

HOBBY FARMERS

BASIC NUTRITION

FOR SHEEP

Inadequate feed and worm disease are the two most common sheep health and welfare problems on hobby farms. It is important that everyone who has even just a few sheep has at least a basic understanding of a sheep's feed needs.

Sheep are ruminants

Sheep, like cattle, goats and alpacas are “ruminants”. Their digestive system is very different from humans, dogs and horses, the key difference being the presence of 4 stomachs (3 in alpacas), the first of which is called the rumen. The rumen contains a lot of bacteria, protozoa and a range of other microbes that have the task of digesting the cellulose in the plants that sheep eat. The sheep regurgitates, chews and then swallows the food several times in a process known as “ruminating” or “chewing the cud”. The combination of the microbes in the rumen and the sheep chewing and re-chewing the food enables that food to break down sufficiently for the nutrients to be absorbed by the animal.

Sheep owners need to understand that the microbial composition of the rumen fluid adapts as the type of feed changes – so **it is especially important for any change in feed to be introduced gradually**. A sudden change of feed (from dry feed to lush, from pasture to grain etc) can make a sheep very sick very quickly and can even cause death.

Pasture is best (and cheapest)

But not all pasture is the same! Many hobby farms have poor quality pasture, for a variety of reasons. Sheep will generally do well on these poorer pastures if, and only if, you don't overstock (see below). Most commercial sheep farms in Tasmania have what is known as “improved pasture”. This means pasture species that are not native and that are selectively bred for various qualities – production (ie grows a lot of feed), palatability (ie the sheep will eat it) and recovery (ie it grows back quickly after being grazed). The more commonly used “improved pasture” species include clovers, rye grasses and various other grass types (cocksfoot, phalaris etc). Even though establishing and maintaining improved pastures involves expense, pasture is always better and cheaper than hay, grain or pellets. You should only use these “supplementary feeds” to top up during periods when pasture is in short supply (usually late winter, late summer and whenever there is drought or waterlogging).

How many animals is too many for my property?

A common mistake on hobby farms is to accumulate animals and end up with more than the property can safely carry. This results in a lot of cost, if you provide supplementary feed as a normal practice, or some serious animal welfare problems if you don't.

Your hobby farm's “carrying capacity” is likely to be quite a bit less than commercial farms in your area. This is because the pasture is generally not as well improved, the soils are often less fertile and, on a small property, a significant percentage of the overall area is taken up by the house yard, sheds, driveways etc. A 5 hectare hobby farm never has 5 hectares of good pasture!

Also, it is important to understand that breeding ewes and weaners need a lot more pasture than a “dry sheep”, ie an older wether or ewe that is not for breeding. So, for example, if your property has a carrying capacity of, say, 10 dry sheep, you should have only 5 breeding ewes. Otherwise, you will run into serious trouble.

When there's not enough pasture

In most parts of Tasmania, pasture is often inadequate in late winter and sometimes in late summer as well. During these times, you may need to provide “supplementary feed”. Essentially a sheep needs both energy and bulk during these periods, so you should provide sheep pellets or a combination of grain and hay. Any grain or pellets must be

introduced gradually into the diet – too much too quickly can make a sheep very sick and even kill it with “grain poisoning”. Pellets, oats or whole lupins are less of a risk for grain poisoning than barley, triticale or wheat, but must still be phased into the diet gradually. It is important to feed only sheep pellets to sheep. Cattle pellets often contain extra copper, which can be toxic for sheep. And feeding pig or poultry pellets to any ruminant animal is illegal (as they contain some meat or meat product).

How do I assess my sheep's condition ?

When the wool is short, you can get a good idea by sight. Basically, if the backbone is prominent, the sheep is in poor condition. If there is a blob of fat (usually above the tail at the end of the backbone) the sheep is unhealthily fat. A common mistake on hobby farms is to feed bread to sheep – it's alright in small doses but bread does contain fats that are harmful for sheep if you overdo it.

When the sheep has more than a few months wool, assessing its condition by just looking isn't sufficient. The wool can (and all too often does) mask poor condition. You need to actually feel along the sheep's backbone and check for that lump of fat above the tail. If you can feel the backbone protruding, the sheep is in poor condition and needs better feeding. But note that sheep that are kept to a very old age (8 years or older) tend to have a slightly prominent backbone even when they are in good condition.

How do I minimise the risk of the more common metabolic diseases?

Vaccination with a “5 in 1” or similar will give good protection against what are known as the clostridial diseases – of which pulpy kidney (or enterotoxaemia) is the most common. Pulpy kidney is caused when a sheep's diet suddenly changes and it's the more aggressive feeders that are most at risk. Unfortunately, it is one of those diseases that in most cases, by the time you realise there's a problem, the damage is done and the sheep will die. That's why vaccination to prevent it is strongly encouraged. Two shots 4-6 weeks apart and then annual boosters thereafter are sufficient to give ongoing immunity. If you give your ewes their annual shot around 4 weeks before lambing, the lambs will also have some immunity when they are born.

Pregnancy toxaemia and milk fever are both diseases that can affect pregnant ewes if their diet is inadequate – especially during late pregnancy. You can minimise the risk of either by ensuring your ewes maintain bodyweight during pregnancy. That may mean supplementary feeding. But, even so, your sheep may still go down with either for a variety of reasons. Before the last trimester of the pregnancy, you should get at least one pack of one of the glycerine/calcium solutions that are cheap (around \$10) and available over the counter at rural merchandisers. If your ewe gets either pregnancy toxaemia or milk fever, she will go down and show little interest in getting up. In either case, the ewe and lamb can often be saved if you inject the glycerine/calcium solution without delay. The instructions are on the pack. The packs can be stored for several weeks once opened and, if not opened, can be kept over until next year. So, having at least one pack on hand is easy, cheap and maximises your chances of saving your sheep if they get sick.

Poisonous plants

Unlike other states, there are no Tasmanian native plants that are fatally poisonous for sheep. There are some pasture weeds that are poisonous and that the sheep might eat if pasture is inadequate – including bracken, ragwort and even capeweed. But the greatest risk of poisoning is in the garden. Several common garden plants are capable of killing sheep – rhododendrum, foxglove, privet hedge, oleander and others. Unless you know exactly what your garden plants are and that they are not toxic for sheep, don't throw your garden clippings over the fence for them to eat.

Trace elements

Two trace element deficiencies in many parts of Tasmania are selenium and cobalt. Some vaccines and drenches have added selenium and that would normally be sufficient. You can buy mineral blocks from your rural merchandiser that will provide various trace elements for your sheep's diet or your vet can put a trace element “bullet” in the sheep's rumen that will dissolve over several years. These options provide selenium at safe levels. Selenium is a deadly poison if overdone, so don't go adding any extra selenium to drenches unless your vet has done tests that identify a selenium deficiency that needs that extra treatment.

If you see skinny sheep, please report to the RSPCA on 1300 139 947, or DPIPW on 03 6165 3777, Email: AnimalWelfare.Enquiries@dpiwwe.tas.gov.au

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