Weekly Farm Summary 11th 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	215	134
Pasture Stocking rate (current)	3.0	2.4	2.9	2.4
Winter Feed	Swede/Bale	Baleage	Beet 80 days	Beet 60 days
Milking supplement	In-shed feed 500kg/cow + baleage as required			
Average Cover	2473	2329	2526	2329
Average Growth	65	61	68	55
Target rotation length	22	26	22	26
Last week act rotation (d)	22	28	22	28
Last week supp (kg DM/cow)	1.9	1.9	2.2	1.9
Average BCS	4.4	4.4	4.4	4.5
% of herd on priority feeding	8%	8%	6%	4%
Milk yield (L/cow)	23.5	24.9	23.8	24.3
Milk yield (kgMS/cow)	2.07	2.22	2.16	2.18
Nitrogen Cap kgN/ha/yr	**180**	**50**	**180**	**50**
% Nitrogen used (kgN/ha) YTD	38% (69kg)	40% (20kg)	37% (67kg)	38% (19kg)
Effluent N YTD	6	2	6	5
Profit/ha comp to Control	$0	$0	$0	$0
YTD supp (kg DM/cow)	310	197	270	236
YTD MS/cow	154	162	151	161
YTD MS/milk ha (YTD MS/farm ha)	464 (415)	403 (364)	455 (407)	400 (362)

Business Area	Current Status
Milk Production	Production has taken a slight dip but flatten out, with the Std Brassica/Baleage herds decline being the most significant. A decline in pasture quality is the most likely driver for this.
Pasture & Feed	Pasture quality continues to be a huge focus as we look to flatten our milk curve. To have cows grazing the right pre-graze more paddocks have been identified for baleage and there are still a few that will require topping. Lots of seed head emergence observed around the farm and the base of the ryegrass is quite stalky.
Animals	Mating is going well. Week 1 SR was 38%, slightly behind last year, but less cows synchronised this year. Nearly all cows from 1st round CiDRs s were mated. Continue to administer Bloat oil via inline dispenser. Pre-mating blood results indicated we were at the lower end of spectrum for copper but good for selenium
Environment	Continue to apply Round 3 of fertiliser for the Std farmlets. Round 3 for LI farmlets not due until early December
Wintering	Conventional established fodder beet has all been established and the minimum till is scheduled for this weekend, weather permitting.
People	Not a big response to the advert for a relief milker to cover every second weekend and occasional other milkings. One candidate is coming out for a look around and to find out more on what the job entails.
Research	Plantain trial groundwork is in the finishing stages. Continue to 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	Production remains steadily ahead of last season to date. Milk urea's are not overly high, and fat % has risen, potentially due to more fibre in the diet. The LI FB herd have responded to a lift in total DM allocation with their production comparable to the LI Baleage herd. Std FB no longer has any mastitis cases and the LI FB herd had nothing over 1 million SCC at the latest herd test.
Key Influences on Milk Production	Minor decline largely driven by quality as pastures progress through their reproductive phases and ME's decrease. Continue to focus on quality to maintain production levels and minimize the decline.
Cow Management	18 OAD non-cycling cows have now cycled so will return to TAD milking. Continuing to manage lighter BCS cows below 4 on OAD milking also

	Std brassica/baleage Pink	LI Baleage Blue	Std Fodder beet Green	LI Fodder beet Yellow
kg Milksolids per cow this week / (last week)	2.07 (2.12)	2.22 (2.28)	2.16 (2.17)	2.18 (2.13)
kg Milksolids per ha this year / (same time last year)	464 (415)	403 (364)	455 (407)	400 (362)
% Var kg Milksolids per ha Season per ha to date vs last season to date	12.3	7.2	17.2	12.3
No. of Cows needing preferential feeding (% herd)	18 (8)	11 (8)	13 (6)	6 (4)
Animal health peculiarities	None	None	None	None

Milk Production

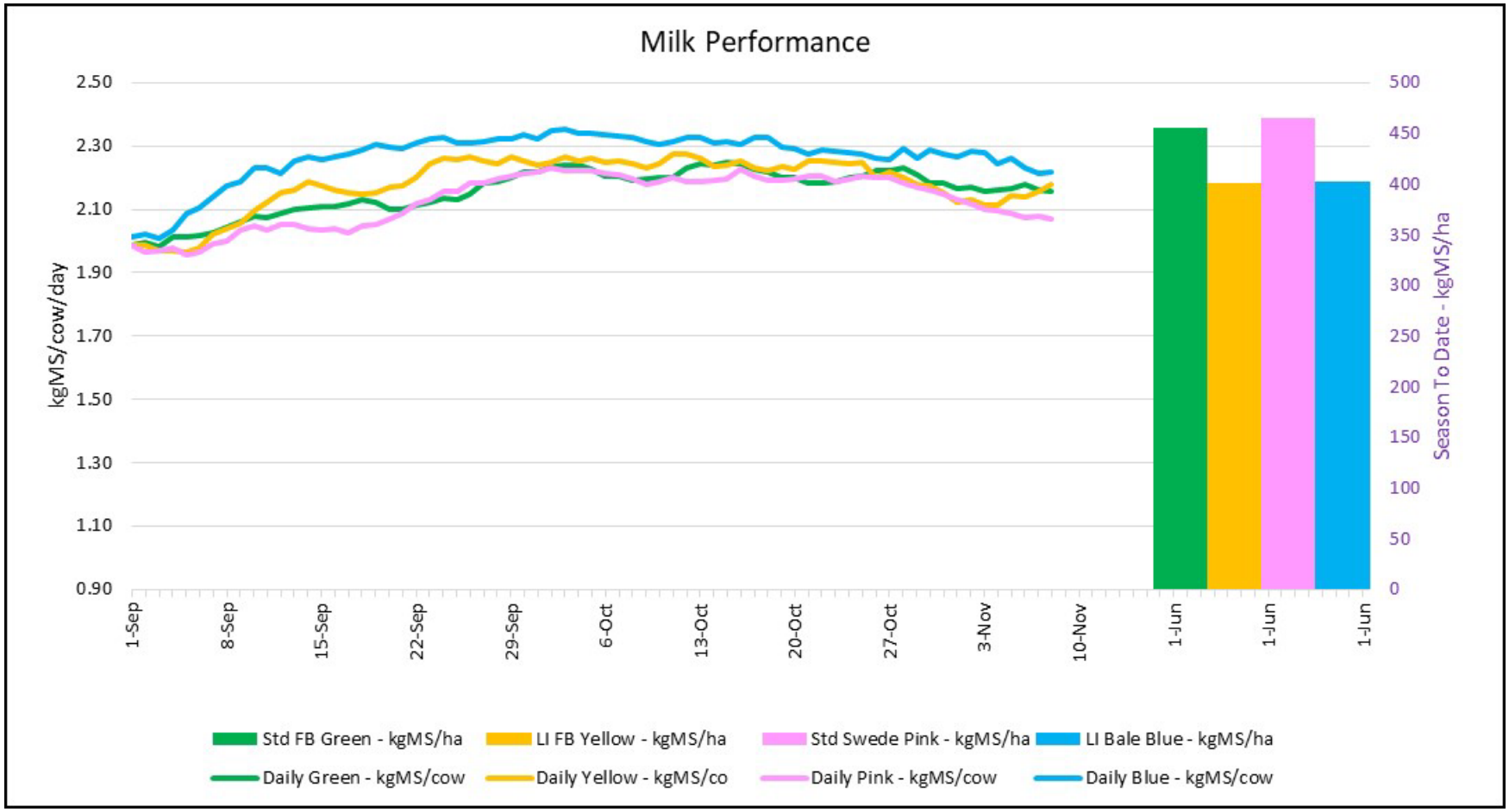


Figure 1: Milk solids production (/cow/day) plus cumulative season production (kg/ha)

Body condition score

As at 31 October 2022 – updated fortnightly

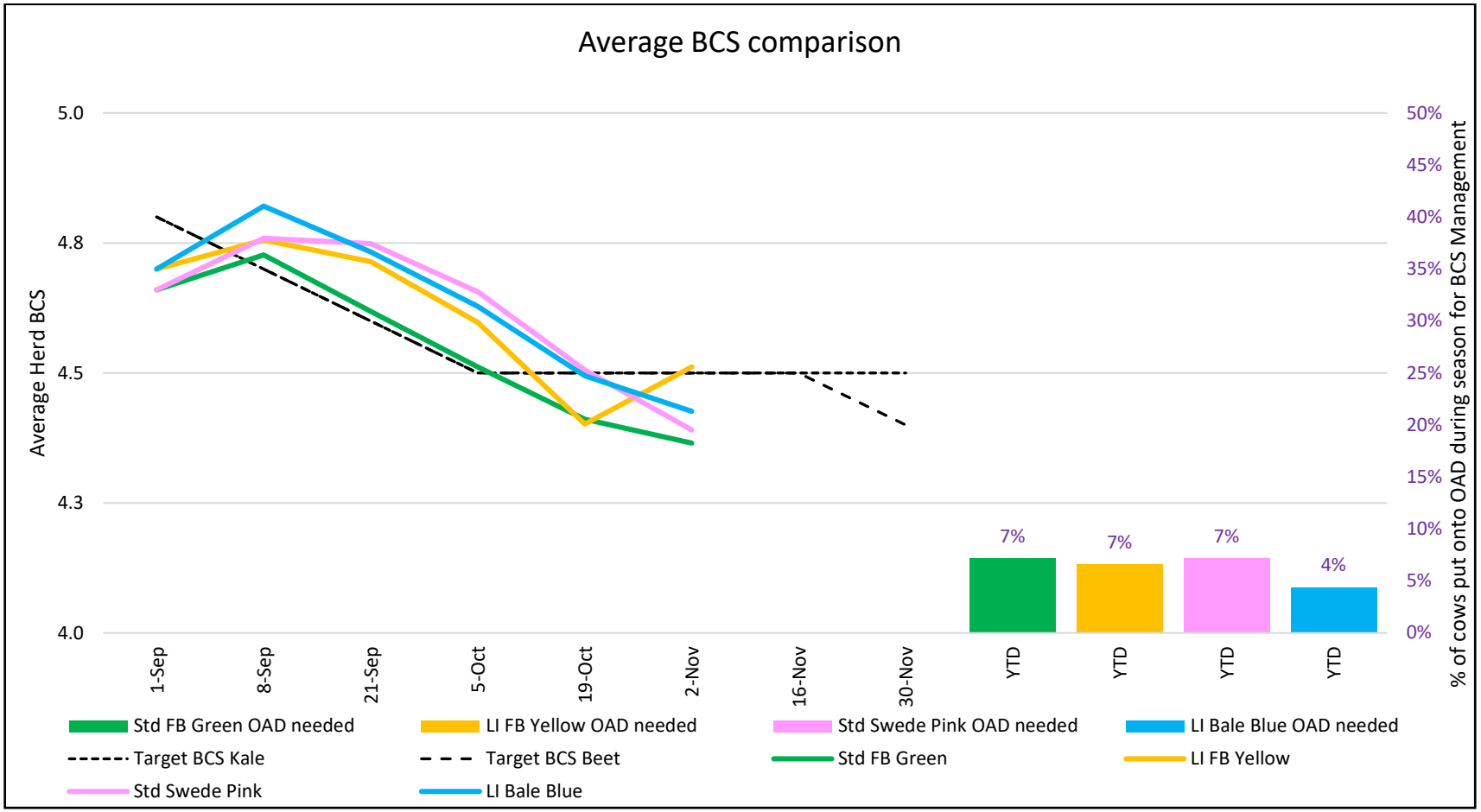


Figure 2: Fortnightly BCS trends and percentage of the herd requiring OAD milking season to date

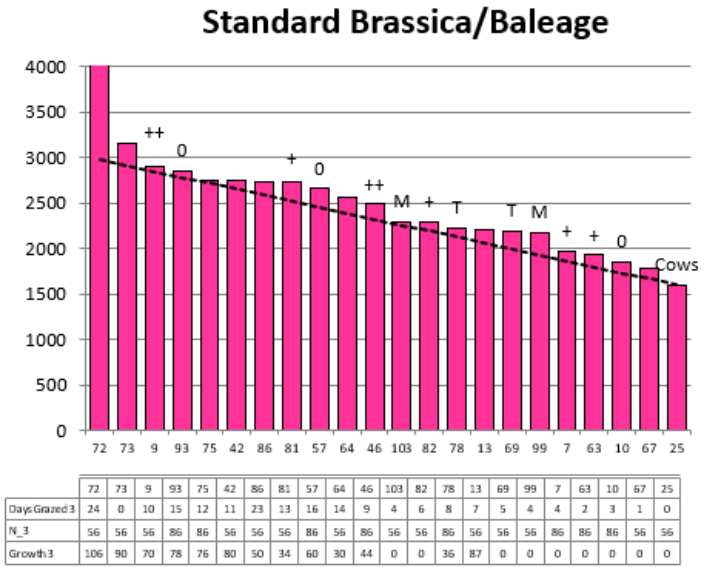
Feed

Principles of Feed management this week

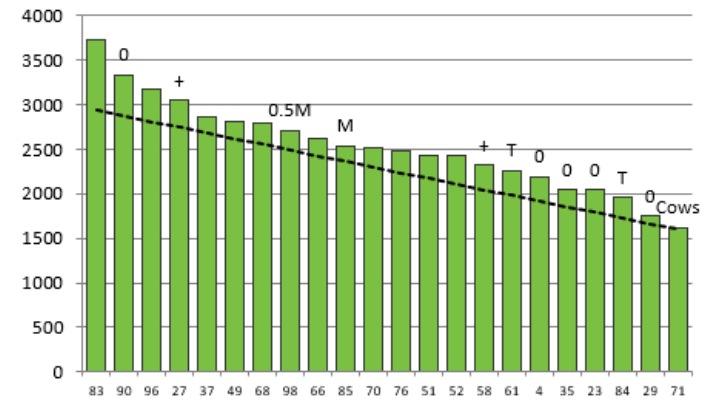
Feed Quality	Quality declining as we approach heading day 0, which is expected to occur in the next couple of days. Stem elongation and seed head emergence is increasing across the farm. Remain focused on maximizing pasture quality via the growth rate management strategy below.
Growth Rate Management	Growing more than demand. Continuing with aggressive approach to pasture quality management stepping over any paddocks greater than pre-graze target for baleage. 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 pasture deficit in a couple of weeks' time.
Nitrogen Strategy	Std herds on 3rd 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. Third round applications (12.5 kg N/ha) due to begin early December

	Std brassica/baleage Pink	LI Baleage Blue	Std Fodder beet Green	LI Fodder beet Yellow
Quantity	Surplus	Surplus	Surplus	Surplus
Quality	Stem elongation	Stem elongation	Stem elongation	Stem elongation
Surplus Management	X 1 pdk of baleage to be made	X 1 pdk of baleage to be made	X 2 pdks of baleage to be made	X 2 pdks of baleage to be made
Deficit Management - kgDM (diff from last week)	1.9 (0.0)	1.9 (0.0)	2.2 (0.0)	1.9 (0.0)
Target Rotation Length (days)	22	26	22	26

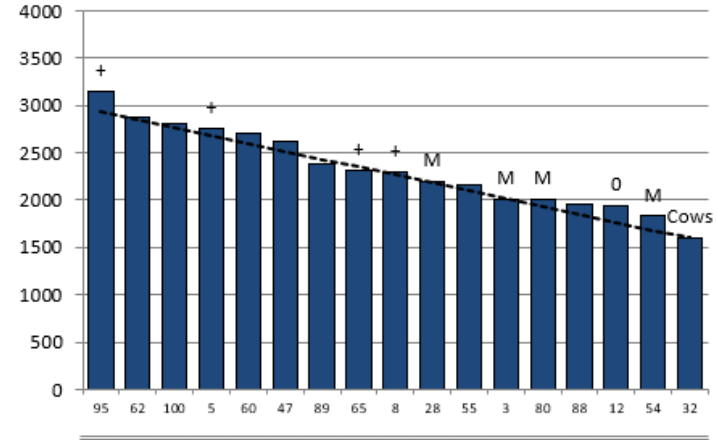
Feed



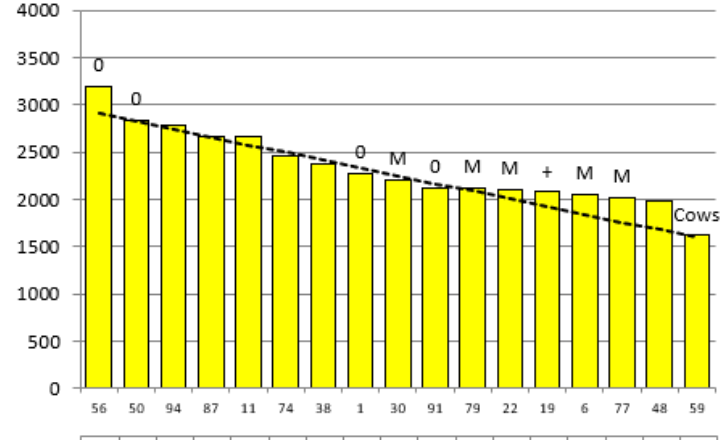
	72	73	9	93	75	42	86	81	57	64	46	103	82	78	13	69	99	7	63	10	67	25
Days Grazed 3	24	0	10	15	12	11	23	13	16	14	9	4	6	8	7	5	4	4	2	3	1	0
N_3	56	56	56	86	86	56	56	56	86	56	86	56	56	86	56	56	56	86	86	86	56	56
Growth 3	106	90	70	78	76	80	50	34	60	30	44	0	0	36	87	0	0	0	0	0	0	0



	83	90	96	27	37	49	68	98	66	85	70	76	51	52	58	61	4	35	23	84	29	71
Days Grazed 2	28	23	0	12	11	15	21	8	13	8	19	8	10	7	5	6	9	1	2	4	3	0
N_2	56	86	56	56	86	56	56	56	56	86	56	56	86	56	86	56	86	56	56	86	86	56
Growth 2	102	72	92	84	86	56	72	60	32	76	42	76	50	90	0	66	26	0	0	0	0	0



	95	62	100	5	60	47	89	65	8	28	55	3	80	88	12	54	32
Days Grazed 1	16	20	14	11	19	12	6	9	8	8	1	4	4	5	3	4	0
N_1	24	24	12	24	24	24	24	24	24	24	56	24	24	24	24	24	24
Growth 1	76	56	50	60	54	78	82	48	20	85	0	0	0	0	0	0	0



	56	50	94	87	11	74	38	1	30	91	79	22	19	6	77	48	59
Days Grazed 4	20	17	11	15	14	10	7	9	4	5	4	8	3	4	4	1	0
N_4	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Growth 4	64	58	64	30	64	24	0	30	87	0	0	71	0	0	0	0	0

Figure 3: Feed Wedges as of 8th November 2022

Feed

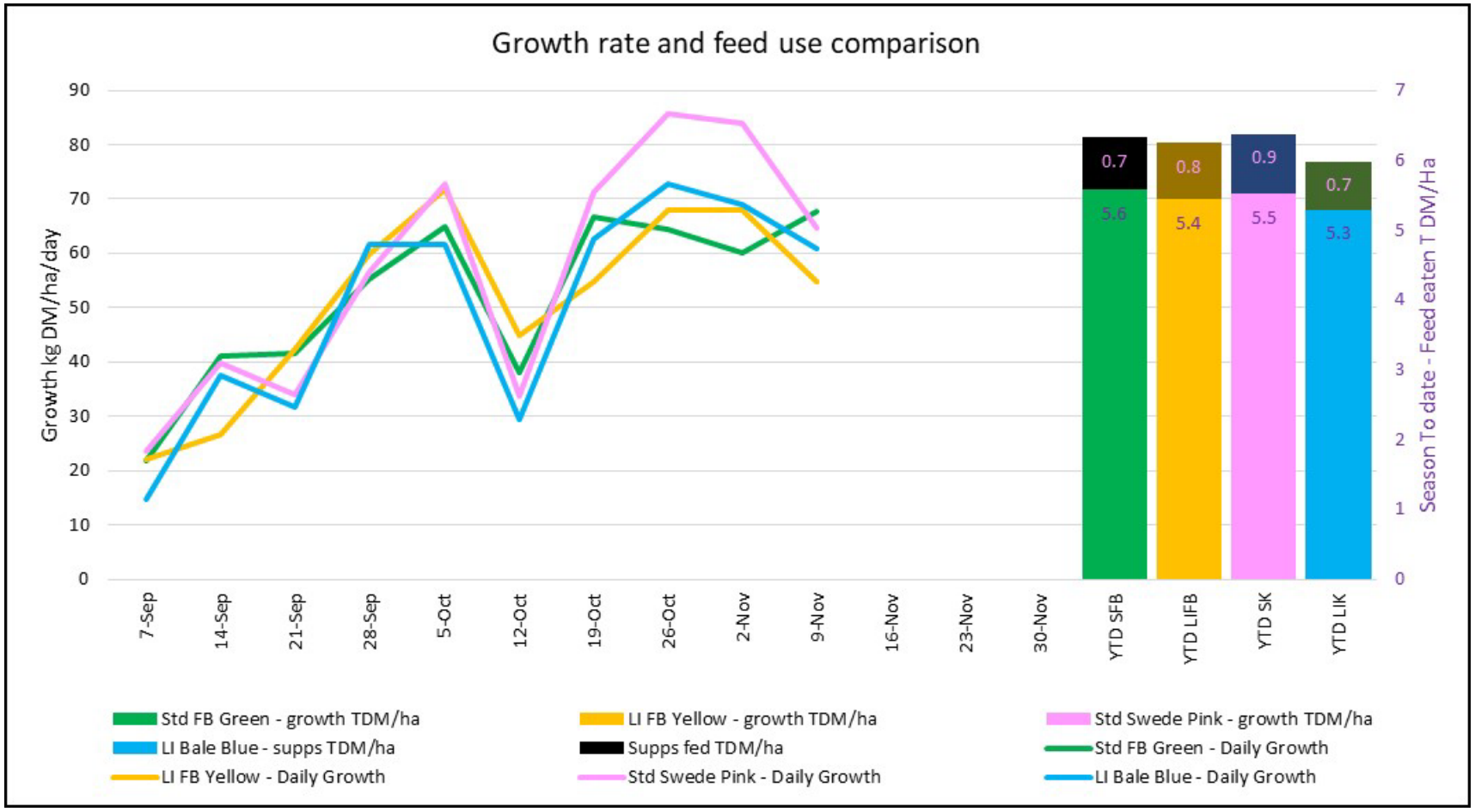


Figure 3: Weekly Growth rate (kgDM/ha/d) & YTD feed use

Nitrogen

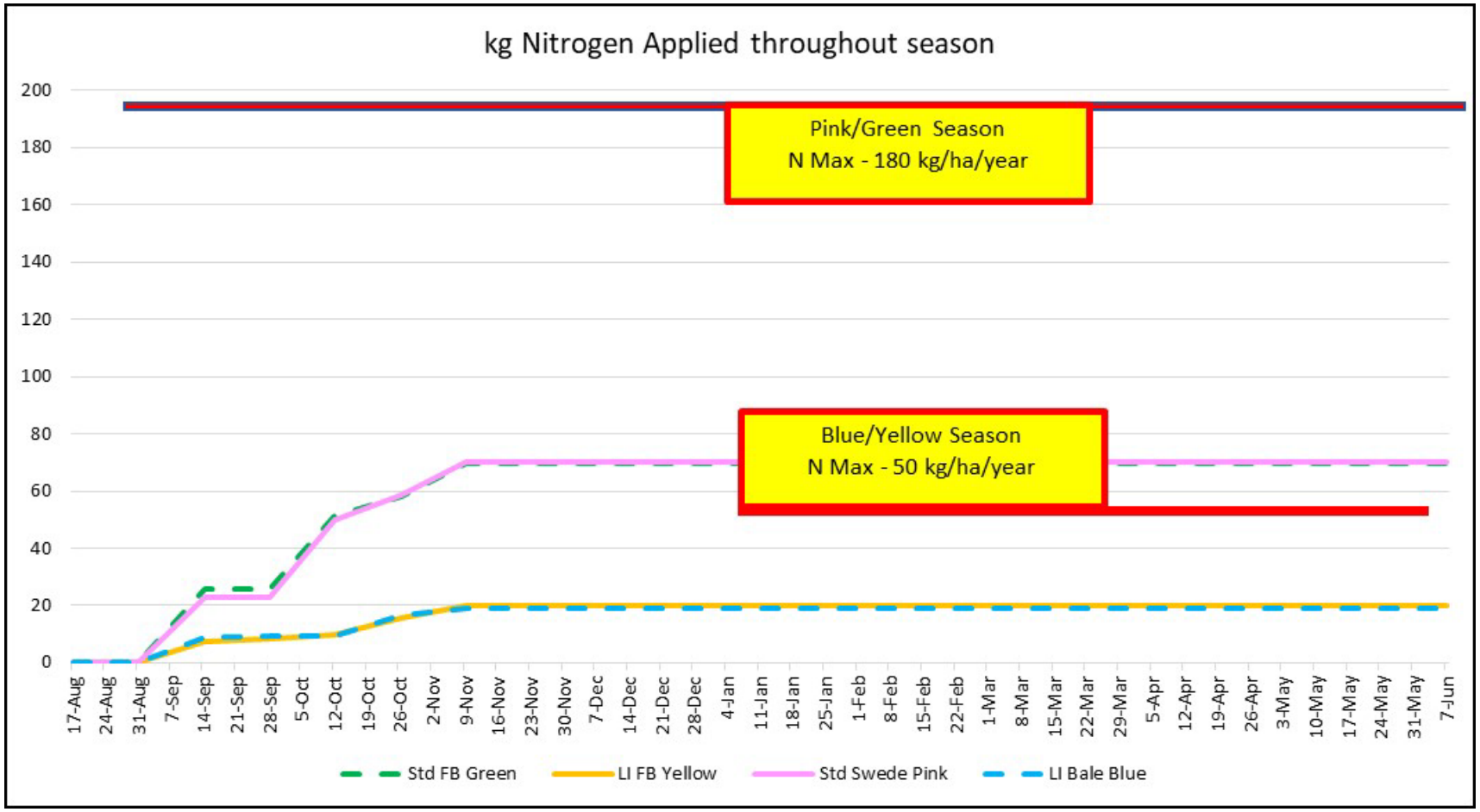


Figure 4: Cumulative nitrogen fertiliser applications (kg N/ha) for the 2022-23 season

Animals – Calves

Importance

The replacement calves that are born each year are the future of your herd and ultimately your business. Poorly grown youngstock are less productive and can take longer to get in calf. Good management includes weaning calves properly to make the transition as stress free as possible and minimize any growth checks that can occur during this critical time

Information/Good Management practices

- Weaning Considerations
  - Consuming sufficient hard feed and rumen is sufficiently developed
    - Needs to be assessed by measuring amount of concentrate and pasture they are consuming. They should be consuming sufficient of both these to meet their energy intake for their targeted liveweight gain (Table 1 below).
  - Achieved weight for age, breed and/or rearing system target, E.g., J - 70kg, Fr x J – 80kg, and Fr – 90kg

Table 1: Nutritional guidelines

Calf weight (kg)	LWT gain (kg/day)	DM intake (kg/day)	ME (MJ/day)	% of CP in diet
45	0.6	0.9	15	25
55	0.8	1.2	21	23
70	0.8	2.0	26	18
90	0.8	2.5	30	17

  - Can meet the challenges of weaning
    - Main source of nutrients during changes from liquids to solids
    - Exposure to new bugs and stressors as they enter new environments and competition in new groups
      - Need to be able to compete in a group ***before*** weaning, hold back any that can not
- Process
  - It takes ***time*** to transition from milk & meal to a full pasture diet
    - Gradual and stepwise, removing milk slowly over 1-2 weeks (monitoring behavior & meal intake for those struggling)
    - Keep meal in the diet for at least two weeks after weaning from milk. This helps reduce the growth check as the rumen adjusts to digesting higher levels of pasture
    - Farmer experience indicates a (rule-of-thumb) two-week gap between each diet change
    - Weigh them within 7-10 days of weaning to ensure they continue to gain weight. If not, continue with calf meal
- Sending Calves off to Grazing
  - Once animals are weaned, also ensure drenches and vaccinations are up to date
  - If transporting by truck, ensure each animal meets the fit for transport requirements (same requirements as bobby calves)
  - Stressors such as changes to environment can also result in a growth check or trigger animal health issues
    - E.g., pneumonia, scouring and parasites
  - Weigh and/or visit youngstock at grazing regularly to monitor them and act if required sooner rather than later
  - Ensure you are aware of what substances are going through any in-line dispensers (e.g., bloat oil) and that these are suitable for this age group, particularly if older animals are also grazed at the site

For more information and tools please visit the DairyNZ website: https://www.dairynz.co.nz/animals/calves/