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	72.1	75.0	69.2
Peak cow numbers	195	162	194	162
Milking Area	63.4	60.5	63.4	60.5
Current Herd size (cows)	170	138	166	137
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	2167	2060	2220	2144
Average Growth	18	15	21	22
Target rotation length	42	40	42	40
Last week act rotation (d)	42	40	42	40
Last week supp (kg DM/cow)	7.6	5.3	6.3	6.1
Average BCS	4.45	4.45	4.42	4.43
% of herd on OAD/Priority feeding	25%	22%	8%	16%
Milk yield (L/cow)	14.1	13.5	13.6	12.3
Milk yield (kgMS/cow)	1.53	1.48	1.49	1.34
Nitrogen Cap kgN/ha/yr	**193**	**50**	**193**	**50**
% Nitrogen used (kgN/ha) YTD	74% (143kg)	76% (38kg)	68% (132kg)	78% (39kg)
Effluent N YTD	7	11	18	18
Profit/ha comp to Control	$0	-$210	-$173	-$166
YTD supp (kg DM/cow)	627	487	504	466
YTD MS/cow	354	356	332	335
YTD MS/ha	1,088	953	1,015	896

Business Area	Current Status
Feed	Growth rates still only half feed budgeted values. Rotation length stable at 40-42 days across farmlets; similar supplement requirements for the next week; APC holding at current feeding levels; will start feeding fodder beet to Std & LI FB herds
Milk Production	Cows have responded to increased supplementary feeding over the last week except for the LI FB that have struggled grazing through some of their persistently poorer paddocks in their farmlet. Moving to OAD milking for all herds
People	Team managing well with the complexities of grazing management and the volume of supplementary feeding now and staying positive under trying farming conditions; Performance assessments complete for this round
Animals	Periods of heat stress again this week has impacted on feed intake during the day; still managing to clean up in paddock supplement overnight. Johnes results back from herd test so will do confirmation blood tests
Environment	No nitrogen fertiliser as conditions too dry; targeting effluent to paddocks with lower applications season to date; effluent pond at 34% capacity
Wintering	March crop yields are being completed; with paddocks completed to date fodder beet is averaging 15.9 T DM/ha; kale 9.2 T DM/ha and swedes 12.5 T DM/ha
Research	Getting close to having initial design concepts for the on-farm infrastructure and working through siting options for convenient implementation while avoiding current underground services around the dairy

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Feed

Principles of Pasture Management this week

Pasture Quality	Limited options for influencing pasture quality under the current dry conditons Nearly finished the lucerne baleage but have swapped out some of our winter italian baleage made on farm for poorer quality farmlet baleage Many areas within paddocks are struggling from the prolonged dry conditions; large urine patches
Growth Rate Management	Residuals have lifted with the increase in supplementary feeding Supplement will continue to be fed out across the whole paddock ahead of grazing with additional supplement added if required at each grazing
Nitrogen Strategy	N applications remain on hold. A strategy is being worked on to ensure that the LI farmlets get their total allocation before the 10th of April and the Std farmlets get as close to their allocation as possible. Relative to the autumn feed budgets the Std herds have fed more total supplement than budgeted (Std kale 32%; Std FB 80%) while the LI herds have fed less than budgeted (LI kale 0.5%; LI FB 20%)

	Standard Kale Pink	**Low Impact Kale Blue**	**Standard Fodder beet Green**	**Low Impact Fodder beet Yellow**
Quantity	Growth only 39% of demand	Growth only 38% of demand	Growth only 46% of demand	Growth 56% of demand
Quality	New grasses holding quality, others very dry	New grasses holding quality, others very dry	New grasses holding quality, others very dry	New grasses holding quality, others very dry
Surplus Management	None	None	None	None
Deficit Management	4.0 kg inshed (up 1kg from last week) 3.6 kg DM baleage	3.0 kg inshed (up 0.8 from last week) 2.3 kg DM baleage	3.0 kg inshed (up 0.8 from last week) Baleage 3.3 kg/cow/day	3.0 kg inshed (up 1.0 from last week) Baleage 2.3 kg/cow/day
Rotation Length	42 days	40 days	42 days	40 days

Milk Production

Principles of Milk production management this week

Milk Production	Made the decision to move all herds to OAD milking this week to preserve body condition. Even if we get rain next week it will be at least 3 weeks before we have full pasture response. At current level of production we don't expect much affect on milk production.
Key influences on milk production	Total energy intake is likely the biggest contributor to milk production this week Move to OAD milking will require a revision of supplementary feeding with less able to be consumed in at the milking even when reducing platform speed FB herds will start grazing beet next week to reduce the amount of PKE offered; will lift initially to open up the paddock but then graze a paddock close to the herd
Cow Management	Light BCS, early calving cows continue to receive priority feeding inshed at milking Have a handful of cull cows who will not cope well with OAD milking so will look to exit these ASAP Likely to dry off the first round of at risk cows in the next couple of weeks

	Standard Kale Pink	**Low Impact Kale Blue**	**Standard Fodder beet Green**	**Low Impact Fodder beet Yellow**
kg Milksolids per cow this week / (last week)	1.53/(1.52)	1.48/(1.48)	1.49/(1.37)	1.34/(1.36)
kg Milksolids per ha this year / (this time last year)	1088/(1103)	953/(893)	1015/(1051)	896/(863)
Season to date compared to last year	Down 3.6% total milk Half paddock extra in grass this year affects KPI.	up 4.5% total milk One paddock less in grass this year affects KPI.	Down 5.7% total milk	Up 2.2% total milk One paddock less in grass this year affects KPI.
Cows needing preferential feeding (% herd)	42 cows (25%)	30 cows (22%)	13 cows (8%)	22 cows (16%)
Animal health peculiarities	None	None	None	None

Wintering

Crop yielding to inform winter feed budgets

Setting up for winter is going to be crucial under the current climatic conditions and pressure on supplementary feed so the more we know about our crops now and their potential crop yields the better we can plan

To update our winter feed budgets crop yield assessments have commenced on all paddocks across the farm. This information has been compared to yields at the same time in the last 3 seasons to see how we are tracking (Table below)

Based on current yields and limits to the amount of PKE the fodder beet herds can consume during milking we have decided to start feeding our some of our autumn fodder beet allocation. We will forego yield in this area but at only 1-1.5 kg DM/cow/day this will not impact significantly on the feed budget.

Another cut of baleage was made this week from the Italian paddocks that we will be wintering on

Table 1: Comparison of March crop yields for the last four seasons

	2022	2021	2020	2019
Kale – average t DM/ha	9.2	9.3	10.1	10.6
Range		4.7-14.7	7.8-12.3	9.1-12.8
Fodder beet – av t DM/ha	15.9	14.3	14.4	16.7
Range	14.8-17.1	12.0-17.0	12.2-15.9	10.5-21.8
Leaf:bulb ratio (%)	37	45	41	34
Swedes	12.5			

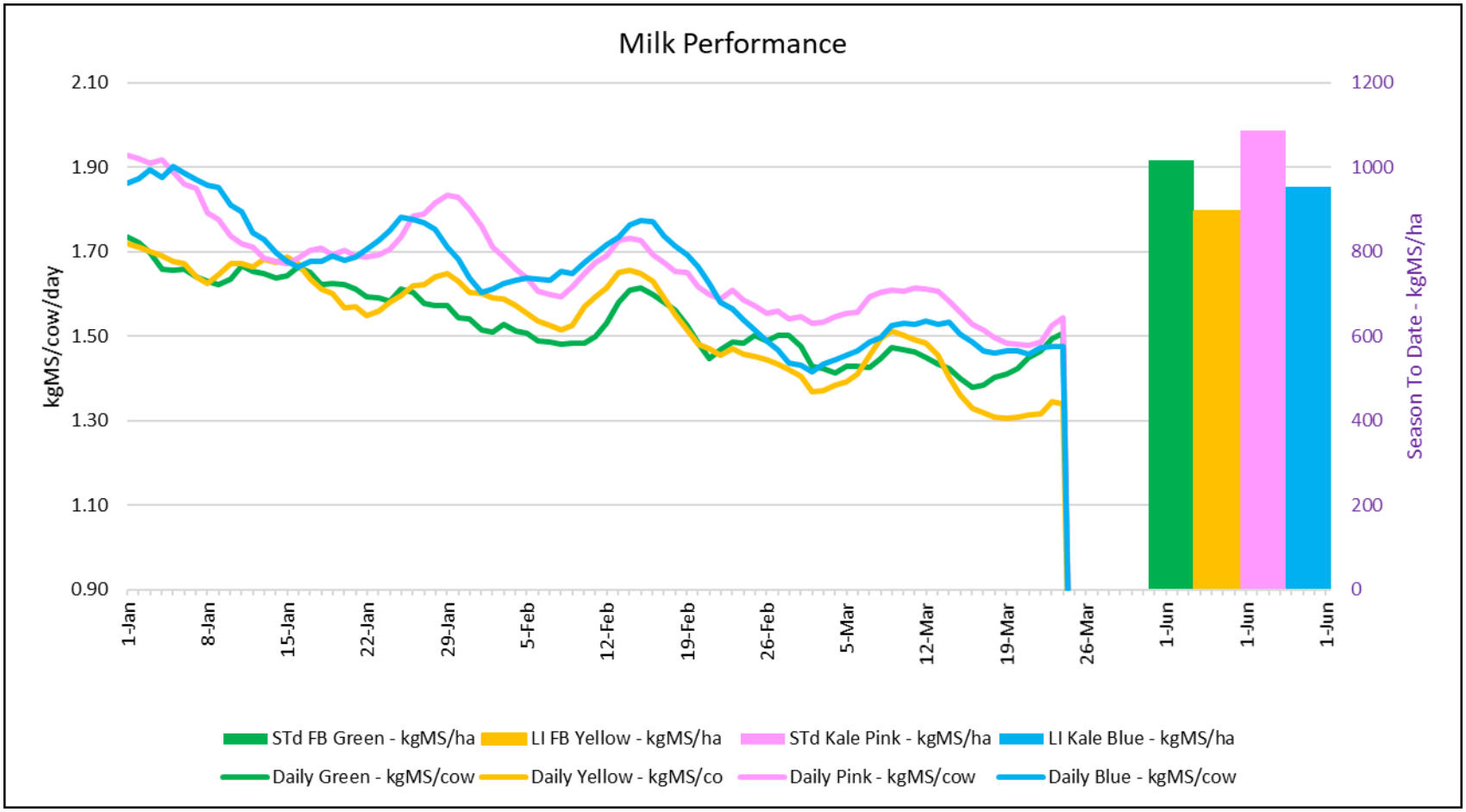
Wintering


0144
0147
066
39
21
0112
042
33
25
19
0142
011
SN6
28
099
0189
029
35
22
1012
SN-18
SN21
5
18
082
032
29
14
13

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

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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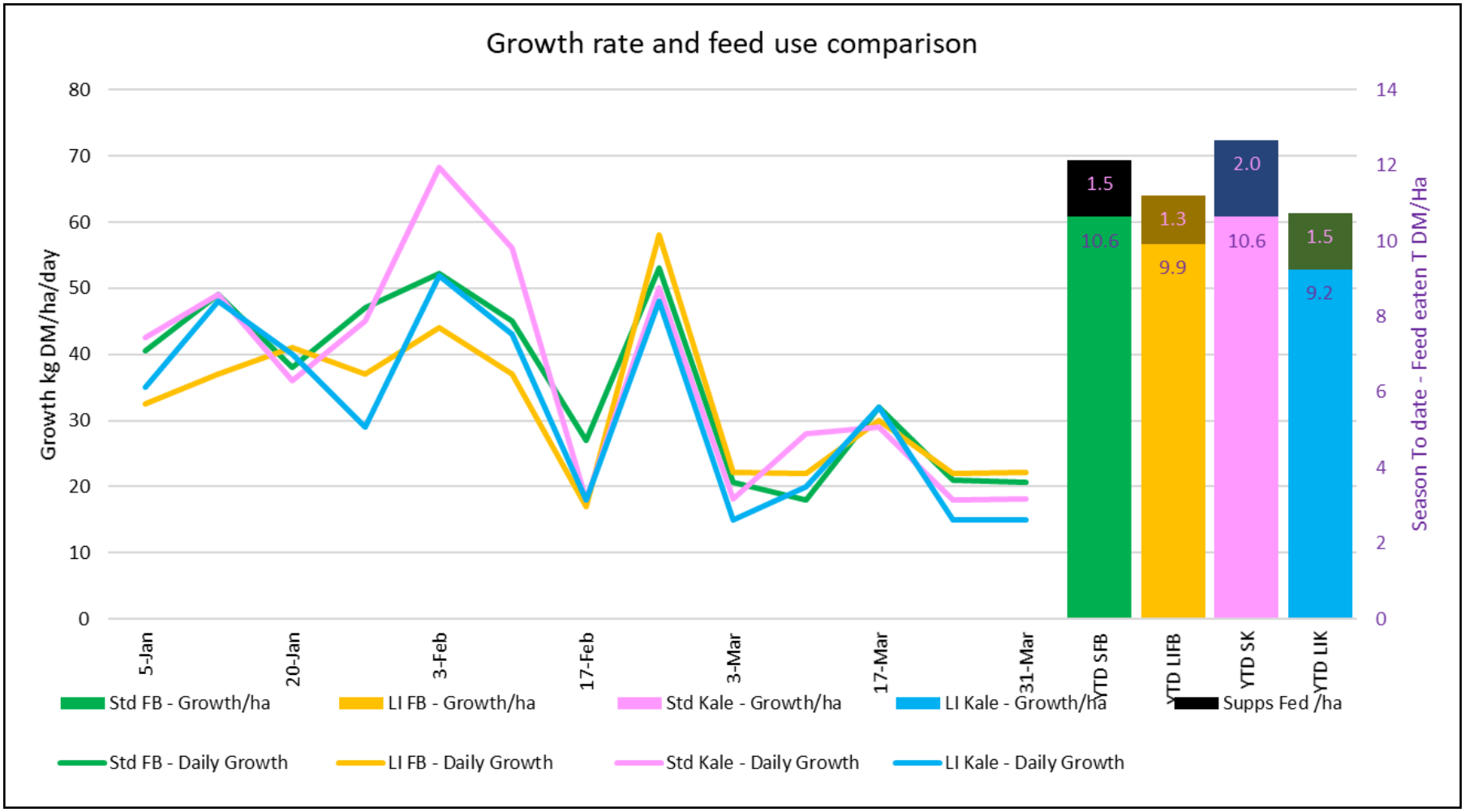

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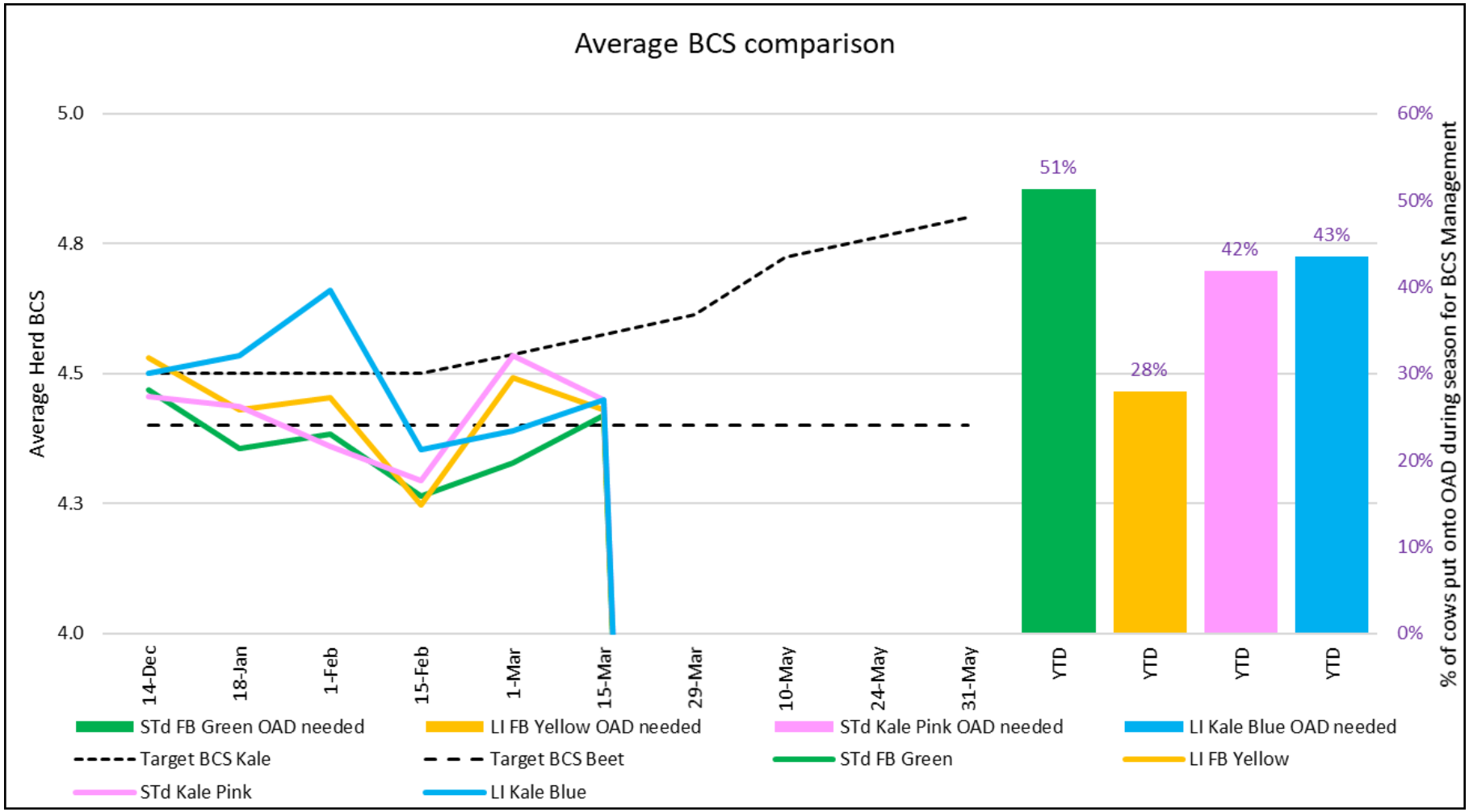

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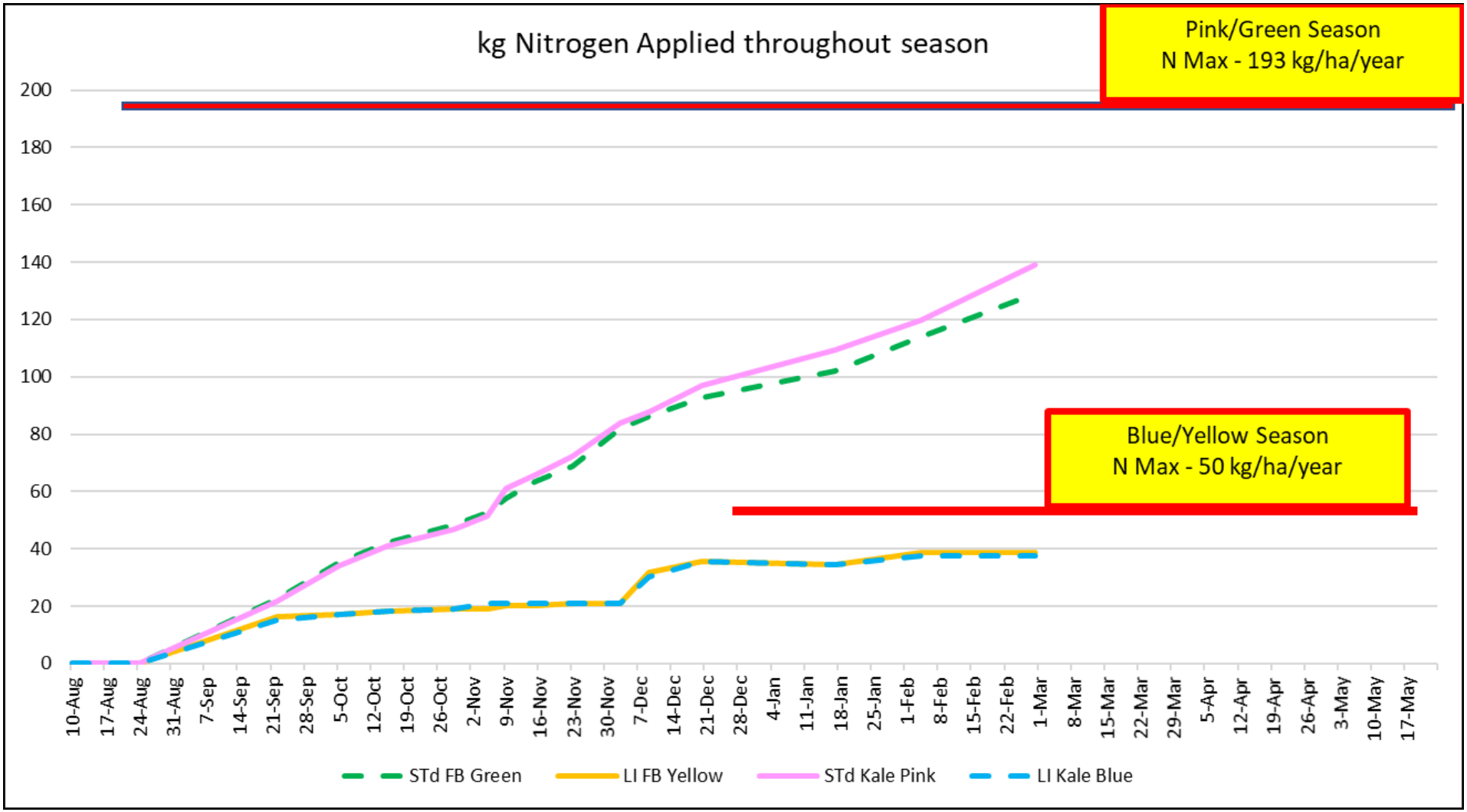

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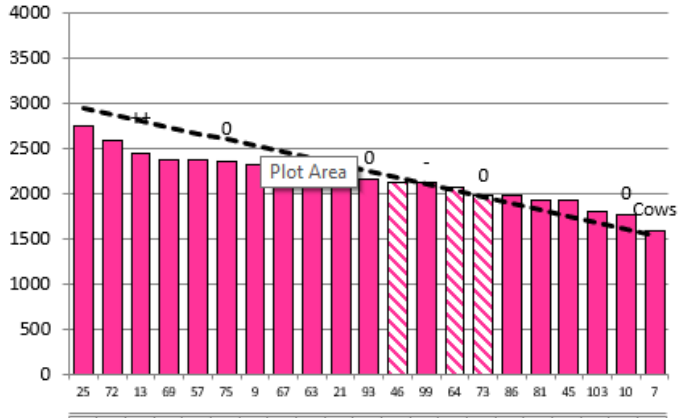
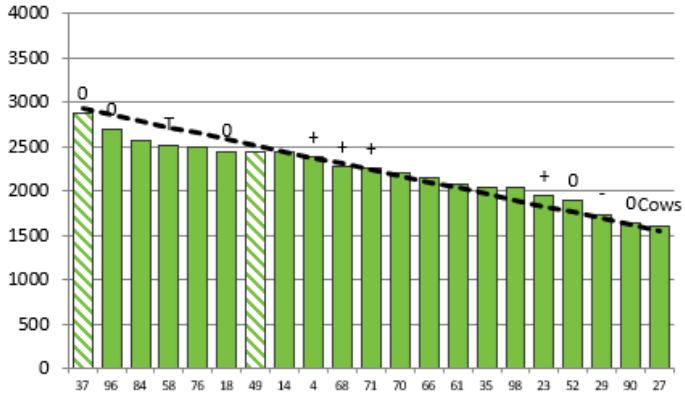
Standard Kale



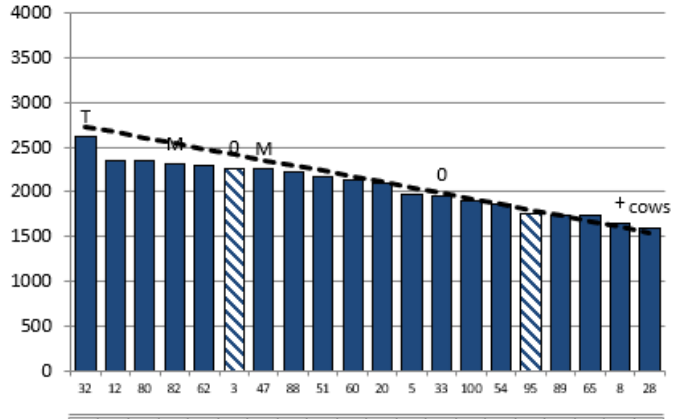
	25	72	13	69	57	75	9	67	63	21	93	46	99	64	73	86	81	45	103	10	7
DaysGrazed3	28	42	17	25	31	32	15	37	26	21	23	18	9	20	13	3	5	7	11	1	0
N_3	171	161	136	136	141	161	146	162	161	136	136	76	136	50	78	136	161	162	161	161	136
Growth3	34	14	36	18	12	17	24	10	4	0	13	32	6	2	12	0	0	44	12	0	0

Standard Fodder Beet



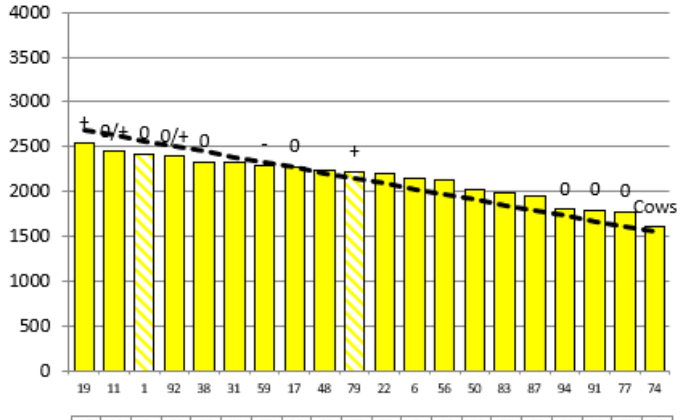
	37	96	84	58	76	18	49	14	4	68	71	70	66	61	35	98	23	52	29	90	27
DaysGrazed2	30	24	35	41	22	29	21	15	19	26	18	27	11	17	13	7	3	5	9	1	0
N_2	67	162	133	136	136	136	50	136	136	123	106	161	111	106	136	136	161	136	161	141	161
Growth2	40	52	6	12	14	30	23	38	20	6	10	2	8	26	25	34	0	0	6	0	0

Low Impact Kale



	32	12	80	82	62	3	47	88	51	60	20	5	33	100	54	95	89	65	8	28
DaysGrazed1	34	18	27	28	46	21	23	26	17	25	20	11	9	13	15	5	3	7	1	0
N_1	36	36	36	36	36	41	52	36	36	36	36	36	36	36	41	36	36	52	36	36
Growth1	28	14	4	8	13	42	18	3	0	10	1	42	30	-6	17	0	0	0	0	0

Low Impact Fodder Beet



	19	11	1	92	38	31	59	17	48	79	22	6	56	50	83	87	94	91	77	74
DaysGrazed4	32	31	18	23	27	24	39	20	17	22	13	16	28	7	11	5	9	1	3	0
N_4	36	36	41	36	36	36	36	52	61	41	36	36	36	52	36	36	36	36	36	36
Growth4	54	32	28	12	28	13	4	10	23	12	54	2	3	45	26	0	11	0	0	0

NB – Target line set for 12 kg DMI of pasture

NB: Hatched bars are new grass paddocks being grazed on a faster return interval to maintain quality

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24 Mar 2022