Salvaging Drought-Stressed Crops

ANALYZING NUTRITIONAL VALUE AND SAFETY

Drought-stressed crops may often be salvaged, but testing for nutritional value and harmful substances is extremely important. Nitrate toxicity and aflatoxins may be a problem in drought years. Depending on test results, feed amounts need to be adjusted for animal nutrition and safety.

FRESH FORAGE Versus SILAGE

If plants show signs of drought stress, be careful about using them as fresh forage because nitrate levels may be high. A better option is to use plants as silage, because the silage fermentation process reduces nitrate levels. In either case, testing is critical for safe feeding.

Symptoms of nitrate poisoning in livestock include labored breathing, frothing at the mouth and a brownish color of the nonpigmented skin within a few hours after feeding. Abortions can occur; death may occur within an hour in extreme cases.

- *Silage should be stored at least three weeks before testing and feeding take place.*
- *Testing is available from private companies and state universities.* Contact your county Extension agent for a list of laboratories.
- *Have both a nutritional analysis and nitrate test completed on crops.* Results will take longer for nitrate tests.
- *Test results will help you determine safe feeding amounts, as well as the need for grain and protein supplements.*

OATS, BARLEY AND CORN

- *Test drought-stressed oats and barley for nutritional value.* They often are reduced to empty hulls or a very light grain. The result is low energy and protein and a limited feeding value for poultry and swine. Oats and barley may work well in combination with beef and other livestock feeds.
- *Consult with your livestock nutritionist or agricultural agent about corn use.* Corn quality usually is not a concern during drought; corn kernels may be smaller, but feeding value is not affected to the same degree as for oats and barley. Ear corn, however, may be lower in nutritional value due to a higher cob to kernel ratio.
- *Test for aflatoxins in grain fields.* The fungus, Asperilla flavus, and certain other molds may produce toxic substances in the field and in storage. They historically have been a problem in southern states where severe drought and high temperatures more commonly are experienced. Contact your county agricultural agent for a list of qualified laboratories.

Additional resources:

Your county agricultural agent

Related publications:

UW-Extension publications–

“Managing Drought-Stressed Corn and Soybeans,” (NCR238);

“Protect Livestock From Nitrate Poisoning,” (A1889);

“Feeding the Dairy Herd,” (NCR346).

Information from: University of Wisconsin Cooperative Extension