

# Weekly Farm Summary 14<sup>th</sup> July 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	229	141	228	140
Milking Area	64	49	64	50
Current Herd size (cows)	229	141	228	140
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	2393	2115	2327	2302
Average Growth	12	6	6	7
Average BCS	5.1	5.3	5.1	5.3
Crop allocation (kg DM/cow/d)	11.1	0	9.5	9.5
Baleage allocation (kg DM/cow/d)	4.1	12.4	4.0	4.0
<b>Nitrogen Cap kgN/ha/yr</b>	<b>180</b>	<b>60</b>	<b>180</b>	<b>60</b>
% Nitrogen used (kgN/ha) YTD	0	0	0	0
<b>Business Area</b>	<b>Current Status</b>			
<b>Feed</b>	Winter allocations are being adjusted as cows approach calving to ensure good utilisation of crop and supplement. Rising 2 yr olds on baleage are not looking as good as the ones on swedes			
<b>Milk Production</b>	NA			
<b>People</b>	Good processes in place for moving cows on crop and implementing our Plan B procedures with reduce staff on farm as the team take annual leave ahead of calving. Our new team member for this season started last week.			
<b>Animals</b>	First LI FB cows drafted off crop this week – 4 weeks before their expected calving date; first springer draft of heifers planned for the 18 <sup>th</sup> July and cows 21 <sup>st</sup> July; have had 3 slips in the Std FB herd and a misadventure loss in the LI Kale.			
<b>Environment</b>	Our environmental focus has now switched to minimising the environmental risks of our wintering practices. All cows are being wintered on the upper terrace well away from any waterways.			
<b>Wintering</b>	We have implemented our Plan B twice since the beginning of June as wet cold weather resulted in sodden soils and poor lying conditions. Grass buffers in crop paddocks have worked well. We have observed different rates of intake of the daily allocations across the 3 wintering regimes with the fodder beet animals consuming their daily allocation much quicker than the mobs on swedes and the baleage animals having feed in front of them for the longest. Bulb utilisation in the swede paddocks has been variable.			
<b>Research</b>	BCS assessments will be done at the first springer drafts this week to assess how well the mobs have done on the different wintering systems this year.			

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# Feed

## Principles of Pasture & Feed Management this week

### Feed Quality

We have a wide range in baleage quality being consumed by all the mobs. Cows in the baleage wintering mobs are struggling to consume the higher DM baleage requiring a reassessment of the allocations to reduce wastage. In systems relying heavily on conserved feed it is important to test and know what you are feeding. The average DM% of our baleage is 40.5% but the range is 28-69%. Average crude protein is 13.4% with a range of 9 to 17.4% and metabolisable energy has averaged 9.4 ME with a range of 8 to 11.1 MJME/kg DM

Crop quality results have highlighted the difference in potential protein intake between the swede and fodder beet diets.

### Growth Rate Management

Pasture growth rate through June and July at SDH has been about average. Cows from the grass and baleage wintering mobs grazed two pasture paddocks that were above 3000 kg DM/ha earlier this week when ground conditions were firm.

The LI Kale treatment currently has the lowest APC and will likely require more supplementary feed in the early part of lactation.

### 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

	Dry matter	Crude protein	Metabolisable energy
Fodder Beet Bulb	17.9	8.5	13.0
Fodder Beet Leaf	11.2	20.5	11.2
Kale	11.9	18.8	12.6
Swede Bulb	9.1	15.1	13.0
Swede Leaf	13.6	26.7	12.1
Baleage	40.5	13.4	9.4

Table 1: Average feed quality results for crop and baleage

# 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.

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 have used to determine whether to use the breakout areas or not include: current soil conditions, predicted weather, presence/absence of lying bowls, gumboot scores, time in the current conditions.

For ease of management and decision making we have developed a colourful template for the farm team (see below)

Breakout areas still remain in some paddocks the cows have already finished grazing. These will be utilised during wet periods in spring.

## Wet weather management in baleage wintering paddocks

Our expectation that a ground conditions in baleage wintering paddocks would hold up better than crop paddocks has held, however straw was required in one paddock as the mob had only moved into it a couple of days before the rain event so there was no additional area to break the cows back onto

# Wintering




Figures 1-4: Break out area in a swede crop, cows lying in a fodder beet paddock and our grass and baleage heifers



# Wintering

## Stand-off Area Decision Rules

Make on a paddock-by-paddock basis

Gumboot score <b>1</b>			No water pooling Soil firm Cows can lie down
Gumboot score <b>2</b>			No water pooling Soil sticky Cows may lie down
Gumboot score <b>3</b>			Water pooling Soil liquified Cows will not lie down

Time at a gumboot score of	<b>2</b>	<b>3</b>
<b>0-24 hours</b>	Monitor conditions/weather Can feed extra baleage Can spread straw	Monitor conditions/weather Can feed extra baleage Can spread straw
<b>24-48 hours</b>	<b>Crop paddocks:</b> Consider removing back fence Can feed extra baleage Can spread straw <b>Grass paddocks:</b> Can remove back fence or double break area Can feed extra baleage Can spread straw	<b>Crop paddocks:</b> Remove back fence Feed extra baleage Spread straw <b>Grass paddocks:</b> Remove back fence or double break area (need to shift bales) Feed extra baleage Can spread straw
<b>48-72 hours</b>	<b>Crop paddocks:</b> Can open access to break-out area and/or spread straw Feed extra baleage <b>Grass paddocks:</b> Can shift cows to a drier area and/or spread straw Feed extra baleage	<b>Crop paddocks:</b> Open access to break-out area Can spread straw Feed extra baleage <b>Grass paddocks:</b> Shift cows to a drier area Feed extra baleage

Figure 5: SDH breakout area decision resource

# 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 6: Gumboot scoring resource to assess crop paddock conditions on a daily basis

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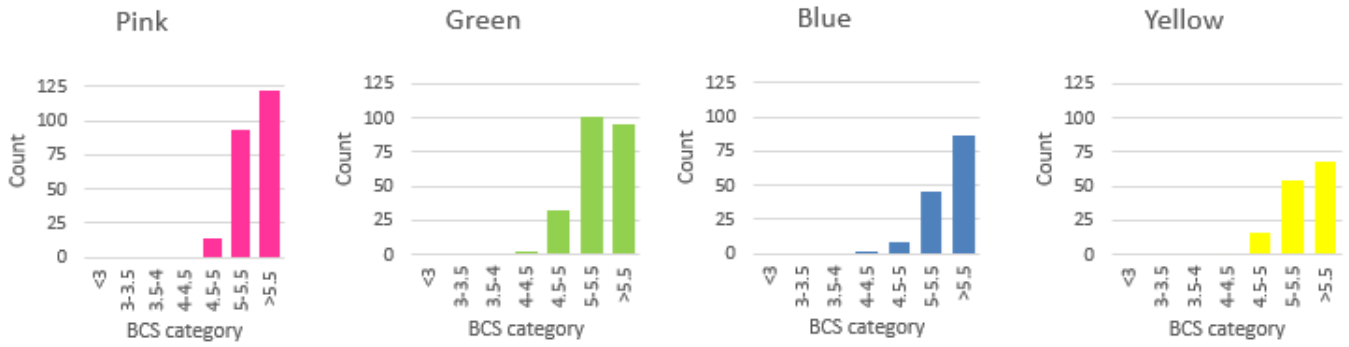


Figure 7: Herd BCS distribution from 4<sup>th</sup> July

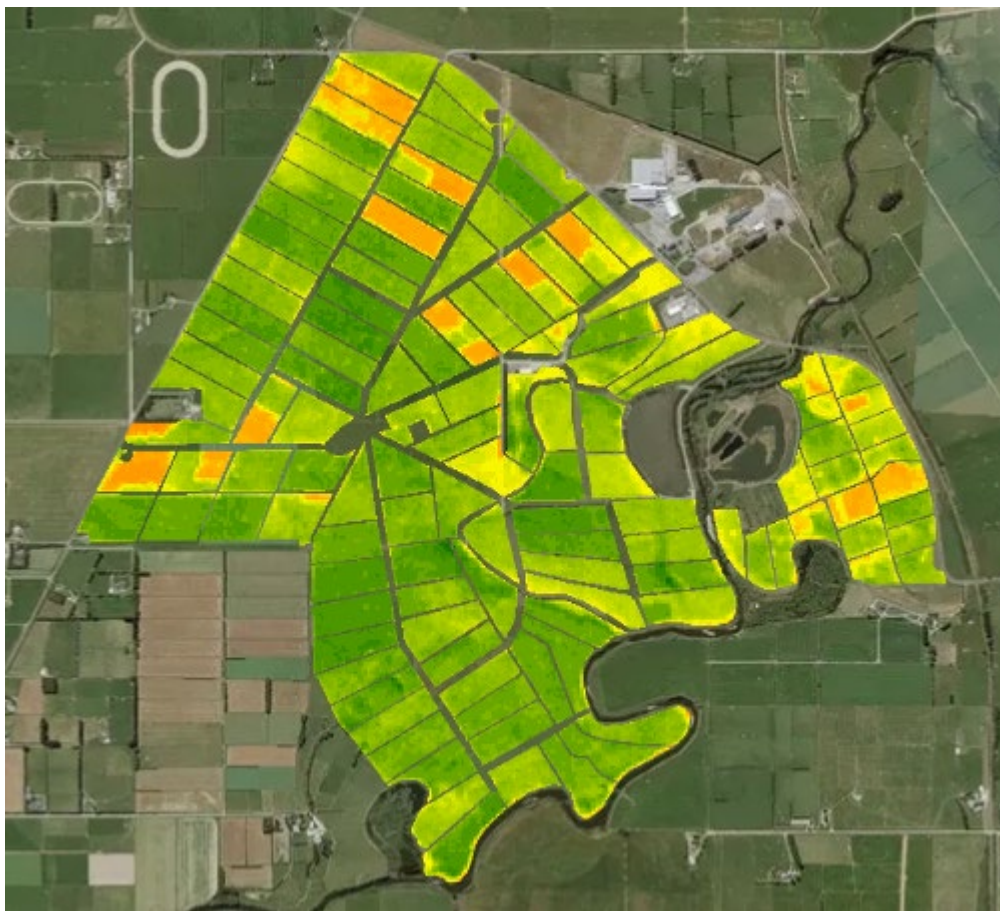
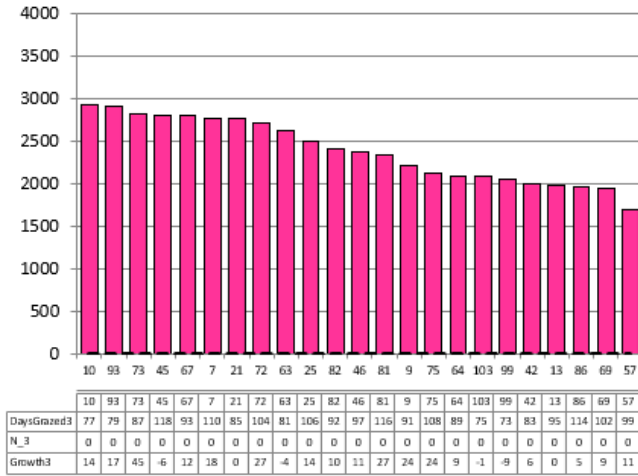


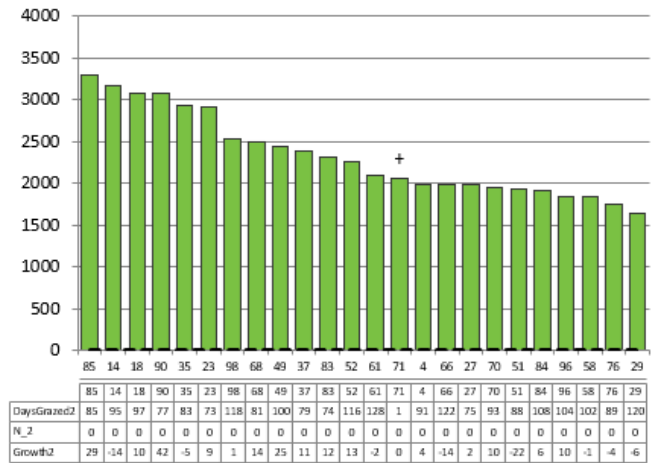
Figure 8: SPACE pasture mass assessment image 16<sup>th</sup> July 2022 showing areas used for wintering

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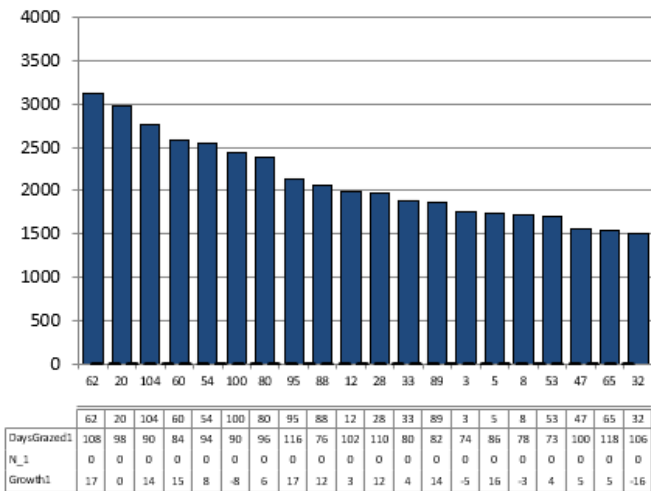
### Standard Kale



### Standard Fodder Beet



### Low Impact Kale



### Low Impact Fodder Beet

