

HOBBY FARMERS

BASIC NUTRITION

FOR CATTLE

This fact sheet applies to beef cattle and applies in most hobby farm situations. The nutritional needs of dairy cattle are different so, if you have a house cow that you milk for home consumption, please seek advice on its nutritional needs.

Cattle are ruminants

Cattle, like sheep, 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 cattle eat. The cow 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 cow chewing and re-chewing the food enables that food to break down sufficiently for the nutrients to be absorbed by the animal.

Cattle 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 cow very sick very quickly and can even cause death.

Pasture is best

But not all pasture is the same! Many hobby farms have poor quality pasture, for a variety of reasons. Most commercial cattle 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 livestock 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 usually better and cheaper than hay, grain or pellets. And certainly a lot better than the mix of weeds that are often called “pasture” on smallholdings !

Even a commercial cattle farmer, with improved pastures and fertile soils, will need to provide some supplementary feeding at certain times of the year. If your pasture is unimproved or weedy, or if your land has a poor fertiliser history, you will need to provide supplementary feed more often than the commercial farmer down the road.

Supplementary feeding

When pasture is short, green and slow-growing, which is typical throughout much of Tasmania, dry cattle may need supplementary feeding with hay or silage. Pregnant or lactating cattle definitely will. If the summer is dry, there will also be a pasture shortage in late summer and early autumn and cattle may need supplementary feeding then as well.

Hay is a better option than silage for the hobby farmer for a number of reasons – including that there is some risk of listeriosis with silage that has not been properly ensiled or stored. Only use good quality hay. Some people bale up rubbish pasture and call it hay. The most expensive hay is the stuff that is cheap to buy and the cattle won't eat ! Providing it is good quality, hay should be fed at the rate of around 4 to 5 kg per cow per day. Feeding 2 or 3 days' worth at a time is alright providing you can keep the hay dry. If you do use silage, make sure you get it from someone who knows how to make good silage and check that the plastic wrap is not punctured. You will need to feed out around twice the weight of silage per cow per day compared with hay.

If you need to feed concentrates, pellets are a better option than grain for the hobby farmer, because of the risk of acidosis (grain poisoning – see below).

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 cattle need a lot more pasture than a "dry cow", ie an older cow or steer that is not for breeding. So, for example, if your property has a carrying capacity of, say, 6 dry cattle, you should have only 3 breeding cows. Otherwise, you will have a very expensive bill for supplementary feed or a major animal welfare problem.

Water. Cattle drink a lot of water, so must have ad lib access to clean water. If you are relying on water troughs, they will need to be cleaned regularly and checked to see that the water valve is working.

Feed-related diseases. There are many diseases and disorders that are caused by, or exacerbated by, inadequate feed. The most common are

Bloat. This is caused by cattle gorging themselves in legume-rich pasture and the risk period is spring, when clovers and other legumes grow quickly and can come to dominate the pasture mix. A pasture that is 30% clover or less is usually not a bloat risk. If your pasture is more clover-rich than that, in the short run you will need to provide hay during the risk period (to reduce the intake of "bloaty" pasture). In the longer run, you should increase the grass content in your pasture.

Grass tetany (hypomagnesemia). While all cattle are susceptible, cattle over 6 years are more so. The risk is greatest when pasture is short, green and slow-growing – so, June to September. Most affected cows end up dying, so the need is to prevent rather than cure. The best option for a hobby farmer is to feed good quality hay during the risk period to supplement the pasture. If the cattle are pregnant, lactating or over 6 years old, also use a grass tetany block, available from rural stores.

Acidosis (grain poisoning). Feeding grain to cattle is rarely a good idea for the hobby farmer. If you need to include grain in the diet, always introduce it gradually and always mix it with hay. If you do need more protein and energy than good hay can provide, cattle pellets are a much safer option for the hobby farmer than grain.

Pregnancy toxaemia. Those most at risk are fat, pregnant cattle when feed quality is falling. The risk is further increased if the cow has a worm burden, poor teeth or is lame and it is further increased again if the cow is stressed by cold, wet weather, yarding for a long period, transport etc. If caught early, an affected cow can usually be saved by injecting calcium borogluconate (see below). The best way of avoiding pregnancy toxaemia is to ensure your cattle are well fed and remain at body score 3. During the winter period, feed good quality hay at the rate of around 4 to 5 kg a day per cow.

Milk fever (hypocalcaemia). Cattle in late pregnancy when the pasture is short, green and slow-growing (June to September) are at some risk of milk fever. Supplementary feeding with good quality hay is essential as a preventative measure in such circumstances.

A cow with one of these diseases can often be saved, but only if they receive the right treatment straightaway. Make sure your vet's contacts are at hand in case your cattle need attention.

Condition scoring

The ability to assess the body condition of livestock is an essential skill for anyone with cattle. The basics are easy and we have produced a guide to body condition scoring for hobby farmers.

Many animal welfare problems on hobby farms are triggered by poor nutrition. If you see skinny cattle, please report to the RSPCA on 1300 139 947 or DPIPWE on 03 6165 3263, Email: AnimalWelfare.Enquiries@dpiuwe.tas.gov.au

