

Restocking after drought or fire

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Introduction

There are a range of animal health, nutrition and welfare issues that livestock producers should be aware of in the weeks and months following drought and fire. This document provides information to help producers manage these risks.

Rain- the immediate effect

The large amount of rain required to end a drought can affect drought-affected stock with below-average fat scores, especially when combined with extreme weather events such as cold snaps or storms.

Green pick has high moisture and low energy content and cannot sustain drought affected cows with calves.



Photo Todd Andrews

Weather should be monitored and stock moved to sheltered paddocks. Drought lots or other paddocks being used for feeding should have shelter. Off shears sheep are particularly susceptible and can

be confined to small paddocks or sheds to provide shelter and feed.

Prolonged wet conditions can cause stock to reduce intake or 'go off their feed'. If stock are being fed on the ground, much of this feed (especially grain) is trampled and wasted in wet conditions. Energy requirements increase by approximately 20% in cold, wet conditions and feeding rates should be increased, preferably with hay, to prevent stock losses.

New pasture

Rain after drought or fire produces a flush of new pasture growth. Typically there is no roughage left in paddocks to help buffer the rapid dietary changes.

The short pasture growth following rain, or 'green pick', has high water (80-85%) and low dry matter content. It is the dry matter, however that contains the nutrients required by livestock. Animals will often stop eating supplied feed in preference to the green pick. Although highly palatable, its low availability and dry matter content means stock can starve.

Animal health

Drought-breaking rain changes stock feed and water supply rapidly, bringing new challenges for disease management. As well as changes to the quantity and quality

of paddock feed supply, stock may be in poor condition, have developed vitamin and/or mineral deficiencies as a result of unbalanced drought rations, or have other drought related health issues. Strategies to reduce livestock health risks include:

1. Vaccinate for clostridial diseases e.g. pulpy kidney and black leg

A change of feed, particularly onto lush pastures or cereal crops is a common factor in animals developing [enterotoxaemia](#) (pulpy kidney). This disease affects cattle, sheep, goats and other ruminants. Affected stock are often found dead with no previous symptoms and so vaccinating at least 10-14 days **prior** to being introduced into fresh paddocks is crucial.

2. Transition stock from grain based to pasture diets. Avoid putting hungry stock into fresh paddocks.

Sudden changes in the type or amount of feed can be fatal. The risk can be reduced by gradually transitioning between feed types. Continue to feed drought rations, gradually reducing the amount offered and replacing it with pasture access, from an hour or two daily until they can be left on the pasture. Stock can be transitioned to a mature pasture much more quickly.

3. Monitor factors that can affect stock herd/flock health including pastures and unusual plants.

[Bloat](#) can be caused by rapidly-growing legumes such as lucerne, clovers and medics, especially in young cattle. Bloat protection can include bloat blocks/licks and bloat oils, although grazing management for prevention is more reliable. Seek advice about heavy or unusual weed infestations as severe

mortalities can occur when hungry stock access paddocks with toxic plants. Endemic species such as rock fern can also poison stock after rain, prior to alternative pastures becoming adequately available.

4. Be aware of potential nutrient toxicities and deficiencies including:

[Grass tetany](#) or low blood magnesium most frequently affects drought affected pregnant or lactating breeders grazing green pick in winter. The first sign is often sudden death, sometimes affecting many animals, and so prevention with magnesium supplements is essential.

Rockfern greens up quickly after rain and can poison 'uneducated', young or introduced cattle.



Photo Nigel Gillan.

[Nitrate/nitrite poisoning](#) of livestock is most common during drought or after subsequent rain. Soil nitrate often builds up during drought and so uptake by a wide range of crop, pasture and weed plants may be high in the first week after rain. Symptoms may appear within a day of stock grazing affected plants, with sudden death also possible. Gradual feed transition helps manage the risk.

[Prussic acid](#) (cyanide) is not normally present in plants, but when stressed, (eg

drought, frosted, herbicide treated), some species can accumulate cyanogenic glycosides, which can convert to prussic acid — a potent, fast acting poison.

The risk of prussic acid poisoning increases during and after drought, when stressed plants start growing. Symptoms appear soon after grazing, leading to death soon after. Where possible, avoid grazing or making hay from immature plants under risky conditions.

Sorghum regrowth can be high in nitrates or prussic acid, and can be tested prior to grazing.



Photo Todd Andrews.

5. Control sheep parasites

Sheep worm eggs often accumulate during drought, when there is insufficient moisture for hatching. This, coupled with high stocking densities where sheep have been hand fed, can result in a large reservoir of worm eggs. There can be a mass hatching of eggs after rain resulting in very high worm burdens. Also, at the end of a drought, there is often reduced paddock availability for rotation or worm avoidance. If the regular drench program has not been followed during drought, it is wise to catch up as soon as possible. For more information contact a veterinarian or

refer to www.wormboss.com.au/

Flystrike can be a problem if sheep have not have been given a preventative fly treatment prior to warm, wet weather. For more information contact a veterinarian or refer to www.flyboss.com.au/

Animal genetics

Restocking represents an opportunity for producers to refocus enterprises. Since most replacement females will be kept to increase breeder numbers, the starting herd/flock will have a major influence on future genetics and business outcomes. [Sheep Genetics](#) and [Breedplan](#) tools can help ensure that dams and sires are adapted to their environment and suited to intended markets.

Managing recovering pastures

Valuable perennial pastures should be rested after rain. While well managed (rested, fertilised) improved species can be stocked 3-4 weeks after well timed rain, it may be 6 weeks or more for degraded pastures or after winter rain. Perennial plants that have gone dormant can be grazed during drought, provided that ground cover thresholds are maintained. After rain, plants use stored energy to produce new growth. Grazing these plants before they have sufficient leaf area to replenish energy reserves can slow recovery and increase plant losses.

Annual grasses such as liverseed grass and weedy perennials such as Chilean needle grass and African lovegrass provide useful and nutritious grazing after rain. Concentrated grazing on paddocks containing these species can reduce their vigour and seed production while allowing other pastures to re-establish.

While it can be tempting to allow plants to establish in cropping fallows to provide

grazing, it is usually more beneficial to keep a clean fallow to accumulate soil moisture. This will improve the yield and return of the following crop.

Restocking risks

Restocking after drought or fire increases the risk of introducing diseases, parasites, weeds and pests, requiring appropriate biosecurity measures to manage them. A Farm Biosecurity Plan should include practices that reduce the risk of newly introduced stock succumbing to the hazards of sudden diet changes and rapidly growing pasture.

Vaccination history and other health information can be provided by the agent, the manager listed on the National Vendor Declaration (NVD) or in animal health declarations. Note that stock introduced from other areas may also be 'naïve' to local pests and diseases such as ticks, theileria, akabane and others.

All sheep and goats entering NSW must be accompanied by a completed, signed National Sheep Health declaration, which must be provided to the person taking delivery of the sheep, and to LLS, within two days of arrival. A declaration is not mandatory for sheep moving within NSW but is recommended. More information on moving sheep into and within NSW is contained in NSW DPI [Primefact 910](#).

Cattle must be identified with NLIS tags prior to transport, and be accompanied by a completed and signed **NVD** or [Transported Stock Statement](#). The movement must be recorded on the NLIS database within two days of arrival.

Stock coming from a cattle tick infestation zone must meet legal movement requirements prior to entering NSW. For

more information contact the [NSW DPI Cattle Tick program](#) on (02) 66261201 or cattletick@dpi.nsw.gov.au

On-farm biosecurity

Biosecurity plans aim to prevent or manage the impact of pests and diseases on stock and weed spread by identifying risks and listing actions to manage them. All Livestock Production Assurance (LPA) accredited producers should have an [on-farm biosecurity plan](#). The five key pillars to a biosecurity plan are:

1. segregate incoming livestock
2. a sound animal health program
3. access procedures for visitors
4. regular monitoring for pests, diseases, or anything unusual
5. sound record keeping

For any queries regarding notifiable diseases contact Local Land Services 1300 795 299 or the Emergency Animal Disease Hotline 1800 675 888. For NLIS queries contact LLS as above or the NLIS Support desk 1800 654 743

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