



Decisions for drought-affected producers

A joint initiative of:



Topics



1. **Current situation, the year ahead**
2. Options
3. Feed supplies, costing nutrients
4. Producers' reflections on drought

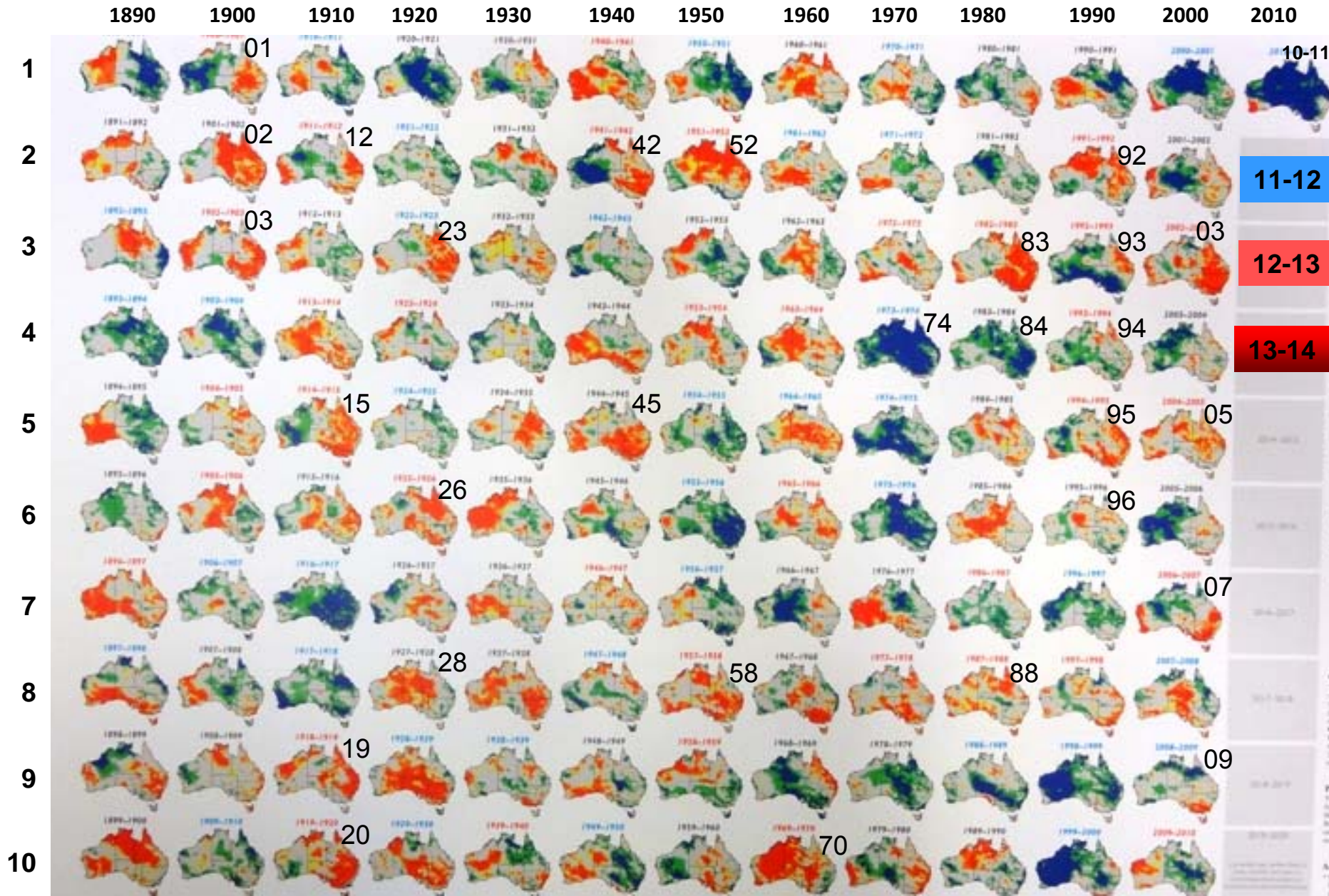
Produced by the South Region
Beef Extension team



Roger Sneath Kiri Broad Tim Emery

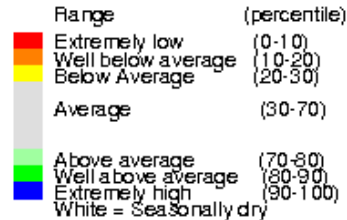
Australia – floods, fires, droughts - one of the world's most variable climates

April to March annual Australian rainfall relative to historical records 1890 - 2011



Current situation

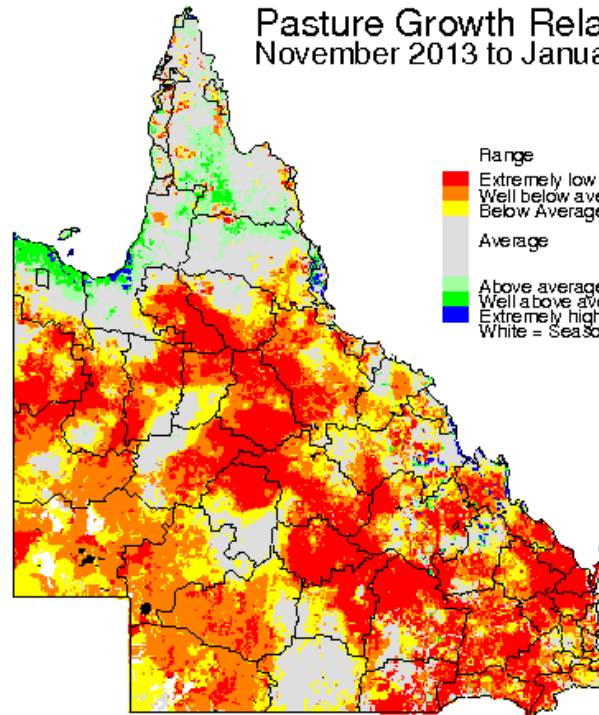
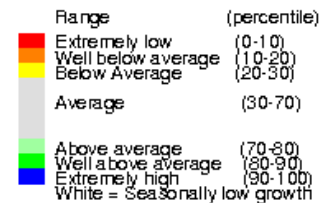
Rainfall Relative to Historical Records
February 2013 to January 2014



~ 70 % drought declared

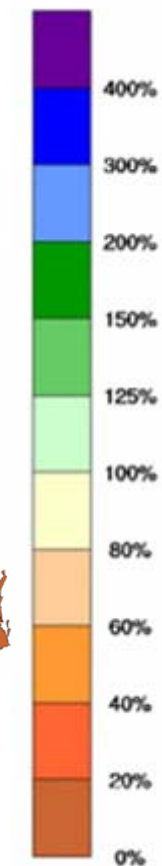


Pasture Growth Relative to Historical Records from 1957
November 2013 to January 2014

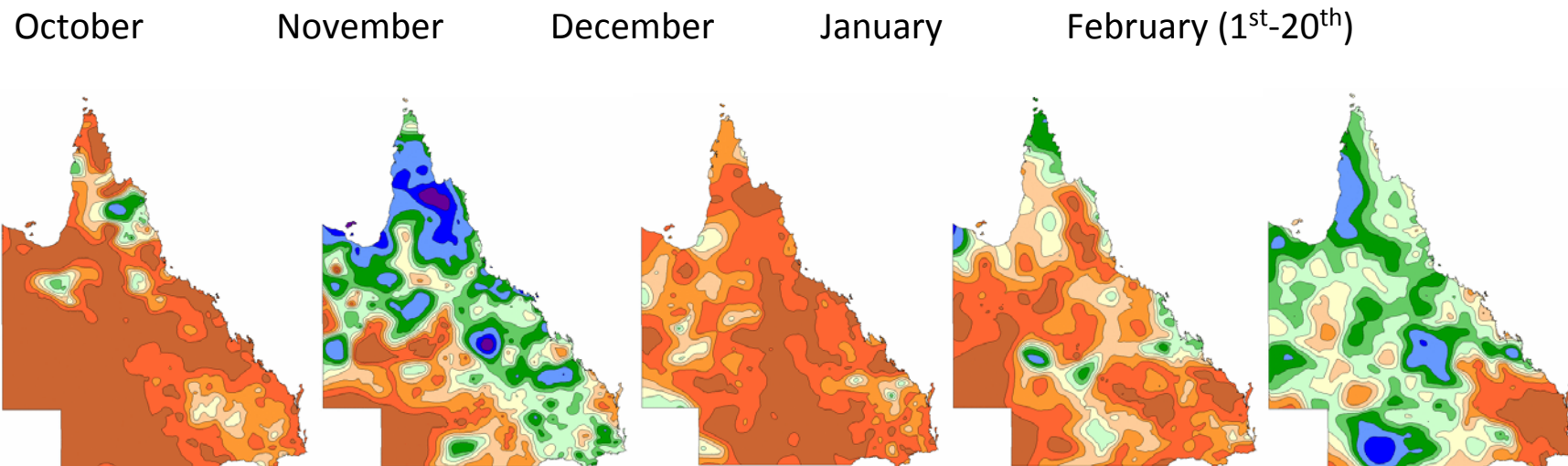


Patchy rain Nov 13 & Feb 2014

Percentage of Mean



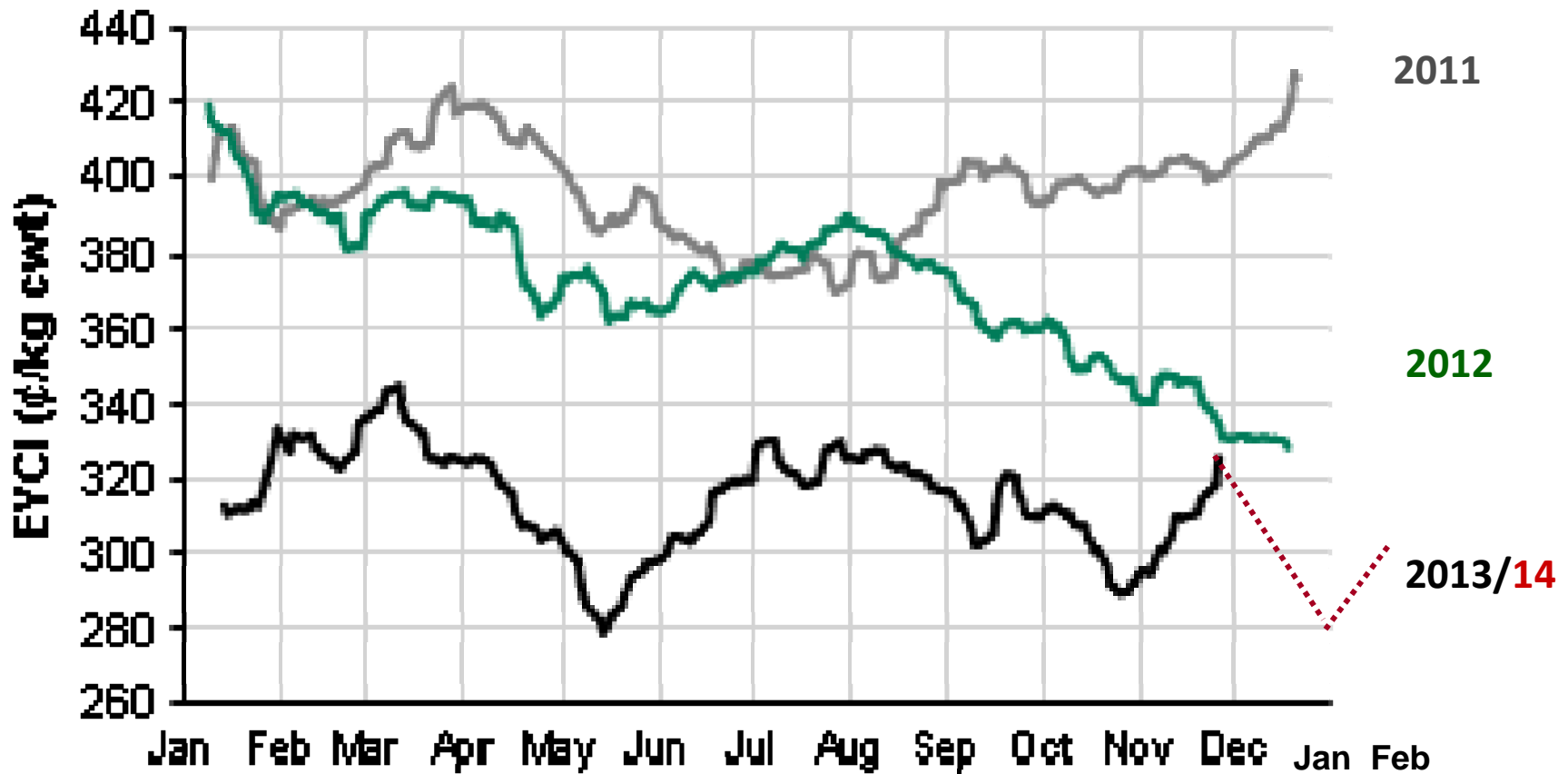
Queensland current summer rainfall by month (% of average)



www.longpaddock.qld.gov.au
rainfall and pasture growth maps

Current situation

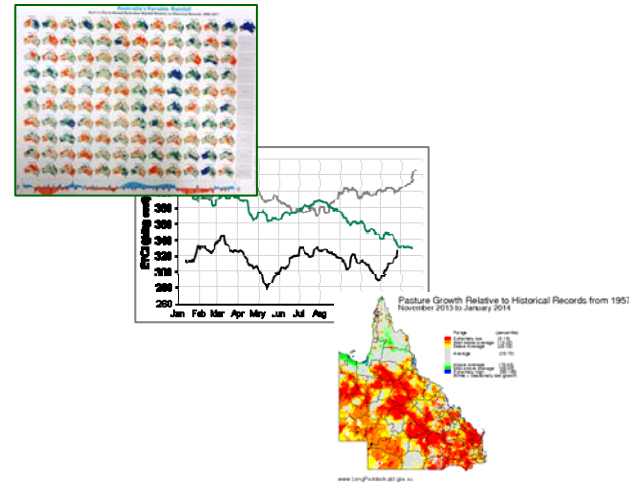
Eastern young cattle indicator



<http://www.mla.com.au/Prices-and-markets>

Current situation - summary

- Failed summer/s
- Low water supplies
- Low cattle prices
- Tight feed supplies
- Late patchy rain



The question on many people's minds

Even if good rain:

- will there be enough pasture bulk and water to last till next summer?

Decisions for producers

Everybody's situation is different
Everyone is trying to do their best

Wise in hindsight ...!
If we knew the future...!

Historic rainfall & pasture growth patterns



Rainfall data

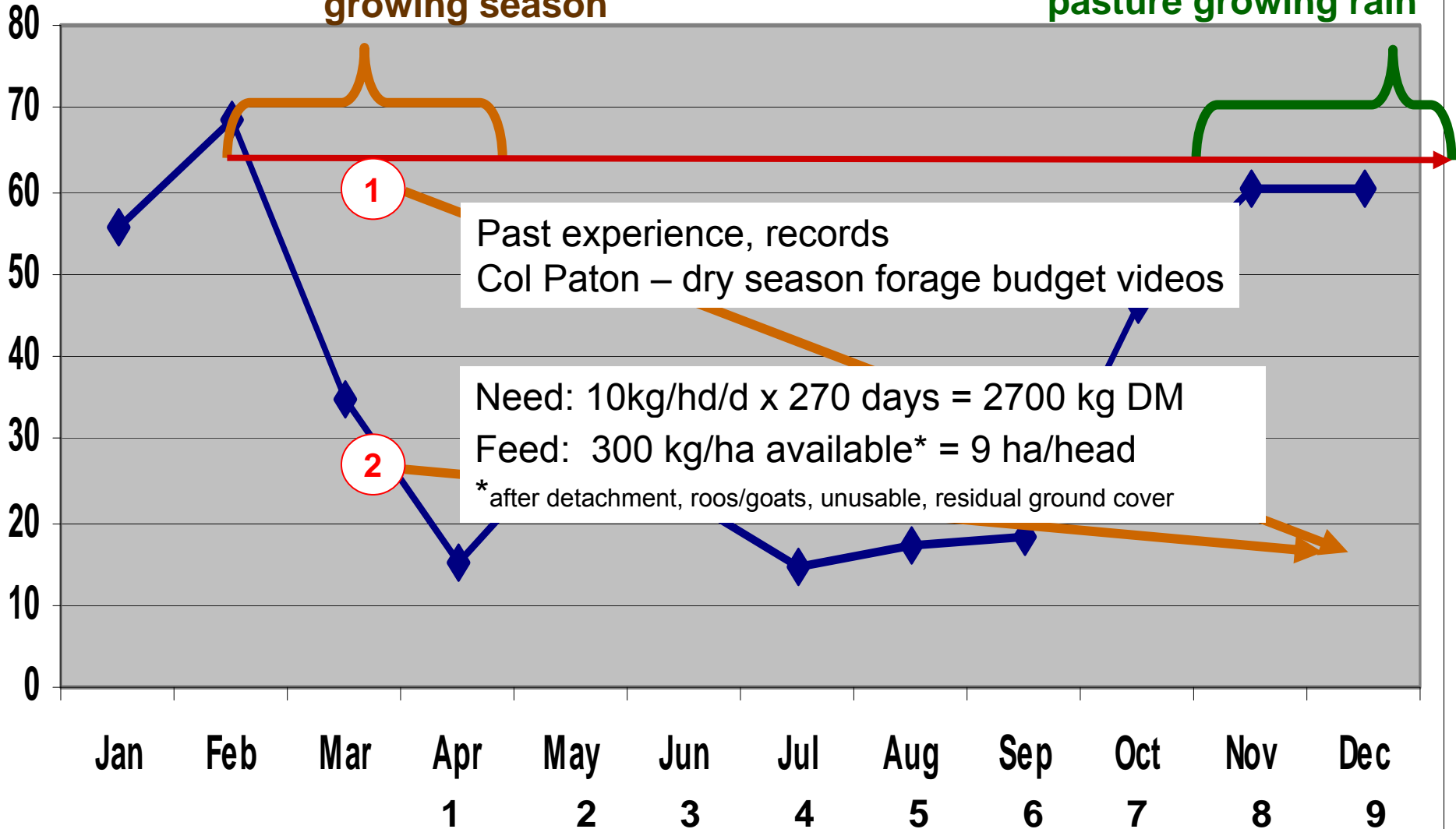
- Google: Rainman streamflow
Free download, soon to be web interactive
- BOM rainfall data



Roma median rainfall

End summer
growing season

High probability good
pasture growing rain



Dry season forage budgeting



1 - Forage Budget - Introduction



2 - Forage Budget - Feed Supply
by Desert Channels Digital
88 views



3 - Forage Budget - Feed Demand
by Desert Channels Digital
41 views

<http://futurebeef.com.au/resources/multimedia/#GL>



4 - Forage Budget - Bringing it all together
by Desert Channels Digital
43 views

Google – Futurebeef photo standards



Two important 'grazing principles' for good land condition:

1. Dry season forage budget
2. Wet season spell some paddocks each year

Underlying 'grazing business principles' to help guide decisions...

- Pastures generate the wealth potential (& cheapest feed)
- Cattle - just one way to convert pastures into \$
- Land in A condition is twice as productive as land in C condition
- Large scale, long term feeding is extremely costly
(as opposed to strategic supplementation or short term feeding)

Summary



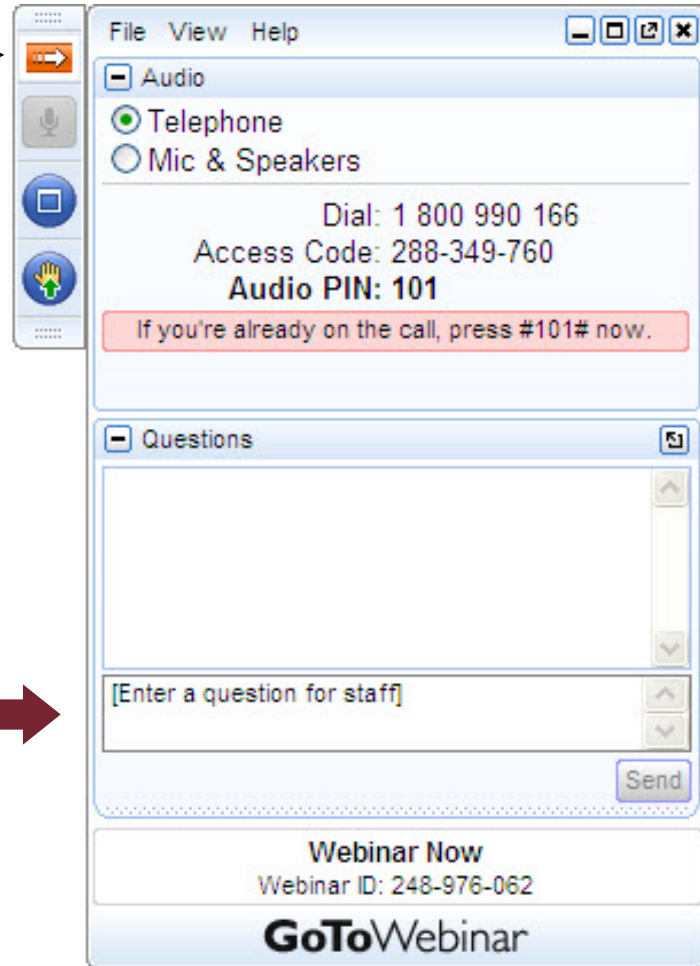
- Nearing the end of the summer growing season
- Reassess pasture & water supplies – adjust numbers to match
- Critical time for decisions and action

More info

- DAFF 13 25 23
- Rainfall & pasture maps www.longpaddock.qld.gov.au
- Rainfall data Google: Rainman streamflow, BOM rainfall data
- Cattle prices <http://www.mla.com.au/Prices-and-markets>
- Forage budgets <http://futurebeef.com.au/resources/multimedia/#GL>

Questions, comments?

Expand or close dialogue box →



Type questions or share your comments here anytime →

Topics



1. Current situation, the year ahead
- 2. Options: sell, feed, feedlot, agist... other management**
3. Feed supplies, costing nutrients
4. Producers' reflections on drought

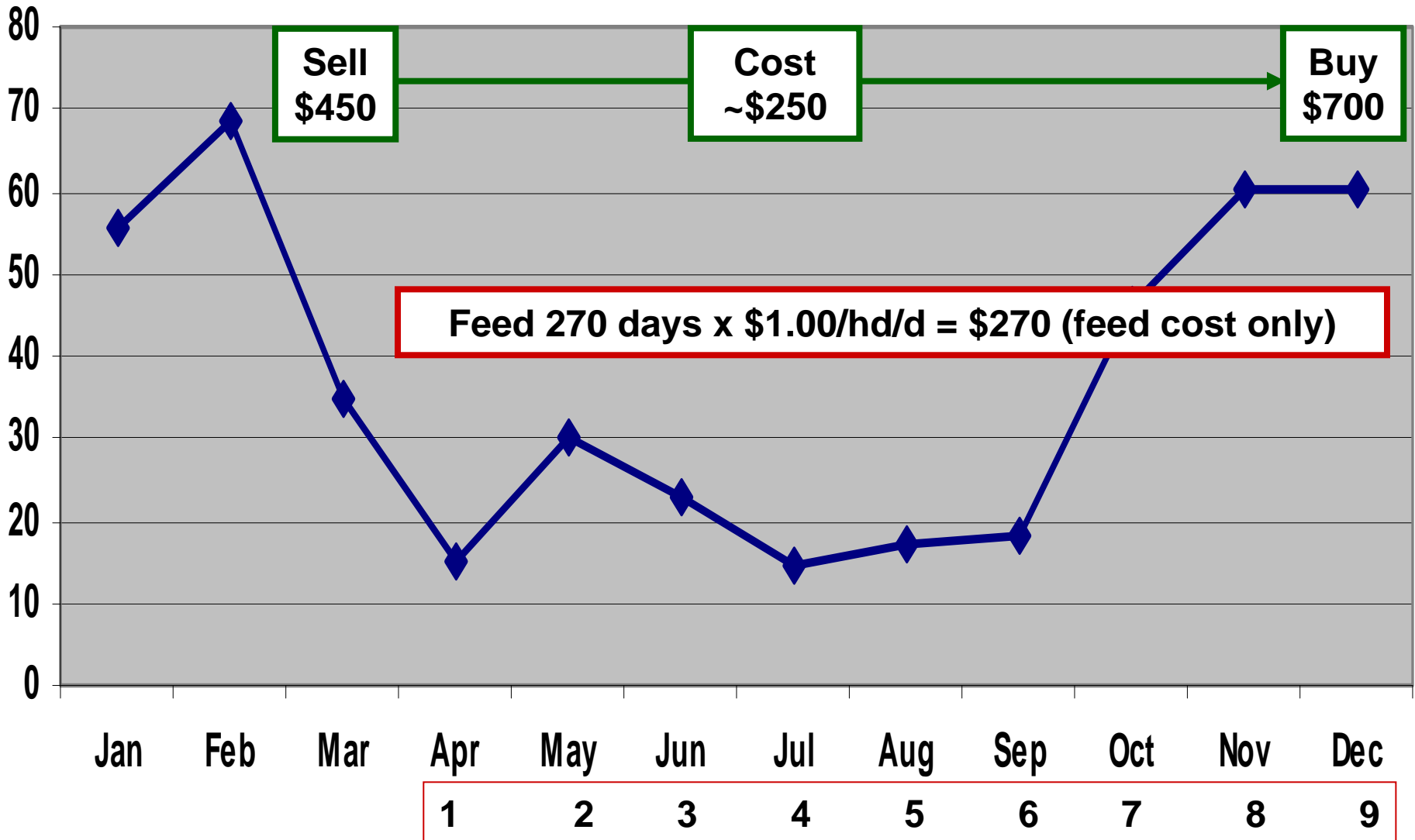
Options when more cattle than pasture



- Sell
- Feed - maintenance
- Feed - production
- Feedlot
- Agist
- Drove
- Lease
- Buy land
- Other income

People usually use a mix of options

Sell (& buy back) vs feeding



Economics – sell v feed



Costs of feeding versus selling

The State of Queensland 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.

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

Blue figures are data entry

100	number head
350	kg
\$0.80	\$/kg
\$30	freight
\$14	commission %
\$5	other sell costs

5%

Daily feed cost

3.0	kg's fed /day
\$550	/t (=55c/kg)
\$1.65	/hd/day

\$231 value now \$/hd (\$0.66/kg nett sale price)
 \$23,100 value now 100 hd

Start date	End
24-Feb-14	21-Dec-14

Feed

Sell & buy back

(10 mths) days	300	feed costs/100hd
feed cost \$/hd/d	\$1.65	\$165/day
fuel,labour,R&M,gear... \$/hd	\$5	\$500/period
deaths \$/hd	\$43	\$4308/period
interest (stock&feed) \$/hd	\$30	\$2984/period
cost to feed \$/hd	\$573	

buy back \$/kg	\$1.55
Lwt kg/hd	450
+ freight \$/hd	\$30
- interest saved/earnt	\$9
buy back value \$/hd	\$718
buy back value for 100 hd	\$71,801

5%

cost to feed \$/hd \$573
 Cost to feed 100 hd \$57,292

\$487
 \$48,701
 Cost to buy back (buy back value - value now)
 Cost to buy back (buy back value - value now)

versus

final weight kg 350
 break even sale price to cover feed costs \$2.40

\$86
 \$8,591
 advantage to sell & buy back
 per 100 head

<http://futurebeef.com.au/topics/business-management/beef-business-tools/>

Pros

- Often seen as one of the better options in hindsight
- May rain - right decision at time
- In control - act early, continued adjustment
- Acting early – weight, price, more pasture for others
- Controls downside risk
- Less stress - more time / opportunity
- “Cattle = \$ and \$ don’t feel the dry”
- Most productive animals remain

Cons

- Loss up front - missed future profit?
- Low sale price – high buy back?
- Buy back quality?

Pros

- If not too long & expensive
- If well planned & prepared

Cons

- How long will it go for?
- Rising feed costs.
- Could be high cost, less time & opportunity
- Stress
- Stock may become un-saleable
- Pasture damage
- Stock losses

Selling down



- Normal sale stock
- Higher risk & least profitable stock
 - Preg test – empty
 - Out season or late calving
 - Poor temperament, conformation, parasite susceptible
 - Old
 - Cull heifers
 - Poor doers
 - Inferior bulls
- Keep most productive, lowest risk, best genetics

Production feeding / Feedlot



Do sums – extra value > extra costs?

Spreadsheet - FutureBeef website

Production feeding

Economics better if...

- close to premium, short period
- cheap feed, high gains


Cull & weaned cows

- check grid - price jump (HSCW, P8)

Custom Feedlot

- Likely hood of profit?
- Quotes - 'as fed' or 'DM' (feed intakes & prices, conversions)
- Understand charges, risks
- Where & how sold
- Uniform mob - beware poor doers & temperament
- Pen load - less stress
- Check prior vaccines eg respiratory disease?

Cattle Feeding Margin Calculator

Step 1 - value stock at start (bought or breed) - see calculator on right. → 

Step 2 - enter your own data (blue figures) below

NB - use all "as Fed" or "DM" figures

NB - conversion tables on right

Use at own risk.

	24/2/14	24/2/14	24/2/14	24/2/14	24/2/14	24/2/14
date in	24/2/14	24/2/14	24/2/14	24/2/14	24/2/14	24/2/14
Average weight in (kg)	200	400	320	320	320	320
Expected daily gain (kg)	0.6	1.5	0.8	0.0	0.2	0.4
Feeding period (days)	365	70	70	70	70	70
date out	24/2/15	5/5/14	5/5/14	5/5/14	5/5/14	5/5/14
Expected sale weight (kg)	419	505	376	320	334	348
D%	56%	56%	56%	56%	56%	56%
CW kg	235	283	211	179	187	195
LW gain kg	219	105	56	0	14	28
Average LW	310	453	348	320	327	334
Feed intake % LW	0.5	2.4	2.4	2.4	2.4	2.4
Feed intake kg/head/day	1.5	10.9	8.4	7.7	7.8	8.0
Feed required kg/head/feed period	565	760	585	538	549	561
Feed conversion (kg eaten / 1 kg gain)	2.6	7.2	10.4	0.0	39.2	20.0
Stock loss %	1.0	1.0	1.0	1.0	2.0	2.0
Annual interest rate %	4.0	5.0	0.0	0.0	7.0	7.0
Commission rate %	4.0	0.0	3.0	3.0	4.0	4.0
Average cost of feed \$/T	450	300	416	416	416	416
Start Nett Price \$/kg LW	1.80	1.80	1.80	1.80	1.80	1.80
Sale Price \$/kg LW	1.80	1.80	1.80	1.80	1.80	1.80
PROFIT MARGIN	50	-63	-177	-256	-253	-234
COSTS (HEAD)						
Cost of stock losses	9.01	10.67	9.05	8.32	17.34	17.71
Feed	254.18	228.06	242.98	223.43	228.31	233.20
Commission	30.17	0.00	20.30	17.28	24.05	25.06
Interest - on stock value	14.40	6.90	0.00	0.00	7.73	7.73
Interest - on feed value	10.17	2.19	0.00	0.00	3.07	3.13
Transport (\$/hd)	30.00	10.00	10.00	10.00	10.00	10.00
Levy (\$/hd)	5.00	5.00	5.00	5.00	5.00	5.00
Other (yard dues etc) (\$/hd)	0.00	0.00	0.00	0.00	0.00	0.00
Induction (\$/hd)	0.00	0.00	0.00	0.00	0.00	0.00
Structures (\$/hd)	0.00	0.00	0.00	0.00	0.00	0.00
Mixing (\$/hd)	0.00	0.00	0.00	0.00	0.00	0.00
Labour (\$/hd)	0.00	0.00	0.00	0.00	0.00	0.00
Vet (\$/hd)	0.00	0.00	0.00	0.00	0.00	0.00
Other (\$/hd)	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL COST (per head)	\$343.91	\$252.15	\$278.28	\$255.71	\$278.16	\$284.12

Agistment

Pros

- Like selling – avoids feeding
- Spell home pasture
- Steers – easy, one way trip
- May be profitable – do sums



Cons

- Finding it, expensive, distance
- Run out –return / find more
- People - management / communication (written contract)
- Poor performance / losses – travel fatigue, calf losses, bogging, diseases, parasites, poisoning
- Possibly uneconomic

More information

- “Agistment guidelines” NSW DPI Primenote

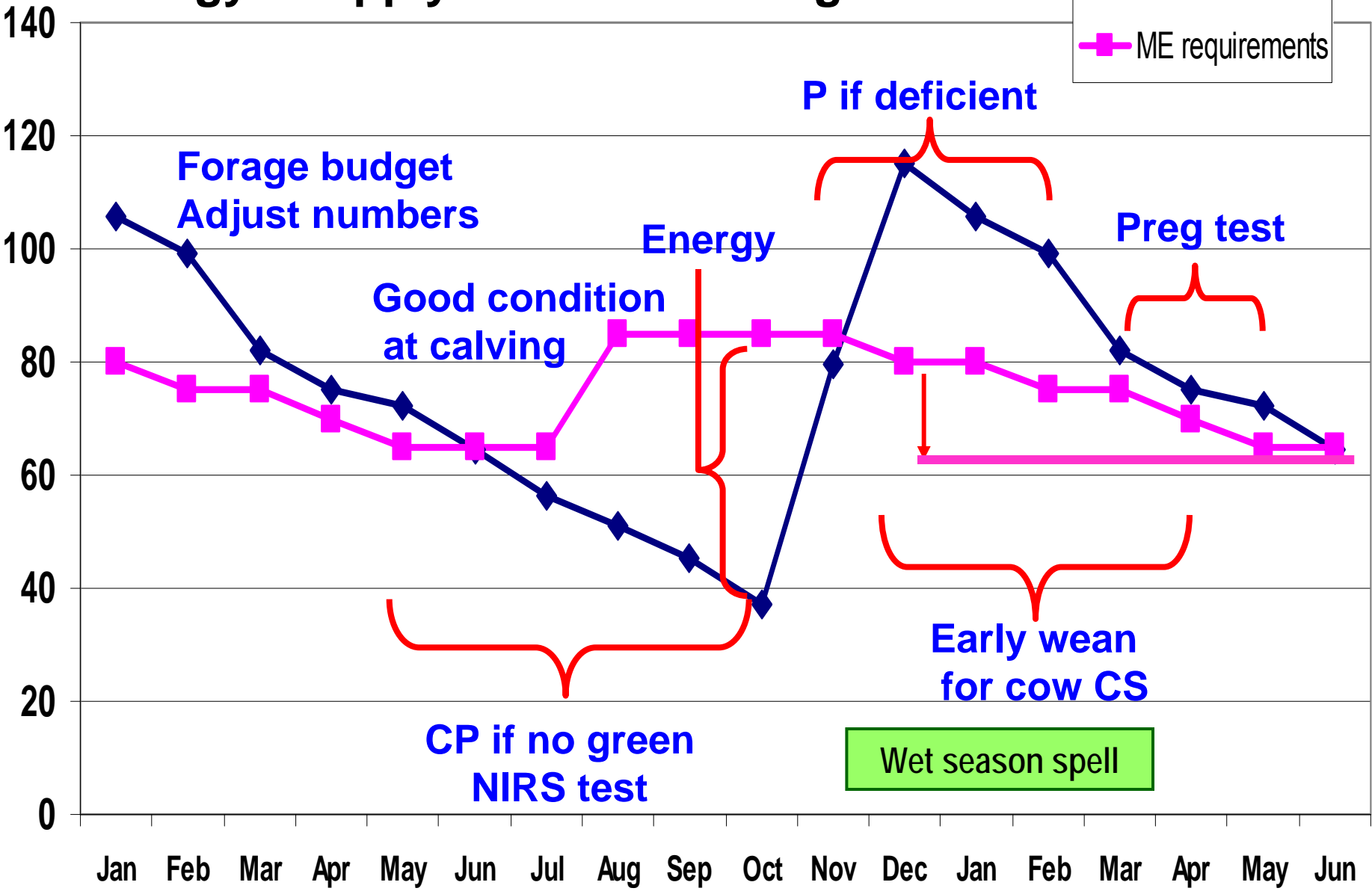
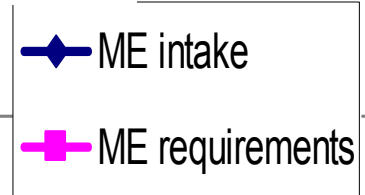
Other considerations



- **Stay healthy** – manage stress
- **Segregate** on feed requirements – cost savings
- **Early wean** for cow condition & future fertility
- **Vaccines** (5in1, botulism), **Parasite control** – lice / worms
- **Water** – good access, fenced, troughs, clean & deepen dams
- **Gradual changes** in feeds, fill cattle on safe feed
- If full feeding – small paddocks
- **Beware the break** – weak cattle, exposure, green pick, weeds, spelling
- **Keep records** – what did/when/why - what worked well, not well, do different

Holding breeder condition

Energy: Supply v Demand 500kg cow



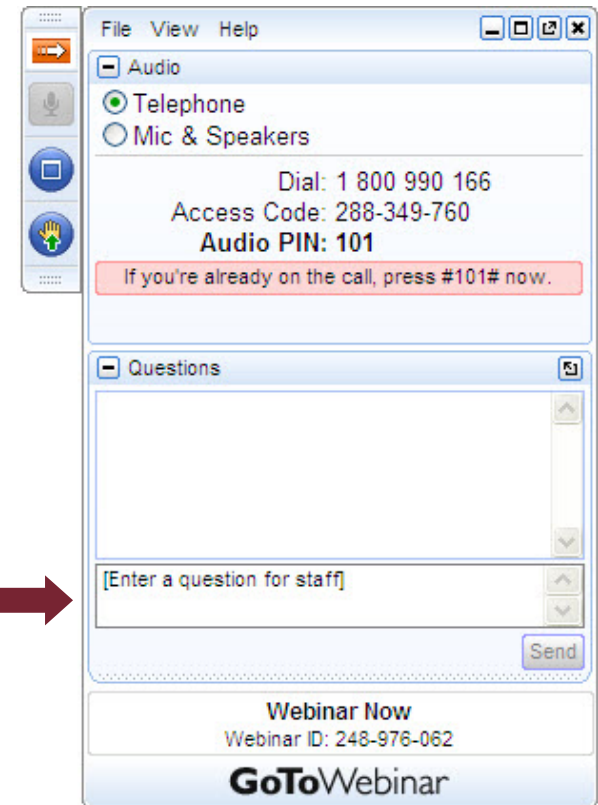
Questions - comments



People use a mix of strategies to try and preserve equity and minimise losses.

- Sell
- Feed - maintenance
- Feed - production
- Feedlot
- Agist
- Drove
- Lease
- Buy land
- Other income

**Type your questions
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4. Producers' reflections on drought

Feed supplies



- Plan ahead - buy when cheaper - contracts
- Shop around
- Beware wet feeds – check sums

Leading sheep
Newsletter

‘Around the Camp’, 21 Feb 2014

<http://www.leadingssheep.com.au/2014/02/around-the-camp-water-infrastructure-feed-suppliers-mental-health-agrihive-drought-stories/>

Some feed suppliers

This list gives some contacts as a starting point. It is by no means complete and may not be fully accurate. Please check for local suppliers, yellow pages, newspapers and web search for other options. It pays to shop around.

Whole Cotton Seed	Team	Phone
Lucas Deyfus (see Donaverks)	Dalby, Emerald, Moree	32535999
Old Cotton Corp Ltd	NSW & Southern to central Qld	32255330
Carroll Oil Seeds (cottons, meals, canola, sunflower, soy, etc)	Narrabri	93 2087200
North Bourke Growers Dinning	Bourke NSW	92 6872353
Narrabri Cotton Co-Operative Ltd	NSW, Murrumbidgee	40315155
Steve Martin Transport	Wyewewa	48 862 263, 0428 713 322
Grain		
Phil Brodie Grains	Townsville	4660400
Merco Rural (and meals)	Townsville	46373300
A & B Grains (and cotton seed)	Dalby	45012111
Feed rations / pellets (+ meals, dry licks, other)		
Ridley, Supatone/Agriproducts	1 Dalby Mill, 2 supplements 1 Warwick, 2 Dalby, 3 Griffiths	1) 48722777, 2) 4789 0700, 1302 688 687
Rivanna	Murgon, Loganlea, Mackay	1) 46007866, 2) 46014500, 3) 41821860
Mulmin Performance stock feeds and supplements	Warwick	4607000
Livestock Stockfeeds	11 Dalby, 21 Moree	1) 41940000 2) 41881182
Woods Stockfeeds	Goondiwindi	46730400
Water Works	Dalby	46914691
Protein Meals		
BEC feed solutions (protein, fertilisers eg urea, DCP, granam...)	Brisbane	1300 884 603
Stance Global	Brisbane	1800 753623
Emergen Australia	Brisbane	37 3605 2258
Dry licks – see Feed rations / pellets section above too.		
Stocklick Trading (cottons, meals, molasses)	1 Roma, 2 Charleville Towers, 3 Dalby, 4 Gater	1) 40254700, 2) 47877007, 3) 40970081
Top Country	Roma	46229330
Nutrilite (cottons, meals, homophy water medication supplies)	Michael	46331141
PIA Feeds (dry licks, meals)	Townsville	46335555
Caudebay Produce Agency	Townsville	47200686
Coleman Stock Feeds	Charleville Towers	47873833
Molasses & mixes		
Kalbar (see Molasses) (molasses & MSU)	Mackay	46646271
Performance Feeds (e.g. Anpro, Molasses from Wilmar)	Kingsthorpe	1 800 300 593, (47822995 Brandon) Tom 33641617
Molasses Australia (Tom McNeillie – Boss)		
Wide Bay Molasses	Mariborough	41233470
Falls Road Transport	Mackay	46220100
Tully Sugar Ltd	Tully	4281 6777
Bowman Molasses	Bowenville	40937100
Champion Liquid Feeds (e.g. Molabro)	Maika	1600 333 050
Sundaberg molasses (e.g. Protix, Pasture Plus)	Dalby	1600 777 067
Performance Feeds (e.g. Anpro, Molasses from Wilmar)	Kingsthorpe	1 800 300 593, (47826006 Brandon)
Cattle King Agricultural Services (e.g. Quicklick Protein extract)	Sarina	49 431 177
Rivanna (e.g. free flow molasses & supplements)	Warwick	46022006
Feed Central (hay & other)	Townsville	1300 860420
Farm Feeder (hay, grain, silage, agistment)	www.farmfeeder.com.au	93 20661658
Pastoral and Feedlot Systems – Water medication (Nutri-drovet)	Brisbane	38485299
Onix Rural – Feeder premixes, vitamins, additives	Townsville	46341327

Feed supplies



Feed price guide Feb 2014 (ex GST) (guide only and subject to change)

Jan 2014	Price	Supply
Grain	\$330-340	reasonable
Chickpea	\$400-480	reasonable
Hay	\$380-500	
WCS old	\$500+	very tight
WCS new	\$385+	April ex Moree
Feedlot rations/pellets ...	\$380-500+	
Molasses	June/July (unless contract)	

24 Feb 2014	\$/t bulk ex GST	Supply	Ex	CP% DM	MJ/kg DM
Protein meals					
Palm kernel meal	350	Reasonable	Bris	15	12
Soybean meal	765	Limited	Bris	46	12
Canola meal	500	Very tight - May on	Newcastle	36	10
Cotton seed meal	550	Very tight - May on	Narrabri	44	12
Cottonseed meal pellets	450	None till April	Hillston	28	10
Sunflower meal	410	None till April	Newcastle	28-30	10
C-Alm pellets	450	None	Downs ex Hillston	17	9.9
Dried Distillers Grain		End April		30+/-	12.5

Costing nutrients

Need to know:

1. \$/t
2. DM%
3. Nutrient level – ‘DM’ or ‘As fed’ basis

Spreadsheet on FutureBeef website

Feed	\$/t (as fed)	(c/kg) (as fed)	DM %	ME (MJ/kg) (DM)	ME (MJ/kg) (as fed)	cents/MJ ME	CP% (DM)	CP% (as fed)	\$/kg CP
	A	A÷10 B	C	D	C÷ 100 x D E	B ÷ E	F	C ÷ 100 x F G	B ÷ G
Cotton seed meal	500	50	90%	12	10.8	4.6	43	39	1.29

Other considerations

- Risk
- Experience
- Handling - storage, equipment, mixing, delivery, troughs
- Labour or full service
- Water content
- Response

Costing energy

	<u>\$/t</u>	<u>c/kg</u>	<u>MJ/kg as fed</u>		<u>c/MJ</u>	
Grain	\$300	30	/	10	=	3
Silage	\$100	10	/	3	=	3.3

high water content – do sums!!!

Costing protein



	<u>\$/t</u>	<u>kg CP</u>		<u>\$/kg CP</u>
WCS	\$200 / 200	=		\$1.00
WCS	\$550 / 200	=		\$2.75
CSM	\$550 / 400	=		\$1.38
Copra	\$550 / 200	=		\$2.75
Dry lick	\$800 / 540	=		\$1.48

Cost : response

Costing nutrients Feed Check & update with current figures Enter your feeds & data at BLUE figures only	Price				DM %	Energy			Crude Protein (CP)		
	\$/t	Freight (\$/t)	\$/t landed	(c/kg)		ME MJ/kg (DM)	ME (MJ/kg) (as fed)	Cents/MJ ME	CP% (DM)	CP% (as fed)	\$/kg CP
	(as fed)		(as fed)	as fed							
			A ÷ 10	B	C	E ÷ C x 100	C ÷ 100 x D	B ÷ E	G ÷ C x 100	C ÷ 100 x F	B ÷ G
		A	B			D	E		F	G	
Example - Silage	110	100	210	21	32%	8.5	2.7	7.7	8	3	8.20
Example - Grape Marc	200	200	400	40	48%	10.8	5.2	7.7	14	7	5.95
Example - Lucerne	500	100	600	60	88%	9	7.9	7.6	15	13	4.55
Example - Soybean meal	765	50	815	81.5	90%	12	10.8	7.5	46	41	1.97
Example - Canola meal	500	100	600	60	90%	10	9.0	6.7	35	32	1.90
Example - Hay	250	200	450	45	88%	8	7.0	6.4	8	7	6.39
Example - Cotton seed meal	600	50	650	65	90%	12	10.8	6.0	44	40	1.64
Example - Chickpea	450	50	500	50	90%	10	9.0	5.6	20	18	2.78
Example – Commercial feedlot ration	400	50	450	45	90%	11	9.9	4.5	12	11	4.17
Example - WCS (whole cottonseed)	440	50	490	49	90%	13	11.7	4.2	24	22	2.27
Example - Molasses	285	50	335	33.5	75%	12	9.0	3.7	1	1	44.67
Example - Palm kernel meal (PKE)	350	50	400	40	90%	12	10.8	3.7	16.5	15	2.69
Example - Grain	335	50	385	38.5	90%	12	10.8	3.6	11	10	3.89

Working out average intakes



Dry lick - 15% urea, 52% CP, \$800/t (80c/kg)

Kg put out	/	no of cattle	/	how long last
210 kg	/	100 hd	/	7 days
= 2.1 kg	/	1 hd	/	7 days
= 300 grams	/	hd	/	1 day

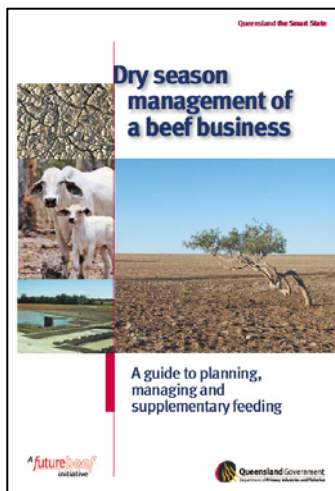
300 grams / hd / day x 15% urea = 45 grams urea

300 grams / hd / day x 52% CP = 156 grams CP

0.3 kg x 80 c/kg = 24c/hd/day

More information

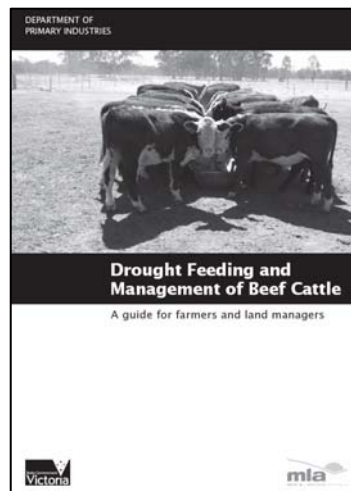
Qld DAFF web



NSW DPI web



VIC DEPI web

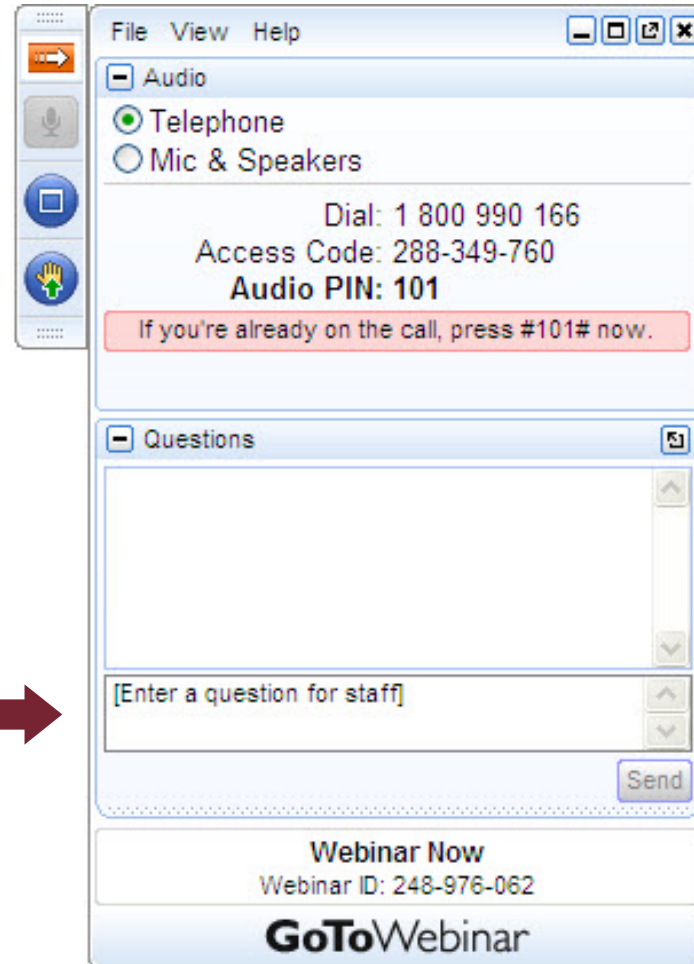


Goats: **Nutrition and management of goats in drought** by B. A. McGregor, Dec 2005, RIRDC Publication No 05/188, RIRDC Project No DAV 217A

Horses: Google - Drought feeding and management for horses David Nash

Sheep: sites listed on last page

Questions, comments?



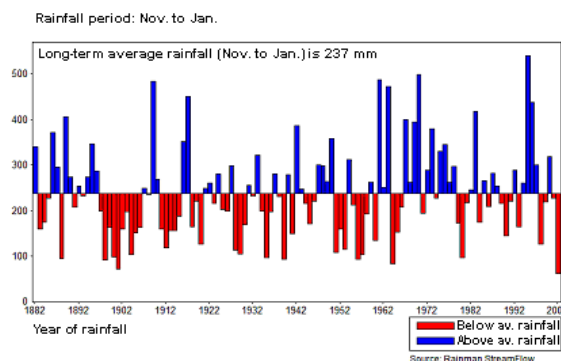
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4. **Producers' reflections on drought**

Producers of the North-West Slopes of NSW reviewed their drought preparation and business strategies for 2003.



David Llewelyn
Senior Livestock Officer, Moree.

<http://www.dpi.nsw.gov.au/agriculture/emergency/drought/lessons/north-west>

Producers nominated...



- **best decision** - destocking to critical dates
- **worst decision** - not acting early enough

Key messages focused on forward planning...

‘Know what you are going to do and when’
was the key to staying in control.

Of crucial importance is to:



- have a plan
- set critical dates
- progress personal educational needs
- have a strategy for recovery.

Thirteen key lessons learnt



1. Drought occurs when stocking rate exceeds carrying capacity (i.e. drought is not only rainfall-induced).
2. Humans control stocking rate.
3. Nature controls carrying capacity.

Thirteen key lessons learnt



1. Drought occurs when stocking rate exceeds carrying capacity (i.e. drought is not only rainfall-induced).
2. Humans control stocking rate.
3. Nature controls carrying capacity.
4. Success in drought is achieved in the same way as at other times (e.g. using sound business management principles).
5. Start with goals, write & communicate the plan & recovery plan. (Plan now for next time, write plan down. Put plan in folder. Don't lose the folder.)
6. Finetune the plan regularly

Thirteen key lessons learnt



7. Move early.
8. Remain positive — keep in touch with positive people.
9. Set critical dates.
10. Beware the emotional load! Share the responsibility with family members. Don't be afraid to seek help.

Thirteen key lessons learnt



7. Move early.
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- 11. Watch out for unmanageable equity losses.**
- 12. Look on mistakes as learning opportunities.**
- 13. Preserve the resource base for financial recovery and future generations.**

People



- Stay positive and in control.
- Be an opportunist.
- Maintain harmonious communications with business & family.
- Ensure networking and educational needs are met.

Questions, comments



- DAFF Drought assistance 13 25 23 www.daff.qld.gov.au/environment/drought
 - Rural Financial Counselling Service (RFCS) <http://www.daff.gov.au/agriculture-food/drought/rfcs/counsellors/qld>
 - Drought updates, probabilities www.longpaddock.qld.gov.au
 - Rainman (rainfall data) [google - rainman streamflow](#)
 - BOM – rainfall data www.bom.gov.au/climate/data
 - BOM – POAMA poama.bom.gov.au/realtime_login.shtml
 - FutureBeef futurebeef.com.au
 - NSW DPI – beef & sheep www.dpi.nsw.gov.au/agriculture/livestock
 - Victoria State Government <http://www.dpi.vic.gov.au>
- Sheep sites
- Leading sheep www.leadingsheep.com.au
 - AWI (Australial Wool Innovation) <http://www.wool.com/en/on-farm-research-and-development/sheep-health-welfare-and-productivity/sheep-nutrition>
 - Qld Gov Business & Industry portal www.business.qld.gov.au/industry/agriculture/animal-management/sheep/health-welfare

Leading sheep

Newsletter – ‘Around the Camp’, 21 Feb 2014

<http://www.leadingsheep.com.au/2014/02/around-the-camp-water-infrastructure-feed-suppliers-mental-health-agrihive-drought-stories/>



Questions, comments?

Type questions
and share your
comments here
anytime

