Uncertain Times Workshop One

Cam Nicholson

Nicon Rural Services

Our aim:

*To equip you with the **knowledge** and **tools** to plan and make good decisions over the next 9 months.*

This project is supported by Southern Farming Systems through funding from the Australian Government's Future Drought Fund and Meat & Livestock Australia.

Workshop 1

Part 1. Calculate our feed and water needs over the next 9 months

1. *What do we want left?*

2. *What pasture do we currently have? (ways to estimate this)*

3. *What is likely to grow? (ways to estimate this)*
   a) *What drives pasture growth*
   b) *Historic pasture growth patterns*
   c) *Future predictions of pasture growth*
      - *Rain forecasts (information sources)*
      - *Soil moisture and temperature (information sources)*

4. *What are we going to eat (ways to estimate this)*

Do we run out of feed and/or water? (a tool to calculate this)

Workshop 1

Part 2. Do we retain or sell stock knowing our anticipated feed and water position?

1. *Some decision making **theory***
2. *A **process** to help decide if we retain or sell stock (approach to do this)*
3. *An **example** to work through*

Spring & summer pasture quantity budget

NAB Business Everyday Account
For further information call the
Business Servicing Team on 13 10 12

Pasture at start

Account Balance Summary

Opening balance	$157,381.33	Cr
Total credits	$17,048.28	
Total debits	$70,089.00	
Closing balance	**$104,340.61**	**Cr**

Pasture growth

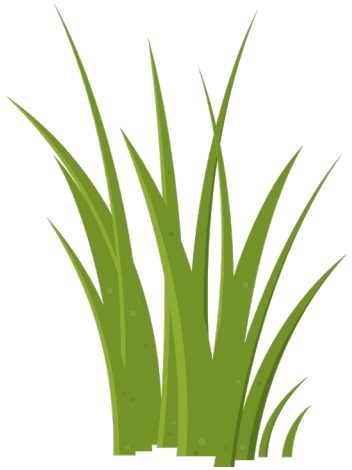
Animal consumption (eat)

Statement starts 1 January 2021
Statement ends 29 January 2021

Time period

Pasture at end

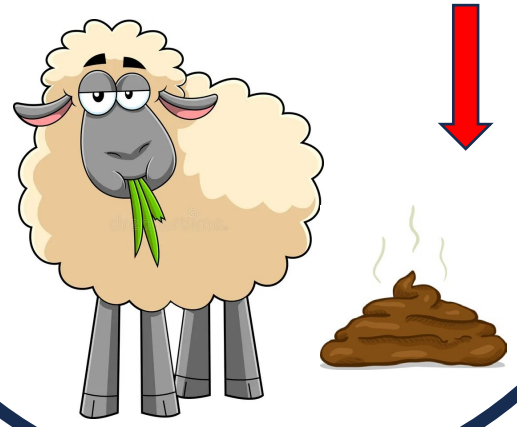
Spring & summer pasture quantity budget

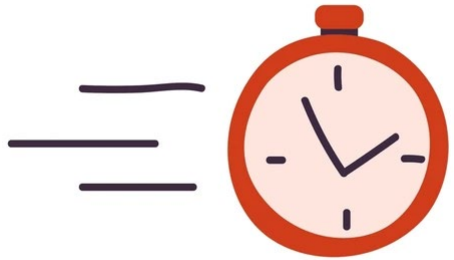


3. Pasture at start

4. Pasture growth

5. Animal consumption (eat) & wastage





1. Time period

2. Pasture at end

Feed budgets are a tool to inform a decision.

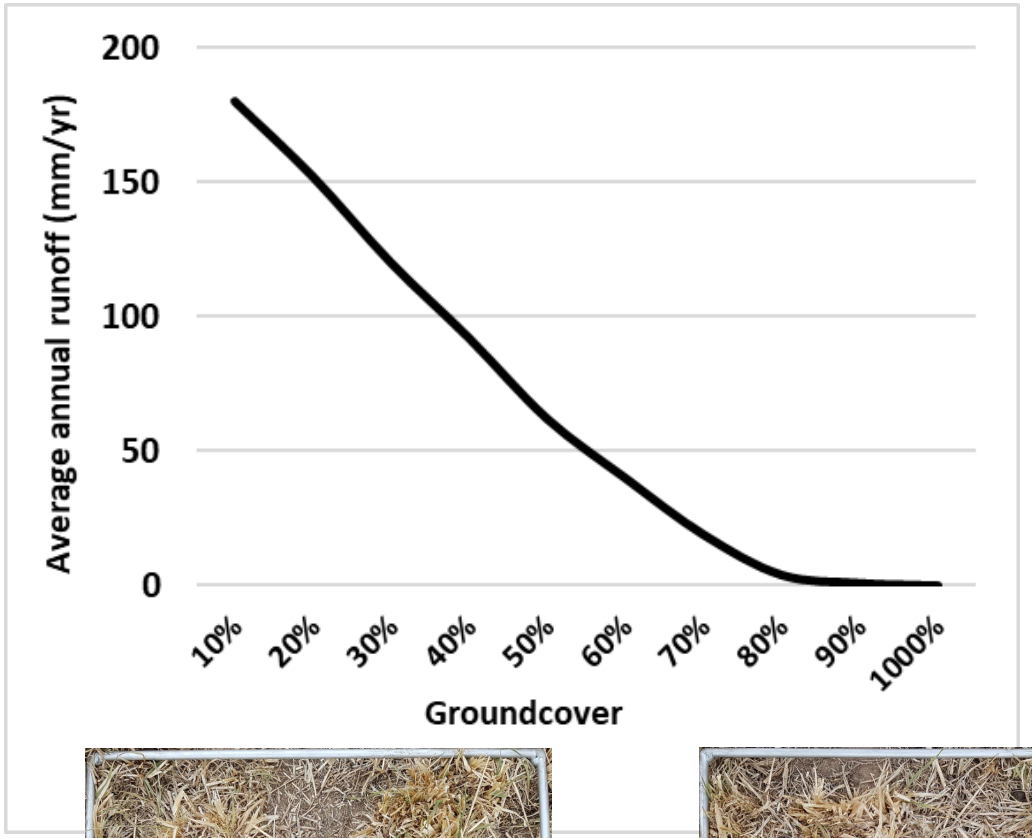
They are not a decision in themselves!

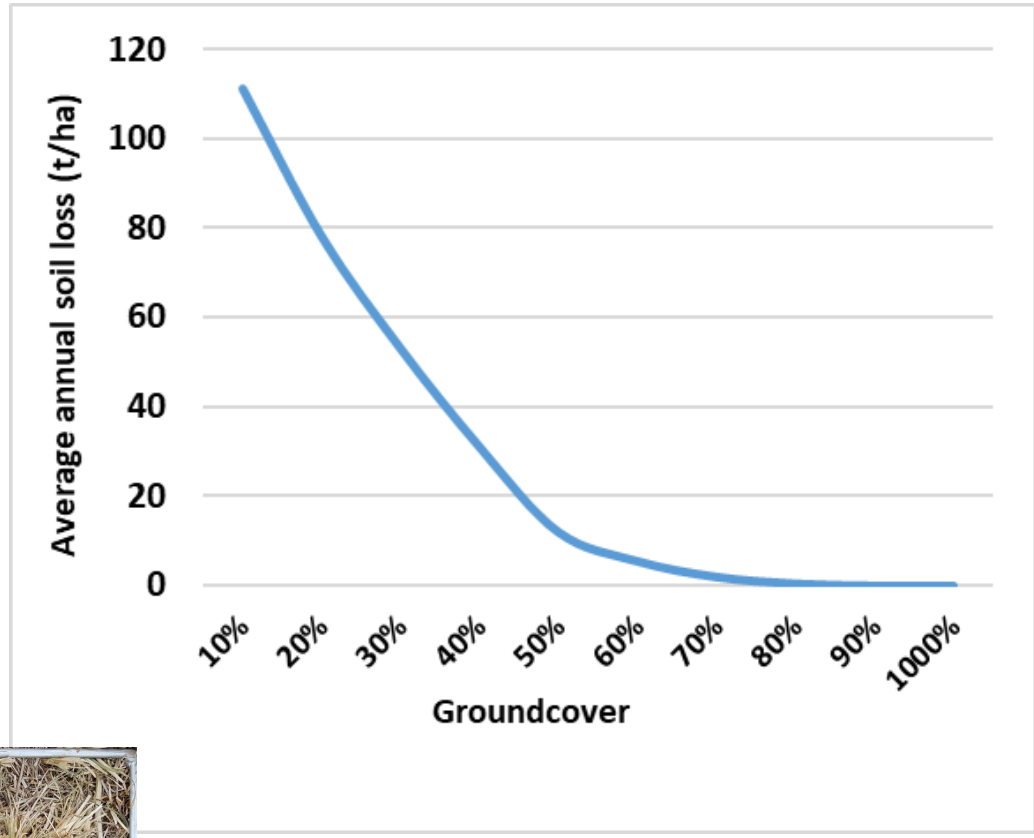
Step 2. What pasture do we want left? (some considerations)

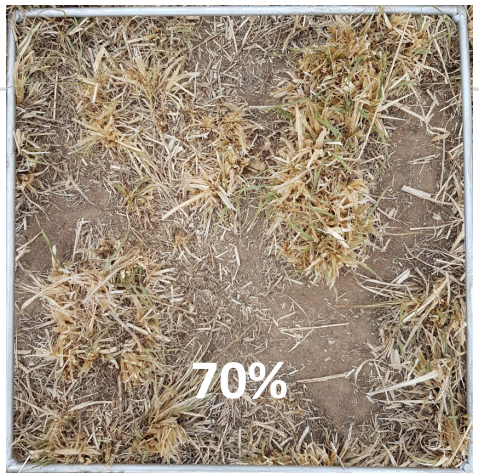
Protect the growing points of new tillers

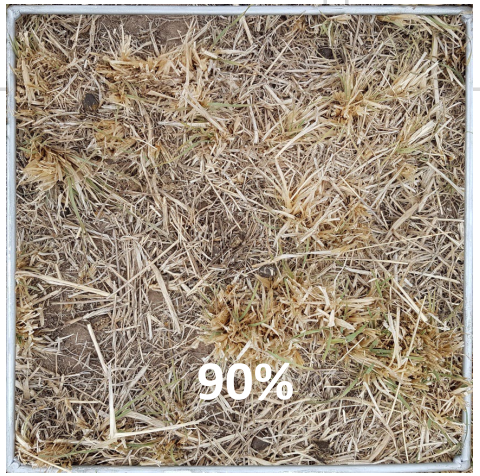
Step 2. What pasture do we want left? (some considerations)

Protect the soil (groundcover)









Step 2. What pasture do we want left? (some considerations)

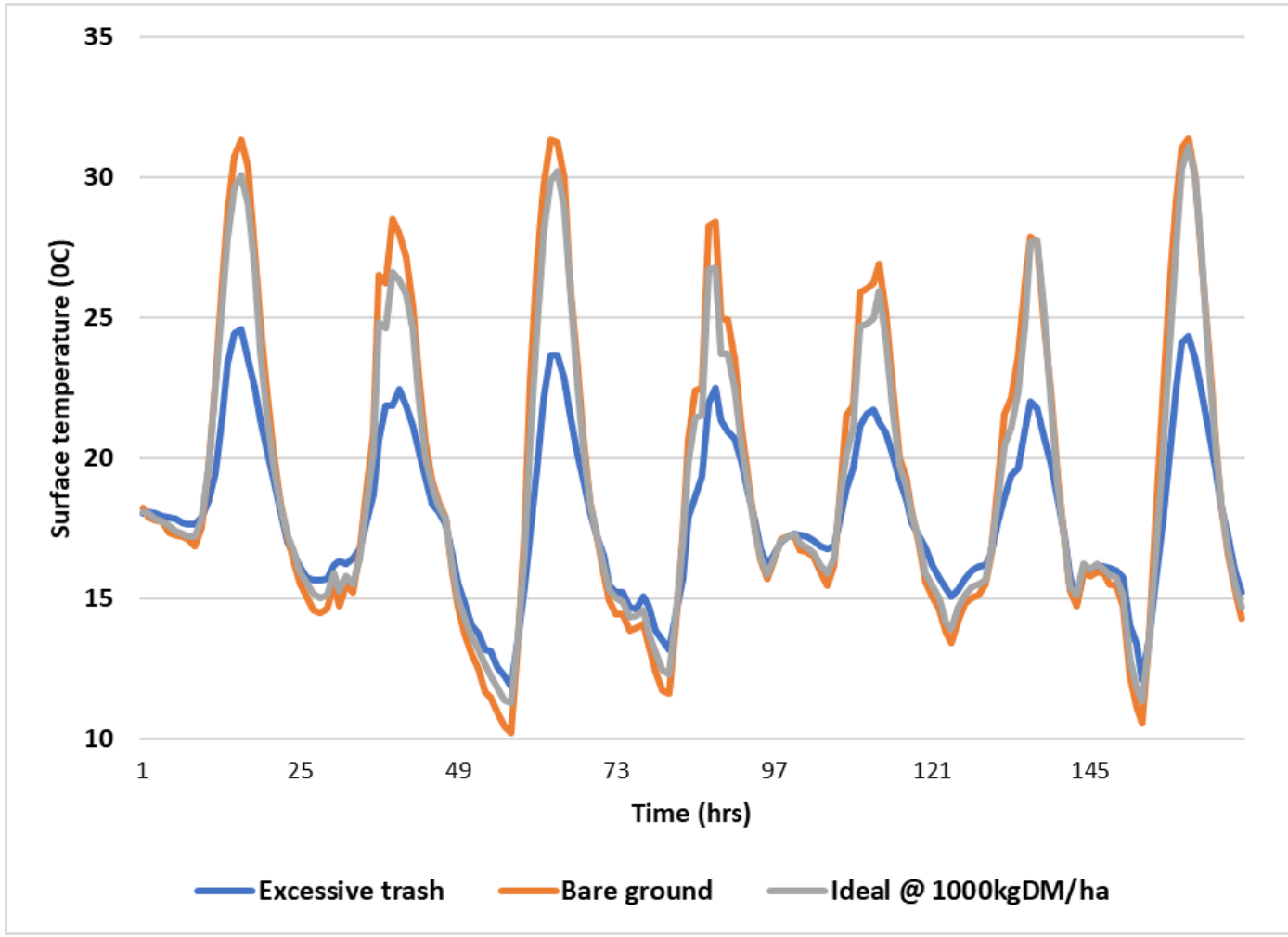
Protect the soil (groundcover)

2 ‘handfuls’ of litter ~ 1000 kg/ha

Step 2. What pasture do we want left? (some considerations)

Sub clover germination and establishment

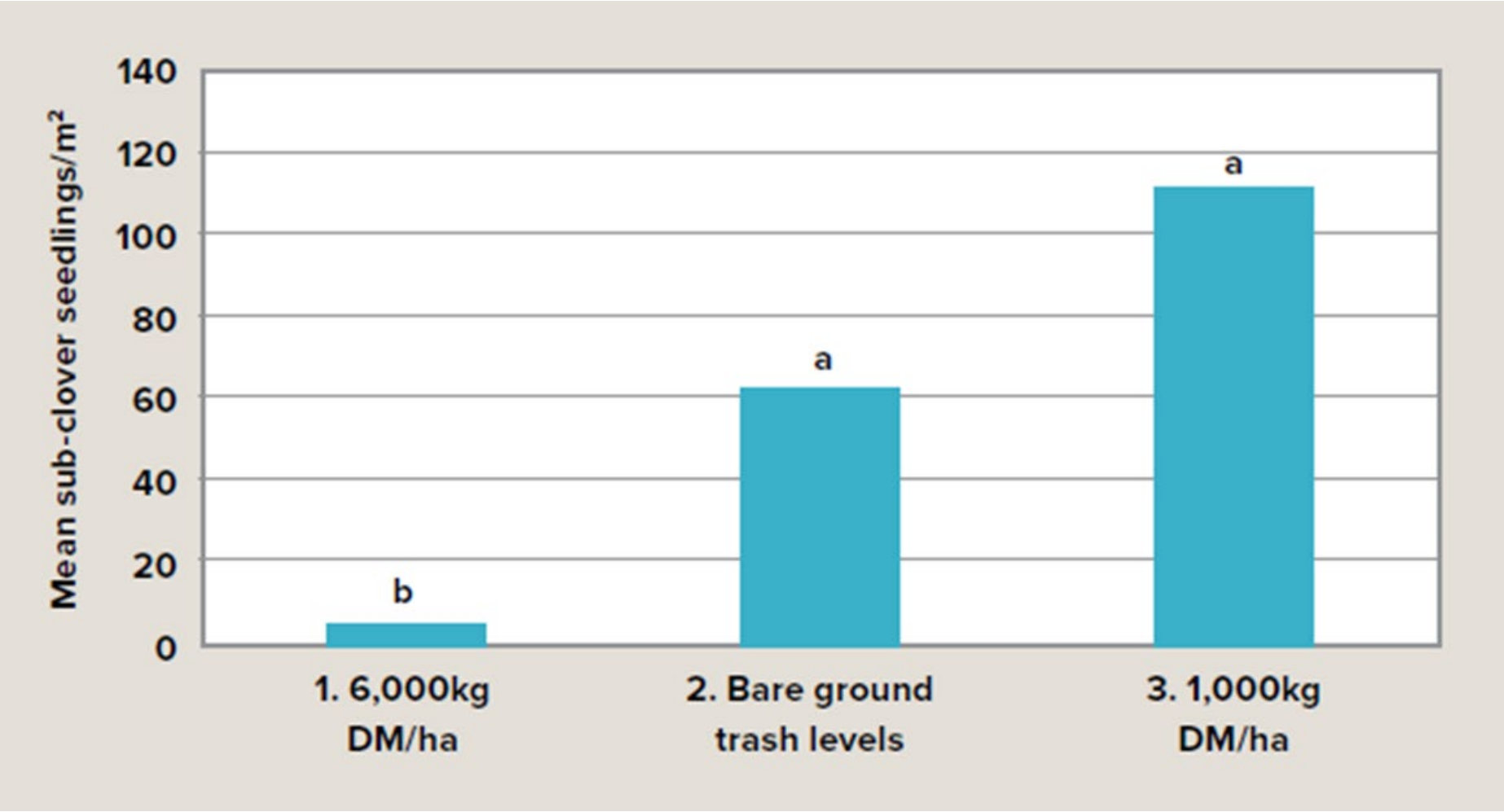
Hourly temperature fluctuations at soil surface (March 27 to April 4)



Source: Jess Brodgen, Southern Farming Systems

Step 2. What pasture do we want left? (some considerations)

Sub clover germination and establishment



Source: Jess Brodgen, Southern Farming Systems

Step 2. What pasture do we want left? (some considerations)

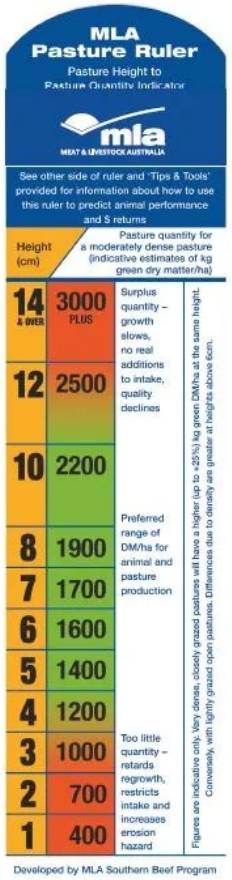
Reproductive tiller management

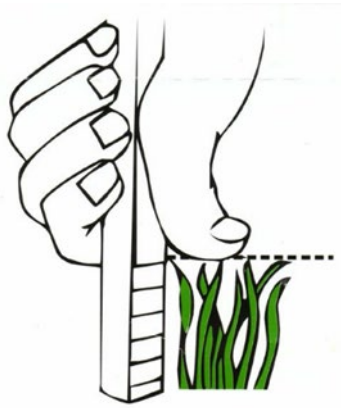
Set end pasture at:

- *~1000 kg/ha (safe)*
- *~800 kg/ha (level or heavy textured soils, good perennial grass base)*
- *~1000+ kg/ha (light textured soils, sloping)*

Step 3. What pasture do we currently have? (ways of estimation)

MLA pasture ruler

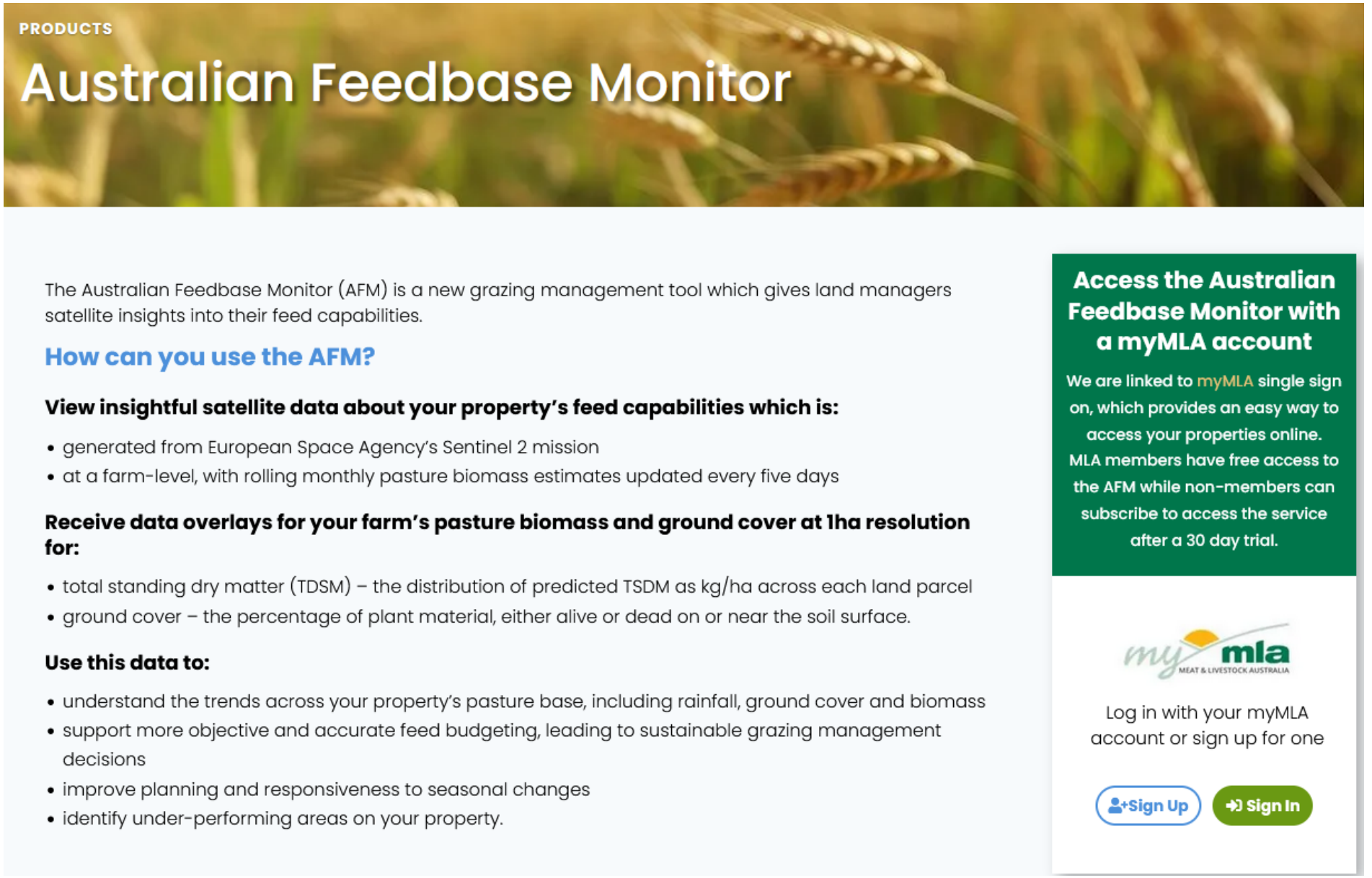




Height (cm)	Open, mainly upright growing, more grasses	'Typical' Pasture (kg/ha)	Dense, species 'creeping' along ground due to heavy grazing - more broadleaf	Cereals e.g. wheat, barley
1	250	400	500	
2	450	700	800	75
3	650	1000	1100	
4	800	1200	1400	175
5	1000	1400	1700	
6	1150	1600	2000	275
7	1300	1750	2300	
8	1450	1900	2600	375
9	1600	2000	2800	
10	1700	2100	3000	500
11	1800	2200	3200	
12	2000	2300	3400	625

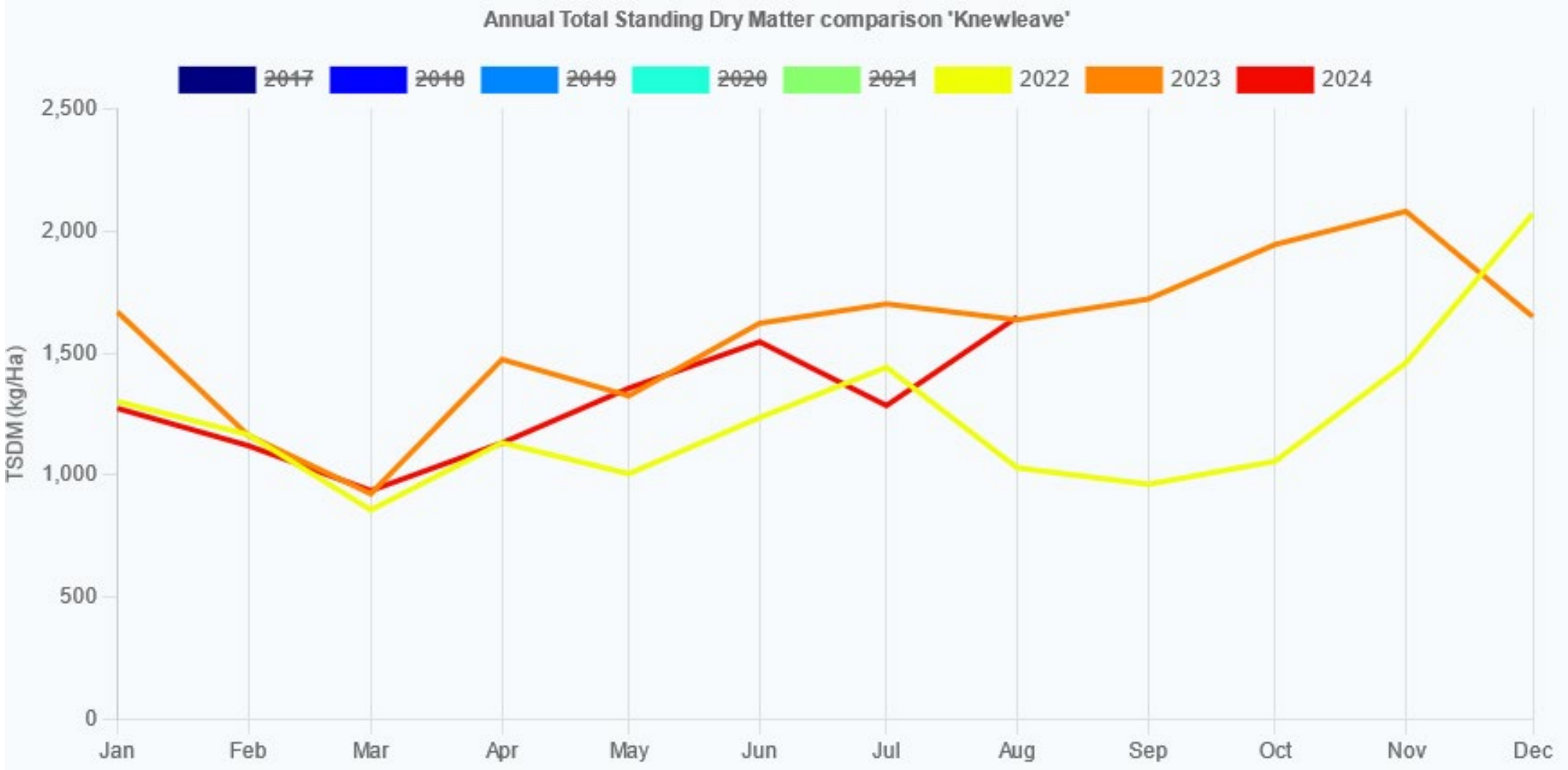
Step 3. What pasture do we currently have? (ways of estimation)

AFM



Step 3. What pasture do we currently have? (ways of estimation)

AFM



Step 4. What is likely to grow?

The amount of pasture you grow (pasture growth rate) is a combination of:

1. How **quickly** new leaves emerge on a tiller (or branch)

Zone	Driver	Season			
		Summer	Autumn	Winter	Spring
Temperate	Moisture	X	√[1]	√	√√
	Temperature	√	√	X	√√

2. How **big** each of those leaves becomes

Nitrogen ‘rules’

To growing pasture - moisture and leaf area

To well fertilised pasture

To pastures with responsive species

To pastures you are prepared to spell for at least 4 weeks

On the right paddock we can expect

- **5 to 10** kg of DM/ha for every kg on N used in **winter**.

- **25 to 30** kg of DM/ha for every kg on N used in **spring**.

So 50 kg/ha of N (110 kg/ha urea) should grow an extra 1250 - 1500 kg/ha of DM

Step 4. What is likely to grow?

3. How **many tillers** (or branches) you have per plant (perennial / annual)

4. How **many plants** you have in an area (density)

5. How long the plants stays **vegetative**.

Step 4. What is likely to grow? (ways of estimation)

Can we pick what our pasture growth rate?

May be

Step 4. What is likely to grow? (ways of estimation)

Evergraze

Table 46. Growth rates (kg/ha/day) for perennial ryegrass, phalaris and clover with fertiliser in South West Upper, Victoria (Balmoral)

	Growth rates (kg/ha/day)											
	J	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Per ryegrass, phalaris, clover, Fert – Poor year	0	0	0	4	8	11	13	25	39	49	42	4
Per ryegrass, phalaris, clover, Fert – Stnd year	0	0	0	6	12	16	18	35	55	70	60	5
Per ryegrass, phalaris, clover, Fert – Good year	0	0	5	20	20	25	25	40	65	100	70	30

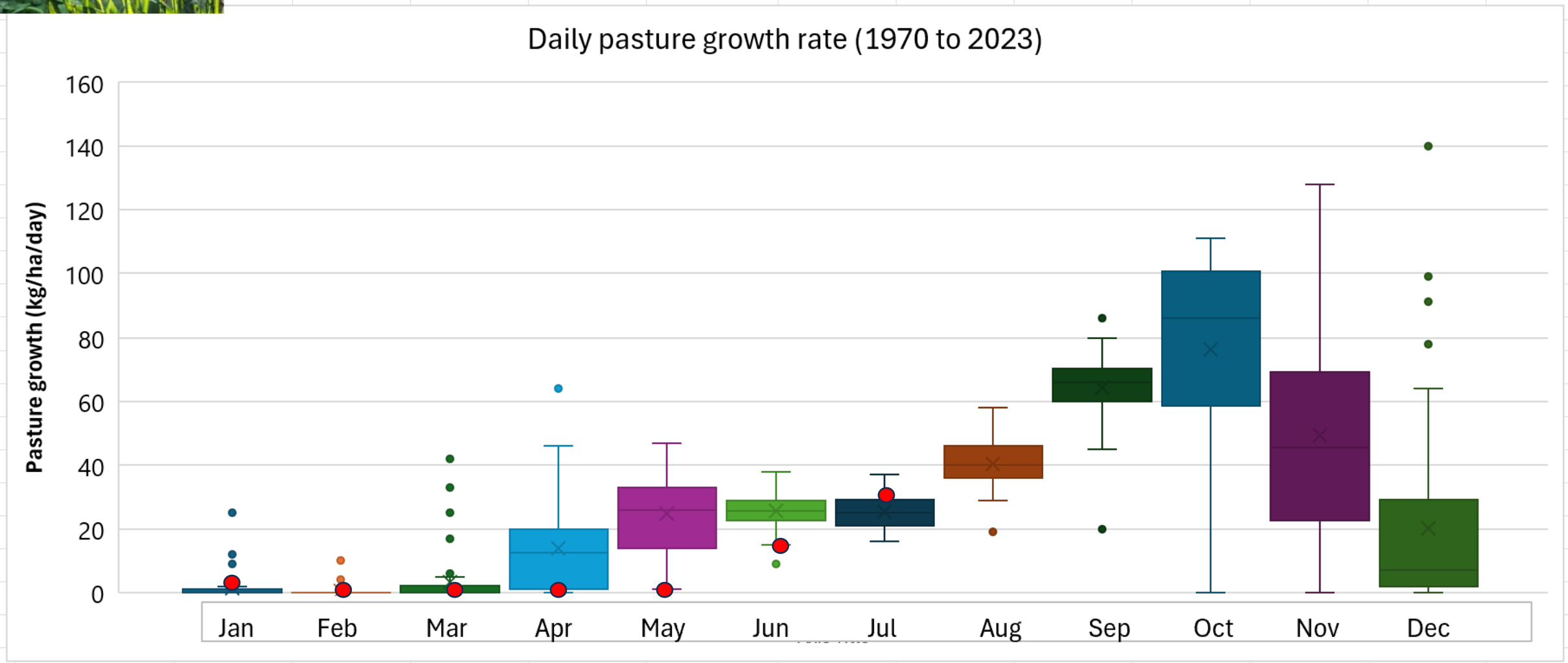
Table 47. Growth rates (kg/ha/day) for annuals, onion grass, low clover with fertiliser in South West Upper, Victoria (Balmoral)

	Growth rates (kg/ha/day)											
	J	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Annuals, onion grass, low clover, Fert – Poor Year	0	0	0	6	11	14	11	21	28	35	32	1
Annuals, onion grass, low clover, Fert – Stnd year	0	0	0	8	15	20	15	30	40	50	45	2
Annuals, onion grass, low clover, Fert – Good Year	0	0	5	15	20	20	20	35	45	70	50	10

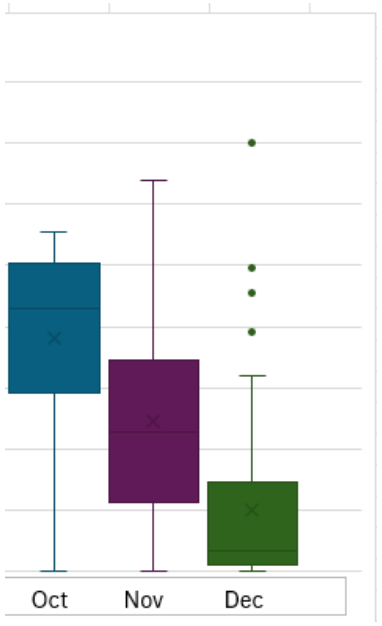
https://www.evergraze.com.au/library-content/regional-pasture-growth-rates

Step 4. What is likely to grow? (ways of estimation)

Harrow



Step 4. What is likely to grow? (ways of estimation)



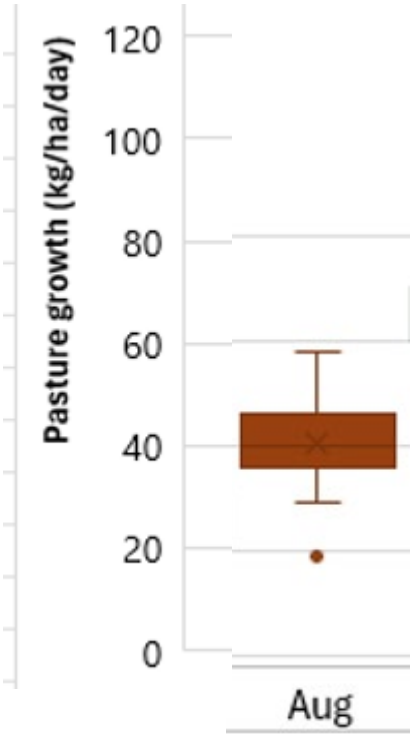
Harrow

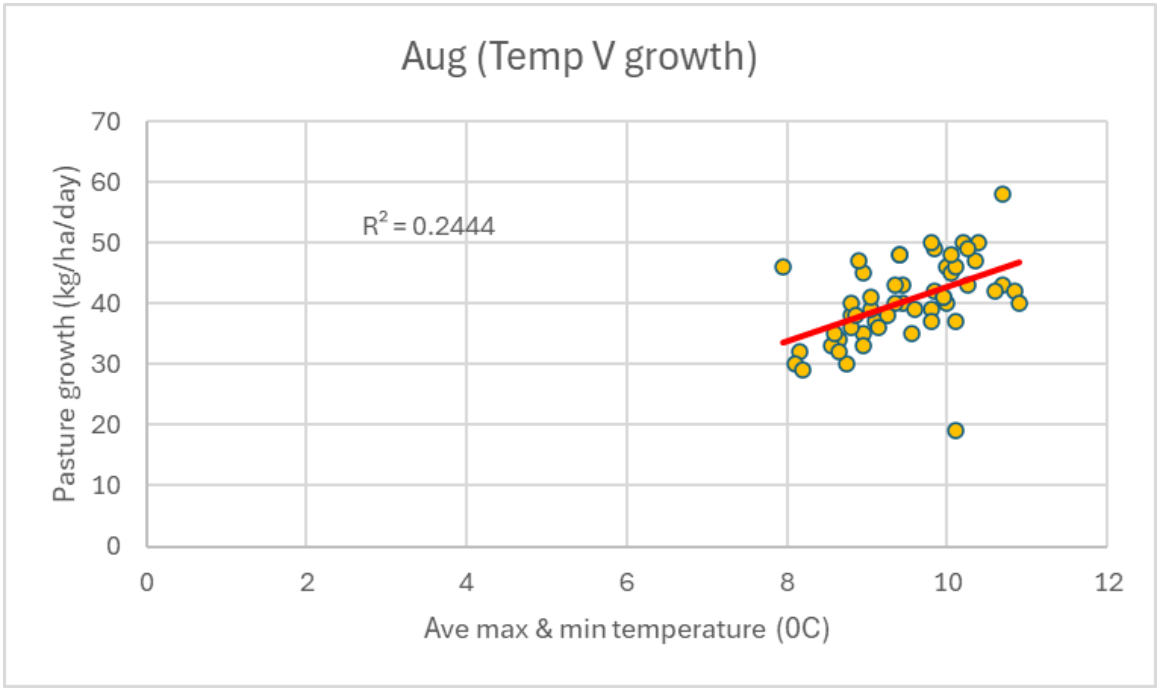
Main pasture growth driver			
Month	Ave max & min temp	PAW	Prev mth R'fall
Jan			
Feb			
Mar		Y	Y
Apr		Y	Y
May		Y	Y
Jun			
Jul	Y		
Aug	Y		
Sep		Y	Y
Oct		YY	Y
Nov		YY	Y
Dec		Y	

Step 4. What is likely to grow? (ways of estimation)

Harrow

Main pasture growth driver			
Month	Ave max & min temp	PAW	Prev mth R'fall
Jan			
Feb			
Mar		Y	Y
Apr		Y	Y
May		Y	Y
Jun			
Jul	Y		
Aug	Y		
Sep		Y	Y
Oct		YY	Y
Nov		YY	Y
Dec		Y	



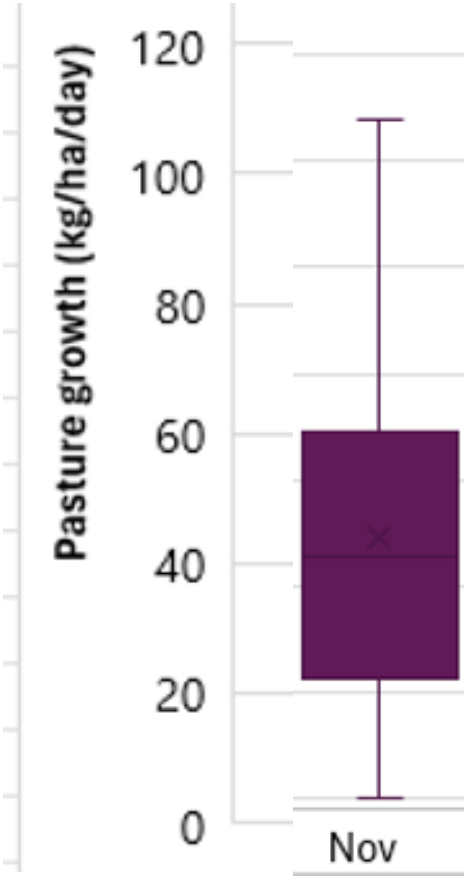


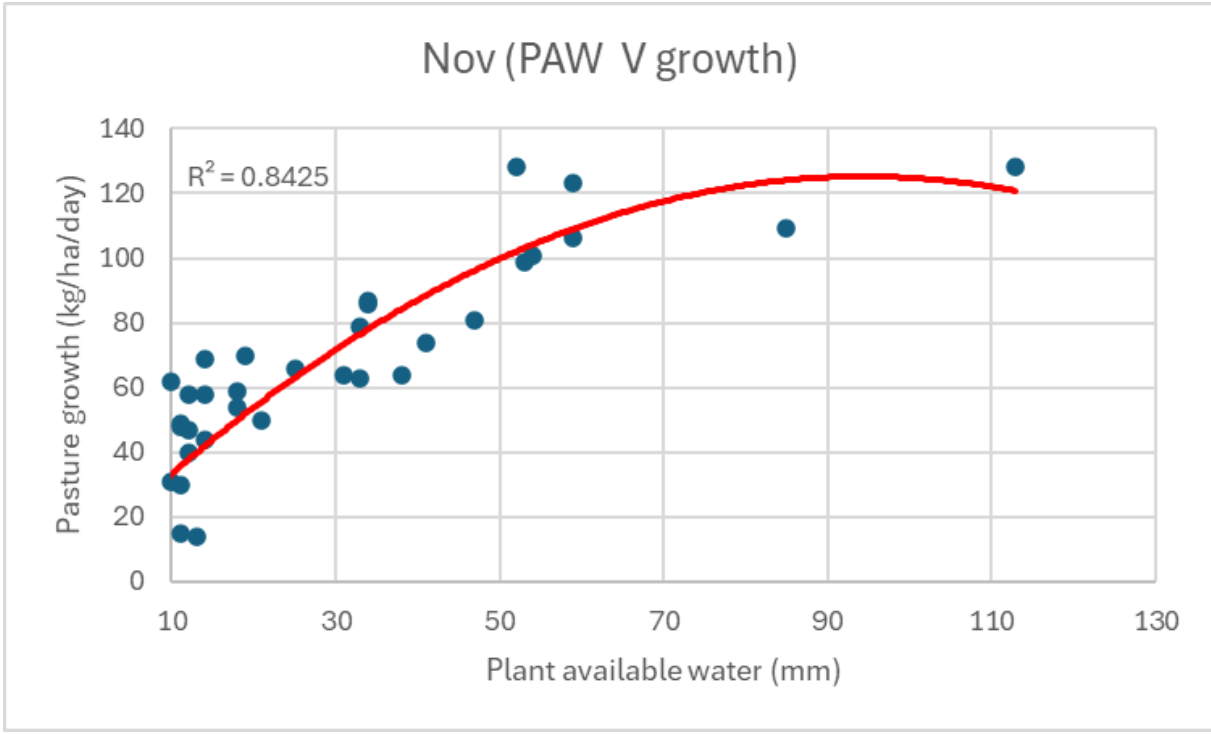
Source: Monthly max and min temps, seasonal forecasts

Step 4. What is likely to grow? (ways of estimation)

Harrow

Main pasture growth driver			
Month	Ave max & min temp	PAW	Prev mth R'fall
Jan			
Feb			
Mar		Y	Y
Apr		Y	Y
May		Y	Y
Jun			
Jul	Y		
Aug	Y		
Sep		Y	Y
Oct		YY	Y
Nov		YY	Y
Dec		Y	



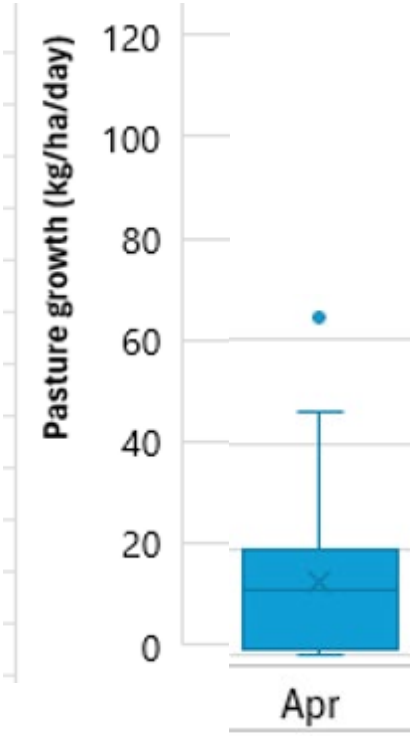


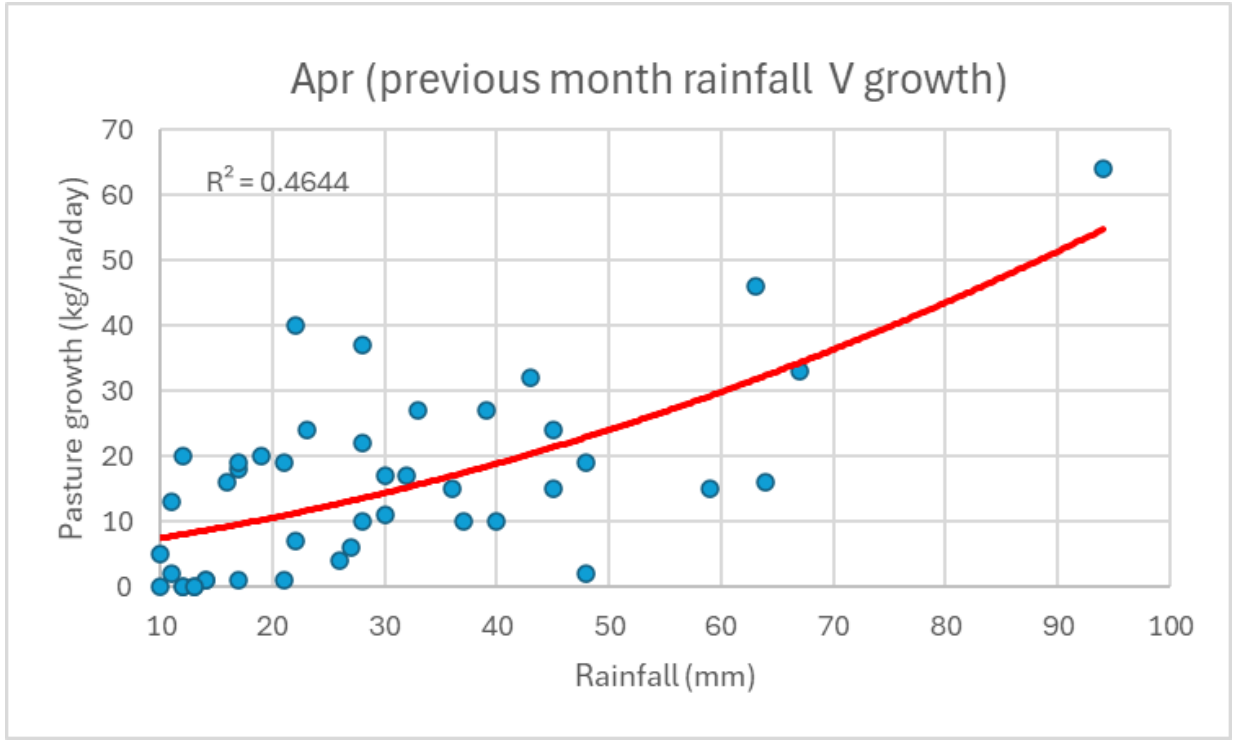
Source: Soil moisture probes

Step 4. What is likely to grow? (ways of estimation)

Harrow

Main pasture growth driver			
Month	Ave max & min temp	PAW	Prev mth R'fall
Jan			
Feb			
Mar		Y	Y
Apr		Y	Y
May		Y	Y
Jun			
Jul	Y		
Aug	Y		
Sep		Y	Y
Oct		YY	Y
Nov		YY	Y
Dec		Y	





Source: Seasonal forecasts

Step 4. What is likely to grow? (ways of estimation)

Other feed sources

Table 42. Growth rates (kg/ha/day) for chicory, clover and annuals with fertiliser in South West Victoria (Hamilton)

	Growth rates (kg/ha/day)											
	J	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Chicory, clover, annuals, Fertiliser – Stnd year	9	8	17	15	22	29	22	46	60	50	30	20

Table 43. Growth rates (kg/ha/day) for winter active lucerne and annuals with fertiliser in South West Victoria (Hamilton)

	Growth rates (kg/ha/day)											
	J	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Lucerne winter active, annuals, Fert – Poor year	9	9	8	7	13	23	26	38	45	53	20	10
Lucerne winter active, annuals, Fert – Stnd year	17	18	15	14	25	30	35	50	60	70	40	20
Lucerne winter active, annuals, Fert – Good year	26	27	23	21	38	38	44	63	75	88	60	30

Step 4. What is likely to grow? (ways of estimation)

Other feed sources

Summer fodder crops

Moisture conditions	Growth rates (kg DM/ha/day)				
	Nov	Dec	Jan	Feb	Mar
Unlimiting moisture	30-85	30-75	30-60	20-40	20-30
Moisture limiting	5-20	5-20	5-20	5-15	5-12

Stubbles

PGR equivalent = 1.7 to 3.4 kg/ha/day only for the month grazed.

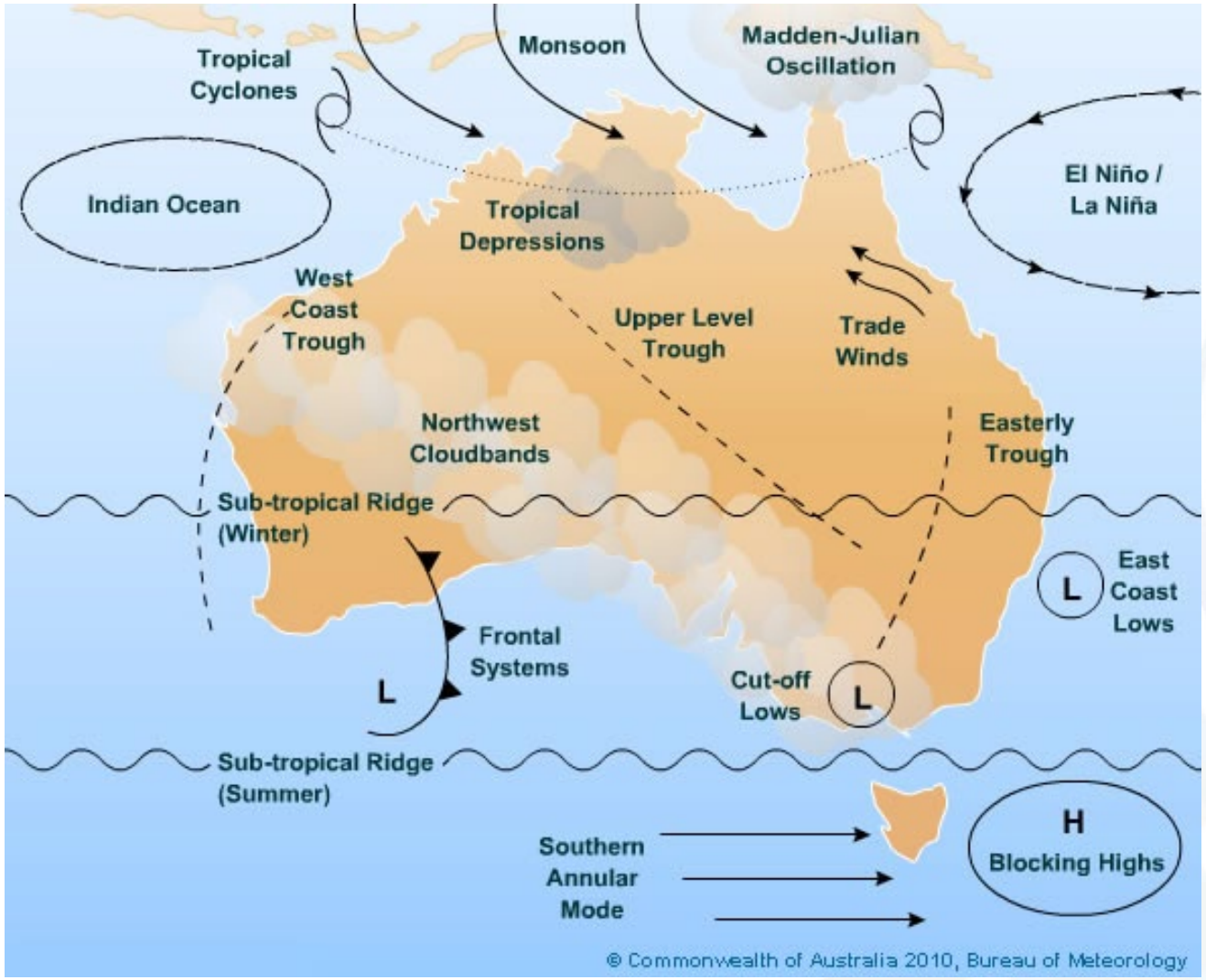
Step 4. What is likely to grow? (ways of estimation)

The two biggest influences on growth will be:

- Rainfall
- Temperature

Step 4. What is likely to grow? (ways of estimation)

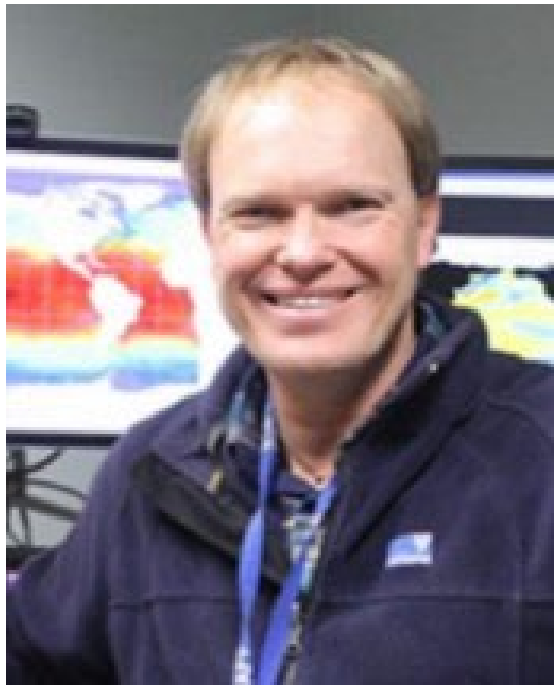
Australian Climate Influences



Step 4. What is likely to grow? (ways of estimation)

Climate Information & Forecasts

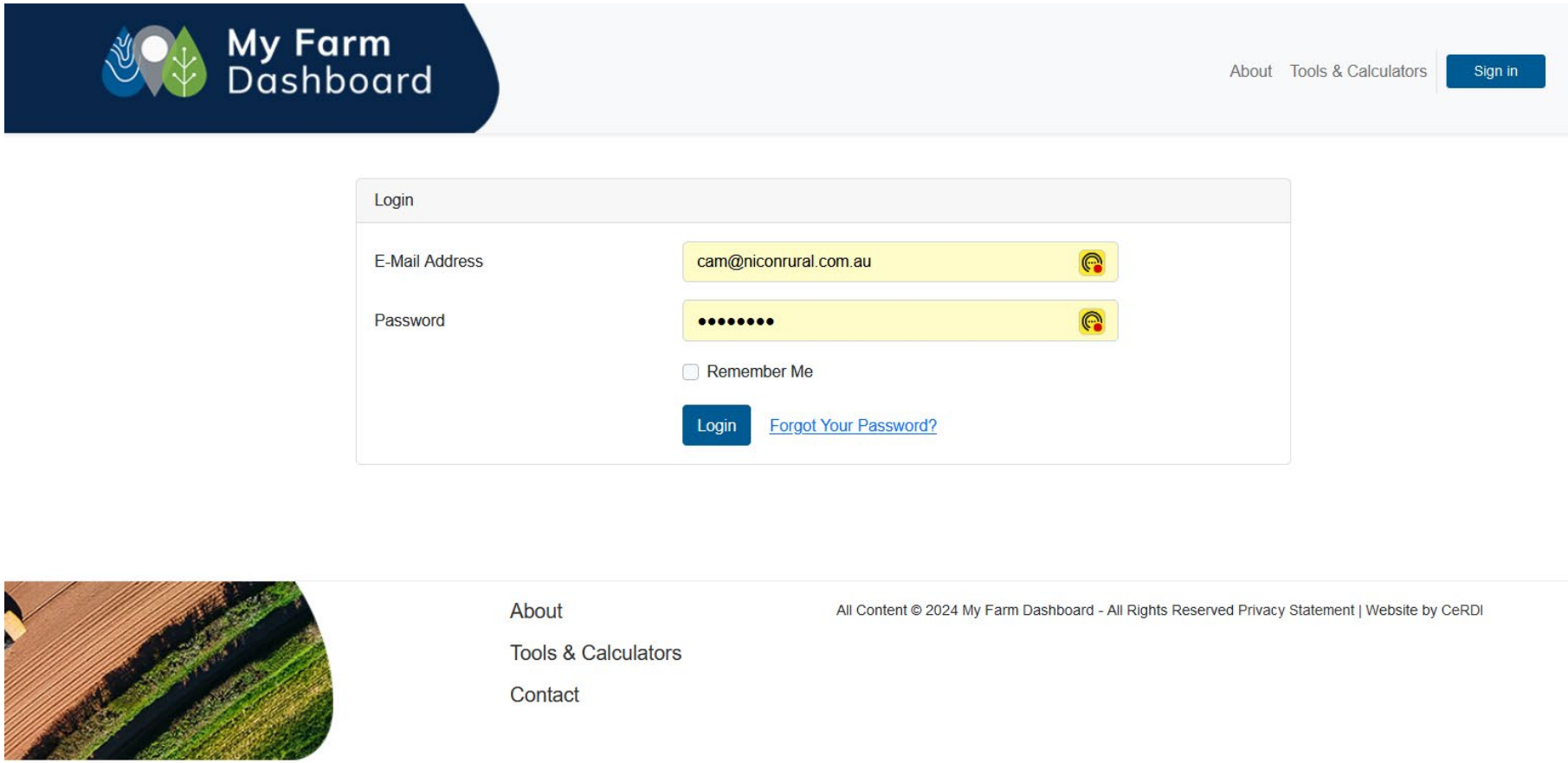
Dale Grey, Agriculture Victoria – Seasonal Risk Agronomist



AGRICULTURE VICTORIA

Step 4. What is likely to grow? (ways of estimation)

My Farm Dashboard



Step 4. What is likely to grow? (ways of estimation)

Seasonal forecast location **2.8km from farm**

Now to next 30 days

Average

To 17 September

Tercile	Historical	Model
Drier	19-44mm	18%
Avg	44-58mm	58%
Wetter	58-116mm	24%

Confidence for September at location **Medium**

Now to next 60 days

Inconclusive

To 18 October

Tercile	Historical	Model
Drier	52-88mm	45%
Avg	88-112mm	33%
Wetter	112-163mm	21%

Confidence for October at location **Medium**

Now to next 90 days

Inconclusive

To 18 November

Tercile	Historical	Model
Drier	98-125mm	45%
Avg	125-171mm	42%
Wetter	171-247mm	12%

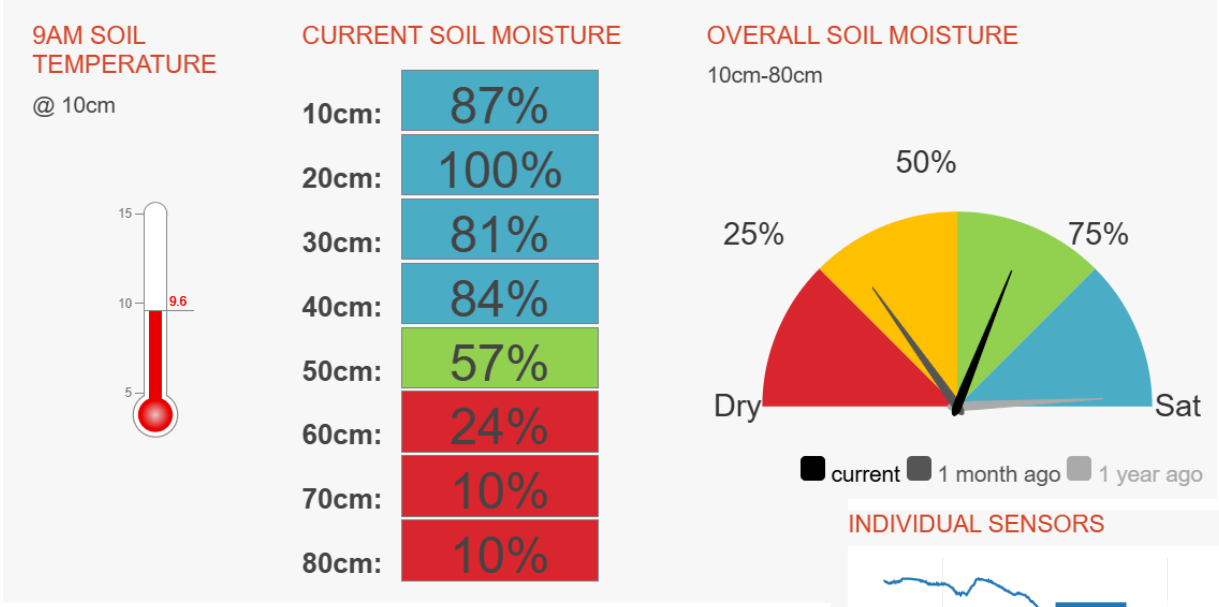
Confidence for November at location **Medium**

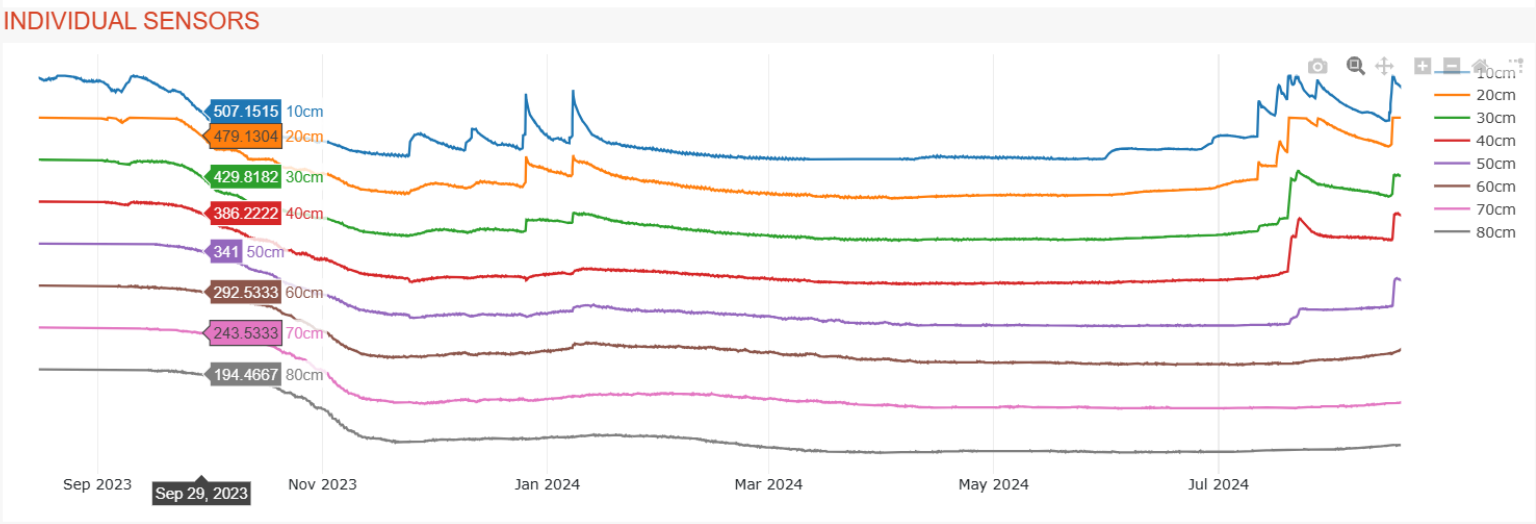
Soil Moisture Probe Data & Networks

- How to access:
  - Agriculture Victoria Pasture Soil Monitoring Sites https://extensionaus.com.au/soilmoisturemonitoring
  - Southern Farming Systems Monitoring Sites through My Farm Dashboard

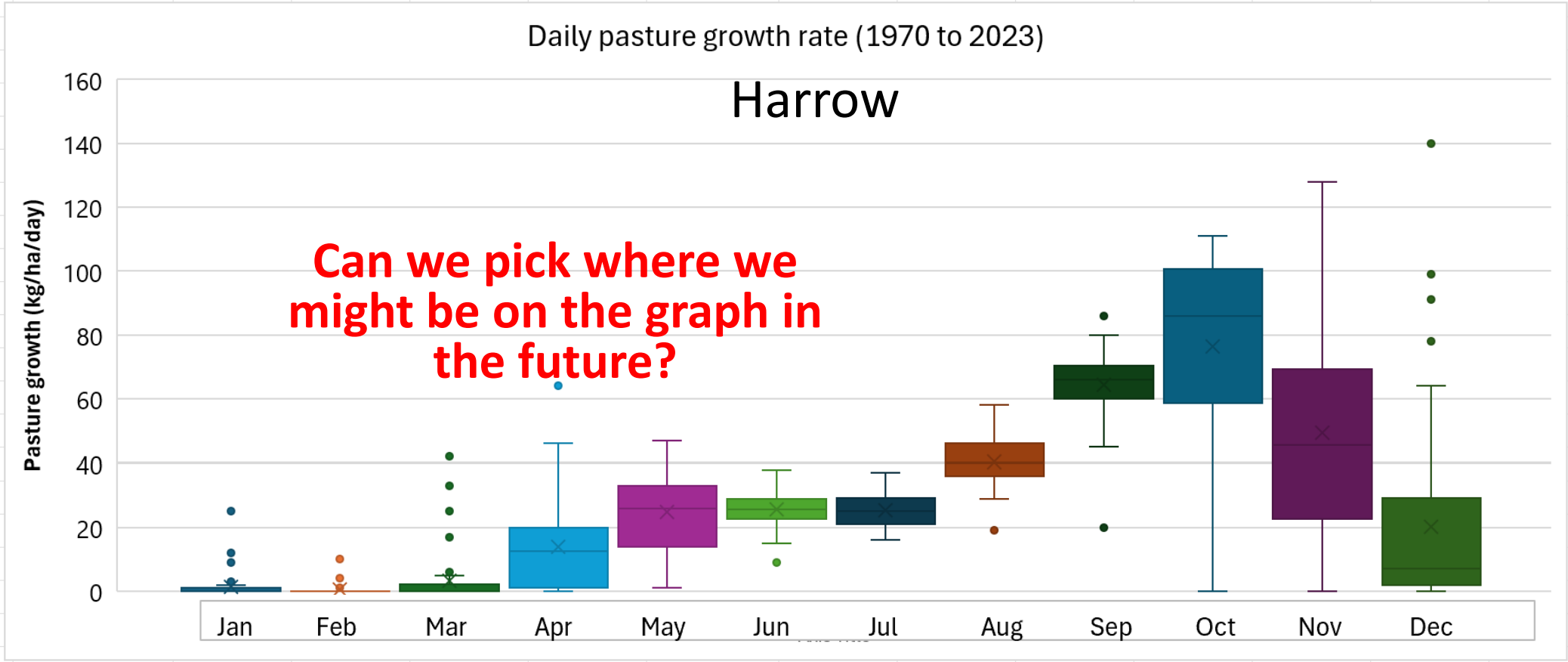
Step 4. What is likely to grow? (ways of estimation)

Soil Moisture Probe Outputs



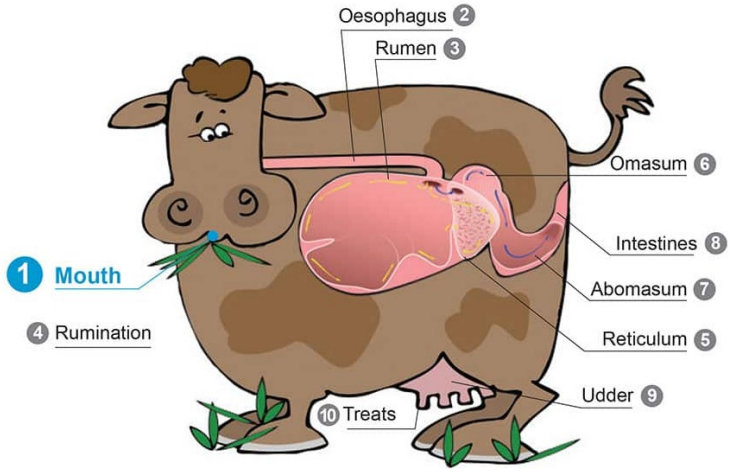


Step 4. What is likely to grow? (ways of estimation)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average 'X'	1	1	3	14	25	26	25	40	64	76	49	20
Highest	25	10	42	64	47	38	37	58	86	111	128	140
Lowest	0	0	0	0	1	9	16	19	20	0	0	0
Decile 2.5	0	0	0	1	14	23	21	36	60	60	24	2
Median '-'	0	0	0	13	26	26	25	40	66	86	46	7
Decile 7.5	1	0	2	20	33	29	29	46	70	100	68	29

Step 5. What the animals are likely to eat? (ways of estimation)



Animal intake is determined by:

- Feed on offer (quantity)
- Quality of the feed (digestibility)
- Type of animal (sex, mature size)
- Age (maturity)
- Physiological condition (dry, lactating, pregnant)

Table 7.2. Predicted daily intake of pasture by cows.

Livestock Category	Herbage Mass (kg DM/ha)																			
	500					1000					1800					2600				
	Pasture Digestibility (%)					Pasture Digestibility (%)					Pasture Digestibility (%)					Pasture Digestibility (%)				
	40	50	60	70	80	40	50	60	70	80	40	50	60	70	80	40	50	60	70	80
	kg/h/d					kg/h/d					kg/h/d					kg/h/d				
400 kg Cow when FS 3																				
Dry/late pregnancy (8 mths)	1.1	2.3	2.7	3.4	4.2	1.9	3.0	4.1	5.2	6.3	2.5	3.7	5.2	6.3	6.8	3.2	4.9	6.6	6.8	7.0
Early lactating (2 mths)*	1.8	4.0	4.7	5.5	6.4	3.1	4.8	6.6	8.0	9.3	4.4	5.2	7.1	9.5	10.1	5.2	6.9	8.6	10.0	10.4
Late lactation (5 mths)*	2.5	4.9	6.2	7.4	8.5	4.7	6.8	8.9	10.6	12.2	6.3	8.8	10.7	12.7	13.5	6.8	9.3	11.3	13.4	13.9
500 kg Cow when FS 3																				
Dry/late pregnancy (8 mths)	1.4	3.1	3.5	4.2	5.0	2.3	3.8	5.2	6.5	7.8	3.4	4.9	6.5	7.9	8.5	4.0	5.4	6.9	8.4	8.8
Early lactating (2 mths)*	2.2	4.8	5.5	6.8	8.2	3.8	6.0	8.2	9.9	11.6	5.5	7.7	10.0	11.8	12.5	6.4	8.6	10.7	12.4	12.9
Late lactation (5 mths)*	2.9	5.7	7.1	8.9	10.7	5.1	7.8	10.8	12.8	14.0	7.0	10.0	13.0	15.4	16.4	8.3	11.0	13.7	16.3	17.0
600 kg Cow when FS 3																				
Dry/late pregnancy (8 mths)	1.6	3.2	4.1	5.1	6.2	2.8	4.8	6.2	7.8	9.4	4.1	6.5	7.8	9.5	10.2	4.9	7.3	8.4	10.1	10.6
Early lactating (2 mths)*	2.7	5.2	6.6	8.1	9.7	4.5	7.7	9.9	11.8	13.5	6.6	10.2	12.0	14.2	15.0	7.7	11.4	12.8	14.9	15.5
Late lactation (5 mths)*	3.4	6.3	8.6	10.7	12.9	5.8	10.1	12.9	15.3	17.5	8.5	13.4	15.7	18.6	19.7	9.9	14.9	16.4	19.5	20.3
700 kg Cow when FS 3																				
Dry/late pregnancy (8 mths)	1.9	3.6	4.7	6.0	7.4	3.3	5.6	7.1	9.1	10.7	4.8	7.5	9.1	11.1	11.9	5.7	8.6	9.8	11.8	12.4
Early lactating (2 mths)*	3.1	5.9	7.7	9.4	11.1	5.3	9.0	11.5	13.7	15.9	7.7	11.9	14.0	16.5	17.5	9.0	13.3	14.9	17.4	18.0
Late lactation (5 mths)*	4.0	7.2	9.9	12.3	14.7	6.7	11.6	14.9	16.6	18.3	9.7	15.4	17.9	21.1	22.6	11.4	17.2	18.9	22.4	23.4

* For lactating cows, an allowance has been made for the pasture intake of their calves.

Table 7.1. Predicted daily intake of pasture by ewes.

Livestock Category	Herbage Mass (kg DM/ha)														
	500					1000					1500				
	Pasture Digestibility (%)					Pasture Digestibility (%)					Pasture Digestibility (%)				
	40	50	60	70	80	40	50	60	70	80	40	50	60	70	80
	kg/h/d					kg/h/d					kg/h/d				
40 kg Ewe when FS 3															
Dry or pregnant	0.2	0.4	0.6	0.7	0.9	0.3	0.5	0.8	1.0	1.1	0.4	0.5	0.8	1.1	1.2
Lactating – singles*	0.4	0.7	0.9	1.2	1.4	0.6	0.8	1.3	1.6	1.8	0.7	0.9	1.4	1.7	1.9
Lactating – twins*	0.5	0.8	1.0	1.3	1.5	0.7	0.9	1.5	1.8	1.9	0.8	1.0	1.7	2.0	2.1
50 kg Ewe when FS 3															
Dry or pregnant	0.3	0.5	0.7	0.9	1.2	0.4	0.6	1.0	1.2	1.3	0.6	0.7	1.1	1.3	1.4
Lactating – singles*	0.5	0.9	1.1	1.4	1.9	0.8	1.0	1.6	1.9	2.1	0.9	1.0	1.7	2.0	2.2
Lactating – twins*	0.6	1.0	1.3	1.6	2.0	0.9	1.1	1.9	2.2	2.3	1.0	1.1	2.1	2.4	2.5
60 kg Ewe when FS 3															
Dry or pregnant	0.4	0.7	0.8	1.0	1.5	0.5	0.7	1.2	1.4	1.6	0.7	0.8	1.3	1.6	1.7
Lactating – singles*	0.6	1.1	1.4	1.7	2.2	0.9	1.2	1.9	2.2	2.5	1.2	1.4	2.1	2.4	2.6
Lactating – twins*	0.7	1.2	1.6	1.9	2.4	1.0	1.3	2.2	2.7	2.9	1.3	1.5	2.5	2.9	3.1
70 kg Ewe when FS 3															
Dry or pregnant	0.4	0.8	1.0	1.2	1.7	0.6	0.8	1.4	1.7	1.9	0.8	0.9	1.5	1.8	1.9
Lactating – singles*	0.7	1.3	1.6	1.9	2.6	1.0	1.3	2.2	2.6	2.9	1.3	1.4	2.4	2.8	2.9
Lactating – twins*	0.8	1.4	1.8	2.1	2.8	1.1	1.4	2.6	3.1	3.4	1.4	1.5	2.9	3.4	3.6

* For lactating ewes, an allowance has been made for the pasture intake of their lambs.

Bringing it all together – The pasture cover tool

Whole farm spring and summer pasture cover and water requirements

Version 1.0 (Nicon Rural Services)

Only complete cells in white or light grey

SFS Southern Farming Systems

Vic Hub DROUGHT & INNOVATION

The output from using the pasture cover calculator is intended as a source of information only. While all care has been taken, Nicon Rural Services, Southern Farming Systems, the Commonwealth of Australia and its sub-contractors do not guarantee the calculator is without flaw of any kind or is wholly appropriate for your purposes and therefore disclaim all liability for any error, loss or other consequence which may arise from you relying on any information generated.

Step 1: What is the minimum pasture cover wanted across the farm? kg/ha

Step 2: What is the starting whole farm pasture cover at the end of August? kg/ha

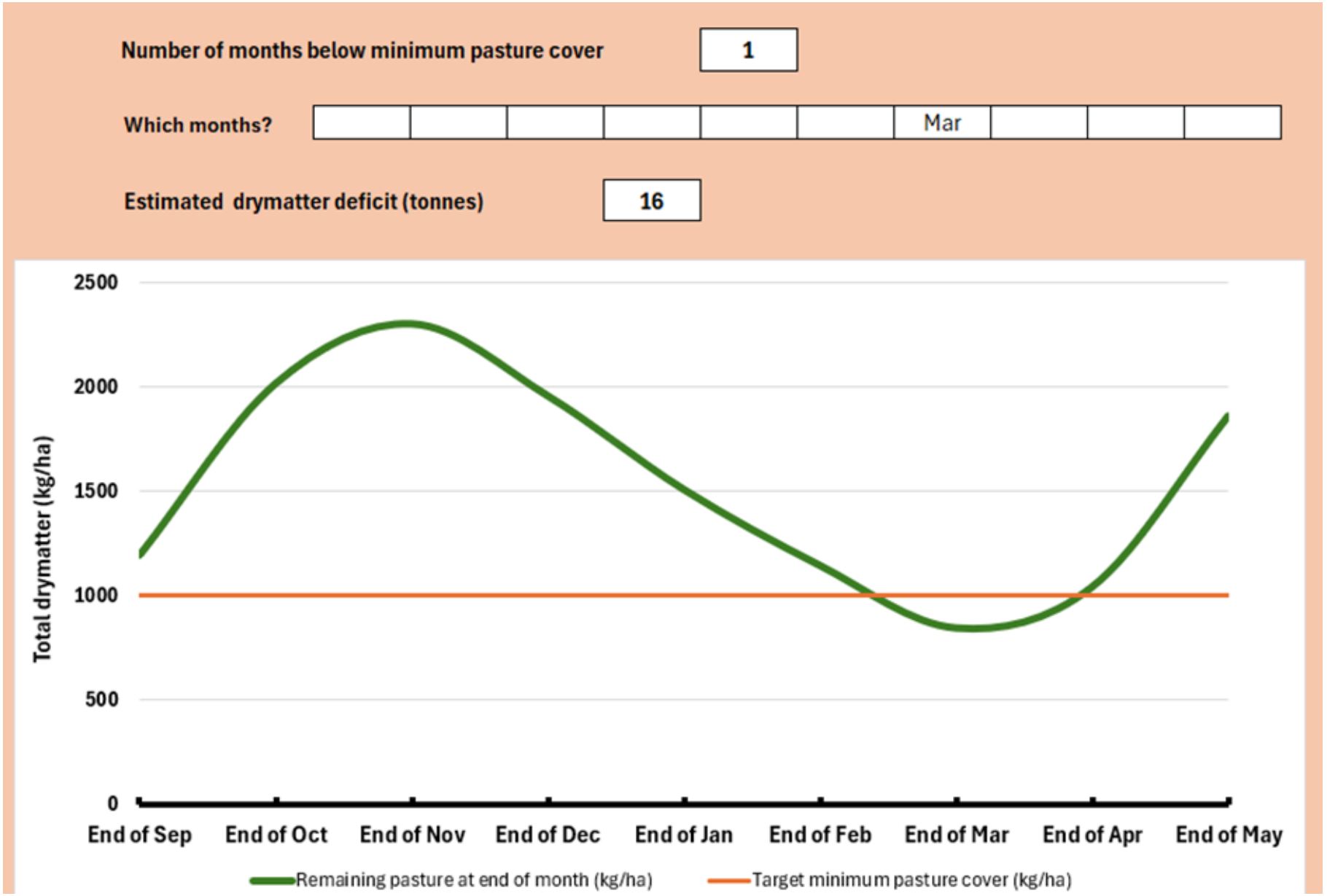
Step 3: What pasture are you growing?

	Dominant pasture or stubble type	Your description (optional)		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
1			Area (ha)									
			Anticipated growth (kg/ha/day)									

Step 4: What animals will be grazing and what will they eat and drink?

				Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
1	Enterprise		Your reference name (optional)									
	Std ref wgt of mature female (kg @ CS3)		Number of head									
	Animal description		Intake per day (kg/hd/day)									
	Approximate calving or lambing start time		Suggested intake - guide only (kg/hd/day)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Enterprise		Your reference name (optional)									

Bringing it all together – The pasture cover tool



Average Standing Dry Matter

Current run 22-8-2024

1624 +7 kg/Ha

Change from 5 days prior

Seasonal forecast location 2.8km from farm

Now to next 30 days			Now to next 60 days			Now to next 90 days		
Average			Inconclusive			Inconclusive		
To 17 September			To 18 October			To 18 November		
Tercile	Historical	Model	Tercile	Historical	Model	Tercile	Historical	Model
Drier	19-44mm	18%	Drier	52-88mm	45%	Drier	98-125mm	45%
Avg	44-58mm	58%	Avg	88-112mm	33%	Avg	125-171mm	42%
Wetter	58-116mm	24%	Wetter	112-163mm	21%	Wetter	171-247mm	12%
Confidence for September at location Medium			Confidence for October at location Medium			Confidence for November at location Medium		

Main pasture growth driver			
Month	Ave max & min temp	PAW	Prev mth R'fall
Jan		Y	
Feb		Y	YY
Mar		Y	Y
Apr		Y	Y
May		Y	Y
Jun			
Jul	Y		
Aug	Y		
Sep		Y	Y
Oct		YY	Y
Nov		YY	Y
Dec		YY	Y

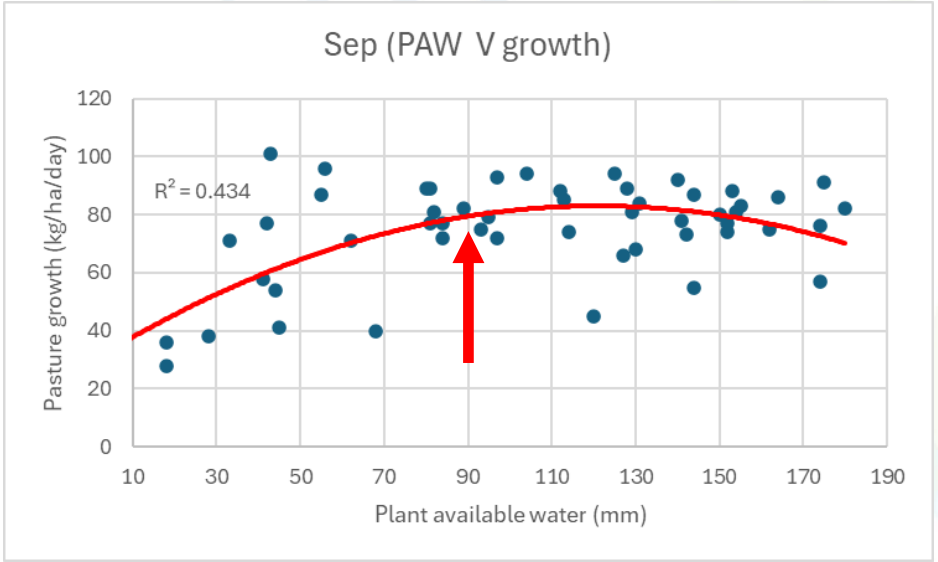
Soil bucket - 120 mm when full

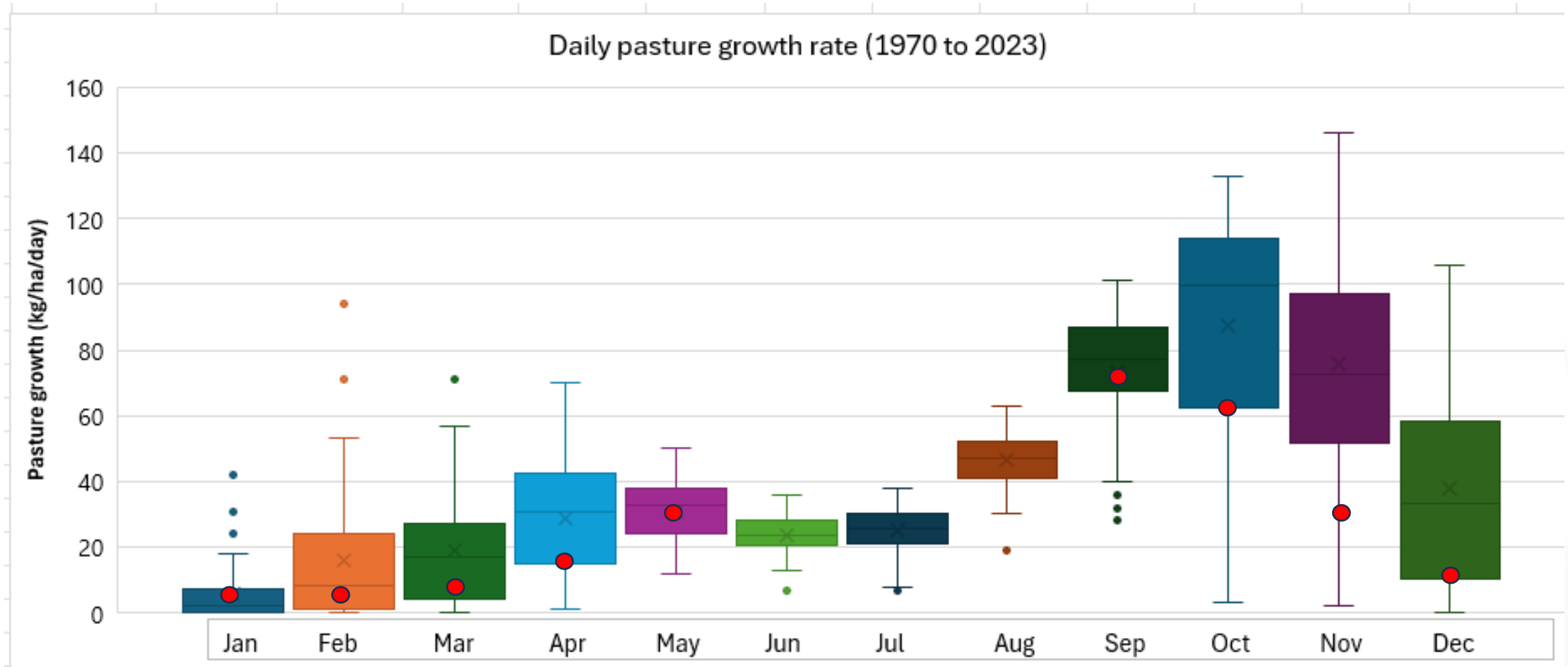
Soil bucket ~ 90 mm

Available Soil Moisture

74.60vol%

25/08/2024 09:00




Daily pasture growth rate (1970 to 2023)
Pasture growth (kg/ha/day)
160
140
120
100
80
60
40
20
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

Whole farm spring and summer pasture cover and water requirements

Version 1.1 (Nicon Rural Services)

Only complete cells in white or light grey

The output from using the pasture cover calculator is intended as a source of information only. While all care has been taken, Nicon Rural Services, Southern Farming Systems, the Commonwealth of Australia and its sub-contractors do not guarantee the calculator is without flaw of any kind or is wholly appropriate for your purposes and therefore disclaim all liability for any error, loss or other consequence which may arise from you relying on any information generated.

Step 1: What is the minimum pasture cover wanted across the farm?

1000 kg DM/ha

Step 2: What is the starting whole farm pasture cover at the end of August?

1600 kg DM/ha

Step 3: What pasture are you growing?

	Dominant pasture or stubble type	Your description (optional)		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
1	Perennial grass & clover	Typical pastures	Area (ha)	286	286	286	286	286	286	286	286	286
			Anticipated growth (kg DM/ha/day)	70	60	30	10	5	5	5	0	15
2	Annual grasses & clover	Sown for hay	Area (ha)	21	21	21	21	21	21	21	21	21
			Anticipated growth (kg DM/ha/day)	0	0	0	6	5	5	5	0	0
3	Perennial grass & clover	Locked up for hay	Area (ha)	30	30	30	30	30	30	30	30	30
			Anticipated growth (kg DM/ha/day)	0	0	0	6	5	5	5	15	30
4			Area (ha)									
			Anticipated growth (kg DM/ha/day)									
5			Area (ha)									
			Anticipated growth (kg DM/ha/day)									

Step 4: What animals will be grazing and what will they eat and drink?

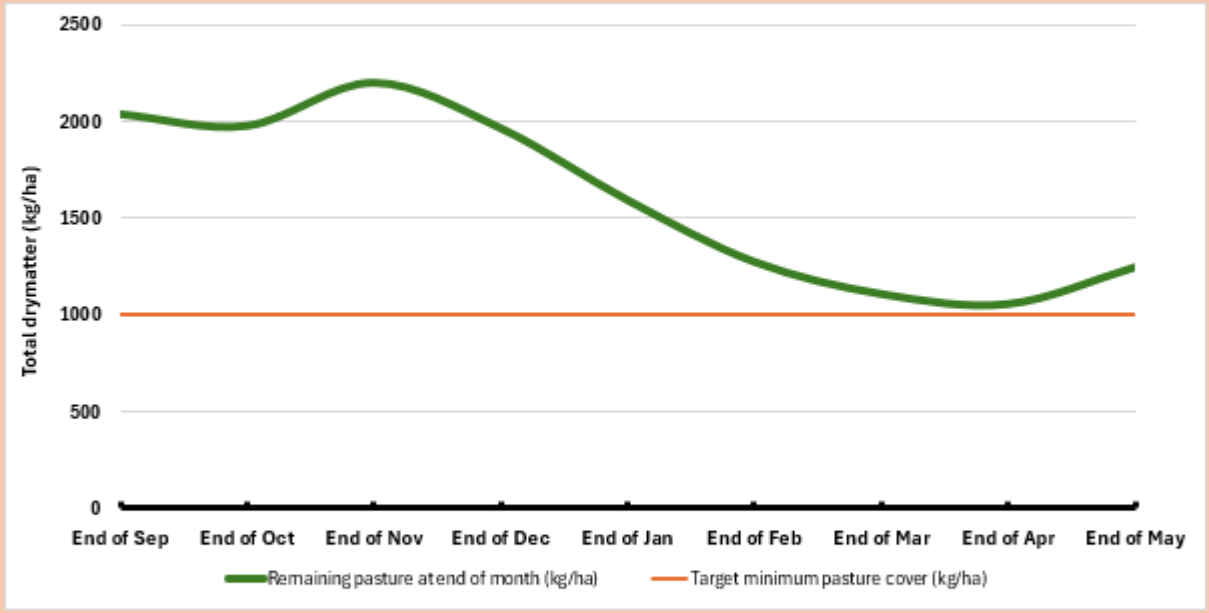
				Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
1	Enterprise	Cattle - British	Your reference name (optional)	*Spring calving herd*								
	Animal description	Cow (> 3 years) + calf	Number of head	130	130	130	130	130	130	100	90	90
	Std ref wgt of mature female (kg @ CS3)	600	Intake per day (kg/hd/day)	14.8	16.7	16.6	15.5	13.8	8.0	7.4	7.7	8.5
	Approximate calving or lambing start time	Spring calving (start 15 Aug)	Suggested intake - guide only (kg/hd/day)	14.8	16.7	16.6	15.5	13.8	8.0	7.4	7.7	8.5
2	Enterprise	Cattle - British	Your reference name (optional)	*Spring calving herd*								
	Animal description	Cow (2-3 years) + calf	Number of head	50	50	50	50	50	50	40	40	40
	Std ref wgt of mature female (kg @ CS3)	600	Intake per day (kg/hd/day)	13.4	15.2	15.3	14.8	13.9	8.5	8.1	8.5	9.0
	Approximate calving or lambing start time	Spring calving (start 15 Aug)	Suggested intake - guide only (kg/hd/day)	13.4	15.2	15.3	14.8	13.9	8.5	8.1	8.5	9.0
3	Enterprise	Cattle - British	Your reference name (optional)	*Spring heifer calves, weaned in Feb*								
	Animal description	Weaned young heifers (< 1 year old)	Number of head	0	0	0	0	0	78	78	78	78
	Std ref wgt of mature female (kg @ CS3)	600	Intake per day (kg/hd/day)	0.0	0.0	0.0	0.0	0.0	8.1	8.3	8.4	8.2
	Approximate calving or lambing start time	Spring calving (start 15 Aug)	Suggested intake - guide only (kg/hd/day)	3.3	3.8	4.4	5.0	6.4	8.1	8.3	8.4	8.2
4	Enterprise	Cattle - British	Your reference name (optional)	*Spring steer calves, weaned in Feb*								
	Animal description	Weaned young steers (<1 year old)	Number of head	0	0	0	0	0	78	78	78	78
	Std ref wgt of mature female (kg @ CS3)	600	Intake per day (kg/hd/day)	0.0	0.0	0.0	0.0	0.0	9.6	9.7	9.8	9.6
	Approximate calving or lambing start time	Spring calving (start 15 Aug)	Suggested intake - guide only (kg/hd/day)	3.9	4.5	5.2	5.9	7.5	9.6	9.7	9.8	9.6
5	Enterprise	Cattle - British	Your reference name (optional)	*Steers to sell in spring*								
	Animal description	Steers (1-2 years)	Number of head	86	86	46	46	0	0	0	0	0
	Std ref wgt of mature female (kg @ CS3)	600	Intake per day (kg/hd/day)	9.2	10.0	10.3	10.0	0.0	0.0	0.0	0.0	0.0
	Approximate calving or lambing start time	Spring calving (start 15 Aug)	Suggested intake - guide only (kg/hd/day)	9.2	10.0	10.3	10.0	10.0	9.6	9.0	9.3	9.3

Whole farm spring and summer pasture cover and water requirements - results

Number of months below minimum pasture cover: 0

Which months?

Estimated drymatter deficit (tonnes): 0



Water requirements

Estimated water requirements (ML to end of May): 7.2

Estimated water requirements each month (litres/farm/day)

Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
0	10800	21700	36800	34800	45000	39000	30200	19000


Based on our anticipated pasture cover, do we retain animals (and feed) or sell?

My observations about decision making

The biggest difference between the top 20% of farmers and the rest is their ability to make good decisions earlier and more often.

Dairy consultant, Gippsland Vic

When were you taught to make a good decision?

(the same way you were taught to read, write, do maths)

Decision making is a skill

1. The difference between a “good” and a “right” decision

“Good” = informed (made before the dice is rolled)

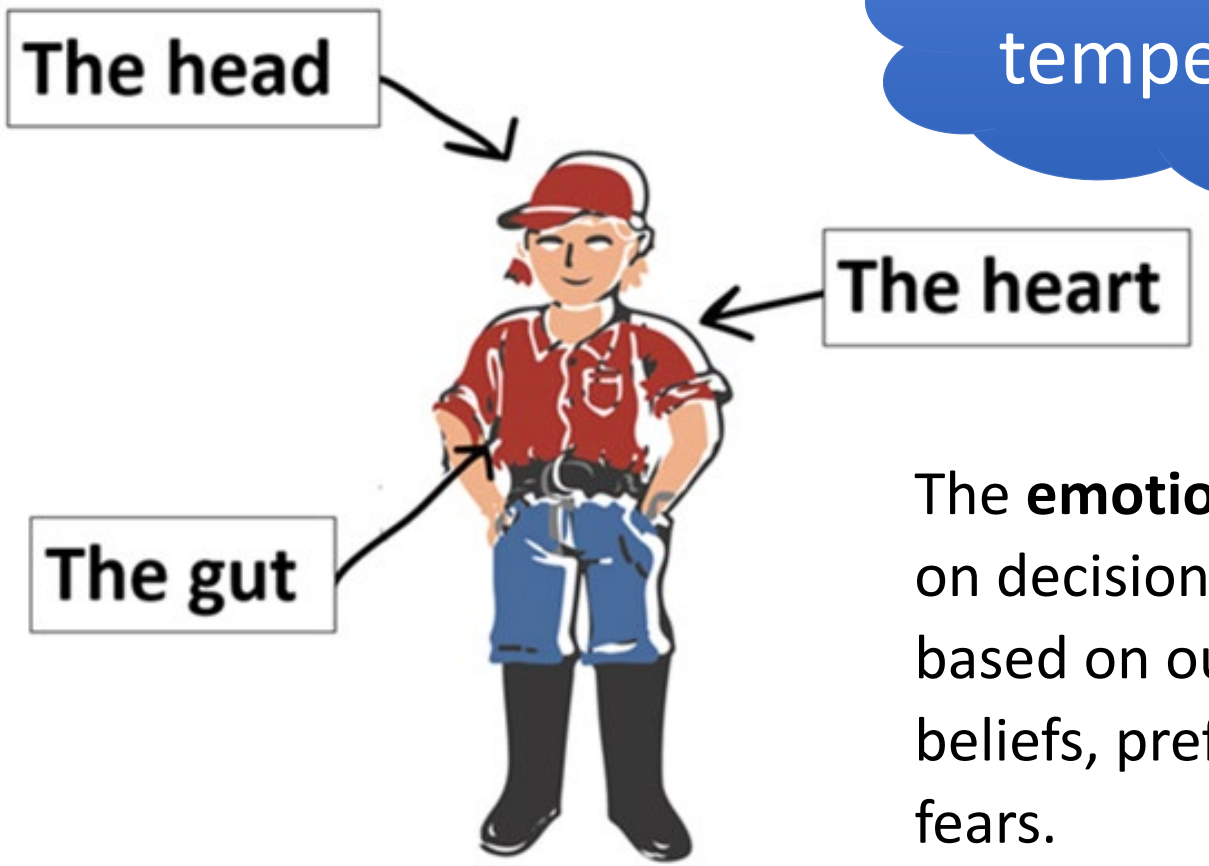
“Right” = how favourable the result (after the outcome is known)

2. Complexity of the decision

3. The head, heart and gut of decision making

The **logical** or **orderly** approach to analysing and solving a problem

The **intuitive** influence on a decision. It is shaped by our experiences and knowledge. The way we view, and frame **risk** largely resides here.



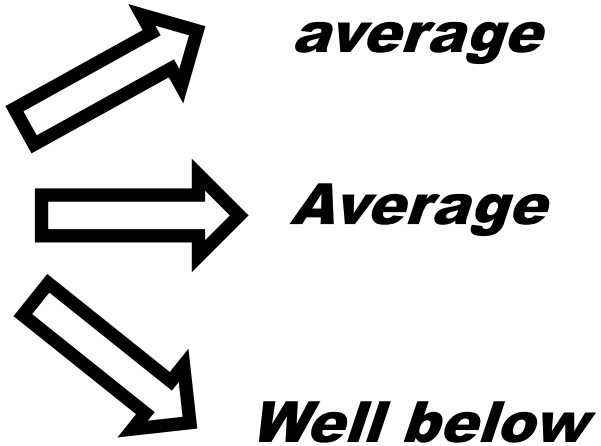
Your temperament

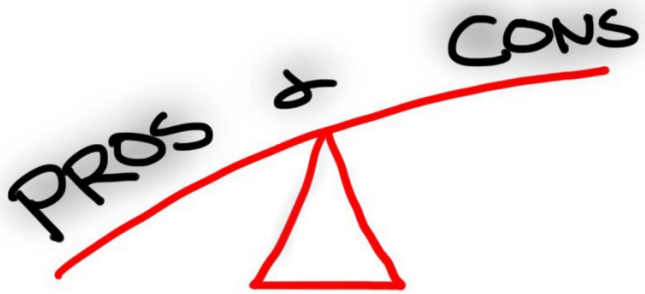
The **emotional** influence on decisions. They are based on our values, beliefs, preferences and fears.

(Complex) decision making

Critical factors

Critical factors have "tipping points"





Make decisions 'on balance'

The decision matrix

Decision: Do I retain <u>this</u> mob of animals and feed or sell them?

Critical factor
Returns V costs
Type of animal
Anticipated length of feeding required
Supp feed available
Infrastructure and time to successfully feed
Emotional attachment

Consideration (tipping point)
Returns substantially exceed the cost of feeding
Around break even
Costs exceed the returns by a substantial amount

Assume you have adequate water

Decision: Do I retain this mob of animals and feed or sell them?

Critical factor	Consideration (tipping point)
Returns V costs	Returns substantially exceed the cost of feeding
	Around break even
	Costs exceed the returns by a substantial amount
Type of animal	High merit breeding stock, younger, essential to rebuilding
	Lower merit breeding stock, older, useful for rebuilding
	Non breeders, but additional value if grown out
	Non breeders, easily replaced
Anticipated length of feeding required	Short term (3 months or less)
	Moderate period (3 to 6 months)
	Extended period (greater than 6 months)
Supp feed available	Lots available on farm or can replenish easily at good price
	Some on hand, but would probably need more, price high but fair
	Little on hand, would need to buy in, hard to get, expensive
Infrastructure and time to successfully feed	Have enough infrastructure and labour to feed all stock if necessary
	Some limitations but could make it work reluctantly
	Limited infrastructure, equipment and time
Emotional attachment	High, would hate to sell them
	Some, but could do if had to
	None

Decision: Do I retain this mob of animals and feed or sell them?

Critical factor	Consideration (tipping point)	Value
Returns V costs	Returns substantially exceed the cost of feeding	7
	Around break even	4
	Costs exceed the returns by a substantial amount	0
Type of animal	High merit breeding stock, younger, essential to rebuilding	6
	Lower merit breeding stock, older, useful for rebuilding	5
	Non breeders, but additional value if grown out	3
	Non breeders, easily replaced	0
Anticipated length of feeding required	Short term (3 months or less)	5
	Moderate period (3 to 6 months)	2
	Extended period (greater than 6 months)	0
Supp feed available	Lots available on farm or can replenish easily at good price	4
	Some on hand, but would probably need more, price high but fair	3
	Little on hand, would need to buy in, hard to get, expensive	0
Infrastructure and time to successfully feed	Have enough infrastructure and labour to feed all stock if necessary	4
	Some limitations but could make it work reluctantly	3
	Limited infrastructure, equipment and time	0
Emotional attachment	High, would hate to sell them	2
	Some, but could do if had to	1
	None	0
		28

Decision: Do I retain this mob of animals and feed or sell them?

Decision	Score
Retain and feed	20 or above
Sell	Below 19

Critical factor	Consideration (tipping point)	Value
Returns V costs	Returns substantially exceed the cost of feeding	7
	Around break even	4
	Costs exceed the returns by a substantial amount	0
Type of animal	High merit breeding stock, younger, essential to rebuilding	6
	Lower merit breeding stock, older, useful for rebuilding	5
	Non breeders, but additional value if grown out	3
	Non breeders, easily replaced	0
Anticipated length of feeding required	Short term (3 months or less)	5
	Moderate period (3 to 6 months)	2
	Extended period (greater than 6 months)	0
Supp feed available	Lots available on farm or can replenish easily at good price	4
	Some on hand, but would probably need more, price high but fair	3
	Little on hand, would need to buy in, hard to get, expensive	0
Infrastructure and time to successfully feed	Have enough infrastructure and labour to feed all stock if necessary	4
	Some limitations but could make it work reluctantly	3
	Limited infrastructure, equipment and time	0
Emotional attachment	High, would hate to sell them	2
	Some, but could do if had to	1
	None	0
		28

Decision: Do I retain this mob of animals and feed or sell them?

Critical factor	Consideration (tipping point)	Value	Score	Score
Returns V costs	Returns substantially exceed the cost of feeding	7		
	Around break even	4		
	Costs exceed the returns by a substantial amount	0		
Type of animal	High merit breeding stock, younger, essential to rebuilding	6		
	Lower merit breeding stock, older, useful for rebuilding	5		
	Non breeders, but additional value if grown out	3		
	Non breeders, easily replaced	0		
Anticipated length of feeding required	Short term (3 months or less)	5		
	Moderate period (3 to 6 months)	2		
	Extended period (greater than 6 months)	0		
Supp feed available	Lots available on farm or can replenish easily at good price	4		
	Some on hand, but would probably need more, price high but fair	3		
	Little on hand, would need to buy in, hard to get, expensive	0		
Infrastructure and time to successfully feed	Have enough infrastructure and labour to feed all stock if necessary	4		
	Some limitations but could make it work reluctantly	3		
	Limited infrastructure, equipment and time	0		
Emotional attachment	High, would hate to sell them	2		
	Some, but could do if had to	1		
	None	0		
		28	**0**	

Decision	Score
Retain and feed	20 or above
Sell	Below 19

What I like about the decision matrix

- ***It slows down your thinking***
- ***It makes it transparent for others to contribute / follow***
- ***Can adjust with experience***
- ***Narrows down what information you want and the skills you need***

Information needs

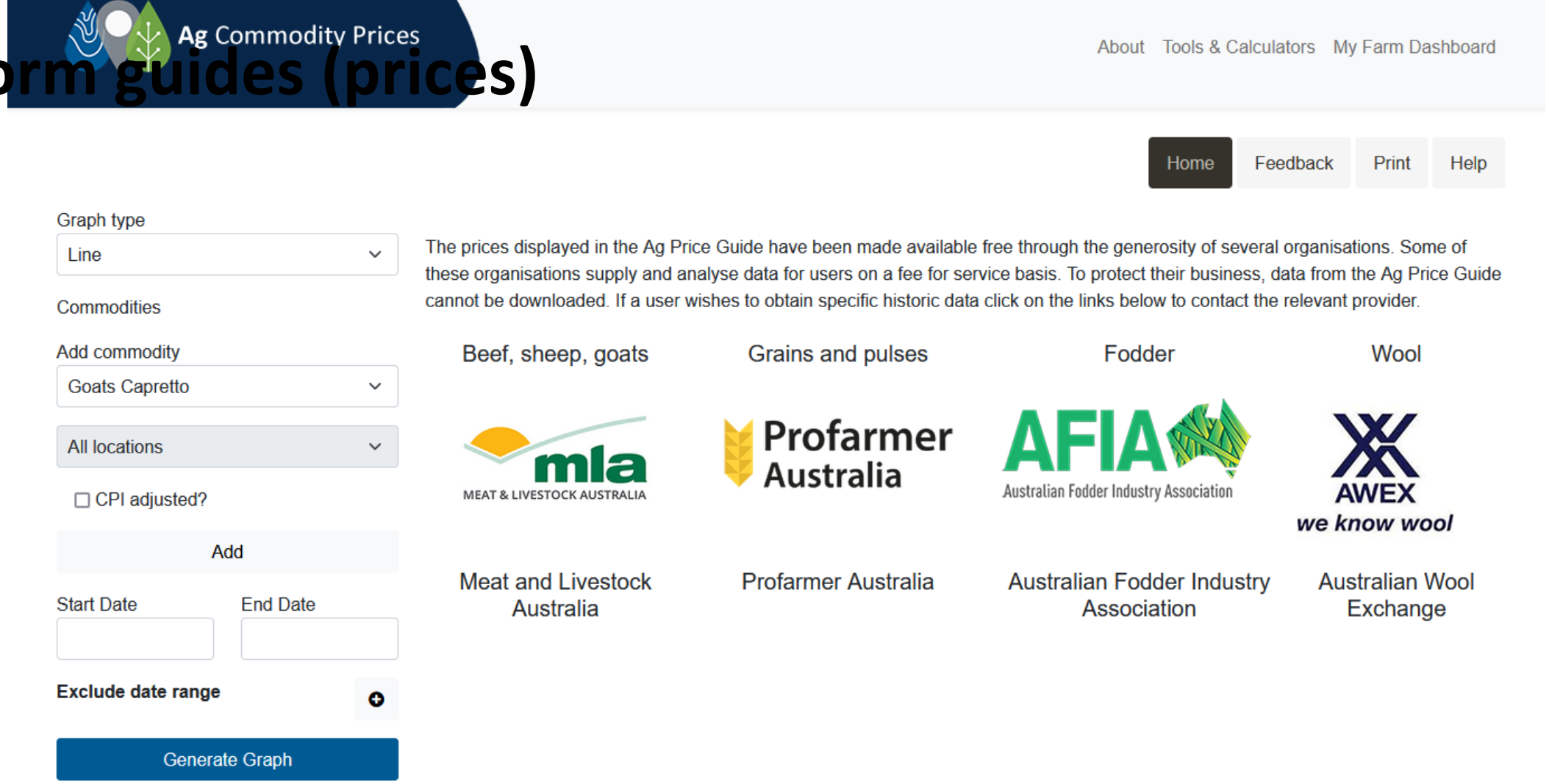
Critical factor	Consideration (tipping point)	Value
Returns V costs	Returns substantially exceed the cost of feeding	7
	Around break even	4
	Costs exceed the returns by a substantial amount	0
Type of animal	High merit breeding stock, younger, essential to rebuilding	6
	Lower merit breeding stock, older, useful for rebuilding	5
	Non breeders, but additional value if grown out	3
	Non breeders, easily replaced	0
Anticipated length of feeding required	Short term (3 months or less)	5
	Moderate period (3 to 6 months)	2
	Extended period (greater than 6 months)	0
Supp feed available	Lots available on farm or can replenish easily at good price	4
	Some on hand, but would probably need more, price high but fair	3
	Little on hand, would need to buy in, hard to get, expensive	0
Infrastructure and time to successfully feed	Have enough infrastructure and labour to feed all stock if necessary	4
	Some limitations but could make it work reluctantly	3
	Limited infrastructure, equipment and time	0
Emotional attachment	High, would hate to sell them	2
	Some, but could do if had to	1
	None	0
		28

Current Livestock Markets and Predictions

Angus Brown, Mercado – Market Analyst

mecardo
A NUTRIEN AG SOLUTIONS BUSINESS

Form guides (prices)



https://agprice.sfs.org.au/

Decision resources

https://grdc.com.au/resources-and-publications/all-publications/publications/2020/farm-decision-making

https://www.youtube.com/watch?v=nsMa2VtnONU

Decision Wizard

> FARM DECISIONS MADE CLEAR <

https://decisionwizard.sfs.org.au/

Evaluation

Please complete the evaluation survey, as this is important information for reporting to the funding bodies for future workshops.

This project is supported by Southern Farming Systems through funding from the Australian Government's Future Drought Fund and Meat & Livestock Australia.

Homework

- Use the tools and play with your numbers
- By the next workshop
  - Access & use My MLA Australian Feedbase Monitor
  - Access & use My Farm Dashboard
  - Review your Farm Business Decision Matrix

For 1:1 support contact Michelle to arrange a time to have a chat on the phone or online meeting with the team to help use the tools.

The support is *to equip you with the **knowledge** and **tools** to plan and make good decisions over the next 9 months.*