

## Research

### Sorghum WDGS Feeding Trials

Conestoga Energy and the Sorghum Checkoff are conducting a feeding trial on the performance of beef cattle fed wet distiller's grains with solubles (WDGS). WDGS are byproducts of producing ethanol and are used as feed for dairies and feedyards. The different rations will contain blends of corn WDGS, sorghum WDGS or both. The trial began in September and has a target completion date of Feb. 2011.

In the study, four different treatments will be administered and divided among 2,800 head of cattle. It is the perception of some cattle feeders that corn WDGS is always superior to grain sorghum WDGS. This study aims to recognize sorghum as a high quality substitute to corn WDGS in feed rations for cattle and that distillers grains should be evaluated in terms of crude fat and protein rather than source feedstock.

The four treatments consist of an all corn WDGS ration, an all grain sorghum WDGS ration, a half corn WDGS and half sorghum WDGS ration, and a reduced-fat corn WDGS. The different treatment groups will be fed for approximately 160 days, and the different rations will be produced at Arklon Ethanol, located in Liberal, Kan.



Matt Durler, distillers customer service representative for Conestoga Energy, said ethanol plants used to sell their sorghum WDGS for much less than corn because many cattle feeders assume that corn allows feeder cattle to perform better. They now sell all distillers grains based on a crude fat guarantee of 11.5 percent, a target met both with 100 percent corn, as well as grain sorghum blends as long as the plant is running well.

"Cattle feeders believe the sorghum wet distillers grains contain less fat content than corn," Durler said. "We are trying to prove they are very comparable and should be sold for an equal price."

The goal of this test is to establish that sorghum is nutritious for beef cattle. This theory, if proven, should increase the value of sorghum WDGS being sold directly from the ethanol plants and, in turn, allow them to purchase more sorghum at a higher value. The study will record daily consumption, feed conversion, average daily gain and carcass merits. Cattle will consume around 12.5 pounds of WDGS a day, approximately 35 percent of the ration, and each group will be randomly selected.

"It is important to do this in a realistic setting, which is in the feedyard," Durler said. "Most studies take place on a much smaller scale and may not be as accurate, so this trial should give a more realistic idea of how valuable sorghum WDGS are to beef producers."

#### SORGHUM CHECKOFF MISSION:

*Investing your Sorghum Checkoff dollars to increase profitability for the sorghum industry.*

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## New Markets for Sorghum

Sorghum has long been known for its water efficiency and its versatility in a range of environments. However, sorghum is now being recognized for its potential in the development of green and healthy products.

The Sorghum Checkoff is working with numerous large scale industries like ethanol, food and feed to expand opportunities for sorghum. However, the checkoff has also worked with smaller operations for technical assistance in developing new products.

#### Packing Materials

Tim Edwards, CEO of Edwards Feeds, has been including sorghum in feed for years, but a chance to purchase a struggling company offered a new opportunity to go beyond sorghum's feeding value.

Puffy Stuff, Inc., based in Tennessee, uses sorghum to make packing peanuts, which are available online at puffystufftn.com.

"We source all of our sorghum from Kansas," Edwards said. "Puffy Stuff is 100 percent biodegradable and breaks down with water."

Edwards also said Puffy Stuff has an advantage over Styrofoam packing material because it is not made from petroleum and it doesn't create static electricity. Puffy Stuff isn't stopping with packing peanuts, they are working to develop packing planks that could potentially replace Styrofoam packing material all together.

"Puffy Stuff is a great alternative to traditional Styrofoam packing material because it is biodegradable where Styrofoam can take 400

years to break down," Edwards said. "Sorghum packing material will break down with water and can act like a fertilizer. It's 100 percent safe, it will help create demand for sorghum, and it helps preserve our planet."

#### Snack Food

Even though Puffy Stuff is technically edible, another man saw an opportunity for sorghum that has a much more pleasant taste. Two years ago Ari Taube saw a television show that inspired him to learn more about sorghum and its nutritional benefits. Taube learned that popped sorghum has fewer calories, more protein, and more calcium than most varieties of popcorn.

"I called several specialty food stores and health food stores trying to find popped sorghum," Taube said. "No one knew what sorghum was, so I found some grain sorghum and decided to pop my own."



Taube said he had some difficulties getting sorghum to pop at first but found a technique that made it pop really well and gave it a nice crunch. Additionally, he said it wasn't as "styrofoamy" as popcorn.

Taube decided to build his own popped sorghum company. He started planning his business and searched for a source of grain sorghum for his new product. His company, Mini Pops, is dedicated to providing a market to U.S. sorghum and sources all of their products from producers in Kansas.

"We officially launched Mini Pops in July of 2010 and have all of our products available online at minipopsinc.com," Taube said. "Mini Pops are making their way to stores across the country so you might just see them in your local grocery store very soon."

## Egyptian Buyer Tour

In an effort to expand sorghum's international markets, the Sorghum Checkoff and U.S. Grains Council sponsored a group of Egyptian grain buyers in the Texas Panhandle Oct.5-14 to learn about how U.S. sorghum is grown and utilized in the livestock feed industry.

"This group was interested in DDGS from the U.S.," said Morgan Newsom of the Texas Grain Sorghum Association (TGSA). "The Sorghum Checkoff and the U.S. Grains Council are planning a feeding trial in Egypt later this year so it was important to show the Egyptians how sorghum is produced here. This trip was intended to educate these buyers on the value of U.S. sorghum and DDGS."

This group of prospective buyers represented the Egyptian poultry industry as well as various food processing companies and inspection services in Egypt.

During their trip to the Texas Panhandle, the group visited an ethanol plant, a grain elevator, and a sorghum farm in Claude, Texas, where they saw how sorghum is harvested right off the farm. Newsom said one of the highlights of the trip was a cookout hosted by a group of sorghum producers for the Egyptian buyers.

"It is always important to show these buyer groups how a typical American farm really works," said John Ballard, a sorghum producer from Claude, Texas. "Without exports our market would be saturated with grain, which would result in lower prices. It is also important to develop relationships with these groups and to make them feel welcome. It is always good to know who you're buying a product from."

Ballard said that educating buyers about the quality and logistics of U.S. sorghum is hoped to reinforce relationships between buyers and U.S. sorghum producers that will stimulate further exports of sorghum.



*The Egyptian buyer group visited a grain storage facility in Claude, Texas, during their tour of the Texas Panhandle.*

## Sign-up to Receive Sorghum Checkoff eNews

The Sorghum Checkoff is providing the sorghum industry with a monthly update on projects and advancements through the Sorghum Checkoff eNewsletter.

This newsletter is sent via email at the beginning of each month with information on new market development endeavors, research updates and communication pieces to help farmers and industry members alike keep up with the latest news from the Sorghum Checkoff.

To sign up to receive your Sorghum Checkoff eNews submit your email address in the form at the bottom of the home page at [sorghumcheckoff.com](http://sorghumcheckoff.com) or email us directly at [info@sorghumcheckoff.com](mailto:info@sorghumcheckoff.com).



## From the Field

### Sweet Sorghum Trials in Florida

Shelee Padgett, sorghum checkoff eastern states field services representative, met with Southeast Renewable Fuels LLC to discuss the company's development of biofuel facilities in Hendry County, Fla., and current plans to develop three sweet sorghum-to-ethanol plants in southern and central Florida. Their sweet sorghum plot consisted of 30 acres with Advanta, Chromatin, Coffey and Mississippi State varieties.



*Sweet sorghum field plots in Florida are intended to determine potential for planting sorghum at various times of the year.*

This year's plot consisted of nine varieties in irrigated plots. The plots were planted in July to allow researchers to examine performance following late planting. Southeast Renewable Fuels LLC has taken tonnage and sugar cuts the last week of October and will take another measure 30 days afterwards. These cuts will help compare the varieties production potential under late planting conditions.

### Colorado Field Days

Dusti Fritz, Sorghum Checkoff western states field services representative, attended a field day in Walsh and Brandon, Colo., on Sept. 30 where several new sorghum hybrids were on display. Colorado State University weed scientist Phil Westra discussed DuPont's post-emergent herbicide tolerant sorghum. The Sorghum Checkoff has sponsored several field plots displaying this technology in various locations this summer. These trials are intended to demonstrate proper management techniques and to educate growers on successful methods of using and protecting this post emergent technology to produce higher yielding sorghum.

## Market Development Update

### Livestock Feeding Guides Now Available

The Sorghum Checkoff program has recently released livestock feeding guides to better educate livestock producers on the feeding value of sorghum. These guides target beef, swine, poultry and dairy producers and contain information from the most effective processing methods to the value of distiller's grains. The Sorghum

Checkoff feeding guides tell exactly how to get the most out of feeding sorghum in your ration.



The beef, poultry and swine guides are available now, and dairy producers can expect to see a guide targeting their industry in the near future. To request your feeding guide email the Sorghum Checkoff at [info@sorghumcheckoff.com](mailto:info@sorghumcheckoff.com). You may also download your copy at [sorghumcheckoff.com](http://sorghumcheckoff.com).