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ON THE COVER: Pheasant populations in South Dakota thrive with sorghum, and the Johannsen family is using the crop to help strike a balance between farming and outfitting that mutually benefits their soil, wildlife and the longevity of their operation in the name of conservation.



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Chairman's Address

A Season of Promise

Sit down tonight (Oct. 12) to write my last chairman's address for *Sorghum Grower* having just gotten off the tractor from planting what will be the 2017 winter wheat crop. Tomorrow, we will switch to harvest mode



and start the 2016 sorghum harvest. This is the norm in the Texas Panhandle, planting the next crop while simultaneously harvesting another. This can lend itself to be one of the most stressful times of the year, if one allows it. But it is in these pauses, usually about midnight, that I find the clarity to evaluate the big picture. This is one of those moments.

I've determined it is possibly this stressful season that helps give promise to next year's crop potential. As I put seed wheat into dry dirt, "dusting it in" in panhandle terms, I can look across the row at a bountiful sorghum crop just waiting to be put into the bin. I think it is that hope, and faith, in success that drives many non-irrigated crop producers across the country to keep on doing what they do best—produce a bountiful supply of food to feed a hungry and sometimes ungrateful world.

It was just a few short weeks ago that we were battling the double blow of sugarcane aphids and sorghum headworms. Both seemed to be extra resilient this year and in some cases had to be dealt with more than once. I know this to be true in many parts of the Sorghum Belt, but I have also heard many reports of outstanding yields. It is funny how the prospect of putting the combine in the field tomorrow makes those adversities last month seem less troublesome tonight.

The thought of harvest tomorrow also gives way to reflect on the last year of my chairmanship. I truly appreciate the opportunity to serve an industry that is so vitally important to our family farm. I think back on previous leadership whose foresight has brought the sorghum industry to where we are today. Today, the sorghum industry enjoys advanced research, improved genetics, new marketplaces and a worldwide customer base that it did not have 10 years ago. As an industry, we would not be in the position we are in if it were not for the producer leaders over the last 15 years. Hats off to those that came before me! And for those sorghum producers out in the combines who find this crop vitally important to their bottom line, get involved! It is those passionate sorghum producers of tomorrow that will help this industry keep moving forward.

Thank you,

ames Som

James Born NSP Past Chairman

Capitol Hill

The Conservation Conversation

By Julia Debes

n March 21, 1935, Hugh Bennett watched the windows as he testified to a congressional subcommittee. The Soil Erosion Service, led by Bennett, was running out of money and political capital to conduct fieldwork during the Dust Bowl. As he spoke, a storm from the drought-stricken Midwest rolled into Washington, D.C., providing powerful visuals. Following his testimony and the Black Sunday dust storm the next month, President Franklin D. Roosevelt signed the law creating the Soil Conservation Service, predecessor to today's Natural Resources Conservation Service.

This familiar story exemplifies the crux between practice and politics. Farmers are inherent stewards of their land, but government policy can have a hefty influence on shaping the conservation practices producers enact.

1985 and the Creation of CRP

The 1985 farm bill established the first conservation title and created the Conservation Reserve Program. CRP replaced annual set-aside programs in removing acres of highly erodible or environmentally sensitive acres out of production and paying farmers to do so. But, Tom Sell, managing partner of Combest, Sell & Associates, noted CRP was also crafted to address a suffering farm economy framed by low crop prices and overall production.

"CRP came across as an attractive way to give more stability to the farm economy," Sell said.

With 40 million acres enrolled in CRP by 1990, sorghum, as a reliable crop choice for marginal ground, took a significant hit. Planted sorghum acres dropped from 18.3 million acres in 1985 to 13.1 million acres in 1996.

Sorghum acreage continued to decline following the Freedom to Farm Act in 1996. The de-coupling of base acreage from production allowed producers, whose risk was often balanced by a CRP contract, to choose higher value crops to plant. Sorghum acreage dipped further, reaching a low of 5.37 million acres in 2010.

1996 and the Shift to Working Lands

Freedom to farm was the headliner of the 1996 farm bill, but the legislation also included a fundamental shift on conservation policy. Before 1996, CRP was administered by the Farm Service Agency, and NRCS focused primarily on technical assistance. The 1996 farm bill, however, moved more authority into NRCS for providing cost-sharing incentives for working lands. For example, the bill authorized \$200 million for the Environmental Quality Incentive Program, a cost-sharing program providing payments to farmers for specific practices or investments.

"This is one of the brilliant aspects of the Freedom to Farm Act," Sell said. "This move set the mark for what would be done to this day."

The 2002 farm bill increased the funding for EQIP tenfold and the focus on working lands programs has continued throughout subsequent farm bills.

"We have had EQIP around since 1996, going from \$200 million a year to this year when we have \$1.4 billion," said Mark Rose, director of NRCS financial assistance programs division. "That shows the commitment to conservation of Congress and the taxpayers."

The 2002 farm bill also created the the Conservation Security Program, now the Conservation Stewardship Program. CSP provides farmers up to \$40,000 a year to implement conservation practices addressing specific resource concerns, called enhancements.

"Conservation policy has moved away from a setaside policy to how to institute better conservation practices on the farm," Sell said.

2014 and Re-tooling CSP

The 2014 farm bill continued this focus on working lands and conservation. The bill created the Regional Conservation Partnership Program, intended to leverage larger partnerships to provide assistance in critical conservation areas. The bill also re-tooled CSP, and NRCS is now rolling out those shifts in 2016.

Changes stemming from the 2014 farm bill include the addition of a minimum annual payment of \$1,500, an emphasis on conservation planning, increased transparency, a new evaluation tool similar to EQIP's and more, bringing resource concern prioritization down to the local level. The re-vamped CSP also more than doubled the number of eligible enhancements from 90 to more than 220 and created bundles of enhancements. "If a producer is adopting a bundle of enhancements, they actually get an incentive in their payment rate," said Tim Landreneau, lead of the NRCS CSP program. "Rather than two or three individual enhancements that may not complement each other, they are doing a grouping that addresses a larger target."

Landreneau said sorghum, as a very typical rotational crop, benefits under the program from several enhancements linked to conservation crop rotation. Those additions include expanded CSP enhancements involving reduced tillage for decreasing water or wind erosion as well as ones to increase soil health and organic matter. Producers should consult their local NRCS agents to learn about which new enhancements apply to their local resource concerns.

One constraint to CSP, however, is that the program is still limited to 10 million acres under the 2014 Farm Bill. As a result, NRCS can only fund about a third of applicants.

"CSP is a very popular program" Rose said. "We fully expect the application acres from new applications received by February 3, 2017, and from previous applications that were not enrolled last year to far exceed the 10 million acres available in the program this year."

Shaping Future Conservation Policy

Conservation is likely to play an even larger role in shaping farm policy in the 2018 farm bill and beyond. For example, conservation and environmental groups may support programs like EQIP and CSP that incentivize conservation practices versus opposing commodity groups on other farm programs. Conservation policy's tie to the farm safety net already exists as the 2014 farm bill connected conservation compliance to crop insurance. As a result, conservation is an important discussion for associations and groups like AGree, a food and agriculture focused initiative supported by foundations like the Walton Family Foundation and co-chaired by agricultural powerhouses like former U.S. Agriculture Secretary Dan Glickman.

"There is going to be a very significant focus in the next farm bill on the crop insurance program," said Todd Barker, senior partner at Meridian Institute, which hosts AGree. "And we are looking at ways the program can support producers in adopting conservation practices."

One area AGree is examining involves the intersection of conservation and crop insurance.

"From our perspective, the AGree perspective, the conservation programs are critically important," Barker said. "Given the significance of crop insurance, we are also looking at ways of using the crop insurance program to encourage broader adoption of conservation practices."



▲ SORGHUM'S AGRONOMIC benefits related to soil, water and wildlife habitat are not new information, but the industry is determining how to turn those attributes into advantages within conservation programs.

AGree is investigating whether the current rating system within the crop insurance program adequately accounts for the risk reduction benefits of conservation practices, which may lower risk to the insurer and increase yield predictability for the farmer.

"We think the research is fairly significant because it suggests that farmers who are adopting conservation practices are essentially adopting risk reduction strategies, which may, therefore, may warrant changes in crop insurance premiums and the ratings systems itself," Barker said. "We believe, and many of the producers within AGree believe, that conservation is good for their business and their profitability and has environmental benefits. This is a way to use the existing crop insurance program to achieve those objectives."

AGree is also examining other ways to quantify conservation practices. For example, AGree submitted recommendations on how to collect more and better data on producers' utilization of conservation practices through the Census of Agriculture. The initiative also believes practice codes for conservation practices would help build a longterm data set that would inform future policy decisions.

"Good conservation can keep working lands as working lands. Conservation reduces risk and improves resiliency," Barker said. "Better accounting for conservation in crop insurance does not eliminate the need for conservation programs, but I think that is a complement."

Get Involved Now

Sorghum farmers have a vested interest in participating in these discussions around conservation policies and how proposals affect their operations.

To communicate this message, the sorghum industry needs farmer voices involved. Opportunities exist to further cement conservation as part of the farm safety net, but only if farmers help frame the conservation conversation.

PHEASANTS FLOURISH IN SOUTH DAKOTA SORGHUM FIELDS

By Jennifer Blackburn



heasants are the king of game species in South Dakota. First introduced to the state in 1898, the first sanctioned one-day season took place Oct. 30, 1919, in Spink County. In 1943, the Chinese ring-necked pheasant became the official state bird, establishing itself as a permanent symbol of South Dakota. Today, 1.5-2 million birds are harvested in the state every year.

"Opening day is like a holiday," said Eric Johannsen, a fourth generation farmer and outfitter from Tolstoy, South Dakota, "and for as long as I can remember, it seems like every farmer always wants to do a little something to have some birds on their property."

Sorghum was the solution for the Johannsen family farm, providing a grazing ground for the farm in addition to wildlife habitat to support a healthy pheasant population.

"It seemed like corn was the general standby," Johannsen said. "We were one of the first to use sorghum for food plots."

A Preferred Food Choice

Johannsen puts a lot of thought into the farm's sorghum food plots, specifically with regard to variety. Different blends include white, red and bronze sorghums, but he observed white sorghum is the pheasant's preferred choice likely because it has a more neutral flavor.

No matter the blend, however, Johannsen said at harvest time, the pheasant's crop, part of the bird's digestive tract, is almost entirely full of grain sorghum. Additionally, he observed a pheasant will travel up to a mile to feed and seek shelter in sorghum plots.

"The first year we planted [sorghum], it was just like a magnet for pheasants," he said. "There is no better place. If you are going to go find pheasants, the first place I look is grain sorghum—it really is the best."

The Perfect Winter Shelter

Sorghum is also an ideal winter cover for pheasants, particularly in the Great Plains of the United States.

Johannsen said they will sometimes mix cane or forage sorghum into his grain sorghum food plot for added shelter.

"You do that, and I have not seen anything better as far as a shelter for pheasant," he said. "They have everything they need in one spot. They have good thermal cover, they can get out of blowing snow, and they have feed right there too that they can reach right up and take right off the head without ever leaving the ground."

The Conservation Puzzle

The Johannsens believe many pieces to the conservation puzzle must fall together to provide the best upland bird habitat in their region. This strategy includes a carefully managed combination of Conservation Reserve Program grasslands, corn fields, wheat fields, cattail sloughs, wooded shelterbelts and food plots like sorghum that provide both dense nesting habitat and valuable feed sources. Johannsen said meeting a pheasant's needs from January 1-December 31 in one particular area is their goal.

"There will be a section of ground, and we know there are going to be so many birds here, so we have to ask, "What is this section of ground lacking in the big picture?" he said. "Does it have the proper nesting area we need for the birds? Does it have brood rearing? Brood rearing is going to have to have different crops growing on it that are going to be pollinating at different times of the year to attract your pollinating insects, your flying bugs, that those young chicks really love to feed on and is primarily their main diet the first few weeks of their life. "

"Then, as the season goes on, they get older, are you going to have crops maturing at different times? Obviously, that is going to affect your insects," Johannsen added. "There are a lot of things that most people do not think about."

No-Till and Cover Crop Advantage

Johannsen said his family's philosophy is to never become complacent and determine how to improve both the production and ecological aspects of the operation. As a result, the Johannsens have increased focus on soil health on the their 100 percent no-till operation. For example, they incorporated production grain sorghum for the first time this year because the crop leaves more residue and requires fewer inputs.

"We are using a diversified crop rotation to not only manage our risk both on the production side, disease side and insect infestation side, but also using that to help manage our soil and our soil health," he said.

Part of that equation is the rotation of cover crops. During a warm fall last year, Johannsen had a cover crop field with turnips, radishes, oats and knee-high rye next to a grain sorghum food plot. Tromping through the cover crops on the way to hunt the grain sorghum field, Johannsen said he was surprised when the group began to harvest pheasants in the cover crops, later opening them up to find the birds had been eating insects that were thriving in the growing cover crop.

Sustainable While Profitable

Following that philosophy of continual improvement, Johannsen admits what works for one piece of ground or one producer may not work for another. He said at the end of the day it comes down to how everything works together to pay the bills.

"If you are not profitable, you cannot be sustainable," he said, "and if you are not profitable, are you being the best steward to the land? Usually not."

When Johannsen graduated college in 2001, he was looking for a way to return to the farm and be profitable. His family found a viable solution in grazing wildlife habitat alongside their existing production agriculture and cattle operations.

"We are in an area where we always have had really good wildlife numbers, especially wild pheasants," he said. "We are just looking at a way to make it a little bit better and trying to figure out a way to make that work overall with everything else."

Partnerships that Pay

The Johannsens carefully manage each of the three sectors—production agriculture, livestock and outfitting—to optimize the entire operation. Johannsen said conservation initiatives provide value for farmers to partner not only with organizations like Pheasants Forever but also with the U.S. Department of Agriculture Natural Resources Conservation Services and state agencies.

For example, Habitat Pays is a joint effort between the South Dakota Departments of Game, Fish and Parks and Agriculture that, according to the Habitat Pays website, connects farmers and ranchers to habitat resources, helping landowners implement habitat on appropriate land—a program Johannsen said includes Pheasants Forever involvement.

"Helping farmers and ranchers try to figure out what will be best for their operations to blend that whole never ending puzzle of production agriculture, production ranching and wildlife habitat," he said, "it all just works hand in hand."

Johannsen said their operation also utilizes NRCS programs like CRP, the Conservation Stewardship Program and the Environmental Quality Incentives Program. In fact, Johannsen Family Farm received the CRP Legacy Award in December 2015 presented by Pheasants Forever and Quail Forever, in recognition of the 30th anniversary of CRP and the Johannsens' stewardship efforts to implement conservation practices that reduce soil erosion, improve water quality and create wildlife habitat.

These efforts align with the mission of Pheasants Forever, which vice president of marketing Bob St. Pierre says is to create wildlife habitat for sustainable populations of pheasants and quail. He also said finding common ground between farmers and hunters helps support habitat on the ground and a robust agricultural community.

"They are often the exact same people," St. Pierre said. "Many, many farmers are also bird hunters, and finding ways where both interests can be served and can see success when it may be two different interests within the same group of people, it becomes the biggest victory of all."

Johannsen, a long-time member of Pheasants Forever, agrees.

"I think now, more than ever, the cross cooperation between production ag producers, grower organizations and wildlife and conservation groups is important," Johannsen said. "Once everybody starts realizing that we may have a little different take on things, but the big picture is the same, we can see that we all have the same goal."



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PARTNERS IN CONSERVATION

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From the Field

Farmer CEO Series Frische Family

Sunray, Texas

ard work is a two-way street, giving back what is given. That is why Myles Frische and his brothers, who farm across four counties in the upper Panhandle of Texas, believe it is important to be involved in their community. The Frische brothers are active with local 4-H and FFA chapters, Meals on Wheels, the United Way and organizations that support local law enforcement. Myles recently finished his four year term on the Great Plains Ag Credit Board of Directors. Frische was also selected for the delegate body for the Texas Sorghum Association.

The Frische family understands involvement locally improves quality of life and doing so also allows farmers to provide perspective on agricultural issues as well as non-agricultural issues in hopes to help their community thrive.

"Being involved in your community shows a sense of trust, security and economic strength," Frische said. "Strong communities have good schools, churches, people and economic opportunities." While the farm is always busy with days starting early and lasting late, the Frisches still find time to discuss their farm operations or agricultural issues with the community by hosting farm visits, telephone conversations or just an everyday conversation over a meal. For the Frische brothers, a sense of community and their ability to interact and network with the agriculture community is important, but their connections

"I am fair but aggressive and would not make anyone do a job I have not done 100 times before."

and involvement in non-agricultural organizations are valuable, as well.

In addition to their row crop operation, the Frisches operate several different ag-related businesses, including a cattle grow yard, fertilizer company and trucking businesses. With their involvement in the daily operations and community commitments, they employ both family and non-family members to keep operations running smoothly. Frische acknowledged the strength of any organization is its people and their operation strongly believes in that.

"Good partners and good employees help you achieve your goal," said Frische. "Experience and being educated on what you are trying to achieve goes a long way too."

Attracting good employees is critical for today's successful farming

operations. Agriculture needs workers who value work ethic, have knowledge of agriculture and working on a farm and have a personality. In return, Frische said he tries to be a good teacher and leader.

"I am fair but aggressive and would not make anyone do a job I have not done 100 times before," Frische said.

A valuable attribute of a CEO is their ability to lead a team to work together to make the whole greater than the sum of its parts or in the case of Frische his ability to lead his family business to not only be a vital part of the Dumas community but a legacy for the next generation.

With increasing acreage, advanced technology and complex marketing amidst volatility, today's farmers are more like CEOs. The most successful farmer CEOs dedicate their time not only to raising the crops that feed, fuel and clothe the world, but also to investing in the tools needed to maximize both agronomics and economics to boost yields and secure profits. This series examines the best practices of these top producers.

Meet the New NSP Chairman

Don Bloss farms near Pawnee City, Nebraska, and is the newly-elected National Sorghum Producers Chairman. Grain sorghum has been a mainstay on the Bloss's 2,500 acre no-till farm since he began farming. Bloss and his family also grow corn, soybeans and wheat. He and his wife Lisa have four children and four grandchildren, all living near the family farm. Don is a past chairman of the Nebraska Grain Sorghum Producers board and has also served on the NSP Legislative Committee for eight years. He has played an active role on the NSP board for seven years and looks forward to collaborating with other board members to continue to lead and push the sorghum industry forward.







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What Depleting Water Resources Mean for the Kansas Producer

By Kayla M. WIlkins

s quickly as water tables decline in the Ogallala Aquifer, agriculture industry leaders are uncovering how to extend the life of the aquifer to maintain economic viability in crop production. The Ogallala Aquifer Initiative under the U.S. Department of Agriculture Natural Resources Conservation Service is funding research to minimize detrimental effects on producers and the economy, all while conserving water.

The insecurity associated with less available water is a substantial burden for today's row-crop farmer. Those engaged in the production of irrigated crops face a variety of management decisions in areas with limited water resources. One potential answer is adjusting crop rotations to adapt to the water crisis. Research done by Bill Golden, a Kansas State University research assistant professor, demonstrates adding grain sorghum acres is an economical and profitable alternative.

Research Says Sorghum

Much of Golden's research is centered on a Local Enhanced Management Area in Sheridan County in western Kansas. A LEMA is an area of land dedicated to the reduction of groundwater decline rates and extending the life of the aquifer by restricting growers on water usage. Shane Beckman, a producer in Sheridan County, said in his experience of being in a LEMA, converting acres to sorghum to save water is a step in the right direction in terms of sustainability.

"I look at milo as a benefit because it does not take as much storage," Beckman said. "It also does not take as much money to grow as far as inputs. I really think we are going to come out ahead because I think we are farming smarter."

Studies in Kansas confirm Beckman's observations. Golden has conducted research for a number of years answering the question of maintaining financial security in production agriculture with the depleting groundwater from the Ogallala Aquifer.

According to Golden, the typical Kansas corn grower will use approximately 18 inches of groundwater for

irrigation annually. In contrast, his studies show grain sorghum only requires 10 inches per year. This idea of conservation, based on planting decisions, spurred the premise behind additional research analyzing if converting to grain sorghum in the region would in fact extend the life of the aquifer.

In early studies, Golden did several risk analyses comparing corn and grain sorghum profitability in the area. From those studies, he concluded that in areas of western Kansas where groundwater is reduced, grain sorghum is a viable alternative to corn.

"There is no doubt in my mind grain sorghum can consistently yield 150 bushels on substantially less water than is used on corn," he said.

Within the last five years, Golden has worked with an ongoing project analyzing grower's financial records who are farming in a LEMA in Sheridan County of western Kansas. The Ogallala Aquifer Program, an organization committed to conserving water in the aquifer while not sacrificing profit for producers, funds the research.

In short, this study analyzes the potential profitability for growers using 20 percent less groundwater with irrigated crops. The results revealed some research plots yielding consistently between 150 and 180 bushels per acre of grain sorghum on as little as four inches of water.



"In limited water, sorghum can be profitable," he said. "It is very possible for producers to reduce water use and maintain their revenue stream."

Beckman confirms the research translates to field applications on his farm, adding sorghum has a variety of benefits available to the sustainability-driven producer. For him, sorghum is a long-term investment and mainstay in his crop rotation.

"I really think we are going to be trending toward even more irrigated sorghum because it is so sustainable," Beckman said. "We are using half of the amount of water on sorghum that we are corn."

Challenges Ahead

With the research data supporting the profitability behind growing grain sorghum in the area, Golden said producers are still apprehensive. After visiting with growers across the region, a common theme emerged from their hesitation to convert to sorghum crop insurance.

"I sat down and talked to probably 200 or 300 producers that grew both grain sorghum and corn and asked them what the pros and cons are," he said. "One of the cons of growing grain sorghum is crop insurance."

Historically, many growers in the region have planted grain sorghum on their less desirable soil and have not managed it to the degree they do other crops. Golden said this practice in turn has created a lower production history of grain sorghum in the area, hence less insurance coverage.

"That is problematic because when you put grain sorghum on your worst land, and when you plant your corn first then only plant your grain sorghum if you do not get your corn planted, you are going to have low yields," Golden said. "If you have low yields, then you are going to have low crop insurance coverage."

From the Farm

From a grower perspective, Beckman agrees with challenges associated with sorghum production for many growers. However, he said sorghum can be a valuable crop on any operation in western Kansas if managed well.

"You have those off years where you might have a bad storm or you just do not get any rain," he said, "but nine times out of 10, or from my experience, sorghum is a very good crop as long as you go back to management."

Golden said the answer to increasing yield history in sorghum for insurance is growers dedicating relatively small acreage to grain sorghum and managing it extremely well. Additionally, he advises producers add more acres each year to promote a positive yield history.

"That is the bottom line," he said. "If the Risk Management Agency is going to insure grain sorghum based on their actual production history, then their actual production history has got to reflect the higher yields." With the water tables depleting rapidly, Golden said considering the findings in this series of studies is vital for producers' economic security.

"Looking at the future, we are going to have less and less water in western Kansas," he said. "If we are going to have less and less water, and sorghum provides a good alternative, they need to plan for that. One way to plan for that is to start building a yield history."

From an industry perspective, Golden said the research results provide information producers can utilize when choosing which crop to plant for an increase in their bottom line as well as conservation of water. After all, challenges with limited water are not isolated to Kansas. Producers across the high plains facing this dilemma reap value from the results of this study.

Golden has made many breakthroughs in his research, but he has plenty left on the road ahead regarding sorghum's role in extending the life of the Ogallala Aquifer. Conservation is increasingly important to not only the sorghum industry, but also the agriculture industry as a whole.

"Perhaps as you get older you worry about conservation more, and I have seen conservation work," he said. "I have seen us be able to reduce water use and not reduce profits, so I like to share that story with producers."

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Hugo's Resturant HOOKED ON SORGHUM

By Sydney Nelson

estaurants are in a constant struggle to balance growing food and operating costs while finding innovative ways to keep customers walking through the doors. But for one Los Angeles restaurant, innovation is second nature.

Hugo's Restaurant, a flexitarian eatery with three restaurant locations throughout Los Angeles, has been introducing the people of Southern California to new cuisines for more than 36 years. The pioneering mindset at Hugo's inspires a menu bursting with healthy, mouthwatering creations, featuring some of the most innovative ingredients on the market.

Hugo's is known for pushing the envelope by finding new, sustainable ingredients that keep their guests coming back for more. So it should come as no surprise that sorghum has already become a signature ingredient on Hugo's menu.

With California's drought weighing heavily on his mind, Hugo's Restaurant co-owner Tom Kaplan began searching for an alternative to grains already being used on their menus. After doing some extensive research on various grains, sorghum fit the restaurant's search for a more cost effective, less water intensive alternative.

With his newly acquired knowledge of sorghum, Kaplan went to a nearby grocery store and bought a package of whole grain sorghum. Later that day Chef Nabor Diaz Parado, who has been with Hugo's for more than 27 years, made Kaplan one of the very same dishes his mother made for him as a young boy in Mexico.

"I brought him the bag [of sorghum], thinking I was showing him something new, and he goes 'Oh okay, I know this stuff. Go sit down,'" Kaplan recalled fondly.

Chef Nabor prepared a falafel-like patty of ground sorghum and vegetables dipped in egg batter and deepfried, served in a pool of guajillo sauce, topped with chopped chile poblano salsa, a dollop of sour cream, cucumber, cotija and chopped cilantro.

"When he made me those sorghum tortitas for the first time, I was hooked," said Kaplan. "Then he started telling me about all the different ways he used sorghum growing up in Mexico."

Chef Nabor grew up in the Michoacán region of central Mexico, in a small rural community. His grandfather was a sorghum farmer and he remembers as a kid his family using the grain in more ways than he can remember.

"We used sorghum as a substitute for both corn and rice," said Chef Nabor. "Sorghum has so many uses, so we used it a lot."

Growing up with sorghum gave Chef Nabor an inherent working knowledge of the grain. He had seen his grandfather farm it and had helped his mother cook with it in his childhood home. This deeply-rooted knowledge made incorporating sorghum into Hugo's menu effortless for Chef Nabor.

"It was simple for me when Kaplan first came to me with sorghum," said Chef Nabor. "I know a lot about it—more than anyone else at the restaurant at the time. So it was very easy to start using it in the restaurant."

Hugo's menu hosts numerous sorghum recipes throughout the year like a rustic breakfast salad with Spanish sorghum or a roasted yam pecan pie with a sorghum crust. Tom estimated between the three restaurants and three taco stands, Hugo's has used somewhere between four and five tons of sorghum in the last two years. "Sorghum has been great as a rice substitute," said Chef Nabor. "We use a lot of rice. But sorghum has helped us cut down, and I feel like we are making a difference in fighting California's drought problem."

Hugo's Restaurant boasts an 80 percent plant-based menu. But those who may not be gluten-free, vegan or vegetarian can enjoy their dining experience equally with plenty of traditional protein options available.

"We want to educate people and wow them at the same time, and that is what we have been doing for the last 36 years," said Kaplan.

Hugo's first opened as a butcher shop. In 1975, Kaplan's father Terry Kaplan took over the business and in 1980 turned Hugo's Fine Meats into Hugo's Restaurant—a Mecca for the budding Los Angeles foodie scene. More than three decades later, Hugo's has expanded to three restaurant locations and three taco stands across the Los Angeles area.

From the very beginning, Terry's vision was "a kitchen producing original, wonderful foods found nowhere else." Kaplan and wife Emily, joined by Rich and Leslie Brenner and Bill Kohne, have continued that mission by challenging themselves and the talented Hugo's staff to think outside the box.

"Creating foods that are healthy, delicious and cutting-edge. That is the essence of what we do here at Hugo's," said Kaplan. "We want to win people over with new ingredients and new styles of food they have never been exposed to before."

For example, Hugo's Restaurant paved the way in offering vegan and gluten-free options long before such options were popular. Kaplan and his chefs combed through all of the more than 400 recipes on Hugo's menus, looking for places where gluten-free and vegan options could replace traditional flours and side dishes.

"That is where sorghum has played a key role for us," said Kaplan. "We were able to offer gluten-free alternatives for our guests before any of the mainstream restaurants were even thinking about it."

Hugo's has its own warehouse dedicated to storing grains—like rice, lentils and quinoa—so shortly after their first experiments with the versatile grain, the restaurant ordered its first ton of sorghum.

"Our guests have been really pleased with it, and we really try to push the envelope with what we can do with sorghum," said Kaplan. "I think we have done a good job with dazzling and winning a lot of people over."

The restaurants' menu has more than 70 regular items, plus specials, in addition to Create-A-Plates. Hugo's takes pride in their commitment to using only the freshest, highest quality ingredients to make more than 400 "stealthy-healthy" recipes.

"We buy more than 600 different raw ingredients and make 400 recipes in any given 48-hour period. It is no easy task," said Kaplan. "And we're changing constantly."

An ever-changing menu is just one of the reasons Hugo's Restaurants have remained viable in a competitive market like Los Angeles. The variety, coupled with all the options for those with special diets, has created a must-repeat environment for families, friends and colleagues.

"A restaurant's biggest challenge is figuring out how to keep people walking in the door," said Kaplan, "and my answer is to always keep coming up with new things to excite people. That way they can stay at one restaurant and be exposed to all kinds of new things."

Hugo's is proof sorghum can thrive in fine dining restaurants just as it has in the kitchens of Mexico for decades. With food pioneers like those at Hugo's, sorghum is an innovative, healthy and delicious ingredient that helps conserve resources.



▲ CHEF NABOR IS a culinary innovator when it comes to sorghum dishes. From the Rustic Breakfast Salad to Sorghum Frittata, Mung Beans and Sorghum Casserole, Sorghum Tortitas and more, this Chef is taking sorghum center stage, and Hugo's Restaurant touts sorghum as a mild-flavored whole grain that takes very little water to grow, making a difference in the world.

From the Field

Farmer CEO Series Jay Hardwick Newellton, Louisiana

xcellent communication skills are an essential part of business and everyday life. At Hardwick Planting Company in Newellton, Louisiana, each new week starts off with the Monday morning executive management meeting. Jay and his sons Mead and Marshall work together to identify, prioritize and schedule operational tasks for each week.

Their long-time field manager then implements and completes these tasks along with the field team. If operational issues arise, the field manager assesses the situation, implements remedial action and/ or communicates the issue to executive management for further guidance.

Along with effective communication, Jay proactively encourages his management team to participate in professional development activities through field days, seminars and workshops.

Recently, Marshall and Mead attended the Commodity Classroom, hosted by Brock Associates in Milwaukee, Wisconsin. The Commodity Classroom is an annual workshop that covers topics including marketing and risk management plans, futures and options, fundamental and technical analysis, hedging strategies, cash marketing and feedstock purchasing.

In another area of professional development, Jay is a certified Louisiana Master Farmer. This voluntary

Excellent communication skills are an essential part of business and everyday life.

producer program is administered through a partnership of five Louisiana agricultural entities that includes the Louisiana State University AgCenter.

The program identifies and reinforces the necessary skills to address environmental, production and resource management concerns on-farm to encourage sustainable agriculture. The Louisiana Master Farmer program is divided into three phases the farmer must complete to be awarded the fiveyear certification.

Effective communication and continuous professional development have benefited the Hardwick's and their operation when evaluating and participating in opportunities from local and global perspectives.

Also active in their community, the

Hardwick family often hosts local school students and members of the community to visit their family operation and learn about agriculture and conservation in

the Mississippi Delta Region.

Additionally, the Hardwick's have partnered with the U.S. Department of Agriculture Natural Resources Conservation Service and their local soil and water conservation district to host conservation and irrigation workshops for landowners, producers and NRCS technical staff from throughout the United States.

With increasing acreage, advanced technology and complex marketing amidst volatility, today's farmers are more like CEOs. The most successful farmer CEOs dedicate their time not only to raising the crops that feed, fuel and clothe the world, but also to investing in the tools needed to maximize both agronomics and economics to boost yields and secure profits. This series examines the best practices of these top producers.



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CONSERVATION FROM THE GROUND UP

By Julia Debes

ongress may write the farm bill and the U.S. Department of Agriculture may administer the programs, but sorghum producers can directly influence conservation programs through their local conservation board and state technical committee.

According to Jordan Shearer, the executive director for the Colorado, New Mexico and Oklahoma state sorghum organizations, the U.S. Department of Agriculture Natural Resources Conservation Service recognized the importance of working with farmers to prioritize and implement conservation efforts from the service's very beginning during the Dust Bowl.

"The government knew they needed local buy-in," Shearer said.

The result was a three-pronged approach to conservation policy: NRCS, local conservation districts and state conservationists, supported by state technical committees. The groups work together to prioritize resource concerns and implement conservation programs. As a result, sorghum farmers can significantly influence conservation issues by participating in these groups.

Sorghum: A Model Conservation Crop

Crops are not often specifically named in conservation programs, but sorghum is a natural fit to address many resource concerns, including wildlife, soil and water. As a result, conservationists and producers alike highlight sorghum as a model crop for conservation efforts.

"Sorghum is tool to meet these conservation goals," Shearer said.

For example, sorghum stubble provides excellent wildlife habitat, especially for game birds like pheasants and quail. Reflecting this benefit, Nebraska Game and Parks conducted a Tall Wheat and Milo Stubble Program, which paid landowners up to \$10 per acre to benefit wildlife by leaving sorghum or wheat stubble 14 inches or taller undisturbed until April 1. The program's intended benefit was to provide habitat for pheasants, quail and other wildlife through the winter. The program also included an incentive for producers to allow walk-in hunting access on stubble. Nebraska Game and Parks is expected to re-open enrollment for sorghum acres in the program next year.

Mike Baker, sorghum farmer from Trenton, Nebraska, participated in the program's first iteration. He said the program essentially incentivized good practices but did provide an added reason to plant sorghum. And as a hunter, Baker appreciates the wildlife habitat.

Baker added that producers also recognize other benefits of sorghum. Sorghum's role as a rotation crop is important for conservation crop rotation as it has known agronomic properties as a water-sipping crop. Additionally, sorghum works well in no-till operations, helping reduce wind and water erosion and limiting runoff. These attributes also provide opportunities for producers to cash in on planting sorghum through NRCS programs.

"People see the benefit of sorghum from the conservation standpoint," he said. "It has been really good to see."

All Conservation Is Local

Producers like Baker can not only utilize conservation programs in their operations, but also help shape the programs through involvement in efforts like the local conservation district or state technical committee.

Local conservation districts directly affect producers. Prior to his current position, Shearer worked as the project director for the Oklahoma Association of Conservation Districts, which represents the 86 Oklahoma conservation districts. He explained each state's conservation districts vary slightly but all serve the same purpose-developing locally driven solutions to natural resource concerns.

Each district's locally elected board determines resource priorities. Then, even more importantly for farmers, the conservation districts determine which specific projects are funded through NRCS cost-sharing programs.

State technical committees also wield considerable influence on conservation programs. Members are selected by the state conservationist, not elected, meaning anyone interested can apply. As a result, the state technical committee is a nexus for all groups concerned with conservation, including commodity organizations like National Sorghum Producers, farmers and environmental groups like The Nature Conservancy. Together, these members advise the state conservationist.

"We need to know how to deliver the programs in the most effective and efficient manner possible," said Monty Breneman, Kansas assistant state conservationist who works directly with the Kansas Technical Committee. "In order to do that, we need recommendations from the farmers at the local level, the conservation districts at the local level, the groundwater management districts and the state agencies."

The state conservationist ultimately makes the final decision on implementation changes.

"Some national priorities are pushed down from Washington," said Jesse McCurry, NSP regional director and member of the Kansas Technical Committee, "but for the most part, the state conservationist works with the state technical committee to develop the priority areas for conservation funding."

For example, the state conservationist sets the specific cost-share rate for the state. In Kansas, that rate had previously been set at 75 percent. However, based on recommendations from the Kansas Technical Committee, the cost-share rate dropped to 60 percent this fall. That recommendation focused on wanting to fund more applications from more producers-important as applications for programs continue to rise in the tough farm economy and overall federal funding continues to shrink.

"The biggest reason is that our funding continues to tighten up and we continue to have many times more eligible, deserving applications than we have funding for," Breneman said. "This reduction is an attempt to do more good and put more conservation on the ground with our financial assistance."

Producer Participation Needed

The focus on conservation will increase as producers seek more assistance from over-subscribed programs and political pressure from environmental groups intensifies. Yet, sorghum farmers and associations like NSP can serve as the industry's voice in the local decision-making on conservation priorities and resource allocation while touting the crop's known wildlife, soil and water benefits.

By doing so, producers help ensure conservation programs continue embodying NRCS's original intent-collaborating to create sustainable and efficient farm operations.

"Everyone is certainly passionate about the position they represent," Breneman said. "At the end of the day, we are all working toward the same goal-the conservation of the natural resources in the state." SORGHUM & (ONSERVATION



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Sorghum Update Brought to you by the Kansas Grain Sorghum Commission

Kansas Grain Sorghum Anticipates Results with Collaborative Sorghum Investment Program

Program is focused on boosting national sorghum yield, value and expanding markets

he Collaborative Sorghum Investment Program launched this fall thanks to the investment of farmer leadership and Kansas State University's naming of an advisory board. Sarah Sexton-Bowser was also selected as managing director of the Center for Sorghum Improvement.

The K-State-based center focuses on expanding markets for sorghum and increasing the average national sorghum yield from 61.95 bushels per acre to 100 bushels per acre by 2025. To accomplish this goal, the center will fund research in plant breeding and field-level management.

"The new Center for Sorghum Improvement has been a long time coming. Featuring collaboration between the university, and national and state entities, this cooperative agreement will make K-State the world's destination for sorghum research and outreach," said John Floros, dean of K-State's College of Agriculture and director of K-State Research and Extension. "Sorghum producers in Kansas, the U.S. and beyond will be impacted by the center's efforts."

The advisory board brings the collective talent and experience of Sexton-Bowser; Larry Lambright, Chromatin consultant; Florentino Lopez, Sorghum Checkoff executive director; Stephen Bigge, Kansas Grain Sorghum Commission chairman; Gary Kilgore, K-State agronomy professor emeritus and Kansas Grain Sorghum Commissioner; Gary Pierzynski, professor and head of the K-State Department of Agronomy; and Cassie Jones, assistant professor and coordinator of undergraduate research of the K-State Department of Animal Sciences and Industry.

"Our industry is basically untapped in its potential for growth, and we are only using around 10 percent of the known sorghum gene pool in the world," said Pat Damman, Kansas Grain Sorghum director. "It is exciting to think about what traits are out there that have not been explored yet. Now it is sorghum's turn, and with our collaborative efforts we will see huge advancements in the next five years."

In addition to a commitment to increase crop yield, the agreement between K-State, the Kansas Grain Sorghum Commission and the United Sorghum Checkoff Program calls for efforts to increase demand for sorghum to 1.25 million bushels by 2025. This effort includes the expansion of international markets, food use within the U.S., livestock feeding, ethanol production and specialty products.

Sorghum typically sells for less than corn. By increasing sorghum yield while at the same time expanding demand for sorghum, Sexton-Bowser and her team will work to decrease the trading discount of sorghum to corn from 4.6 percent to 2 percent by 2025.

To support the center's launch, the Kansas Grain Sorghum Commission and the Sorghum Checkoff will each provide \$2 million, made in annual payments of \$200,000 for 10 years. The Kansas Department of Agriculture will provide \$20,000 per year for 10 years and K-State will invest \$800,000, for a total of \$5 million. Further partnerships will expand the center's objectives to enhance the domestic sorghum industry.

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Sorghum Recipe

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SORGHUM BOURBON-GLAZED QUAIL MEDALLIONS AND THREE CHEESE WHOLE GRAIN RISOTTO

Three Cheese Whole Grain Risotto

2 scallions 2 garlic cloves 1 medium jalapeño 1 tablespoon olive oil 1 ½ cups sorghum 6 cups water or stock 1 tablespoon butter ¼ cup heavy cream ½ cup sharp cheddar cheese ½ cup Monterrey jack cheese ½ cup Colby jack cheese Salt and Pepper

SorghumBourbonGlazed Quail Medallions

6 large boneless quail breasts
6 slices thick-cut bacon
Toothpick or skewers
¼ cup sorghum syrup
1 tablespoon bourbon
1 teaspoon balsamic vinegar
1 teaspoon olive oil
Salt and pepper

Directions:

Rinse the sorghum grain. Cut off and discard the root ends of the scallion, slice thinly and separate white bottom and green top. Peel and mince the garlic. Remove the seeds from the jalapeño and finely chop. In a large pot, heat 1 tablespoon olive oil and add the white scallion bottoms, garlic and jalapeños. Cook, stirring frequently, for 1-2 minutes.

Once scallions, garlic and jalapeños are aromatic, add 6 cups water or stock and salt and pepper to the pot. Bring to a rolling boil and add the sorghum grain. Let the grain cook on high for 5 minutes then reduce to medium, cover for 30-35 minutes. Reduce to low until water is absorbed.

3

Make

recipe

While the grain is cooking, preheat the oven to 400 degrees. Wrap each quail breast with one slice of bacon and fasten with a toothpick. In a bowl, mix together sorghum syrup, whiskey, balsamic vinegar, 1 teaspoon olive oil and salt and pepper. Glaze the baconwrapped quail breasts on each side. Cook in the oven for 20-22 minutes. Glaze each quail breast again upon removal from the oven.



When the grain is cooked, add heavy cream, butter and cheese. Cook, stirring frequently, until the cheese is melted and the mixture is sticky. Salt and pepper to taste. Enjoy!

For this recipe and more, visit SimplySorghum.com

NEWSLETTER



SORGHU

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HIGHER YIELD, LESS WATER - TOMORROW'S REALITY?

he U.S. Department of Agriculture Economic Research Service indicates agriculture consumes approximately 80 percent of the nation's water. In the Sorghum Belt, sources of that water, like the Ogallala Aquifer, are being depleted at a much faster rate than they are replenished. The Kansas Water Office indicates that if no action is taken within the next 50 years, the Ogallala will be 70 percent depleted, and another 40 percent of the area irrigated by the Ogallala will not support a 400 gallon-per-minute well.

"But, what if there is a way we can raise the same size crops with less water," said Tom Willis, CEO of Conestoga Energy Partners LLC and National Sorghum Producers board director from Liberal, Kansas.

That objective is behind the newly implemented Water Technology Farms, an effort supported by the Sorghum Checkoff. As part of the Long-Term Vision for the Future of Water Supply in Kansas, Willis is one of three Kansas farmers teaming up with the Kansas Water Office to demonstrate that growers

can reduce irrigation without negatively impacting crop yields. The initiative involves a three-year commitment to testing the latest irrigation technologies on a whole-field scale.

According to the Kansas Water Office, Willis' farm in Finney County was the first and largest developed during the 2016 growing season, also known as a Water Conservation



Area. To test irrigation efficiency in sorghum, soybeans and alfalfa, four mobile drip irrigation systems, a precision irrigation system that delivers water and nutrients directly into the soil, and three low-pressure spray nozzles were installed. With two soil moisture probes in each field, Willis said he can monitor water data in real time.

"My motivation behind participating in the project is two-fold," Willis said. "I have farm ground I would like to pass on to my family



in the future, and it is extremely important to me that we are able to originate our grain locally for our two ethanol plants in southwest Kansas."

Willis recognizes the need to discover a sustainable solution to Western Kansas' water concerns. New technologies provide farmers with opportunities to enhance their bottom line, but Willis said farmers may not take

undue risk during low commodity prices, especially when related to water.

Through this three-year project, Willis said his goal is to ultimately reduce water consumption on his farm by 50-

60 percent while maintaining or increasing yield. By doing so, he thinks other farmers will adopt similar practices-which could benefit not only those farmers in Kansas, but also growers across the nation.

"I think we have to start treating water like a crop input," Willis said. "If everyone reduces their water usage by at least one-third, you have extended the life of the aquifer by 35 percent.



What does that do? That buys you time until the next round of technology."

The 2016 growing season was an anomaly in western Kansas with the area receiving upwards of 13 inches of rain during May through August. Normal rainfall for the area is 4-6 inches. While still waiting for harvest results, Willis said he already sees some benefits to the mobile drip irrigation system.

"I think we have to start treating water like a crop input," Willis said. "If everyone reduces their water usage by at least one-third, you have extended the life of the aquifer by 35 percent. What does that do? That buys you time until the next round of technology."

"Through observation we have seen better root formation, used less fertilizer and reduced our repair bills." In the case of

sorghum, Willis said his goal is to raise 200-bushel milo on 10-

12 inches of water. If the results are favorable, he thinks people will realize sorghum is not just a dryland crop and farmers can push limits on yield.

"I do not know what the next round of technology to conserve water will be, but it has to start somewhere," Willis said. "I do not think this project is the whole solution to the problem, but it is a start toward finding one."

LEADERSHIP SORGHUM CLASS III KICKS OFF IN THE TEXAS HIGH PLAINS

latland with row crops and livestock as far as the eye can see greeted sorghum producers to the High Plains of Texas in early September. Fifteen growers from across the country packed their suitcases and chased white lines to be apart of the kick-off session for Leadership Sorghum Class III.

The program was developed three years ago to promote knowledge of all aspects of the sorghum industry to growers and foster grassroots leadership. Achieving the optimum learning experience is done by way of hands-on and classroom-style education performed by industry professionals. Throughout the program, participants will gain an understanding of how sorghum moves through the value chain, how checkoffs and interest organizations interact on behalf of the industry and what the future holds for the crop. However, they discovered there was much more in store for them.

"The number one benefit is just the exposure and meeting people from around the sorghum growing region," said Ethan Miller, Leadership Sorghum Class III participant from Columbia, Missouri. "We met the leadership in the checkoff and National Sorghum Producers and also a variety of people from within the industry working with seed or processing government policy."

During their time in the High Plains, growers underwent workshops and trainings over media in agriculture, leadership and teamwork. Aside from classroom activities, participants made their way across the Panhandle to various businesses, farms and research centers where 80 percent of the world's sorghum seed production takes place to expand their knowledge of what the seed industry looks like at all levels. Craig Meeker, Leadership Sorghum Class III member from Wellington, Kansas, said this type of learning environment was conducive to not only absorbing content, but also growing as an advocate for the sorghum industry.

"First off, I would like to build my own personal leadership skills," Meeker said. "I would also like to be a better voice for not only the sorghum industry, but also the agricultural industry in general."

By the end of the few days spent in the Lonestar state, growers grasped the science behind sorghum seed genetics and breeding while also recognizing a little more the importance of sustainability on the farm. Meeker said he hopes his experiences over the course of the the next 15 months will aid him in conveying the importance of leadership for long-term farm success.

"I hope that Leadership Sorghum will allow me to be a better voice for agriculture, so the general public knows our real story and the fact that we are very judicious in how we spend our money," he said. "We want to have a long-term investment to leave something for future generations."

A key piece of that investment is investing in oneself. The Sorghum Checkoff is proud to invest in this outstanding class of leaders that will sustain the future of the sorghum industry. Check back for updates on the next sessions in Kansas City, Washington, D.C., and the Texas Gulf.







MEMBERS APPOINTED TO THE SORGHUM CHECKOFF BOARD OF DIRECTORS

our members were recently appointed by U.S. Agriculture Secretary Tom Vilsack to serve on the United Sorghum Checkoff Program board of directors for three-year terms.

Growers reappointed to the board include Martin Kerschen of Garden Plain, Kansas, Daniel Krienke of Perryton, Texas, and Clayton Short of Assaria, Kansas. Newly appointed to the board is Kent Martin of Carmen, Oklahoma.

"We are looking forward to oncoming leadership and the diverse experience they will bring to the table," said Tim Lust, Sorghum Checkoff CEO. "We believe these farmer leaders will continue helping us to achieve the Checkoff's mission and

"The Sorghum Checkoff board is a progressive group dedicated to making relevant strides to improving 'super' sorghum both domestically and worldwide. I am excited to be a part of a group committed to improving the most efficient, productive crop I know."

vision of enhancing producer profitability and productivity and will be an asset to both the board and industry."

The board is structured so that the state with the largest production is allocated five seats, the second largest production with three and the third largest with one. Additionally, there are four at-large national positions for which at least two representatives must be appointed from states other than the top three sorghumproducing states. The maximum number of producers from one state is limited to six.

The 13-member board is authorized by the Commodity Promotion, Research, and Information Act of 1996. The Agriculture Secretary selects the appointees from sorghum producers nominated by certified sorghum producer organizations.

Research and promotion programs are industry-funded, authorized by Congress, and date back to 1966. Since then, Congress has authorized the establishment of 22 research and promotion boards. They empower farmers and ranchers to leverage their own resources to develop new markets, strengthen existing markets and conduct important research and

promotion activities. The Agricultural Marketing Service (AMS) provides oversight, paid for by industry assessments, which ensures fiscal responsibility, program efficiency and fair treatment of participating stakeholders. For

information on the United Sorghum Checkoff Program Board, please contact Kenneth R. Payne by phone at (202) 720-5705, or email:Kenneth.Payne@ams.usda.gov.

"The Sorghum Checkoff board is a progressive group dedicated to making relevant strides to improving 'super' sorghum both domestically and worldwide," said Martin, oncoming board member and Leadership Sorghum Class II graduate. "I am excited to be a part of a group committed to improving the most efficient, productive crop I know."

The new directors will be sworn in during the Sorghum Checkoff December board meeting. For more information on the Sorghum Checkoff board of directors, visit SorghumCheckoff.com.

CONTACT US OG CO

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SORGHUM CHECKOFF **MISSION**

To efficiently invest checkoff dollars to increase producer profitability and enhance the sorghum industry.

SORGHUM INDUSTRY EVENTS

Nov. 9-10 - NAFB Annual Convention Kansas City, Missouri

Dec. 13-15 - USCP Board Meeting Lubbock, Texas

Jan. 2-4 - Sugarcane Aphid Workshop Dallas, Missouri

Jan. 30-Feb. 2 - Leadership Sorghum *Washington, D.C.*

For more events, visit sorghumcheckoff.com/calendar

Sorghum Markets

Defining Sustainability on Sorghum's Terms

By John Duff

Defining sustainability as seen by those outside of agriculture is challenging. After all, from a financial perspective, the successful farm is inherently sustainable. Furthermore, producers see land as their most important asset and feel sacrificing its long term productivity for short term financial gain is imprudent.

So, why should producers care about sustainability? Much like environmentalism, sustainability is rarely defined on producer terms. This tendency often has negative implications for agriculture because it harms end-users' position with consumers and regulators. However, industries with a clear vision of sustainability willing to look for new opportunities, relationships and information will find success and minimize harm to their producers.

Food Industry Sustainability Needs

As a fourth generation producer, Earl Roemer, president and founder of Nu Life Market, is uniquely positioned on both sides of sorghum sustainability and sees benefits for both his food company and his farm. This position illustrates the mutually inclusive nature of sustainability and agriculture, and it underscores the positive sustainability attributes sorghum already possesses.

"The increasing appearance of sorghum in new products launched by multinational food companies reflects their recognition the crop is often produced under environmentally challenging conditions because of its natural protective mechanisms," said Roemer. "Furthermore, producers fully understand the benefits sorghum brings to areas with lower rainfall and inconsistent soil and appreciate its climate hardiness as well as risk management attributes."

Agronomic benefits aside, Roemer said consumers are paying attention to what food companies are doing to care for natural resources and the environmental footprint of ingredients they source and process.

"We have allocated resources to developing a sustainability framework specific to our producers and the grain we are processing," said Roemer. "Sustainability is becoming a very important marketing and business development tool for us, and our customers

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"We are seeing increased sales because sorghum has a built-in reputation for sustainability."

place a great amount of importance on specific sustainability attributes."

Sorghum inherently matches with consumer perceptions of sustainability, in areas like water usage, creating a direct impact on purchasing decisions.

"We are seeing increased sales because sorghum has a built-in reputation for sustainability," said Roemer. "The sorghum industry has built a very positive sustainability image for the crop, but this work must be expanded before producers can fully capitalize on sustainability-related market opportunities."

Carbon Intensity of Fuels

Federal budget constraints and the small size of the sorghum industry make collecting quality information for metric development difficult, and U.S. Department of Agriculture data reflect this challenge. For example, numerous sustainability frameworks rely on the USDA-conducted Agricultural Resource Management Survey (ARMS) for the crop input data used to calculate carbon intensity scores.

Budget triage meant ARMS was conducted for corn 17 times during the last 27 years but only four times for sorghum. Drought conditions persisted in three out of these four years, so the on-farm nitrogen application rate for sorghum, the largest contributor to carbon intensity, is greatly overstated in the ARMS data set. This means the carbon intensity for sorghum production is greatly overstated in any framework utilizing ARMS.

Óne such framework is the Greenhouse Gases, Regulated Emissions and Energy Use in Transportation model (GREET). This model was developed at the Argonne National Laboratory in Illinois and is used by the California Air Resources Board to administer the Low Carbon Fuel Standard.

The Low Carbon Fuel Standard rewards fuel producers for lowering carbon intensity through a market-based carbon credit system. Fuels with lower carbon intensity scores are worth more because they generate greater value in the credit market. The carbon intensity score of a fuel such as sorghum ethanol includes the carbon intensity of field-level activities employed in sorghum production.

"Sorghum-based ethanol historically earned a premium in California,"

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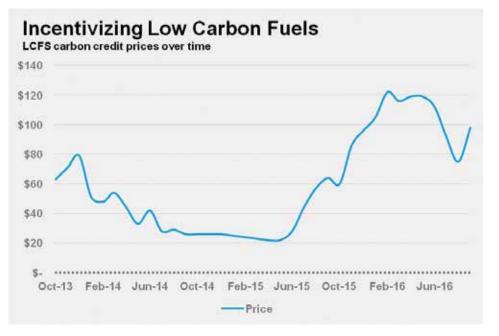
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said Matt Durler, vice president of marketing for Conestoga Energy Partners. "This premium was based on a carbon intensity score that reflected realistic farming inputs, and it allowed us to pay a few cents more per bushel for sorghum than corn."

This carbon intensity advantage coupled with the average 2014-2015 carbon credit price of \$41 resulted in a premium for sorghum of \$0.04 per bushel. While the amount varied based on the credit market, ethanol producers were able to pay a consistent premium over historical prices to sorghum producers from 2010-2015.

This situation changed after a 2015 update to the Low Carbon Fuel Standard shifted the GREET model to reflect ARMS and its overstated on-farm nitrogen application rate. The premium gave way to a penalty after the shift, and the problem was exacerbated when the price of carbon credits skyrocketed. The February 2016 credit price of \$122 severely penalized ethanol producers, lowering the amount they could pay for sorghum by several percentage points.

"Sorghum is one of the best options we have for managing resources on the southern plains," said Durler. "This carbon intensity change flies in the face of everything we know about this crop and takes us a step back with regard to our progress preserving resources like the Ogallala Aquifer."

Although National Sorghum Producers is working to address this problem with ethanol stakeholders, lack of quality data presents a significant challenge. As Roemer and Durler both underscored, sorghum is widely known to be a less natural resource intensive crop. However, this truism is difficult to prove with only lower-quality ARMS data available.

Looking Ahead

Much of the confusion around sustainability stems from its lack of a single definition, and the diversity of needs across industries will likely ensure uncertainty persists. To help define sustainability from a sorghum perspective and address data challenges, NSP and the Sorghum Checkoff convened a task force charged with defining sorghum sustainability and overseeing ongoing sustainability efforts.

The Sorghum Checkoff also joined Field to Market, a diverse group of stakeholders from across the agricultural supply chain focused on defining, measuring and advancing sustainability. Recognizing stewardship and financial wellbeing are not mutually exclusive, each sorghum sustainability relationship and initiative will emphasize both producers and their customers thrive as a direct result of stewardship.

Continuous improvement is a central tenet of sorghum sustainability, so efforts to ensure the industry maintains its commitment to sustainability will never end. Given this perpetually unfinished state, producers must not be frustrated but instead remember sustainability is a long term effort to improve the standing of agriculture. In the short term, producers must be mindful of end-users' sustainability needs and the demand impacts that accompany them.

What is the solution to data problems like the one plaguing sorghum ethanol producers? Collecting additional data from private sources and engaging USDA in order to improve ARMS will help. However, the sorghum industry will likely need a unique approach to sustainability given these challenges and the crop's advantages in areas not easily quantified by current frameworks, such as heat tolerance. There is no single answer to the data question, but the sustainability task force is fully engaged in finding solutions.

What can producers do to help? According to Roemer, the sorghum industry needs producer engagement in sustainability.

"It is important to recognize and monitor the activities that cause the largest environmental impact," said Roemer. "We can then use this knowledge to formulate a plan to reduce or improve the impact. Most importantly, we will need sorghum producers that can provide quality data and are willing to help with sustainability efforts. We have a long way to go before we fully understand our true environmental impact, so producer engagement is essential."

Sustainability is not simple, but efforts surrounding it must be continuous. A clear vision and proactive approach will be necessary, but the sustainability benefits offered by sorghum mean significant opportunity for those in the industry willing to tackle the challenge.

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ARCH 2



NSP Elects New Officers, Board Members for 2016-2017

At the 2016 August board meeting, National Sorghum Producers welcomed a new slate of leadership on the board of directors, headed by Don Bloss, sorghum farmer from Pawnee City, Nebraska, who was elected as the new chairman.

"Don Bloss is an experienced voice in the sorghum industry, having served previously as the chair of NSP's Legislative Committee," said Tim Lust, NSP CEO. "We look forward to his contributions and insights as NSP engages in discussions related to the next farm bill."

The NSP board of directors also elected Dan Atkisson from Stockton, Kansas, as vice chairman. James Born from Booker, Texas, moves to the past chairman position. Mike Battin of Chromatin Inc., who serves as the industry member on the NSP board, was also re-elected to a second term.

In addition to electing officers, the NSP board of directors appointed three new members who will serve a three-year term beginning Oct. 1, 2017: Bobby Nedbalek from Sinton, Texas; Kody Carson from Olton, Texas; and Larry Earnest of Star City, Arkansas.

"These directors have served our industry well during their tenure on the NSP board of directors," Bloss said. "We appreciate their time and devotion to the industry and the legacy they leave to future sorghum leaders."

Share Your Thoughts on Sustainability

Sustainability demands from stakeholders are increasing and sorghum growers must continue to find ways to stay successful. Beyond the farm's bottom-line, producers should also start considering the social, environmental and financial aspects of sorghum. We want to hear your viewpoint on sustainability issues. What practices in your operation fit in the sustainability discussion? What makes you a good steward of your land? Tell us your perspective on sustainability by emailing National Sorghum Producers staff Jesse McCurry at jessem@ sorghumgrowers.com.

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National Sorghum Foundation and BASF to Offer Joint Scholarships

The National Sorghum Foundation and BASF announced in September a new joint scholarship program for the 2017-2018 school year.

The jointly offered scholarships will include an award for tuition as well as cover recipients' participation in the 2017 Commodity Classic in San Antonio, Texas, March 2-4, 2017.

Applicants must be the child or grandchild of a NSP member and be pursuing an undergraduate or graduate degree in an agriculturally related curriculum. Undergraduate applicants must be entering at least their second year of study for the 2017-2018 school year.

Interested students can apply for the scholarships at https://goo.gl/W3bCYh. Applications are due by Dec. 1, 2016. For questions or to submit application materials, please contact Debra Lloyd at debral@sorghumgrowers. com or 806-749-3478.

For more information about the National Sorghum Foundation or these scholarship programs, visit sorghumgrowers.com/sorghum-foundation. For more information on Commodity Classic, visit http://www. commodityclassic.com/.

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