Managing with Limited Feed

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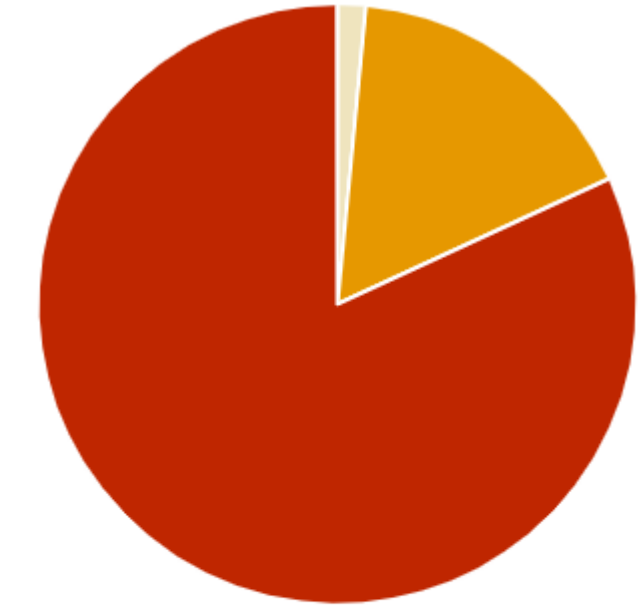
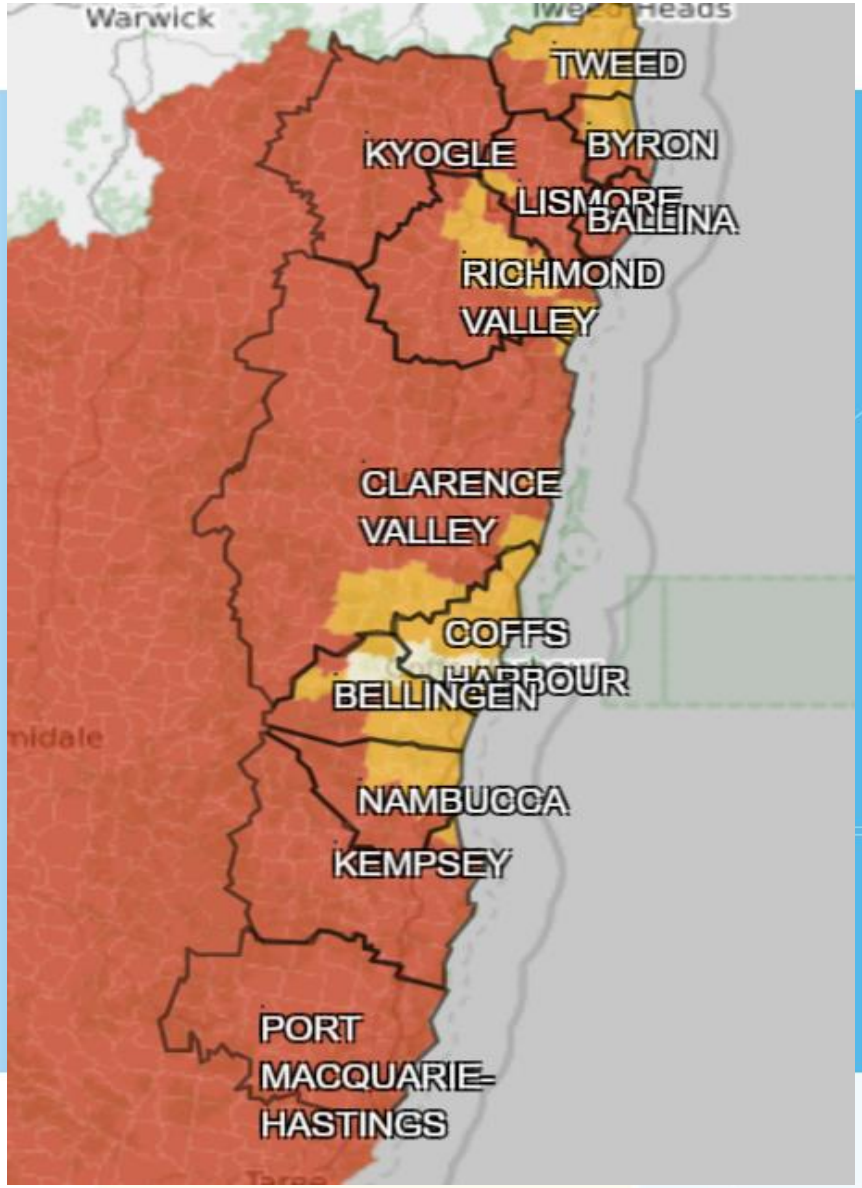
Drought Situation North Coast



- Drought Affected: 1.5 %
- Drought: 16.6 %
- Intense Drought: 81.9 %



Manage what you have today.

- It is time to do a stock-take
- **Finances check your cashflow budget….. For some this will decide your next steps within a hour or so.**

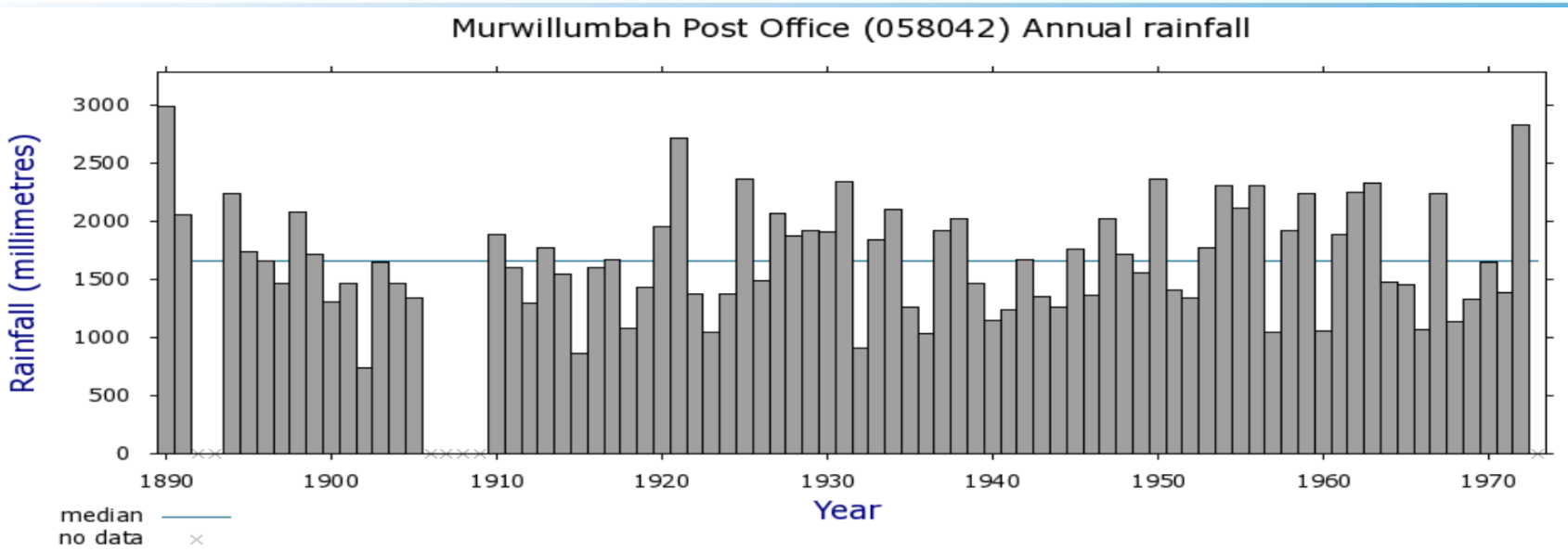
- **Anticipated herd structure and condition**
- **Pasture availability & Condition**
- Stocks of conserved feed
- Availability of purchased grains & supplements
- Water

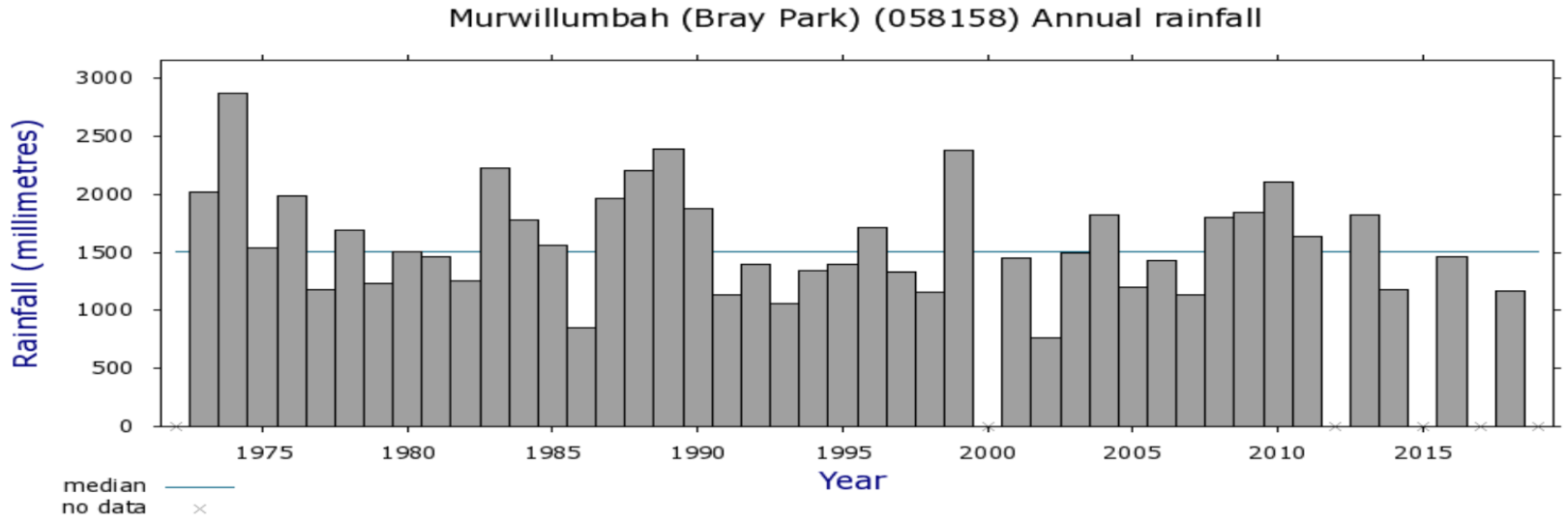
What do your paddocks & cattle look like?

Don’t forget to check the finances!!!

What is ‘normal’ rainfall??

Normal Rainfall is variable Rainfall!!!



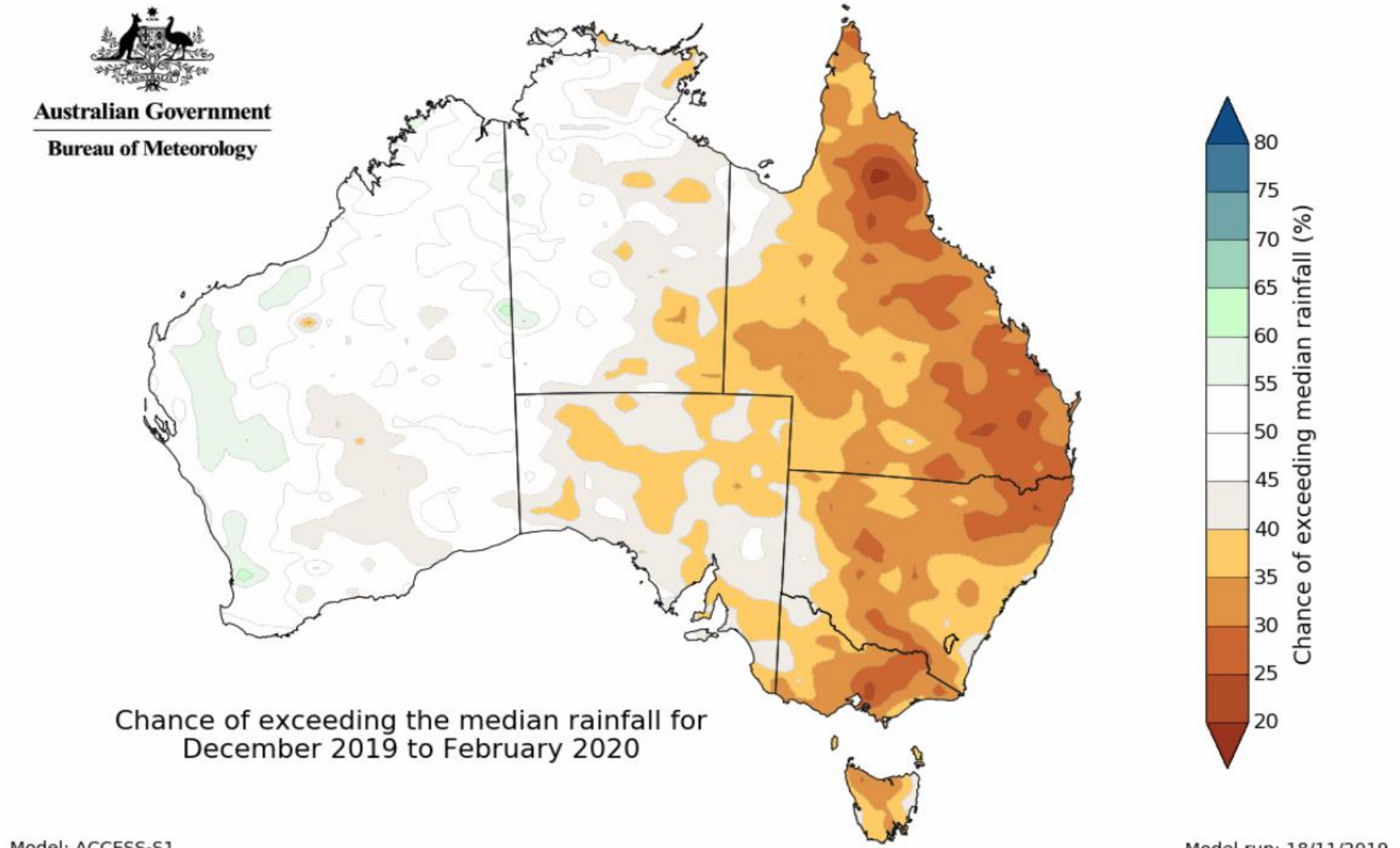


Using historical weather data to help provide an indication of when pasture recovery is likely

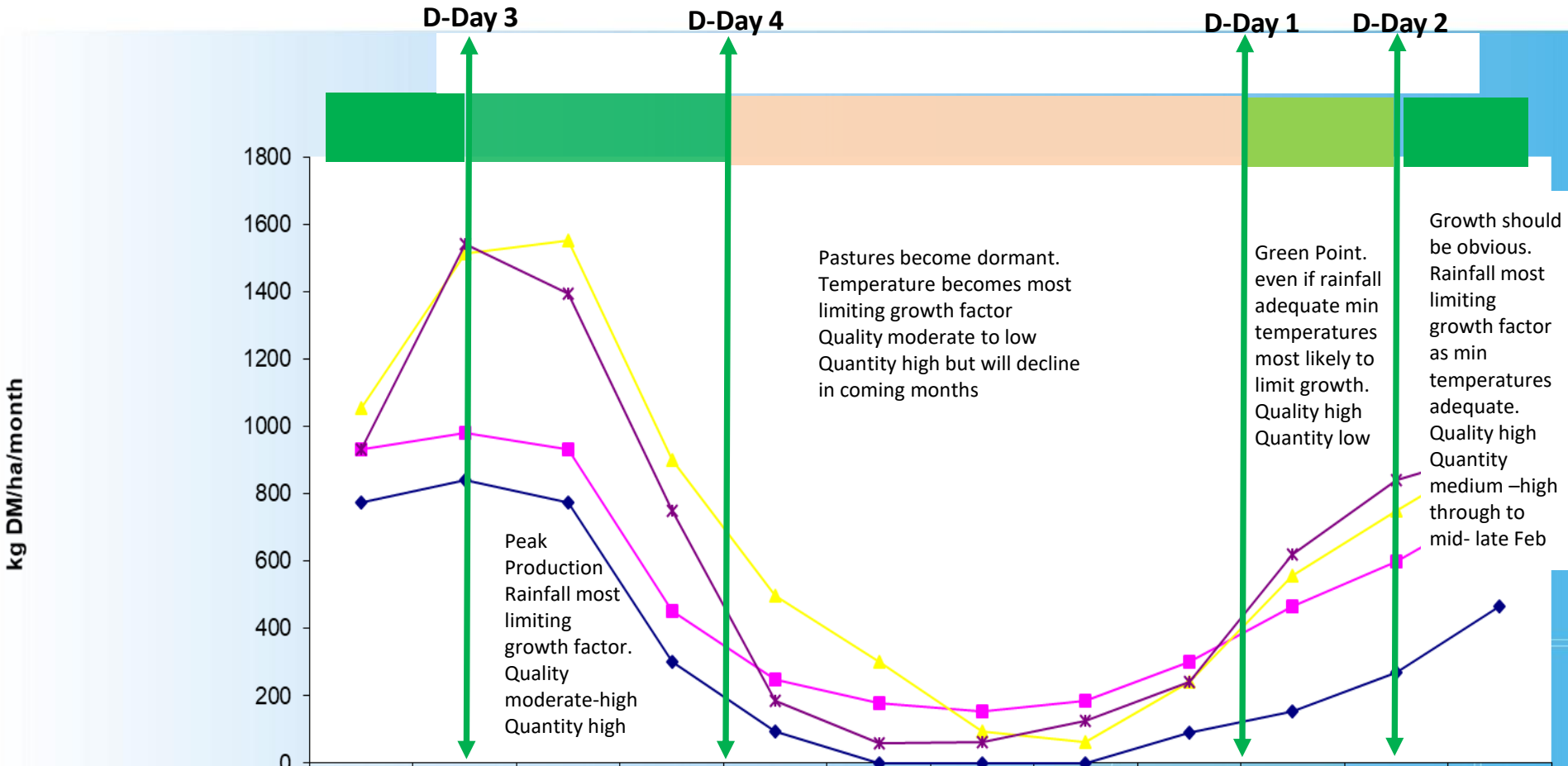
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1972- 2018 Mean Min Temp (°C)	19.0	19	18	15	12	9	8	8	11	14	16.0	18
Murwillumbah (Bray Park) 1972-2018 Median rainfall (mm)	165	177	193	103	89	63	39	32	22	77	120	151

Temperature records only available from 1908, Source BOM Climate Data Online 2019

Can we expect to get adequate rain?



What does this mean for pasture recovery and making decisions about feed supply for the herd?



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Naturalised	775	840	775	300	93	0	0	0	90	155	270	465
Naturalised + Legume	930	980	930	450	248	180	155	186	300	465	600	775
Kikuyu	1054	1512	1550	900	496	300	93	62	240	558	750	930
Setaria/Rhodes	930	1540	1395	750	186	60	62	124	240	620	840	930

Pasture Assessment – What is alive?

Twist & Pull Test

- **Category 1:** Are the plants still alive??
- **Category 2:** Few alive plants??
- **Category 3:** Plants virtually all dead or nothing left

Pasture Assessment – What in the world will come back

1L/m2 = 1mm rain equiv

So 25L on 1 m2 is like 25mm rain

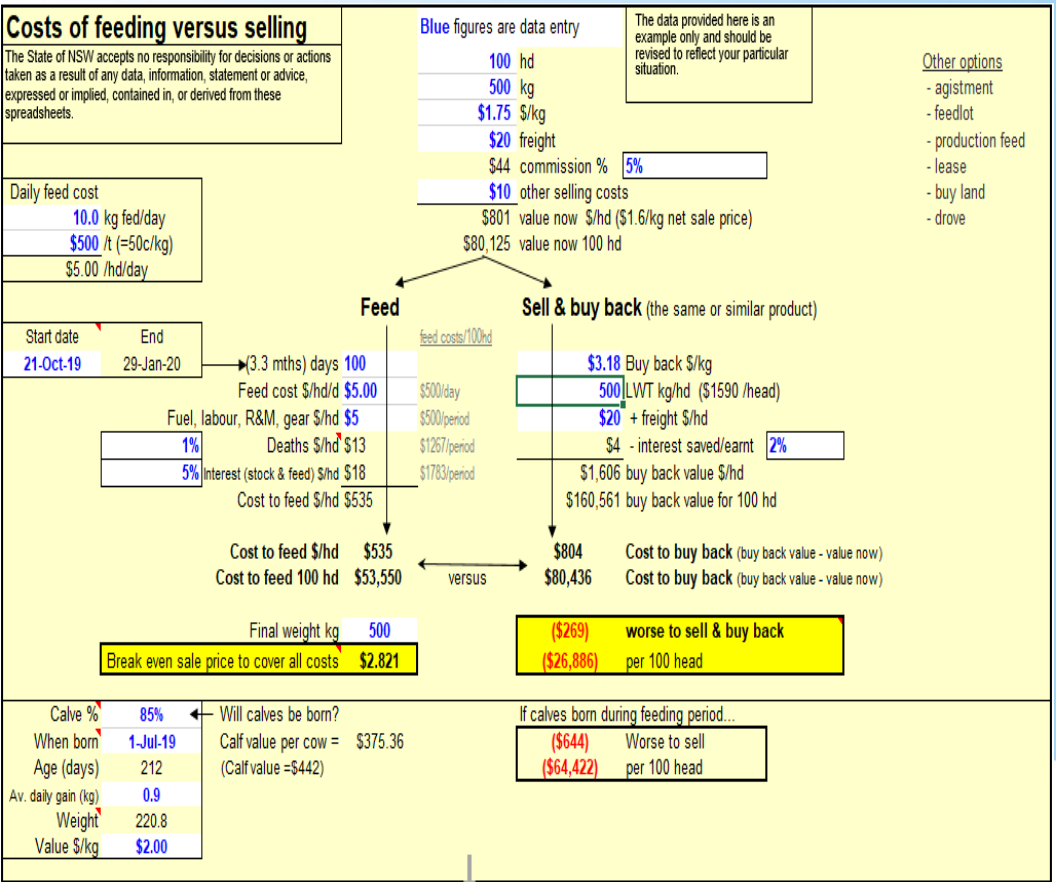
Twice a week when night temps above 15 degrees

Tropical grasses

- ✓ **Plants**
- ✓ **Seed bank**
- ✓ **Weeds**

Decision time – sell vs feed beef cattle

- Drought & Supplementary Feed Calculator
- Sell vs Feed Calculator



Costs of feeding versus selling

The State of NSW accepts no responsibility for decisions or actions taken as a result of any data, information, statement or advice, expressed or implied, contained in, or derived from these spreadsheets.

Blue figures are data entry

The data provided here is an example only and should be revised to reflect your particular situation.

100	hd	
500	kg	
$1.75	$/kg	
$20	freight	
$44	commission %	5%
$10	other selling costs	
$801	value now $/hd ($1.6/kg net sale price)	
$80,125	value now 100 hd	

Other options
- agistment
- feedlot
- production feed
- lease
- buy land
- drove

Daily feed cost
10.0 kg fed/day
$500 /t (=50c/kg)
$5.00 /hd/day

Feed

Start date 21-Oct-19 End 29-Jan-20 (3.3 mths) days 100

		feed costs/100hd
Feed cost $/hd/d	$5.00	$500/day
Fuel, labour, R&M, gear $/hd	$5	$500/period
1% Deaths $/hd	$13	$1267/period
5% Interest (stock & feed) $/hd	$18	$1783/period
Cost to feed $/hd	$535	

Sell & buy back (the same or similar product)

$3.18	Buy back $/kg
500	LWT kg/hd ($1590 /head)
$20	+ freight $/hd
$4	- interest saved/earnt 2%
$1,606	buy back value $/hd
$160,561	buy back value for 100 hd

Cost to feed $/hd	$535	versus	$804	Cost to buy back (buy back value - value now)
Cost to feed 100 hd	$53,550		$80,436	Cost to buy back (buy back value - value now)

Final weight kg 500

Break even sale price to cover all costs $2.821

($269) worse to sell & buy back
($26,886) per 100 head

Calve % 85% ← Will calves be born?
When born 1-Jul-19
Age (days) 212
Av. daily gain (kg) 0.9
Weight 220.8
Value $/kg $2.00

Calf value per cow = $375.36
(Calf value =$442)

If calves born during feeding period...
($644) Worse to sell
($64,422) per 100 head

Drought & Supplement Feed...

NSW Department of Primar...

OPEN

5.0 ★★★★★
2 Ratings

4+
Age

What's New Version History

Version 1.2 1mo ago

Drought and Supplementary Feed Calculator App (DASFC)
A world first App designed to help farmers calculate drought and supplementary feed rations for sheep and cattle.

The DASFC incorporates the functionality of the Drought Feed Calculator with the addition of 'Supplementary feeding' to help develop rations in dry periods as well periods leading into and out of drought.

If planning to Feed – think margin over feed cost

- Beware the temptation of statements like:
  "Cows will be worth Gold" or " You will never afford them again"
  - 50%, 100% even 200% market increase??? Lets hope so!!
  - $800 cow now + 50% = $1200
  - $800 cow now + 100% = $1600
  - $800 cow now + 200% = $2400

- Question should be
  "Can I afford to keep them until it rains and pastures recover?"

- Do the Maths…. Look at <u>your cash flow budget!</u>
  - 100 days feeding at $5/hd/day = $500/head ($800 cow + $500 feed = $1,300 cow)
  - 100 days feeding at $10/hd/day = $1000/head ($800 cow + $1000 feed = $1,800 cow)

- What's your end game?
  - How many are you feeding?
  - How long have you been feeding?
  - How much longer will you be feeding?

Good old calculator works well too!

- Calculating feed costs:
  1. Feed cost / weight of feed in kilograms = cost per kg
  2. Cost per kg x kg fed per day = $/hd/day
  3. X by number days feeding = total feed cost $/hd

- *Example with Hay at $500/t*
  1. $500 / 1000 = $0.50/kg
  2. 10kg/cow/day x $0.50 = $5.00/cow/day
  3. $5.00 x 100 days = $500/head

Pregnancy Testing Breeders – A vital tool

- Allows for informed decision making
  - Selling decisions
  - Feeding decisions
- **Feed allocation**
- **This isn't the year for sacred cows!!**

What is Early Weaning?

- Weaning calves younger/earlier than normal
- Before calf is 6-7 months old
  - extreme cases as young as 6 weeks old or 60kg LWT
  - Early Weaning typically 3 – 5 months old

Why Early Wean?

- Feeding a calf through a cow is very inefficient
- Allows better allocation of limited feed resources.
- Dry cows not only get by on less, but ME and P content is reduced.
- Help maintain herd fertility (recommence cycling)
- Better utilise supplementary feed
- Save water
- Increased marketing flexibility
- Better utilise your high quality pasture… when it grows

Wean the Calf – Best Supplement a cow can get

~ 13kg DM/day
110MJ/ME/day (13kg x min 8.4MJ/ME/kg DM)
10% CP Min

13kg DM = 15kg hay as fed, or 29kg silage @ 45%DM
Hay @ $500T = $7.50/hd/day
Silage @ $300T = $8.70/hd/day

50:50 Hay & Grain (ME Basis = 5kg Grain & 6kg Hay)
Grain at $500/T + Hay = $5.50/hd/day

Wean the Calf – Best Supplement a cow can get

Weaning the calf is very close to giving the cow 2-3 kg of grain /day

~ 7.7kg DM/day
65MJ/ME/day (7.7kg x min 8.4MJ/ME/kg DM) SAV 45MJ/D
7% CP Min

7.7kg DM = 8.8kg hay as fed, or 17kg silage @ 45%DM
Hay @ $500T = $4.40/hd/day **SAV $3.10**
Silage @ $300T = $5.10/hd/day **SAV $3.60**

50:50 Hay & Grain (ME Basis = 3kg Grain & 4kg Hay)
Grain at $500/T + Hay = $3.50/hd/day **SAV $2.00**

When should you early wean?

Look at the body condition of the cows ….They are telling you all you need to know
FS 1 (0-2mm P8) with limited feed and calf at foot suggests Early Weaning!

Now to prevent any more body condition loss

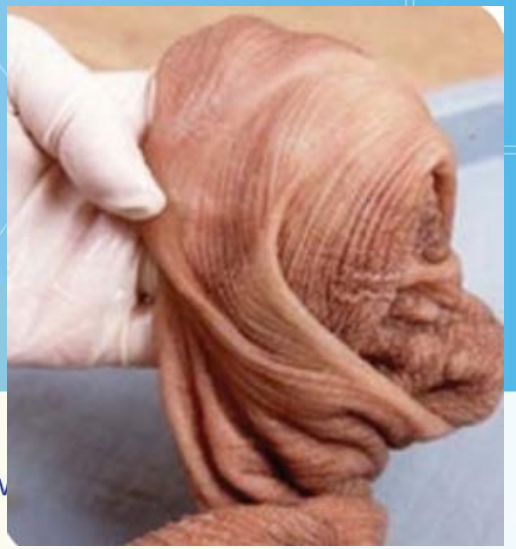
Well before here

When should you early wean? – The Calf Stomach

- Rumen must be developed & functioning well
  - Normal paddock conditions ~3 months old
- Drought conditions it depends….
  - can be a bit younger (~2 months) **IF**
  - access to grain/good quality hay from birth
  - enough pasture to nibble at from birth
- Rumen will be less developed at same age if there hasn't been opportunity for calf to access adequate fibre

Milk only 6 weeks

Milk & Hay 6 weeks



Photos: Penn state University USA

Forward planning feed supply is **CRITICAL** this year

- Contact feed suppliers
  - determine their ability to supply as required
- Likely need to stock pile on farm (prepare for delays)
- Be very careful mixing from different suppliers

Feed for growth not maintenance

- How well early weaned calves grow depends entirely on the quality of the diet
  - developed & functioning rumen!
- Minimum Target Growth Rates
  - Calves <60kg = 0.6kg/hd/day
  - Calves 60-100kg = 0.6kg/hd/day
  - Calves 100kg+ = 0.5 -0.6 kg/hd/day
- Feeding for higher growth rate is ideal…. But,
  - Currently feed costs are high
  - Very hard to get EW calf to do 1kg/day
  - Higher the growth rate you chase = higher feed cost

Why Growth & not Maintenance?.. scenario

- 100kg Lwt calf + 50kg Lwt & assume dress 52%
  - 150kg Lwt at 52% = 78kg cwt (just in veal grid)
  - 78kg at $3.30ish =$257/hd
- To get 50kg at 0.6kg/day = 84days
  - 2.5kg grain/hd/day at $0.60/kg = $1.50/day = $126
- To get 50kg at 0.2kg/day = 250days
  - 1.5kg grain/hd/day at $0.60/kg = $0.90/day = $225

"Yeah but ill just stop at 84 days"

- *84 x 0.2kg/hd/day = 17kg so 117kg LWT for cost $76*
- *Still not in a grid!*
- *Sweating on widespread rain & market lift……*

Calves younger than 6 weeks or <60kg

- Won’t have a fully functioning rumen! SO….
- Milk powder + High Quality Calf Pellets & Hay
  - Need to encourage rumen development & function
- Hard Work & $$$$$
- Coccidiosis risk
- Delay marking / branding / dehorning
- Sell…….

Calves 2-4 months old (80-120kg)

- Sell……
- 18-20%CP 13MJ/ME/kg/DM
- Protein source mainly true protein i.e. minimal to no urea
  - Calf pellets/crumbles introduce gradually 0.5-1kg/hd/day increasing 250g/head/ every 2 days to 1.5 – 2.5kg/head/day + ad lib good quality pasture/cereal hay.
  - Mix 100kg Lucerne chaff + 100kg crushed grain feed at 2 - 2.5kg/head/day OR
  - Mix 100kg crushed grain + 15kg Protein meal (CSM, CM or SBM) + 10kg hay feed at 2-2.5kg/head/day

Calves 5-6 months old (120kg +)

- Sell……..
- 14-16% CP, 12MJ/ME/kg/DM
- Try to keep some true protein source but molasses urea provides decent results
- Likely to eat 2.5 - 4kg/hd/day
  - Calf pellets (ideally min 16%CP) introduce gradually 1kg/hd/day increasing 250g/head/ every 2 days to desired level + ad lib good quality pasture/cereal hay.
  - 14% CP diets will be ok and cheaper but expect slower growth. Can add 100g/head/day protein meal

Weaning calves

- Troughs access
  - Single side access 30+ cm
  - Double side access 15 cm
- Self feeders access
  - 5 to 7cm (little calves)
  - 10 to 15cm
- Hay racks / Feeders
  - Reduce wastage
  - Avoid Overhead racks

Weaning Calves & good Water

- Water
  - Clean, & cool as possible
  - Feed away from water
  - Watch the trough height for younger/smaller calves
  - Reduced water intake reduces feed intake!

Early weaning yards

- Shade
  - High & Above not to the side
  - Maintain air flow
- Dust Control
- Calves up to 100kg max 2.5m2 /head
- Calves 100-200kg need 3-4 m2 /head
- Mud? (lets hope it becomes a problem)

Early weaning general advice

- Segregate on size
  - Minimises bullying around feed
  - Accurate feed allocation (quality & quantity)
- Plan marking
  - 2 weeks pre weaning if you can or delay it until settled onto feed & gaining weight
- Lighter they are, the smaller the mob
- Shy feeders and sick –separate (hospital pen)
- Health

Creep feeding is not weaning

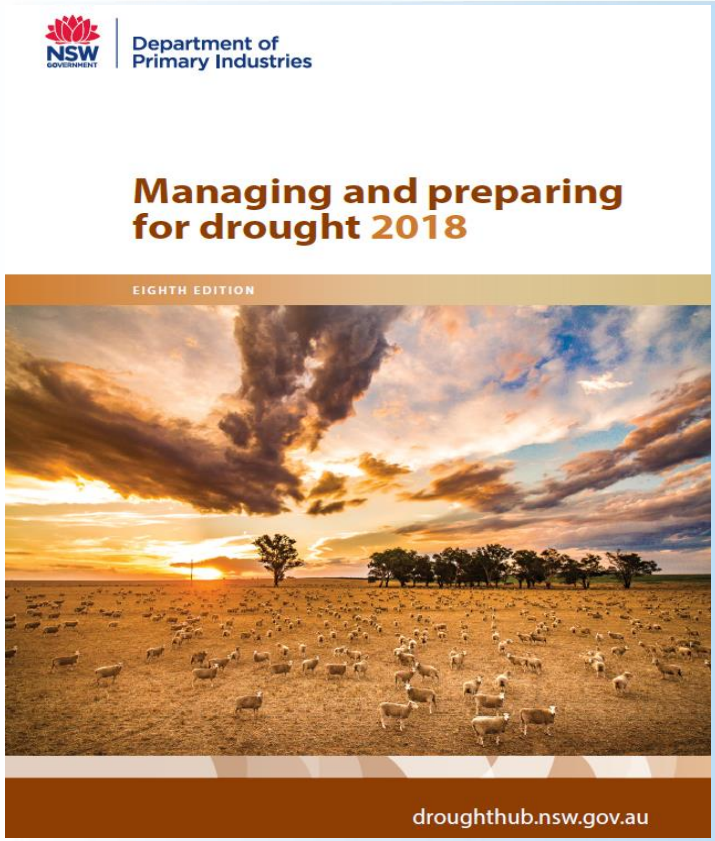
- Main Advantage is to the calf!
- Cow only receives benefit if she has enough adequate feed to meet (ideally exceed) her requirements
  - While ever she is producing milk she still has higher energy demand than being dry!
- Calves heavier potentially more marketable
- Calves easier to wean onto grain
- Usually requires approx. 6 weeks before calves show significant benefit

Make your own adjustable creep gates!

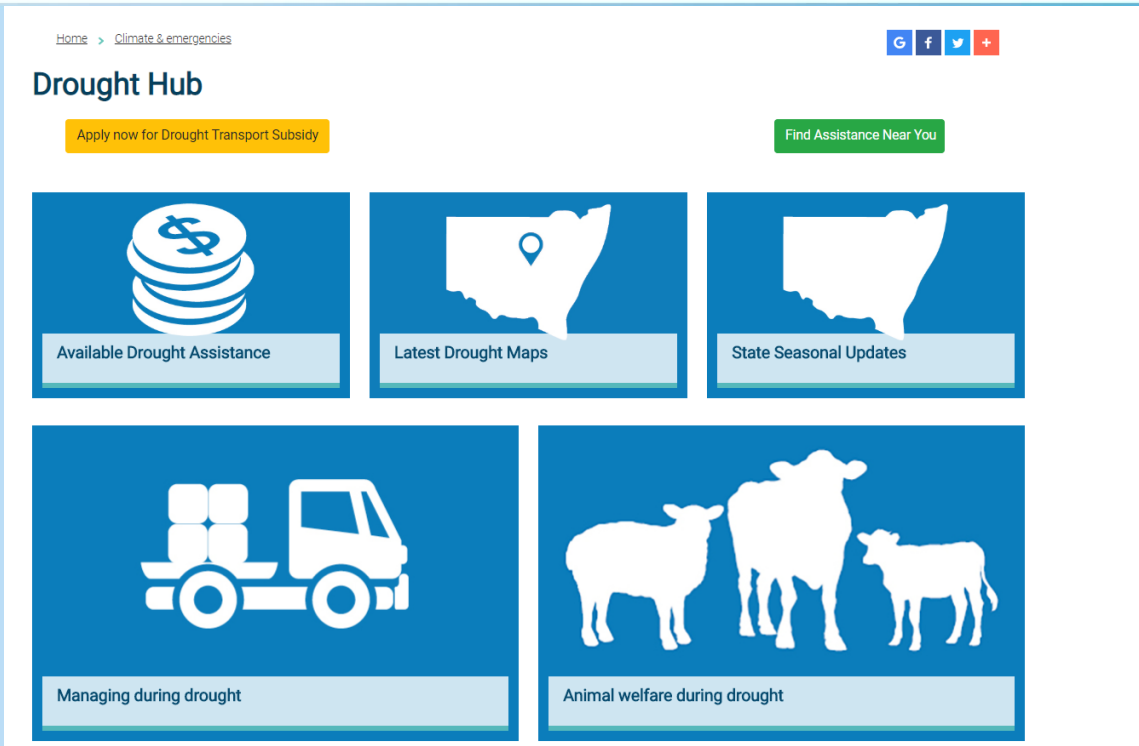
www.lls.nsw.gov.au/northcoast

More information – NC LLS Staff

Books!



Google – Drought hub NSW



The season will change and we will all learn from our experiences

It will rain again,