

How to manage livestock during droughts



Above, researcher feeds leaves to goats at a research station. Below, a farmer leads his cattle to a water trough on the farm. Feeding livestock during dry periods is a challenge to many farmers. PHOTO BY LOMINDA AFEDRARU & FILE PHOTO

Lengthy dry periods affect livestock and reduce not only productivity but lead to losses as well. There are a few things farmers can do to manage through such tough times, writes Lominda Afedraru.

Adverse dry weather conditions that have had an impact on agriculture across the country rise the possibility of food insecurity, which is likely to affect many communities.

Much as crop farmers have faced the same challenge over the last three seasons of 2016 stretching through to 2017, farmers engaged in dairy could suffer more.

At a recent annual symposium in Kampala for veterinarians, the scientists highlighted the challenges faced by livestock farmers during dry season.

Manage water

The major problem faced across the country is lack of sufficient water for livestock. They include cattle, sheep, goats, pigs and poultry.

Many dams and wells have dried up

and pastures became limited. This has led to deaths of animals.

Beware of diseases

Heat stress also causes rampant disease outbreaks. For cattle, they suffer from diseases such as foot and mouth disease (FMD), which is highly contagious affecting cloven-hoofed animals including cattle, camels, sheep, goats and pigs. Animals can become infected through inhalation, ingestion and direct contact.

During dry spell, these animals are also prone to contagious bovine pleuropneumonia (CBPP). It is an infectious disease, which affects the lungs and is spread by inhalation or direct contact.

Pigs are prone to African swine fever while poultry suffer Newcastle disease, which can wipe out 70 per cent of birds at any given period of attack.

Plan ahead

Dr Halid Kirunda, the director Mbarara Zonal Agricultural Research and Development Institute (MbZARDI) advises farmers to adopt the following.

Farmers must harvest rainwater during rainy season, and keep it in reservoirs to be used during dry spell.

NOTE

Livestock population is about 13.58m cattle, 16.59m goats, 4.3m sheep, 4.0m pigs and 61.56m chicken. Uganda produces 1.93 billion litres of milk and the annual per capita consumption is 60 litres. In a year, 308,000 tonnes of beef is produced, pork (119,987), mutton (34,289), chicken (54,868) and 537,075,351 eggs.

For those rearing animals on large scale, release them to graze early morning when there is not a lot of sunshine. Thereafter, they should be kept under shade.

Farmers must adopt simple technologies like dam liner—where a pit of any chosen size is dug and polythene paper used as its liner for collecting rainwater. This would help irrigate crops or animals to drink.

For especially poultry farmers, they should construct housing with ventilators and keep them indoors most of the time.

In the case of feeding, farmers can consider hay and silage. Once kept in a required condition, it can last for three months before it is fed to animals.

Access to feed

Dr Victor Yamo, from the Nairobi-based World Animal Protection, explains the importance of guarding animals against challenges caused by drought like heat stress.

Animals must have access to fresh water and feed must be adequate. In dry seasons, dry ration is essential. This can be animal cake made from rice and maize husks mixed with maize bran, hay and silage.

Farmers are urged to observe animal welfare during dry season to avoid challenges of malnutrition and heat stress leading to reduced productivity.

Feeding during droughts

Hints for feeding during droughts

Which animals to sell

Old animals, animals with poor reproduction records, heifers or young ewes which did not calve/lamb, oxen/wethers. Cullled animals can be fattened profitable with own-produced maize or other grains

Roughage vs. concentrates

In times of drought, roughage is scarce and often very expensive. Research has indicated that animals can survive more successfully and more economical on concentrate-rich ingredients. Disadvantages of roughages are much higher transport cost, higher cost per unit utilisable energy, more losses during feeding and also a higher fire hazard.

Frequency of feeding

Research has indicated that animals receiving daily survival diets, performed poorer and had a higher mortality rate than animals that had been fed twice or just once a week. With daily feeding, some animals ingest more than their share while others get nothing, starve and eventually die. When more feed is supplied at once, but less frequent, each animal has a better chance to receive its part of the diet.

Early weaning

Early weaning of both lambs and calves is a strategy that can be used to save costs and to utilise scarce feed resources more efficiently. The best examples of such feed sources are creep feeding or cultivated pastures. Early should, however, not be considered if high quality green fodder or concentrate-rich mixtures are not available. Early weaning reduces stress on cows and ewes, which can then be fed cheaper ingredients. Creep feeding has the following advantages: It is utilised efficiently. A young calf or lamb has a feed conversion of as low as 2:1, which change gradually to about 7:1 at seven month of age. Calves/lambs are heavier at weaning, more uniform at weaning, can be weaned earlier, which has a positive effect on reconception. They can also be marketed earlier.

How much to feed

This will depend largely on the amount of veld available. If there is no grazing available, research results have shown that beef cows with an initial body weight of 440kg, can be kept on a 3.6kg concentrate-rich daily diet for eight months, with a weight loss of only 63kg. This converts to a total TDN-intake of 2.65kg. Sheep on the other hand need a TDN-intake of 265g when concentrate-rich diets are supplied, and 365g TDN in the case of roughages like lucerne.

Weight loss

The rule of thumb is supplementary feeding should start before animals have lost more than 15 per cent of its normal mature body weight.

Source: GADI

Factors to consider during dry spells

Drought is possibly the greatest single factor that influences the economics of livestock production enterprises.

The fear of drought is the single most important factor that prevent stocking rates from approaching those theoretically possible.

Droughts can refer to periods of low rainfall following a "good season" when pastures mature and dry off. They can also refer to periods of prolonged dry weather when the livestock has consumed the available pasture. Fire can also induce a drought overnight on an individual property.

Drought feeding strategies depend on the specific conditions prevailing in any particular area. In general, the farmer has to make decisions based on economics, knowledge of nutrition, the availability of feed resources and

his calculated guest on the length of the drought. The options may include:

Sell the animals when drought seems imminent and, if possible, before other sense disaster just around the corner.

Maintain animals at a low level of productivity (or maintenance) until the drought ends.

Feed for productivity during the drought in order to be able to capitalise on available feed resources when the drought ends and to have animals for sale to the farmer who need to restock.

Combinations of the three situations. For instance, a farmer may sell all except his breeding animals. These are managed to ensure that the offspring are raised for the next breeding season. It seems that all farmers need



to restock following a drought and therefore breeding animals must be maintained at all costs.

Prediction of drought appears to be more of a reality with the improved knowledge of El Nino. However, in the back of the mind of farmers there is a continuous, nagging recognition that drought is unpredictable and im-

minent. Therefore, the consequences of drought monopolises much of the thought that goes into the forward planning particularly where drought situations are predictable, such as occurs with annual dry seasons.

Source: Grootfontein Agricultural Development Institute (GADI)