

Seasonal Outlook Sep – Nov 19



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The GrassGro modelling approach

- Biophysical model which mimics the physics and physiology of the major system components.

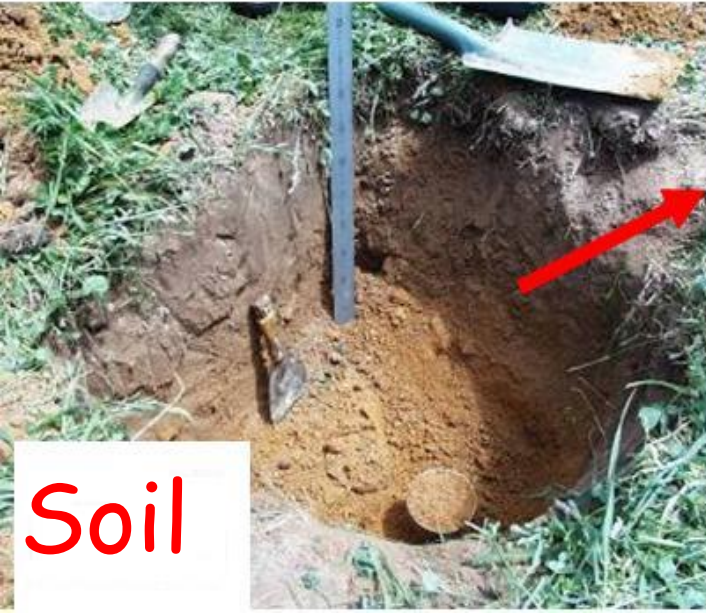
Pasture



Weather / Climate



GrassGro

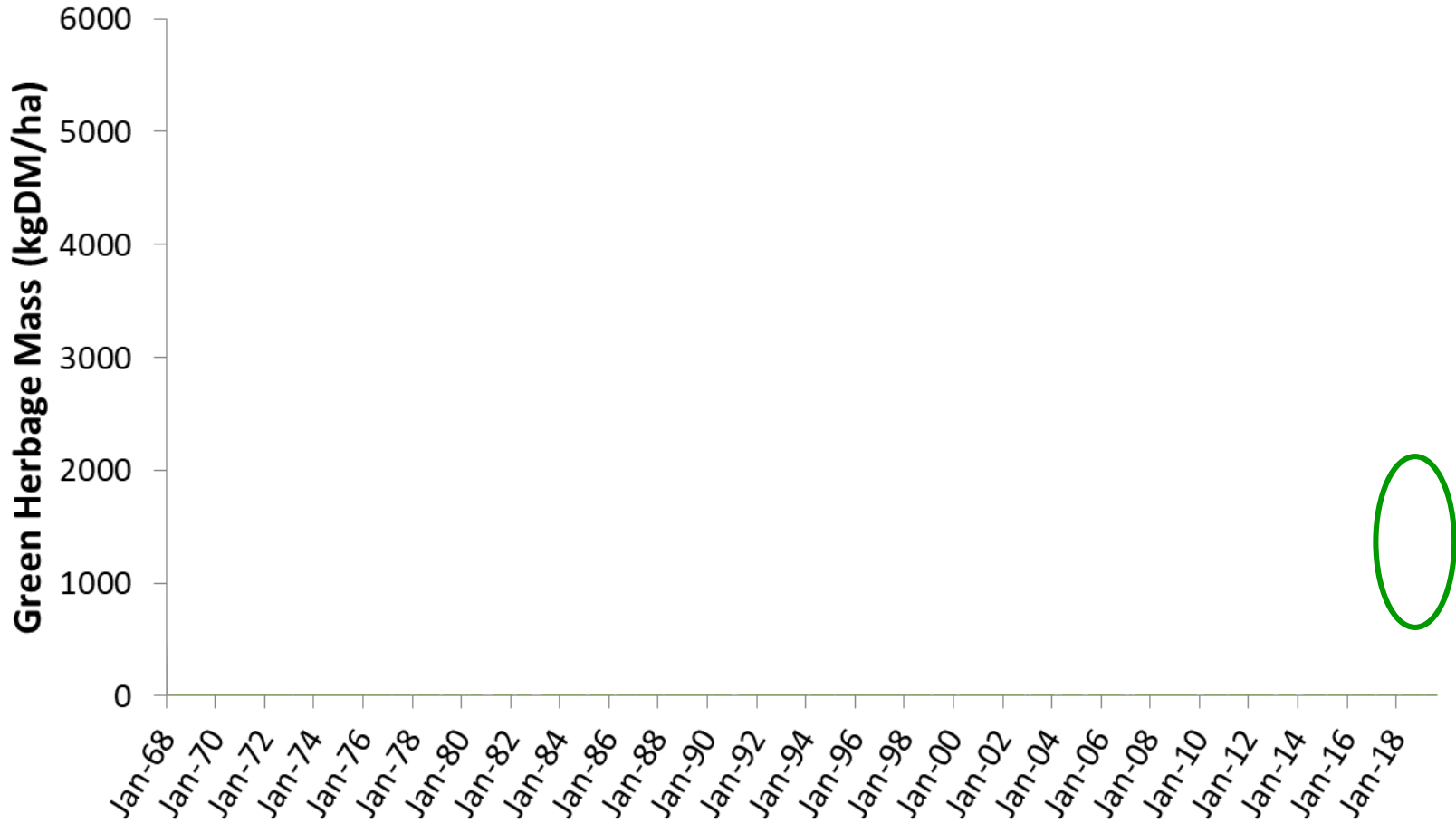


Soil

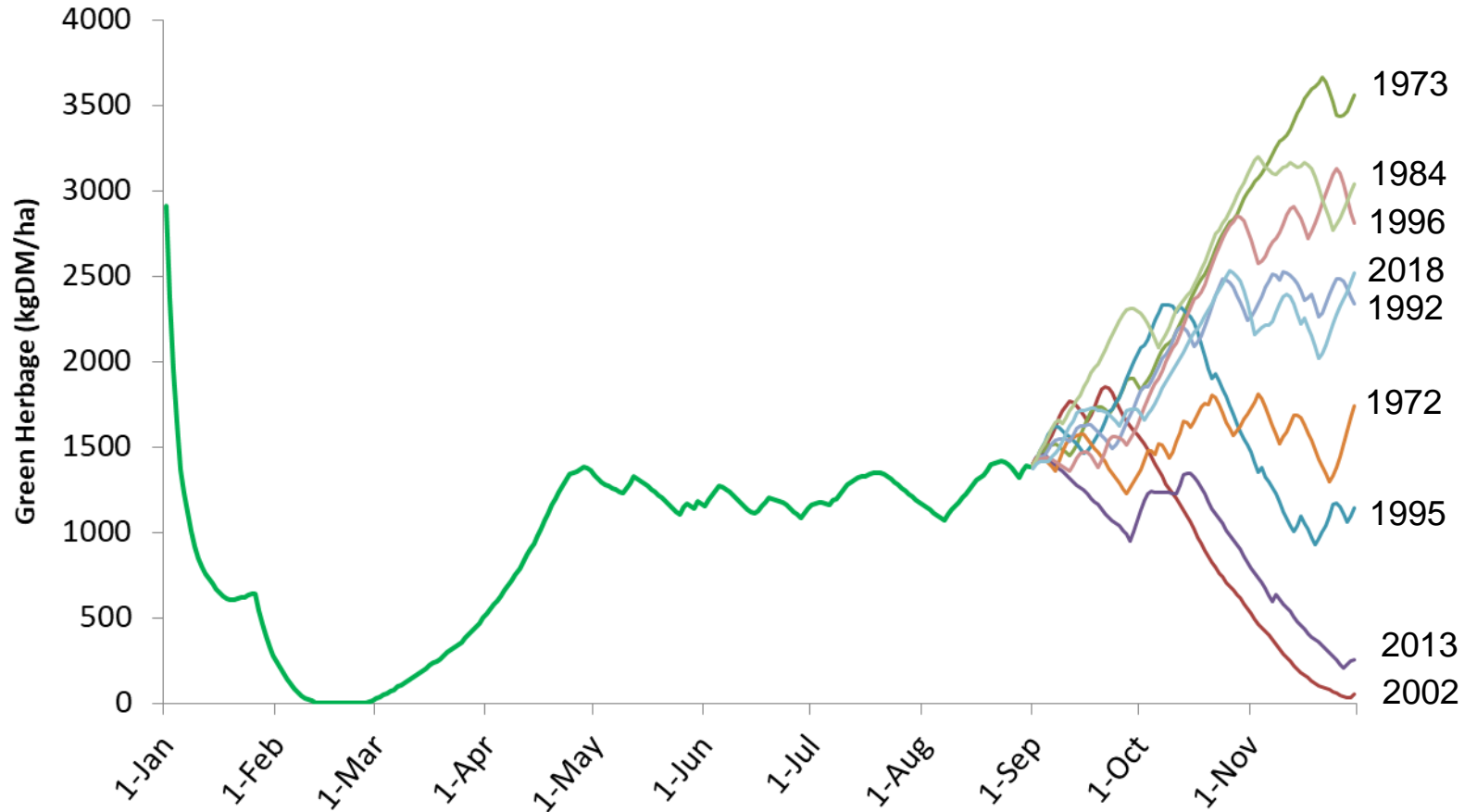


Livestock

Historical Simulations



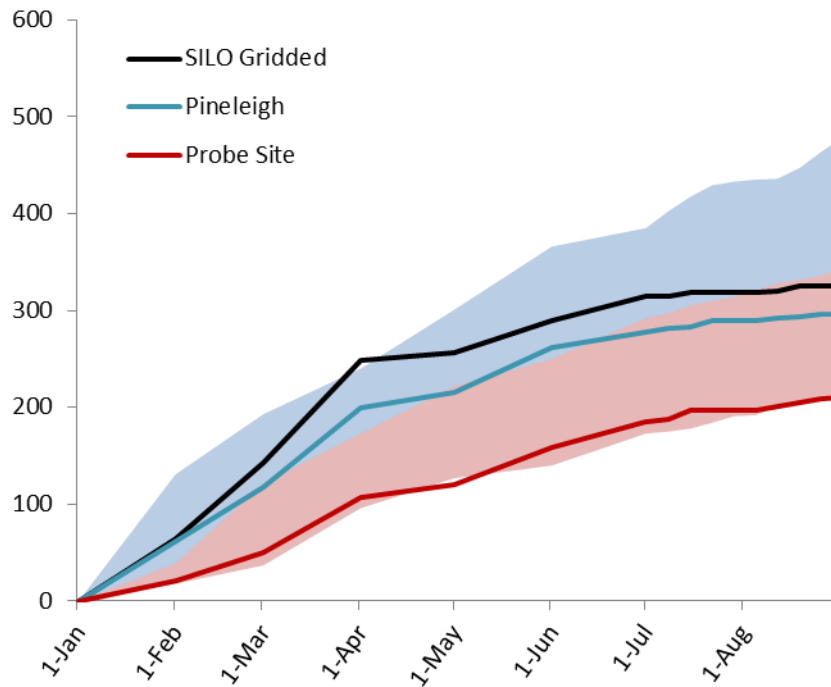
Tactical Simulations



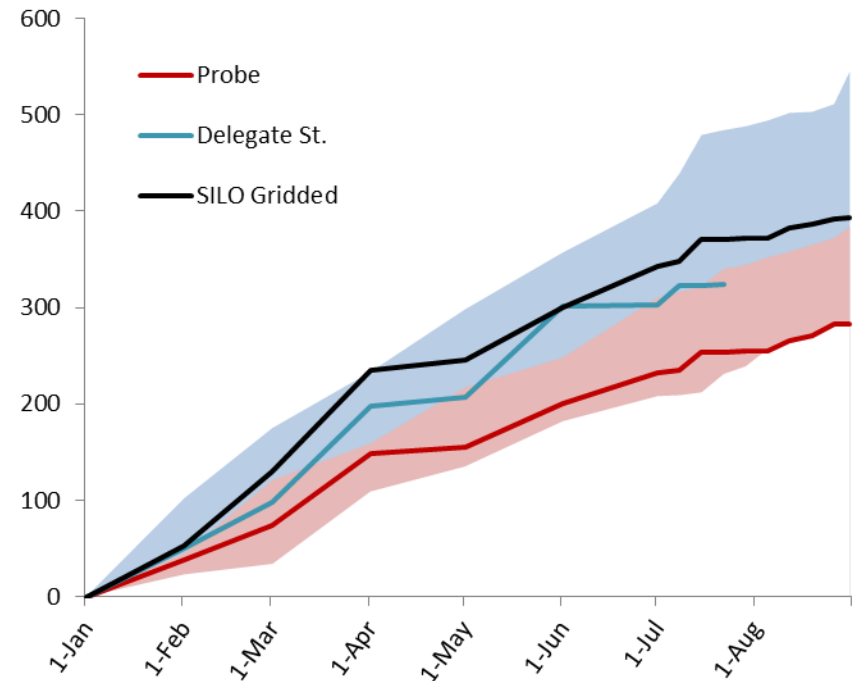
Seasonal conditions for the
“spin-up” to the 31st August

Cumulative Rainfall since 1st Jan 2019

Bungarby

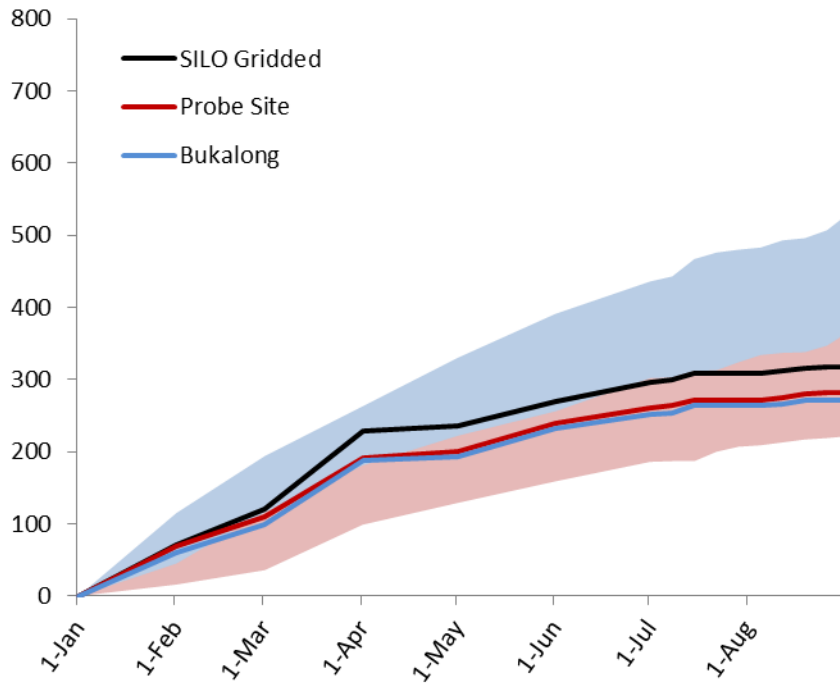


Delegate

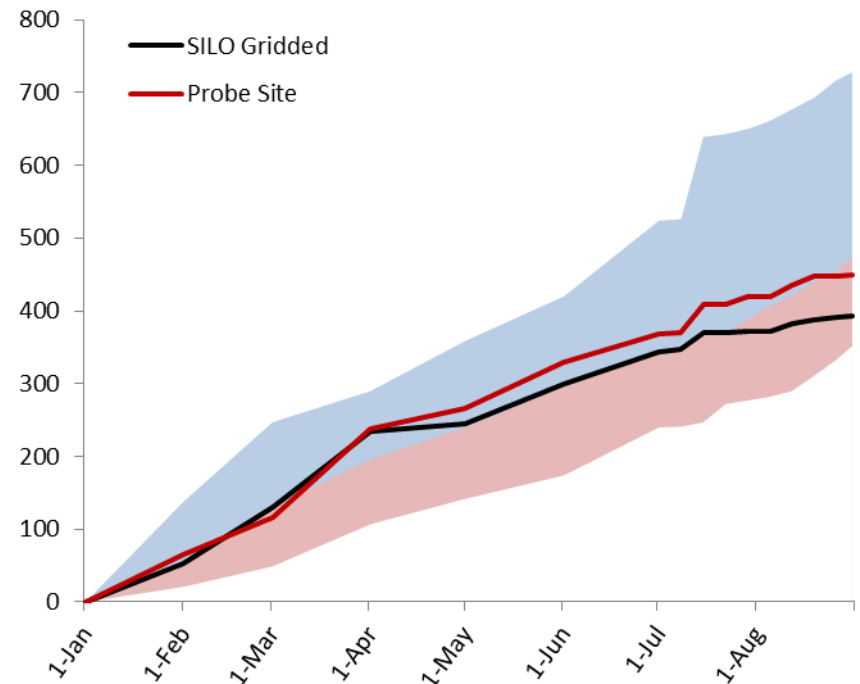


Cumulative Rainfall since 1st Jan 2019

Bukalong

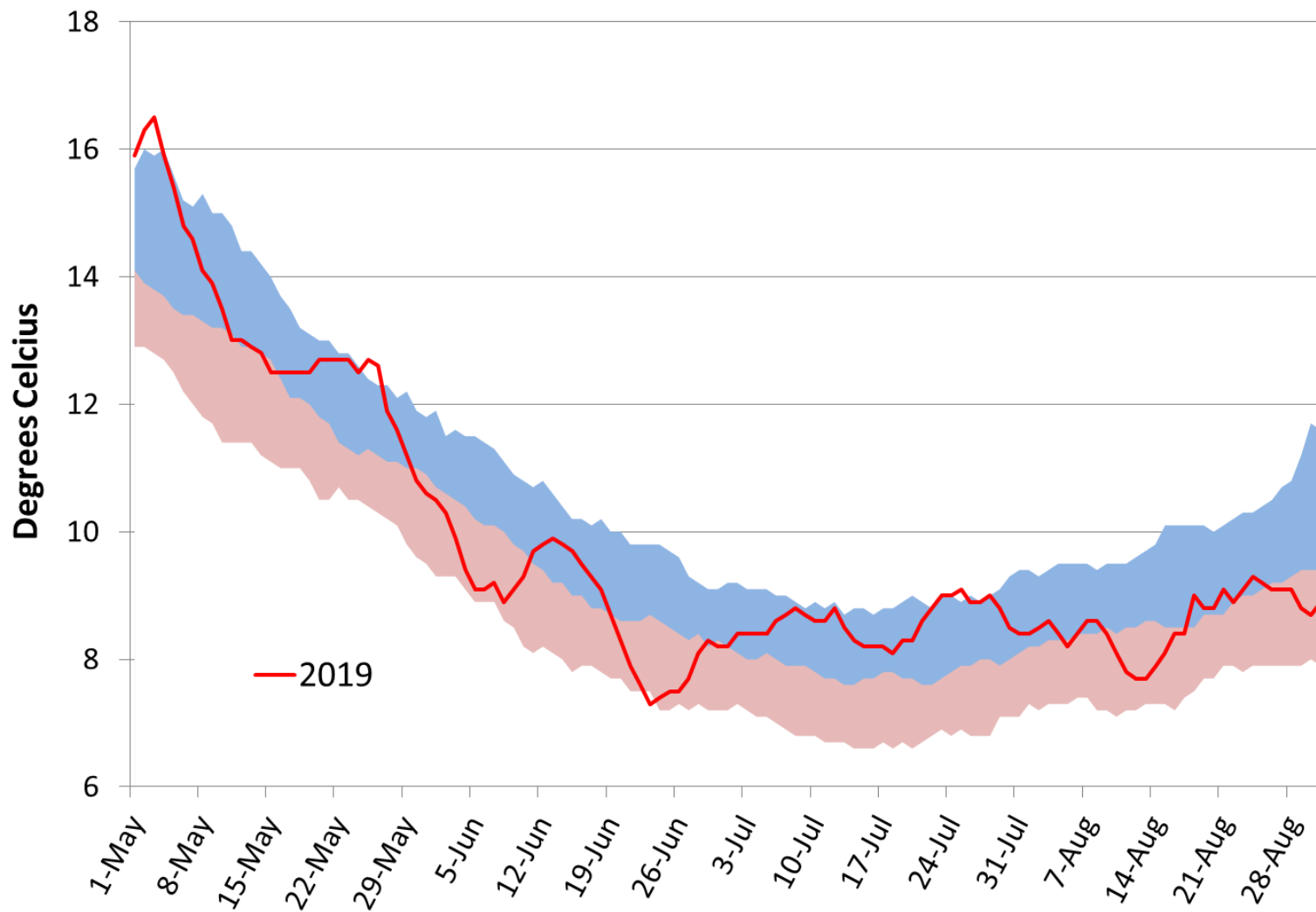


Muniong

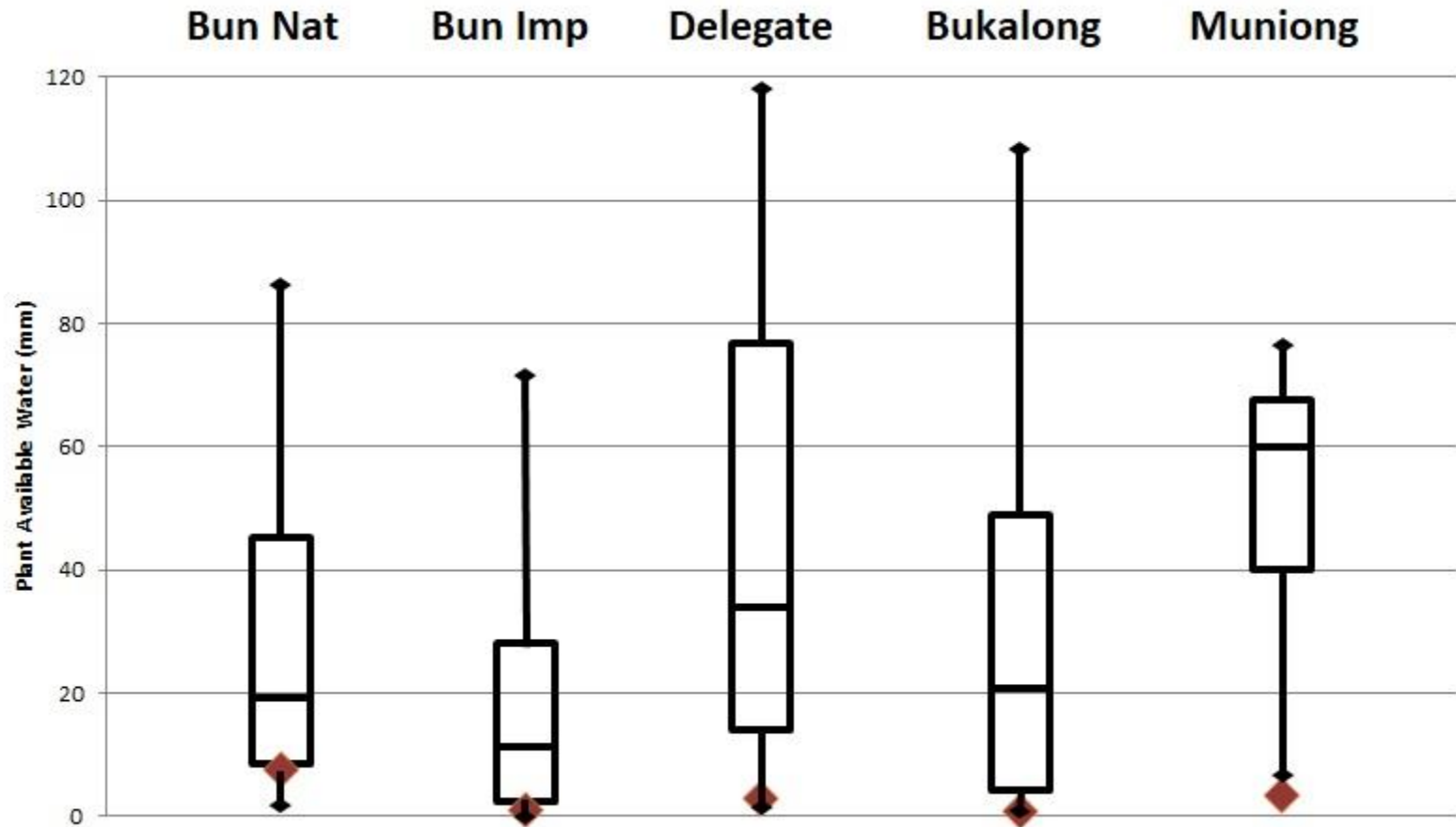


Winter Temperature “Normal”

Growth Temperature Bukalong

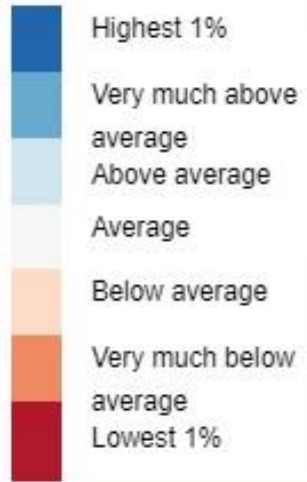


PAW on 31 August 19



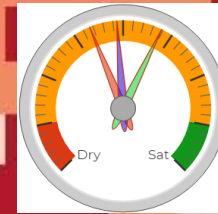
Displaying: Root zone soil moisture, 29 August 2019

Root zone soil moisture

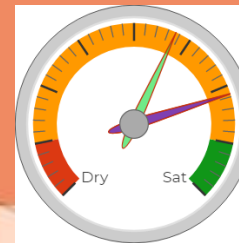
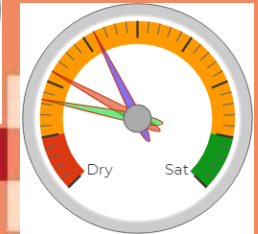
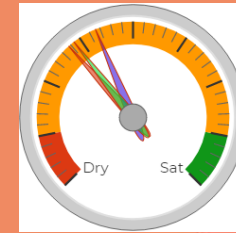


Values

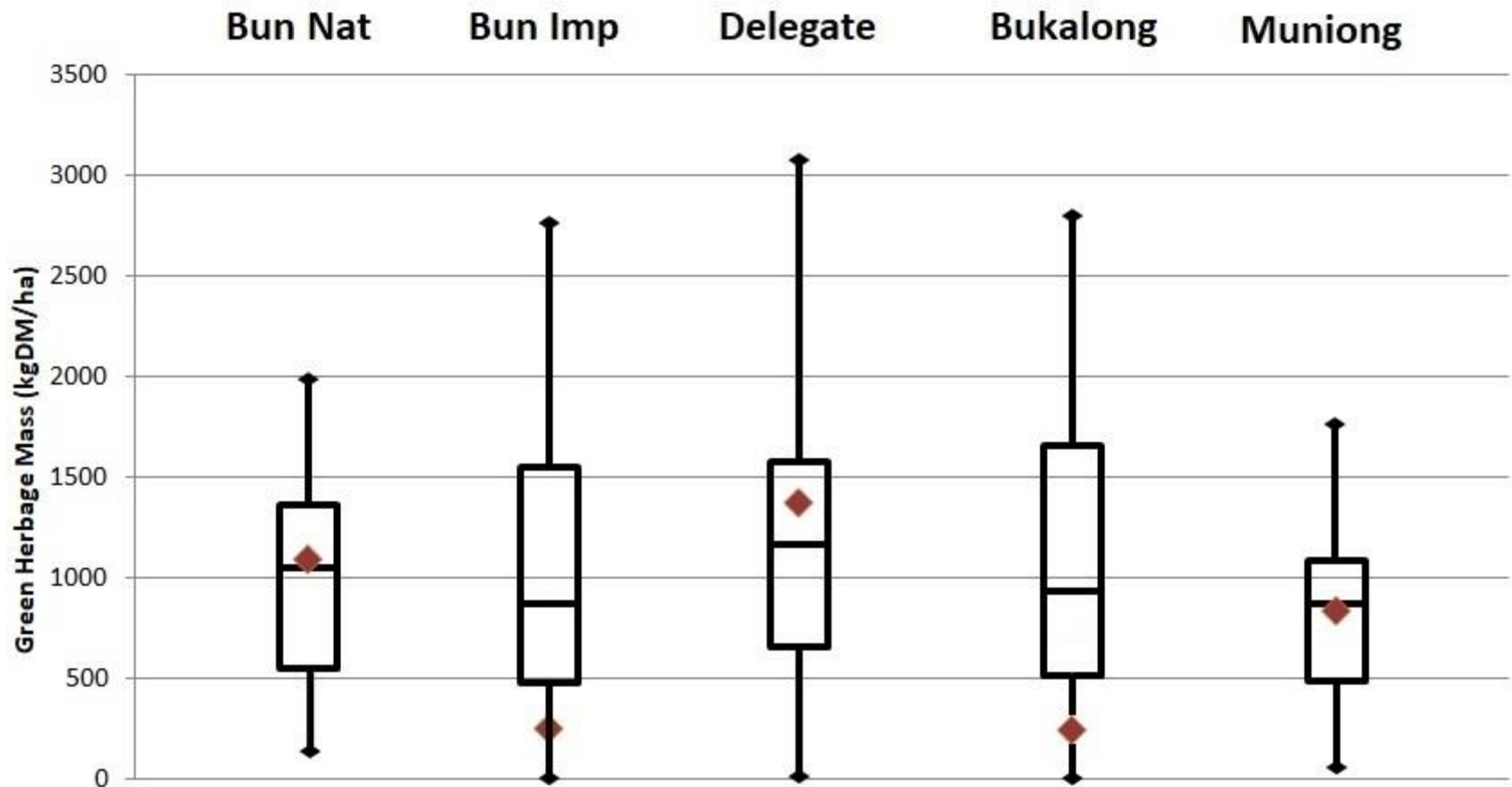
Actual **Relative**



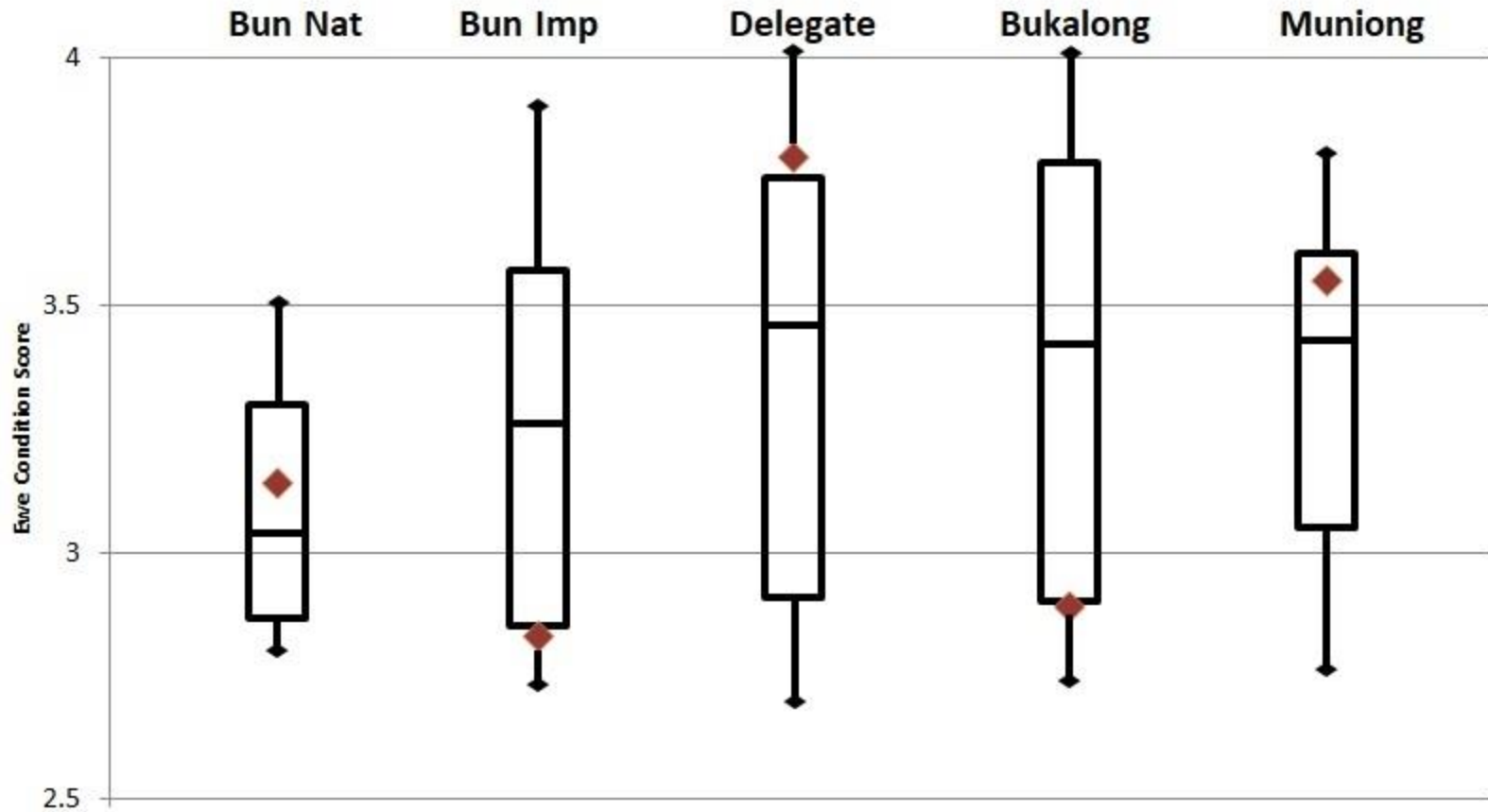
OMA



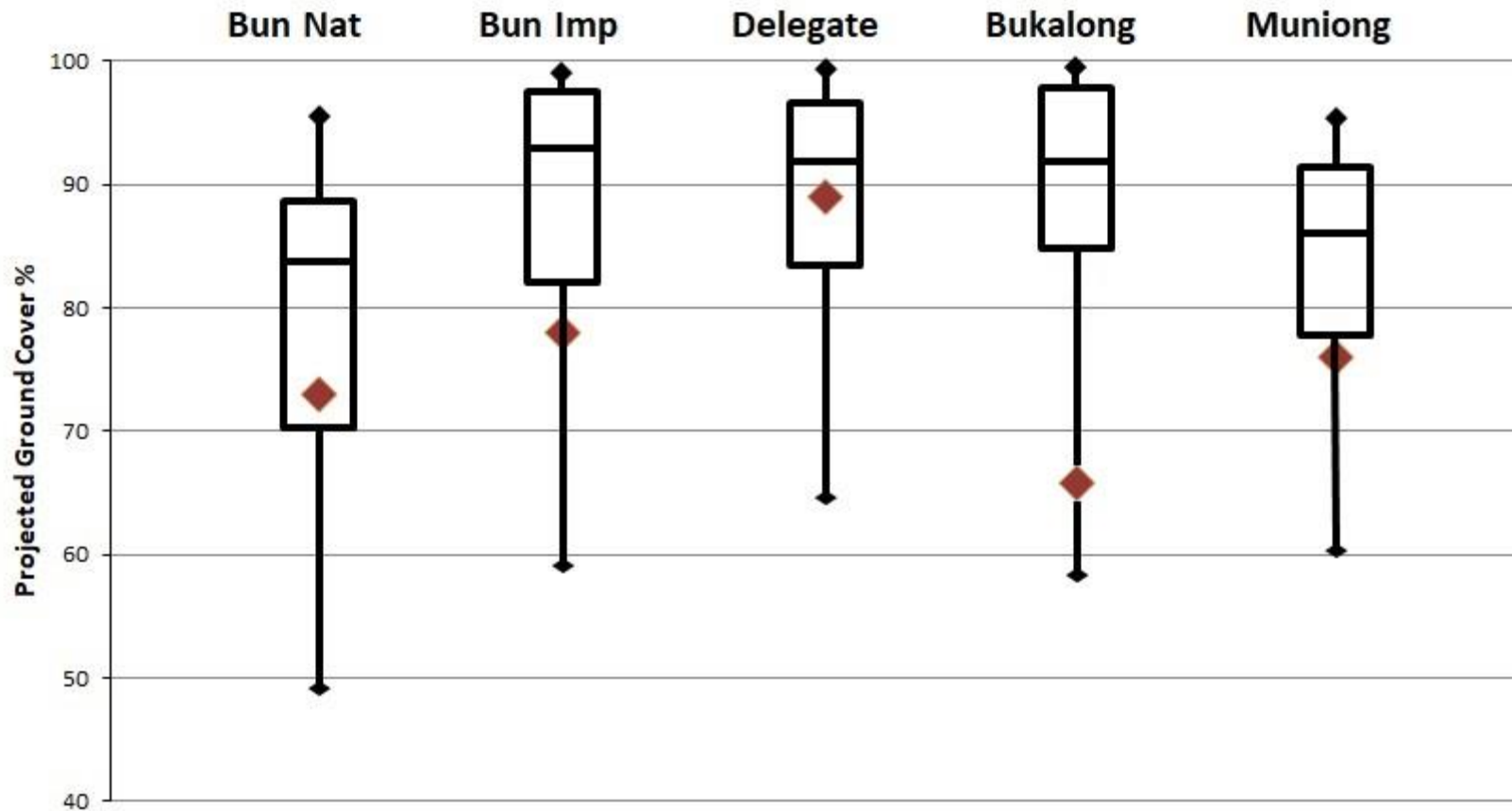
Green Herbage 31st August 19



Ewes CS 31st August 19



Ground Cover 31st of August 19

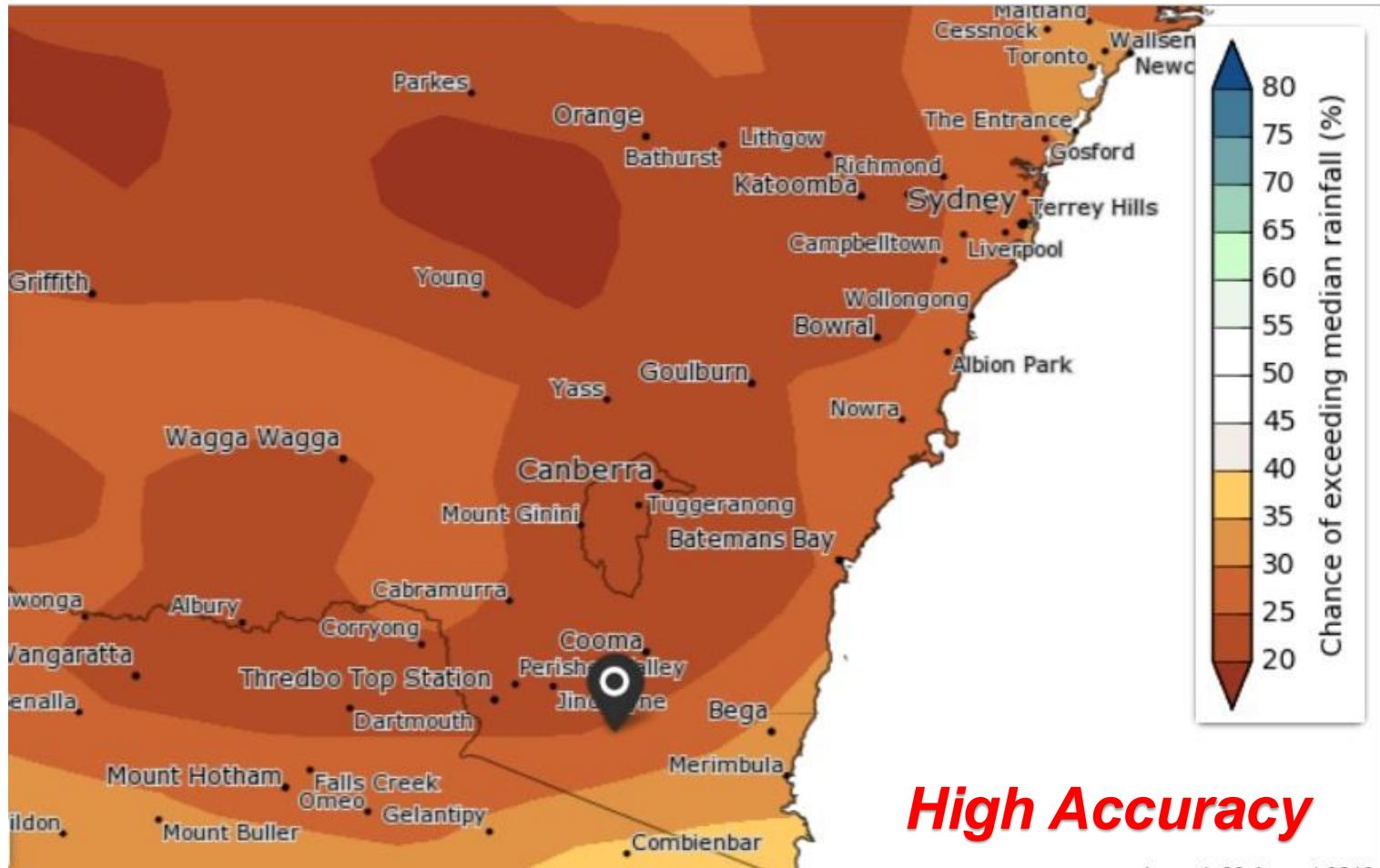


Seasonal Projections

- Projecting from 1st Sep to 30th Nov
- Applying seasonal rainfall patterns from each of the past 50 years
- GrassGro assumes no historical seasonal outcome is any more or less likely than another.
- What does the BOM outlook say?

BOM

Chance of exceeding median Sep – Oct 2019

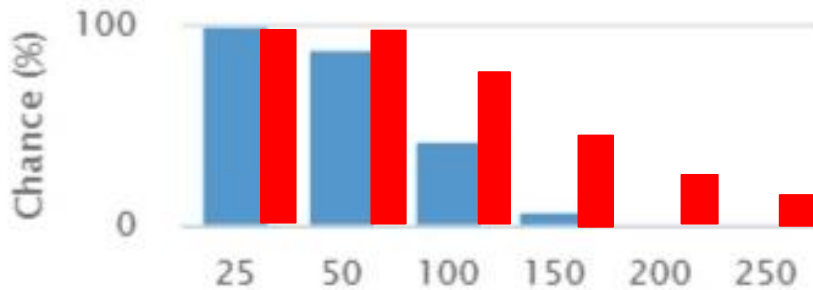


What does this mean?

Outlook for September to November at Bungarby

Rainfall	
Median	127 mm
Chance of above median	Unlikely

Rainfall total of at least (mm)



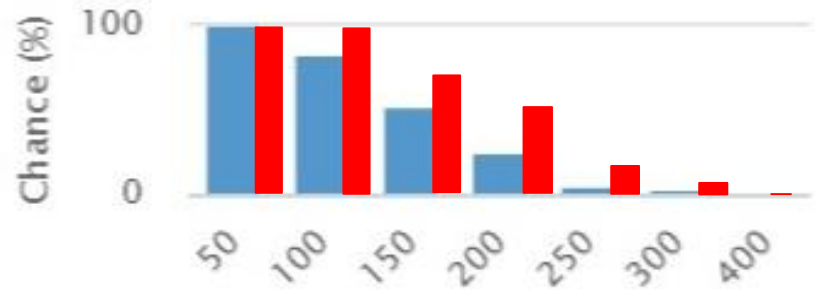
Past accuracy

High

Outlook for September to November at Delegate


Rainfall	
Median	209 mm
Chance of above median	Unlikely

Rainfall total of at least (mm)



Past accuracy

Very high

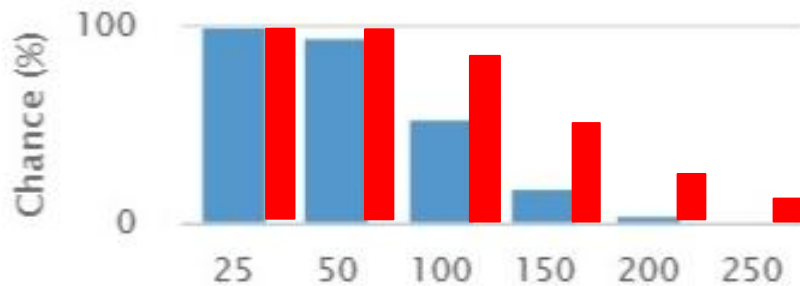
 Long term distribution

What does this mean?

Outlook for September to November at Bukalong

Rainfall	
Median	149 mm
Chance of above median	Unlikely

Rainfall total of at least (mm)

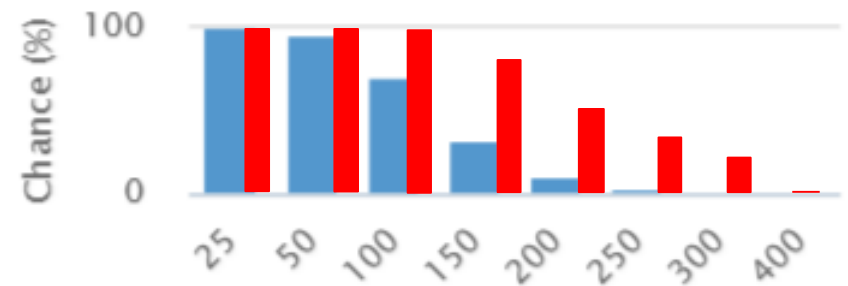


Past accuracy **Moderate**


Outlook for September to November at Rhine Falls

Rainfall	
Median	191 mm
Chance of above median	Equal likelihood

Rainfall total of at least (mm)

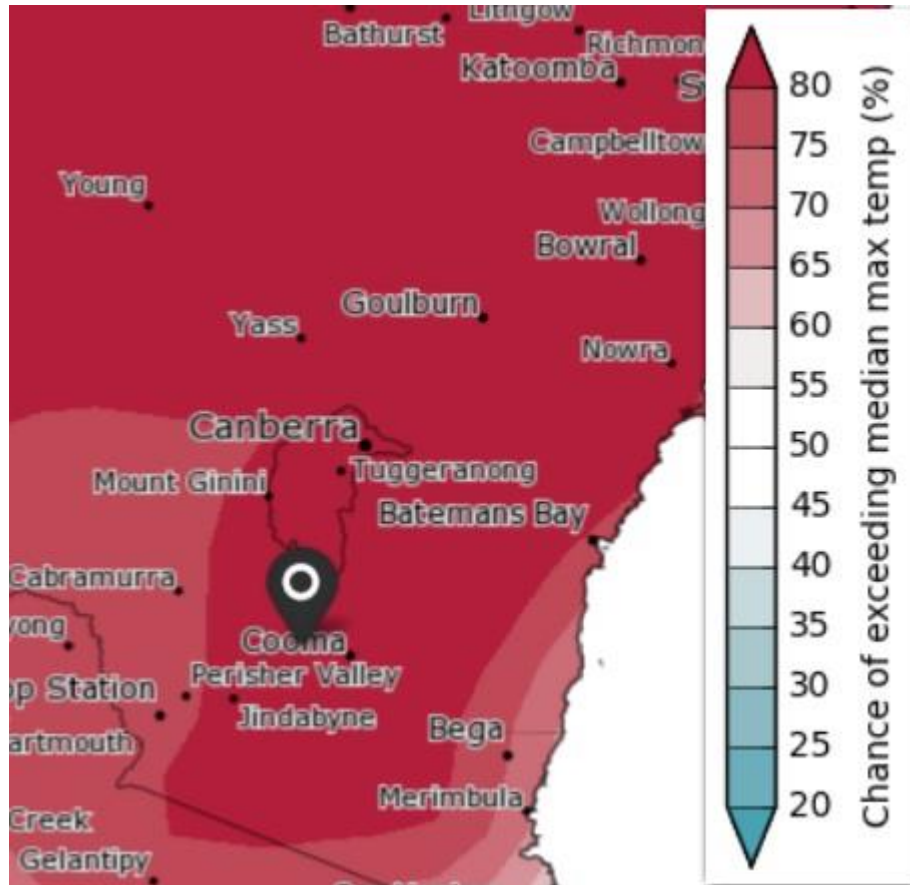


Past accuracy **High**

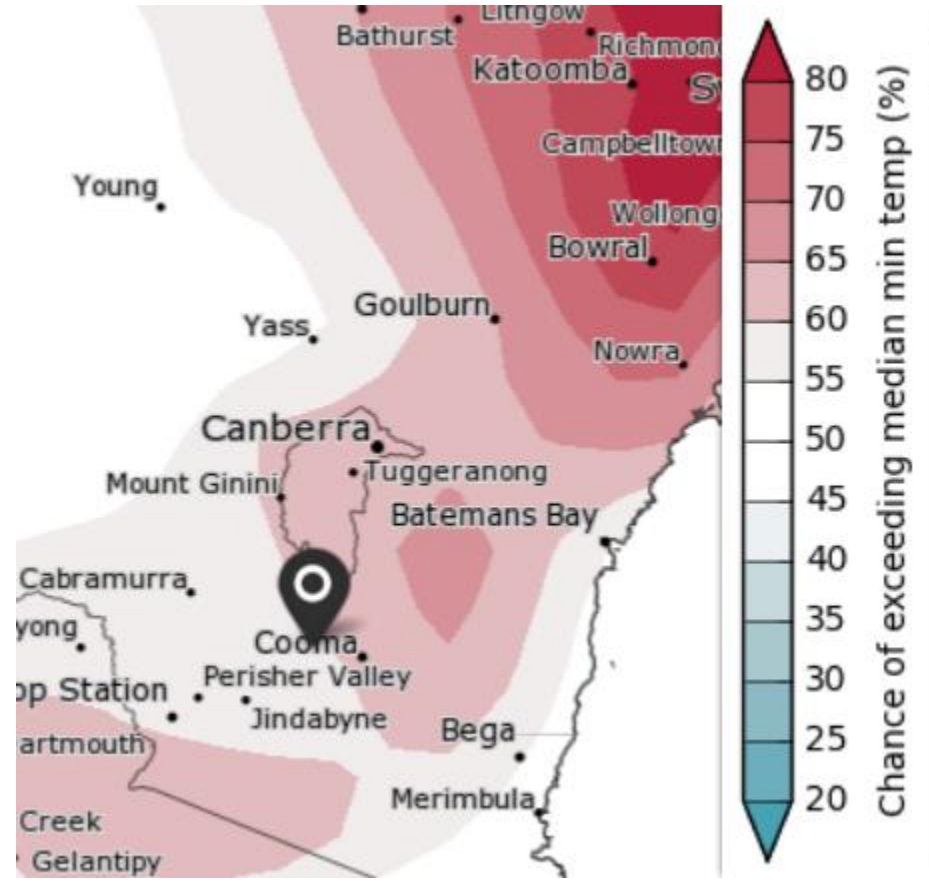
 Long term distribution

Temperature Outlook

Max T



Min T

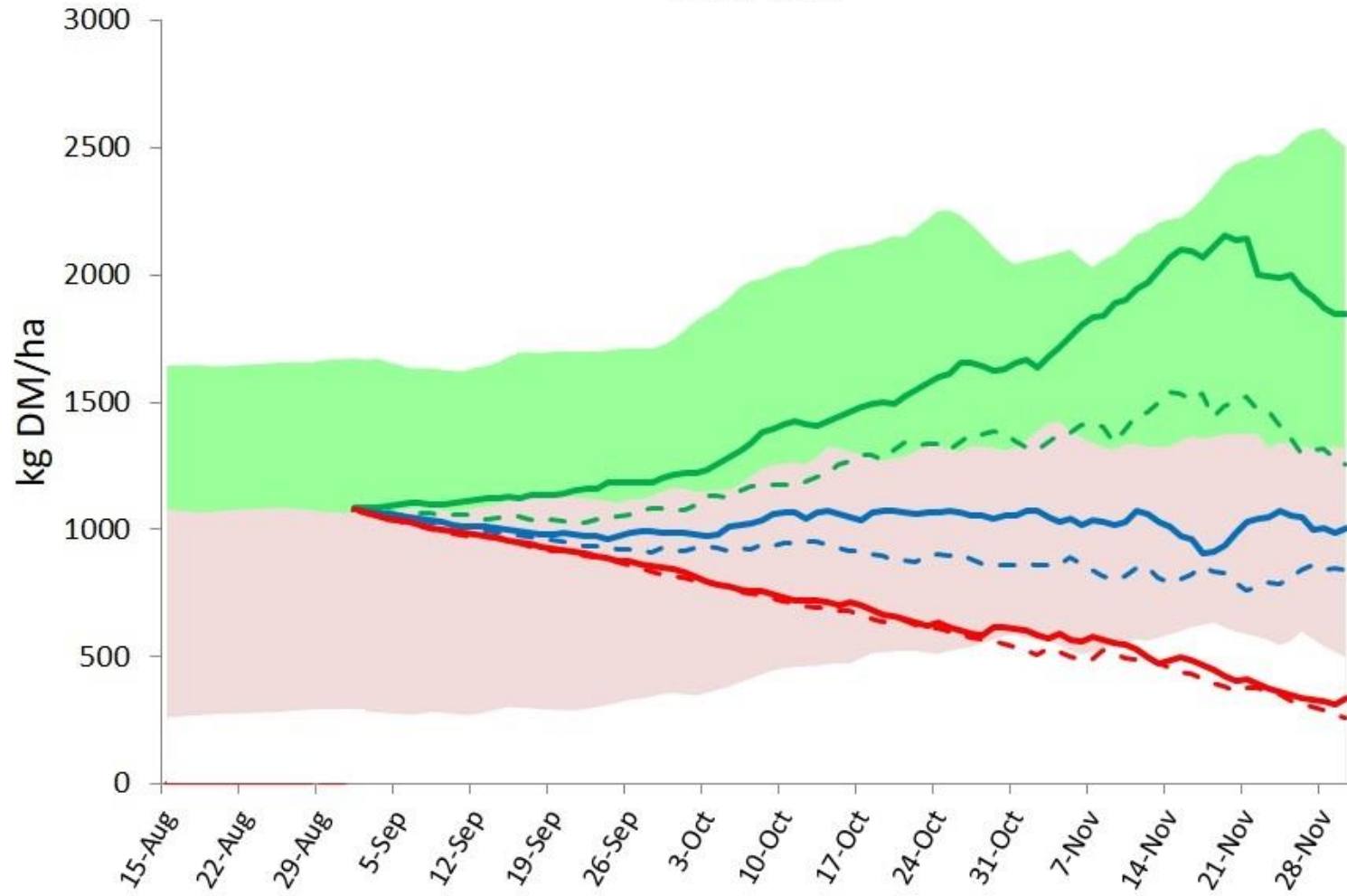


Conclusion from BOM outlook

- Strong Negative signal on Rainfall
 - Probability distribution has been altered to reflect this.
- Warmer temperatures.
 - Especially warmer days
 - Nights still a frost risk due to clear skies.

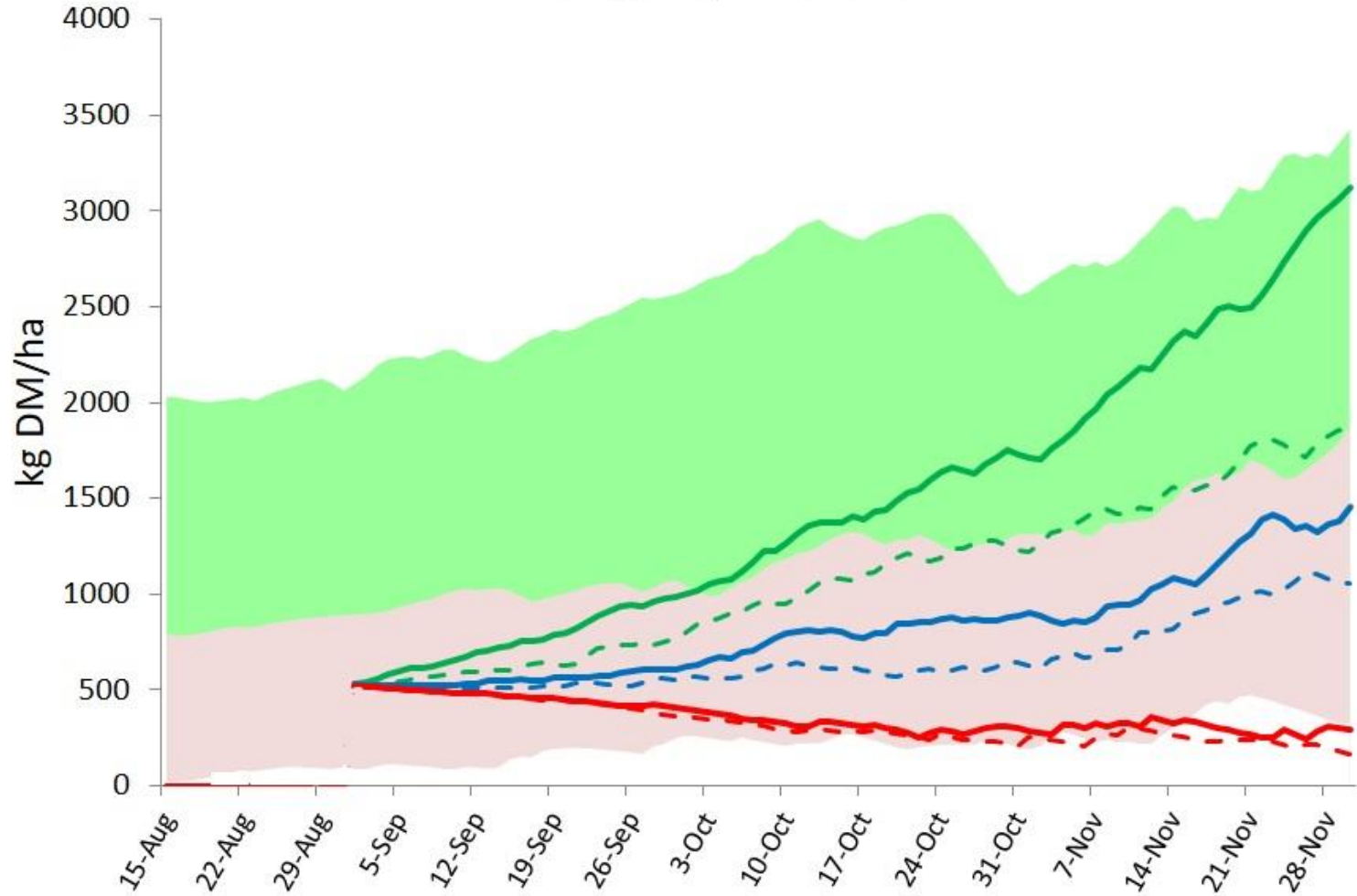
Projections, *Green Herbage*

Bun Nat



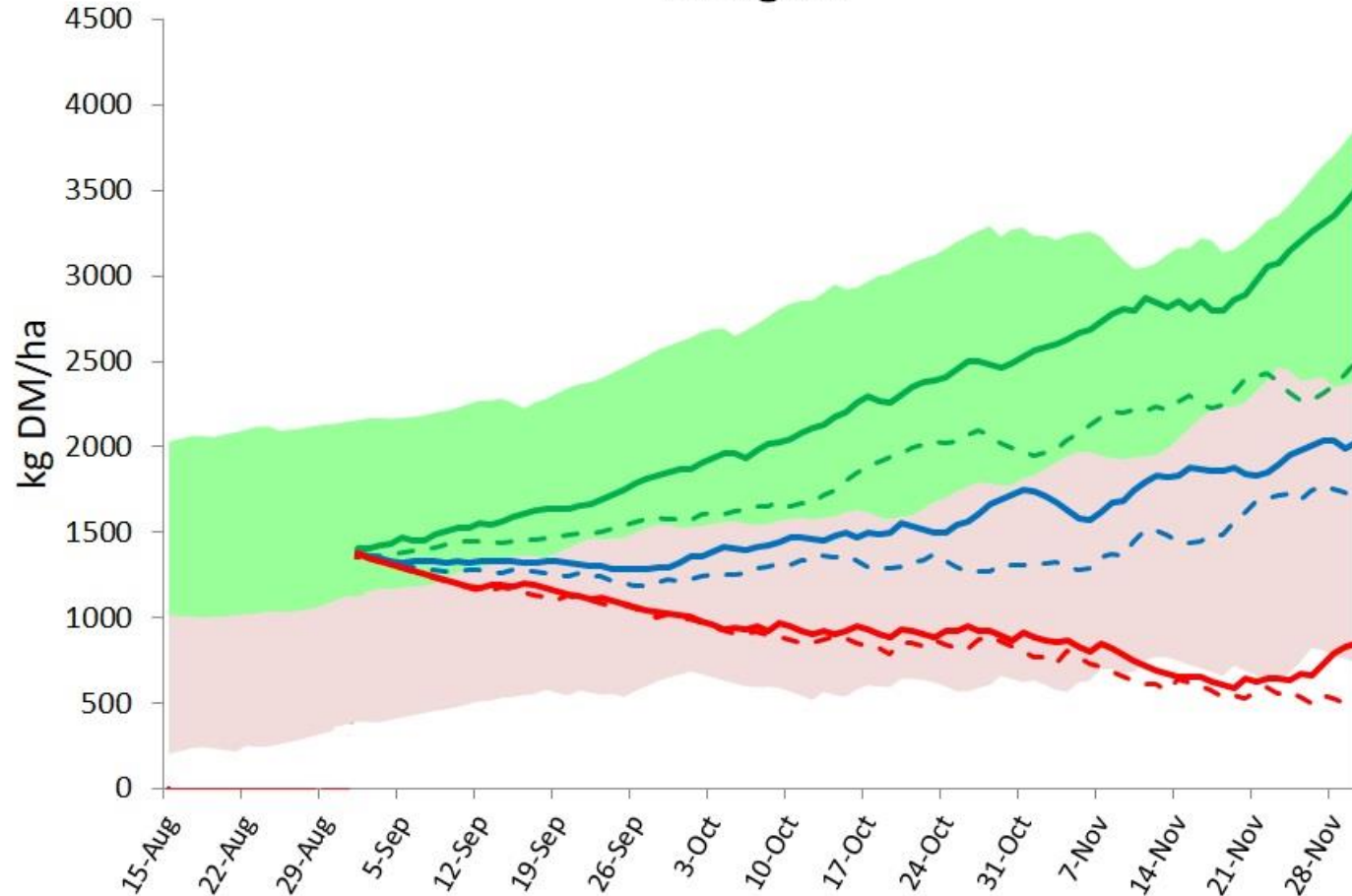
Projections, *Green Herbage*

Bungarby Improved

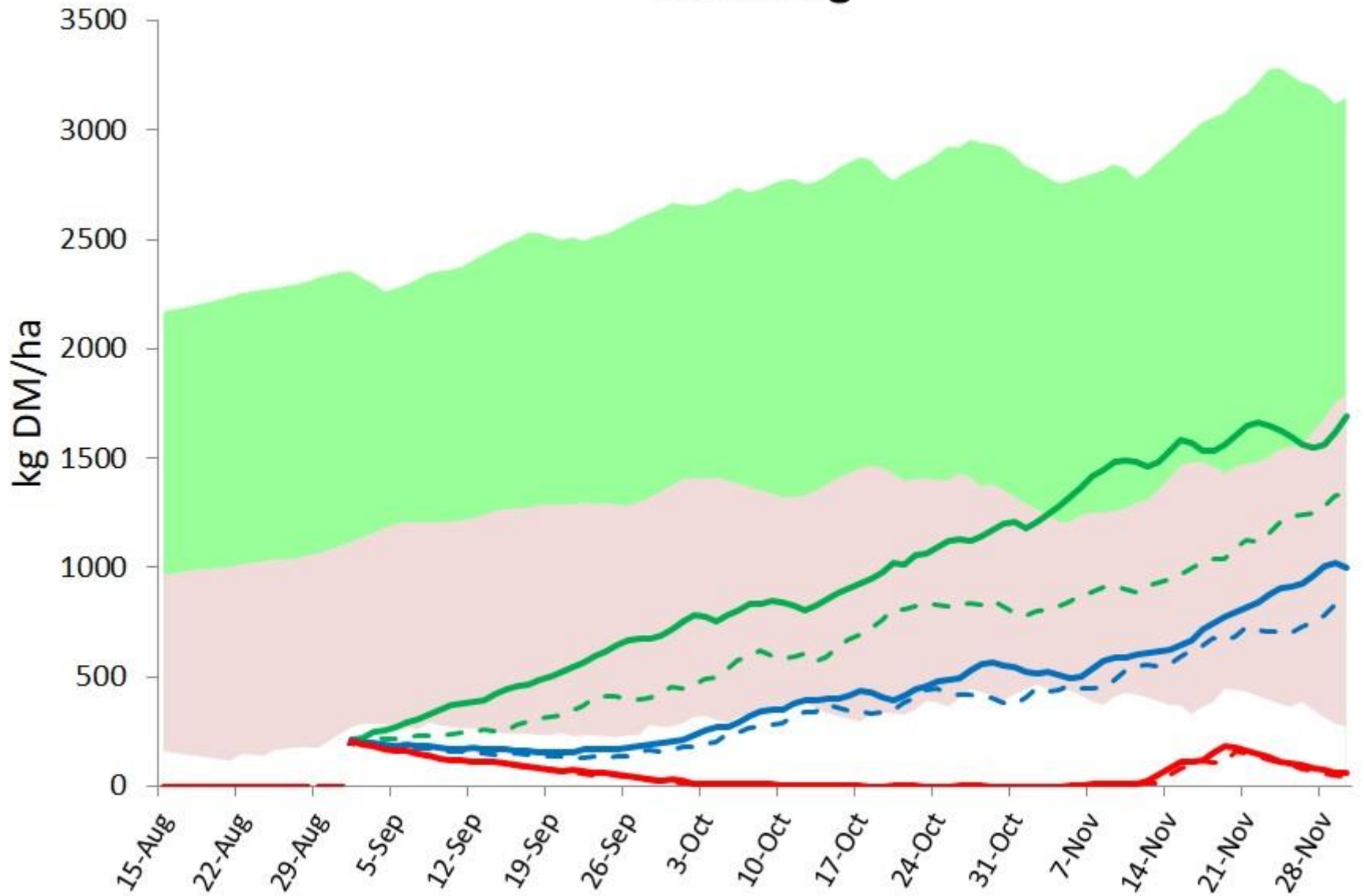


Projections, *Green Herbage*

Delegate

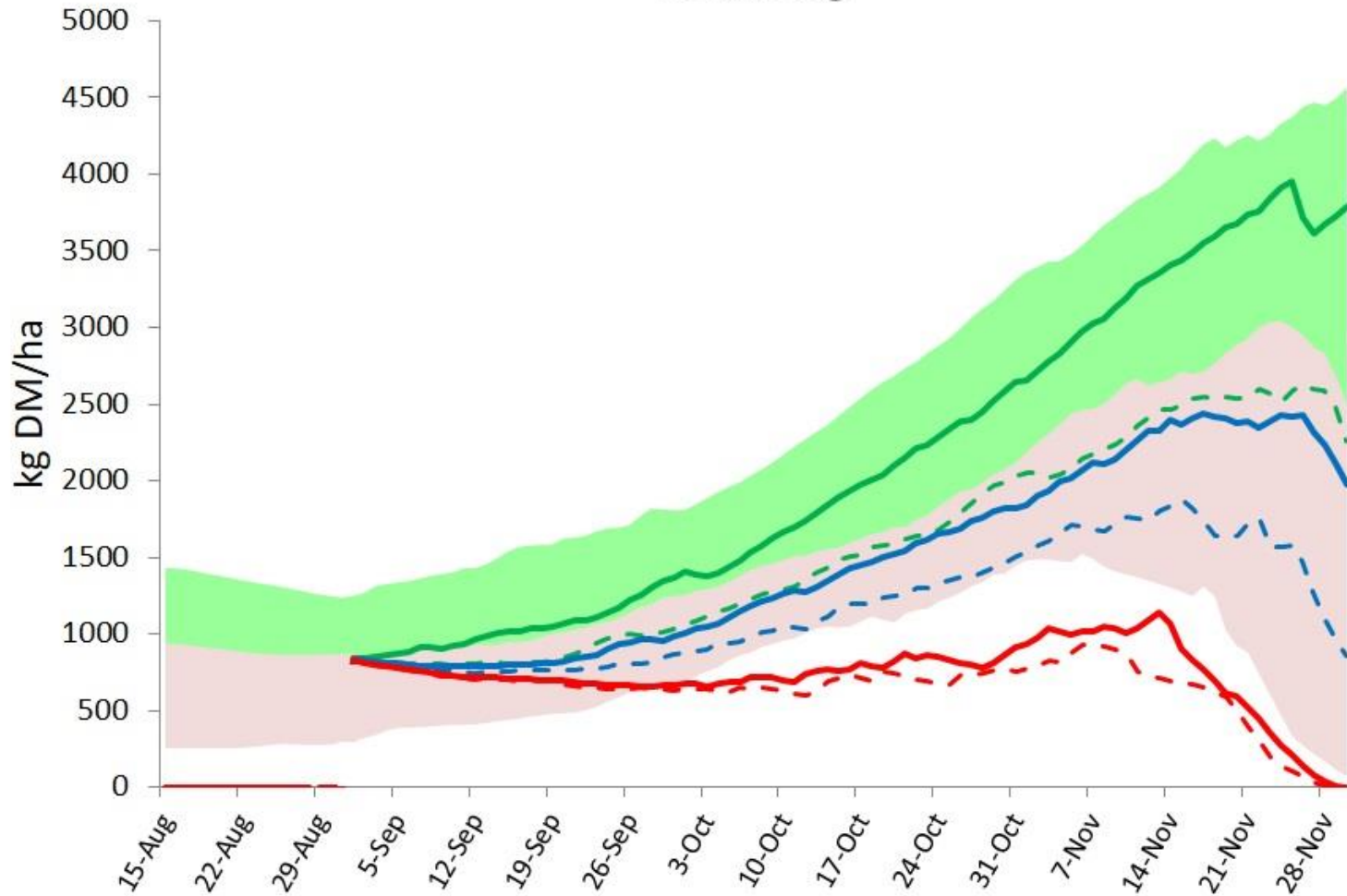


Bukalong



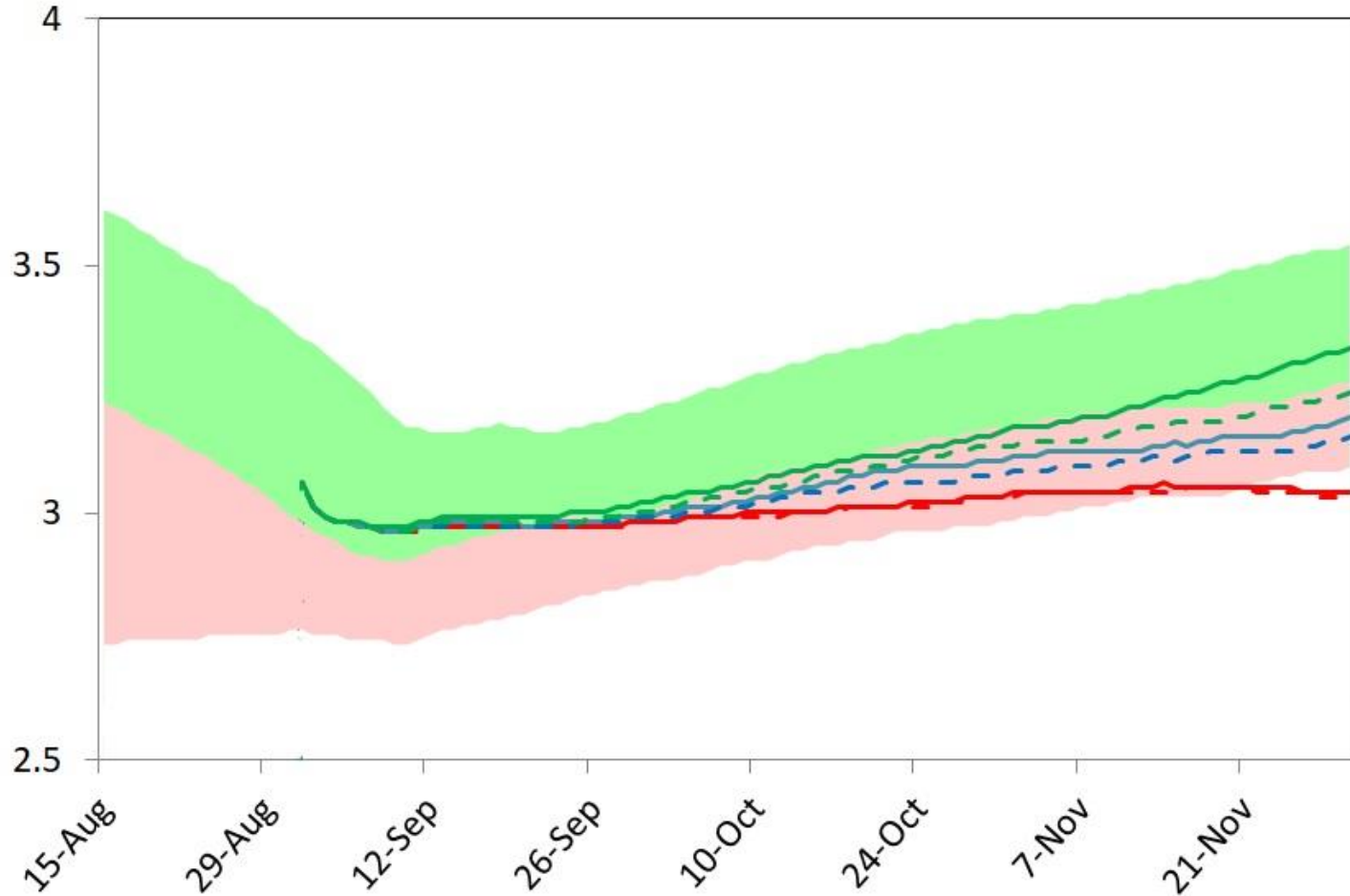
Projections, *Green Herbage*

Munionsg



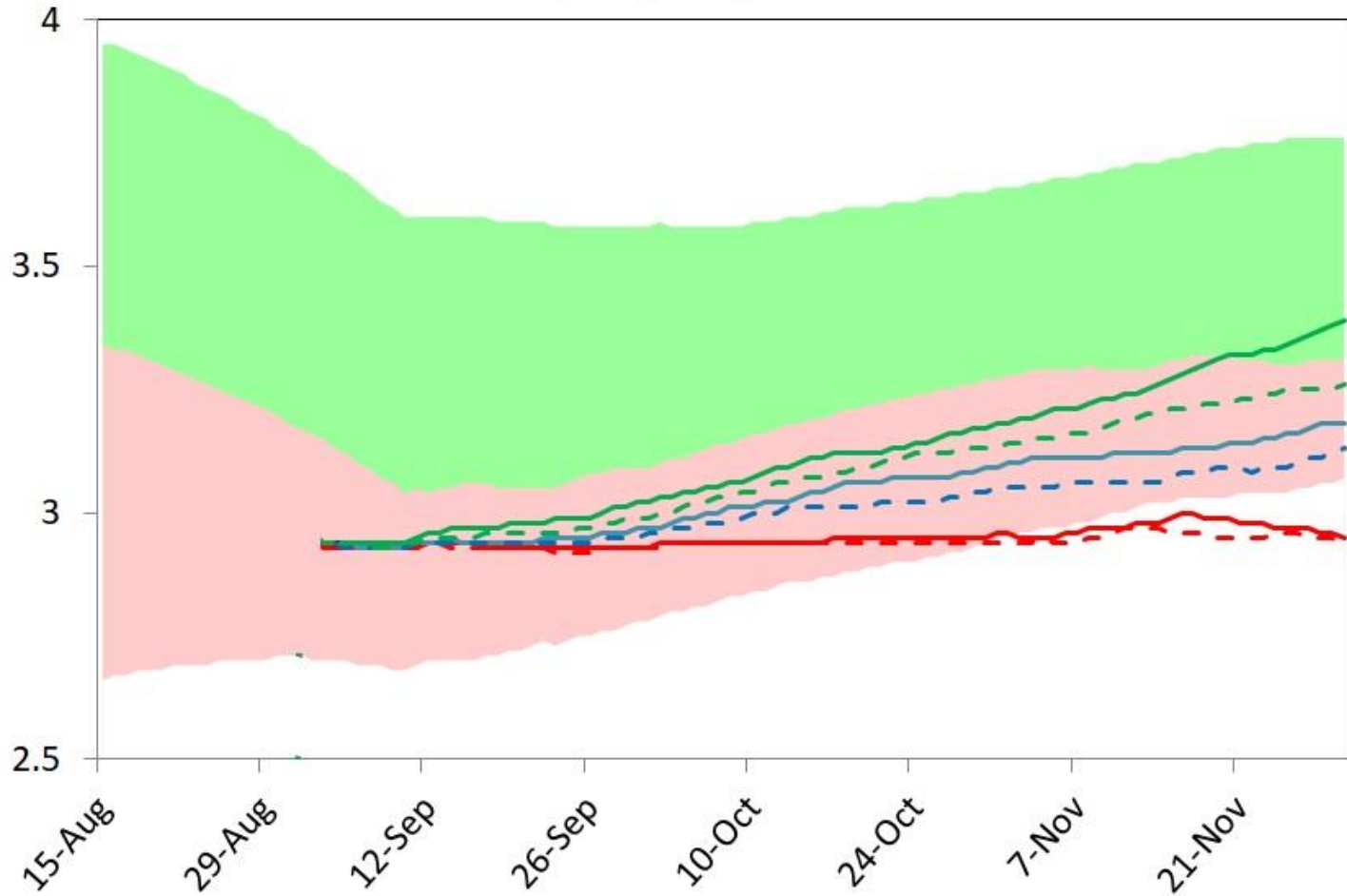
Projections, *Ewe Condition Score*

Bun Nat



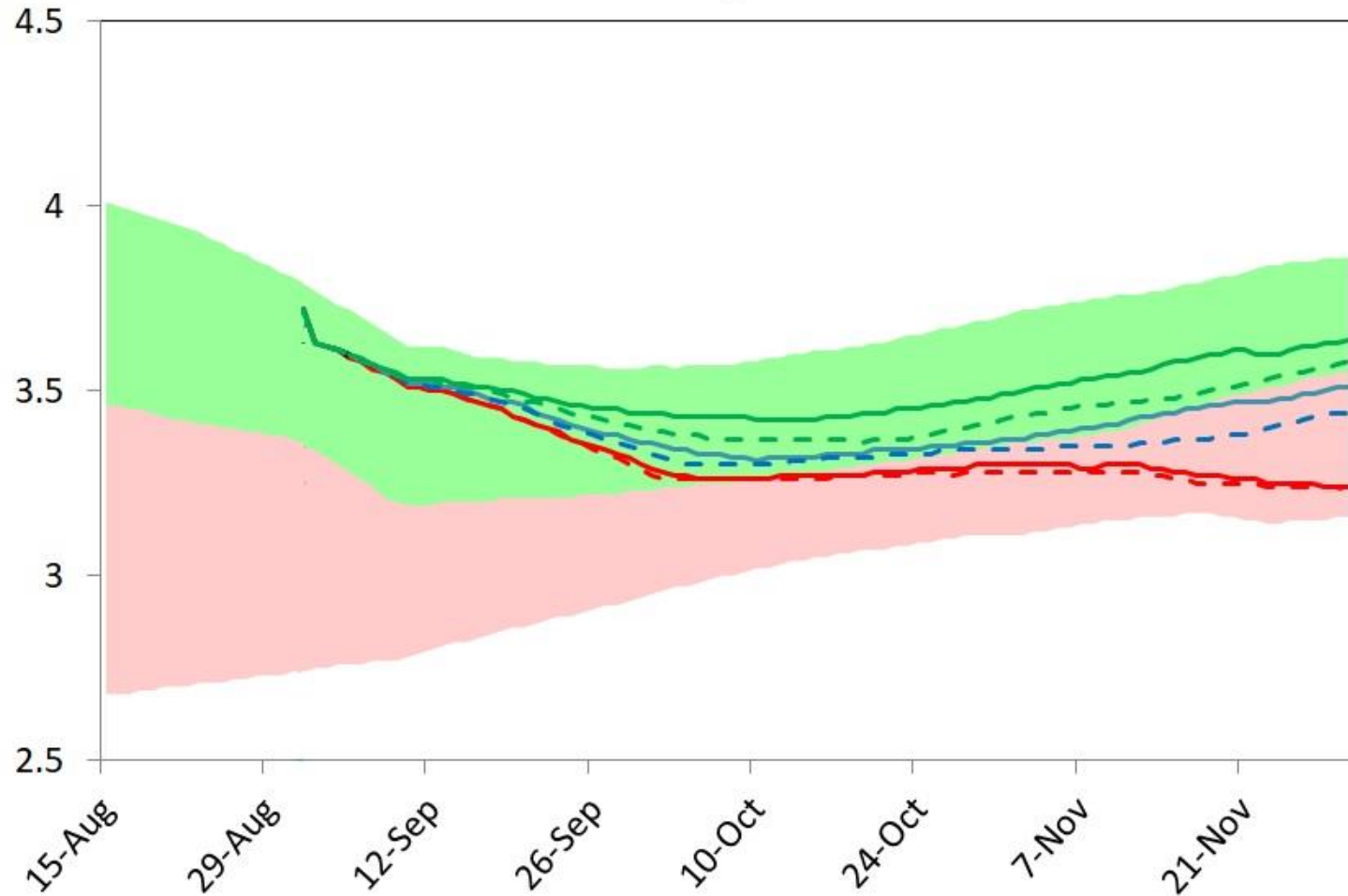
Projections, *Ewe Condition Score*

Bungarby Improved



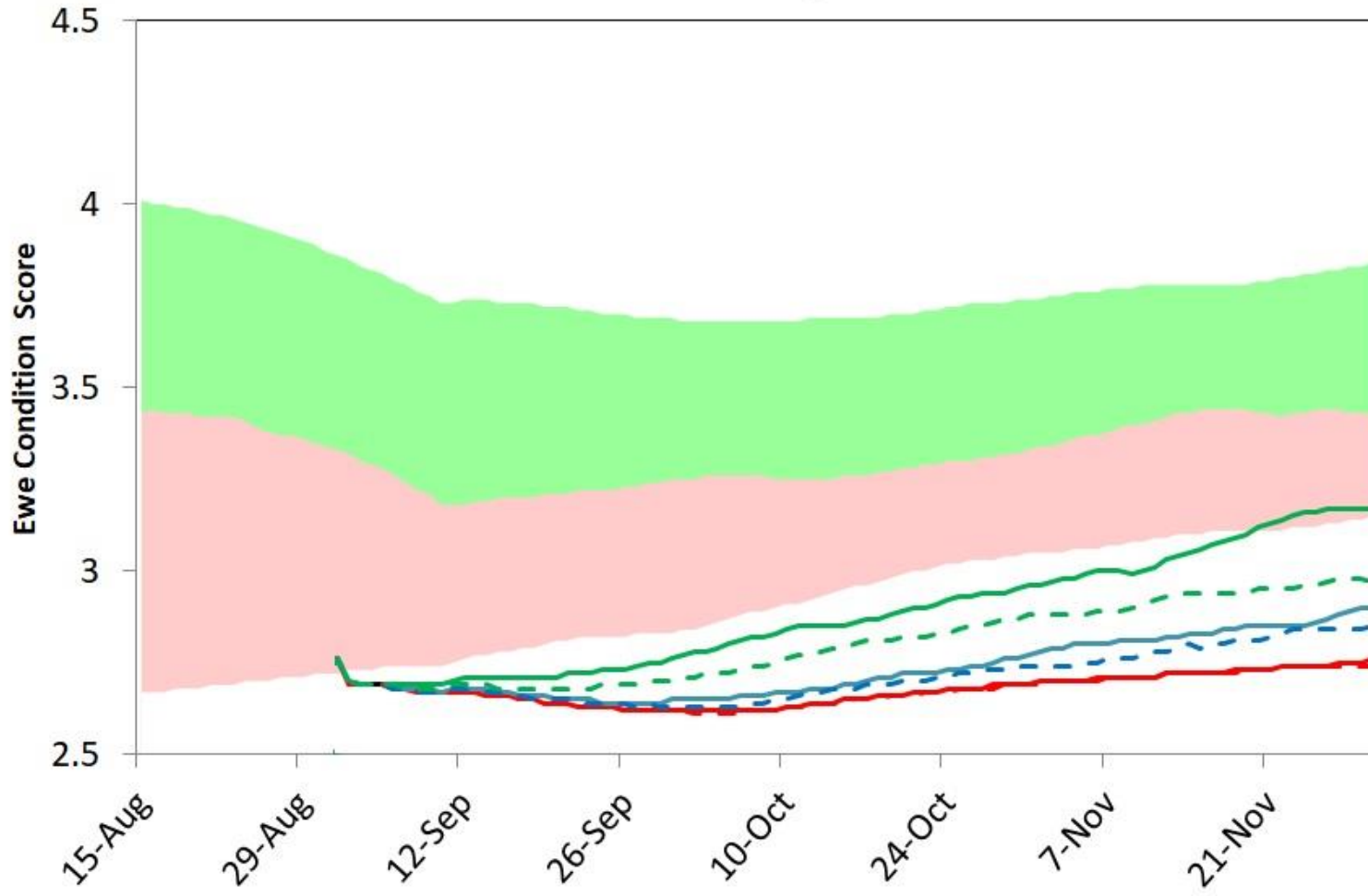
Projections, *Ewe Condition Score*

Delegate



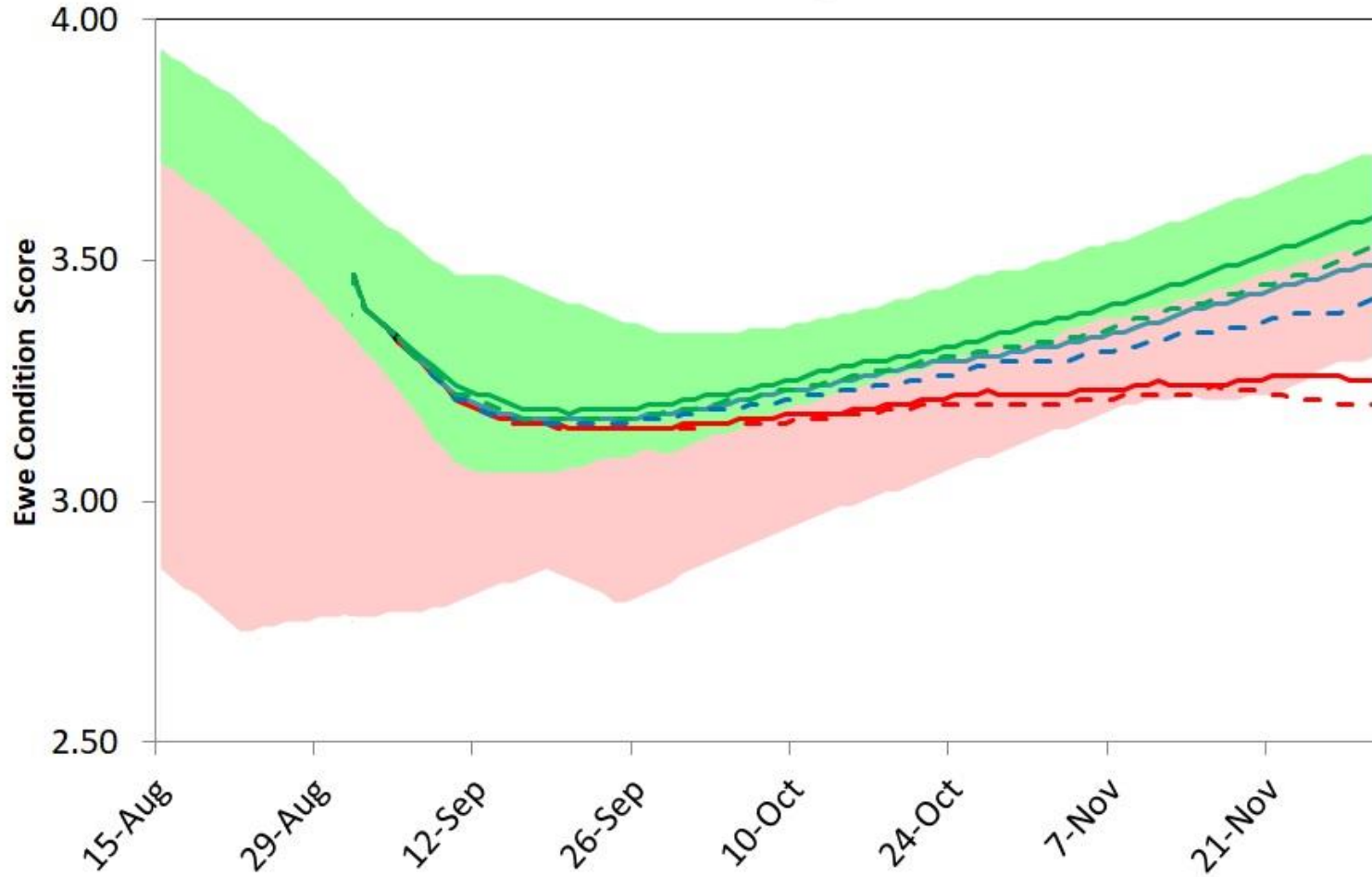
Projections, *Ewe Condition Score*

Bukalong



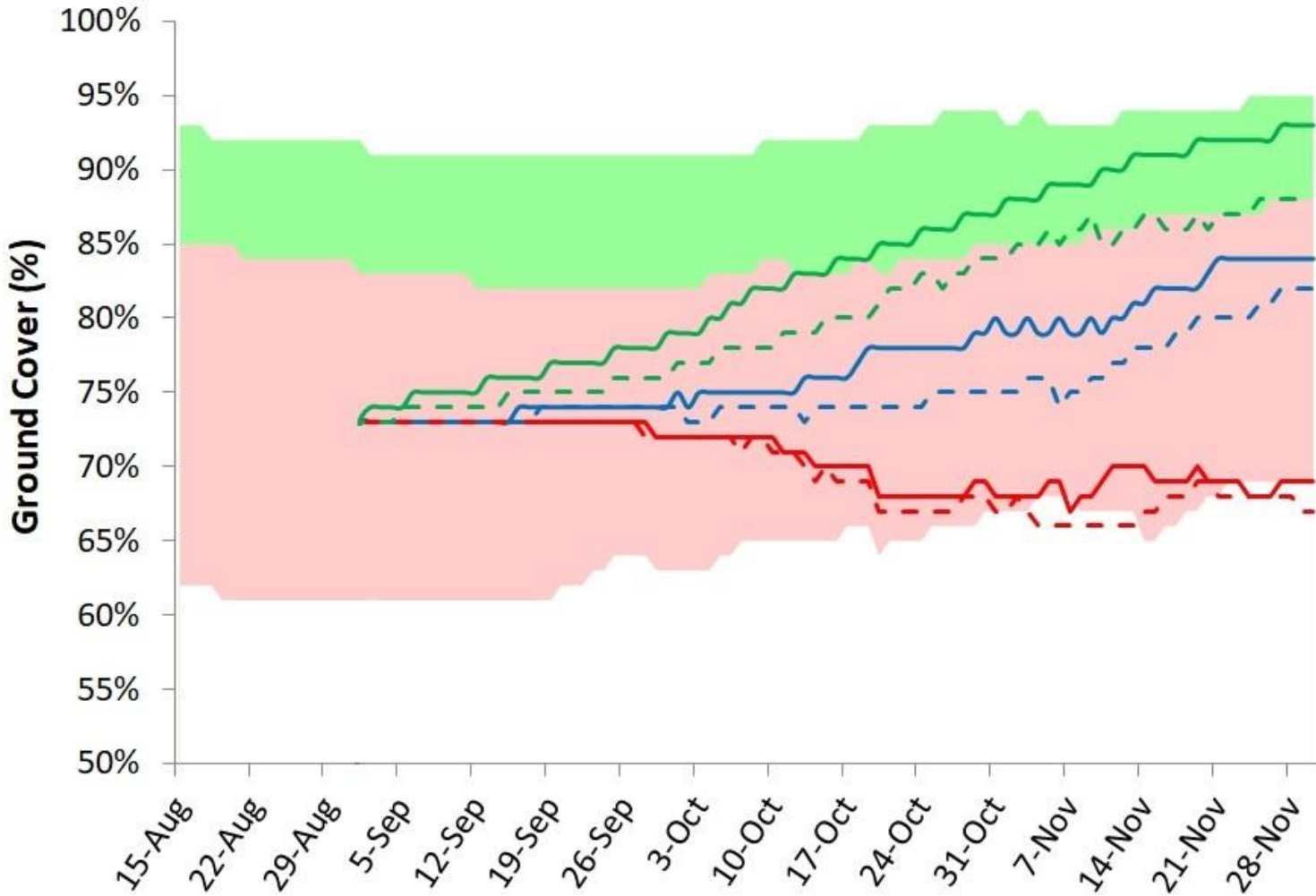
Projections, *Ewe Condition Score*

Munionsg



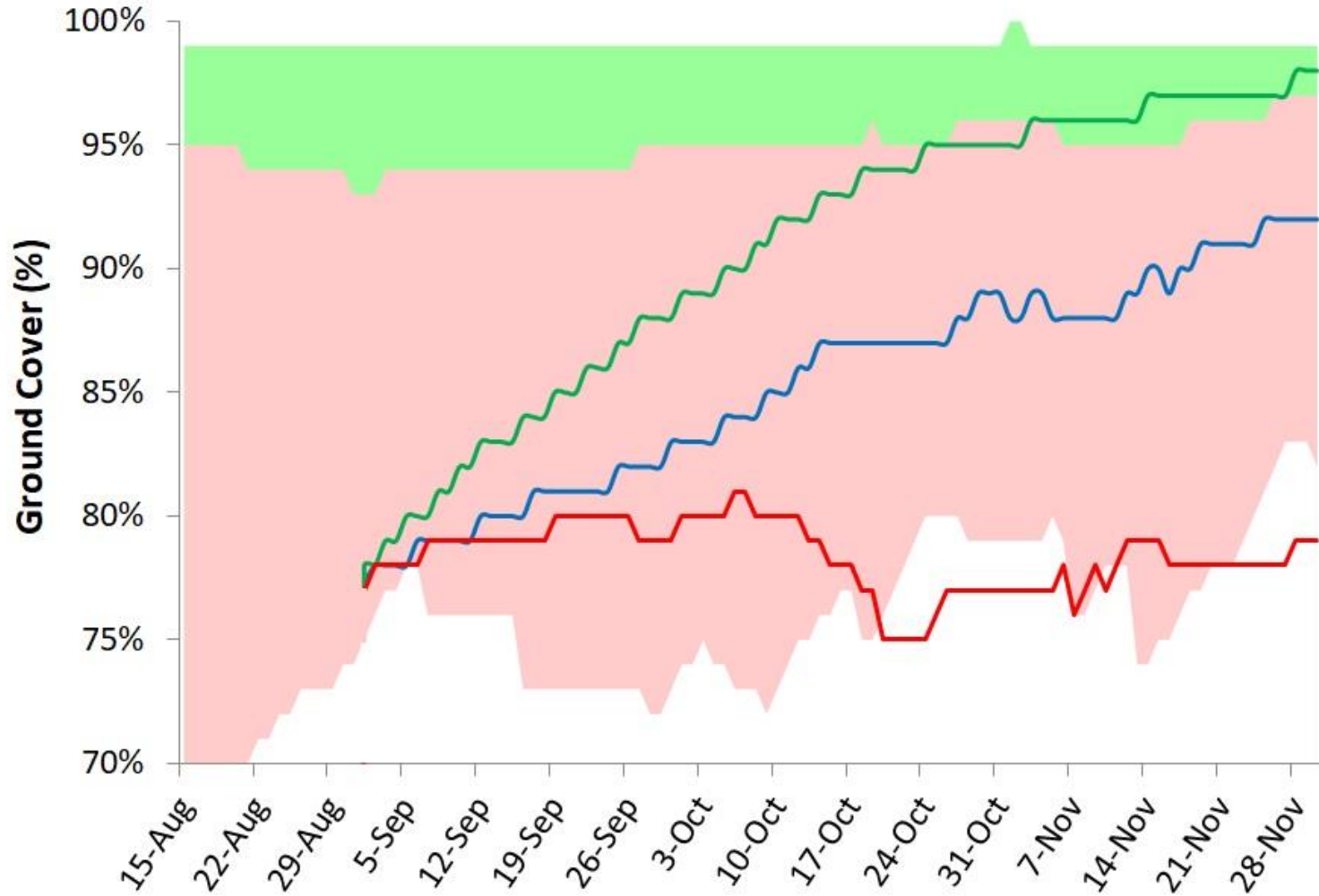
Projections, *Ground Cover*

Bun Nat

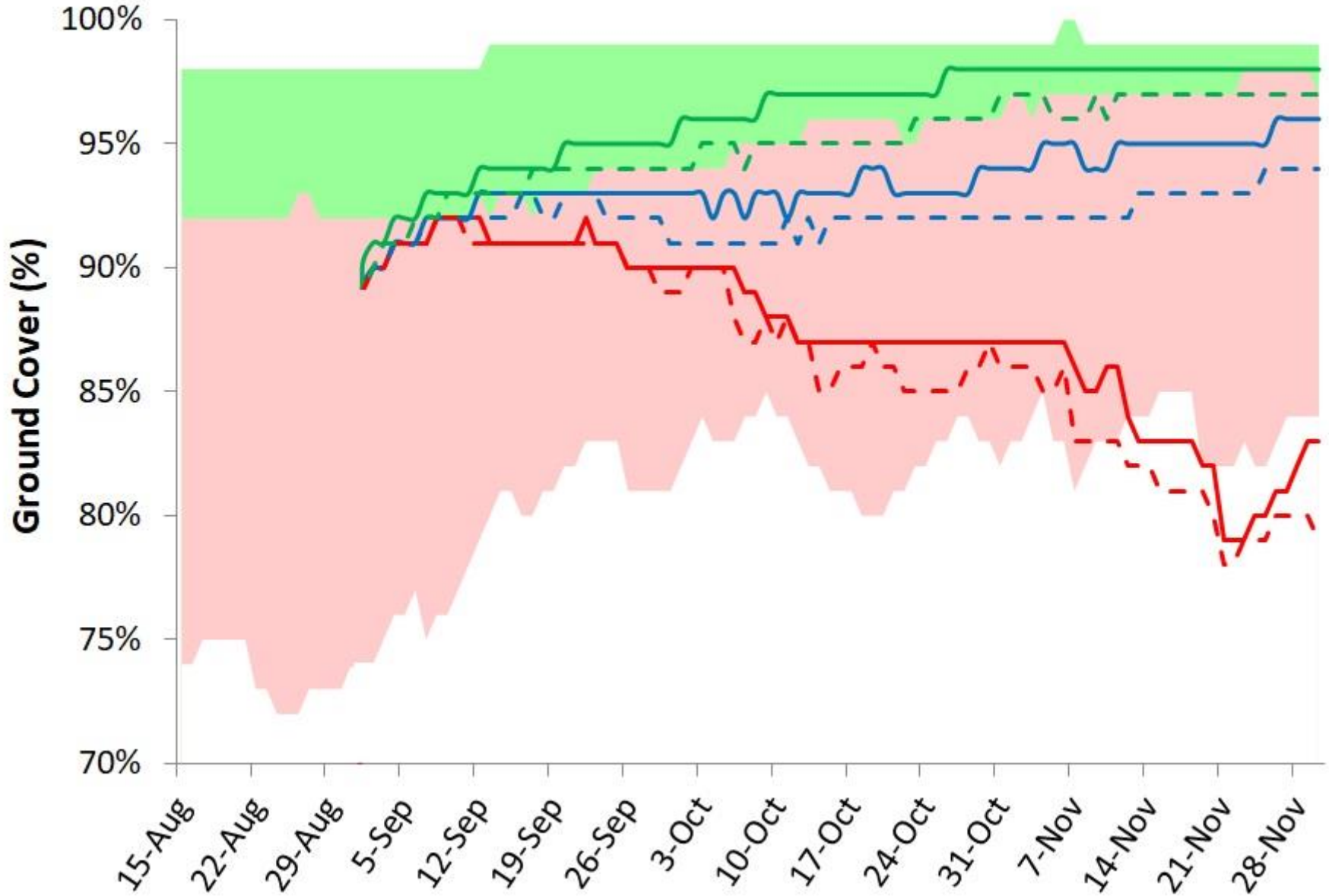


Projections, *Ground Cover*

Bun Imp

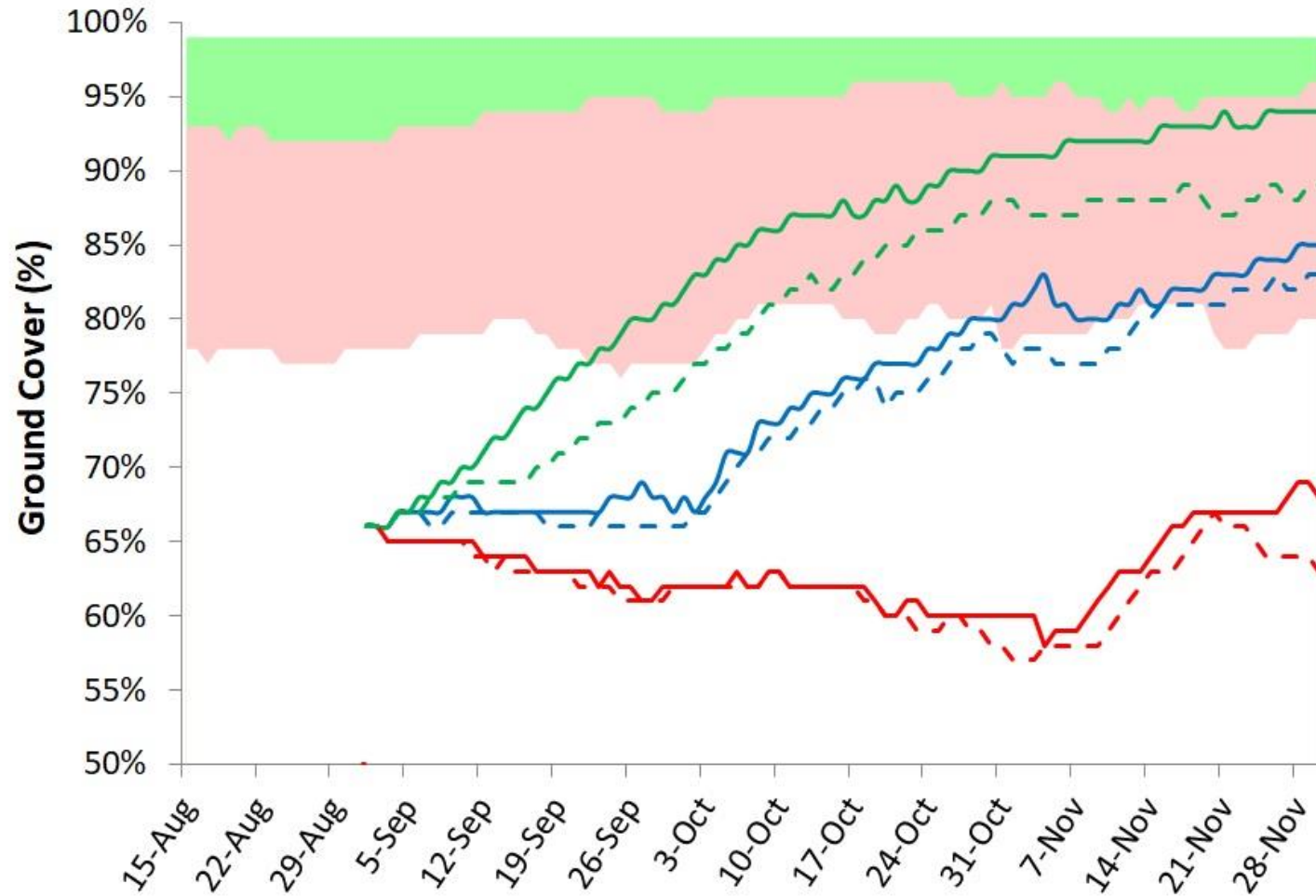


Delegate



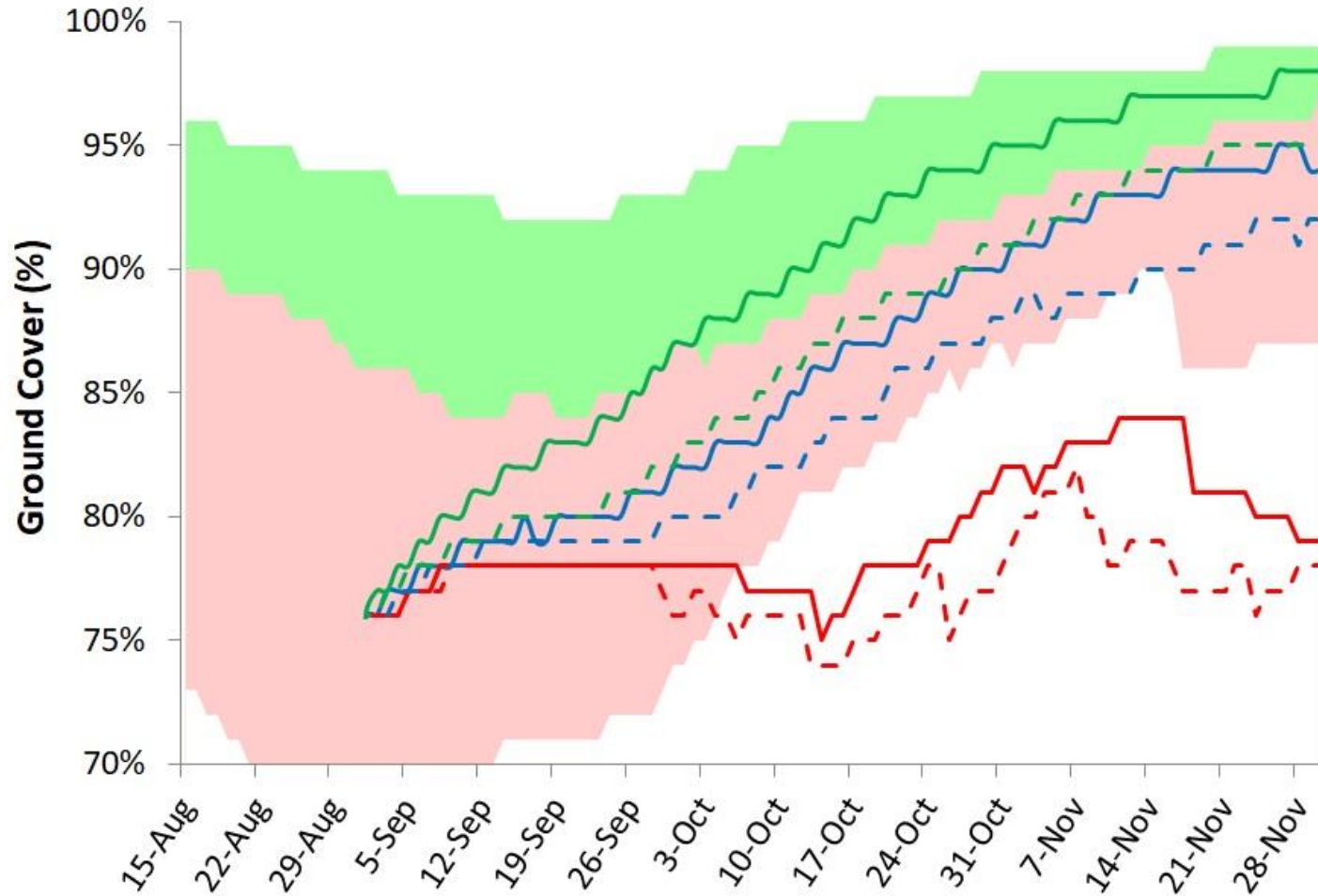
Projections, *Ground Cover*

Bukalong

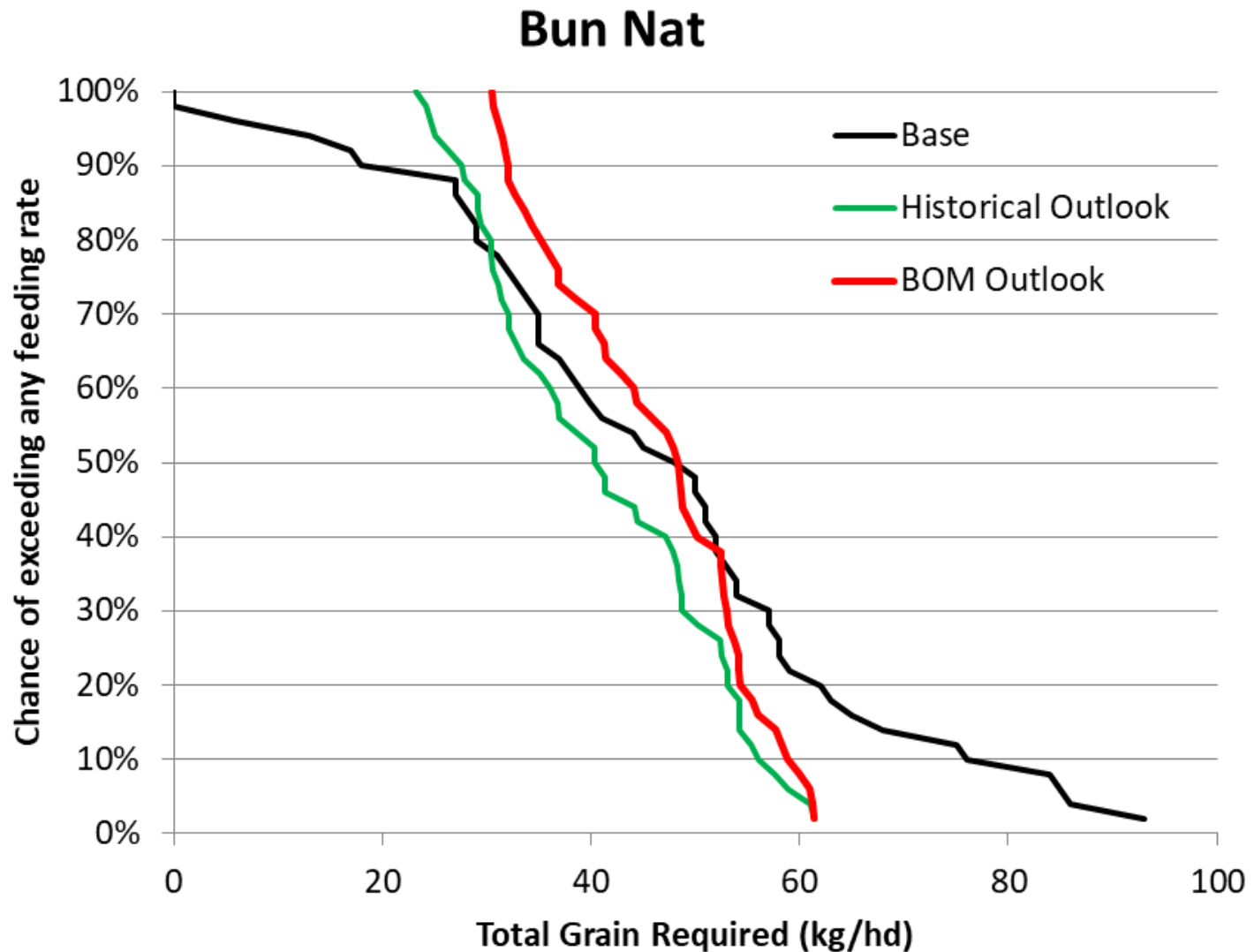


Projections, *Ground Cover*

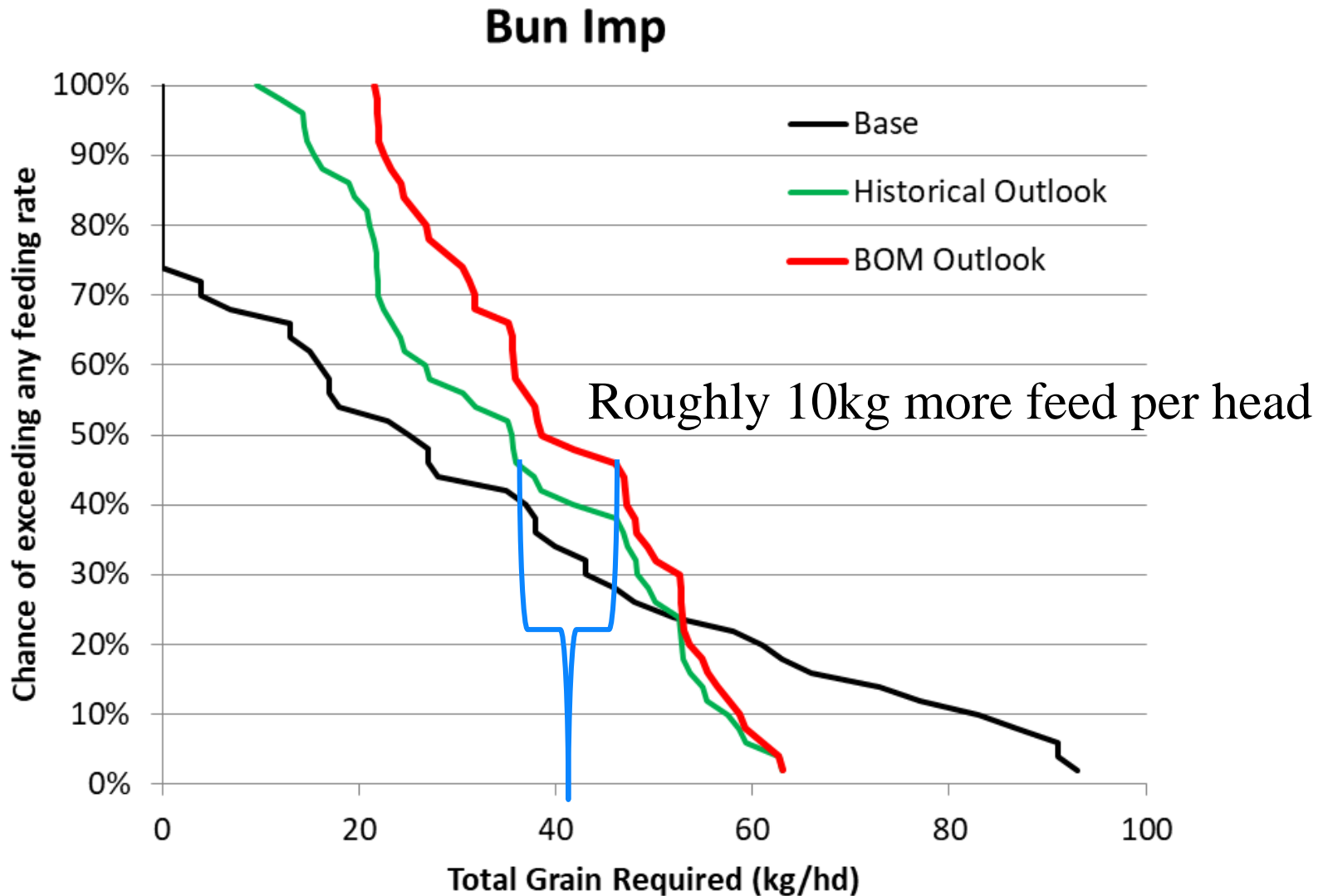
Muniong



Supplementary Feeding

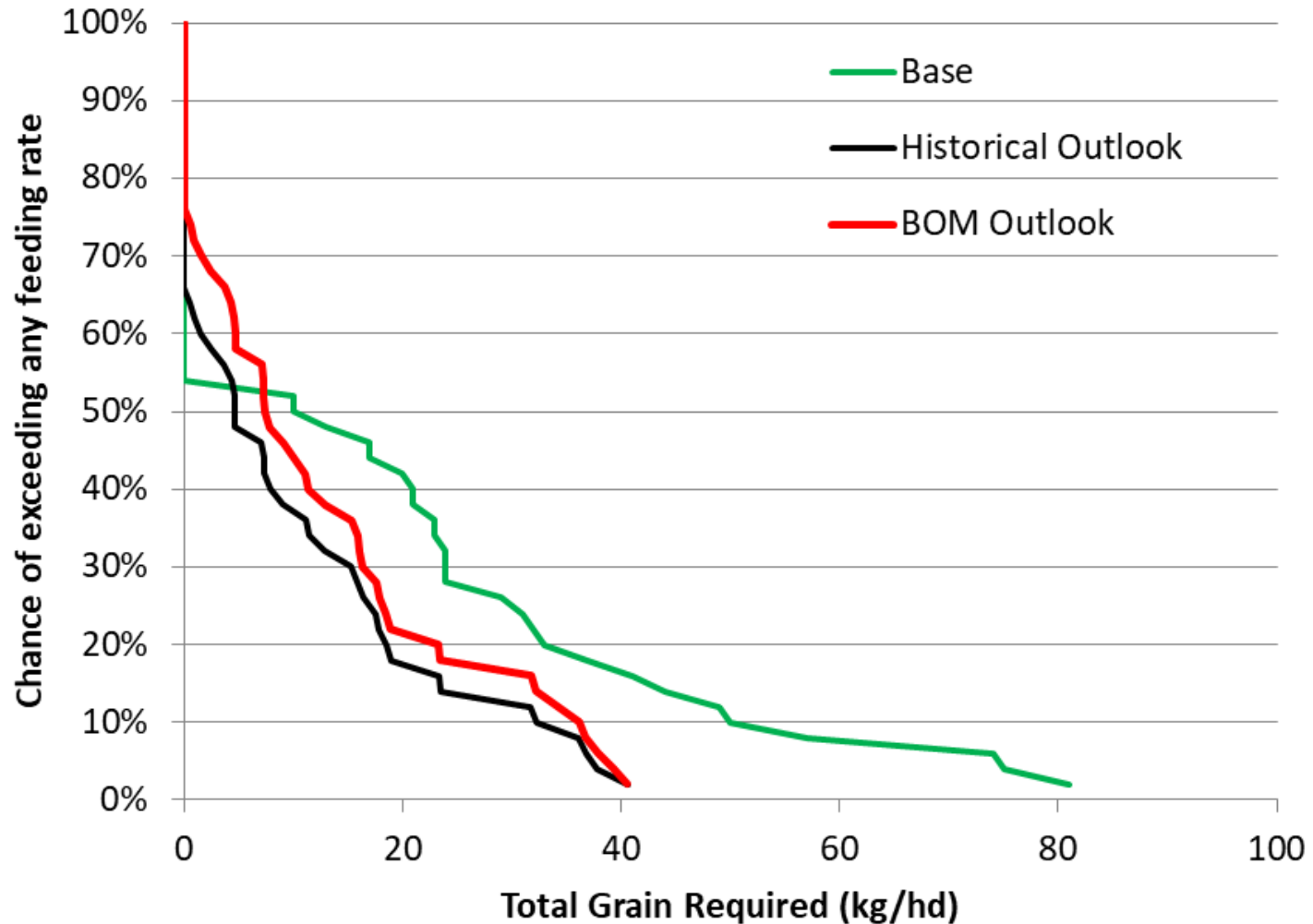


Supplementary Feeding



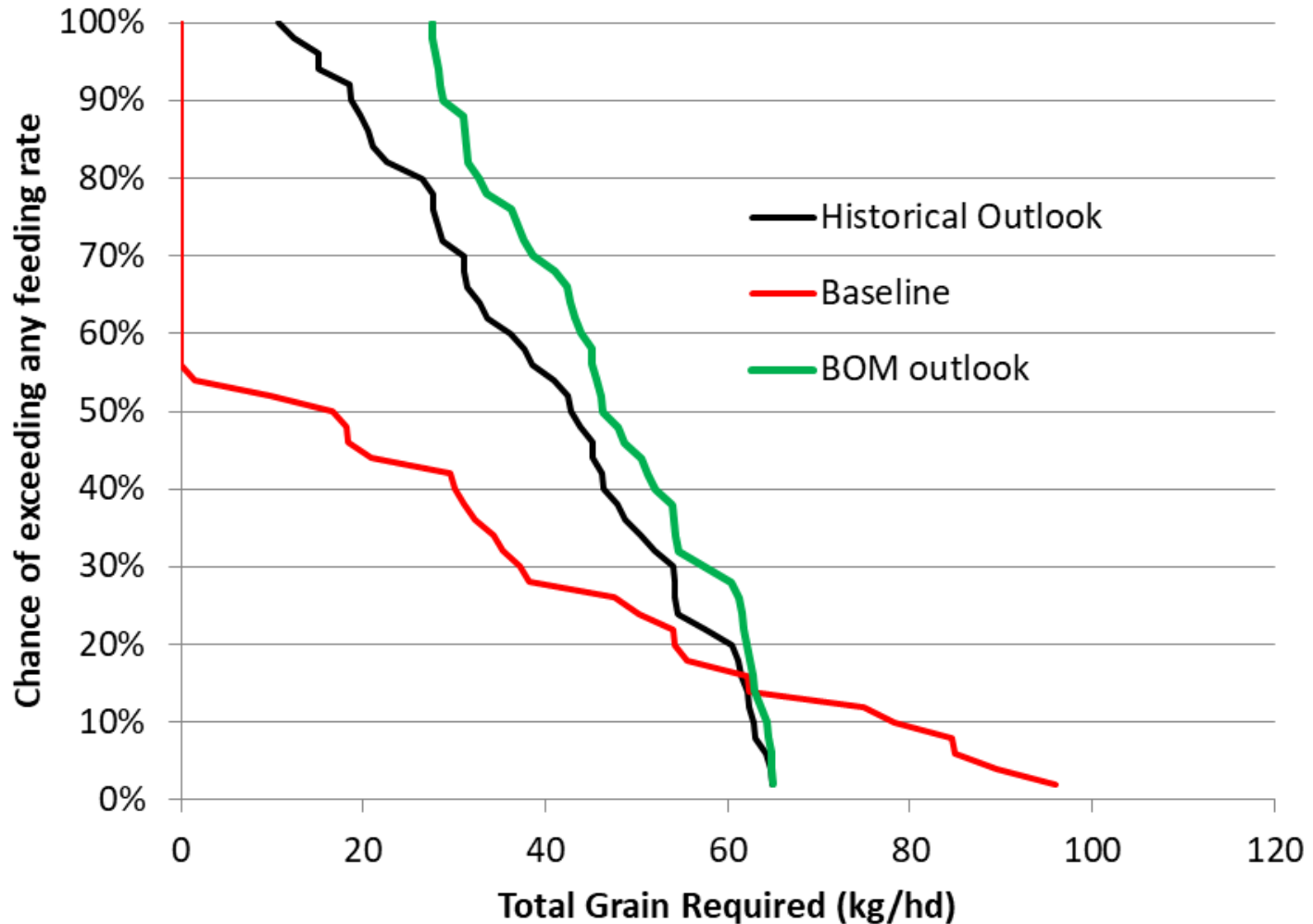
Supplementary Feeding

Delegate

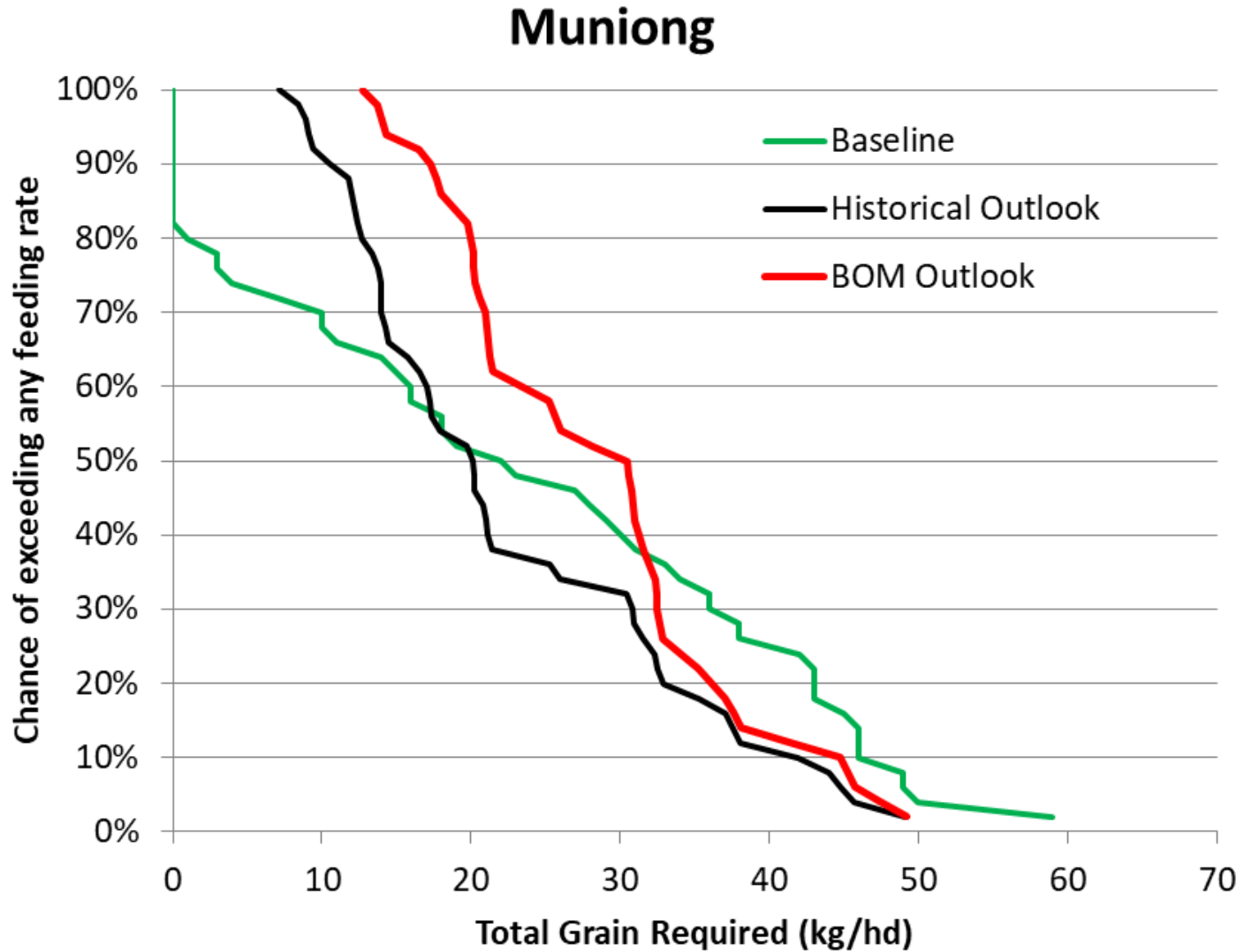


Supplementary Feeding

Bukalong Ewe Feeding



Supplementary Feeding



Conclusions

- Conditions are poor but not the worst in the record for most sites.
- The rainfall outlook is poor and feeding is largely locked in for spring.
- Plan for around 10kg more grain per head to account for the poor outlook compared with a neutral outlook.

Steer Finishing Trial



Snapshot

Locations

- Bibbenluke
 - Winter wheat
 - Ryegrass / Lucerne
- Mila - Winter Wheat
- Cathcart
 - Grazing Oats
 - Grazing Canola
- Jillamatong – Cereal Crop

Measurements

- Entry and Exit Biomass
- Entry feed quality
- Live weight gain of all steers
- Record of all other stock carried over the 12 months Jan – Dec.

Bibbenluke Wheat

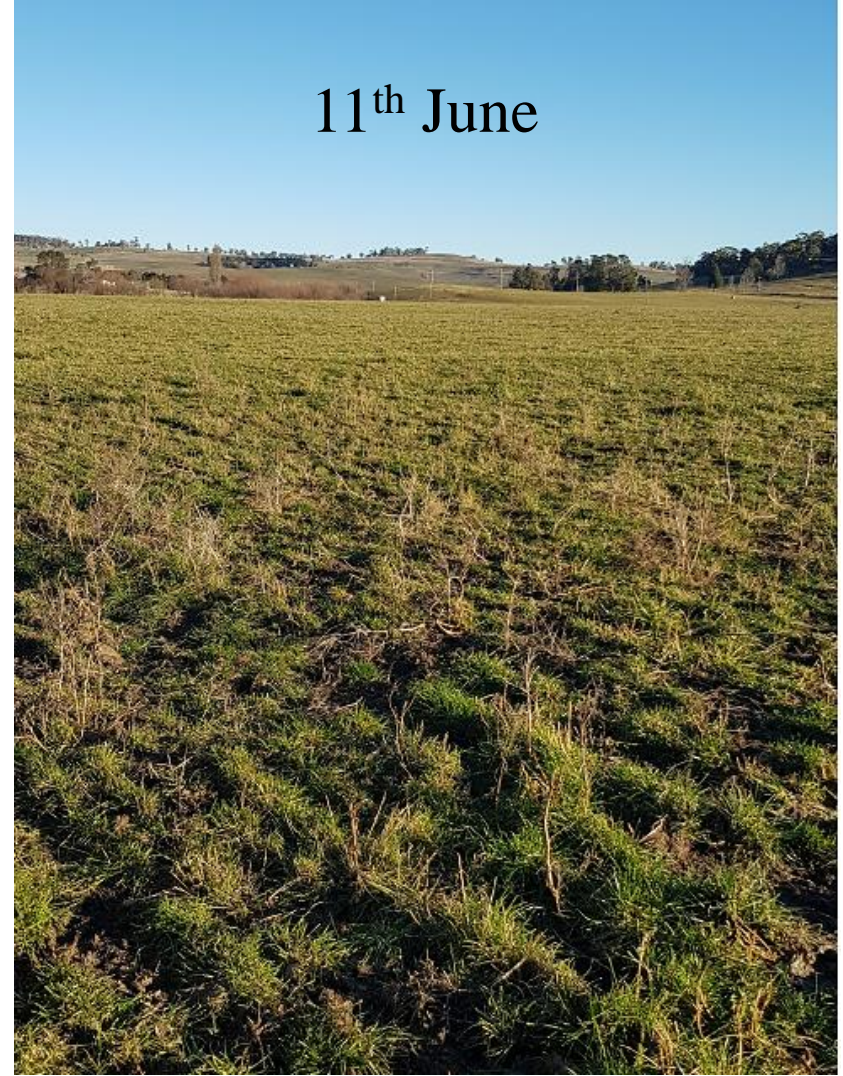


Bibbenluke Pasture

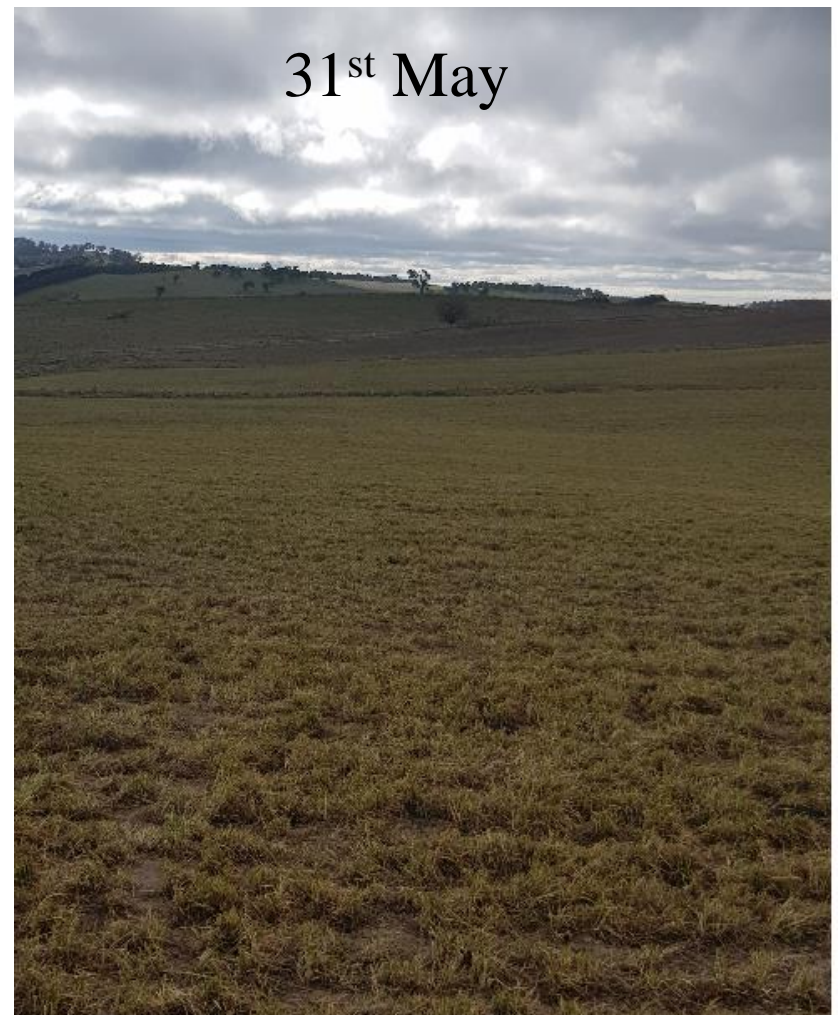
10th May



11th June



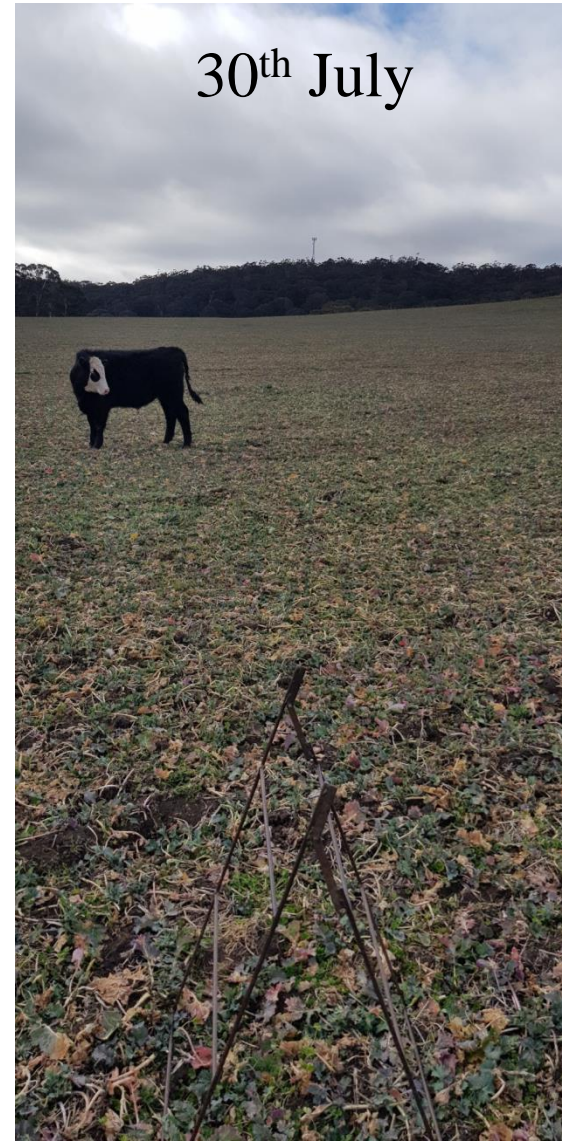
Mila Wheat



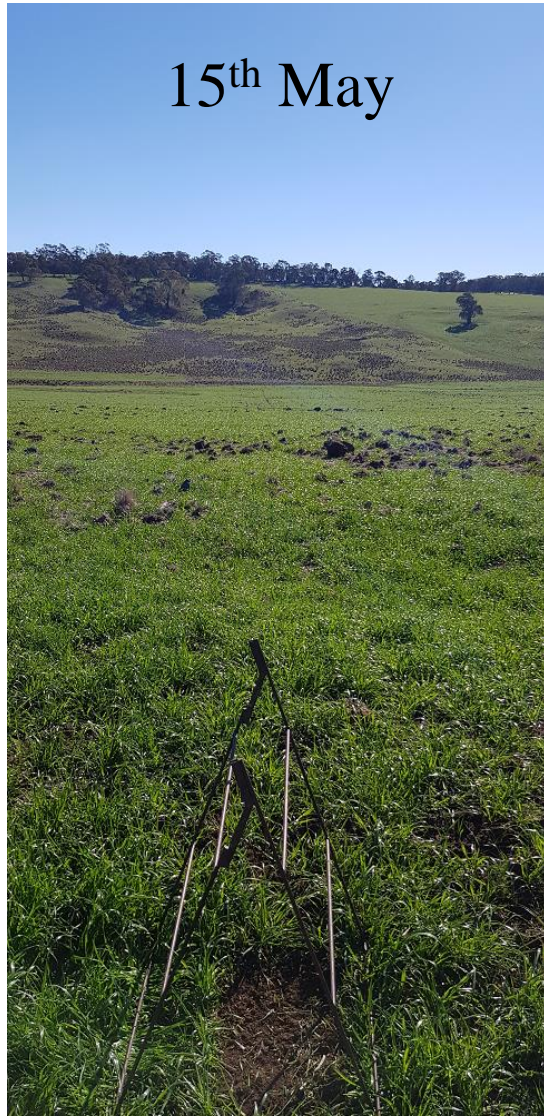
Cathcart Oats



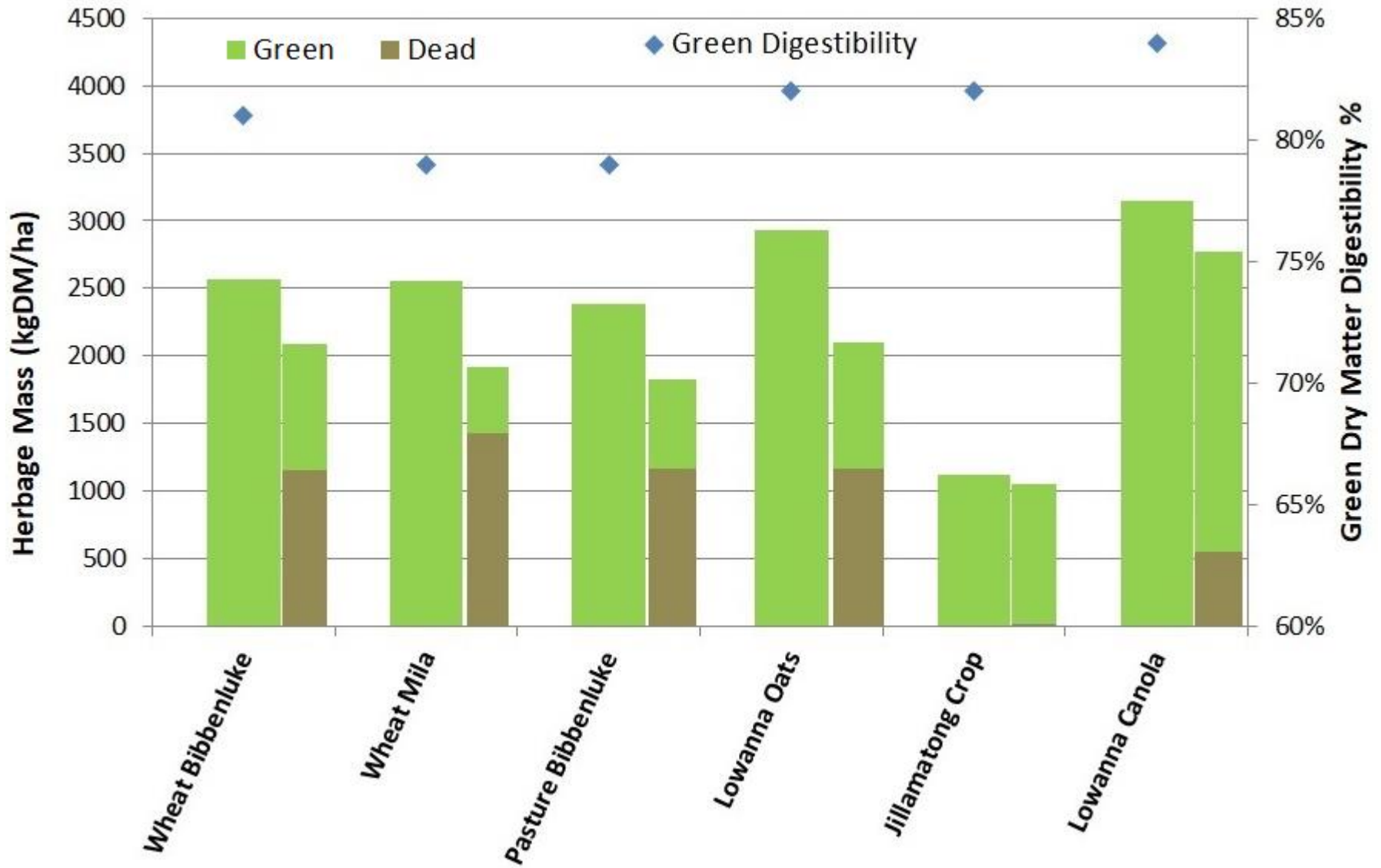
Cathcart Canola



Jillamatong Crop



Herbage Summary



Steer Performance

- Not all data is in.

	Bibbenluke		Mila	Cathcart		Jillamatong
	Wheat	Pasture	Wheat	Oats	Canola	
Kg/h/day	1.42	0.96	1.63	2.64*	1.24	
Total kg Gain	1710	1276	2592	5227	2544	
Gain kg/ha						

* Lightweight dry cows regaining weight