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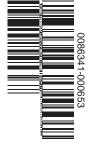
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### TABLE OF CONTENTS

### **FEATURES**

- For Love of the Land Conservation and farm profitability go hand-in-hand
- **Research Studies Fertilizer** Impact on Sustainability Addressing knowledge gaps on High Plains production
- Water for the Long Run Water-sipping crops like sorghum critical to extending the life of the Ogallala
- 20 2020 Sorghum Yield **Contest Winners** NSP annnounces this year's yield contest winners and a new U.S. dryland yield record

# **DEPARTMENTS**

- 12 Capitol Hill
- Serving Up Sorghum
- Sorgonomics
- **NSP** Update
- 30 Lab to Cab

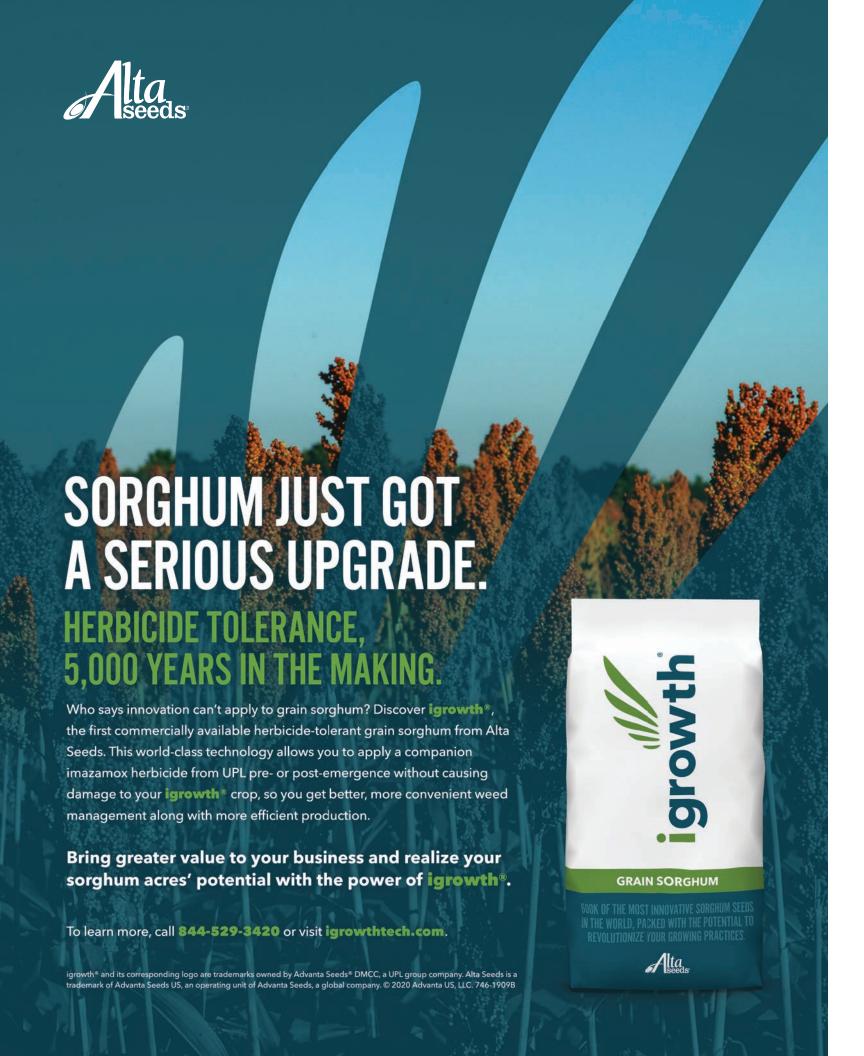




**WINTER 2021** 



ON THE COVER: Garrett Love and his father Greg operate a multigenerational farm and a hunting operation in southwest Kansas. Using conservation practices that reduce tillage, provide habitat for wild game and reduce water use, the family is able to maximize the long-term sustainability of their farm for generations to come.





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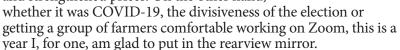
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# Chairman's Column

# A Tale of Two Extremes

uch like the Dickens' novel *A Tale of Two Cities*, the year 2020 saw plenty of extremes. The silver lining of the year was tremendous sorghum export sales to China and strengthened prices. On the other hand,



As farmers, we're optimistically looking forward to next year, focusing on the things that will help our operation remain sustainable. Like most of you, my farm is not a monoculture. I operate a multi-crop operation between Lubbock and Amarillo, Texas, with cows and stockers in the mix. We are currently dealing with extended severe drought, loss of irrigation water, increasing input costs and uncertain government farm programs. I have seen all of these before and probably will again, but I know I'm not alone in this effort to hunker down and roll with the punches. It's a daunting task, but one we as farmers can accomplish.

I want my farm to remain sustainable for the future, and as we address this increasingly important topic, it relates to broader climate discussions and policy initiatives for the coming year. We, as farmers, have work to do beyond our own innate desire to be sustainable.

For generations we have striven to leave a better place for our children, help our rural ag communities continue to thrive, and hopefully leave the small piece of earth we have been blessed to tend better when we pass it onto the next hands. We are so few in number, yet so vital to this nation's economy, and that is our story of sustainability we must tell better!

Sorghum has a great sustainability story to tell, as well. It is a tremendous asset on our farms because it is water conserving, tolerant of wide climate variables, favorable for many untapped food uses and products, a great sequester of carbon in our soils, and, as I am writing this column, the best basis to other commodities I have ever experienced.

We have a tremendous asset in the NSP staff and their resources for information and assistance. Don't hesitate to reach out to our team if you have a need or an idea. We have an opportunity to educate and assist new Members of Congress and the Administration that need facts and have a need to understand the importance of agriculture, and specifically sorghum, to a sustainable future.

NSP's past leadership has left large shoes to fill. I will do my best to uphold that standard, but it can only be achieved through a team effort and everyone's willingness to step into whatever role God has prepared for you. As I end this column and we begin 2021, another Dickens' line comes to mind. In the words of Tiny Tim, "God bless us, everyone!"

Kody Carson

NSP Board Chairman

# FOR LOVE OF THE LAND

sustaining wildlife & future generations



The central High Plains in western Kansas is a location where populations of upland birds like pheasant and quail flourish and thousands of sorghum acres collide. Farmers know it, sportsmen know it, and the impact this ecosystem has on working lands, wildlife populations, water conservation and the rural economy in Kansas is significant.

Conservation is key in this region. It has been for decades, and families like the Love family in Gray County north of Montezuma, Kansas, have taken steps to ensure this ecosystem remains mutually symbiotic for the long-term sustainability of their farm and the land.

Garrett Love started farming with his dad Greg six years ago—a return to the farm made possible by starting a hunting operation. The Love family now hosts close to 125 visitors each year who share a common passion for hunting and wildlife conservation.

"We are able to have people come in from around the country and enjoy the outdoors," Garrett said. "This component has helped us add value to what was already an asset on our operation and make a return on it."

A large component to the Love family's hunting operation success is utilizing minimum and no-till practices and planting sorghum.

"[My dad] has always loved wildlife, and he's always loved conservation, protecting the soil and protecting the moisture we have," Garrett said. "Moving to minimum-till then to no-till on most of our farm has been a huge plus for our production, and we've had a lot of good sorghum acres from that, which has been really good for the wildlife."

Not only does sorghum thrive in the toughest of conditions with minimal water, Garrett said, but it also has characteristics that aid wildlife, and it is a food source that pheasant and

"We are always impressed with [sorghum's] toughness and its ability to perform even in conditions that are not always great," Garrett said. "It really fits the environment we have out here."

Garrett added sorghum creates good cover for game birds whether it is standing or harvested.

"With [sorghum] you can leave more stalk with big leaves that protect [the birds] where they're able to use that as habitat," he said. "Out in the corn, you can see [the birds]. They'll peck around and eat the corn, which they like too, but they don't like being in the wide open where they cannot hide as much. In a [sorghum] field, there is tremendous cover."

There are many other components that contribute to healthy bird populations. The Love family began moving some of their corner ground outside of irrigated circles to grass, which Garrett says gives pheasant room to have cover year round, plus nesting, food and water all within one small area.

Organizations like Pheasants Forever (PF) and Quail Forever (QF), the nation's leading upland wildlife habitat conservation organizations, are helping private landowners like Garrett and his father put habitat like this into practice while also working oneon-one with them to identify conservation solutions to improve their operation.

Chris McLeland, PF and QF director of field operations for the south region, said finding win-win scenarios where they can put habitat conservation on the ground and help strengthen the farmer's bottom line at the same time is kev.

"There's this concept or this thought sometimes that agriculture, working landscapes and wildlife conservation are mutually exclusive," he said, "when in reality they're very much mutually inclusive."

Through precision technology, data and the help of their own ag conservation specialists, PF and QF are taking a renewed approach to driving conservation decisions.

"We really strive to use real life data from the machines [farmers] are running," McLeland said, "but also the observational data from the producers themselves to find these areas, these pockets, where we can really help increase the bottom line, increase profitability and put habitat conservation on the ground."

McLeland said on the arid High Plains where water is a real limiting factor both for wildlife and agriculture production, native grasses, like the kind the Loves put on some of their corner ground, provide cover for wildlife while also bearing root systems that help with water infiltration. He added agricultural crops like sorghum do farm rotation.

"When you marry a practice such as a native grass sitting directly adjacent to standing sorghum, you're just



setting the table and creating a great recipe for a lot of birds and a lot of opportunity."

This relationship between upland birds and sorghum creates a natural partnership between PF and QF and the sorghum industry.

United Sorghum Checkoff Program Sustainability Director Kira Everhart-Valentin is leading this effort on the industry's behalf, and it is a partnership she said will lend to continuous improvement by sorghum producers, to farm profitability and to wildlife conservation.

"We're really looking forward to partnering with Pheasants Forever and Quail Forever because they are organizations that have really put a lot of effort and energy into combining the goals and the common interests of wildlife conservation and working lands and agriculture," she said. "Their approach is one that does the best that it can to capture the best of both worlds, and we are excited to further that."

McLeland said as PF and QF have a strong desire to work with producers on working landscapes, partnering with the sorghum industry makes sense.

"One thing I really enjoy about working with landowners in the state of Kansas is they have a real passion and pride for the land that they farm, and wildlife conservation and resource conservation at-large runs deep," McLeland said.

The partnership will link the unique relationship between sorghum and upland wildlife habitats to create greater returns on the farm, steps producers like Garrett Love are already taking to ensure their operation remains sustainable for years to come.

"A lot of what we do for long-term sustainability and the same thing and are a value-added crop to include in a the different practices is for future generations," Love said. "My five-year-old already says she's a farmer. She's a farm girl. You want to set it up to where that is something that's a possibility in the future."

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# CONSERVATION + FARM PROFITABILITY

Sorghum producers are actively working to improve soil health and habitats through environmental stewardship and responsible practices including reduced tillage, water conservation, crop rotations and maximized residue.

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SORGHUN THE SMART CHOICE

# CRITICAL RESEARCH ADDRESSES KNOWLEDGE GAPS IN FERTILIZER IMPACT ON SUSTAINABILITY

By Patrick Wade

o matter what field you work in, anyone who ever competed in an elementary school science fair can recall the scientific method. Before any budding scientists can begin dropping Mentos in a Coca-Cola bottle decorated like a volcano, they must first establish a hypothesis—a type of testable, educated guess.

Although the scientific community studies issues more important than toy volcanoes, scientific consensus is often still developed by testing one educated guess after another. Some of our most universally agreed-upon scientific truths began as one simple, testable educated guess. With the findings of each iterative study, these hypotheses grow increasingly precise and our collective understanding of the natural world sharpens. In this way, scientific discoveries are less like gold – naturally found within the earth, just waiting to be stumbled upon – than they are sedimentary rocks – crookedly but methodically layered on top of one another, one test at a time.

Policymakers, in turn, rely on those iterative and increasingly focused tests to craft programs that are both grounded in the real world and encourage scientifically sound, positive behaviors. But what happens when

scientists suspect that one of those initial assumptions at the base of a scientific consensus was never properly tested? What happens when they suspect that assumption informed over a decade's worth of policymaking? They test it, of course.

Researchers at Kansas State University and Oklahoma State University went through this exact process when they speculated that a major assumption undergirding U.S. renewable fuel policy had not been properly tested in one of the country's key agricultural producing regions. Peter Tomlinson, Ph.D., Lucas Haag, Ph.D., and Alan Schlegel, Ph.D., from Kansas State University and Jason Warren, Ph.D., from Oklahoma State University sought to determine if the United Nations' Intergovernmental Panel on Climate Change's (IPCC) estimates for nitrous oxide (N<sub>2</sub>O) emissions associated with the production of grain sorghum applied to the semi-arid High Plains in the heart of the Sorghum Belt.

Presently, the application of nitrogen fertilizer is the largest source of greenhouse gas emissions associated with agricultural production. Different crops, production practices and geographies, however, can mitigate the amount of nitrogen that is emitted as nitrous oxide. Originally, the IPCC estimated that approximately 2 percent of nitrogen applied in the production of grain sorghum is emitted in the form of nitrous oxide – approximately 1 percent as direct emissions from fertilizer application and approximately 1 percent as indirect emissions from the breakdown of residue.

These emissions estimates provide part of the bases for carbon intensity scores assigned to ethanol feedstocks like grain sorghum, which in turn determine the market value assigned to these commodities in emerging carbon economies like renewable fuels.

Preliminary findings from these teams at K-State and OSU show that total observed nitrous oxide emissions associated with grain sorghum is in fact 0.3 percent, well below the IPCC estimates of 2 percent. These tests used a standard wheat-fallow-grain sorghum-fallow rotation in western Kansas, a region largely representative of the Sorghum Belt.

We sat down, virtually, with Peter Tomlinson, Ph.D., and Jason Warren, Ph.D., to discuss their preliminary findings and how this might affect the ever-evolving realm of carbon policymaking. This interview has been edited for length and clarity.

# PATRICK: RIGHT OFF THE BAT, WHAT HAS BEEN YOUR DEFINING TAKEAWAY FROM THIS PROJECT?

Jason: I really like this project because we know it will inform an industry with region-specific data. There is a lot of information out there about how agriculture impacts greenhouse gases, and politics can often impact what we see on TV. But at the end of the day, if the goal is to have policies that reduce greenhouse gas emissions, we need sound science, which is why I work on projects like this.

Peter: For me, this project has been a great opportunity to develop and conduct research that can be directly applied to support producers and inform the ethanol industry and regulatory entities with regionally-appropriate data.

# PATRICK: WHAT INFORMED THE IPCC'S DEFAULT CUMULATIVE CROPPING SYSTEM EMISSION FACTOR OF 2 PERCENT? IS THE DIFFERENCE IN YOUR FINDINGS SIMPLY EXPLAINED BY THE PRESENCE OF BETTER DATA, OR SOMETHING ELSE?

Jason: The IPCC default value was developed as a result of a literature review of all the nitrous oxide emissions measurements collected throughout the world. It is my understanding that an emission of 2 percent of the nitrogen applied was found to be the average emission.

Peter: The values presented in the IPCC report are based on all of the available data worldwide which captures many different environments, management systems and efficiencies. The 2 percent represents two components: the direct emissions from nitrogen fertilizer application estimated to be 1 percent and indirect emissions from residue estimated to be 1 percent. Our working hypothesis was that the semi-arid (dry) environment of the High Plains would result in N<sub>2</sub>O emissions less than the default values.

**Jason:** This is why the research was so important, because there was no emissions data for dryland cropping systems in the High Plains.

PATRICK: IN YOUR REPORT'S RESULTS, YOU NOTE THAT CUMU-LATIVE NITROUS OXIDE FLUX WAS LOW ACROSS ALL TREAT-MENTS. ARE THERE ANY TREATMENT VARIABLES THAT WEREN'T PRESENT IN YOUR EXPERIMENTS THAT COULD DRAMATICALLY CHANGE THESE FINDINGS? ON A LARGER SCALE, WHAT LEVELS OF FLUX MIGHT YOU EXPECT FROM PLOTS WITH DIFFERENT CROP ROTATIONS, SUCH AS WITH COTTON IN TEXAS, OR IN OTHER REGIONS OF THE SORGHUM BELT?

Peter: One key limitation of our study is that we have not looked at different nitrogen fertilizer sources.

That being said, given the semi-arid environment, I would not expect the nitrogen source to result in different emission results.

Jason: I don't expect to see a rotation effect that would dramatically change the findings. As mentioned, the primary reason the values are so low is because of the semi-arid climate. What is very interesting is that 2018 and 2019 were certainly not below average rainfall years. With this, we are not simply seeing the effects of a "dry" year. I make this point because, again,  $N_2O$  is emitted when the soil is very moist, and the data makes it apparent that this condition simply does not occur that often in dryland systems in the High Plains, even in years with near or above average rainfall.

Peter: Another key consideration to minimize  $N_2O$  emissions is to make sure nitrogen fertilizer is not being over applied. Thus, it is important that soil samples are being collected to determine the available nitrogen in the profile so that the nitrogen fertilizer application rate is adjusted to account for the soil nitrogen levels.

# PATRICK: IN YOUR REPORT'S INTRODUCTION, YOU MENTION THAT RECENT CHANGES TO THE LIFECYCLE ASSESSMENT OF CORN HAVE HURT THE FAVORABILITY OF GRAIN SORGHUM FOR BIOFUEL PRODUCTION. DO YOU BELIEVE YOUR FINDINGS HERE MAY HELP TO COUNTER THAT?

Peter: Sorghum is not being discounted compared to corn, but without this research, the potential for premiums is nonexistent. Accordingly, I do feel this work is key to supporting High Plains sorghum production. The production systems in this region are distinct from the Midwest, which necessitates conducting regionally-appropriate research... Soil moisture is one of the key components needed for denitrification, which results in  $N_2O$  production. The dry environment is likely a key reason for the lower emissions that we have observed.

Jason: I think that the collection of data from the High Plains sorghum producing region of the U.S. will provide accurate data on the N₂O emissions from grain sorghum, and that the findings that the emissions are much lower than the IPCC default is good... I think this, along with the improved management over the past 30 years which allows for increased productivity and resilience to limited rainfall, should make sorghum more favorable to those who want to minimize greenhouse gas emissions by utilizing biofuel. ▶

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By Haleigh Erramouspe

limate change, sustainability, conservation and regenerative agriculture have been buzzwords across a gamut of industries for more than a decade. The focus on sustainability is intensifying, and the 117th Congress will certainly address agriculture sustainability in both old and new ways.

The association between agriculture and a changing environment is not new. In fact, it reaches back far before climate change was part of the general consciousness. The devastating Dust Bowl in the 1930s led to a conservation movement on Capitol Hill that spread like a West Texas dirt storm across the country. For nearly 100 years, agriculture has been on the forefront of conservation and sustainability, working to ensure land is productive and remains so for generations. While the vocabulary has evolved over the last century, the idea of maintaining and improving America's farmland has been a priority on the farm and among policy makers in Washington for generations.

A new Congress and Administration in Washington, D.C., will likely bring a renewed focus on the role of agriculture in mitigating climate change. President-elect

Joe Biden has named climate change as one of his top four priorities, and policymakers in the United States and around the world are increasingly looking to policy measures to encourage sustainable ag practices. National Sorghum Producers believes sorghum is well positioned as a water smart and climate resilient crop to address many of those needs.

Sustainability was added to the federal code by the 1990 Farm Bill, but as the country works to meet emissions goals in industry, agriculture and daily life, our lawmakers have become increasingly focused on inking sustainability into law. From the United Nations 17 Sustainable Development Goals to the U.S. House of Representatives Select Committee on the Climate Crisis, sustainability permeates policy shifts in varying ways at all governmental levels.

The Biden Administration will have a markedly different approach to climate policy than the Trump Administration. In addition to naming climate change as one of his top four priorities, Biden has selected John Kerry to serve as the Special Presidential Envoy for Climate on the National Security Council and has indicated

the U.S. will rejoin the Paris Climate Accord. The Biden transition team said the focus on climate change in regard lent in the 117th Congress. to agriculture and conservation will "create jobs in climate-smart agriculture, resilience and conservation."

On the agency side, the National Institute of Food and Agriculture was placed at USDA with the purpose of providing competitive grants to improve many areas of agriculture, including sustainability. USDA is funding research on sustainability through regional Sustainable Agriculture Research and Education (SARE) programs. Additionally, the Growing Climate Solutions Act was proposed in 2020, charging USDA with providing technical assistance to farmers to help them participate in greenhouse gas credit markets and establishing a verification process. This bill was not passed in the 116th Congress but is expected to be reintroduced early in 2021.

More than 10 bills were introduced in 2019 and 2020 focused on regulating carbon and at least five bills focused on climate change as a whole. The majority of the carbon-based bills were centered on a carbon tax, while others proposed the concept of cap and trade. While none ships to ensure sorghum producers have a seat at the table of the carbon or climate bills proposed in the 116th Congress made much headway past a committee referral, the majority of their sponsors were reelected, and these bills,

along with similar legislation, are expected to be preva

In June 2020, the House Select Committee on the Climate Crisis unveiled a 500-plus page proposal with a primary focus to bring the United States to net-zero emissions by 2050. The proposal contains 12 key pillars with a multitude of legislative recommendations aimed at placing a price on carbon emissions, enacting tougher methane limits and increasing energy efficiency in buildings. Pillar 8 is focused on investing in American agriculture as a climate solution and offers investments in voluntary "climate stewardship practices" and incentives to "incorporate energy efficiency and renewable energy on-farm."

From policy to the private market, the world has signaled now is the time for renewed focus on agriculture and sustainability, and sorghum is positioning itself to tackle this challenge. Sorghum farmers have been preparing for more than a century — adopting new production techniques, reducing tillage, improving crop rotations, using less water to grow and more. The National Sorghum Producers is actively engaged in dialogue and in partnerwhile these legislative proposals are crafted. Sorghum is a sustainable solution that contributes to healthy lifestyles, communities and ecosystems across the world.



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# Serving up Sorghum

# Sorghum's Strong Case for Corporate Climate Commitments

By Samantha Barnett

n an effort to consolidate U.S. food and agriculture's climate commitments, Field to Market (FTM), an organization focused on uniting the supply chain for sustainable outcomes in agriculture, published a report titled "Climate Action in Food and Agriculture: A Compendium of Field to Market Member Climate Commitments." The report is a comprehensive review of the agricultural value chain outlining climate-related goals.

FTM is working with its members, which includes National Sorghum Produers, to translate ambition into action. With increasing climate commitments being made in the brands and retail sector, sorghum has a lot to gain.

FTM represents 21 food, beverage, apparel, restaurant and retail companies, including brands like Kellogg's, General Mills, Panera, McDonalds, PepsiCo, Nestlé and more.

FTM's report indicates 90 percent of this sector has made a public commitment to climate action in their

own operations with 62 percent of the sector committing to drive change among key suppliers and farmers who produce the raw materials for the products they manufacture and sell. Nearly half have made a commitment to reducing greenhouse gas (GHG) emissions.

With a majority of these companies vowing to become carbon neutral, significantly reduce GHG emissions and substantially increase plant-based product, sorghum can play a large role in helping them reach their goals. With major players in the retail sector reaching toward environmentally-conscious alternatives, using sorghum as a key ingredient in product formulations could help slash atmospheric carbon production and reduce emissions.

FTM President Rod Snyder and his team are at the forefront of catalyzing productive and profitable opportunities across agriculture's value chain for improved environmental outcomes.

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"[These companies] often have similar goals but approach them from different angles," Snyder said. "In the end, what is the commonality that runs across all of

those sectors? We can help pull together and build consensus around [these commonalities.]"

FTM recognizes the increasingly complex problem of producing enough food, feed, fuel and fiber while preserving natural resources. In an effort to help their members set measurable goals, FTM developed eight indicators through the Fieldprint Program—biodiversity, energy use, GHG emissions, irrigated water use, land use, soil carbon, soil conservation and water quality. Sorghum has a strong role to play in all FTM's indicators.

FTM Communications and Membership Manager Carter Purcell said large retail brands and agribusinesses have begun to take notice of sorghum due to their increasing urgency to address climate concerns. She

said while we tend to view sustainability at a micro level, it is important to view this concept through a macro lens.

"We look at this from an individual farm level, but I've found it very interesting to analyze how commodity groups and industries themselves are beginning to set targets," Purcell said.

At the farm level, sorghum producers have been practicing no- or reduced-till production methods and planting into standing stubble for decades. In fact, 74 percent of our nation's sorghum farmers utilize conservation tillage practices. These practices help protect the soil from erosion, sequester carbon and lock in moisture to reduce water use while suppressing weeds and limiting pest management technologies.

The sustainable attributes sorghum possesses go hand in hand with major corporations' climate commitments—commonly utilized reduced tillage methods for sorghum production facilitate carbon sequestration, drought- and pest-tolerant sorghum hybrids reduce the need for irrigation or chemical application, and the nutritive value of sorghum makes the grain an excellent candidate for plant-based product formulations. Simply put, sorghum makes a strong case in the sustainability space.

Sorghum Checkoff Sustainability Director Kira Everhart-Valentin said she believes sorghum could help advance sustainability initiatives in industries not exclusively limited to agriculture.



our wildlife and our world," Everhart-Valentin said. "Food, pet food, feed and energy industries can all benefit from sorghum's

ability to give more than it takes."

The FTM report illustrates how members of the organization's grower, agribusiness, brands and retailer, civil society and affiliate sectors could look to sorghum as a stepping stone to reach their outlined climate commitments. The sorghum industry and FTM are collaborating with several players, including other commodity groups, industry partners, large consumer brands, conservation groups, news outlets, universities, extension services and nongovernmental agencies to advance this mission.

Climate commitments among major manufacturers will not be taken lightly by consumers or producers. At some link in the value chain, those making the commitments will be asked for evidence showing progress in meeting these goals. For those representing the brands and retail sector, sorghum has the opportunity to act as a major ingredient in new and existing products as these companies strive to combat climate challenges and help reach their commitments in the coming decades.

Snyder said through consumer, producer and manufacturer cooperation, sustainability is an achievable goal for agriculture. Measurable sustainability goals can be reached when the entire value chain works collaboratively.

"It requires all of us," Snyder said. "It's not all on the farmer—it's on us, too."

SORGHUM Grower Winter 2021 SORGHUM Grower Winter 2021 15



The Ogallala Aquifer is as ubiquitous across its range as the long stretches between good rains, the winds that whip fields dry and the millions of rows of corn, cotton, wheat and sorghum.

The Ogallala is a complex underground water system. It runs from the southernmost counties of South Dakota deep into West Texas.

In the 1910s when farmers began drilling into the Ogallala, drawing on the seemingly endless supply of water to turn the Great Plains into one of the country's most prolific farming and ranching regions, it seemed the land had found eternal life. Today though, an entire industry is at risk as the drawdown, or annual rate of depletion, of the aquifer threatens to end farming as we know it in this critical region.

These farmers, though, are tough. To stake out a tentative hold during the land rush that brought their ancestors west required grit, hard work and a deep stubborn streak. This land does not give of itself easily, and farmers in this region are as determined to maintain their land and way of life as their forefathers were to establish it.

So farmers across the Great Plains are turning to new ways to nurture the soil passed down through generations and ensure their daughters and granddaughters still have land worth farming – even if it is not exactly the same way their fathers and grandfathers did it.

New technology, tillage practices and turning to water efficient crops like sorghum are just a few ways they are bridging the divide as they face lower water capacity every year.

# **Thinking Creatively About Rotation**

Clinton Oyler is an irrigated farmer in the Oklahoma Panhandle and southwest Kansas. "Seventy percent of the reason I chose to raise more milo is because it was dry," he said of his crop mix last year. "We didn't have a [moisture] profile to work with. At the same time, milo basis is getting better and better, so my decision to plant milo was 70 percent water and 30 percent price."

Water has always been a part of Oyler's annual decision matrix, but he has changed the way he thinks about crop rotation since his water availability started to drop off in 2012.

"Prior to that, it was always a matter of trying to figure out how much water I would have for the corn," Oyler said. "My approach was that we would do all we can for the corn, and if there was any [water] left it will go to milo and cotton."

Oyler said even when he was using all the water he had to raise corn, he had a minimal corn crop and ended up destroying his other crops. Five years ago, he said he began to allocate more water to other crops, which has improved his overall operation.

# Management Turns the Tide

In northwest Kansas, Shannon Kenyon, manager at Northwest Kansas Groundwater Management District #4, has seen a creative crop mix benefit her coverage area in similar ways.

In 2013, observing significant decline in the Ogallala, a group of farmers banded together to reduce aquifer drawdown. They established the Sheridan County Local Enhanced Management Area, or Sheridan 6 LEMA, one of six high priority conservation areas. They intended to reduce water consumption by 20 percent over five years.

"It was a popular area for corn-on-corn," Kenyon said, "but now that they have limited water, we

see different crops come into the mix of things. Sorghum plays a part in that."

Over the course of five years, Sheridan 6 LEMA saved about 39 percent of what they originally used, and the area is beginning to see a level off in the aquifer decline. Kenyon stressed that the battle is far from won, but the results are promising.

# Technology Smarts

Crop rotation and utilizing water-sipping crops is a vital part of reducing aquifer drawdown, but technology can also play a significant role in water conservation. Jeff Miller of ForeFront Agronomy in the Texas Panhandle is a champion of water conservation, for its own sake and for the return on investment it offers to producers.

As a crop consultant in some of the areas hardest hit by drawdown over the past 60 years, Miller said he encourages the farmers he works with to adopt various types of technology to increase yield, lower input costs and maximize water efficiency. His moisture sensors, strategically placed in fields, give the farmer a view below the surface and help inform decisions about when it is time to turn the water on and when it can wait a day or two.

"Moisture sensors are a tool," Miller said. "They have no brain. They give you data. It's up to [the farmer and advisors] to interpret and customize that for the goals we want to achieve."

Scott Schechter, an agronomist with Eagle Precision Ag in southern Kansas, also advises farmers on their use of new technologies and sees how they can play into long-term water conservation plans. He said moisture sensors, among other tools, inform decision-making throughout the season.

"I can pump a little bit of water, make sure my profile is full, plant milo, water it up, set chemical and walk away until right before boot," Schechter said. "Then I can hit it with 10-12 inches. At that point you start penciling out 120- to 140-bushel milo, and you're starting to make a good return."

While Oyler agreed it is important to utilize new technology and data, he said he has found it works best combined with traditional tactics of going out to the field and really observing your soil.

"It's another piece of data," he said. "You still have to rely on what you see and what's in the soil, but it makes it nice to confirm what you find out there."

### The Full Picture

Overall, while using water more efficiently is important, truly saving water and using less of it to maximize production is a necessary management strategy.

Oyler said he was pumping 21-23 inches on his corn and getting an average of 180-215 bushels per acre, compared to a maximum of 10 inches on sorghum where he was seeing 130-170 bushels per acre.

"It doesn't take long to see how much more efficient sorghum is than corn," Oyler said.

Oyler has embraced a number of management strategies on his farm that extend the life of his water, for those who will farm after him and for those he will never meet up and down the aquifer. He is not alone—farmers across the Sorghum Belt are waking up to a world where the old tactics just will not work.

"Do our farmers understand the mess we're in?" Schechter asked. "Yeah, they do. For our water supply, it couldn't be a better time for the price of sorghum to go up."

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# Sorgonomics

# **Seeking Profit in 2021?**

# Sorghum Demand Signals Opportunity

By Zach Simon, Sorghum Checkoff Regional Director

While there are many things that can be left behind in 2020, producers not one of them.

Historical data shows that prices typically plateau or decrease as farmers bring in the harvest. This year told a different story. Not only did basis move up as the South Texas sorghum harvest began, it moved up leaps and bounds as harvest progressed north.

Sorghum basis made the jump from even or slightly negative in late winter and early spring to 200+ at the end of 2020. Driving this demand was the return of China's hog population after the population was decimated in 2018 by African Swine Fever (ASF).

Changes in regulations to control the spread of ASF have shifted all pork production to commercial operations that need coarse grains for feed. Historically, there were a lot of small backyard operations feeding less complex rations. With pork production back online, China's 2021 import needs of coarse grains are expected to be nearly double the amount imported in 2020.

The demand picture for sorghum in 2021 remains bright. Certainly, that can change, and this doesn't immunize markets from the list of items that, on a large scale, are out of the farmers hands when it comes to managing risks. Temperatures, rainfall and pest pressure are all considerations, as well. While they cannot be controlled, they can be managed with the right approach.

Sorghum demand for 2021 is reflected in new crop bids available as this article is being written. There are container shipments of sorghum on the books, and the ingredients for another great year in sorghum marketing are coming together quickly. This sets the stage for profit opportunities for sorghum farmers, but producers must prepare and take the needed steps ahead of time for a marketing strategy to be a true success.

# Set Up a Production Budget

So where do producers start? Compiling the tools

farmers have available will help with a lot of decisions. Put together production budgets for all the potential crops that can be grown on an enterprise. Pay close attention to the costs of production, expected production and current new crop bids. Most importantly, know each crop's potential return on investment.

Many of the state extension services have a good foundation to help producers build budgets. They can be found on websites such as *Agmanager.info*, which right now is showing dryland budgets for northeast Kansas are favorable to sorghum by \$164.41 per acre over corn.

If producers need help finding these resources, they can reach out to staff at the Sorghum Checkoff. They are happy to help! It is most important when making these decisions to have an accurate understanding of the numbers. That means dollars going out and coming in.

# **Develop Grain Marketing Strategy**

Next, develop a grain marketing strategy, and stick to it. There are many different strategies and many variables that come into play. Weigh all options. Is there access to on-farm storage that may allow contracting for later delivery? Where are the best bids within the region? How do producers utilize options contracts? How many bushels should be contracted?

Mick Rausch, a south central Kansas sorghum farmer, has changed his strategies over the years.

"I used to take a very conservative approach, waiting



until I had every bushel in the bin, so I knew exactly what I had to sell," said Rausch. "That didn't always work out in the best interest of my pocket book.

"Today, if I see a profit to be had, I put some on the books—not the whole farm—but something like 5 percent of my expected production at a time."

Rausch said he still struggles at times with the thought of selling something that isn't even planted yet, but knows that he has other tools such as crop insurance that provide a backstop if a disaster were to strike.

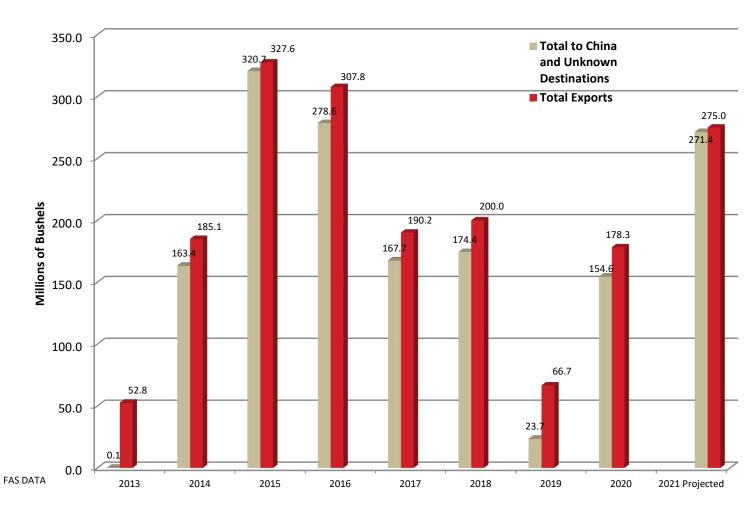
### Sticking to the Plan

Developing a plan can be overwhelming. There is a lot that goes into building one and understanding and weighing trading options. Do not be hesitant to reach out for help. There are many training courses for farmers on marketing available today. Farmers can also consider hiring a group to help build a plan. There is no shame in that either. The last thing farmers want to do is leave money on the table.

Every operation is different, and plans are not a one size fits all. A calculated, well considered plan will keep producers from making knee-jerk, emotional marketing decisions, which can lead to additional stress or poor decisions, resulting in loss of profitability. Take advantage of profits as they present themselves.

"Don't worry about hitting the high," Rausch added, "it will help you avoid hitting the low. Just take the profit, and don't look back!"

### **EXPORT BUSHELS OF U.S. SORGHUM**



SORGHUM EXPORTS CONTINUE to remain strong through the end of calendar year 2020 with 12.8 million bushels purchased the week of Dec. 18. A large majority of these purchases were made by China with a small portion going to Japan. Total sorghum purchases for the 2020/21 marketing year are projected to be 275 million bushels. The share expected to be purchased by China signifies the strength of demand for U.S. sorghum.

SORGHUM Grower Winter 2021 SORGHUM Grower Winter 2021

# 2020 NSP YIELD CONTEST

Mew U.S. DRYLAND YIELD RECORD

245.86 BU/AC

**PIONEER 84G62 DRYLAND-NO TILL EAST** 



# 2020 NSP YIELD CONTEST

National Sorghum Producers is proud to announce a new U.S. dryland sorghum yield record has been set at 245.86 bushels per acre by Ella Johnston of Fulton County, Pennsylvania, in the 35th National Sorghum Yield Contest. Facing weather challenges, economic uncertainty and a challenging year overall, sorghum farmers showed resilience, continued to farm and produce high yielding sorghum, matching the pace of strengthened national average yields annually. The 2020 National Sorghum Yield Contest had seven national winners, selected from three categories for both the eastern and western regions of the U.S, and one winner was selected for the food grade division. This year's top yield and Bin Buster winner is Johnston's dryland record of 245.86 bushels per acre achieved with Pioneer seed variety 84G62. Yield contest winners are traditionally acknowledged during Commodity Classic. With that event now taking place virtually, NSP and its sponsors are planning alternative options to recognize 2020 yield contest winners and their achievements. Details will be announced in 2021. To see a complete list of the NSP Sorghum Yield Contest national, state and county results, or to learn more about the contest, visit https://sorghumgrowers.com/yield-contest/.

National winners are selected from state first place winners

200.71 bu/ac **Jeffrey Barlieb** 

Warren County, NJ Pioneer 84G62

2 192.30 bu/ac Tom Krull St. Joseph County, MI Pioneer 88P71

3 180.89 bu/ac **Sharon Santini** Warren County, NJ Pioneer 84G62

223.51 bu/ac

**Kimberly Gamble** Kiowa County, KS Pioneer 84G62

2 208.47 bu/ac **Chad Dane** 

Clay County, NE Pioneer 84P72

3 205.96 bu/ac

**Ben Amerin** Meade County, KS DEKALB DKS54-07

245.86 bu/ac

**Ella Johnston** Fulton County, PA Pioneer 84G62

2 204.64 bu/ac

**Chris Santini** Warren County, NJ Pioneer 84G62

197.99 bu/ac

**River Hollow Farms, LLC** Warren County, NJ Pioneer 84G62

186.84 bu/ac

SORGHUM Grower Wi

**Long Farms Jerry & Sue Long** Washington County, KS Pioneer 84G62

2 182.35 bu/ac

**Brad Robison** Harlan County, NE Pioneer 84G62

3 181.60 bu/ac

**Kasey Gamble** Kiowa County, KS Pioneer 85P44

21

# **DRYLAND-TILLAGE EAST**

1 203.94 bu/ac

Santino Santini Jr. Warren County, NJ Pioneer 84G62

2 188.95 bu/ac

**Billy H Bowers Farm Trust** Davidson County, NC Pioneer 84P80

3 181.15 bu/ac

**Drozd Family Grain** Van Buren County, MI Pioneer 86P20

205.32 bu/ac **David Knoll** Charles Mix County, SD Pioneer 89Y79 2 190.21 bu/ac

**Sue Pifer** Washington County, KS Pioneer 84G62 3 172.23 bu/ac

**Lee Pifer** Washington County, KS Pioneer 84G62

189.10 bu/ac

**Stephanie Santini** Warren County, NJ Sorghum Partners SP 33S40



# **STATE WINNERS**

PLACE	STATE	COUNTY	NAME	YIELD (BU/AC)	SEED BRAND	VARIETY			
Irrigate	Irrigated East								
1st	Indiana	Lake	Bob Little	174.40	Pioneer	85G03			
1st	Michigan	St. Joseph	Tom Krull	192.30	Pioneer	88P71			
1st	New Jersey	Warren	Jeffrey Barlieb	200.71	Pioneer	84G62			
2nd	New Jersey	Warren	Sharon Santini	180.89	Pioneer	84G62			
Irrigated West									
1st	Idaho	Canyon	Michael Ball	179.75	Pioneer	88Y47			
1st	Kansas	Kiowa	Kimberly Gamble	223.51	Pioneer	84G62			
2nd	Kansas	Meade	Ben Amerin	205.96	DEKALB	DKS54-07			
3rd	Kansas	Kiowa	Ki Gamble	196.54	Pioneer	85P75			
1st	Nebraska	Clay	Chad Dane	208.47	Pioneer	84P72			
2nd	Nebraska	Hitchcock	Baker's Acres	147.65	DEKALB	DKS45-23			
1st	Oklahoma	Texas	Neal Hofferber	176.91	Pioneer	86G32			
2nd	Oklahoma	Custer	Nathan Miller	144.69	Pioneer	84G62			
1st	Texas	Dallam	Four Way Farms	192.32	Pioneer	85P75			
2nd	Texas	Ochiltree	Kevin Pshigoda	183.43	Pioneer	84G62			
3rd	Texas	Floyd	DL Nutt Farms JV	169.99	Pioneer	84P68			

**STATE WINNERS** 

PLACE	STATE	COUNTY	NAME	YIELD (BU/AC)	SEED BRAND	VARIETY
Drylai	nd-No Till E	ast				
1st	Delaware	Kent	Vogl Brothers	100.98	Pioneer	84P80
1st	Illinios	Bond	Jim Stoecklin Farm	173.54	Pioneer	85G03
1st	Indiana	Daviess	Steven Halter	175.86	Pioneer	84G62
1st	Iowa	Wayne	Galt Porter	189.63	Pioneer	84G62
1st	Maryland	Montgomery	William F Willard Farms, LLC	139.53	Pioneer	84G62
1st	Missouri	Mercer	Gage Neal Porter	165.06	Pioneer	84P80
1st	New Jersey	Warren	Chris Santini	204.64	Pioneer	84G62
2nd	New Jersey	Warren	River Hollow Farms, LLC	197.99	Pioneer	84G62
3rd	New Jersey	Warren	Carly Barlieb	196.72	Pioneer	84G62
1st	North Carolina	Davidson	Billy H Bowers Farm Trust	194.80	Pioneer	84P80
2nd	North Carolina	Perquimans	Laurence Chappell	104.70	Dyna-Gro Seed	M69GB38
1st	Pennsylvania	Fulton	Ella Johnston	245.86	Pioneer	84G62
Drylai	nd-No Till W	/est				
1st	Kansas	Washington	Long Farms Jerry & Sue Long	186.84	Pioneer	84G62
2nd	Kansas	Kiowa	Kasey Gamble	181.60	Pioneer	85P44
3rd	Kansas	Kiowa	Katelynn Alderfer	181.43	Pioneer	85P44
1st	Nebraska	Harlan	Brad Robison	182.35	Pioneer	84G62
2nd	Nebraska	Pawnee	Mark Bloss	179.29	Pioneer	84P72
3rd	Nebraska	Pawnee	Matthew Bloss	168.45	Pioneer	85P44
1st	South Dakota	Charles Mix	Dylan Knoll	180.60	Pioneer	89Y79
1st	Texas	San Patricio	Rieder Farms	123.51	B-H Genetics	BH4041
Orylar	nd-Tillage E	ast				
1st	Delaware	Kent	G. Dennis Wilson	117.31	Pioneer	84G62
2nd	Delaware	Kent	F. Kenneth Blessing Jr.	105.54	Dyna-Gro Seed	M60GB31
1st	Illinois	Clark	Allen Walters	174.98	DEKALB	DKS38-16
1st	Indiana	Lake	Kathy Little	174.77	Pioneer	85G03
1st	Michigan	Van Buren	Drozd Family Grain	181.15	Pioneer	86P20

1st	Delaware	Kent	G. Dennis Wilson	117.31	Pioneer	84G62
2nd	d Delaware Kent		F. Kenneth Blessing Jr.	105.54	Dyna-Gro Seed	M60GB31
1st	Illinois	Clark	Allen Walters	174.98	DEKALB	DKS38-16
1st	Indiana	Lake	Kathy Little	174.77	Pioneer	85G03
1st	Michigan	Van Buren	Drozd Family Grain	181.15	Pioneer	86P20
1st	Missouri	Mercer	Grey Porter	171.56	Pioneer	84G62
1st	New Jersey	Warren	Santino Santini Jr.	203.94	Pioneer	84G62
2nd	New Jersey	Warren	Promise Land Farms	177.39	Pioneer	84G62
1st	New York	Oneida	Bob Pawlowski	131.24	Channel	6B60
1st	North Carolina	Davidson	Billy H Bowers Farm Trust	188.95	Pioneer	84P80
2nd	North Carolina	Perquimans	Laurence Chappell	140.42	B-H Genetics	BH5755
3rd	North Carolina	Perguimans	Wallace N Ownley	130.20	Pioneer	83P17

Dryla	Dryland-Tillage West				
1st	Kansas	Washing			
2nd	Kansas	Washing			

	<b>J</b>					
1st	Kansas	Washington	Sue Pifer	190.21	Pioneer	84G62
2nd	Kansas	Washington	Lee Pifer	172.23	Pioneer	84G62
1st	Nebraska	Pawnee	Matthew Bloss	136.03	Pioneer	85P44
1st	South Dakota	Charles Mix	David Knoll	205.32	Pioneer	89Y79
1st	Texas	Wharton	Popp Farms 05	146.80	DEKALB	DKS54-07
2nd	Texas	Fort Bend	Mikel Brothers	146.67	DEKALB	DKS44-07
3rd	Texas	Nueces	Legacy Farms	131.64	Pioneer	83P27

22 SORGHUM Grower Winter 2021 SORGHUM Grower Winter 2021

# NSP Update

# Commodity Classic, Sorghum PAC Move to Virtual Events

By Haleigh Erramouspe

ach year thousands of farmers and industry representatives gather for America's largest farmer-led, farmer-focused agricultural and educational experience—Commodity Classic. However, like many other events in the past year, Commodity Classic will look very different in 2021.

Commodity Classic announced it will transition its annual conference and trade show, originally scheduled for March 4-6, 2021, in San Antonio, Texas, to an alternative digital format. The change was necessary due to restrictions related to the COVID-19 pandemic.

"While we always appreciate the opportunity to see our growers and friends in person," National Sorghum Producers CEO Tim Lust said, "the health and safety of all attendees, our board, members and our staff is critical. While it will not replace the value and camaraderie experienced together, we look forward to this new virtual opportunity and will work to make it as interactive and valuable for producers as possible."



The 2021 Commodity Classic digital event will take place March 2-5, 2021. The event will not include a virtual trade show floor or exhibitor listing, but the emphasis on education and connection will continue in the new virtual format. According to Commodity Classic, they

remain focused on finding innovative ways to connect event sponsors and farmers through powerful education and information showcasing the latest technology, management practices and innovations in agriculture.

For additional information on the 2021 Commodity Classic digital experience, visit *CommodityClassic.com* or sign up for email updates on the Classic website.

### Sorghum PAC Event

NSP's Sorghum PAC underscores sorghum's relevance and connection in Washington, D.C. by allowing NSP to support political candidates who are focused on agriculture and connected to the industry. Typically, a Casino Night at Commodity Classic is the PAC's largest annual fundraiser, but this year things will be a little bit different. Throughout the year, the Sorghum PAC will host several events including interactive online auctions and a golf tournament. These new fundraisers will offer opportunities for NSP Industry Partners to connect with growers and leadership while farmers continue to support the critical work that the PAC carries out throughout the year in Washington, D.C.

"It is disappointing that we will not be able to host our Sorghum PAC Casino Night in person," NSP Industry Relations Director Jamaca Battin said, "but we are excited about new and different opportunities for producers to give and for continued connection with our growers and industry partners in 2021."

NSP will host interactive online auctions at the beginning of March. Participants can expect to see many of the same quality, classic Sorghum PAC Auction items such as the CASE tractor lease on Big Iron, and new items like select firearms, jewelry and more. The auction platform will be released early in 2021.

In addition to the online auction, NSP will host a golf tournament in April 2021 in Wellington, Kansas. NSP members, guests and Industry Partners will have the opportunity for healthy, fun, distanced connection and competition at this new Sorghum PAC event.

For questions regarding any Sorghum PAC events in 2021, contact Jamaca Battin at *jamaca@sorghumgrowers*. *com* and watch for updates online at *SorghumGrowers*. *com/sorghum-pac.* 

Team Sorghum
Thanks Marsha
Bryant for 20 Years
of Service

fter 20 years of service to National Sorghum Producers, Texas Grain Sorghum Producers and the United Sorghum Checkoff Program, Marsha Bryant will be retiring at the end of January.

Marsha started with NSP in 2001 and has worn many hats throughout the last 20 years. From director of operations and strategic planning to accounting and human resources, Marsha used her incredible leadership and management skills to ensure the continued success of the sorghum industry through the organizations she served.

"Marsha brought an incredible amount of knowledge and integrity to our industry," TGSP Executive Director Wayne Cleveland said. "She quietly guided our finances, human resources and direction for 20 years. Her advice was always sounds and well-warranted. Marsha is an impeccable human being. Our organizations will miss her candor and intelligence."

Marsha has worked diligently for the sorghum industry, going above and beyond in every situation that came her way. She has watched NSP grow from five people where she took on a workload that is now tackled by many to a thriving organization that now employs 15 people. She was instrumental in the founding and continued success of the Sorghum Checkoff and has led NSP through 18 audits in a row without a single mistake.

"Marsha has been a trusted friend and an amazing accountant for Team Sorghum for the last 20 years," NSP CEO Tim Lust said. "While most of our industry knows her as our accountant, Marsha was also part of our team back when it was only five people.

"She led our group in all operational areas from A to Z and was instrumental in leading our strategic planning process though the early 2000s, leading to many critical components of the modern Team Sorghum, including our team's structure, policy initiatives, *Sorghum Grower* magazine and the development of the Sorghum Checkoff. While it is not often recognized, the work Marsha has done is greatly appreciated, and she will be sorely missed."

NSP, TGSP and the Sorghum Checkoff send their sincerest thanks and appreciation to Marsha. These organizations and the sorghum industry would not be where they are today without her contributions, and we wish Marsha the very best in her well-deserved retirement.

SORGHUM Grower Winter 2021

"His Lord said to him, 'Well done, good and faithfull servant..."



# **Growing Through Partnership** in Sustainability

This year has been unprecedented in many ways as our lives have been upended and reshaped into a new virtual reality defined by social distancing. We are now left with the urgent question of what life will look like on the other side of COVID-19. However, despite all the changes and uncertainties that we have faced, individuals and industries have continued in their efforts to push forward in responding to new opportunities and addressing the world's most pressing needs.

This is no truer than in sustainability. In the past year, countless companies have made or reinforced corporate-level climate commitments to reduce greenhouse gas emissions, become carbon neutral, cut energy consumption and more. Numerous non-governmental organizations (NGOs) such as The Nature Conservancy and the Environmental Defense Fund are leading the charge in focusing increasing attention on farm-level solutions to climate challenges.

Private industry is seeing a substantial uptick in the dollars invested in grower partnerships centered around the implementation of regenerative and sustainable farming practices. There is also significant expansion in opportunities for pro-

ducer participation in carbon or ecosystem services markets. Environmental and agricultural alliances are forming on the political front to help shape future policy initiatives aimed at agriculture's role in climate change mitigation while consumer interest in the environmental impact of the products they purchase only continues to grow.

The United Sorghum Checkoff Program is equally engaged in this space. Since cementing its commitment to sustainability as a dedicated program area, the Checkoff has been active in building partnerships, growing visibility and identifying opportunities for growers and markets alike. In a reality in which consumers and food companies are increasingly demanding ingredients that are not only sustainable, but also have concrete data to back up those claims, the Checkoff is building a sustainability initiative that better connects growers to end users in creating new value opportunities.

One exciting example of this is a growing relationship between the Checkoff and Pheasants Forever & Quail Forever (pheasantsforever.org), the largest nonprofit organizations in the U.S. dedicated to upland habitat conservation. The two are in active collabora-

# WHAT'S INSIDE

Growing Through Partnership in Sustainability

3

Sorghum Checkoff Board Directors Sworn In, Offcers Elected

Waxy Sorghum:
What is it?



tion around the development of a farm-focused initiative that would support sorghum growers as they implement conservation and sustainability-minded practices, while also linking key data about sorghum's soil health and water conservation attributes to consumer and food company demands and preferences.

The Checkoff has also been an engaged member of key coalitions in the sustainability space, including Field to Market (fieldtomarket.org), a set of diverse players working to create productive and profitable opportunities across the agricultural value chain for continuous improvements in environmental outcomes. The Checkoff is equally active in the Ecosystems Services Market Consortium (ecosystemservicesmarket.org), a non-profit organization of corporations, agricultural producer associations, NGOs and technology companies working to launch a voluntary national ecosystem services market aimed at rewarding producers for their sustainable practices.

In an effort to strengthen and quantify the claims that sorghum can make in sustain-

ability, the Checkoff is enlisting the services of Sustainable Environmental Consultants (sustainableenviro.com) to help measure and communicate sorghum's impact, both in terms of the crop's key conservation qualities, such as water efficiency and greenhouse gas emissions, but also in regard to the conservation and regenerative practices implemented by many sorghum growers today.

Targeted messaging on behalf of and toward sorghum growers is of equally high priority in the effort to add value and create market opportunities. As a part of this, the Checkoff recently joined America's Conservation Ag Movement, a Farm Journal Trust in Food initiative (trustinfood.com). The movement assembles a variety of conservation NGOs as well as public and private entities to deploy nationwide outreach and education aimed at showcasing the efforts and achievements being made in sustainability and agriculture, while empowering farmers to adopt profitable conservation and stewardship practices on their operations. The movement's message is targeted to more

than two million growers and stakeholders across the U.S.

The sorghum industry's efforts do not stop there. In the past year alone, the team has been engaging with dozens of organizations to ensure sorghum has a place at the table and is well-positioned to capture value opportunities as they arise in the sustainability space. Success in this area will require both a commitment to continuous improvement on the ground and collaboration with a diverse set of allies. That is why the list of sorghum engagements has included fellow growers' associations, private consumer companies, environmental NGOs, technology and data capture enterprises, trade and promotion organizations and others.

Sorghum is the grain that gives to farms, to families and to ecosystems. By making sustainability a top priority, Team Sorghum is ensuring that growers capture the value of their sustainable practices and investments, while tapping into smart, creative solutions to help continue to drive improvements on the farm and beyond.









2





PAID ADVERTISEMENT

# Sorghum Checkoff Board Directors Sworn In, Officers Elected

During the Sorghum Check-off's annual December board meeting held virtually, five directors were sworn in to complete their appointment to the board by U.S. Department of Agriculture Secretary Sonny Perdue. Officers were also elected.

Returning directors include Klint Stewart from Columbus, Nebraska, as an at-large member; James Haase from Eads, Colorado, as an at-large member; Shayne Suppes from Scott City, Kansas, as a Kansas member; and Charles Ray Huddleston from Celina, Texas, as a Texas member. Ethan Miller from Columbia, Missouri, is newly appointed to the board and will serve as an at-large member. All directors will serve a three-year term.

"We welcome new and returning directors to the Sorghum Checkoff as we face 2021 and the opportunities and challenges it presents," Sorghum Checkoff Executive

Director Florentino Lopez said. "The Sorghum Checkoff Board directors work to increase shared value, enhance opportunity for producer profitability and advance demand for sorghum producers, and I look forward to the leadership these new and reappointed directors will provide."

New leadership was also elected during the meeting. Kent Martin from Alva, Oklahoma, will serve as chairman; Huddleston will serve as vice chairman; Boyd Funk of Garden City, Kansas, will continue his tenure as treasurer; and Adam Schindler from Reliance, South Dakota, will continue serving as the board's secretary. Craig Poore from Alton, Kansas, will transition to the role of past chairman for the remainder of his term on the board.

"I am excited and honored to serve in the leadership of the Sorghum Checkoff," Board of Directors Chairman Kent Martin said. "I will use this responsibility to advance the sorghum industry to the best of my ability."

Verity Ulibarri, past chairwoman from Melrose, New Mexico, completed her term as a Sorghum Checkoff board member, but she will still serve the sorghum industry through her role on the U.S. Grains Council's board, using her experiences from the checkoff to leverage opportunities for the sorghum industry.

"We are deeply appreciative of our board directors—newly appointed, reappointed and retiring," Sorghum Checkoff CEO Tim Lust said. "The hard work and dedication of these individuals generates opportunity for sorghum farmers and the industry, and we're grateful for their efforts on behalf of all they represent."

For more information on the Sorghum Checkoff Board of Directors or how to become a Sorghum Checkoff board member, go to SorghumCheckoff.com.

# Waxy Sorghum: What is it?

A primary goal for the United Sorghum Checkoff Program's board of directors is to increase the value of grain sorghum by providing end users with desired quality attributes. One attribute that has shown promise is waxy sorghum. What waxy sorghum an advantage in

The first idea many people have upon hearing of waxy sorghum is a grain covered with a waxy, shiny coat. This is not the case. In fact, waxy sorghum is mostly indistinguishable from other grain sorghum in the field. The actual color of grain is as variable as non-waxy sorghum, coming in red, bronze, yellow, tan and white colors.

Waxy sorghum is distinguished because of the composition of starch in the grain. Starch in the endosperm of traditional grain sorghum is composed of two polymers amylopectin and amylose. In traditional grain sorghum, the ratio of the two is approximately 75 percent amylopectin and 25 percent amylose. Where waxy sorghum sets itself apart is that its starch profile is almost entirely composed of amylopectin.

This unique quality gives some markets because amylopectin is easier to digest than amylose. Research suggests ethanol yield and fermentation efficiency may be improved with the use of waxy sorghum, as well.

Additionally, waxy sorghum may have a variety of potential uses and significant benefits in the worldwide food industry. This is especially true for baiju, the most popular alcoholic drink in the world. Sorghum is already the preferred source of starch in the all-important Chinese baijiu market where waxy sorghum could offer premium benefits to sorghum farmers.

Historically, waxy sorghum hybrids have exhibited some

agronomic shortfalls. The grain of waxy sorghum may deteriorate in the field under prolonged wet conditions late in the growing season. There have also been reports of some yield drag associated with waxy sorghum. However, with additional genomic knowledge and new breeding techniques, sorghum breeders are addressing these potential shortfalls and are confident waxy sorghum hybrids will eventually compete favorably with non-waxy hybrids.

The Sorghum Checkoff is currently working with seed companies and public seed developers to evaluate new, competitive waxy grain sorghum hybrids while simultaneously increasing testing of this product with end users. As always, the ultimate goal is to increase grain sorghum value for both the producer and consumer.



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# **SORGHUM INDUSTRY EVENTS**

**Jan 25-29** 

**International Production & Processing Expo** 

Virtual Meeting

**Feb 10** 

**Leadership Sorghum Zoom Program** 

Virtual Meeting

Mar 2-5

**Commodity Classic** Virtual Meeting

For more events, visit sorghumcheckoff.com/calendar

**USCP MISSION**  The Sorghum Checkoff commits to reveal the potential and versatility of sorghum through increased shared value.





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# Lab to Cab

# The Sorghum Solution?

The Salk Institute's plant-based research to battle climate change gets a boost

When energy nerds talk about carbon capture and sequestration, CCS for short, the discussion normally centers on finding ways to take carbon dioxide from fossil fuel power plants, transporting it to a storage site and depositing it so the CO2 does not enter the atmosphere.

But researchers at the Salk Institute in La Jolla take a different approach to CCS — by working to remove carbon from the atmosphere by developing better varieties of plants, such as sorghum.

The institute's plant-based solution to help fight climate change — called the Harnessing Plants Initiative — received a \$2 million donation from Sempra Energy this week. The San Diego-based Fortune 500 company will be the lead sponsor of a five-year project called "Sequestering Carbon Through Climate Adapted Sorghum."

"It's a highly productive crop that grows in very warm and hot drought environments," said Salk professor Wolfgang Busch, co-director of the initiative. A gluten-free cereal grain often used for livestock feed, sorghum is "a crop that will be very much suited to grow in the changed environment that we expect to have in a decade or so ... We are thrilled that we can work on a crop that can potentially grow in California and the local environment here."

So how can plants reduce carbon? Think back to middle school science class: Plants have helped stabilized the climate for eons by capturing CO2 through photosynthesis and converting it into oxygen. Plants breathe in CO2 and store carbon in their biomass. Salk researchers look to develop plants that can keep more carbon in their root systems, which not only makes the crops more robust but will improve the quality of the soil.

"You think about a rich soil, which is kind of dark—that's the carbon," Busch said. "When the soil has the ability to hold on to nutrients better, that is important for plant productivity but also (helps) to hold on to more water, which is important for times when you have flooding ... So we think of this as a win-win."

Working on six crop species in the initiative, Salk researchers work to make the plants draw down excess carbon from the atmosphere while also providing more

food, fuel and fiber for a global population estimated at about 7.7 billion.

The Salk initiative aims to develop crop plants that will be used in significant global acreages to store long-lasting carbon in the ground. The impact could be huge. Salk researchers estimate if 70 percent of the target crops are converted into carbon-sequestration-enhanced crop plants worldwide, between 1.5 to 6 gigatons of CO2 can be sequestered per year. That's the equivalent of up to as much as one-third of human-caused CO2 emissions that accumulate in the atmosphere each year.

"This project has the potential to help remove significant amounts of carbon from entering our atmosphere and aligns with Sempra Energy's portfolio to advance the global energy transition to lower-carbon energy sources," Kevin Sagara, group president of Sempra Energy, said in a statement. Sagara also serves on the advisory committee of the Harnessing Plants Initiative.

Most of the attention on CCS has centered on isolating emissions at power plants and industrial facilities. For example, the Sleipner gasfield in the North Sea scrubs out the CO2 and then sends it by pipeline to a deep saline reservoir. The coal industry has made efforts to capture and sequester carbon but results have been spotty at best and some attempts, such as the Kemper plant in Mississippi, were plagued by technological and economic problems.

"When you think about technical carbon capture, it's very difficult and highly energy intense," Busch said. "Scaling is also a very hard problem. But by using agriculture, we're using a distribution system that's already established. We don't need to reinvent the wheel. We just need to make sure that the plants that are grown are better at storing carbon in the soil."

In addition to developing new strains of carbon-reducing plants that farmers can seed, Salk researchers are working on a program to restore and preserve wetlands around the world, which act as significant carbon sinks — places that absorb more carbon than they release.

"People realize pretty quickly, wow, that is something that sounds feasible — this is a natural process," Busch said. "I think it's often about reminding people what plants do and what they're capable of."

Article written by Rob Nikolewski and orginally published in The San Diego Union-Tribune <a href="https://www.sandiegouniontribune.com/">https://www.sandiegouniontribune.com/</a> business/story/ 2020-11-10/salk-institute-and-sempra





# Sorghum Update

Brought to you by the Kansas Grain Sorghum Commission

# **Congress Can Look to the Middle** of the Country for its Middle Ground

By Adam York

et's face it: our modern world has no shortage of challenges and threats to address. Even as a polar-■ ized nation, we are fortunate to have resilient institutions able to find middle ground.

For example, Congress is a microcosm of our nation at large. It is representative of various communities (and their differing views) across the land, from New York to San Francisco and everywhere in between. It often appears that our legislative branch ceases to function at all, incapable of productivity and mired in partisanship. But consider some perspective: each representative has 700,000 constituents, which can be 700,000 different opinions than the next representative's district. Each Senator is beholden to an entire state, some with small geographies or populations and others guite the opposite.

It is remarkable, then, that Congress has found the wherewithal to confront the challenges of past generations and overcome the struggles documented in the history books. Accordingly, why shouldn't we have reason to believe Congress will find a way to meet today's challenges, advance our nation into tomorrow, and plant its firm footing on middle ground? Don't take my word for it—believe instead in our friends or neighbors in Congressional offices who must work to find consensus.

They know our modern threats, just as we all know these challenges can strike up polarizing ideas. We all deserve a healthy environment, but how should we attune our economies? We all believe in open markets, but how do we open them? We all desire to pass what we have built down to our children, but how do we ensure opportunities? Everyone who reads these questions will likely have different answers. I'd suggest, though, that sorghum can play a role in answering these and many other of our nation's challenges.

Grown primarily at the very center of the country, predominantly here in Kansas, sorghum production offers our nation the potential to find middle ground on numerous issues. It is a sustainably grown food and renewable fuel. It is also a catalyst for international amity and robust foreign commerce. Altogether, the crop offers opportunities well into this century and the next.

Sorghum is drought tolerant. It requires fewer resources than other crops to produce a bountiful harvest. It is also naturally gluten free and non-GMO, a premium benefit for urban and suburban communities searching supermarkets for an alternative grain and for the farm communities who responsibly produce it. In fact, 74 percent of our nation's sorghum farmers readily utilize conservation tillage practices. They leave plant stalks in the ground after harvest to improve soil health, retain moisture and diminish wind erosion. It's true: sorghum has the highest rate of conservation tillage adoption of any crop in the nation. This keeps our air pure, our waters clean and carbon in the ground where it belongs.

The market for sorghum offers countless opportunities, as well. Today, sorghum imported into China is not subject to tariff-rate quotas, and U.S. sorghum does not face any known quarantine or biotech issues hampering trade. As the world's two most powerful economies seek solutions to work together, sorghum represents a common link between the U.S., which produces more sorghum than any other nation, and China, which purchases more sorghum than the rest of the world—combined.

This year marks the 117th Congress, a succession dating back to 1789. However, modern threats require modern solutions. Congress and our friends and neighbors who

diligently work within its halls can confidently look to the middle of the country and its sorghum to find their middle ground.

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### **UPL Receives Approval for Imiflex**

Just before Christmas, EPA announced the approval of Imiflex, a UPL product, to be used in the igrowth herbicide tolerant sorghum system offered by Advanta Seeds U.S. This is a significant step toward the product offering in the 2021 growing season of which Advanta Seeds has already made pre-order seed available.

The igrowth° system offers a new flexible herbicide package, which can be used for pre or post emergence control of most species of grasses. Additionally, Imiflex and the igrowth° system offer some broadleaf control. National Sorghum Producers and the Sorghum Checkoff look forward to a continued strong working relationship with Advanta Seeds and UPL to ensure a long and productive life for the technology.

### Nebraska Sorghum Launches Catalyst Project

The Nebraska Grain Sorghum Board launched in 2020 the 'Catalyst Project.' Catalyst is a partnership between Nebraska Sorghum, the University of Nebraska Foundation, The Engler Entrepreneurship Program at the University of Nebraska Lincoln, the Food for Health Center at the University of Nebraska's Innovation Campus, Concordia University in Seward, Nebraska, and The Combine, a small business incubator affiliated with Invest Nebraska. The project, now moving to its fourth phase, is designed to encourage entrepreneurs to develop new sorghum-based, consumer-ready products that can be produced in Nebraska.

Participants receive mentorship in product and business development from the allied institutions. When teams are ready to move from concept to production, they will be connected with investors and economic developers representing communities across the state. The goal is to not only create new value-added opportunities for sorghum farmers in Nebraska, but also to expand economic opportunities in rural communities.

Catalyst is a grassroots style investment in sorghum-based business development. The Nebraska Grain Sorghum Board is looking forward to seeing these teams continue to develop during the academic year and for new teams in the second year of the project. To learn more, visit www.nebraskasorghum.org/catalyst.

### Poll Shows Americans' Unwavering Trust in Farmers and Approval of Sustainability Practices

A recent poll conducted by the American Farm Bureau Federation found a majority of U.S. adults have a positive view of farmers' sustainability practices, and an overwhelming majority of the same population trust the American farmer.

The survey of 2,200 U.S. adults found 9 out of 10 Americans trust farmers, and 58 percent trust the farmers' sustainability practices. The poll did identify certain areas of the industry in need of educational and advocacy support including environmental impacts, government incentives and improved infrastructure. With insight from a large population of American consumers, the American Farm Bureau Federation and the agriculture industry can work to further enhance consumer opinion.

"Americans have a high level of trust in farmers, and they understand that we're committed to protecting the soil, air and water," said American Farm Bureau Federation President Zippy Duvall. "We want to leave the land better than we found it for our children and grandchildren, as well as our nation. Our survey demonstrates that Americans are impressed by advancements in climate-smart farming and we look forward to building on that success."

The original Farm Bureau article can be found at www.FB.org/newsroom/poll-shows-americans-unwavering-trust-in-farmers-and-approval-of-sustainabi.

# Stay In Touch with Sorghum

National Sorghum Producers wants to stay in touch with you. On our social media platforms, we work to share the latest news and information impacting the sorghum industry. Find us on Facebook at National Sorghum Producers, Twitter at @SorghumGrowers, Instagram at @sorghumgrowers, YouTube at National Sorghum Producers and, coming soon to all podcast platforms, Sorghum Smart Talk 2.0 - Policy Edition.

We love hearing from sorghum growers—reach out, ask a question, tell us how we're doing or tag a photo!













# PRODUCTS PERFORM. PEOPLE OUTPERFORM.

What does it take to be an NSP winner? It takes great products with great potential. But most of all, it takes great management. To win the NSP yield contest, you must do more than follow the trail. You must blaze it.

	2020 NSP YIELD CONTEST NATIONAL WINNER RESULTS							
	PLACE	WINNER	COUNTY, STATE	PIONEER® HYBRID/BRAND	YIELD (BU/A)			
	1ST	ELLA JOHNSTON	FULTON, PA	84G62	245.86			
	2ND	CHRIS SANTINI	WARREN, NJ	84G62	204.64			
	3RD	RIVER HOLLOW FARMS LLC	WARREN, NJ	84G62	197.99			
	DRYLAN	D-NO TILL WEST						
	1ST	LONG FARMS	WASHINGTON, KS	84G62	186.84			
	2ND	BRAD ROBISON	HARLAN, NE	84G62	182.35			
-	3RD	KASEY GAMBLE	KIOWA, KS	85P44	181.60			
	DRYLAN	D-TILLAGE EAST						
	1ST	SANTINO SANTINI JR.	WARREN, NJ	84G62	203.94			
	2ND	BILLY H BOWERS FARM TRUST	DAVIDSON, NC	84P80	188.95			
	3RD	DROZD FAMILY GRAIN	VAN BUREN, MI	86P2O	181.15			
	DRYLAN	D-TILLAGE WEST						
	1ST	DAVID KNOLL	CHARLES MIX, SD	89Y79	205.32			
	2ND	SUE PIFER	WASHINGTON, KS	84G62	190.21			
	3RD	LEE PIFER	WASHINGTON, KS	84G62	172.23			
	IRRIGAT	ED TILLAGE EAST						
	1ST	JEFFREY BARLIEB	WARREN, NJ	84G62	200.71			
	2ND	TOM KRULL	ST. JOSEPH, MI	88P71	192.30			
	3RD	SHARON SANTINI	WARREN, NJ	84G62	180.89			
	IRRIGAT	ED TILLAGE WEST						
	1ST	KIMBERLY GAMBLE	KIOWA, KS	84G62	223.51			



CLAY, NE

For the full list of winners, visit **pioneer.com/NSP2020**.



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