

# Goats

## Tips for goat producers dealing with drought

Drought-affected pastures rarely produce adequate amounts of forage. Hay is in short supply and what's available tends to be of below-average quality. Drought-stressed plants tend to be nutrient deficient, especially in protein, phosphorus and vitamin A.



Figure 1: Prevent goats from climbing on or lying in hay to reduce waste.

## How Does Drought Affect Nutrient Quality?

Drought conditions affect nutrient quality in a variety of ways. First, because there is very little or no new growth, goats only have access to older, less desirable plants in the pasture. Second, the nutritional quality of forages that are available is compromised by the stresses put on the plant by lack of water.

Drought stress negatively affects plant metabolic functions, resulting in low mineral and vitamin levels. Of these, phosphorus and vitamin A are usually most pronounced. Drought-stressed plants also do not metabolize nitrogen into proteins. Consequently these plants contain low protein levels for use by goats. But the second negative result is the accumulation of nitrates. Excessive levels of nitrates (*over 1.5%*) are toxic to livestock. Plants that are most susceptible to the accumulation of toxic levels of nitrates include:

- sudangrass
- sorghum-sudan hybrids
- pearl millet, corn
- wheat
- oats

Some weeds are also known to accumulate nitrates. These are pigweed, smartweed, ragweed, lambsquarter, goldenrod, nightshades, bindweed, Canada thistle and stinging nettle. Be on the lookout for these weeds in your hay and pastures. Symptoms of nitrate poisoning are labored breathing, staggering gait and sudden death. The membranes of the eyes and gums are bluish due to lack of oxygen and the blood is a chocolate brown color, but turns to bright red when exposed to the air. The key to avoiding nitrate poisoning is to have all hay forage tested and request the optional test for nitrate levels. Contact your local feed store representative or local Cooperative Extension agent for more information about this forage analysis and the dangers of nitrate toxicity.

## Dealing With Drought Conditions

Unfortunately, drought forces producers to make hard decisions. Options include early weaning of lactating does to reduce nutritional needs, moving animals to additional pastures, purchasing supplemental feed, and finally reducing herd numbers. In some cases a combination of each of these strategies is in order.

A doe's nutritional needs can be cut roughly by 1/3 just by weaning off the kids. In commercial situations, it may make sense to wean early and sell off light kids rather than pay the feed costs required to maintain lactating does and/or creep feed kids. You will need to calculate the value of your kids in relation to the cost of feeding them to carry them to "normal" market weight to decide if this is a valid option for you.

If the option is available, you may want to look into the possibility of moving goats to alternate grazing areas, such as hay fields and harvested crop fields. If your hay fields are too stunted to harvest as hay, allow the goats to harvest what is available. In the fall, you may want to consider allowing goats to make use of crop residues.

At some point, you will have to purchase at least some supplemental feeds to maintain your goats. One feedstuff that all goats need is hay. While high hay prices may lead you to look for alternatives, hay cannot be totally excluded from the diet. A good rule of thumb is that an average mature meat goat (150 lbs) will require about 6 pounds of hay per day. Kids (assuming 50 lbs) will require about 2.5 lbs of hay a day. You can use these rough figures to help you calculate how much hay will be needed to carry you through until pastures recover.

Use of feeds and supplement blocks can help to maintain productivity, especially when hay quality is suspect. Remember that it is vital to provide supplementation to pregnant does under these conditions. Mineral needs are increased due to pregnancy or lactation and drought-stressed forages are more likely to be deficient in nutrients such as phosphorus and vitamin A. There are many supplement options available, including the **SWEETLIX® Meat Maker® 20% Pressed Block**. This conveniently sized, 33.3-lb block delivers high quality protein in addition to the Meat Maker mineral and vitamin package that will provide recommended levels of needed phosphorus, copper, selenium and vitamin A. The **SWEETLIX Meat Maker 20% Pressed Block** delivers regulated daily amounts of supplement and maintains its palatability well in hot, dry conditions.



*Figure 2: Use of SWEETLIX Meat Maker 20% Pressed Blocks can help increase productivity by providing nutrients needed to maintain efficient forage conversion.*

## Summary

Drought conditions this spring and summer will likely result in low quality hay and pastures for a variety of reasons. When feeding low quality forages, nutritional supplements are necessary to maintain reproduction and growth. Feed supplements pay for themselves in added production when used properly in these situations.

For more information, contact your [local SWEETLIX dealer](#) or call 1-87-SWEETLIX to speak with a SWEETLIX nutritionist.

## Tips For Stretching Your Feed Dollar

1. **Reduce the amount of wasted feed.** If your goats tend to waste a lot of hay or feed, now is the time to remedy this. Solutions may include placing hog wire around round bales to prevent goats from walking on it or building trays under hay feeders or troughs to catch dropped hay or feed.
2. **Deworm all animals and treat for coccidia.** If possible, run fecals to assure effectiveness of treatment. Don't let internal parasites place added strain on your goats.
3. **Cull unproductive animals.** Now is the time to cull those marginal does and bucks that you were going to "keep around for one more year". Any goat that isn't meeting the production goals that you've set isn't paying for its feed.
4. **Always provide a complete mineral/vitamin supplement** to deliver recommended levels of phosphorus, copper, selenium and vitamin A, such as **SWEETLIX Meat Maker** products. Mineral-deficiency lowers feed conversion efficiency in goats. More efficient feed conversion, allows you to stretch your feed resources farther.



*Figure 3: Reducing wasted hay will help to stretch your feed budget. Notice the trough below to catch spilled hay and keep it off of the ground.*