

Arkansas Growers Experiment With White Sorghum

MARION, ARK.

There's a lot more to white sorghum than simply being a rotational crop, say producers and extension personnel with the University of Arkansas Division of Agriculture.

Stewart Weaver is growing 37 acres of white sorghum on his Crittenden County farm this season, in addition to more conventional Delta crops, soybeans and cotton.

This season, Arkansas producers planted 30,000 acres of sorghum, most of it red. That was down compared with the 2009 crop – Arkansas growers planted 40,000 acres. Those numbers are way down from the 1985 peak of 940,000 acres, and way off the 225,000 acres planted in 2007. That crop's sales were valued at \$73.3 million, the most recent sales data available for sorghum from the National Agricultural Statistics Service.

"Here in the mid-South, we use the sorghum as a rotation crop, not a main crop," he said. A rotational crop is something of an agricultural stepchild – a placeholder to help condition the soil, among other things. Generally, it doesn't receive the same attention in terms of irrigation, pest control and fertilization that other "main" crops do.

However, the rotational crop does serve an important purpose: helping break pest cycles.

"We used to do rotation of cotton and corn, but wound up with root knot nematodes," Weaver said. "White sorghum has helped break that cycle."

Another positive that will resonate with growers this year is the crop's drought resistance.

"We've been watering it, but irrigation is not as intense as it is in corn," he said, adding with a chuckle, "when you get to 110° and it hadn't rained in two months – it's not that drought-resistant. It does use some water."

isn't known, he said, adding that some of the varieties being grown aren't necessarily suited to Arkansas.

Weaver's not the only one experimenting with white sorghum. Drs. Rick Cartwright, extension



The differences between white and red sorghum are clear in this test plot at Marianna.

University of Arkansas Division of Agriculture photo by Jason Kelley.



White and red sorghum being grown in test plots at research and extension centers in Rowher and Marianna. This photo was taken at Rowher.

University of Arkansas Division of Agriculture photo by Jason Kelley

However, most American consumers are probably unfamiliar with sorghum, also known as milo, because in the west it is rarely sold as is on grocery shelves.

Weaver is hoping his small crop will fare well with Nigerian, Moroccan and Columbian users, who will use it in beer brewing.

In the United States, South America and Australia sorghum holds promise as a biofuel feedstock. According to the National Sorghum Producers, the grain is able to produce the same amount of ethanol as comparable feedstocks with a third less water.

"Research shows you can run sorghum straight through an ethanol plant just like corn," he said. "It doesn't require any special treatment."

Higher in protein than corn, sorghum is also in demand as a feed grain for cattle, hogs and poultry. White sorghum is also being investigated as catfish feed.

White sorghum production in the United States is concentrated in Kansas and Texas, but is also grown in other states. Weaver said white sorghum used to be grown in Arkansas. When and why the switch was made to red sorghum

plant pathologist, and Jason Kelley, extension wheat and feed grains agronomist, both have test plots at the University of Arkansas Division of Agriculture's Lon Mann Cotton Branch station at Marianna. They're looking to see how it responds to disease and other pests in Arkansas.

Cartwright said Kelley was also comparing the yields of the red and white sorghums.

Typically, Arkansas red sorghum yields are 90 bushels an acre. At 56 pounds a bushel, that's 5,040 pounds an acre.

"The yield potential of this plant should be up there at 9,000 to 10,000 pounds an acre," Cartwright said. "Farmers in our state, if they get 140 bushels think they've done a great job with irrigated sorghum, but they ought to be getting 180 bushels."

Otherwise, "on the flip side, it's pretty tough and if the genetics are right, it would be a fairly inexpensive crop to produce," he said. Δ