

Weekly Farm Summary 4th November 2022

Farm-system impacts of: Kale vs Fodder beet for winter AND Reducing N loss to water by 30%.

	Std Brassica/ Baleage Pink	LI Baleage Blue	Std Fodder beet Green	LI Fodder beet Yellow
Farmlet area including wintering	82.7	60.9	82.7	60.9
Peak cow numbers	223	137	223	137
Milking Area	73.8	55.1	73.8	55.1
Current Herd size (cows)	222	133	220	134
Pasture Stocking rate (current)	3.0	2.4	3.0	2.4
Winter Feed Milking supplement	Swede/Bale	Baleage	Beet 80 days	Beet 60 days
	In-shed feed 500kg/cow + baleage as required			
Average Cover	2517	2470	2375	2499
Average Growth	84	69	60	68
Target rotation length	22	26	22	26
Last week act rotation (d)	22	24	22	26
Last week supp (kg DM/cow)	1.5	1.9	1.2	1.9
Average BCS	4.4	4.4	4.4	4.5
% of herd on priority feeding	7%	7%	7%	4%
Milk yield (L/cow)	24.7	26.4	24.4	24.3
Milk yield (kgMS/cow)	2.15	2.28	2.18	2.13
Nitrogen Cap kgN/ha/yr	180	50	180	50
% Nitrogen used (kgN/ha) YTD	34% (62kg)	38% (19kg)	31% (56kg)	34% (17kg)
Effluent N YTD	2	1	2	2
Profit/ha comp to Control	\$0	\$0	\$0	\$0
YTD supp (kg DM/cow)	294	187	252	225
YTD MS/cow	139	147	136	146
YTD MS/milk ha (YTD MS/farm ha)	421 (376)	365 (330)	412 (368)	362 (328)

Business Area	Current Status
Milk Production	Trend continues with cows holding their peak but starting to see a bit more variability. The LI Baleage cows continue to produce better than the other farmlets.
Pasture & Feed	All farmlets have paddocks identified for conservation which will be cut on Friday ahead of unsettled weather again next week. The base of the pasture is starting to be stalky, and some residuals are not meeting target as a result. Majority of paddocks are still green and lush.
Animals	We have officially finished calving with the last heifer calving 5 days before planned start of mating 😞. Bloat oil still being dispensed via inline dispenser. First day of mating Thu with 35 cows submitted. CiDR's removed Thu morning so a couple of busy mating days ahead
Environment	Round 3 of fertiliser for the Std farmlets has started and x3 LI Baleage and X4 LIFB paddocks yet to get their second applications. Round 3 for LI farmlets not due for early December
Wintering	First ex winter 2022 crop paddocks regressed this week after much delay. Winter 2023 fodder beet paddocks for conventional establishment have been ploughed. Focus on making baleage for winter crops.
People	Currently looking for a relief milker to cover every second weekend and occasional other milkings
Research	Focus on analysing 2018-2022 farm systems data and identifying new research projects for funding to value add to the new farm systems starting June 2023.

Milk Production

Principles of Milk Production management this week

Milk Production	The next couple of weeks is critical for holding milk production. In previous seasons this is the period where production has become less predictable. Increasing herds total intakes by 0.5 kg, an approach we started last week with the LI baleage herd. Mastitis cases in the Std FB have cleared well
Key Influences on Milk Production	Production continues to be to be influenced by the degree of heading in the pastures. We are chasing quality by targeting the correct pre graze covers for each farmlet and ensure post graze residuals are achieved. Our revision of herd size and number of paddocks for each farmlet this season is paying dividends as we can maintain better rotation lengths to be grazing pastures between the 2 and 3 leaf stage. The impact of the change in N strategy for the LI will be observed over the next 6 weeks.
Cow Management	Several the OAD non-cycling cows have now cycled so will return to TAD milking provided they are BCS 4 or above and holding or increasing condition

	Std brassica/baleage Pink	LI Baleage Blue	Std Fodder beet Green	LI Fodder beet Yellow
kg Milksolids per cow this week / (last week)	2.15 (2.20)	2.28 (2.27)	2.18 (2.20)	2.13 (2.25)
kg Milksolids per ha this year / (same time last year)	421 (376)	365 (330)	412 (368)	362 (328)
% Var kg Milksolids per ha Season per ha to date vs last season to date	13.2	7.5	18.3	13.0
No. of Cows needing preferential feeding (% herd)	16 (7)	6 (5)	16 (7)	9 (7)
Animal health peculiarities	None	None	None	None

Milk Production

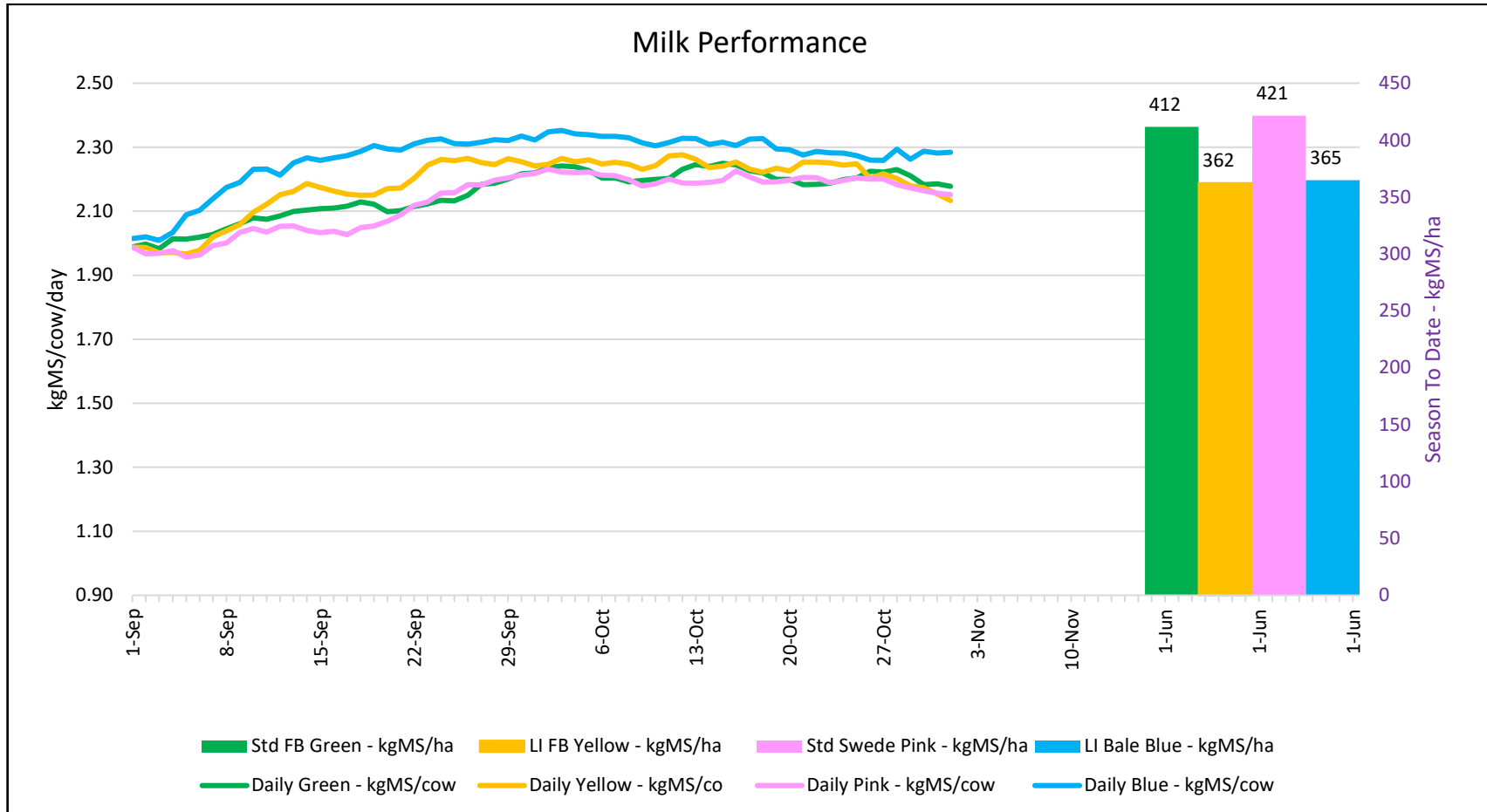


Figure 1: Milk solids production (/cow/day) plus cumulative season production (kg/ha)

Body condition score

As at 31 October 2022 – updated fortnightly

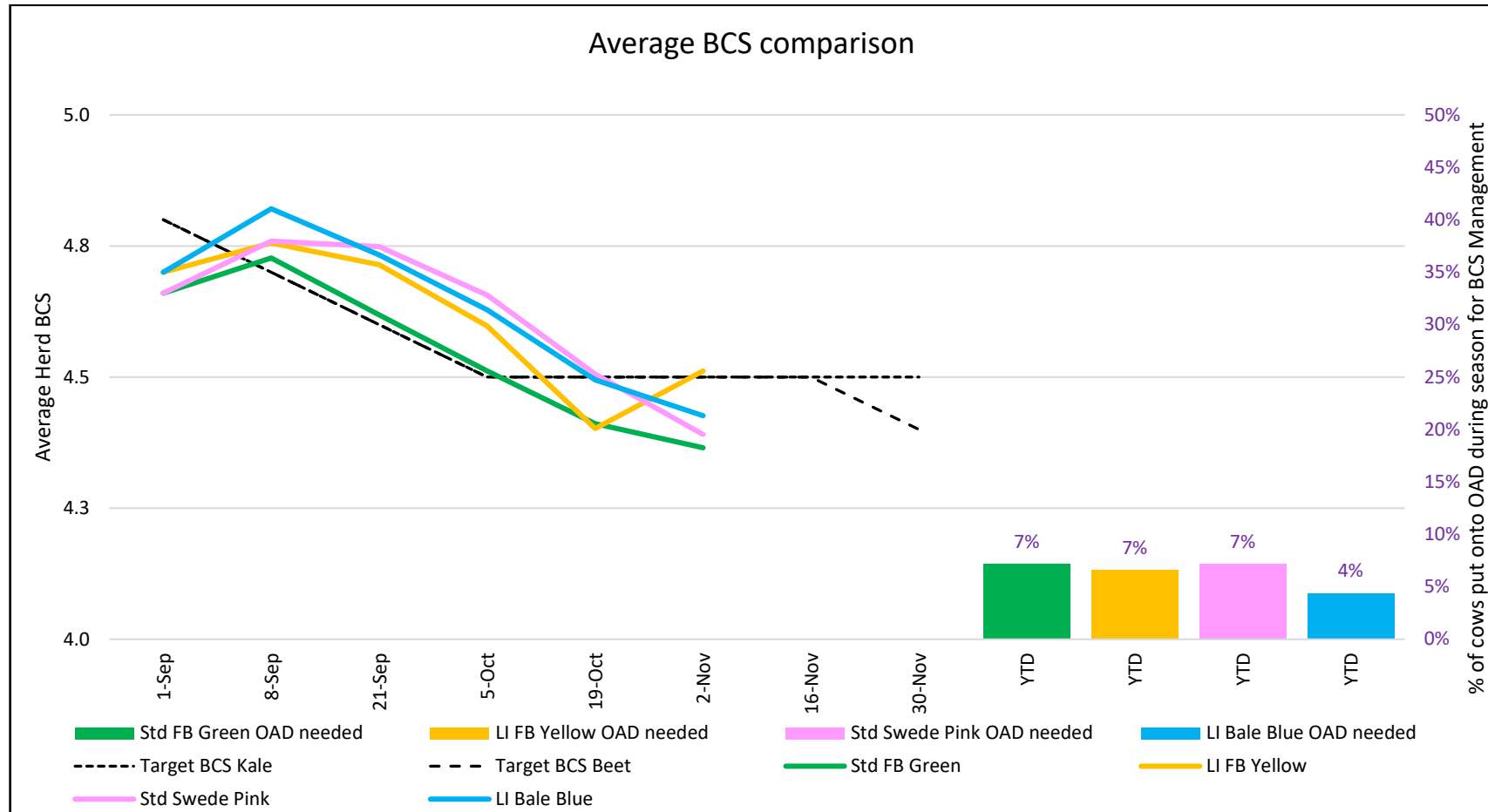


Figure 2: Fortnightly BCS trends and percentage of the herd requiring OAD milking season to date

Feed

Principles of Feed management this week

Feed Quality	Have missed hitting target residuals in some paddocks with un-grazed clumps needing rectifying. Starting to see a buildup of stem in the base. Topping and conservation of surpluses will be used to reset residuals. Results from pasture samples collected over the last 2 weeks show a drop in DM, crude protein, and ME (12.2 down to 11.7) and an increase in fibre (NDF) relative to samples collected late September and early October (see graphs below). Lignin is increasing and is higher in the LI (5.3%) compared with the Std (4.7%) pastures
Growth Rate Management	Growth rates ranging from 60-80kgDM/ha/day are exceeding demand for all herds. An aggressive approach to pasture quality management has been adopted. Any paddocks higher than the pre-graze target have been skipped and will be mown and baled in the next couple of days. We have the option of using high quality silage or increasing in-shed feeding if we have been too aggressive and find ourselves in a deficit in a couple of weeks' time. However, for the LI farmlets the next 4 weeks is critical for us to implement all possible strategies to maintain pasture quality.
Nitrogen Strategy	Std herds have started their 3 rd round of Nitrogen applications (25 kg N/ha). Second round applications (12.5 kg N/ha) to the LI farmlets will be completed this week

	Std brassica/baleage Pink	LI Baleage Blue	Std Fodder beet Green	LI Fodder beet Yellow
Quantity	Surplus	Surplus	Surplus	Surplus
Quality	Some stem elongation and flag leaf emergence	Some stem elongation and flag leaf emergence	Some stem elongation and flag leaf emergence	Some stem elongation and flag leaf emergence
Surplus Management	X 3 pdks of baleage to be made	X 3 pdks of baleage to be made	X 1.0 pdks of baleage to be made	X 3.5 pdks of baleage to be made
Deficit Management - kgDM (diff from last week)	1.2 (-0.3)	2.1 (0.1)	1.0 (-0.1)	2.2 (0.3)
Target Rotation Length (days)	22	26	22	26

Feed

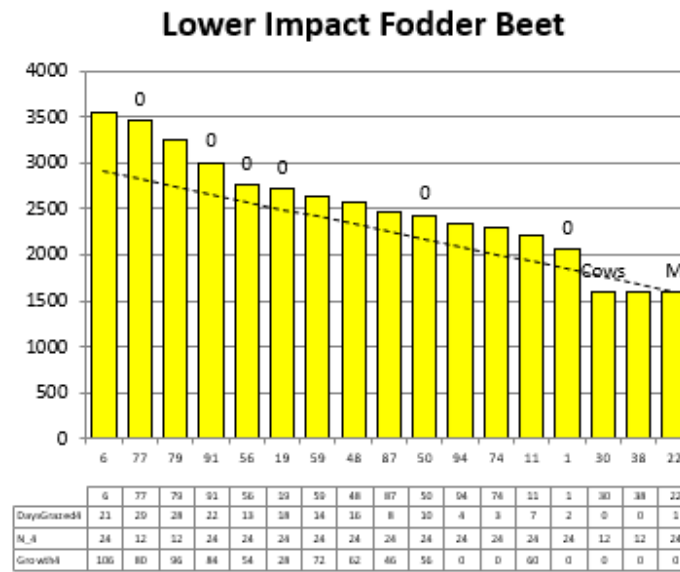
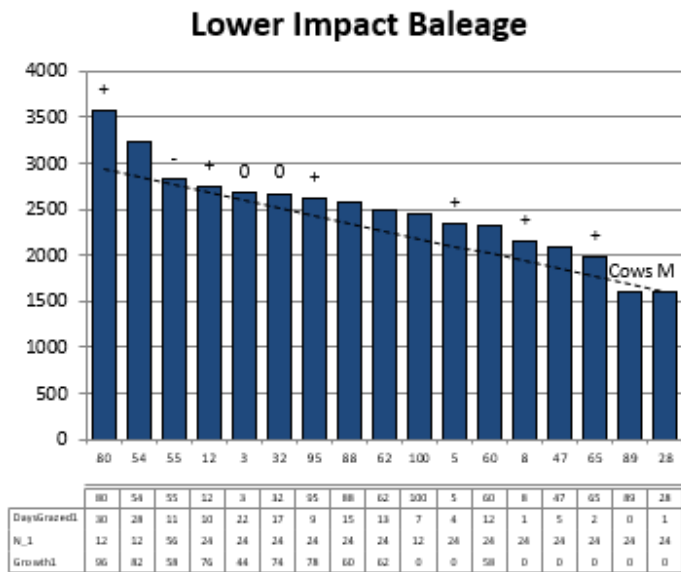
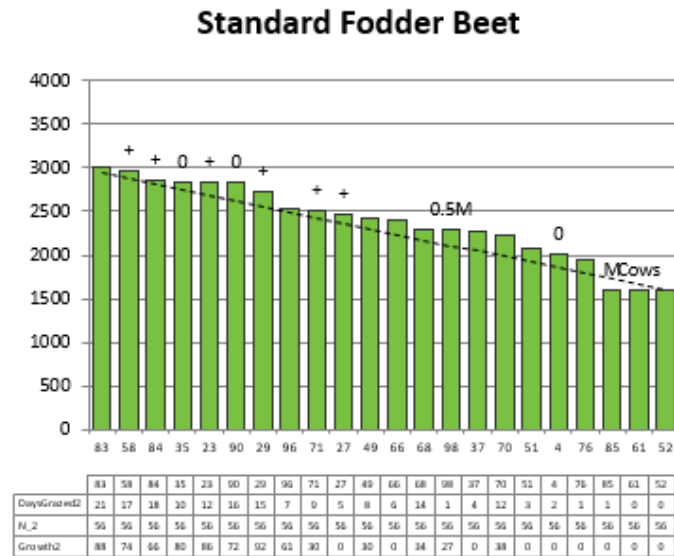
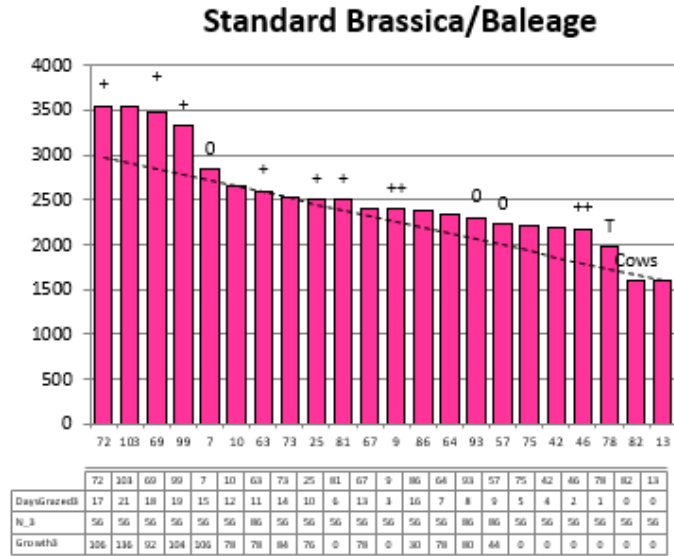


Figure 3: Feed Wedges as of 1st November 2022

Nitrogen

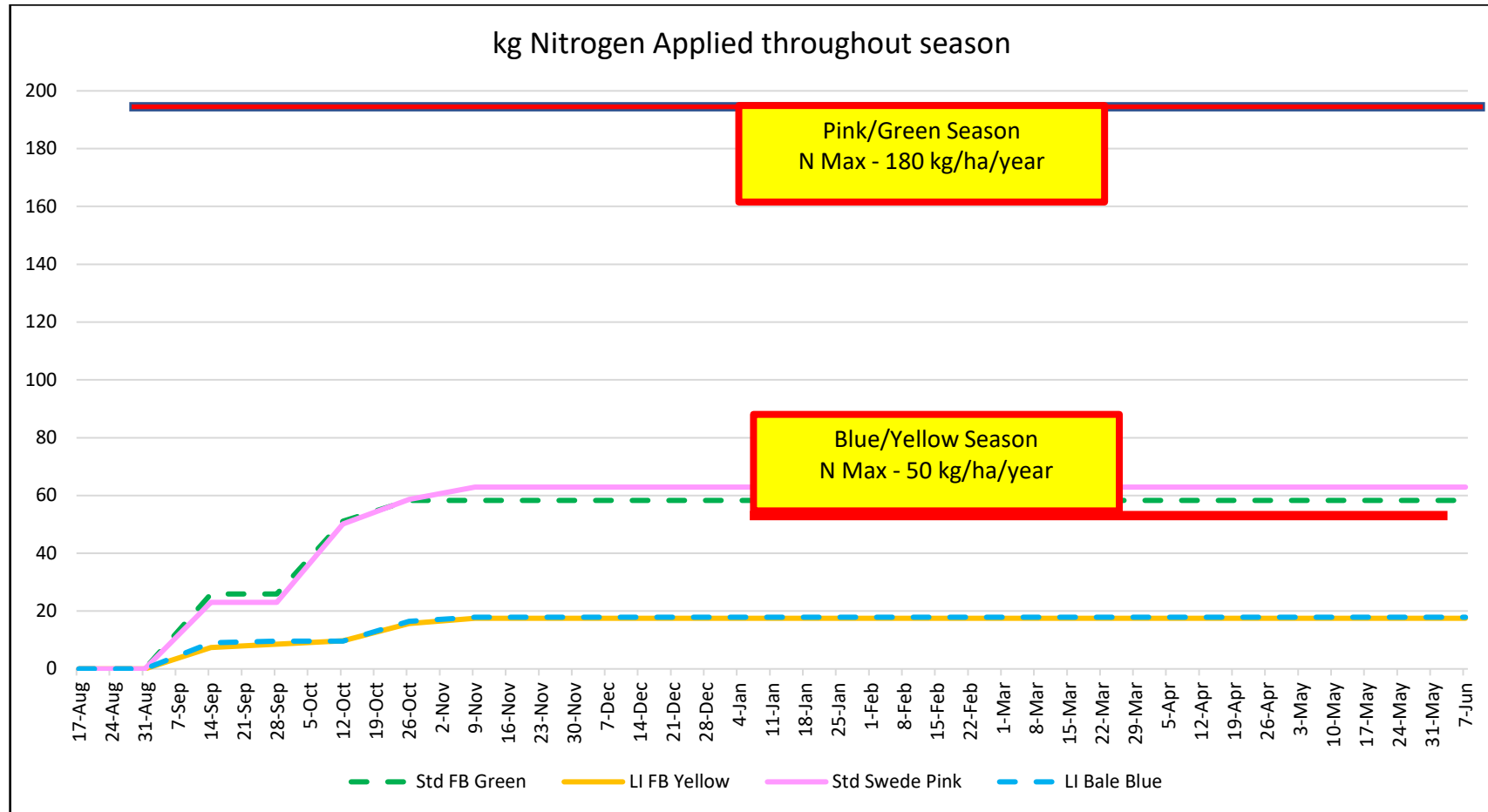


Figure 4: Cumulative nitrogen fertiliser applications (kg N/ha) for the 2022-23 season

Spring Pasture Quality & Surplus

<p>Current Situation</p>	<p>We have been experiencing a good spring and consequently have a pasture surplus. Current growth rate to meet demand for the Std farmlets is 54 kg DM/ha/day and for the LI is 44 kg DM/ha/day. We want to be able to maintain high-quality pasture and feed cows well to sustain peak milk production and provide the energy required for cows to cycle and conceive early in the mating period</p>
<p>Pros & Cons of Surplus Management Options</p>	<p style="text-align: center;">Make grass silage or baleage</p> <p>Pros: Silage is easy to feed out and baleage can be made in small lots reducing risk of creating a feed deficit. Surplus feed is used to fill feed deficits later in the season</p> <p>Cons: There needs to be enough silage to make pit silage. Can result in too much area out for too long. Quality is weather dependent. Feeding out baleage to large herd is labour intensive.</p> <p style="text-align: center;">Sow a summer or winter crop or re-grass</p> <p>Pro: option to improve poor performing paddocks. Reduces the total grazing area so effectively increases the rotation length</p> <p>Cons: spring re-grassing may not suit some farms. Surplus period may not coincide with the best time for crop establishment</p> <p style="text-align: center;">Top paddock</p> <p>Pros: Useful to manage a small surplus while maximizing pasture intake while ensuring quality pasture in the next round</p> <p>Cons: Waste of pasture that could be used to fill a deficit later in the season, cost of time, diesel & depreciation. Only useful for small feed surpluses.</p> <p style="text-align: center;">Speed up rotation</p> <p>Pros: Grazing before the third leaf can depress regrowth rates. Good option for low-stocked farms as allows cows to selectively graze – need to do in conjunction with topping</p> <p>Cons: Difficult to do without increasing residuals. Risky with high-stocked farms as it can become difficult to extend the round when growth rates slow. Hard to see what is happening with growth rates when on a fast rotation.</p>
<p>What are we doing at SDH?</p>	<ul style="list-style-type: none"> • Increasing total pasture allocations by minimizing supplementary feed • Being strict on pre-graze covers and post-graze residuals • Prompt decision making on whether paddocks will be grazed, conserved or topped • Stepping over paddocks that are above the herds pre-graze target; this may result in up to 20% of a LI farmlet being conserved this week and will speed up the rotation, however we aim to get baleage off in the week it is identified so these paddocks effectively stay in the rotation • Topping where appropriate to reset residuals (as per decision rules) • Maximizing pasture intake by providing cows with high quality pasture at the right pre-graze mass • Continue to trickle N on for Standards and scheduling N for the LI herds for later in November

For more information and tools please visit the DairyNZ website: <https://www.dairynz.co.nz/feed/feed-management/>

Spring Pasture Quality & Surplus

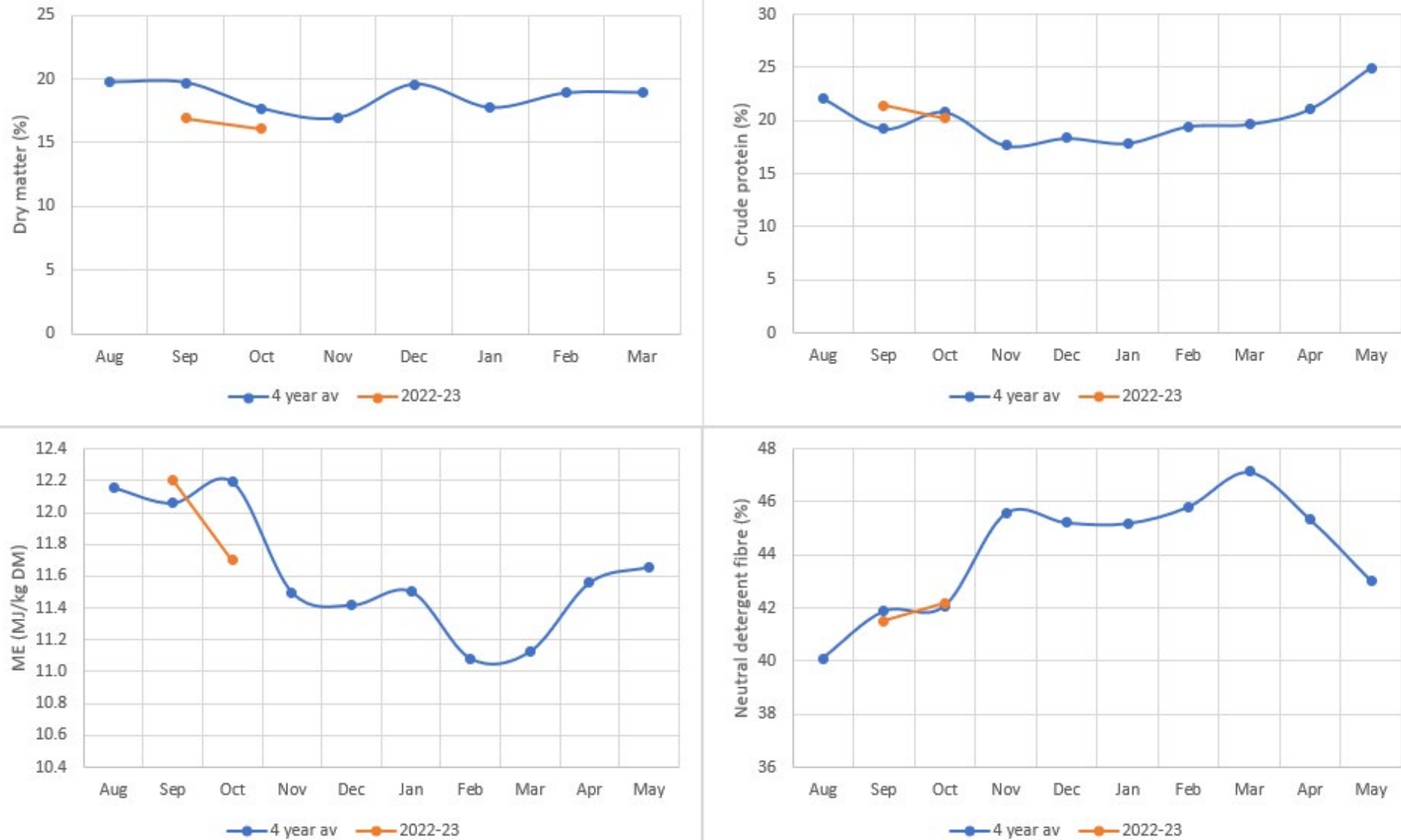


Figure 5: Pasture quality trends for 2022-23 compared with the average of the previous 4 seasons