

# Weekly Farm Summary 2<sup>nd</sup> June 2022

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

	Std Kale Pink	LI Kale Blue	Std FB Green	LI FB Yellow
Farmlet area including wintering	83	61	83	61
Peak cow numbers	230	141	230	141
Milking Area	83	55.1	72.5	55.1
Current Herd size (cows)	230	141	230	141
Pasture Stocking rate	3.0	2.5	3.0	2.5
Winter Feed Milking supplement	Kale In-Shed feed		Fodder beet Fodder beet/Baleage	
Average Cover	2077	1914	2104	2064
Average Growth	11	14	13	11
Target rotation length				
Last week act rotation (d)				
Last week supp (kg DM/cow)				
Average BCS	4.7	4.5	4.5	4.5
% of herd on priority feeding				
Milk yield (L/cow)				
Milk yield (kgMS/cow)				
<b>Nitrogen Cap kgN/ha/yr</b>	<b>190</b>	<b>50</b>	<b>190</b>	<b>50</b>
% Nitrogen used (kgN/ha) YTD				
Effluent N YTD				
Profit/ha comp to Control				
YTD supp (kg DM/cow)				
YTD MS/cow				
YTD MS/ha				
<b>Business Area</b>	<b>Current Status</b>			
<b>Feed</b>	Cows on kale and swedes are fully transitioned onto crop. Cows on fodder beet are up to 7.5 kg DM/cow/day of beet with the rest of the diet comprising baleage. Heifers in the baleage wintering system are not consuming all their baleage so we are reviewing allocations. Cows on beet are receiving phosphorus supplementation			
<b>Milk Production</b>				
<b>People</b>	Now that milking is finished the farm team will start taking annual leave to ensure they are rested and refreshed for the new season.			
<b>Animals</b>	Another 10 culls went this week, so we are down to 30. These have been moved to the support block and will have a predominantly baleage diet until culling.			
<b>Environment</b>	Our environmental focus has now switched to minimising the environmental risks of our wintering practices. This year all cows will be wintered on the upper terrace well away from any waterways.			
<b>Wintering</b>	This week we identified the triggers for utilising the buffer areas in our crop paddocks and the management plan for animals in the baleage wintering system during periods of wet weather			
<b>Research</b>	BCS assessments will be done on all cows in the next week			

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AND Reducing N loss to water by 30%.**

# Feed

## Principles of Pasture & Feed Management this week

### Feed Quality

We are observing a range of DM content and potentially quality differences in the baleage being offered in the winter diets. Heifers are struggling to consume their daily baleage allocation so a range of bales will be weighed and the DM determined just in case the bales are bigger than we have estimated

### Growth Rate Management

We have limited options to manage growth rates now that all animals are in their wintering systems. We will continue to assess APC on a fortnightly basis and develop a strategy for spring a little later in the winter. For the Std farmlets (180-190 kg N/ha) we grew 1.7 T DM/ha less than the average of the previous 3 years and for the LI farmlets (50-60 kg N/ha) we grew 1.3 T DM/ha less.

Across the pasture area of the farm this difference equates to a deficit in feed supply of approximately 377000 kg DM which was filled with extra barley:PKE blend for the kale farmlets, PKE for the fodder beet farmlets and lots of baleage for everyone.

### Nitrogen Strategy

N applications won't start again until soil temperatures are above 7 deg C and rising in spring - likely late August/early September

	SDH Rate of Growth					SDH Rate of Growth				
	Mean	180-190 kg N	2019-20	2020-21		2021-22	Mean	50-60 kg N	2019-20	2020-21
June	9	6	12	10	8	7	9	11		
July	9	12	7	12	9	10	8	9		
August	16	13	19	19	16	14	19	18		
September	30	29	31	31	29	26	32	30		
October	53	56	50	65	50	50	50	58		
November	68	69	67	59	61	62	61	53		
December	55	53	57	50	46	48	44	37		
January	61	50	73	43	48	44	52	37		
February	54	51	57	41	42	42	41	36		
March	47	42	51	23	37	32	42	22		
April	37	42	33	24	32	33	32	20		
May	24	23	24	25	21	20	21	24		
Total (kg DM/ha)	14007	13479	14535	12264	12097	11776	12419	10816		
Diff to Average				-1743				-1281		

Table 1: Monthly pasture growth for the Std and LI farmlets for the 2021-22 season

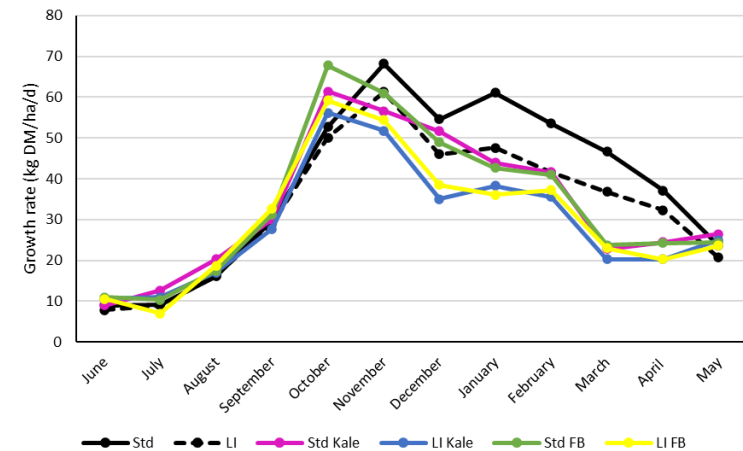


Figure 1: Average monthly growth rate for the 2021-22 season

# Wintering

## Understanding lying conditions for cattle

Average lying times between 9 and 10 hrs/day can be achieved on winter crop paddocks, however these decrease quickly when paddock conditions deteriorate.

Cows can experience periods of reduced lying time during inclement weather and sodden soil conditions. Prior rainfall and surface water pooling are useful measures to determine if lying time and thus animal welfare are compromised.

To protect the driest area closest to the feed face consider the prevailing weather direction when planning and implementing paddock grazing direction.

Younger, lower social ranking animals in a mob are more likely to have reduced lying time when soil conditions deteriorate.

## Triggers for utilising grass breakout areas in crop paddocks

Factors we will consider to trigger breakout area use include: current soil conditions, predicted weather, presence/absence of lying bowls, gumboot scores, time in the current conditions.

Hierarchy of management changes for crop paddocks during significant weather events:

0 - 24 hours: additional supplement including straw to eat or lay on

24-48 hours: additional supplement plus extra area behind the back fence if at gumboot score 1 or 2

48-72 hours: additional supplement plus open up a grass breakout area early afternoon after feeding

Beyond 72 hours: situation specific so will require discussion

Decision making after 24 hours will occur on a paddock by paddock basis due to the range of crop types, stock class and paddock locations on the farm.

Any breakout areas not moved when cows are grazing the paddock will be saved for use by another mob later in winter if required.

## Wet weather management in baleage wintering paddocks

We expect ground conditions in baleage wintering paddocks to hold up better than crop paddocks and there is no breakout area set aside in them.

Hierarchy of management changes for crop paddocks during significant weather events:

0-48 hours: same triggers as crop paddocks

48-72 hours: remove bales from the next break and allocate double the area of pasture

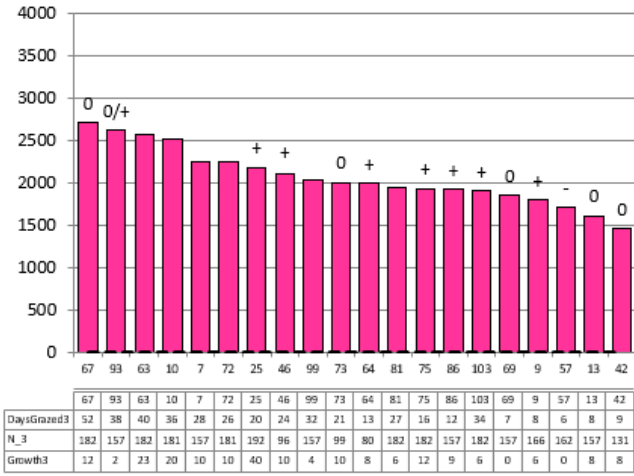
# Wintering

The gumboot scoring method for wintering paddocks			
<p>1. Low/Dry</p>			<ul style="list-style-type: none"> <li>• Boot imprint dry and sides remain formed</li> <li>• Easy to walk across</li> <li>• No liquid pooling</li> <li>• If soil is held in hands, does not seep through fingers</li> <li>• Soil is firm</li> </ul>
<p><b>No action required</b></p>			
<p>2. Medium/ Wet</p>			<ul style="list-style-type: none"> <li>• Boot imprint wet, may be sticky and less defined</li> <li>• Mud sticks to your gumboot</li> <li>• No liquid pooling</li> <li>• If soil is held in hands, some seeping through fingers</li> <li>• Soil is sticky</li> </ul>
<p><b>Monitor conditions</b></p>			
<p>3. High/ Sodden</p>			<ul style="list-style-type: none"> <li>• Boot imprint disappears</li> <li>• Liquid pooling obvious</li> <li>• If soil is held in hands, seeping through fingers</li> <li>• Soil is liquified</li> </ul>
<p><b>Implement Plan B</b></p>			

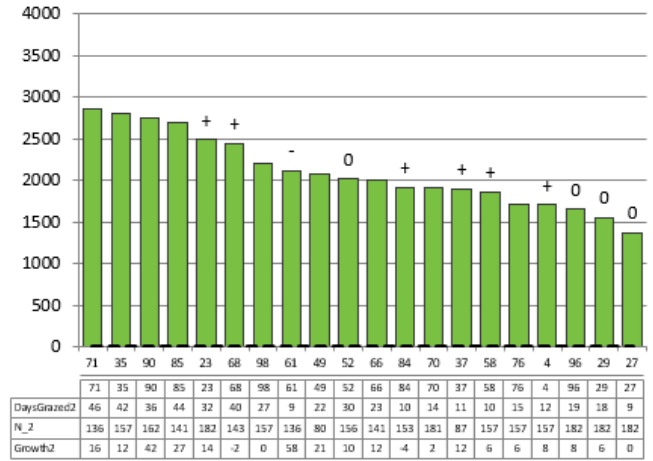
Figure 2: Gumboot scoring resource being used to assess crop paddock conditions

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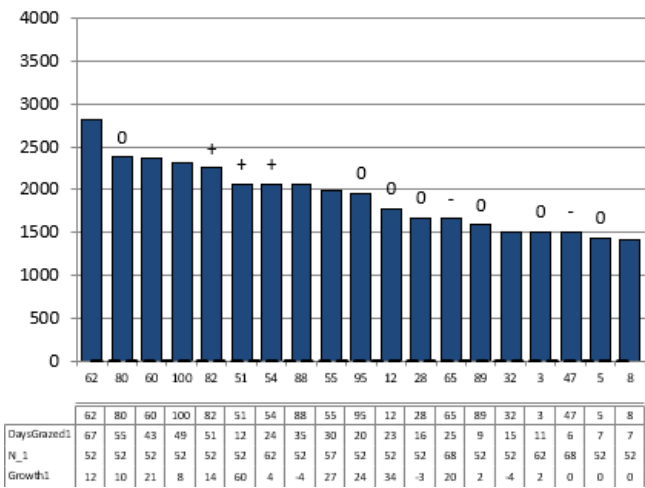
### Standard Kale



### Standard Fodder Beet



### Low Impact Kale



### Low Impact Fodder Beet

