

Productivity after the drought

Extensive Industries Development

While surviving the drought is obviously foremost in your mind, how you care for your natural resources during the drought will determine how productive your property will be for decades to come.

Farm management during a drought is all about making a smooth transition from drought to 'normality' and having the farm in a condition that will respond favourably to drought-breaking conditions.

Farm planning

A whole farm plan that identifies the various land types, tree lots, soil problem areas, waterways and pasture history will help to locate the most sensitive and the most forgiving areas under drought management practices. This will include identifying:

- areas to be protected from stock
- areas where stock can be fed
- areas that need additional fences or watering points
- priority areas for pest control, including unwanted grazing by native animals.

By protecting quick-recovery areas, waterways and soil structure, the farm will be in better shape when the rain falls. Maintaining groundcover wherever possible will not only protect the soil surface but will also allow more water into the soil where it will be stored for use when plants begin to grow, giving them a better chance of survival. It will also protect seeds and small seedlings which are the real investment for future recovery.

More details on pasture management are provided in the Primefact 325 *Pasture sustainability and management*.

Soils

The soil resource is critical for the ongoing profitability of the farm. Heavy grazing, whether from stock or from feral or native animals, can leave the soil liable to wind or water erosion.

Organic matter and finer components are lost first, substantially reducing soil fertility and structure.

Do not leave stock in a paddock until all protection (dead and alive) is removed from the soil. Select paddocks for drought feeding that have a soil type and topography that will be less liable to erosion.

Special consideration needs to be given to areas close to watering or feeding locations. Where possible, considering issues with weed management from feeding imported fodder, these areas should be rotated so that excessive damage does not occur in any one area. Where damage is unavoidable, a sacrificial area may minimise restoration works after the drought.

Stock tracks down slopes can provide a starting point for gully erosion. Ripping across the slope can reduce soil loss, but you must avoid creating fine soil particles.

Farm dams

When the drought breaks, the initial rains will erode bare soil. Ensure that farm dams are protected so that they do not fill up with silt; if possible, maintain vegetated filter strips.

Take the opportunity of dry conditions to clean out farm dams, build silt traps above the dams and ensure that runoff is slow, well directed and conserved. Erosion after a drought can be horrific.

Weeds

Weeds introduced in drought feed can become an ongoing liability for a farm. The following strategies will facilitate weed management.

- Try to find out about the source of grain or fodder so that potential problems can be anticipated.
- Restrict the area over which imported grain or fodder is fed out and keep a record of the area.
- After the drought breaks, observe the area periodically for the next few years; note any new weed species and have them identified.



Weeds already present can increase in importance after a drought since they recover faster than desirable species. Observe how the pasture is recovering and decide on a management strategy if weeds show signs of dominating.

Herbicide resistance

Fodder and grain contamination with herbicide-resistant weed seeds, mainly annual ryegrass, is the quickest means of introducing herbicide resistant weeds onto farms. Good farm hygiene and the controlled feeding of introduced fodder and grains are the best avoidance procedures. The manner of drought feeding, particularly of grain, will determine the spread on individual farms.

Feral and pest animals

During a drought, predatory animals such as foxes and wild dogs may increase the range of species on which they prey if their normal source of food is less available. This can increase impacts on stock and native animals. The decline in ground cover and shrubs can also increase exposure of small native animals and birds to predators. For these reasons control of predatory pest animals during a drought is desirable.

Control of pest grazing animals, such as rabbits and goats, during droughts can reduce competition for limited feed supplies for commercial stock and wildlife. Goats are a particular problem since they 'hang on' longer than other animals and can cause long-term damage to trees and shrubs.

On the other hand, drought conditions may make feral and pest animals easier to control, providing an ongoing benefit when conditions improve.

Native animals and flora during droughts

Biodiversity underpins the functioning of the whole ecosystem and is particularly important as a component of integrated pest management.

Because agriculture is a major user of land in NSW, much of the biodiversity in NSW resides on agricultural properties.

During a drought, landowners obviously focus on trying to preserve sufficient stock and resources so that their business can recover after the drought and therefore they may consider that native animals and flora are not a priority. Considering biodiversity during droughts also demonstrates to communities that we are committed to responsible stewardship of the land.

Good stewardship of the land maintains its ecological values, maintains amenity for local communities and promotes tourism opportunities. Conservation areas and areas with threatened species or communities should not be used for grazing during droughts or at other times.

Native grazing animals, such as kangaroos, contribute to total grazing pressure. If the total grazing pressure significantly exceeds feed availability, then considerable numbers of native animals may die in the latter stages of a drought. It may be in the best interests of native animals, as well as domestic stock, to adjust total grazing pressure earlier in a drought. The National Parks and Wildlife Service should be contacted for advice.

Native animals also require access to watering points, so the location of these points can influence the distribution of animals and birds. Water points that are heavily used by stock may inhibit their use by native animals; where possible, provide alternative water points.

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Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (January 2007). 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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