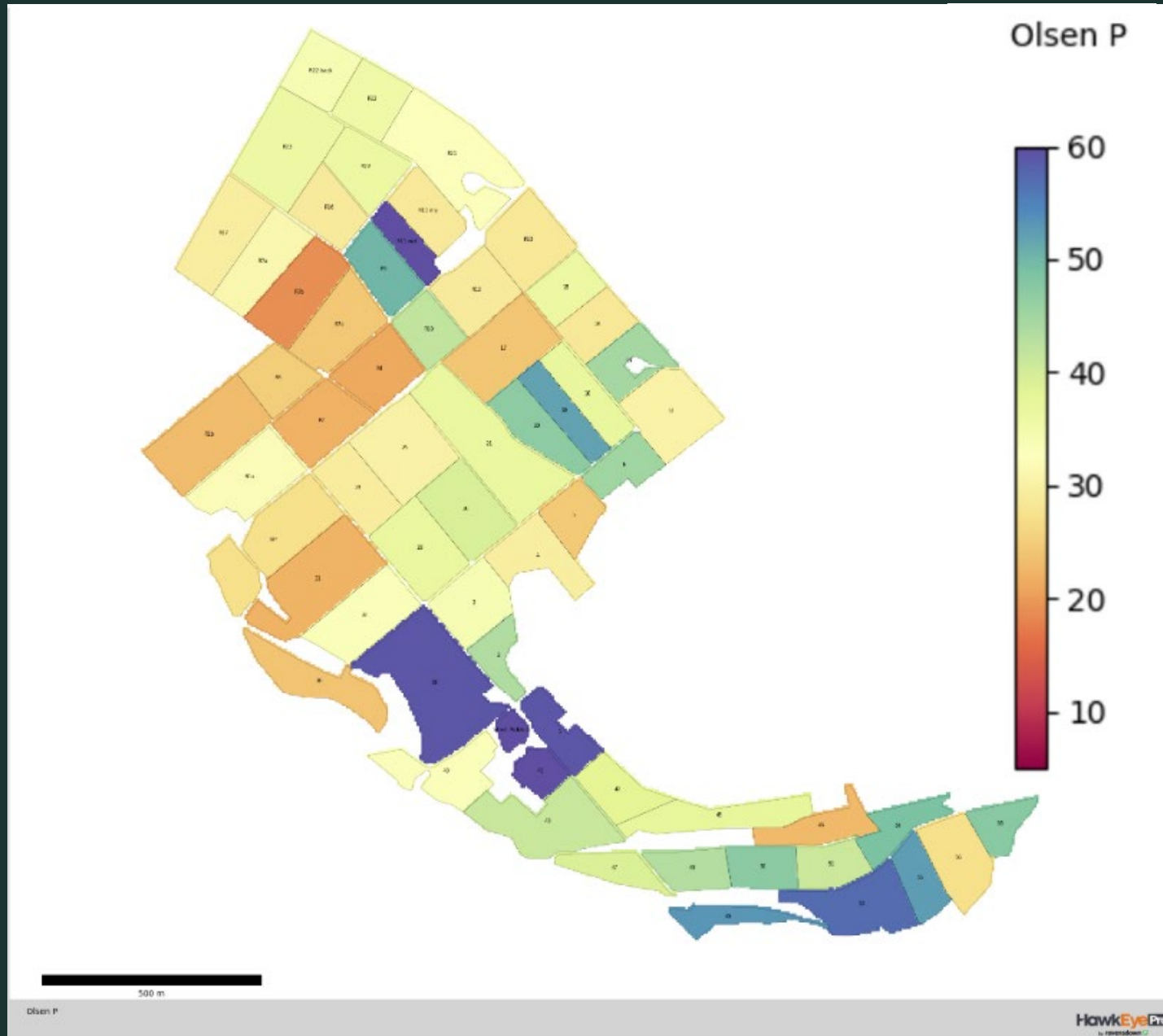
# Owl Farm recommendations through HawkEye Pro

# What is HawkEye Pro

- HawkEye Pro produces high resolution variable rate fertiliser plans.
- Leverages automation and machine learning to drive fertiliser requirements for both maintenance and capital applications on New Zealand pastoral farms.
- It enables nutrient use efficiency (NUE) at a level of precision and scale that has never been able to be delivered before.
- All this is achieved by utilising targeted variable rates across the landscape



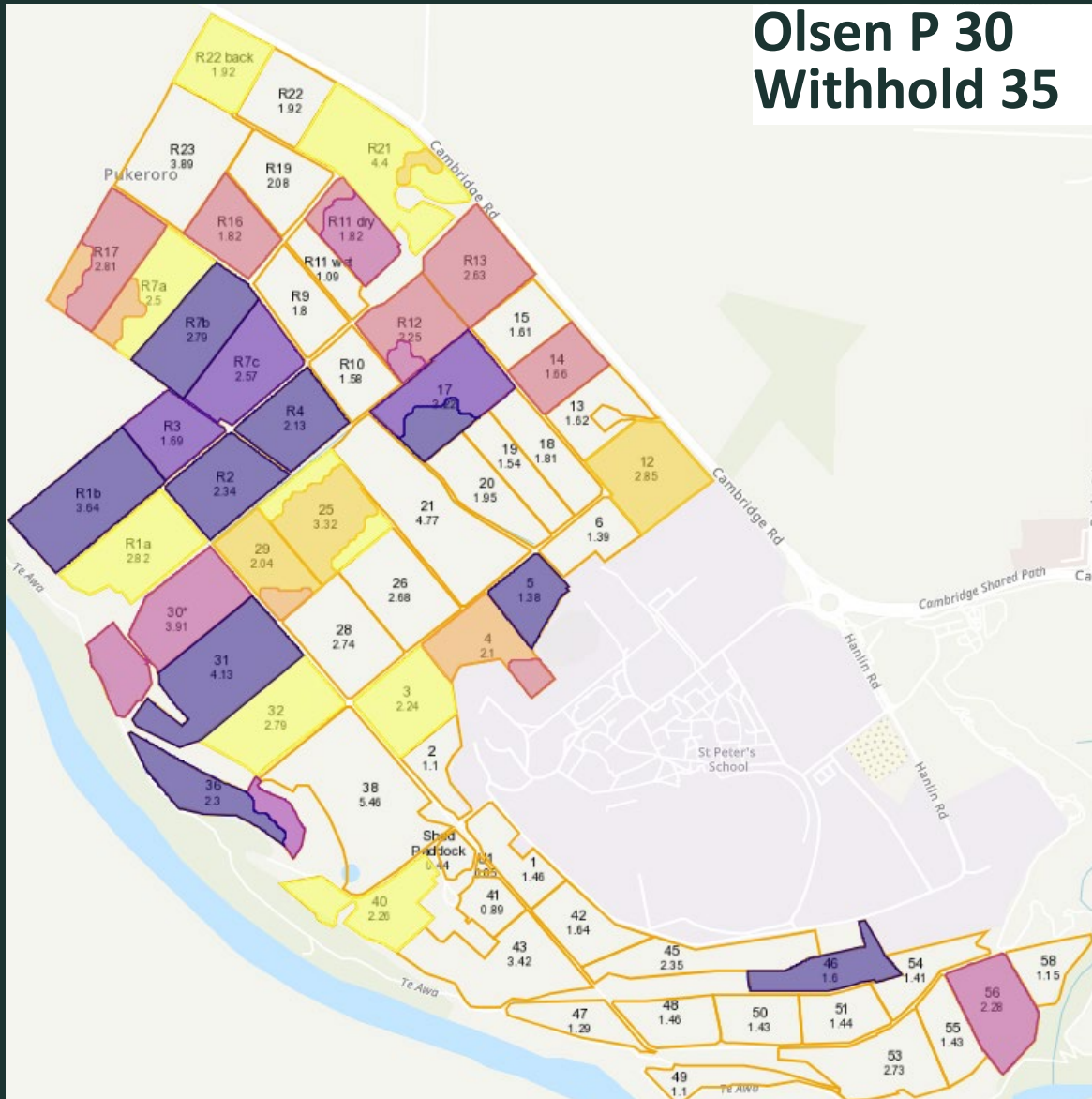
# Soil test layers – Olsen P



# Annual pasture production



# Capital + Maintenance precision plan



Plan Maps Notes

Published St Peters Phosphate plan

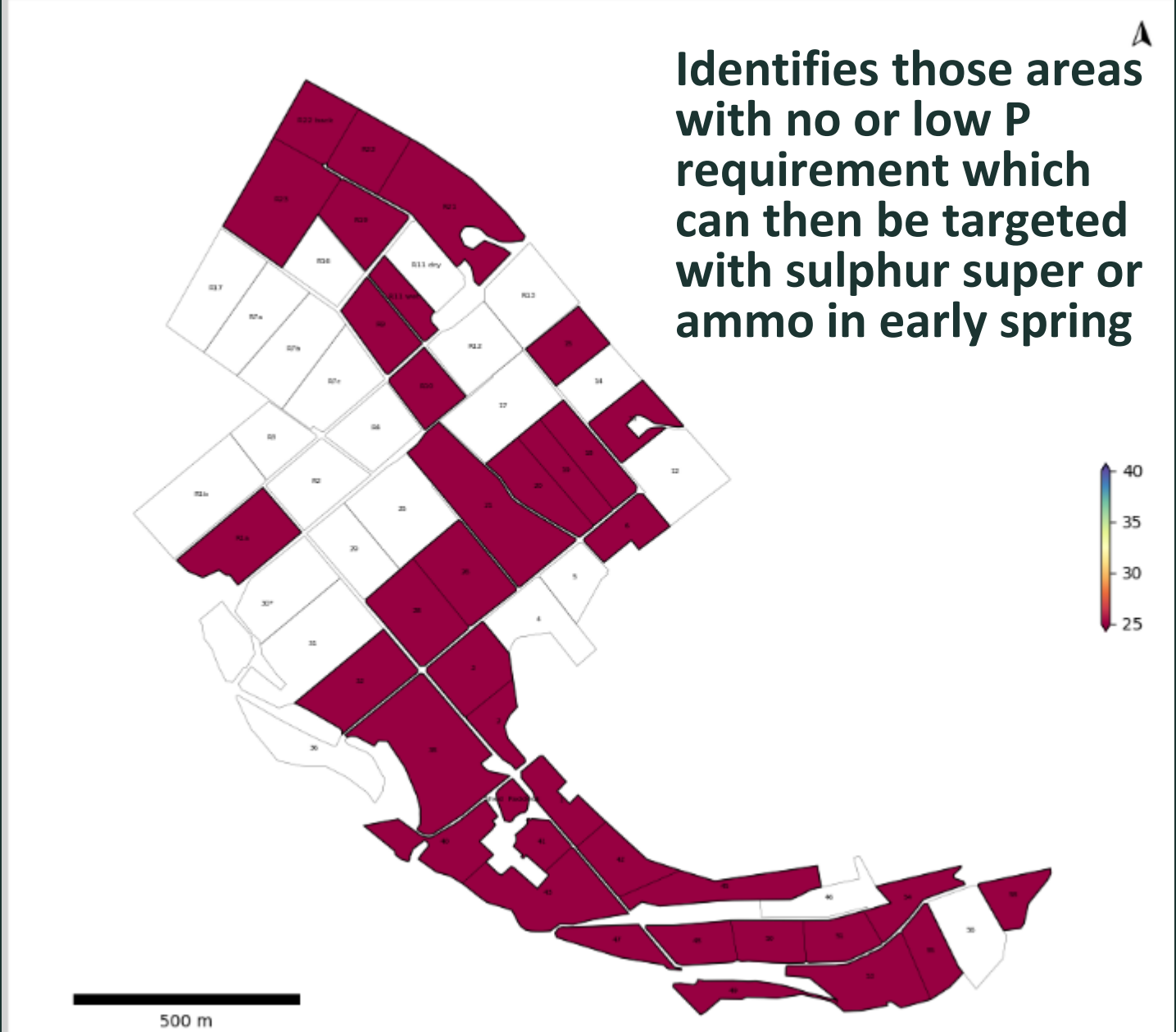
Duplicate plan Edit plan Place order

Blocks ⓘ

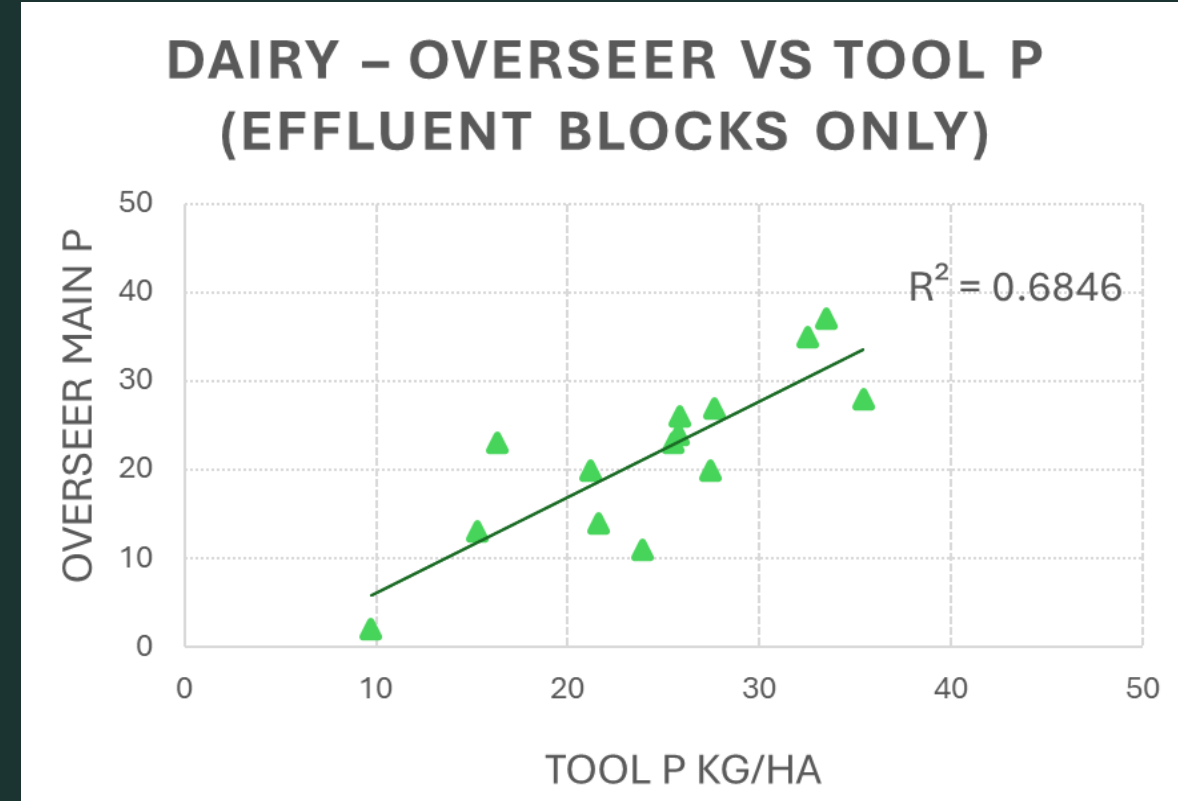
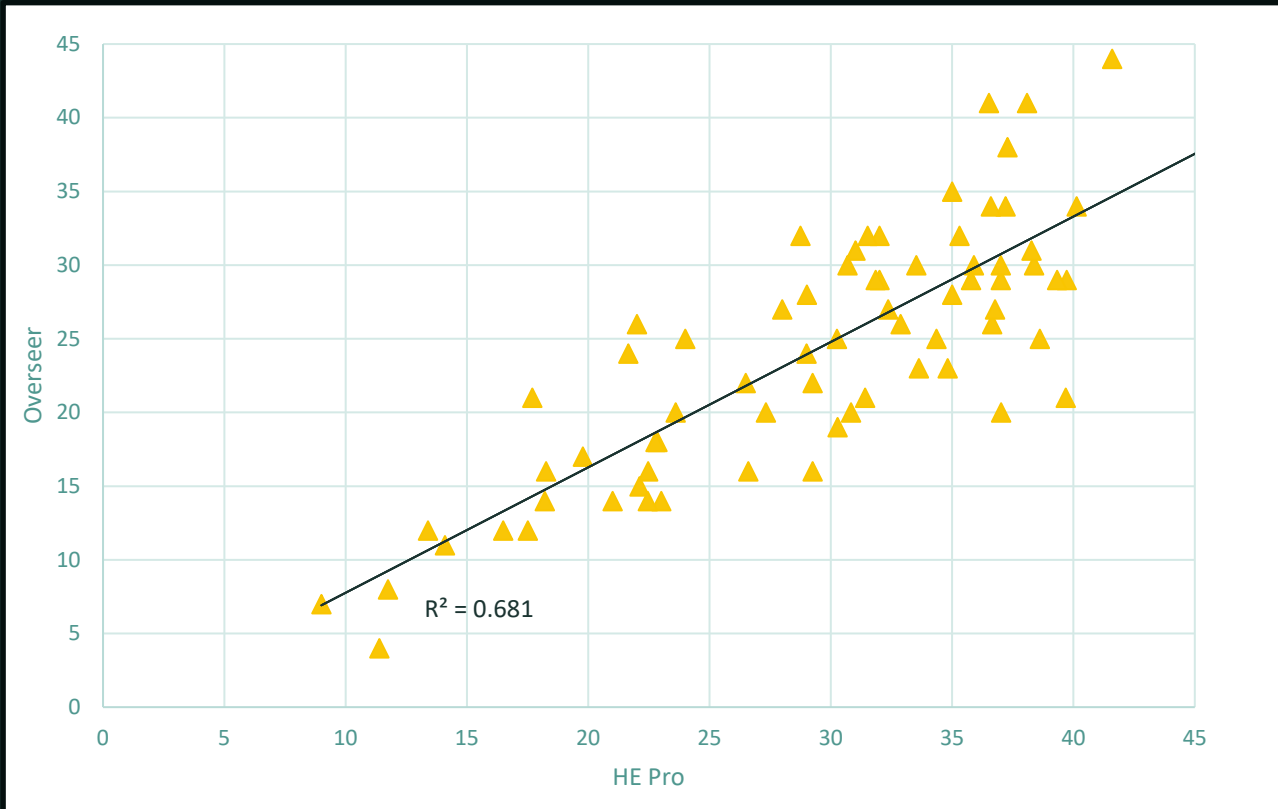
Olsen P: target 30, withhold 35

	Rate	Area	Tonnage
1	170 kg/ha	19.10 ha	3.25 MT
2	280 kg/ha	7.11 ha	1.99 MT
3	380 kg/ha	3.12 ha	1.19 MT
4	500 kg/ha	11.07 ha	5.54 MT
5	615 kg/ha	7.99 ha	4.91 MT
6	725 kg/ha	0.60 ha	0.44 MT
7	950 kg/ha	6.54 ha	6.21 MT
8	1110 kg/ha	20.64 ha	22.91 MT
<b>Total</b>		<b>76.17 ha</b>	<b>46.44 MT</b>

# Capital + Maintenance precision plan (sulphur requirements)



# Outcome is scientifically robust



# Constant evolution

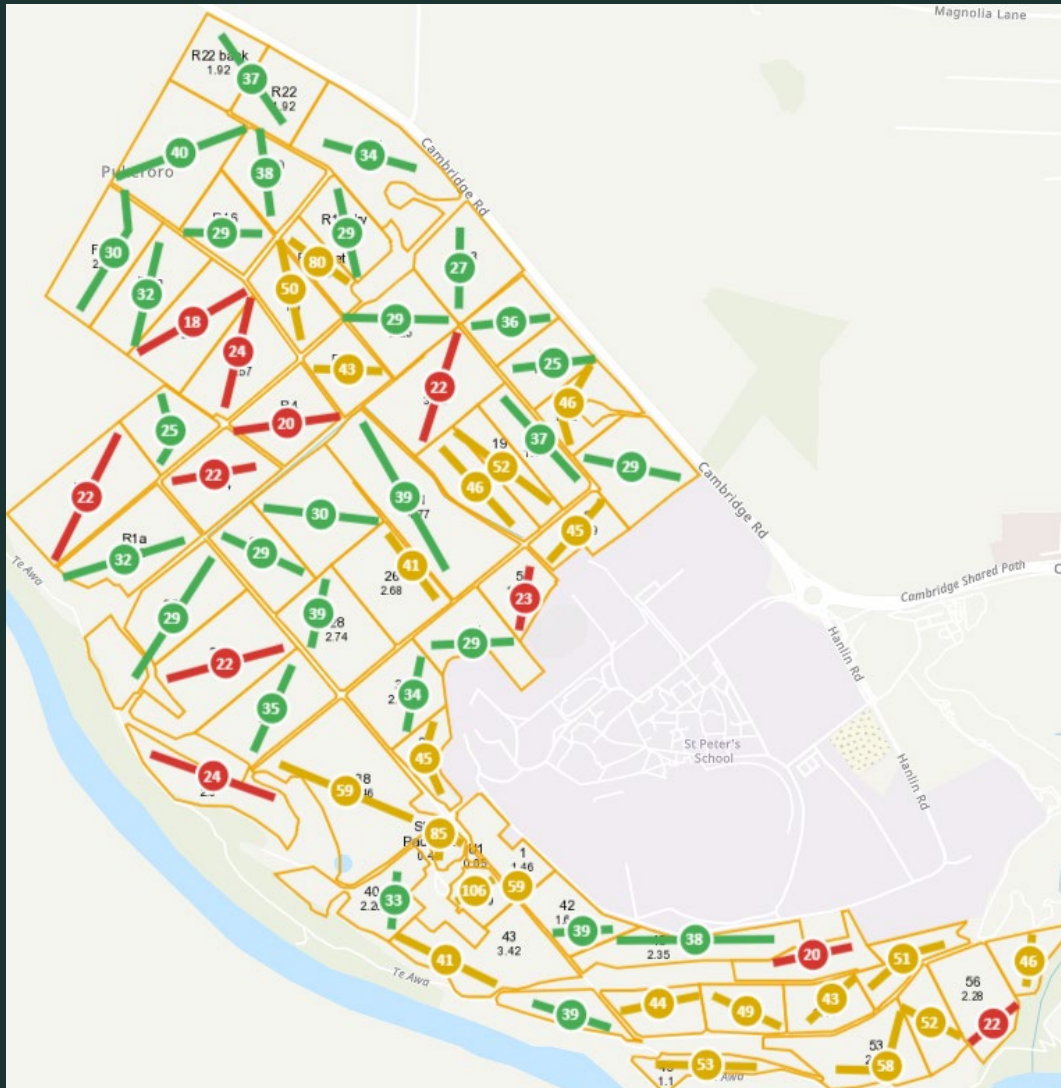
---

Further delivery of features and functionality underway.

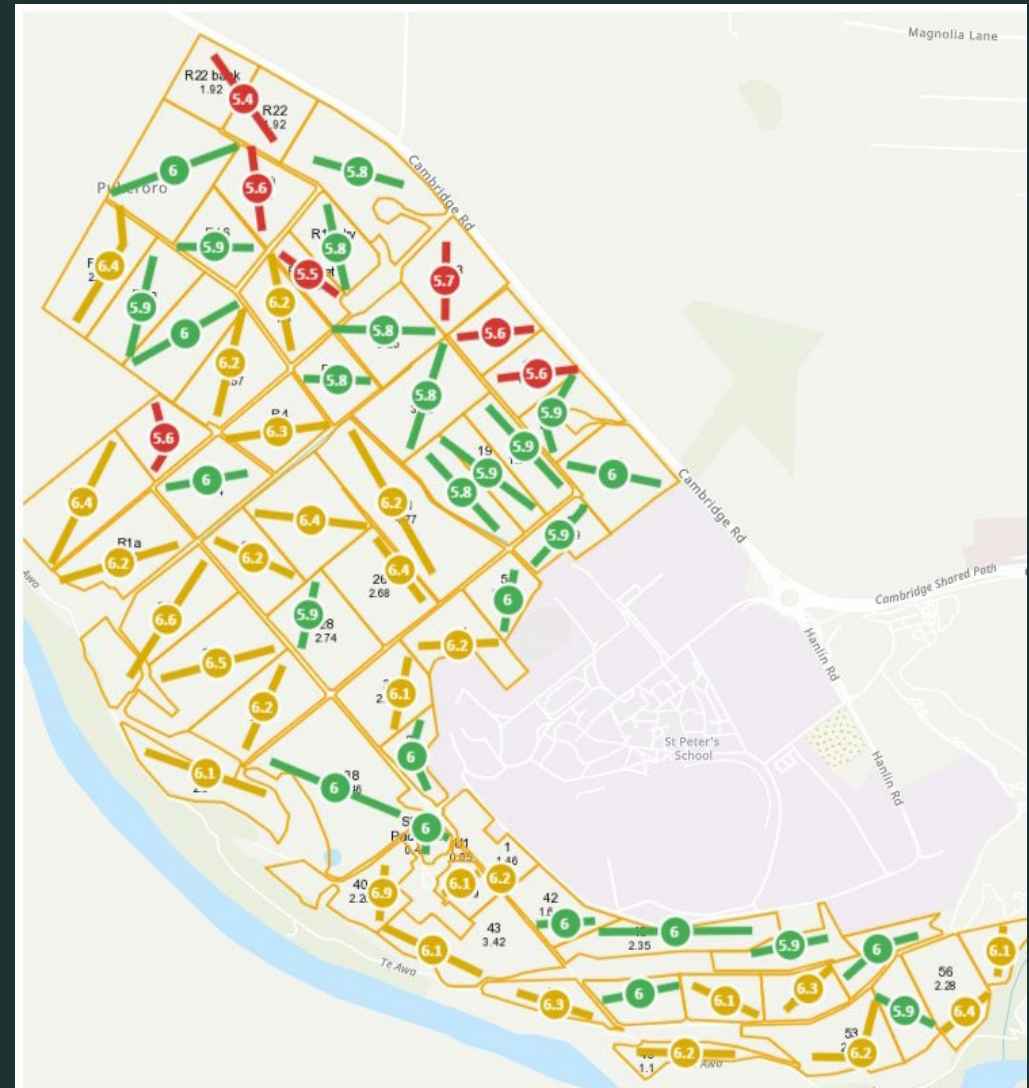
- **Implementation of forage crop recommendations**  
(can include variable rate recommendations).
- **Lime recommendations**  
(Target critical point with ability to scale as with Olsen P)
- **Inclusion of potassium**  
(Will need to account for the amount/type of feed imported)



# Olsen P trend



# pH



# Fertiliser Budgets

---

To provide all nutrients required, based on soil test data, herbage trend data and HE Pro modelling, an extra 40% budget is required, without factoring cartage and spreading.

Unlimited budget \$105,000.00

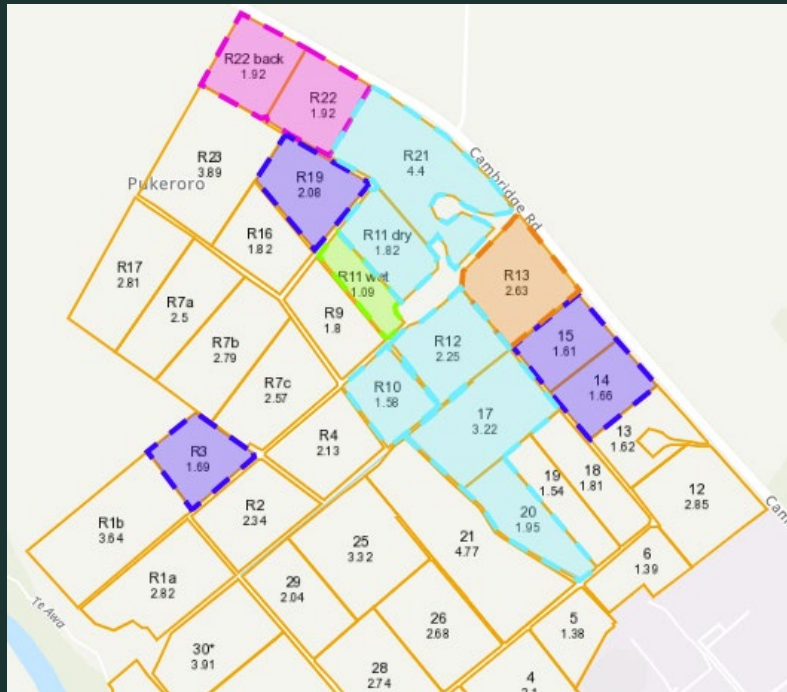
Budget constraints applied \$84,000.00

So, the reality, which is still to be signed off, looks a bit like this:



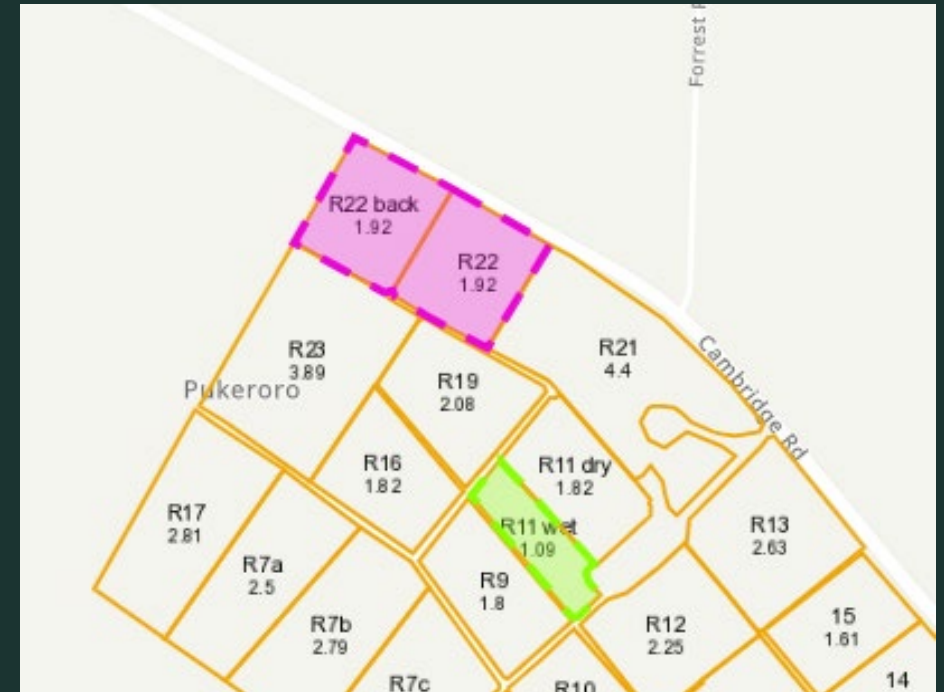
# Lime recommendation

Perfect world 65T lime



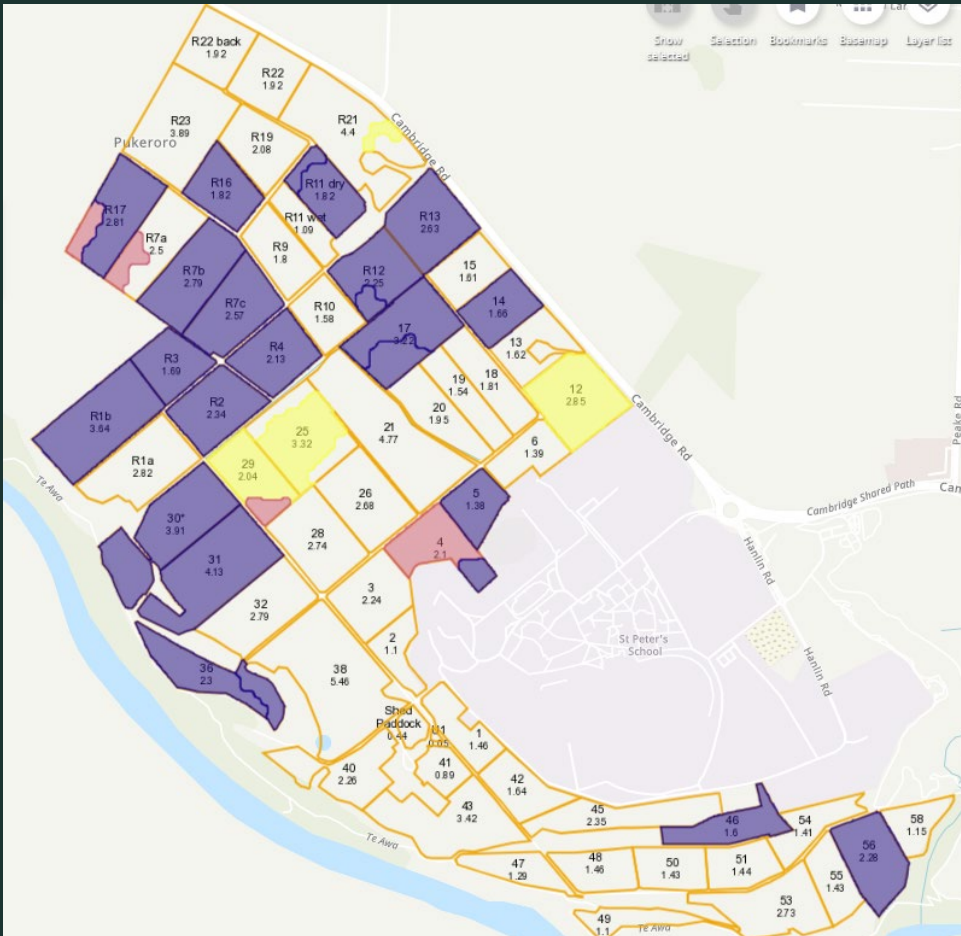
vs

Financial reality 24T

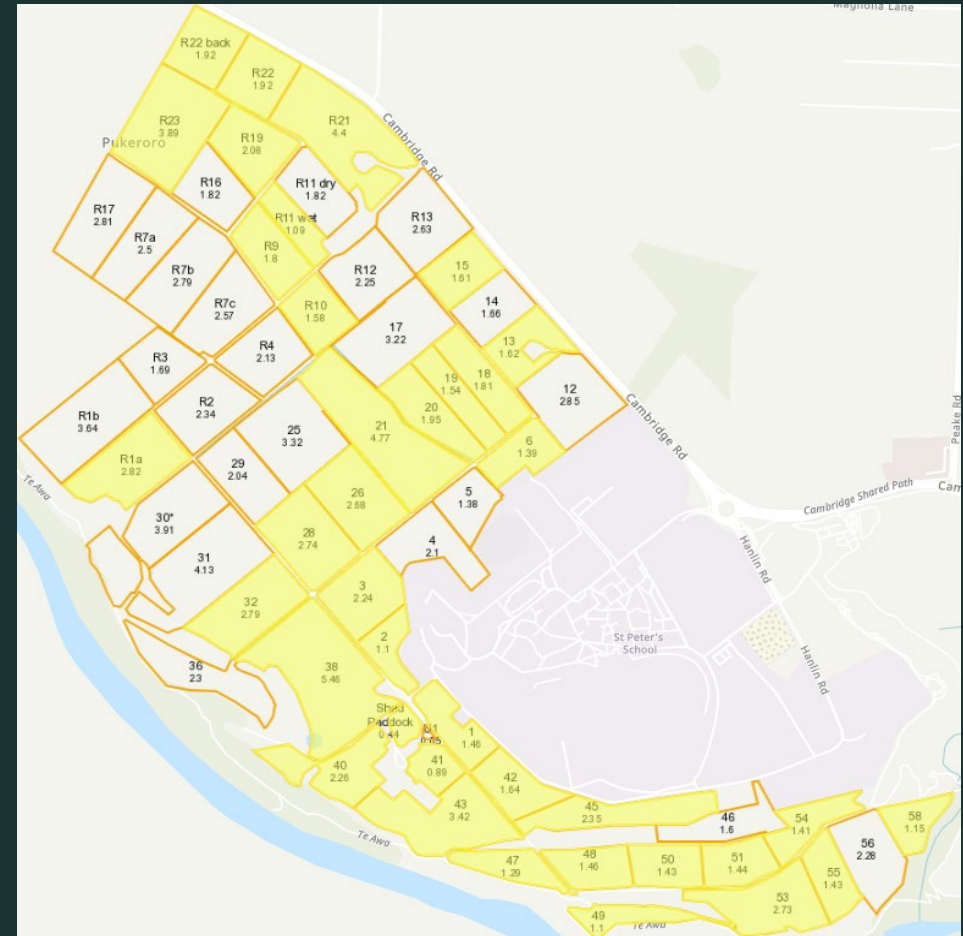


# P and S

Phosphate 46.5T - now 26.6T



Sulphur 7.6T - now 6.9T





# Nitrogen

Whole Farm (138.9 ha)											
August (Aug 26)											
N-Pro 36	779	1	70	24.9	0.0	0.0	6.4	0.0	0.0	9.72	
September (Sep 26)											
N-PROTECT	779	1	50	22.9	0.0	0.0	0.0	0.0	0.0	6.94	
April (Apr 27)											
N-Pro w sel	779	1	55	25.0	0.0	0.0	0.0	0.0	0.0	7.64	
				<b>72.8</b>	<b>0.0</b>	<b>0.0</b>	<b>6.4</b>	<b>0.0</b>	<b>0.0</b>		
Farm (Excl Crop & Eff) (96.9 ha)											
October (Oct 26)											
N-PROTECT	779	1	50	22.9	0.0	0.0	0.0	0.0	0.0	4.85	
December (Dec 26)											
N-PROTECT	779	2	50	22.9	0.0	0.0	0.0	0.0	0.0	4.85	
March/April (Mar 27)											
N-PROTECT	779	1	50	22.9	0.0	0.0	0.0	0.0	0.0	4.85	
				<b>45.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		

- N response rate Aug – Nov ranges from 16-24 kg DM / kg N.
- Target N on farm of 120 kg/ha/yr.
- Flexibility with application dates, dependent on farm and weather conditions.
- N removed from effluent block, Oct-March.
- Dec N – excluded from modelling with 45 calves on farm, included if 90 calves on farm.





Providing knowledge.

ST PETER'S SCHOOL & LINCOLN UNIVERSITY  
DEMONSTRATION DAIRY FARM



St. Peter's  
CAMBRIDGE N. Z.



LINCOLN  
UNIVERSITY  
TE WHARE WĀNAKA O AORAKI

# 17 September 2026 FARM FOCUS DAY

ravensdown 

DairyNZ 



 PGG Wrightson Seeds

