

SUMMER 2023

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Photos by Cathy Merlo



SUMMER 2023

ON THE COVER: Jonathan Lawrence is a first-generation farmer and second-generation dairyman, growing forage sorghum to save water in the California Central Valley. He operates a 2,500 head dairy with his father and his wife Michelle and children (oldest to youngest) Jase, Julianne, Mereck and Matthew.



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Editor's Desk

A Resilient Solution to Looming Water Issues



Water issues are undeniably among the most pressing challenges of our time, and the agricultural sector, particularly farmers, bears a significant burden in confronting this crisis. It is evident water scarcity is not a fleeting concern but rather a looming threat that demands immediate attention and long-term solutions.

Both locally and in the political arena in Washington, D.C., debates on water management are reaching a boiling point. Farmers, who rely on water resources for their livelihoods, find themselves at the forefront of these discussions. The sustainability of agricultural practices is under scrutiny, and National Sorghum Producers believes water will be a key component of future discussions on the topic, allowing sorghum to take a prominent place at the table as The Resource Conserving Crop™.

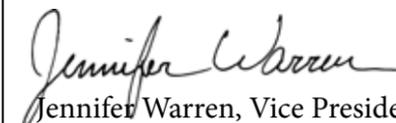
As our water challenges persist, sorghum's water-sipping qualities cannot be overlooked by farmers or legislators. With its resilience to drought and lower water requirements compared to other crops, sorghum emerges as a valuable tool in the fight to conserve water.

NSP recognizes the significance of this and is actively harnessing its potential. Our leaders will be very focused over the next five years on the strengths sorghum has in the water debate, positioning it as a solution for the future.

Our future depends on resilient agricultural systems, and sorghum's ability to thrive in water-stressed environments underscores its importance in that arena. As weather patterns become increasingly unpredictable and water scarcity persists, embracing adaptive crops like sorghum is not merely an option but a necessity.

In this issue, we dive into the matter at hand covering everything from water finance and how farmers can utilize financial incentives to manage and save water to issues facing the Ogallala Aquifer and how dairies are actively saving up to 50 percent of their water by growing sorghum for their feed mix. NSP is also currently working toward a multi-million water grant with NRCS and projects with private companies to monetize water savings in a similar vein as carbon credits.

Our water issues demand immediate action and collaborative efforts, and farmers are on the front lines of this battle. The growing debates at the local and national levels underscore the gravity of the situation. Embracing sorghum as The Resource Conserving Crop™ can significantly contribute to water savings and drive us toward a more sustainable future—a future where water is abundant and available for future farm generations.


Jennifer Warren, Vice President of Communications and Editor

Congress Races Against Time: The Complex Path to Pass the 2023 Farm Bill

By Adam York

As a news headline recently noted, every farm bill is unique and so is the process to pass it. To set the stage a bit more, the 2018 farm bill terms out this year and Congress is racing to develop new legislation for the next five years. And while NSP continues to set the stage for effective policy in Washington, D.C., the process in the 118th Congress for moving a new farm bill through the House and the Senate this year can be summarized in one word: complicated.

As of August, an initial public draft of new farm bill legislation has not been released. Meanwhile, the end of the fiscal year is rapidly approaching on September 30, 2023—and with it, the expiration date for the 2018 farm bill. Fortunately, Congress has moved past its thorny debt ceiling debate earlier this year, but only to step into other procedural considerations for big ticket, must-pass items packaged with complicated dynamics of their own. While both committees have done yeoman's work with public farm bill hearings and listening sessions in the country, both of which have included testimony from commodity groups like NSP's own leadership, development of some legislative text behind the scenes is sure to have occurred.

However, Congress must first continue work through exacting pressures. The annual National Defense Authorization Act (NDAA); reauthorization of the Federal Aviation Administration (FAA); and the entire federal appropriations process—12 individual bills across both chambers with time allotted for hundreds, potentially thousands, of amendments to be offered—will command significant time on the legislative calendar. GOP control of the House, albeit with an extremely tight and fractious margin for the Republican majority, pits the Lower Chamber against the Senate and Oval Office, both controlled by Democrats. Herein lies the obvious truth: a new farm bill this year (or this Congress) must be bipartisan to become law simply by virtue of the split government.

Politics aside, there is also a procedural issue standing in the way of sound policy: no new significant source of funds have been provided to the committees to meaningfully and adequately enhance the farm safety net. That's not for a lack of trying, as both House and Senate Ag Committees made strong arguments for necessary

resources in their initial Budget Views and Estimates letters to their congressional scorekeepers earlier this year. One should never say never when it comes to the legislative processes, but a practical viewing of the calendars for both the House and Senate opens the possibility for a short-term extension of existing law.

For example, the Senate is in session for 17 days in September and the House for 12 days, which effectively means just three weeks for committee markups, floor consideration, and conferencing to get an enrolled farm bill out of Congress for the President's signature. If the fiscal year ends and the current farm bill requires a short-term extension through calendar year 2023, the Senate is in session 44 days from October to December, while the House is in session 24 days during that period. Lastly, as the 118th Congress encompasses 2023 and 2024, there is the possibility of farm bill season extending into the new year. Yet, time is of the essence.

That's why, in just the first half of 2023 alone, sorghum growers across NSP and their state sorghum associations have together held nearly 100 meetings with legislators or their staffs either in D.C. or out in the country to ensure our priorities are heard and not lost in the weedy process of legislating. NSP is committed to ensuring its members are successful in the years to come, and we are working hard to advocate for the policies that will help growers and the industry thrive.



▲ NSP CHAIRMAN Craig Meeker giving farm bill testimony in April.

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NSP Welcomes New Team Members

By Jennifer (Blackburn) Warren

National Sorghum Producers is pleased to announce the addition of three new individuals to its team. Sydney Lundberg joins as policy analyst, Liz Carver as executive assistant and Alli Gonzales as administrative coordinator. These new team members bring a wealth of experience and diverse backgrounds that will contribute to the continued success of NSP and the sorghum industry.

Sydney Lundberg, as the policy analyst for NSP, plays a crucial role in conducting economic analysis on farm

policy, trade policy and market factors that impact the sorghum industry. Sydney has a bachelor's degree in agricultural and applied economics from Texas Tech University and is currently pursuing a master's degree, focusing her research on corruption and food security in Sub-Saharan Africa. Sydney's commitment to excellence is evident through her participation in the Davis College of Agricultural Sciences and Natural Resources Matador Institute of Leadership Engagement (MILE) program. As a resident of Lubbock, Texas, Sydney is actively involved with her local church and has a passion for outdoor activities, fitness and wellness.

Liz Carver, the organization's new executive assistant, brings valuable administrative expertise to NSP. With a degree from Texas A&M University, Liz has a strong background in sales and sales management and is a licensed real estate agent. In her role, she will support the CEO in day-to-day operations, focusing on the administrative aspects



Sydney Lundberg



Liz Carver

for Team Sorghum. Liz resides in Abernathy, Texas, and is married to Jim Bob Carver, an Aggie himself, and together they have two boys, Owen and Samuel. Liz is passionate about ministry, serving many years in women's ministry leadership roles across the Texas Panhandle. She also loves watching her boys participate in sports and stock shows and cheering on the Aggies during football and baseball season. Liz is eager to contribute her skills and enthusiasm to the success of NSP.

Alli Gonzales, the new administrative coordinator, brings a wealth of finance and administrative experi-



Alli Gonzales

ence to NSP. With 18 years of experience in finance and administration, Alli's proficiency in managing operations and numbers is invaluable. Having grown up in the Central Coast of California surrounded by farming and agriculture, Alli has a deep-rooted connection to the industry through her family's involvement in the fruit and vegetable sector. Alli's dedication to giving back

is evident through her volunteer work at food banks and shelters. In her free time, she enjoys traveling, reading and taking care of her beloved yorkie.

The addition of Sydney, Liz and Alli to the NSP team marks a significant step forward in strengthening the organization's capabilities. Their combined expertise in policy analysis, administration and finance will greatly benefit NSP, its subsidiaries and industry partners. With their passion for agriculture, commitment to community and diverse skill sets, Sydney, Liz, and Alli are well-positioned to contribute to NSP's mission of advancing the sorghum industry and ensuring its long-term success.

National Sorghum Producers is excited to welcome each of these individuals to the team and looks forward to the valuable contributions they will make to the organization and the sorghum industry as a whole.

Advancing Climate-Smart Sorghum for a Sustainable Future

By Jennifer (Blackburn) Warren

National Sorghum Producers' Partnerships for Climate-Smart Commodities pilot project recently achieved a significant milestone by signing its first grower contract with Cedar Rush, a fourth-generation family farmer from New Mexico. Rush, who cultivates sorghum, wheat and hay grazer, has joined hands with NSP to foster sustainable agricultural practices. The announcement garnered attention from prominent figures in the agricultural community, including U.S. Department of Agriculture Secretary Tom Vilsack, who expressed his support and welcomed Rush aboard to the USDA initiative.

The pilot project has gained momentum with the signing of contracts from 19 growers, totaling 20 contracts. This enthusiastic participation highlights the growing interest among farmers in embracing sustainable agricultural techniques. Together, these forward-thinking growers have dedicated a substantial 7,988 acres of land to implementing climate-smart practices, and NSP is actively working with growers to support their commitment to climate-smart agriculture practices.

Introducing Key Staff: Matt Durler and Rick Kochenower

To effectively administer the climate-smart commodities grant, NSP recently added two key staff members to its team. Matt Durler joins us as the Managing Director. Hailing from a sorghum, wheat and beef farm near Dodge City, Kansas, Matt brings a wealth of experience and expertise to the role. With a bachelor's degree in business administration, finance, economics and management, as well as an MBA from Washburn University, Matt has a deep understanding of both the agricultural and financial aspects of the industry. His previous roles in risk management and marketing at prominent agricultural organizations have honed his skills in driving sustainable growth and maximizing potential.

Rick Kochenower, a seasoned specialist in sorghum agronomy and production, has been appointed as a contract and outreach specialist for the grant. With an expansive career spanning over 25 years, Rick has been a dedicated advocate for sorghum growers. His experience as a sorghum grain specialist at Oklahoma State



▲ CEDAR RUSH (right), a New Mexico sorghum producer, was the first individual to sign a contract with NSP's Partnerships for Climate-Smart Commodities pilot project. Also pictured is NSP grant Contract and Outreach Specialist Rick Kochenower.

University and as a sales agronomist for a sorghum seed company has equipped him with a comprehensive understanding of the challenges and opportunities in the industry. As the first point of contact for growers, Rick will play a vital role in educating and assisting growers throughout the grant's duration.

Looking Ahead: A Sustainable Future for Sorghum

NSP remains committed to advancing climate-smart agriculture and promoting sustainable practices within the industry. The success of the Partnerships for Climate-Smart Commodities Pilot Project serves as a testament to the collective efforts of sorghum growers, our state partners and dedicated staff members like Durler and Kochenower. As the project moves forward, we are excited about the potential to create a resilient and sustainable future for our industry and our growers.

To learn more about NSP's Partnerships for Climate-Smart Commodities Pilot Project, visit SorghumGrowers.com/climatesmart. For a comprehensive overview of the project's progress and updates, please explore the full project dashboard on USDA.gov.

Unlocking the Potential of Sorghum: A Water-Wise Approach

By Brent Bean, Ph.D., Sorghum Checkoff Agronomy Director

Although much of the sorghum in the U.S. is grown under dryland production practices, growers with irrigation are seeing the value of including sorghum in their cropping system. Sorghum's ability to wait for water makes it a desirable partner in a field where irrigation is being shared with other crops. This ability to wait on its next drink gives irrigation managers the flexibility to divert water to each crop during critical growth stages.

In the age of advanced technology, harnessing its potential for precision irrigation has never been greater with an abundance of information available to know when, where and how much water to apply. The integration of smart irrigation systems, soil moisture sensors and remote monitoring tools empowers farmers to make data-driven decisions and optimize water usage.

Optimizing Sorghum Yields through Efficient Irrigation Techniques

As stewards of the land, sorghum farmers recognize the importance of employing efficient irrigation tech-

niques. Embracing technologies such as drip irrigation and highly efficient center pivot systems allow farmers to maximize water delivery to the sorghum roots and minimize waste.

Monitoring soil moisture levels is a valuable tool for water management. Utilizing soil probes and sensors enables producers to gauge irrigation requirements accurately, preventing under or over-watering. This approach not only conserves water but also promotes healthy root development and overall crop vigor.

Deficit irrigation represents a viable strategy for sorghum production. By strategically applying water during specific growth stages, sorghum can tolerate controlled water stress without significant yield reduction. Managing irrigation judiciously during less sensitive growth periods optimizes water usage while maintaining satisfactory yields.

Maximizing Water Efficiency for Sorghum Production

As advanced as irrigation technology has become, there is still basic information that growers need to know to maximize water use efficiency. It starts with know-

ing your soil and its water holding capacity. Soil texture, along with percent organic matter largely determines water holding capacity, and more importantly, how much of the water is available to the plant.

For example, a sandy soil with one percent organic matter typically holds 1 inch of water per foot compared to a silty clay loam soil with 3 percent organic matter that holds 2.2 inches of water per foot. Many growers know their soil water holding capacity in their top 1 foot of soil, but it is also important to know it deeper in the soil profile. By knowing the water holding capacity at different zones in the profile, irrigation managers can better utilize the information being provided by soil moisture sensors and other technology tools. Soil series maps (Web Soil Survey) from NRSC can provide estimates of soil profile texture as an alternative to deep soil profile mapping of fields.

On average, sorghum will consume approximately 20-24 inches of water during its growth cycle for maximum yield. How much water is needed by sorghum at any particular growth stage is greatly influenced by its environment. Much more water is needed for sorghum grown near Phoenix, Arizona, compared to Hays, Kansas, and variation in water use at any given location can vary greatly from year to year, and even week to week. It is crucial for growers to know their local daily reference evapotranspiration (ET_o), which is the estimated water use of cool-season grass. This number is now available for most regions through government agencies, universities and private industry. Once the ET_o is known sorghum and other crops water use can be estimated. This information, coupled with knowledge of soil water availability, will go a long way in implementing water-efficient strategies to minimize waste and maximize water use efficiency.

Irrigation Timing

When to irrigate to maximize yield and water use efficiency is the goal of most growers. In order to take full advantage of each inch of water, it is helpful to know key growth stages in sorghum. Uniform stand establishment is important. If needed, irrigation should be applied to ensure stand establishment. The most critical time to consider is approximately 30-40 days after emergence. This is when the for-

mation of the sorghum head is initiated and when the potential number of kernels per head is determined. If moisture stress occurs at this time, head size will be small and grain numbers per head will be reduced.

The next and most important stage of development is at boot, which is just before the head emerges at the top of the plant prior to blooming and grain set. Many trials over the years have shown that adequate soil water at this time will greatly enhance yield. Avoiding water stress at this time can easily add 500 pounds of additional yield and could add as much as 800 pounds.

Although not as critical as the aforementioned stages, avoiding water stress during the grain fill period—especially during soft dough—can add test weight to the final yield. A good time to irrigate is just as the grain is beginning to turn from green to its final color.

Irrigation is unlikely to add to yield once the grain has reached hard dough. At this stage, as much as 2 inches of water can still be used by the crop. If conditions are dry, irrigation at this time can improve stalk strength which reduces lodging and increases harvest efficiency. As long as the plant remains green, it requires some water to maintain stalk integrity.

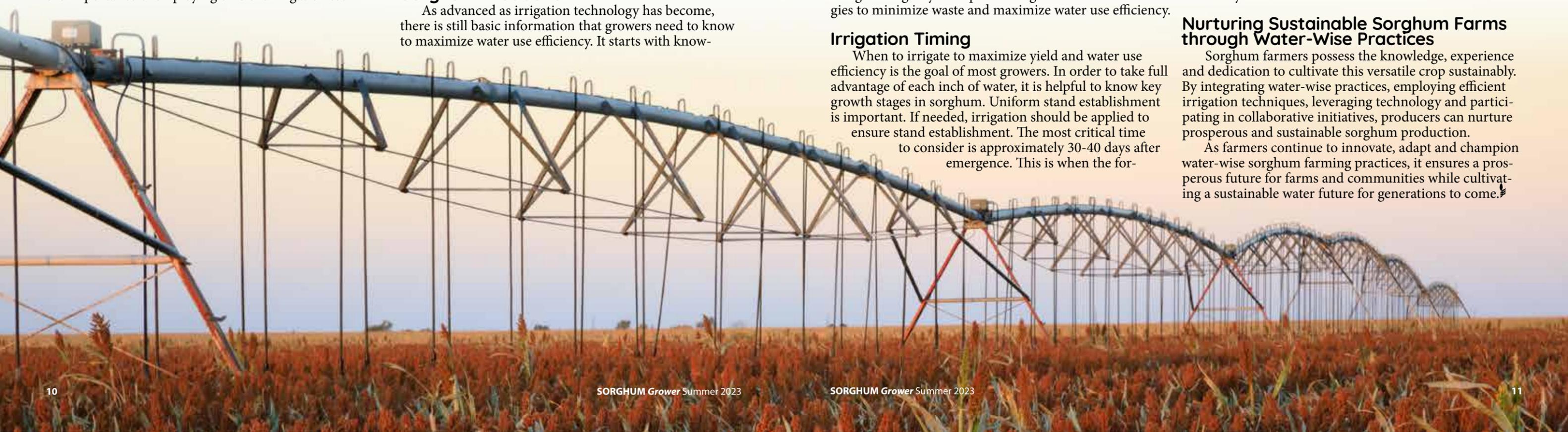
For maximizing sorghum yields, soil water should be maintained above 50 percent available water to a soil depth of three feet. However, grain sorghum yields will normally not be reduced as long as soil-available water stays above 30-40 percent.

Monitoring soil moisture, weather conditions and crop growth stage empowers growers to identify the ideal time to apply irrigation, optimize water usage and enhance yields.

Nurturing Sustainable Sorghum Farms through Water-Wise Practices

Sorghum farmers possess the knowledge, experience and dedication to cultivate this versatile crop sustainably. By integrating water-wise practices, employing efficient irrigation techniques, leveraging technology and participating in collaborative initiatives, producers can nurture prosperous and sustainable sorghum production.

As farmers continue to innovate, adapt and champion water-wise sorghum farming practices, it ensures a prosperous future for farms and communities while cultivating a sustainable water future for generations to come. 🌾



Financing a Better Water Future

By John Duff, Sero Ag Strategies

As many centrally planned countries do, the Soviet Union, in the first few decades after its founding, moved to shore up its agricultural supply chain to ensure stability in its member states. One notable project the federation undertook as a part of this effort was a diversion of the Syr Darya and Amu Darya Rivers for irrigated cotton production. The Soviet Union accomplished its goal of becoming a global leader in cotton production (with Tajikistan and Uzbekistan remaining top exporters today), but the environmental consequences were disastrous. Once the fourth-largest freshwater body in the world, the Aral Sea, on the border of Kazakhstan and Uzbekistan and fed by the Syr Darya and Amu Darya Rivers, is little more than a desert landscape in 2023.

While no irrigation-induced disaster may ever match the scale of the one that occurred on the Aral Sea, there will be—and have been—disasters equally detrimental to the fortunes of local economies and ecosystems right here in the Sorghum Belt. Many sorghum farmers who irrigate are painfully aware of the changes taking place in the Ogallala Aquifer but are powerless to stop it due to financial constraints, rental arrangements and other factors that prevent reduced pumping. Fortunately, the past decade has seen a dramatic increase in capital available for so-called environmental finance, and while instruments such as carbon credits receive most of the attention, the drought in the southwest has spurred interest in water finance in recent years.

What is water finance? And, how can it help prevent resources such as the Ogallala Aquifer from becoming the next Aral Sea?

“Water finance is a big concept,” said Scott Moorhead, chief strategy officer for Texas Water Trade (TWT), a Texas nonprofit formed in 2018 to catalyze sustainable water transactions that ensure durable, long-lasting water supplies in Texas. “It is simply the work of identifying and implementing innovative ways to use financial incentives to operate our economies while managing existing and future water supplies in a way that does not exhaust or limit them for future users, economic opportunities and the natural world.”

Moorhead, who holds a master’s degree in energy and earth resources and has spent his career in the water policy space, added that water finance involves the creative use of various financial instruments. These include debt, equity, loans, grants, public and private resources and other financial instruments in combination to make investment in water savings and management strategies economical to those deploying capital. The concept has already seen results in a stretch of West Texas desert that was once home to Texas’s sixth-largest spring system.

“Comanche Springs is one of the great spring complexes in Texas and has supported life for thousands of years,” Moorhead noted. “Increased groundwater production during the past century has led to depleted aquifer levels and diminished spring flow. TWT is working to restore sustainable flow in the spring complex by cooperating with area agricultural producers to reduce reliance on groundwater by providing financial incentives for irrigation technologies such as efficient sprinklers. Water saved is then left in the aquifer by the producer for a period, and TWT compensates the producer for the value of this saved water.”

Comanche Springs stopped flowing in 1961 and did not flow again until 1986, after which it only flowed sporadically for the next three decades. In recent years, the efforts of TWT and partners like Quantified Ventures and other private financiers have brought hope for consistent flows from the once world-renowned spring system.

“We are seeing that it is indeed possible to mitigate costs to the landowner, improve on-farm efficiencies, promote healthier soils and protect the sustainable yield of the water resource in a way that does not harm production or quality,” Moorhead said. “That protects the critical inputs of water and soil for future crops and generations.”

Water Foundry Ventures is one such private financier intent on driving these types of positive outcomes. Led by founder and general partner Will Sarni, Water Foundry Ventures invests in companies working to solve modern water challenges in agriculture, commercial and industrial applications. Its sister organization, Water Foundry,

◀ SHIPS IN THE DESERT that was once the floor of the Aral Sea.

provides consulting services to multinationals on water strategy and advises investment funds and water technology startups. For both organizations, the goal is to direct public and private investment into the future of water.

“Individuals can invest either in mutual funds or as angel investors in venture funds,” said Sarni, who holds degrees in earth and environmental sciences and began his career as a hydrogeologist. “Family offices and multinationals can also invest in private equity funds deploying capital in companies focused on water.”

In either case (investing directly in technology deployment or in companies investing in water themselves), a long road lies ahead, but given the scale of the challenge across the Ogallala Aquifer region, the road must be traveled. Fortunately, the frameworks put in place by TWT and Water Foundry Ventures will serve as a guide along that journey.

“We have all heard and seen a lot of noise around carbon credits, and it is inevitable that similar opportunities will emerge in the water world,” Moorhead said. “In Texas, there is already some buying, selling and trading of water withdrawal permits or surface water rights. Properly managed, these trades along with less commonly seen credits can help allocate water to priority uses while also

rewarding land managers for the kinds of conservation behavior needed to sustainably manage what is left.”

Without a doubt, technology will play an increasingly important role not only in the future of the Ogallala Aquifer, but in the future of water in general.

“The future of water will be digital,” Sarni said, listing smart precision agriculture as an important tool in water’s digital future. “It will also be democratized with customer and consumer access to data and actionable information, and it will be decentralized with regard to supply as well as treatment and reuse.”

Moorhead agreed, adding that in the future, there will be no easy water, where access is cheap and potentially even subsidized. However, given technologies already available, preventing resources such as the Ogallala Aquifer from resembling the Aral Sea in the coming decades is an achievable goal, with the largest remaining obstacle being funding for deployment of these technologies and development of additional technologies. Fortunately, the financial mechanisms being championed by the likes of TWT and Water Foundry Ventures combined with increasing investor interest both in direct compensation of farmers for technology deployment and in the companies tackling tomorrow’s water challenges will supply the financing needed. With this obstacle out of the way, a better water future is within reach. ▶

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Sorghum Checkoff Debuts First-Ever Farm-to-School Curriculum

By Lanier Dabruzzi MS, RD, LD,
Sorghum Checkoff Director of Food Innovations & Institutional Markets

The United Sorghum Checkoff Program's commitment to the health of America's children took an exciting step in July when it debuted its first-ever farm-to-school curriculum. The curriculum is an agricultural education initiative that aims to integrate the science and production of sorghum, in addition to its nutritional value, into classrooms across the United States.

The curriculum is a user-friendly resource for teachers as it can be incorporated into various subjects from STEAM to Language Arts. This initiative underscores the sorghum community's commitment to agriculture education with a goal to inspire the next generation to recognize and utilize the potential of sorghum in their lives and the world around them.

The focus on farm-to-school is an exciting addition to the existing educational outreach. It serves as a remarkable resource for teachers, providing lesson plans and activities that conform to National Science and Common Core State Standards. The Sorghum Checkoff believes this curriculum will not only spark students' interest in sorghum but also inspire them to explore careers in agriculture. This early exposure aims to foster a new generation of consumers who are well-informed about the source of their food and cultivate a love for sorghum-based foods.

The curriculum provides educators with an array of engaging resources that introduce students to the importance of sorghum as a sustainable, versatile and flavor-

ful grain that can be enjoyed in a variety of ways. The program also aims to ignite the passion for agriculture in the next generation, cultivating an understanding and appreciation for sorghum.

The Sorghum Farm-to-School curriculum engages students of all grade levels from Kindergarten to 12th grade through experiential learning. Tailored modules for elementary, middle and high school students offer rich, multisensory experiences. Students not only grow and taste sorghum, but they also explore various subjects by writing about and applying their knowledge of this versatile grain. These learning experiences cover a wide spectrum of educational content from understanding sorghum's crucial role in global food security and world nutrition to exploring its potential as a renewable energy source. The program is further enriched with an interactive video, promoting an engaging and comprehensive learning environment.

The curriculum was debuted by the Sorghum Checkoff at the annual School Nutrition Association conference where more than 6,000 school nutrition leaders gathered. The introduction of the curriculum received an enthusiastic welcome from attendees representing schools, government, foodservice companies and consumer packaged goods brands.

Many attendees had never heard of sorghum prior to the conference and after learning about its nutritional profile, sustainability story and versatility, attendees were eager to begin incorporating it into their meals. In fact, one attendee commented, "Why isn't this on every menu?"

Sorghum Checkoff board members Kim Baldwin and Macey Mueller attended the conference and were able to share their unique perspectives having both worked in education, as well as growing sorghum, and being mothers of school-aged children.

"This is an exciting new market developing before our eyes. I'm excited to see sorghum served in schools as it benefits our producers while also providing huge nutritional benefits to school-aged children. It's a win-win!" Baldwin said. "There was a lot of discussion regarding global food trends within school nutrition programs, and I can see sorghum fitting in really well as it offers flexibility for school menu development and a lower-cost, plant-based option for essential nutrients like protein and iron."

Mueller added, "It was evident to see USCP staff and partners have been working hard to build relationships with key players who can help sorghum shine on the school nutrition stage, and it was very encouraging to see the genuine interest in sorghum from both distributors and school nutrition professionals who are looking for wholesome options to offer students. Sorghum is a nutritious, versatile and sustainable whole grain that checks the many boxes needed to meet USDA requirements ... and it can be really fun to eat, too!"

The Sorghum Checkoff team continues to work with partners to continue to raise awareness of sorghum as a solution for school meals and increase the number of students across the United States who will benefit from it.

▼ SORGHUM CHECKOFF directors Macey Mueller and Kim Baldwin, along with staff Lanier Dabruzzi and Caprock Strategies Consultant Brandon Lipps, attended the School Nutrition Association Conference in July to launch the new sorghum Farm-To-School curriculum.





WESTERN DAIRIES maximize water supply

By Jennifer (Blackburn) Warren



In the sun-drenched fields of California's Central Valley, one innovative dairy producer has harnessed the water-saving potential of wall-to-wall sorghum.

Jonathan Lawrence, a second generation dairyman and first generation farmer, is turning neighbors' heads by planting all 1,100 acres of his farm ground to sorghum for the second year in a row for one leading reason—to save water.

Combatting a Megadrought

It is no secret the California megadrought is straining industries across the board, but for the state's food and fiber producers, it's threatening livelihoods—and for producers like Lawrence, the continuation of what began as part of his father's American dream.

Lawrence's parents immigrated from the Azores Islands of Portugal. His father began milking cows when he was 16-years-old, and he started his own herd in 1995, growing the operation from 110 cows to 2,500 today. Lawrence joined his father in 2006, and four years later he pioneered the farming portion of the operation.

"Right when I started [farming], I was planting a little bit of sorghum and a little bit of corn," Lawrence said. "Then we went all corn eventually and the tonnages weren't spectacular on the marginal ground, so I went back to sorghum as the water table was going down. I learned how to do it with sorghum because that's the future; to use less water."

Lawrence said growing sorghum is the key to meeting the water requirements he's been dealt in California's Central Valley aquifer. After that, choosing the right variety and creating the right growing conditions to meet his nutrient needs for the cows is a make-it-work approach that few in his area share.

"I see about one sorghum field as a whole," Lawrence said, driving back to the farm during the interview. "It's all corn. Corn, corn, corn everywhere."

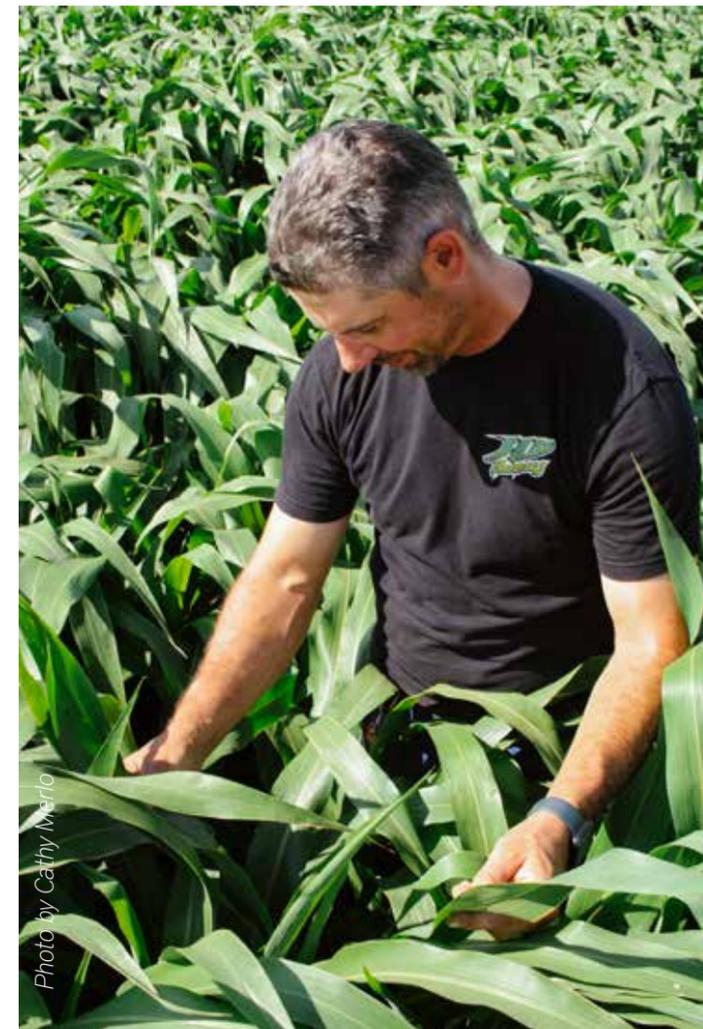
Lawrence said from a nutrition standpoint, neighboring dairies are just more familiar with corn and nutritionists state you cannot milk off of sorghum fed rations.

"That's what they say, and 10 years ago they also said we cannot milk off triticale, and we're milking off triticale now," he said. "I'm milking off of sorghum. You have to learn it. Corn is honestly better, but it's not in our future."

Data Proven Water Savings

The data doesn't lie for Lawrence. He said with the water savings he is able to achieve, planting sorghum is a no-brainer.

◀ JASON SHEEHAN mows and chops sorghum sudangrass, which he plants during dry years to manage a prorated water system in Washington's Yakima Valley. Sorghum sudangrass also helps him manage nutrients in various soil types like this field that was previously planted to wine grapes. (Photos by Jennifer Warren)



▲ GROWING SORGHUM in the California Central Valley affords dairy producer Jonathan Lawrence significant water savings, particularly as the regulatory bodies are cracking down, utilizing satellite imagery to know how much water usage is taking place on the ground.

"Right now [experts] are telling us that sorghum and corn are almost identical in water usage. That's super bold because, right now, I'm doing about 55-60 percent of the water that I would do with corn," he said. "Sorghum just utilizes [water] a whole lot better."

According to Lawrence's meters, for every 3 feet of water he put down on corn, he's irrigating 1.7 feet for sorghum, and if something goes wrong with his flood irrigation system, sorghum is more forgiving.

"If we have a pump go down or something happens to the water supply, and I can't get onto it for another 3-4 days until I fix it, sorghum will be okay," he said. "In corn, that's a disaster for that field."

Jason Sheehan, a 3,000 head dairy producer in the Yakima Valley in central Washington, is able to save water



◀ JONATHAN LAWRENCE began growing forage sorghum on his 1,100 acres of farm land in order to save water, cut out the middle man and provide adequate nutrition to his 2,500 head of holstein dairy cows. He mixes it with other feedstuffs like hay, rolled corn, canola, DDGs and triticale for a feed silage mix.

the federal Clean Water Act, where Sheehan receives his National Pollutant Discharge Elimination System (NPDES) Confined Animal Feeding Operation (CAFO) permit. He's required to have soil samples taken two times per year to ensure levels are in compliance with his permit.

"Going into the fall, we cannot be above 45 pounds of nitrogen in the soil, or we are out of compliance," Sheehan said. "So if we're short on water and want to have a crop that's

going to give us a good yield with the ability to take up nutrients, [sorghum sudan] really likes manure and is good at that."

Lawrence is under similar regulations through the California Nutrient Management Plan (CNMP), which requires testing after every crop removal on every field. He applies anywhere from 4-15 tons of manure annually across his total acres, depending on soil profiles, and said sorghum helps draw down his bank of nutrients.

"Sorghum," he said, "is a way better miner of nutrients than corn."

Harvesting for Nutrients

While Sheehan primarily utilizes his sorghum in a ration for his 2,800 head of heifers, Lawrence feeds his sorghum to his milking cows, and neither producer has experienced loss of nutrients with sorghum.

"Our starch levels were lower, but with sorghum, the digestibility is higher, so they almost offset," Lawrence said. "We didn't make a lot of changes going from corn to sorghum at all, and once we adjusted where we're getting our starches from, we saw zero difference in milk supply."

Looking forward, the water woes plaguing the American west necessitate a comprehensive and sustainable approach, and Lawrence contends sorghum is a promising choice for water-stressed areas.

"Sorghum can handle our water situation," he said, "and then it comes down to getting the variety that has what I need. Then I let the cows do the rest."

utilizing sorghum sudangrass and take up additional nutrients like nitrogen from the soil.

Sheehan operates in an area that receives 6-9 inches of annual rainfall. He relies on junior water rights for irrigation from the Yakima River, a 214-mile tributary of the Columbia River, the longest river in Washington state that runs 1,243 miles from its headwaters in British Columbia all the way to the Pacific Ocean.

During drought years, like 2023, Sheehan plants sorghum sudan to maximize the water he has available over his farming acres, supplied through the Roza and Sunnyside Valley Irrigation Districts.

"I think we are at 70-72 percent water for the year on proration," Sheehan said, "so there are times I plant crops that don't require as much water. Sorghum sudan has worked really well for us to be able to utilize our water and still grow feed for the dairy. In fact, in 2015 we were at 43 percent water for the Roza district, and sorghum sudan was a big part of getting us through the drought while still growing feed and utilizing nutrients."

Nitrogen Uptake with Manure Management

Managing manure takes some fertilizing finesse as Sheehan must comply with a strict Dairy Nutrient Management Plan (DNMP) regulated by the Washington State Department of Agriculture. Elements of this program are managed in conformance with the Washington State Department of Ecology, the delegating agency for



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SHINING LIGHT on shrinking waters

By Patrick Wade, Texas Grain Sorghum Producers Policy Director

The Last Glacial Period, also known as the Ice Age, concluded nearly 12,000 years ago. As Earth thawed from its hundred-thousand year freeze, the scattered glaciations above the American High Plains were ablated and their ice melt gradually percolated through porous rock from modern Nebraska all the way to the Texas Panhandle. Alluvial flow from the Rocky Mountains buried nearly 3 billion acre-feet of freshwater in repose, forming the Ogallala Aquifer.

For millennia, the ice melt that had filled the Ogallala Aquifer remained relatively untouched. The hard limestone caliche that comprised much of its upper layer prevented most rainfall from recharging any potential depletion. As such, the nature of this aquifer, which underlies nearly 80 percent of the High Plains, seemed unknowable.

In 1904, the Supreme Court of Texas, borrowing directly from the Supreme Court of Ohio, affirmed this by declaring, “the existence, origin, movement and course of [the Ogallala Aquifer and other groundwaters in Texas], and the causes which govern and direct their movements, are so secret, occult and concealed that an attempt to administer any set of legal rules in respect to them would be involved in hopeless uncertainty.”

Groundwater management across the Ogallala would be defined by that same concession of opacity for decades to follow. With the advent of center-pivot irrigation in the 1940s, the High Plains exploded in agricultural productivity, drawing generously from this perceived boundless supply of groundwater.

According to a Scientific American essay on the Ogallala, the number of irrigation wells in West Texas alone leapt from just under 1,200 in 1937 to over 66,000 in 1971 and wheat, cotton and corn yields boomed commensurately. Farmland overlaying the Ogallala Aquifer became some of the most prolific in the world,

producing over \$20 billion worth of agricultural products annually. Not everyone considered this resource inexhaustible, though.

“Water was the first thing I asked about when I started farming in 1974,” recalls Dan Krienke, an Ochiltree County farmer who once served as President of the Texas Grain Sorghum Association and is the current Vice-President of the North Plains Groundwater Conservation District. “The man I was farming for at the time had just installed a new irrigation system, and I asked how he knew he would have sufficient groundwater to run it. He assured me the regional university models estimated plenty of water was available and that I should not care about it.”

Instead, Krienke, and many other professionals across the Sorghum Belt, chose to make a career of caring about it.

Now, nearly a half-century later, policymakers and the general public have begun to raise concerns about the health of the Ogallala Aquifer, as well. Agriculture’s contribution to declining water tables across the High Plains has become a subject of newspaper headlines, social media trends and even Congressional hearings.

“The annual groundwater level monitoring data collected... in the state all point to overall declining water levels within the Ogallala portion of the High Plains Aquifer in Kansas,” confirms Matt Unruh, Assistant Director at the Kansas Water Office.

The 2022 Kansas Water Plan, prepared by Unruh and his colleagues at the Kansas Water Office, paints an even more explicit picture: “Projections in some areas show no more than 20 years of water remaining if pumping continues at current rates. Other areas in west central Kansas have already reached the point of no return where many acres of once irrigated land have now been converted to dryland crops or pastures for cattle grazing.”

A common assertion made about the Ogallala’s depletion is that agricultural irrigation drives 90 percent of the current consumption. While accurate, this suggests that all production agriculture on the High Plains is monolithic in

its needs. The truth is that there are meaningful delineations to be made between the specific crops and the practices used to raise them on the farms that overlay the Ogallala.

“We are headed toward eventual depletion of the aquifer,” says Jeff Zortman, a farmer in Fowler, Kansas who currently serves as Treasurer of the United Sorghum Checkoff Program. “We are located in a strong aquifer region. Even so, we are seeing drops in pumping rates. Knowing this, we are researching sorghum’s capability to compete with other irrigated crops such as corn and soybeans. Just having sorghum as a relief valve in a mix with more water-demanding crops is making a difference.”

Unlike the early days of irrigation on the High Plains, there is little desire for opacity or uncertainty when it comes to water usage these days. In order to improve stewardship of this depleting natural resource, farmers and policymakers alike will need to better understand how crops like sorghum – The Resource Conserving Crop™ – can uniquely contribute to key conservation initiatives.

Efforts to better quantify these crop-specific outcomes are already underway in some areas most acutely experiencing depletion of groundwater. In 2018, Kansas released a report on the trial period of its first Local Enhanced Management Areas (LEMAs), a voluntary conservation program that limited participating farmers in the Sheridan County 6 LEMA in northwest Kansas to, on average, a five year allocation of 55 inches per acre (roughly 20 percent less than historic use.)

According to Unruh, operating under that resource constraint led participating farmers to plant “a significant increase in total irrigated sorghum acres of over 300 percent. [They] applied an average of 4.1 inches per acre, or 60.5 percent less groundwater than their counterpart in the control area used... This analysis also revealed increased cash flow for producers that grew irrigated sorghum.”

Zortman has seen that same impact on his own operation.

“Sorghum has a God-given ability to efficiently convert water to grain,” he said. “It is logical to use efficient





water-to-grain conversion crops when we are dealing with a limited water resource.”

While many sorghum farmers would likely echo this sentiment, Zortman believes that even more data on its water efficiency as it relates to profitability would go a long way in encouraging more sorghum acres along the Ogallala.

Krienke recalls when a proactive approach to better quantifying water use helped farmers preempt potentially overzealous policy changes, as well. Farmers in his North Plains Groundwater Conservation District already implemented consistent water metering when Texas published its first State Water Plan in the 1990s, which included estimations of groundwater use per district and suggested appropriate policy reforms for high consumers. Krienke and company were able to prove, through metering records, they had in fact used 27 percent less water than the state was estimating, which helped them to remain fully autonomous as a groundwater rulemaking entity.

In this sense, greater clarity and transparency are essential to conserving what remains of the Ogallala Aquifer. For tens of thousands of years, water that melted from the Ice Age lay in darkness beneath limestone and sediment across the heart of this country. We have only been able to study our impact on the aquifer for a few decades, less than one-tenth of one percent of the time that water lay untapped. There is much we still don't know, but some truths have already been revealed by this newly shed light.

“Across my entire career as a farmer and a water planner, I've tried to make one thing clear,” Krienke reflects. “There are no silver bullets when it comes to conserving the Ogallala Aquifer. We are managing a declining resource. But there are a handful of silver BBs – crop rotation, residue management, later plantings, and so on – that can add up to a silver bullet. While I'll never tell a farmer what to plant on their farm, sorghum fits very well into that approach to conservation.”



Sorghum Update

Brought to you by the Kansas Grain Sorghum Commission

Export Opportunities Revealed During Sorghum Month

By Maddy Meier

In June, we celebrated Sorghum Month, and it seemed appropriate that I, along with other sorghum leaders, attended numerous events that were themed around the promotion of the sorghum industry through exports. While the most common ways of transporting grain sorghum are usually by railroads or by truck here in the Midwest, another avenue for transporting sorghum lies just outside of Tulsa, Oklahoma.

During June 8-9, I attended the Oklahoma Department of Transportation's Catoosa Port Showcase featuring a focus on Kansas agriculture. As the name suggests, this conference highlighted many potential opportunities for our industry.

The Catoosa Ports have been in operation since 1971. Since then, over 80 million tons of freight have traveled out of the port. The Catoosa Ports sit on the Verdigris River, which is a segment of the McClellan-Kerr Arkansas River Navigation System. This system, totalling nearly 450 miles in length, also includes the Arkansas and White Rivers. Apart from grain commodities, the main products shipped out of the facilities include steel, fertilizer, project cargo and more. Being able to tour the port was truly eye opening and offered a firsthand look into an expansion of shipment possibilities for sorghum.

With sustainability becoming a priority among sorghum producers, transporting bushels by barge is definitely a greener option when compared to others. One barge can carry up to 1,500 tons, which equates to approximately 52,500 bushels, or the amount carried by 15 railcars or 60 trucks. Out of these three methods of transportation, barges also have the lowest carbon dioxide emission rates and are the most efficient when it comes to fuel mileage.

The demand for sorghum products continue to rise, especially when key innovation wins seem to follow one after another, from both a domestic and international

standpoint. Kansas and Oklahoma ranked as the first and third largest sorghum producing states in 2022, harvesting close to 130 million bushels combined. According to the U.S. Grains Council, the United States exported 293 million bushels that same year to over 20 countries.

Following the Catoosa Port Showcase, the Sorghum Checkoff hosted Export Sorghum in Houston, Texas. This event allowed international grain buyers to learn more about the U.S. sorghum industry through break-out sessions covering topics from production, grade requirements, and of course, market trends. It was great to interact with the other attendees and compare and contrast sorghum end uses in our countries.

Even though the High Plains region battles extreme drought and uncertainty, it is clear to see that there are many factors that will continue to provide sorghum with success. As the crop continues to grow throughout the remaining summer months, it will be interesting to see what new possibilities await its producers in Kansas, Oklahoma, and beyond.



The Catoosa Ports are located at the upmost sector of one of the country's largest inland water systems. It is estimated that over 1,000 barges will make their way through the port in an average year.

WHERE ARE THEY NOW?



Reed Middleton



Adelaide Easter

Fostering the Future through the Kansas Sorghum Fellowship Program

By Adam York and Maddy Meier



Sanders Barbee



Parker Vulgamore

Since 2020, a collaboration between National Sorghum Producers, Kansas Grain Sorghum and Kansas State University has fostered a landmark fellowship program based in Manhattan, developing K-Staters with deeper understandings of sorghum. Four bright young fellows have completed this program and each have carried their experiences with sorghum producers into the folds of their professional journeys to conduct new and exciting impacts all their own.

This fellowship began as farmers increasingly gained the ability to measure farm practices for improving soil and water health. If that sounds familiar, it's the heart of NSP's recent \$65 million Partnership for Climate-Smart Commodities grant awarded last September. Prior to that grant, however, NSP implemented another project focused on quantifying conservation practices for farm profitability. Funded through a U.S. Department of Agriculture NRCS grant led by NSP's John Duff, "KansCAT"

honed in on Western Kansas sorghum producers' data to create and apply technology for conservation of soil and water systems that met increasing industry data needs.

For this grassroots effort, Kansas Grain Sorghum and NSP swiftly became hosts to K-State's premiere Flinchbaugh Food and Ag Policy Fellowship program, curated by K-State's Associate Director for Agriculture and Extension Susan Metzger, creating the Kansas Sorghum Fellowship. This program encompasses sorghum production, conservation, markets and policies, as well as youth development from within the state with truly global impacts. We caught up with the past fellows:

Reed Middleton of Hermiston, Oregon, led the Kansas Sorghum Fellowship program as its inaugural fellow. Her takeaway? "Application," Reed said. "I will forever advocate that applying content learned in the classroom to 'real-world' situations is the key to truly learning. The work I did with sorghum, whether networking, data collection or practicing and applying the curriculum were great ways to solidify my understanding."

Since completing the Kansas Sorghum Fellowship, Reed has been a recipient of the National Sorghum Foundation Bill Kubecka Memorial Scholarship, conducted work to monitor and evaluate the Poultry Value Chain in Ghana, studied abroad in Montevideo, spent time in Uruguay experiencing the Uruguayan beef industry and in her spare time travels the U.S. with a local nonprofit, teaching individuals with disabilities how to ride bicycles. Reed is currently in Reading, England, completing her master's level course in food economics and marketing. Afterward, she plans to work on research surrounding global food security, focusing on the challenges and opportunities surrounding gender and agricultural development.

Sanders Barbee of Lawrence, Kansas, grew up outside of agriculture but found her home at K-State and became an officer of its Minorities in Agriculture, Natural Resources and Related Sciences (MANRRS) chapter by way of Tuskegee University's Vet-Step program for youth. She realized her ambitions extended beyond veterinary medicine and grew passionate about farmers and their communities. She jumped at the Kansas Sorghum Fellowship opportunity during her sophomore year. "My time with both state and national sorghum organizations helped expand my knowledge of food and ag policy. I saw many ways to positively affect ag policy and witnessed the legislative and regulatory process up close. I loved getting to work one-on-one with Kansas producers," Sanders said.

Afterward, Sanders visited Morocco on a farm exchange internship, sponsored by the United Sorghum Checkoff Program, working with Moroccan farmers dealing with harsh conditions and food insecurity. Sanders now works at the Sustainable Intensification Innovation Lab, a USAID Feed the Future project, specializing in

international communications. She will travel to Senegal to visit projects her lab has funded and plans to continue her work to increase conservation and sustainability efforts in agriculture.

Parker Vulgamore of Scott City, Kansas, has deep roots in Kansas agriculture as the sixth generation of his family's farm. "The opportunity to intern with the sorghum associations was one of the most rewarding experiences of my undergraduate career," Parker recounted. "I gained connections and mentors who provided invaluable support that led to future internships and aspirations." Since working in the sorghum industry, Parker has completed two congressional internships, a successful term as the K-State's student body president and graduated with a bachelor's degree in agricultural economics.

"My connections from the sorghum industry have continued to enrich my life. This summer, I caught up with many friends and colleagues at the Global Sorghum Conference in Montpellier, France," continued Parker, "I expanded my sorghum network to all over the world." Parker is now pursuing his master's degree in agricultural economics at K-State focusing research on sorghum specifically as part of a larger farm income and financial stress model. Ultimately, his plan is to help finalize and deploy this model as a tool for decision-makers to enhance support for the industry.

Adelaide Easter of Salina, Kansas, is the latest graduate of the Kansas Sorghum Fellowship. She recalled how significantly she grew during one semester.

"I grew a lot during one semester learning about sorghum's health benefits to policy issues essential to sorghum producers," Adelaide said. "I was surrounded by people who wanted to do whatever they could to help me, giving me advice, teaching me about a topic or helping me think of the next steps for the future. I felt supported in my aspirations."

She is currently completing a congressional internship in Washington, D.C. She plans to return to K-State as a junior studying agricultural economics and Global Food Systems Leadership.

Each sorghum fellow receives a book called *Surviving Inside Congress* and each week, "I learned about the inner workings of government," she continued. "After just finishing my fellowship with Kansas Grain Sorghum, I am interning in Washington, D.C., for Senator Jerry Moran from Kansas. This opportunity is enabling me to see firsthand what issues affect Kansas and how the Senator and his office advocate for Kansans."

The U.S. sorghum industry values the collaborations necessary for its advancement into the future. Whether with allied advocacy groups concerning effective farm policy, industry partners enhancing crop profitability or within academia fostering the next generation of top agriculturists—the Kansas Sorghum Fellowship program hits the mark. 🌾



NEWSLETTER

sorghumcheckoff.com | Summer Edition 2023

United Sorghum Checkoff Program Celebrates 15 Years of Innovation

Sorghum industry leaders celebrated a milestone July 1, 2023. The date marked the 15th anniversary of the United Sorghum Checkoff Program, the leading producer-funded marketing and promotion board that champions the sorghum industry in the United States. Since its founding, the Sorghum Checkoff has dedicated its efforts to advance sorghum profitability through innovative research, promotion and education.

“We’ve made significant strides in the past 15 years, and we’re deeply committed to continuing to advance the crop for U.S. sorghum producers and end-users across the world,” Sorghum Checkoff CEO Tim Lust said in the press release. “Our 13-member board of sorghum producers located across the U.S. has invested over \$46 million into research aimed at optimizing sorghum as a robust, profitable crop for several value-added end-use markets. These strategic projects and collaborations in research, education and market development have been pivotal to the sorghum industry’s success and are anticipated to stimulate further growth.”

Over the past decade-and-a-half, the Sorghum Checkoff has made significant strides, including funneling resources into

cutting-edge research to advance production techniques. Key agronomic milestones include the introduction of the first-ever over-the-top weed and grass control in sorghum, the development of sorghum (sugarcane) aphid-tolerant hybrids and the potential to fast-track breeding methods due to the discovery of doubled haploid in sorghum.

The Sorghum Checkoff has also played a key role in expanding international markets, specifically in countries like China, and has significantly boosted public awareness about the nutritional and environmental benefits, establishing sorghum as a high-value solution to their end-use needs.

A recent return on investment study revealed the significant positive impact of expenditures on the total exports of sorghum by promoting sorghum internationally. Between 2008 and 2021, an approximate investment of \$44.5 million yielded an impressive return of \$376.7 million, reflecting a robust return on investment ratio of 7-to-1. This study also highlighted the Sorghum Checkoff’s investments in crop improvement activities, resulting in a noteworthy increase in sorghum production from 133.3 million to 166.8 million bushels during the same period.

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“Sorghum is a crucial crop for the U.S., and it holds immense potential for growth and expansion,” Sorghum Checkoff Executive Director Norma Ritz Johnson said in the release. “Our work in the last 15 years has laid a strong foundation and promising future for the sorghum industry, and we are eager to continue that success as we amplify our mission to support and promote The Resource Conserving Crop™.”

With a clear focus on the future, the Sorghum Checkoff continues to place a strong emphasis on expanding the demand for sorghum within premium markets. This objective will be pursued through the establishment of robust strategic partnerships, the implementation of compelling marketing campaigns and the provision of targeted technical assistance programs. These efforts aim to not only increase demand but also have a tangible impact on yields and allow for significant growth and progress in the sorghum industry.

Grounded in breakthrough nutritional research, the Sorghum Checkoff plans to promote the potential of sorghum as a healthy, versatile food source for consumers. Simultaneously, the growing pet food market presents a prime opportunity for introducing more sorghum-based products.

On the production side, the Sorghum Checkoff is dedicated to fostering innovative practices and technologies aimed at increasing sorghum yields. This commitment to enhancing productivity will play a crucial role in meeting the rising demand for sorghum. Moreover, the Sorghum Checkoff is actively promoting the utilization of sorghum in various industries, including aquaculture and dairy. By exploring and embracing new applications, the Sorghum Checkoff aims to unlock additional market opportunities and drive further growth within the sorghum industry.

Harvesting Success: USCP Achievements

Crop Enhancement: The sorghum industry has witnessed significant growth thanks to the program’s investments in crop improvement. This initiative has led to increased average yields and the development of superior sorghum hybrids with enhanced yield potential, standability, stress tolerance and disease resistance.

Notable advancements include the introduction of the first-ever over-the-top weed and grass control in sorghum, the development of sorghum (sugarcane) aphid-tolerant hybrids and the potential to fast-track breeding methods due to the discovery of doubled haploid in sorghum. These strides have enriched the overall quality of sorghum crops and equipped farmers with the tools they need to boost productivity and profitability.

Markets of Value: The Sorghum Checkoff has been a catalyst in fostering sorghum sales to China by collaborating with the U.S. Grains Council to address trade issues and carve out new market opportunities. Efforts in market research and promotion of the unique health benefits of sorghum have propelled demand for the sorghum internationally, thereby driving sales. The inclusion of sorghum in the USDA Food Buying Guide is another significant victory, amplifying its presence in the food industry.

Sustainability Efforts: Sorghum has proven itself as the Resource-Conserving Crop™, due to its inherent qualities including heat tolerance, erosion control, water-use efficiency and soil health promotion. The Sorghum Checkoff is dedicated to accentuating these attributes through its commitment to research and innovation.

Leadership Development: The Leadership Sorghum program is the program’s initiative for



cultivating future leaders of the sorghum industry with its sixth cohort already in progress. To date, the program has facilitated leadership training for 85 farmers.

Promotion and Awareness: The Sorghum Checkoff has been effective raising consumer awareness about sorghum's health, nutrition and versatility as a food and feed ingredient, thereby increasing demand. With a consistent presence at major trade shows and events, strategic marketing campaigns, and close collaboration with industry partners, the program continues to enhance the prominence of sorghum in the food industry and the public eye.

Export Sorghum Conference Sparks Global Interest

The United Sorghum Checkoff Program hosted the biennial 2023 Export Sorghum in collaboration with the U.S. Grains Council (USGC), Kansas Grain Sorghum Commission and Texas Grain Sorghum Producers Board. This one-and-a-half-day event attracted 147 attendees, including potential and existing buyers from an array of nations, including Vietnam, the Philippines, South Korea, Colombia, Mexico, Spain, Senegal, Nigeria, Kenya and China.

Serving as an ideal platform for international buyers, Export Sorghum facilitated a comprehensive understanding of sorghum markets providing insights into trade opportunities, contract negotiations, logistics and an in-depth look into U.S. sorghum production. Complementing the conference, the attendees also had the opportunity to witness U.S. sorghum production and its value chain through exclusive tours. These included visits to prestigious institutes like Iowa State University and Texas A&M University, along with various locations around Corpus Christi, Texas, and different parts of Kansas. These tours fostered relationships between U.S. sorghum farmers, suppliers and the international attendees, encouraging potential business collaborations.

The Export Sorghum event is pivotal to fostering U.S. sorghum sales globally by establishing strong ties between buyers and sellers. Further meetings with teams and sellers are in the pipeline, aimed at leveraging the relationships and business opportunities ignited during the event. The success of Export Sorghum reflects the Sorghum Checkoff's commitment to enhancing producer value by broadening international markets for U.S. sorghum.

As we reflect on the past 15 years, the strides made by the United Sorghum Checkoff Program in transforming the sorghum industry stand as testament to the potential of collective effort and strategic innovation driven by producer leaders. As we look forward, the promise of further advancement in this sector shines bright.

For further insights into the accomplishments of the Sorghum Checkoff over the past 15 years, as well as its efforts to enhance the sorghum industry, visit SorghumCheckoff.com/celebrating-15-years-of-innovation.

The delegates engaged in discussions on sorghum supply and demand, its application in feed uses and other new applications. They also had the opportunity to meet more than seven sorghum exporters in one-on-one meetings. These business-to-business sessions allowed exporters to interact directly with representatives who are looking to include sorghum as a high value grain solution to their end-use products.

Adding to the event's grandeur, the USGC brought a delegation to Export Sorghum representing nearly 70 percent of China's total sorghum imports and arranged a post-conference tour for the participants. The team found great value in personally meeting growers and visiting the sorghum fields as it allowed them to gather firsthand information about sorghum production in Texas and Kansas. Additionally, they engaged with USGC members like the DeLong Co., the Andersons and Archer Daniels Midland (ADM) during their visits, facilitating fruitful discussions and the exchange of updates on the sorghum market.



Sorghum Checkoff Amplifies International Presence at Global Sorghum Conference

The Sorghum Checkoff recently made its mark at the 2023 Sorghum in the 21st Century Global Sorghum Conference in Montpellier, France, a pivotal international event for the sorghum industry. The event was attended by Sorghum Checkoff CEO Tim Lust, Agronomy Director Brent Bean, Ph.D., and the Director of Communications Clint White. This gathering brought together an impressive congregation of 406 participants from 43 countries and 147 different institutions, spotlighting sorghum as a critical global crop.

The Sorghum Checkoff's involvement in this conference underscores the organization's commitment to enhancing value for sorghum producers through global collaboration, research and innovation. The conference brought together a diverse array of international experts, creating a fertile platform for the exchange of ideas and best practices to drive the advancement of the global sorghum sector.

The conference's global reach and the high level of engagement underscores the rising global interest in sorghum and reveals a wealth of opportunities for producers. As a leading authority for U.S. sorghum, the United Sorghum Checkoff Program's presence at such influential forums bolsters its mission to champion and enhance the sustainable

and profitable growth of the domestic sorghum industry for the benefit of sorghum growers across the United States.

In tandem with the conference, CEO Tim Lust embarked on a series of farm visits across Europe. By immersing himself in various agricultural settings, Lust gained insights and perspective into the diverse methods of sorghum production there. "Observing the similarities and differences in sorghum production worldwide is always a fascinating experience," Lust reflected.

Looking ahead, Texas Tech University is slated to host the Third Global Sorghum Conference in 2026, a collaborative effort between the United Sorghum Checkoff Program, the National Sorghum Producers and the university. This event will bring together global experts to further advance sorghum research and industry development with a clear focus on driving value and profitability for producers. Aiming to cover key topics related to sorghum and foster international collaboration to benefit sorghum farmers worldwide, the conference aligns perfectly with the United Sorghum Checkoff Program's mission to boost producer profitability and create new markets.

SORGHUM INDUSTRY EVENTS

Sept 12-14 Leadership Sorghum Class VI Session 3
Amarillo, TX

Oct 7-10 Food & Nutrition Conference & Expo (FNCE)
Denver, CO

Oct 17-19 Sunbelt Ag Expo
Moultrie, Georgia

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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Sorghum Shortcuts

National Sorghum Foundation Awards 2023-2024 Scholarships

The National Sorghum Foundation is pleased to announce the recipients of the 2023-2024 scholarships. Three exceptional students have been awarded scholarships totaling \$4,500 to support their educational pursuits in the upcoming academic year.

Shin Myat Naing, the recipient of the prestigious Bruce Maunder Scholarship, is a junior pursuing a double major in agricultural and applied economics and general business at Texas Tech University. Shin grew up in Singapore and realized how heavily her country relied on foreign supplies for food, which has led her to further her education in sustainable innovations for food production and distribution.

Landon Trout was honored with the Darrell Rosenow Memorial Scholarship. Trout is a junior agronomy major at Kansas State University and is from Western Kansas where he grew up working on his family farm. Trout plans on pursuing a Ph.D. and working in research to help farmers in the future.

Clayton Roy Elbel, the recipient of the Bill Kubecka Memorial Scholarship, is currently pursuing a master's degree in agricultural economics and public policy at Texas A&M University. He is from Spring Branch, Texas, and looks forward to pursuing a career focused on agricultural policy with a focus on international trade and global development.



Shin Myat Naing



Landon Trout



Clayton Elbel

Each scholarship winner will receive \$1,500 to support their educational expenses, enabling them to further their academic journey and achieve their career aspirations. The National Sorghum Foundation is proud

to invest in these outstanding students who embody the future of the agricultural industry.

For more information about the National Sorghum Foundation and its commitment to supporting the next generation of agricultural leaders, please visit SorghumGrowers.com/foundation-scholarships.

Successful Conclusion of 2023 Sorghum PAC Series

The 2023 Sorghum PAC Series came to a thrilling close with the highly anticipated Third Annual Sorghum PAC Golf Tournament. Co-sponsored by Alta Seeds and UPL, the event took place on April 29, 2023, at the Mariah Hills Golf Course in Dodge City, Kansas.

The tournament featured a competitive four-person scramble, and one standout team, the Back Nine Bandits, comprised of Tyler Dye, Tate Seabolt, Josh Seabolt and Nathan Ohman, all hailing from Cimarron, Kansas, emerged as the overall winners, leaving their mark on the tournament.

One notable highlight of this year's event was the new location in Dodge City. This more centralized venue provided an excellent opportunity for growers from the surrounding areas to come together and actively participate in the tournament.

The success of the Sorghum PAC Golf Tournament would not have been possible without the invaluable support of our premier sponsors, Alta Seeds and UPL. These companies went above and beyond in their sponsorship efforts, ensuring the event's success and reaching our audience with their message about the significance of every dollar raised. We would also like to extend our gratitude to Sterling Seed for sponsoring the meal and to Meeker Farms and Baker's Acres for their sponsorship of the tournament happy hour.

Looking ahead, mark your calendars for the 2024 Sorghum PAC Golf Tournament, scheduled for April 27, once again in Dodge City at the Mariah Hills Golf Course. We anticipate another exciting and successful event that will bring together sorghum industry leaders from across the region and help us further the advocacy efforts of the National Sorghum Producers. Learn more about the Sorghum PAC at SorghumGrowers.com/sorghum-pac.

The Genetic Advantage

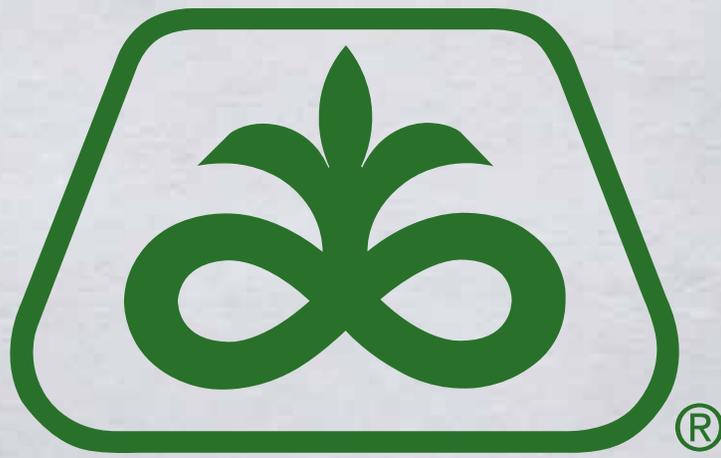
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