

Supplementary feeds suitable for cattle in drought

Bill McKiernan

Research Leader Animal Production, Production Research, Orange

WARNING Drought increases the risk of unacceptable residues in stock. Risks include contaminated feed, increased intake of contaminated soil, concentration of existing residues as animals lose condition, and many other causes. Refer to Primefact 312 *Drought increases residue risks* for details before purchasing stockfeed or making feeding decisions.

Table 1. Suitability of various feeds depending on the amount of dry feed available

	Plentiful feed (over 2500 kg/ha)	Reduced feed (1500–2500 kg/ha)	Poor feed (1000–1500 kg/ha)
Blocks	✓	–	–
Roller drum	✓	✓	–
Hay	–	–	✓
Silage	–	–	✓
Grain	✓	✓	✓
Prepared feeds (pellets etc.)	✓	✓	✓
Lupins	✓	✓	✓
Molasses mixes	✓	✓	✓
Cottonseed meal or by-pass protein meal	✓	✓	✓
Whole cottonseed	✓	✓	✓

Table 2. Quantities to feed (kg/animal/day) assuming dry standing feed is available

	Weaners	Dry adults	Late pregnancy or lactation
Blocks	As per manufacturer	As per manufacturer	Not suitable
Roller drum	See Primefact 272	See Primefact 272	See Primefact 272
Hay	1.5	2.5	4.0
Silage	4.5	7.5	12.0
Grain	1.0	2.0	3.0
Prepared feeds (pellets etc.)	1.5	2.5	3.5
Lupins	1.0	1.0	1.5–2.0
Fortified molasses mixes	See Primefact 271	See Primefact 271	See Primefact 271
By-pass protein	0.5	0.5	1.0–1.5
Whole cottonseed	1.0	1.0–2.0	2.0–3.0

Notes on the use of supplements

Blocks

- Blocks are only useful very early in a drought phase with plenty of roughage.
- Cattle tend to eat too little of them.
- They are very expensive if evaluated on nutritive value.
- They are often used way beyond their 'window of usefulness'.



See Primefact 273 *Making your own protein blocks for cattle*.

Lupins

- Lupins contain high protein (30% crude protein) and high energy.
- They are safe to feed compared with other grains (no grain poisoning).
- They can be fed twice a week, augered, and are suitable for silos.

By-pass protein

- Examples are cottonseed meal, copra meal, manufactured protein pellets and meals.
- By-pass protein is high in protein and safe to use.
- Feed twice a week.

Meatmeal

It is **illegal** to feed ruminant animals with meatmeal derived from ruminant animals.

Roller drums

See Primefact 272 *Urea roller drum mixes*.

Fortified molasses

See Primefact 271 *Fortified molasses mixtures*.

White cottonseed

White cottonseed is an excellent supplementary feed for all cattle except calves under 4 months of age.

White cottonseed mixes well with grain and protein meals. It is high in energy and protein, but because its high oil content may cause digestive upsets, it should make up no more than a third of maximum potential feed intake (i.e. two-thirds of intake should be from pasture).

- White cottonseed, fed as a supplement to pasture, is an excellent complete supplement.
- It can be fed whole, in dumps in the paddock, twice a week.
- Intake should be kept to a safe 2.5 kg/day for adult cattle.
- Do not feed where no roughage is available.

See Primefact 303 *White cottonseed – a supplementary feed for beef cattle*.

WARNING

White cottonseed (WCS) and de-linted cottonseed (black cottonseed) may contain residue of chemicals applied to the cotton crop during the growing season. The Australian Pesticides & Veterinary Medicines Authority (APVMA) calculates maximum residue levels on the basis of a 30% maximum dry matter (DM) intake of cottonseed (WCS and black cottonseed) in the diet.

This means that using WCS at levels above 30% of the total dry matter intake could result in excessive residues in cattle. This is particularly true for cattle destined for export markets, where the 30% limit set to comply with domestic MRLs may not apply.

If you have fed WCS from crops treated with chemicals within 60 days of harvest (all cottonseed would be in this category) to cattle within 60 days of sending them for sale/slaughter, then you must disclose this at Question 7 of the National Vendor Declaration (Cattle).

NSW Department of Primary Industries does not recommend the use of cottonseed at more than 30% of the total dry matter intake, even in severe droughts.

NSW Department of Primary Industries and the cattle and cotton industries recommend that cotton trash NOT be fed to livestock due to residue concerns.

Hay

- Hay is best saved for later drought feeding of high priority stock (lactating cows etc.).
- It is usually expensive in feed value terms and difficult to get during drought.
- Feed every second day.
- Check bale weights.
- Buy by the tonne.

Silage

- The figures given in the tables above are based on 30% dry matter.
- Silage is a complete feed rather than just a supplement.
- Quality varies, depending on how well the silage was made.
- Feed every second day.

Grain

- Protein must be added to grain as a supplement for late pregnant or lactating cows on dry feed.
- Cattle tend to hang on till the next grain feed and not graze the paddock effectively.
- All grains can be fed whole, but sorghum is best cracked.
- Add 1% limestone and introduce grain gradually. Feed every second day.

See Primefact 275 *Hand feeding cattle in drought – grain* and Primefact 276 *Hand feeding cattle in drought – grain/hay*.

Grain pellets (also feedlot mixes)

These are treated similarly to grain, but are more easily fed on the ground and handled.

See Primefact 321 *Feeding pelleted rations*.

Further information

For further information see Drought feeding and management of stock

www.dpi.nsw.gov.au/reader/drtfeeding

or contact your nearest NSW Department of Primary Industries Livestock Officer (Beef Cattle).

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Check for updates of this Primefact at:

www.dpi.nsw.gov.au/primefacts

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (November 2006). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of New South Wales Department of Primary Industries or the user's independent adviser.

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