

Weekly Farm Summary

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

KPI	Std Kale Pink	LI Kale Blue	Std FB Green	LI FB Yellow
Farmlet area including wintering	75.0	721.	75.0	69.2
Peak cow numbers	195	162	194	12
Milking area (ha)	63.4	60.5	63.4	60.5
Current herd size (cows)	170	138	164	141
Pasture stocking rate	2.7	2.3	2.6	2.3
Winter Feed Milking supplement	Kale In-Shed feed		Fodder beet Fodder beet/baleage	
Average Cover	2289	2210	2273	2145
Average Growth	28	20	18	22
Target rotation length	41	40	42	40
Last week act rotation (d)	40	33	34	32
Last week supp (kg DM/cow)	4.9	3.0	4.4	1.6
Average BCS	4.4	4.5	4.4	4.4
% of herd on OAD	17%	17%	19%	9%
Milk yield (L/cow)	14.6	13.5	13.7	13.1
Milk yield (kg MS/cow)	1.53	1.43	1.42	1.40
Nitrogen Cap kgN/ha/yr	193	50	193	50
%Nitrogen used (kgN/ha) YTD	73% (141 kg)	76% (38 kg)	68% (132 kg)	78% (39 kg)
Effluent N YTD	7	11	18	18
Profit/ha comp to Control	\$0	-\$210	-\$173	-\$166
YTD supp (kg DM/cow)	517	417	413	376
YTD MS/cow	327	331	307	314
YTD MS/ha	1006	887	940	840
Business Area	Current Status			
Feed	Growth rate well below demand; extending rotation to approx. 40 days by reducing milking frequency; lucerne baleage on farm will be fed out to herds over the next 2 weeks; feed b			
Milk Production	Production declining, particularly for the fodder beet herds with feed the lower quality supplement in their system; all herds moving to 3 n 2 milking from Mon			
People	Team conquering the feeding complexities well! Implementing Covid policy;			
Animals	Initial indications for not-in-calf rate are promising; 20 culls left the farm this week, 6 in milk and 14 to the works.			
Environment	No nitrogen fertiliser as conditions too dry; Will start effluent applications again this week targeting Std Kale pdks & new grasses where we can			
Wintering	Buffer strips & one Italian pdk have been conserved; crops progressing well despite moisture deficit; purchased bales flowing in and onto paddocks			
Research	Botanical dissections completed, other activities business as usual Planning for new farm systems comparison with infrastructure is in full swing			

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Feed

Principles of Pasture Management this week

Pasture Quality	<p>Quality has declined this week, especially in the lower terrace paddocks where the dry is really starting to bite; Still seeing milk production response when grazing new grass paddocks suggesting pasture protein levels are still low. Will introduce our limited supply of lucerne baleage for the next 2 weeks</p> <p>For the 4th year in a row the LI farmlets have had a higher proportion of clover in their pastures, however a high amount of dead in the pastures this summer has reduced the overall %</p>
Growth rate Management	<p>Pushing rotation length to 40 days</p> <p>Moving to 3 n 2 milking from Monday;</p> <p>Reducing pasture demand by culling more empty in milk cows and increasing supplementary feed</p>
Nitrogen Strategy	<p>Have delayed the start of the final application of N fertiliser to the LI farmlets and suspended applications to the Std farmlets until we see an improvement in soil moisture levels</p>

	Standard Kale Pink	Low Impact Kale Blue	Standard Fodder beet Green	Low Impact Fodder beet Yellow
Quantity	Growth only 57% of demand	Growth only 47% of demand	Growth only 37% of demand	Growth only 51% of demand
Quality	No long paddocks, hitting residuals well; pastures very dry	No long paddocks, hitting residuals well; pastures very dry	No long paddocks, hitting residuals well; pastures very dry	No long paddocks, hitting residuals well; pastures very dry
Surplus Management	None	None	None	None
Deficit Management	3.5 kg inshed (same as last week) 1.6 kg DM baleage	3.0 kg inshed (same last week) 0.8 kg DM baleage	2.6 kg inshed (down from 3 last week) Baleage 2.0 kg/cow/day	3.0 kg inshed (up from 1.0kg from last week) Baleage 3.0 kg/cow/day
Rotation Length	Extend rotation to 40 days	Extend rotation to 40 days	Extend rotation to 40 days	Extend rotation to 40 days

Milk Production

Principles of Milk production management this week

Milk Production	<p>Milk production has had a downward trend this week but still a lot of fluctuation between days within herds.</p> <p>Std Kale herd has now exceeded 1000 kg MS/ha</p> <p>We are still seeing improvements in milk production when the cows are moving through new grass paddocks</p>
Key influences on milk production	<p>Both pasture quality quantity have most likely impacted on milk production this week.</p> <p>The gap between fodder beet and kale herds has reduced as the proportion of pasture in the diet increases through reduced demand from culling 5-6% from all herds.</p>
Cow Management	<p>Cow Management Rules:</p> <ol style="list-style-type: none"> 1: Reducing milking frequency to 3 n 2 milking with 10, 19, 19 milking interval split 2: Off loading culls as quickly as possible and concentrating available feed on cows staying for next season 3: The first group of high risk low BCS cows have been identified; if we dont see a lift in BCS over the next 2 weeks with the change in milking frequency these animals will be dried off

	Standard Kale Pink	Low Impact Kale Blue	Standard Fodder beet Green	Low Impact Fodder beet Yellow
kg Milksolids per cow this week / (last week)	1.56/ (1.63)	1.47/ (1.65)	1.48 / (1.51)	1.46 / (1.56)
kg Milksolids per ha this year / (this time last year)	1006/ (1034)	887 / (837)	940 / (986)	840 / (812)
Season to date compared to last year	Down 3.0% total milk Half paddock extra in grass this year affects KPI.	up 5.9% total milk One paddock less in grass this year affects KPI.	Down 4.7% total milk	Up 3.5% total milk One paddock less in grass this year affects KPI.
Cows needing OAD BCS<4 (% herd)	28 cows (16%)	29 cows (17%)	30 cows (16.9%)	8 cows (5.4%)
Animal health peculiarities	None	None	None	None

Animals

Reproductive Performance

The second pregnancy scan has been completed and initial indications of not-in-calf rates are promising. This season was the first on the farm with the Allflex behaviour collars. These were used in combination with visual observations to identify cows for mating

Cows were metrichecked in blocks based on calving date and treated if required

Premating heats were recorded to allow identification of non cycling animals before planned start of mating

Two rounds of CIDR intervention were implemented to kickstart non cycling animals

Cows were mated once per day following the morning milking

AI was used for 5.5 weeks followed by cross bred bulls for a total mating period of 10.5 weeks; Numbering the bulls allowed them to be rested and rotated around all 4 herds on a regular basis

First scan completed mid January

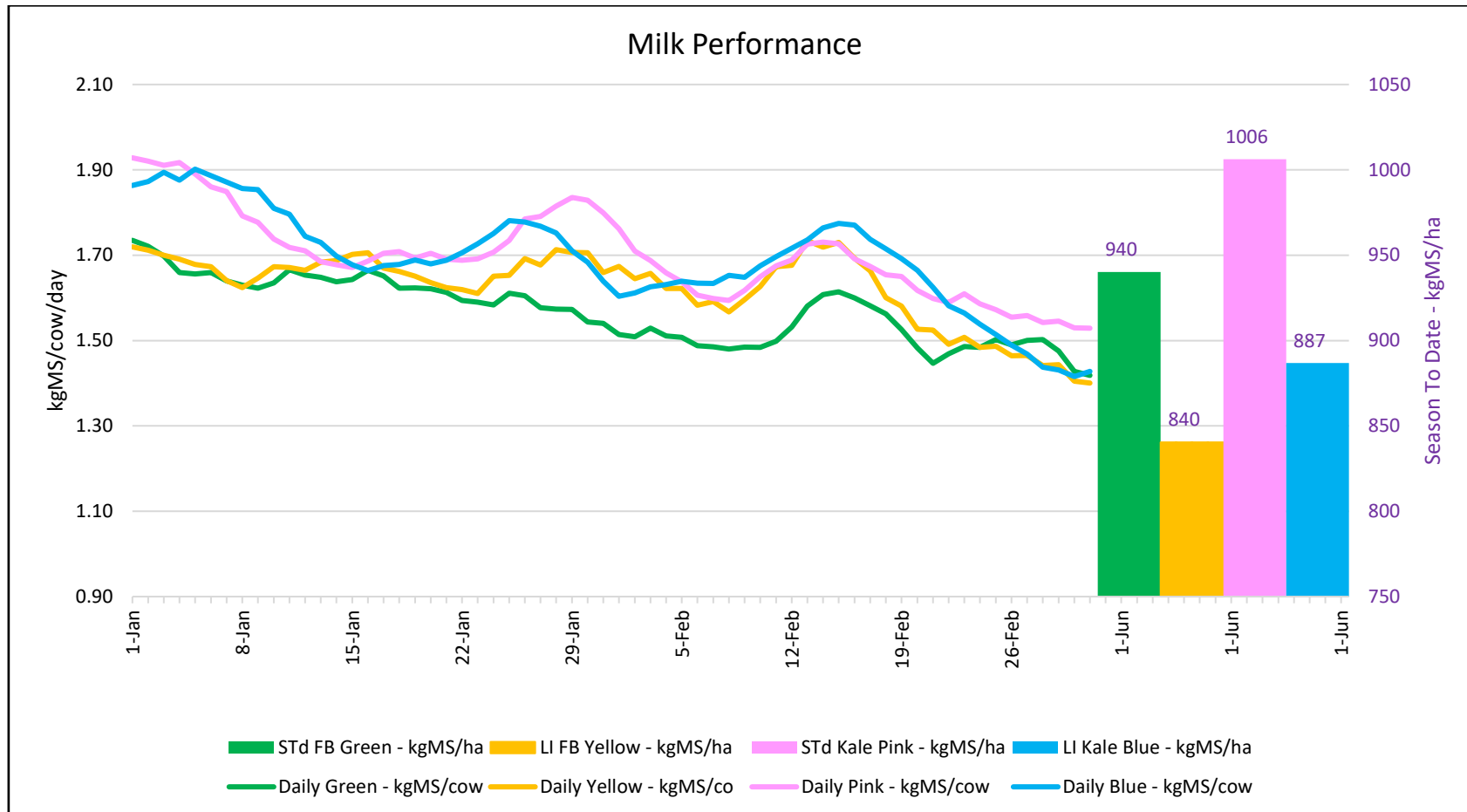
Second scan 25th February

Reproductive performance as 3 wk submission rate, 6wk incalf rate and empty rate has improved year on year for the last 3 years; a result we attribute to aggressive BCS management in autumn and winter to ensure all animals calve at their target BCS

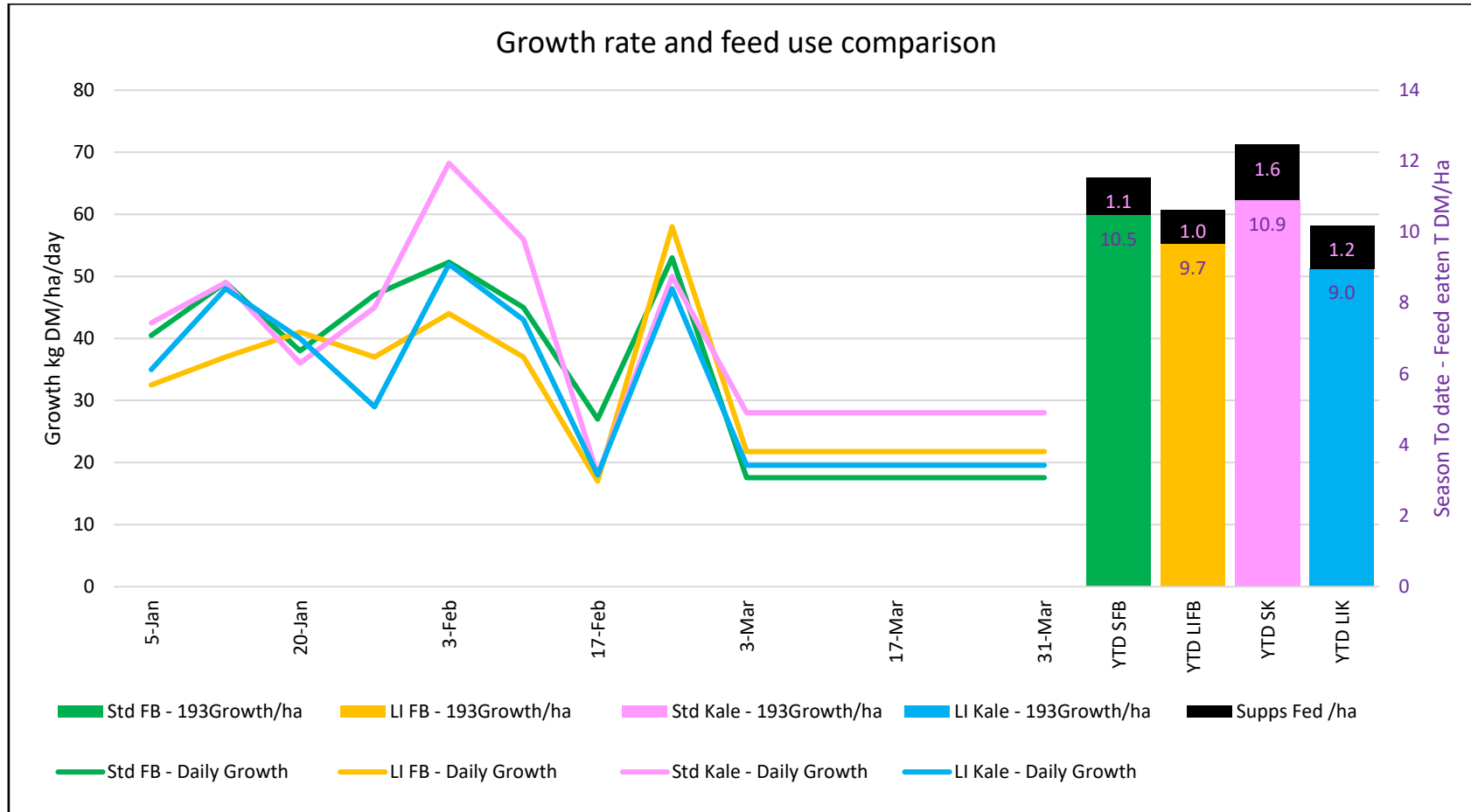
Age	Green	Yellow	Pink	Blue	Farm
6 wk in-calf	74.9%	74.7%	72.6%	73.3%	73.8%
Scanned MT	9.9%	11.2%	7.3%	8.1%	9.1%
Total not incalf losses pre scanning	11.3%	13.6%	10.7%	9.9%	11.3%
Empty (no.)	19	18	14	13	64
Not in calf (includes repro status unknown, culled prior to scanning (no.))	22	20	19	14	75

	2021 Spring					2020 Spring					2019 Spring				
	Green	Yellow	Pink	Blue	Farm	Green	Yellow	Pink	Blue	Farm	Green	Yellow	Pink	Blue	Farm
	STD FBeet	LI FBeet	STD Kale	LI Kale	Average	STD FBeet	LI FBeet	STD Kale	LI Kale	Average	STD FBeet	LI FBeet	STD Kale	LI Kale	Average
Herd size	194	163	195	163	715	196	164	197	162	719	193	162	195	163	713
% 3wk Sub rate	91%	91%	94%	97%	93%	84%	93%	92%	92%	90%	77%	80%	81%	88%	81%
% 6 wk IC rate	75%	75%	73%	73%	74%	70%	71%	75%	76%	73%	71%	70%	73%	69%	71%
Scanned MT rate (cows on farm)	10%	11%	7%	8%	9%	11%	9%	9%	6%	9%	14%	15%	10%	13%	13%
Not in-calf rate (repro status unknown, culled prior to scanning)	11%	14%	11%	10%	11%	12%	10%	9%	6%	9%	14%	13%	9%	12%	12%

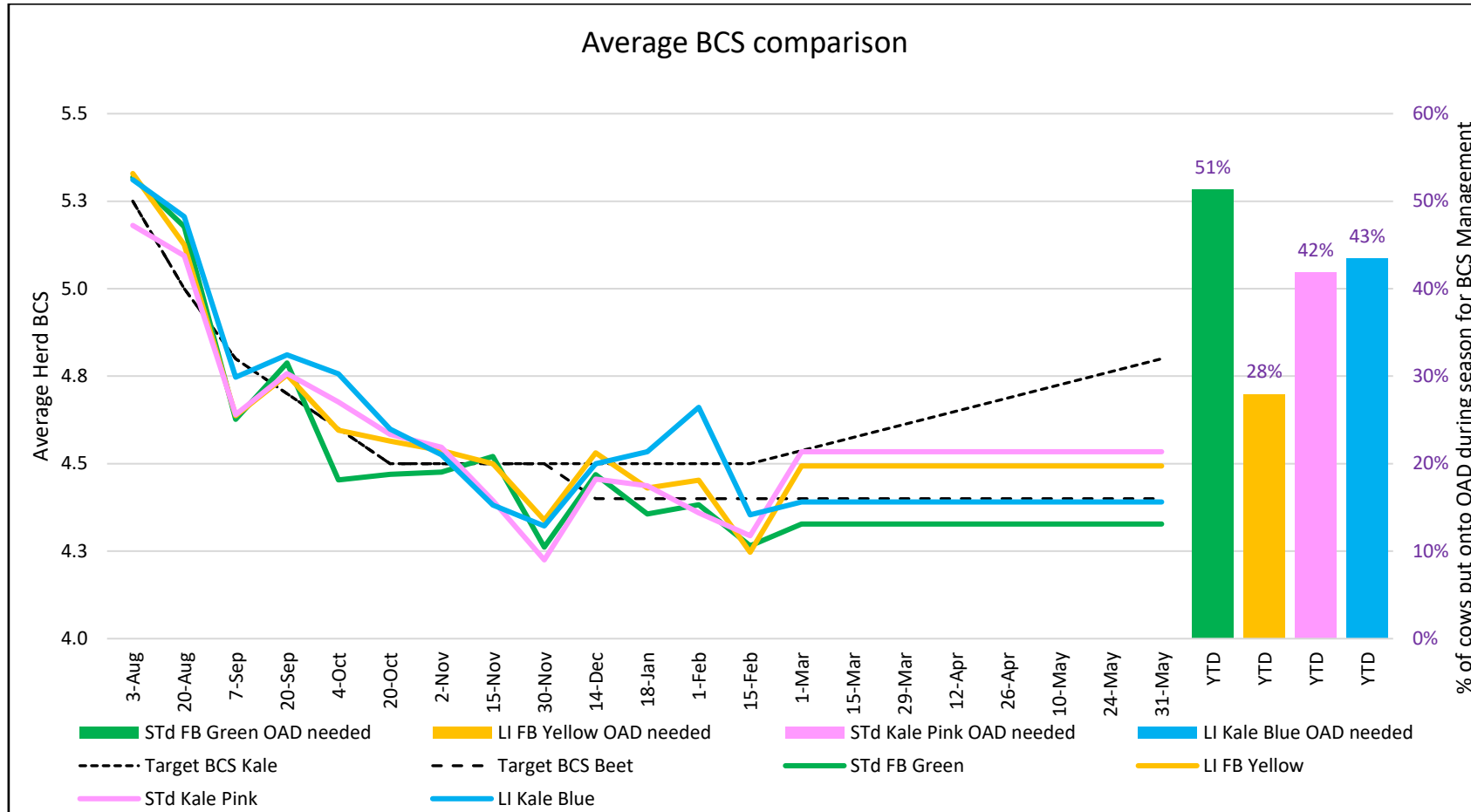
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 Kale, Winters on kale - in-shed feed available. Fodder beet, winters on Beet, Beet as lactation supp. Low impact (LI) limited Max 50kg N/ha/year vs Std 193kg N/ha/year**



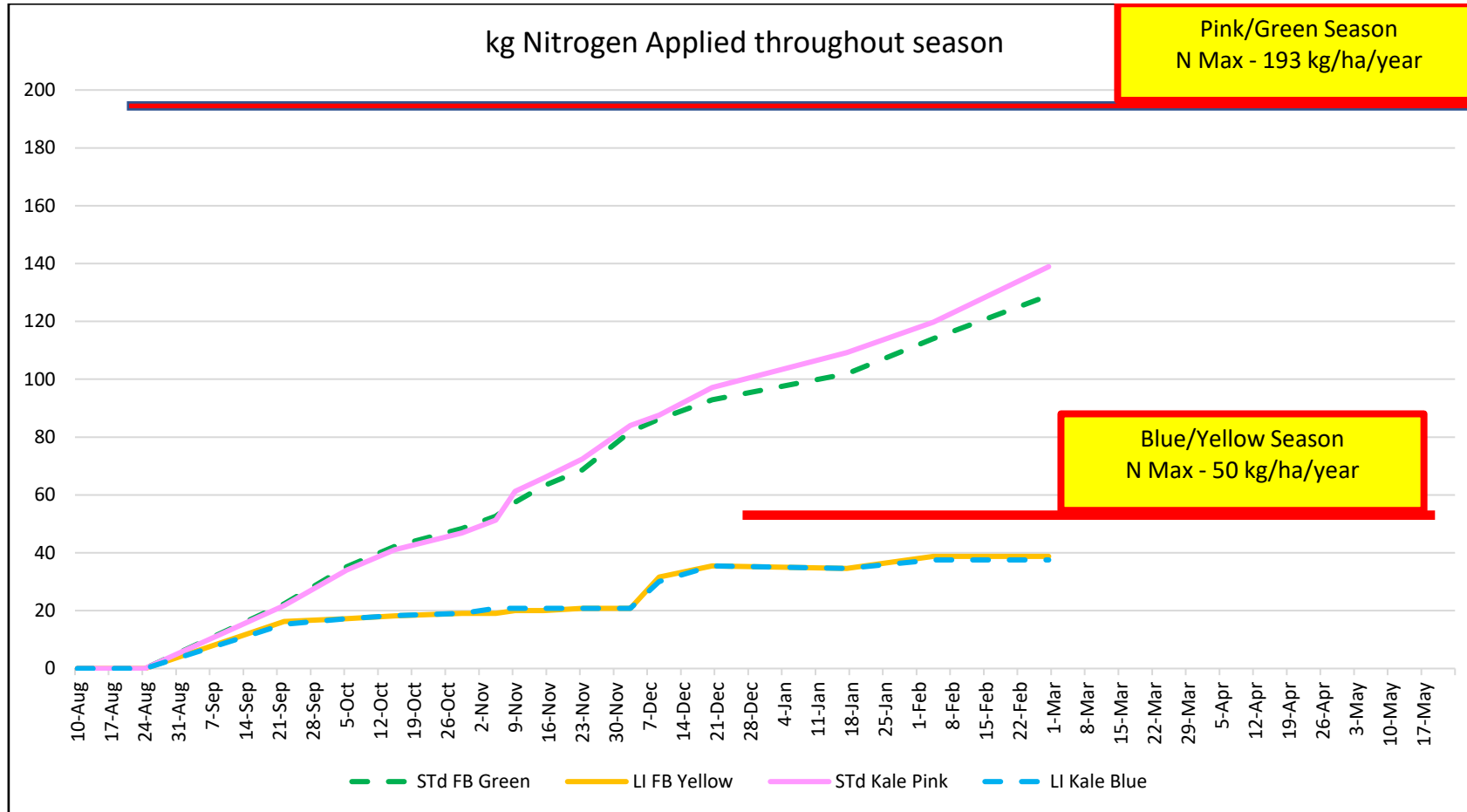
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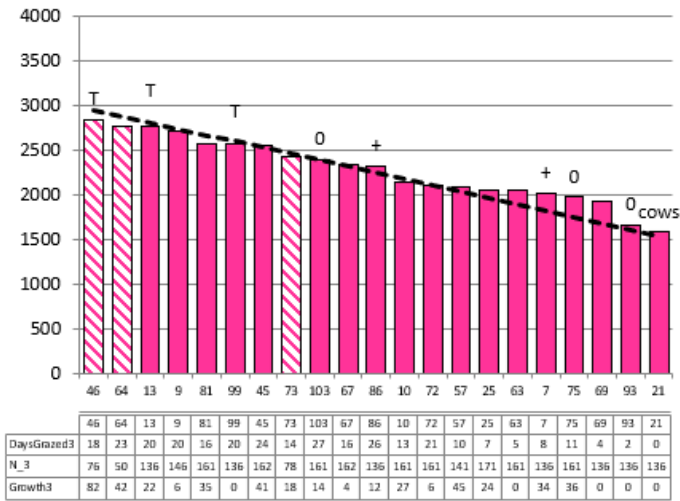


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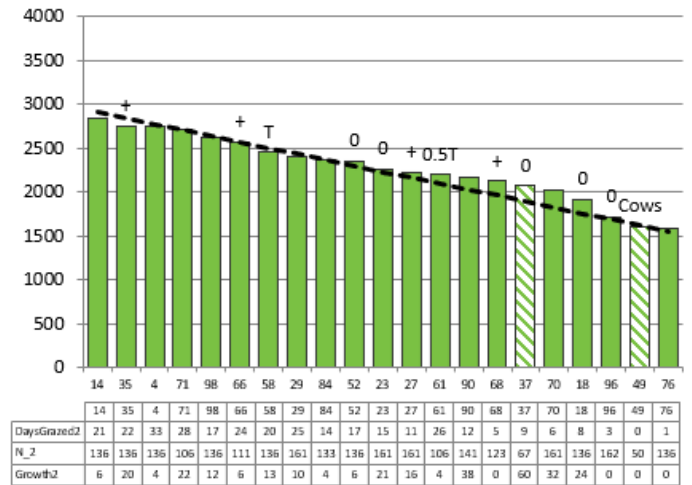


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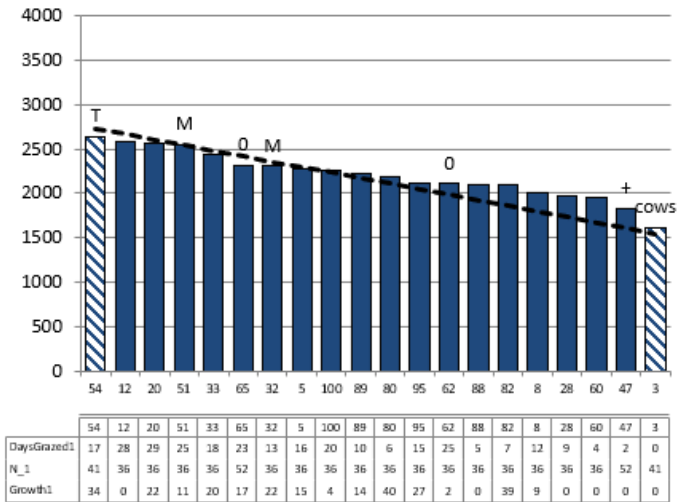
Standard Kale



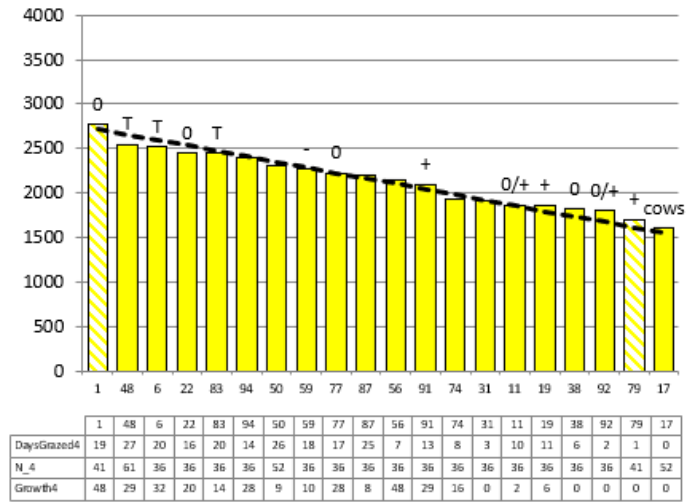
Standard Fodder Beet



Low Impact Kale



Low Impact Fodder Beet



NB: Hatched bars are 2021 new grass paddocks being managed on a faster rotation

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Figure 1: Impact of dry conditions on grazing conditions



Figure 2: Urine patches evident in an italian paddock that has only had 1 nip off grazing this season

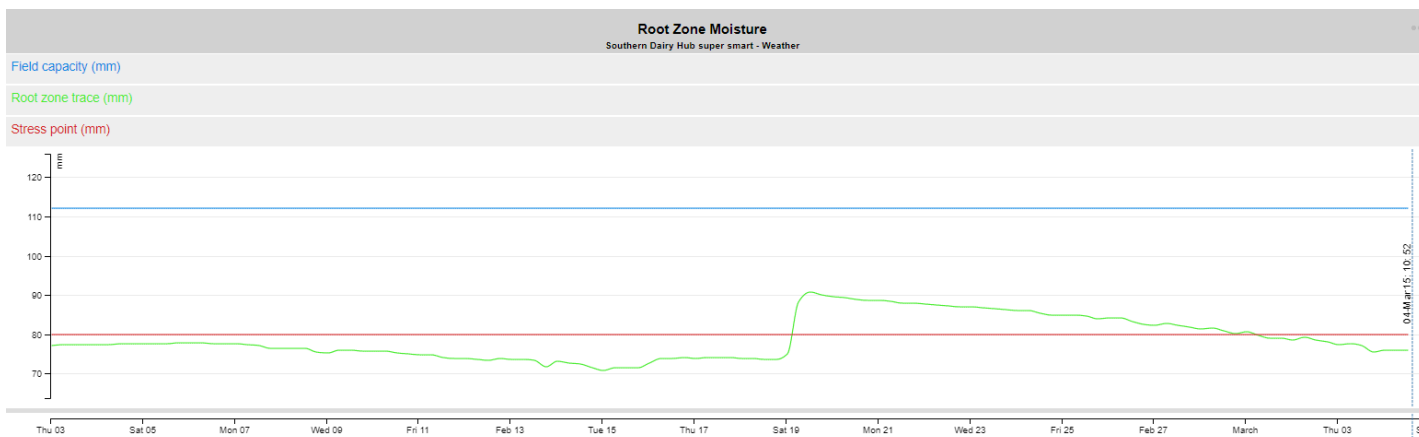


Figure 3: SDH soil moisture profile for the last month

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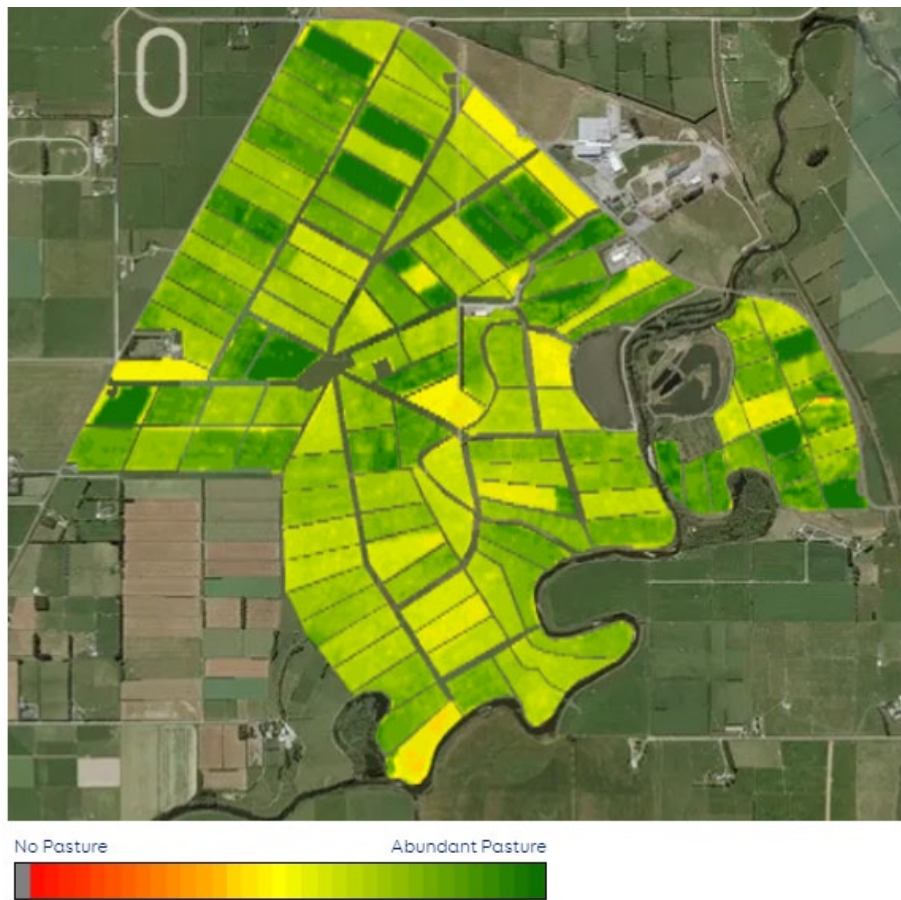


Figure 4: Latest SPACE pasture mass assessment (3 Mar) – dark green pdks are all either crops or Italians for winter