

Cattle Deaths Point Up Dangers Of Drought-Stressed Forage

LITTLE ROCK, ARK.

The deaths of two cows point up the deadly nature of drought-stressed forage, said Tom Troxel, associate head-Animal Science for the University of Arkansas System Division of Agriculture.

The cattle, one in White and the other in Van Buren County, died of prussic acid poisoning, a cyanide compound found in several types of grasses when those grasses are stressed by drought or frost.

“Of all the plants grown in Arkansas, those belonging to the sorghum category are most likely to contain potentially toxic levels,” he said. “Grain sorghum contains the most, followed by johnsongrass, sorghum-sudan hybrids and then pure sudangrass.”

Troxel said johnsongrass may be the plant of most concern since it grows wild throughout the state and infests many areas that are grazed. Johnsongrass was believed to be the culprit in the two deaths.

The wilted leaves of cherry trees that are drought stressed or fallen from pruning or storm damage can also accumulate prussic acid at toxic levels.

Cattle seeking moist forage are at risk because they may be tempted by more lush looking younger plants, which are higher in prussic acid than older plants. Their leaves, especially those high on the plant, have more of the acid than the stems.

“Usually, sorghum-type plants that are more than 18 to 24 inches tall are less likely to contain high concentrations of the toxin,” Troxel said. “Immature plants and regrowth following haying or grazing contain the highest levels.”

“Close grazing for several years usually eliminates johnsongrass from pastures,” he said. “Millet is free of the toxin.”

Symptoms of prussic acid poisoning include anxiety, progressive weakness and labored breathing, and death may follow when lethal

amounts of prussic acid are consumed. Death often occurs rapidly.

Ruminant animals – cattle, sheep and goats – appear to be the most susceptible to prussic acid poisoning. Reports of poisoning in swine and horses are rare.

“Although prussic acid is not often a problem in horses, feeding sorghum-type forage may produce a malady known as cystitis syndrome,” he said. “The exact cause of the disease is not known.”

Symptoms include lack of coordination, abortion in pregnant mares and urine dribbling.

Horses should not be grazed on johnsongrass, sudan or sorghum-sudan species.

Troxel offered some precautions for using sorghums or johnsongrass:

- Do not allow animals to graze fields with succulent, young, short growth. Graze only after plants reach a height of more than 18 to 24 inches.

- Do not graze drought-damaged plants in any form, regardless of height, within four days following a good rain. It is during this period of rapid growth that accumulation of prussic acid in the young tissue and of nitrates in the stems is most likely to occur.

- Do not graze wilted plants or plants with young regrowth. Do not rely on drought-damaged material as the only source of feed. Keep either dry forage or green chop from other crops available at all times. Uneven growth as a result of drought can best be utilized as silage or hay.

- Do not turn hungry cattle onto a pasture of sorghum, sorghum-sudan hybrid or johnsongrass. Fill them up on hay or other forage first, and begin grazing in the late afternoon.

- An option for using potentially toxic forage is to harvest it as hay or silage. Prussic acid levels decline in stored forages. Well-cured hay is safe to feed, and if forage likely to have high prussic acid is ensiled, it is usually safe to feed three weeks after silo fill. Δ