

Managing livestock after a fire

Water

Water is the first priority after a fire.

- Check infrastructure, tanks, troughs, pumps, polly pipe, etc. These may be damaged as a result of the fire. Check foot valves for ash and silt after the fire and continue to monitor them.
- Dams and ground water levels may have dropped substantially as a result of the fire or water been taken to fight the fire
- Dams and ground water. Materials such as ash and soil blow or wash into dams, creeks and rivers from burnt paddocks. This can cause issues with stock trying to drink the water.
- Dam and ground water affected by ash and soil can later become unsuitable for stock as it may lead to algae blooms, water putrefaction and issues with stock assessing the water.
- Water quantity and quality are extremely important; water should be cool and clean. Livestock can and will drink double what they would normally during a heatwave. If you have small volume troughs these have an increased risk of temperature gains, if possible consider constructing shade structures or organise an alternative water source. Clean troughs regularly to minimise development of dust films that will impact on water intake.

Useful links

Water requirements for cattle and sheep

https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0009/96273/Water-requirements-for-sheep-and-cattle.pdf

Stock water – a limited resource

http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0006/91617/Stock-water-a-limited-resource.pdf

Stock type	Consumption per head per day (L)
Weaner sheep	Up to 4
Adult dry sheep	Up to 6
Ewes with Lambs	Up to 10
Lactating cows	Up to 100
Weaner cattle	Up to 50
Yearling cattle	Up to 80
Horses	Up to 50

Table 1: Average water requirements for stock

Livestock feeding guidelines

The amount and type of feeding required will depend on the quality of the feed (energy and protein levels), the size, type, condition, stage of pregnancy or lactation of livestock, what facilities or equipment are available, past feeding history of livestock and the degree that livestock have been affected by fire.

The **Feed Cost Calculator** on the NSW DPI web is a very useful tool to assist producers calculate and compare protein, energy and other components for different mixes of livestock feeds. <http://www.dpi.nsw.gov.au/animals-and-livestock/nutrition/costs-and-nutritive-value/feed-cost-calculator>

There is also a **Drought Feed calculator app** to help with feeding decisions and working out different livestock requirements. <http://www.dpi.nsw.gov.au/content/agriculture/emergency/drought/drought-feed-calculator-app>

When feeding grain it is important to feed limestone at 1 ½ per cent and salt at ½ per cent.

Cattle

Refer to the Cattle feed options: Minimum weight (kg) per day 'as fed' table on page 3.

- Lactating cows need at least 20% hay to maintain milk production
- Young cattle need a minimum level of 9% protein for growth
- It would be best if young cattle are fed for production.
- Before introducing grain introduce hay first to minimise acidosis

Useful links for feeding cattle

Feed nutrition

<http://www.dpi.nsw.gov.au/animals-and-livestock/beef-cattle/feed>

Full hand feeding of beef cattle – quantities

http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0019/96202/full-hand-feeding-of-beef-cattle-quantities.pdf

Supplementary feeding of cattle

http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0011/96167/supplementary-feeding-of-cattle.pdf

Sheep

Refer to the Sheep feed options: Minimum weight (kg) per day 'as fed' table on page 3.

- Lactating ewes need at least 20% hay to maintain milk production
- Rapidly growing sheep and lambs, ewes in late pregnancy and lactation have higher requirements for energy and protein. A protein supplement will be required in some situations for growth and maintenance
- It would be best if lambs are fed for production.
- Before introducing grain introduce hay first to minimise acidosis

Useful links for feeding sheep

Sheep, feeding and nutrition

<http://www.dpi.nsw.gov.au/animals-and-livestock/sheep/feed-nutrition>

Full hand feeding of sheep - quantities

http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0016/104641/full-hand-feeding-of-sheep-quantities.pdf

Supplementation guide for sheep – Central and Southern NSW

http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0007/110113/supplementation-guide-for-sheep.pdf

Working out the feed quality of hay

Break open a bale or dig into the bale, get a good sample and scratch 'n' sniff. Hay of a sweet and pleasant smell will tend to have higher quality than

hay with little or no smell. Hay with a dirt type smell is general of very poor quality.

Good quality hay should be green rather than yellow or brown. Keep in mind that some hays, particularly some varieties of clover, can cure to quite a dark colour.

Hay should have a high leaf content for higher quality. Leaf is more digestible than stem and stalk ("stemmy" hay is likely to be low in digestibility). Hays with large amounts of seed heads shows that it has been cut quite late and will be of lower quality.

A sample of the hay when taken in both hands should be easy to break apart (this is a sign of good quality hay), it should not hurt your hands when you squeeze it, if it does it has been cut too late and will be of low nutrient content. Check your hay sample for awns. This can sometimes be an issue when feeding to stock and makes these hays unsuitable for processing and inclusion in feed mixes.

There should be no visible mould (white or dark, matted patches in the hay) or other foreign material like dirt, sand, etc. When opening hay look for dust as this can be an issue when feeding and is not desirable for confined feeding situations.

Be aware of weed seed. Find out where your hay has come from if bringing it in. Most times it is extremely hard to find some weed seeds in hay. Try to feed your hay in only a few locations and locations where you have easy access and visit frequently so that you are able to control any new and unusual plants.

After all this appearance is a poor indicator of nutritive value. Even grass hays that appear very similar can vary in protein content by two to three times. You can do a feed test on the hay to ensure you are meeting your livestock's nutritive needs. The quality of your hay will have a significant impact on the grains and supplements you choose to feed.

Once again feeding areas need to be monitored after the break

For NSW feed testing services: <http://www.dpi.nsw.gov.au/about-us/services/laboratory-services/feed-quality-service>

Agistment

Agistment is a good option for livestock and producers affected by fires. There are some things to consider and check on before sending stock on agistment.

- Stock that come from a fire affected area need to be checked more frequently than stock unaffected by fire. Past experience has shown that livestock from a fire affected area can suffer numerous health challenges and may require follow up veterinary treatments.
- Are there any health issues with taking your livestock to that area and district (OJD, BJD, footrot, drench resistance)? Check with local vets to see if there are things to consider or some stock that are best not introduced, for example if pregnant.
- Talk to some locals about some of the strange grasses in the area. Some of these grasses can look good but be of very poor quality and stock will need supplementary feeding to use these grasses. Some examples of this are Coolatai grass, African love grass and Blady grass.

- Change of feed may cause some health issues, a 5 in 1 vaccination may be needed. Talk to a vet about this.
- Sort out who will be responsible for stock management/water and feed while on the agisted property.
- Before you bring your stock home it is timely to think about what they might be carrying with them. For example; worms, diseases and grass seeds. A quarantine paddock will be required.

http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0008/95975/agistment-guidelines.pdf

More information

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W. <http://www.lils.nsw.gov.au/emergency>

CATTLE feed options: Minimum weight (kg) per day 'as fed'

Stock type	Grain only (12ME)	Hay only (8.5ME)	50:50 Grain:Hay	80:20 Grain:Hay	Silage (35% dry matter 9ME)	Expected weight gain/day
Weaner (250kg)	3.5	5.5	4.5	4	14	0.25kg
Yearling (330kg)	4.4	7	5.5	4.8	16.8	0.25kg
Adult dry stock (500kg)	5	7.8	6.2	5.5	18.6	Nil
Breeder, Late pregnancy (500kg)	6.1	9.3	7.4	6.6	22.4	Nil
Breeders, lactating (500kg)	Not Suitable	12.5	9.9	8.8	29.8	Nil

SHEEP feed options: Minimum weight (kg) per day 'as fed'

Stock type	Grain only (12ME)	Hay only (8.5ME)	50:50 Grain:Hay	80:20 Grain:Hay	Silage (35% dry matter 9ME)	Expected weight gain/day
Weaner (20kg)	0.62	1.08	0.80	0.68	2.54	0.1kg
Weaner (30kg)	0.76	1.32	0.98	0.84	3.09	0.1kg
Adult dry stock (50kg)	0.65	0.99	0.79	0.7	2.37	Nil
Ewes, last 6 weeks of pregnancy (50kg)	1.1	1.68	1.33	1.18	4.02	Nil
Ewe and Lamb to one month (50kg)	Not Suitable	2.46	1.96	1.74	5.91	Nil
Ewe and Lamb to 2 or 3 months (50kg)	Not Suitable	1.77	1.41	1.25	4.26	Nil

Note: Quantities are a guide only