

Beeftalk is changing with the times. From spring 2013, Beeftalk will no longer be printed and will be available as a free online newsletter. To be on the mailing list please forward your email address to lyndel.bryant@daff.qld.gov.au. If you use the internet make the FutureBeef website (www.futurebeef.com.au) one of your favourites to access practical information such as the new MLA weaner and heifer books, various online presentations and past editions of Beeftalk.

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Lantana poisoning

Lantana is found throughout most coastal and sub-coastal areas of eastern Australia in a wide variety of habitats, from exposed dry hillsides to wet, heavily shaded gullies. It is native to the tropical and subtropical regions of Central and South America.

Many lantana varieties are poisonous to stock. Red-flowered lantana is commonly believed to be more toxic than pink-flowered. In some areas of central Queensland, however, pink-flowered lantana is known to be highly toxic. If unsure, consult your local government weeds officer or other experienced landholders for local advice.



Many landholders have observed that mature, experienced cattle browse lantana at certain times of the year without obvious toxic effects. However, given the lack of precise information and the highly variable physiology of lantana types, **all lantana colour forms should be regarded as poisonous**. The toxins in lantana include the triterpene acids, lantadene A (rehmannic acid), lantadene B and their reduced forms.

Most cases of lantana poisoning occur when new stock are introduced into lantana-infested areas. Stock bred on lantana-infested country avoid lantana unless forced to eat it due to lack of other fodder. Young animals newly introduced to lantana areas are most at risk.

To minimise lantana poisoning take care when introducing new or young animals into a paddock if lantana is present. Ensure they have enough other fodder so they will not be forced to eat the lantana in quantities sufficient to result in poisoning. During drought, animals should not be placed in lantana-infested areas without alternative food.

Signs of poisoning

Signs of lantana poisoning depend on the quantity and type of lantana consumed and, under some circumstances, the intensity of light that animals are exposed to. Poisoning can result when a beast consumes one per cent or more of its body weight in fresh leaf (say 5–20 kg for a 500 kg cow), depending on the toxin content of the lantana.

Early signs of depression are noticeable, with head swaying, loss of appetite, constipation and frequent urination. After a day or two the eyes and the skin of the nose and mouth start yellowing with jaundice and the muzzle becomes dry and warm. The eyes may become inflamed and have a slight discharge. The animal also becomes increasingly sensitive to light. Finally, the muzzle becomes inflamed, moist and very painful ('pink nose'). After exposure to the sun, areas of un-pigmented skin may peel and slough off. Death commonly occurs 1–4 weeks after symptoms occur. Death from acute poisoning can occur 3–4 days after eating the plant.

Treatment

If animals show any of the early signs, move them to lantana-free areas, monitor them and keep them in the shade and seek veterinary treatment immediately. Act quickly because early treatment offers a good chance of recovery—delaying treatment can result in serious kidney damage and failure. Remedies include administering intravenous fluids, treating skin damage with antibiotics and sunscreens, and drenching with activated charcoal slurry (2.5 kg activated charcoal in 20 litres of electrolyte replacement solution for cattle; 500 g in four litres for sheep and goats). Activated charcoal is an effective but expensive poisoning antidote and a second dose may be required 24 hours after the first if the animal has not improved. Bentonite can be substituted for activated charcoal but is not as effective and may take up to two days longer to produce the same result. Use the same dose recommended for charcoal, in a slurry with water.

Lantana control

Using a variety of control methods gives the best results when treating lantana infestations. Consider the size, density and geographic location of the infestation when choosing control methods. In general it is best to start your control program in areas of light infestation and work towards the denser infestations.

Landholders in south-eastern Queensland are reporting success using the splatter gun spray method to help control lantana. Check with your local catchment group as some have the splatter gun available for loan (see *Beefstalk* 33 for more information about using a splatter gun).

Lantana seed banks remain viable for at least four years, so to ensure your initial management efforts are not wasted you will need to follow up and kill seedlings before they mature.

Appropriate fire regimes may become part of a management program to reduce lantana invasion and maintain pasture.

Removing lantana within areas of remnant vegetation may require a permit under the *Vegetation Management Act 1999* if there is potential for damage to the surrounding native tree species. Ask for more information from the Department of Natural Resources and Mines (phone 13 74 68) before works commence.

Information sources:

Lantana *Lantana camara* (4 pages) Fact sheet, Declared class 3 pest plant
www.daff.qld.gov.au/documents/Biosecurity/EnvironmentalPests/IPA-Lantana-PP34.pdf

Lantana, Best Practice Manual and Decision Support Tool (162 pages), Weeds of National Significance August 2009 www.weeds.org.au/WoNS/lantana/ (Free from DAFF Queensland on 13 25 23).

BeefSpecs tool helps predict weight and fat

BeefSpecs is an easy-to-use online tool that predicts final liveweight, P8 fat thickness and hot standard carcase weight (HSCW) from input information including breed, current liveweight and fat (P8) thickness, frame score and projected growth rate.

It also takes into account feed type (i.e. grass or grain) and, where applicable, HGP use.

Graziers can use BeefSpecs to see how changes in various parameters can improve the likelihood of their cattle meeting target market specifications.

Meat & Livestock Australia, the Beef Co-operative Research Centre and the NSW Department of Primary Industries (DPI) have developed this innovative tool to help beef producers make better decisions and meet market specifications.

BeefSpecs is available at <http://beefspecs.agriculture.nsw.gov.au>

Thatch grass

Thatch or jaragua grass (*Hyparrhenia rufa*) is a common grass on roadsides in south-east Queensland. The bulk and height of this grass makes it easy to recognise. A native of South Africa, it has been marching southward for the last 20 years. It is sometimes erroneously called 'grader grass' because it flourishes in the disturbed soil that graders leave on roadsides. However, grader grass is *Themeda quadvalvis*, a much smaller grass and a relative of kangaroo grass.

As the name 'thatch grass' suggests, this plant is used for roofing huts in South Africa. It was introduced into Australia as a pasture species. Generally it has not been used as such and the plant is often grazed out in the paddock but proliferates in the 'long paddock'. The sheer bulk of the un-grazed plant is a problem because it out-competes other species and can fuel very hot fires. Concern is increasing about this species' potential as an environmental weed.

The grass is generally palatable to cattle when short but when mature is unattractive to all but the hungriest of stock. It may have become more prolific in pastures over the last two years due to the high rainfall.

Trials in South America have found this grass is productive but needs to be rotationally grazed to keep it productive and palatable. There have



been concerns that the plant is now beginning to dominate some pastures and shade out legumes.

Thatch grass is a perennial with rhizomes. Stems are 30–300 cm tall and 2–6 mm in diameter. Leaf blades are 10–60 cm long and 2–8 mm wide. A distinguishing feature of the grass is the stem sheaved in green leaf alternating with the lighter creamy coloured stem. This gives alternating yellow and green areas along the length of the stem.

Coolatai grass (*Hyparrhenia hirta*) is similar to thatch grass and is causing concern in NSW and some areas of southern Queensland. Trials have found that Coolatai grass is resistant to many herbicides.

Thatch grass has the potential to become a problem in some situations so monitor its spread carefully in your pastures.

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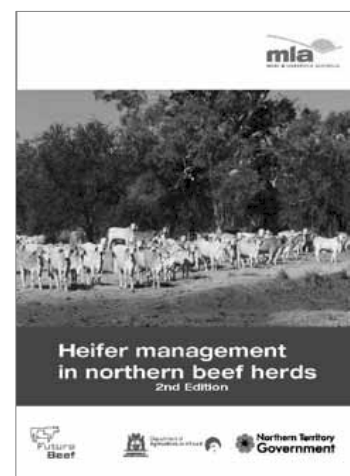
Free publications: Weaner management and Heifer management

Meat & Livestock Australia has published two new manuals.

The *Weaner management in northern beef herds* manual is a 59-page compilation of the latest research, demonstrations and practical knowledge available on weaning and weaner management in northern Australia. This manual focuses on two important aspects of weaner management:

1. best management practice for feeding and educating weaners
2. using weaning of young, light calves under difficult conditions to reduce mortality and improve breeder fertility.

The *Heifer management in northern beef herds, 2nd edition* manual focuses primarily on heifer management in extensive beef herds but these principles apply to all beef herds across northern Australia, despite differences in scale of operations, breeds, climatic conditions or pastures types. This 34-page manual is an outcome from the MLA-funded heifer projects run in northern Australia and incorporates findings from these projects and research results from Beef CRC 2 projects.



To order or download free copies

To order hardcopies of these publications, phone the MLA membership services hotline on 1800 675 717 or email publications@mla.com.au

Or download electronic copies from www.mla.com.au/Publications-tools-and-events/Publications

- *Weaner management in northern beef herds* (Publication code 9781741919011)
- *Heifer management in northern beef herds 2nd edition* (Publication code 9781741916553)

Growing leucaena in Queensland

Leucaena is a tropical shrub legume that provides high quality foliage for grazing ruminant animals. It's very palatable and will persist and remain productive for more than 50 years. Merchants first brought leucaena into Australia over 100 years ago and so many stands have naturalised along the Queensland coastline. This leucaena is called common or weedy leucaena, and is a different variant to the grazing cultivars that were first grown in commercial beef situations during the 1970s.

Originating from Mexico and central America, leucaena prefers a tropical environment where wet, hot summers and mild winters prevail. Little to no grazing value is available during the winter in southern Queensland, as growth ceases once average daily temperatures fall below 12–15°C. Leucaena will drop leaf after frosting and heavy frosts can kill stems, however, frost rarely causes plant death. Once temperatures warm in spring re-growth quickly occurs from the stems, or from the base of the plant if the stems were frosted.

Leucaena will grow on a range of soil types however production is maximised on deep (1 m+), fertile (high phosphorus), well-drained soils (loams to medium clays). Once established leucaena can be productive on a range of soil types. Recent plantings in forest country with native pasture (e.g. fertile loam creek flats) are providing high forage production that is significantly boosting the protein available, especially in spring and autumn.

Animal production from leucaena has been extensively studied and grazer experience confirms that beef production per hectare can more than double the production from grass-only pastures on the same country. The current producer demonstration site at Bell that DAFF beef officers Tim Emery and Roger Sneath coordinated is providing further evidence, with cattle on leucaena–grass pastures gaining 260 kg/ha compared to 130 kg/ha on grass-only pastures over a 12 month period. This is primarily due to high quality feed being available for longer during the season. This, together with higher feed availability is enabling better individual animal performance and higher stocking rates. Stock are reaching slaughter weights 6–12 months earlier than similar stock on grass-only pastures (figure 1), providing a better weight-for-age animal with improved carcase characteristics.

While leucaena–grass pastures provide significant beef production and profitability benefits, these can only be obtained if cattle are drenched with the 'leucaena bug'. The 'bug' is an anaerobic rumen bacterium that neutralises a toxic by-product of mimosine breakdown. Mimosine is an amino acid found in leucaena leaves and stems. The bug is distributed from DAFF's Wacol Tick Fever Centre in Brisbane. Place your order by phoning 07 3898 9655.

Another serious issue is the weed potential of leucaena. Poorly managed leucaena will produce seeds that can be spread by birds, wind or water and lay dormant for many years. The grower organisation, The Leucaena Network has produced a code of practice that all leucaena producers should follow to minimise the environmental impacts while maximising the productive potential of their leucaena plantations. It's imperative that leucaena is managed to prevent seeding, and that all volunteer plants are controlled, especially outside grazed paddocks. Log onto www.leucaena.net to become a member and to access the latest information about leucaena production.

Is growing leucaena for me? If your pastures are run-down or there are periods of low protein availability, leucaena can improve cattle performance. Choose a paddock with your deepest and most fertile soil type, preferably above the frost line. Establish a vigorous leucaena stand with a productive grass, and rotationally graze to maximise animal production and minimise height and seeding. For more information about establishment techniques, varieties and management log onto the DAFF website, or contact Stuart direct.

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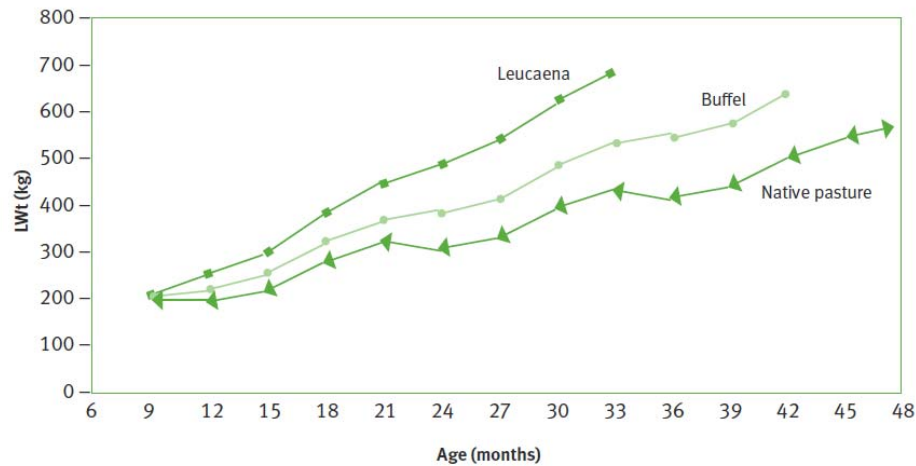


Figure 1. Steer performance from leucaena compared to buffel and native pastures (Col Middleton).

Upcoming events

Monitoring and evaluation webinar. Tuesday 19 March, 12-1 pm AEST. [Learn more about the Enabling change and innovation webinar series.](#)

Business EDGE workshop. Saturday 32 March at [Longreach.](#)

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