



Animal Nutrition *At Its Best*™

UTILIZATION OF CROPS AFFECTED BY DROUGHT

The primary effect of drought is a reduction in yield of both grain and forage. Grain crops have lighter bushel weights, as well as reduced plant growth. Growth of hay crops and pasture grasses is restricted, and yields are reduced.

Certain types of plants may accumulate toxic concentrations of nitrates. This is especially true of crops that may have been fertilized with nitrogen.

Effects On Nutrient Content

Grain:

1. Bushel weight is usually lower than standard trading weight.
2. Reduced bushel weight is usually due to lower starch content. Energy expressed as calories may be reduced as much as 10%.
3. Although the weight of hulls or outer layers of kernels may not be increased, hulls as a percent of total weight may be increased. As a result, percent of crude fiber in the grain is increased.
4. Protein content of grain may be higher due to reduced starch content of the kernels.
5. Amount of grain required to produce a pound of gain or milk may be increased due to lower energy content of grain.

Forages:

1. Corn and sorghum silages may have a reduced feeding value due to less grain in the silage. Results of feedlot feeding trials indicated that the energy level of drought corn silage may vary from 80% to 95% of the value of "normal" silage when fed to growing calves, while protein may actually go up.

2. Drought alfalfa hay/haylage will have a nutrient content similar to "normal" unless allowed to mature in an effort to increase tonnage.
3. Grass hay may be lower in protein and higher in fiber due to lowered production of nonstructural carbohydrates.
4. Vigortone's recommended BEEF RANGE MINERAL program will provide nutrients needed to aid in maximizing digestion of low quality, drought affected forages.

Other Effects On Quality

Grain:

1. Increased susceptibility to field insect damage.
2. Increased susceptibility of mold infestation.
3. Due to possible mold infestation, risk of mycotoxin contamination is greater.

Forages:

1. Harvesting of hay fields that have weeds may reduce feeding value and increase risk of nitrate toxicity.

Summary

Drought reduces both yield and nutrient quality of crops intended for feeding to livestock. Usually these crops can be fed without harm to the animals. It is advisable to have drought stressed crops analyzed for nutrient content and for possible toxic materials. By so doing, feeding programs can be formulated that will make best use of the crops.