

Crop Residue As Emergency Forage

LITTLE ROCK, ARK.

Despite sporadic rain, deep-seated drought continues to ravage the state, Arkansas' livestock producers are considering crop residue as an emergency source of hay, said John Jennings, extension professor-forages for the University of Arkansas Division of Agriculture.

Despite recent rains, much of the state is still in moderate-to-severe drought, with southeast Arkansas extremely dry, according to the U.S. Drought Monitor map released last Thursday.

The drought has sent livestock producers scrambling for dwindling hay supplies. Last year, Arkansas harvested 1.48 million acres of hay. This year, many hay reserves have already been used up, and the first hay cuttings were affected by cool temperatures and too much moisture.

With other sources of hay drying up, producers are looking into other methods.

Of all the salvaged drought-stressed crops, soybeans typically make the best quality hay, but it depends on the state of the plant's leaves at harvest, said Jennings. "Typical hay harvest methods of mowing and repeated tedding before raking will shatter all the leaves, rendering the hay very low quality," he said.

Tedding is the process of spreading mown greenery to dry.

Instead of this method, the soybeans should be cut with a mower-conditioner so that the conditioner rolls crimp the stems, speeding the drying rate. The crop should be raked before it dries, and then left to finish drying in the

windrow to help retain leaves.

"Leafy soybean hay can be very good quality," said Jennings. Typical yields for good soybean hay may be 2-4 tons per acre, but drought-stressed beans may only yield 1-1.5 tons per acre.

"At the high price of soybeans and the value of hay around \$50-\$60 per bale, producers will have to determine which option provides the best economic return," he said.

Grain sorghum is another crop commonly salvaged for hay, but drought-stressed sorghum may contain high nitrate levels, which can be toxic to livestock. Samples should be tested for nitrate content before harvest. Bring samples to your county office or send to University of Arkansas' Forage Lab in Fayetteville for testing.

As with any crop, check to see what crop chemicals have been applied to the crop to make sure it's safe to use as hay, said Jennings.

Livestock producers should also remain vigilant for other threats, such as johnsongrass and Perilla mint. During drought conditions, the normally harmless johnsongrass accumulates prussic acid – also known as hydrogen cyanide. Perilla mint, a square-stemmed, purple-leaved mint family member known as "rattlesnake weed," contains a toxin that can induce respiratory failure in cattle. When preferred forages aren't available, grazing animals will eat the mint.

And although johnsongrass can become safe after being cut and dried, nitrate is another matter. "The prussic acid dissipates as the plant dries out. Nitrate does not," said Jennings. Δ