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SUMMER 2015

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SUMMER 2015

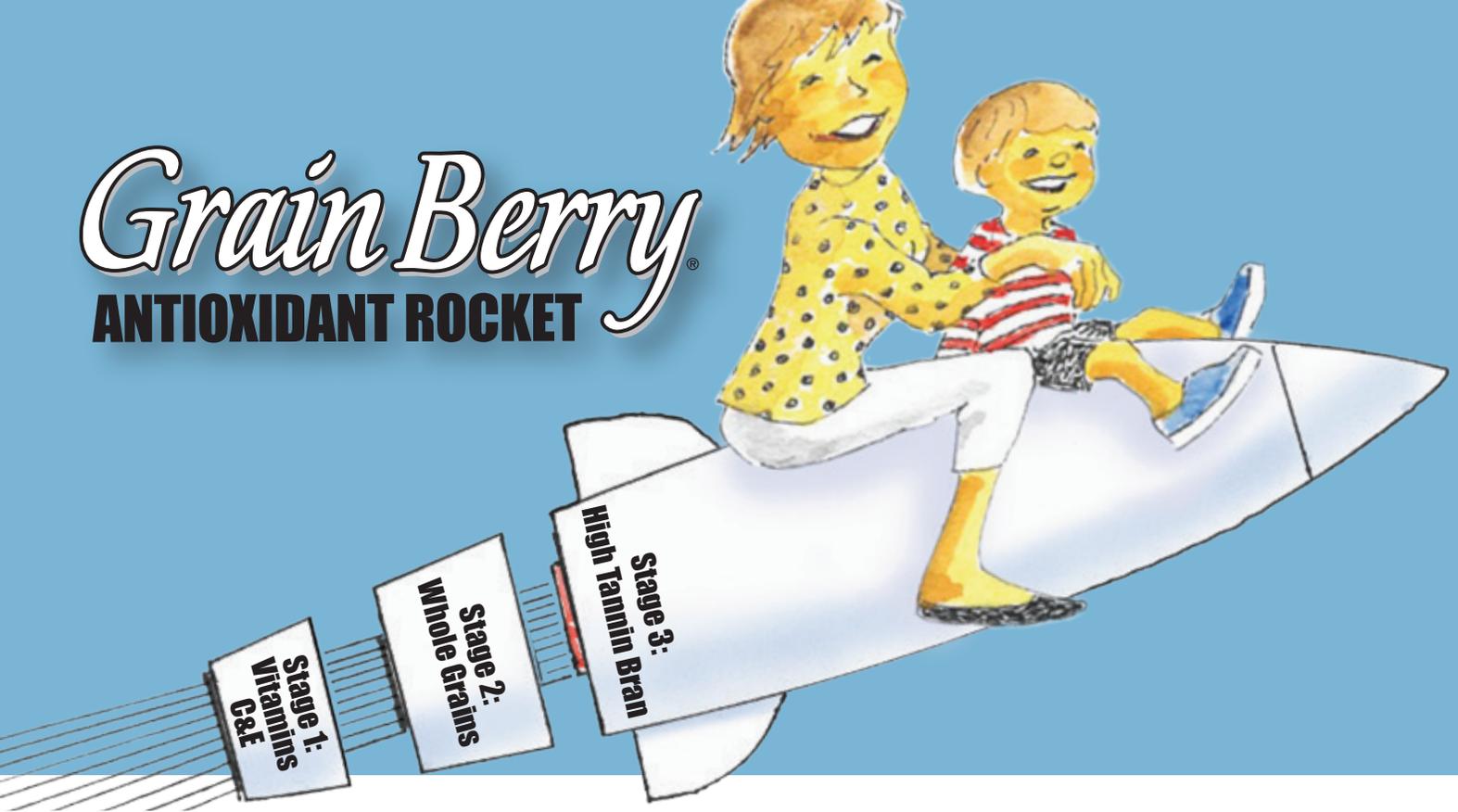


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ON THE COVER: Bryce Wilde of Raymondville, Texas, is the younger of two sons who have returned to the family farm. He joins a number of young men and women seeking success through their family operations. Photo by Jennifer Blackburn.

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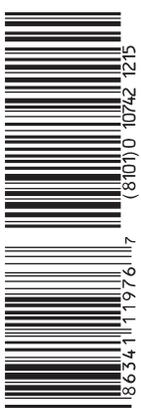
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From the Chairman

Embarking on a New Dawn for Sorghum



As I near the completion of my term as Chairman of the National Sorghum Producers board of directors, I am so pleased to report that our industry is at a new peak in both national and worldwide recognition. I take no credit for this. I am simply blessed to have been in the right place at the right time. I believe these past two years have been the most exciting period for the sorghum industry in modern history. Sorghum producers across this great nation owe a huge thank you to the NSP and USCP staff. The hard work, dedication and enthusiasm of this combined staff is contagious throughout our industry from producers to end-users and consumers. We have a new farm bill that is complimentary to sorghum farmers among other legislative wins for the sorghum industry. We have seen new growth in both Industry Partners and E-member programs, and I fully expect this growth to continue. It seems that all associated with the sorghum industry are enthusiastic to join the trajectory that has been established.

The single most epic accomplishment for the sorghum industry is the resounding approval by our producers of the recent Sorghum Checkoff referendum. An overwhelming 96 percent of our voting producers approved the continuation of the Sorghum Checkoff. With this kind of *boots on the ground* support, the sorghum industry truly has no limits. I thank our staff, national Vote Yes campaign Co-Chairs Kendall Hodgson and Barry Evans, and all the others who worked tirelessly to ensure the Sorghum Checkoff continued and investment in the sorghum industry pushes forward. With the acreage increase expected this coming market year, we could see the largest producer investment in the history of the Checkoff.

As I prepare to exit my leadership position, I simply say, stay tuned my friends. Sorghum's momentum is far from over.

J.B. Stewart
Chairman of the Board

New Chairmen - New Opportunity

By Jennifer Blackburn

As with the new dawn of the sorghum industry, new committee leadership in the U.S. House and Senate has taken a foothold, diving into issues and shaping policy important to sorghum producers and the agriculture community. National Sorghum Producers embraces each of these new chairmen as long-time friends of the sorghum industry and anticipates working through the challenges and opportunities important to our industry that lie ahead in the Congresses to come. Let's meet these leaders in agriculture and our friends on Capitol Hill.



U.S. Senator Pat Roberts—Kansas—Senate Agriculture Committee Chairman

Kansas has a strong agricultural tradition that predates its statehood, and agriculture continues to be a significant contributor to the state's economic well-being. Kansas has been the

No. 1 sorghum producing state for many years and harbors a strong ethanol industry, a burgeoning food-grade sorghum market and many other industries including livestock that depend on this value-added, water-sipping crop.

Senator Pat Roberts, a native of Dodge City, was first elected to Congress in 1980, serving the Big First District in Kansas for 16 years. He was elected to the U.S. Senate in 1996. A long-running proponent for agriculture and a friend of sorghum, Roberts recently made history as the first member of Congress to have chaired both the House Agriculture Committee and now the Senate Agriculture Committee. He has also served as the ranking member of each committee.

"I am thrilled to lead the Senate Agriculture Committee in the new Congress," said Sen. Roberts. "We have some important business to attend to this session, including Farm Bill implementation, the Commodity Exchange Act, Federal Grain Inspection, Mandatory Price Reporting and Child Nutrition reauthorization."

"In Kansas, our economy relies on agriculture. As Kansas consistently leads the nation in the production of grain sorghum, there's no doubt that our sorghum producers are vital to that success. As Chairman, I am proud to represent production agriculture and will continue to fight for policies that provide producers certainty through a strong safety net, including sound risk management tools, while also preventing over-regulation. We will continue to put producers first."

Roberts is deeply rooted in western Kansas and continues to surround himself with exceptional staff who likewise have rural roots. Roberts has always been and continues to be a rock-solid champion of crop insurance as one of the principal authors of the 2000 crop insurance bill. The political landscape for agriculture will undoubtedly continue to present tough challenges, but Roberts is a veteran lawmaker, a strong proponent for the industry, and NSP stands ready to work with him in meeting these challenges head on.



U.S. Senator Jerry Moran—Kansas—Senate Agriculture Appropriations Subcommittee Chairman

Prior to his election to the U.S. Senate in 2010, Jerry Moran served the Big First Congressional district in Kansas for seven terms in the U.S. House of Representa-

tives. Moran was a senior member of the U.S. House Agriculture Committee and worked on two farm bills, creating a lasting relationship with NSP and Kansas farmers as he worked to ensure farms and ranches remain viable in today's global marketplace. Specifically beneficial to sorghum, tireless work took place in the 2008 Farm Bill to fix price elections in crop insurance—a \$35.6 million value to Kansas farmers from 2010-2014.

“As the nation's leader in sorghum acres, Kansas is directly impacted by the positive developments in the industry over the past several years,” said Sen. Moran. “New and expanded export markets in China and other countries abroad have pushed the price of sorghum to new, higher levels. In addition to foreign markets, sorghum's advanced biofuel status makes it an important component of our renewable energy policies here at home. I'm excited about the future of sorghum production in Kansas, especially as a water-saving crop, and appreciate the relationships I've developed with sorghum farmers from across the state.”

Now as chair of the Agriculture Appropriations Subcommittee, Moran is focused on investing in policies that promote agriculture research and extension and farm bill implementation—all critical interests of NSP and the sorghum industry.



**U.S. Congressman K. Michael Conaway—
Texas District 11—
House Committee on
Agriculture Chairman**

Situated at the southern tip of the Great Plains and stretching from the edge of the Chihuahuan Desert to the Texas Hill Country, 29-county District 11 is one of the most diverse in the Sorghum Belt. Its landscape is dominated by wind turbines and pump jacks scattered across fields and open range. The district is home to about 70,000 acres of sorghum, the majority of which go to feed the district's significant cattle herd. Long considered a stronghold of the sorghum industry, several parts of District 11 are known for their extensive use of the crop in rotation with cotton.

Mike Conaway was first elected to the U.S. House of Representatives in 2004 and became chairman of the House Committee on Agriculture at the beginning of the 114th session. Chairman Conaway believes in lower taxes, a small



government and strong national security. He has emphasized proper implementation of the 2014 Farm Bill, which he helped write and pass as chairman of a key Agriculture subcommittee, and focuses on aggressive oversight and review of the bill's many facets. Chairman Conaway, a true and steadfast friend of America's farmers and ranchers, believes the success of our food and fiber supply depends on resilient farming and ranching families and strong agricultural policies.

“I was born and raised in West Texas, so I learned early on about the economic and moral value of making a living off the land. Agriculture is the lifeblood of West Texas, but even more than that, farming and ranching is a way of life that instills in all of us, whether we work on or off the farm, the bedrock values of faith and family, patriotism and personal responsibility. Growing sorghum has always been a big part of agriculture in our part of the country because sorghum is a water conserving crop, something that is very important when you farm in a place where it does not rain a lot.”

“My aim as chairman of the subcommittee with jurisdiction over commodities and crop insurance policy and, now, as Chairman of the full Agriculture Committee is to ensure federal policies promote and certainly do nothing to hinder the production of sorghum in so many parts of the country where economically and agronomically sorghum just makes the most sense. I feel very good that we struck that balance in the 2014 Farm Bill and that sorghum is now rebounding to its traditional level of acreage. That means farmers are doing what makes the most sense on their operation. There's still work to be done, but we are on the right road.”

Agriculture will face many challenges over the next few years, making a strong safety net very important to sorghum farmers for the foreseeable future. Protecting this safety net starts with protecting and improving the farm bill and crop insurance, and Chairman Conaway puts particular emphasis in these areas. As a Sorghum Belt native, he understands the issues facing sorghum farmers, and NSP looks forward to working with him during his chairmanship. 🍷

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Sorghum Thrives in a Low-Cost Environment

By John Duff

For many years, sorghum sold itself on lower inputs. A tolerance for drought and an affinity for marginal acres followed closely as top selling points. Though sorghum can get by with less, it really wants more. More fertilizer, more water, better soil and cleaner fields are high on the list. Farmers across the Sorghum Belt are realizing this and turning to sorghum as a primary crop in both lower and higher yield environments. In fact, USDA projections peg planted acres up 24 percent to 8.8 million.

But why would producers, who in the past relied on sorghum chiefly because it needed fewer inputs, look to sorghum as a primary crop? What changed about the value proposition offered by sorghum?

First, compared to other crops, sorghum seed technology has a lower cost associated with it. This is nothing new, but the math is more meaningful in today's environment. Relative to corn, seed savings range from \$56 in lower yield environments to \$116 in higher yield environments. And this gap can grow much wider depending on the technologies used.

Long considered a challenge, fewer available technologies in sorghum have become something of a benefit as technologies in other crops have declined in effective-

ness, enabling sorghum to become a key component in chemistry rotations. In the end, though, a bag of sorghum seed will plant more acres, giving producers a way to save without sacrificing key inputs such as water and fertilizer.

Second, and most importantly, basis has soared to all-time highs in many areas including the traditional Sorghum Belt. In 2014, sorghum producers enjoyed the benefit of a national average price almost 10 percent higher than that of corn producers—one of the highest premiums in 80 years.

Beginning in early 2015, farmers were able to contract new-crop sorghum at these premiums for the first time ever. Basis would eventually rise to \$1.85 over the December corn contract (+185) at Houston. Smaller but significant premiums were available up the Central Plains and into Nebraska and up the Mississippi River and into the eastern Midwest where basis reached highs of +55 in southern Indiana.

In the past, producers growing sorghum had to balance the cost advantages with the price disadvantages. With a large discount to corn, the savings on seed would be wiped out at the elevator. Basis numbers of -100 were not uncommon with producers taking 20 percent discounts in big years. At least for this year, those days are over.

Now that sorghum is competing on equal footing with regard to demand, it is easy to see why producers planted almost nine million acres. So how do total costs stack up to other crops? Was a 24 percent increase in acres warranted, or was it a knee-jerk reaction to high prices?

A quick look at some basic crop budget math shows that sorghum producers everywhere sharpened their pencils this year. Comprised of budgets from top sorghum producers and a little personal experience, the budget table

Sorghum		Corn	
Population	Cost	Population	Cost
30,000	\$ 7	16,000	\$ 63
45,000	\$ 11	20,000	\$ 78
60,000	\$ 14	24,000	\$ 94
75,000	\$ 18	28,000	\$ 110
90,000	\$ 21	32,000	\$ 125
105,000	\$ 25	36,000	\$ 141

	Sorghum	Corn
Yield	120	150
Price	\$ 4.20	\$ 3.90
Total Revenue	\$ 504	\$ 5.85
Seed	\$ 15	\$ 90
Fertilizer	\$ 55	\$ 65
Herbicide	\$ 30	\$ 30
Irrigation	\$ 55	\$ 70
Harvest	\$ 75	\$ 105
Rent	\$ 135	\$ 135
Labor	\$ 35	\$ 35
Crop Insurance	\$ 20	\$ 20
Financing	\$ 35	\$ 35
Other	\$ 30	\$ 30
Total Cost	\$ 485	\$ 615
Net Profit	\$ 19	\$ -30

represents an approximate average sorghum and corn cost and return comparison for the Sorghum Belt.

Among the major spring crops, sorghum took a solid lead early in 2015. For those who marketed early or took advantage of the summer rally, this year could end on a profitable note. And while a margin of \$19 per acre is far from a record for most producers, everyone would agree that cash flowing in a market that could turn bearish at any second is a win.

The cost advantages are clear when broken down at this level. Typically, sorghum has a per acre advantage between \$100 and \$150 when compared to corn, depending on the yield goal of each crop. This can vary greatly across regions and operations, but seed and harvest costs almost always jump out as primary reasons for sorghum's cost advantage. Add in a \$0.30 premium for sorghum (one of the lower premiums seen for new crop this year), and as much as \$0.70 in South Dakota and \$2.25 in Houston, and the crop competes better than it ever has.

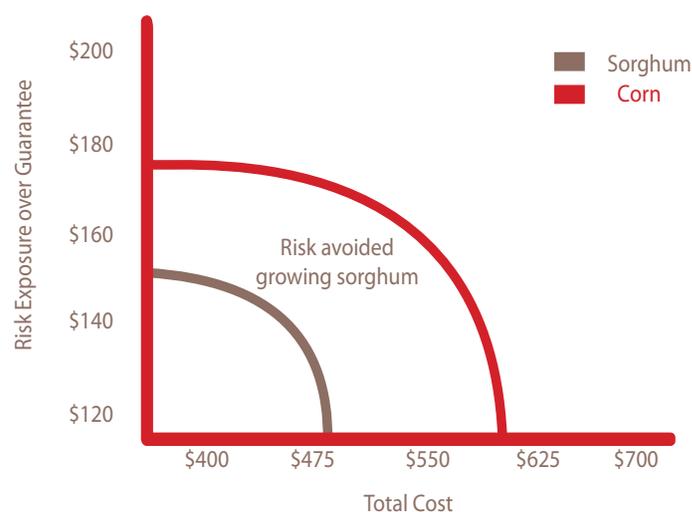
Closely related to cost is risk. Though sometimes difficult to quantify, the risk-mitigating characteristics of sorghum have significant value. In the budget table,

relative to corn, sorghum has a cost advantage of \$130. Put another way, a producer with costs similar to these has \$130 less to lose. In today's markets, \$130 in avoided risk is valuable.

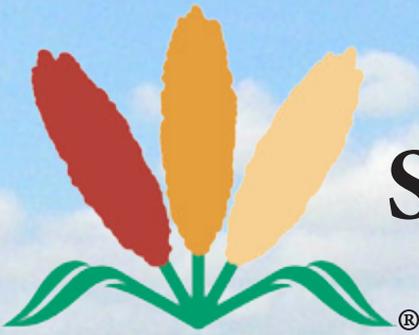
But how much is really at risk with crop insurance protecting the downside, particularly if the corn guarantee is higher than the sorghum guarantee? Stepping through the math, risk exposure is still lower with sorghum, even with a lower guarantee.

Assume actual production history (APH) matches the yields in the budget table and coverage levels selected are 70 percent. With this year's \$3.99 sorghum insurance price and \$4.15 corn insurance price, the sorghum guarantee is \$335 while the corn guarantee is \$436. Compared to production costs of \$485 and \$615, cost risk exposed over the guarantee is \$150 for sorghum and \$179 for corn. A farmer with APH and costs similar to these has \$29 less risk exposed growing sorghum, even with a guarantee of \$101 less.

The modified sorghum and corn risk curves illustrate this. The grey line represents sorghum risk while the red line represents corn risk. The area between the lines constitutes the risk avoided from growing sorghum. Clearly, sorghum offers greater risk mitigation as production costs increase.



There is opportunity to profit from producing sorghum in 2015. The economic environment is much different than it was even a year ago, and this spurred a big jump in acres this spring. It is impossible to say just how high premiums for sorghum will go, but it is clear that with lower costs and lower risk, sorghum will be a smart choice for producers for the foreseeable future. 🐾



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DOE Invests **BIG** in *Sorghum*



SINGLE LARGEST INVESTMENT IN SORGHUM BREEDING HISTORY BRINGS MODERN TOOLS TO INDUSTRY

By John Duff

Things are changing in the sorghum industry. Consolidation in the seed sector, the drought in 2011-2012, an advanced biofuel designation, and most recently, unprecedented Chinese demand have each contributed to a renewed interest in sorghum breeding and improvement.

NSP and the Sorghum Checkoff have spent considerable time educating and advocating for sorghum in the renewables space over the last several years. While many of these efforts have been focused on potential end-users, recent talks with the U.S. Department of Energy (DOE) led to an unprecedented announcement in June. And it didn't come a moment too soon.

Historical Woes

In 1968 west central Texas was sweltering in the July sun. It'd been a tough year. Racial tension was still in the headlines, and the country was reeling from the assassinations of Martin Luther King Jr. and Bobby Kennedy. It felt like the Space Race could end in an American victory pretty soon, but there had been quite a few setbacks.

There was a field day taking place at Wall southeast of San Angelo, Texas, and rumor had it there were problems in some of the sorghum hybrid trials—big problems. A few of the plants actually looked frosted. Wilted, frost-bitten plants must have looked odd in the heat of the summer.

A couple years later the sorghum industry was in the throes of a war against the greenbug. Both public and private breeding resources were singularly focused on the pest, at the expense of almost all other genetic improvements including most importantly, yield.

This marked a turning point for the sorghum industry. Up until this time sorghum yields were keeping pace with corn yields. Sorghum breeders were even making more progress relative to their corn counterparts as the sorghum yield improvement curve was on a steep upward trajectory. Had the trend held, the national sorghum yield would have been 125 bushels per acre in 2014 instead of 68 bushels per acre.

Was the shift in focus away from yield the only culprit in the

decline of sorghum improvement? Hardly. The sorghum industry continued to gain acres into the 1980s even with lagging yields. Then the 1985 Farm Bill changed American agriculture. In two years, a third of the sorghum industry was replaced by acres either devoted to the conservation reserve program, corn, soybeans or cotton.

The remaining acres shifted further west and onto more marginal ground, adding to the industry's woes. Pretty soon, private breeders began to focus more attention on other crops. Though this wasn't the only problem for sorghum, it did considerable damage. The groundbreaking genetic gains of the 1990s and 2000s had profound impacts on almost every major crop, but sorghum was the red-headed exception until now.

Single Largest Contribution

In June the DOE created a new program under the Advanced Research Projects Agency-Energy (ARPA-E) focused largely on sorghum. The

Transportation Energy Resources from Renewable Agriculture (TERRA) program will make the single-largest contribution to sorghum breeding in history with a \$30 million investment. Under TERRA, six projects will focus on high throughput breeding technologies—picture automated in-field plant scanning and marker-assisted breeding.

Investments of \$30 million don't happen every day. In fact, investments of this size don't happen in a lifetime for most developing industries. But TERRA is meaningful mostly due to the technologies its projects will employ.

Make no mistake—this program is radical. It's high technology at its bleeding-edge best. High risks abound, but the payoff, even if it takes years, will be equally high. The toys private breeders have been using for other crops have just arrived on sorghum's doorstep topped with a big green bow. Though it took a while, sorghum breeders will finally be able to enjoy the benefits of advanced breeding technology.

Even so, the best technologies won't work in the wrong

environment. This program won't be a panacea for those attempting to grow sorghum where nothing else will grow. But it will allow sorghum breeders the chance to regain some of the ground they lost over the last 25 years. It will help speed up and make less painful the arduous process currently required to improve the crop. It won't level the playing field, but it will put the sorghum industry back into field goal range.

In its original funding announcement for the TERRA program, the DOE stated, "Although other crops will be considered, this program intends to focus on energy sorghum as a model system because of its potential for improvement through breeding, its resources for genetic analysis, its geographic adaptability, and its commercial utility."

This is a solid affirmation of a point publicly underscored by the Sorghum Checkoff for several years now: Sorghum is perfectly positioned as a smart choice feedstock not only for renewables but for any other market that needs

a high-quality, consistent product that fares well under both harsh and ideal environmental conditions. The crop's genetic diversity is second to none, and this enables well-equipped breeders to produce genetic products

“Sorghum has something for everyone, and the DOE has joined us in proclaiming it.”

tailored to the end-user. Sorghum has something for everyone, and the DOE has joined us in proclaiming it.

The Future

So what's next? Will we see 300-bushel sorghum next year because of this investment? That would be ideal, but genetic improvement is still a slow process. It will be a few years before we see the real impact of the TERRA program, but the single largest investment in sorghum breeding history won't have insignificant impacts.

The age of technology is upon us, and it's likely the age of energy will be dawning next. The sorghum industry now has roots firmly in both worlds at once, helping solve global energy problems while taking advantage of the best modern computing has to offer. Sorghum will continuously improve itself and the world around it, and thanks to the DOE, this improvement will hopefully happen a little faster. Stay tuned. Investments are not over. 🐦

◀ DOE APPROVED. These six projects were recently approved by DOE, marking significant investment in the sorghum industry.

CLEMSON UNIVERSITY – CLEMSON, SC – \$6 MILLION

Breeding High Yielding Bioenergy Sorghum for the New Bioenergy Belt

DONALD DANFORTH PLANT SCIENCE CENTER – ST. LOUIS, MO – \$8 MILLION

A Reference Phenotyping System for Energy Sorghum

PACIFIC NORTHWEST NATIONAL LABORATORY – RICHLAND, WA – \$3.3 MILLION

Consortium for Advanced Sorghum Phenomics (CASP)

PURDUE UNIVERSITY – WEST LAFAYETTE, IN – \$6.5 MILLION

Automated Sorghum Phenotyping and Trait Development Platform

TEXAS A&M AGRILIFE RESEARCH – COLLEGE STATION, TX – \$3.1 MILLION

Automated Phenotyping System for Genetic Improvement of Energy Crops

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN – CHAMPAIGN, IL – \$3.1 MIL

Mobile Energy-Crop Phenotyping Platform (MEPP)

BIN-BUSTING SORGHUM

John and Justin Williams invest in sorghum inputs for winning yields.

John M. and Justin Williams say it's no secret how their third-generation farm won the National Sorghum Producers 2013 Non-Irrigated Bin Buster Award and two first-place state awards.

Intensive input management earned John a winning sorghum yield of 186.35 bushels in White County, Ill. His son Justin used the same tactics to win two first-place state rankings in Hamilton County: a first-place 165.58-bushel yield in the no-till, non-irrigated division, and a first-place 169.23-bushel yield in the mulch, no-till, non-irrigated division.

Growers know raising high-yielding sorghum takes the right combination of genetics, fertility and crop protection. John says the most important thing may be adopting a new mindset about sorghum.



John and Justin Williams ratcheted up management to increase yield.

“There’s a long-held belief that sorghum is a lower-input crop than corn, but domestic and foreign markets often pay per-bushel premiums beyond what corn can bring. With a contract to provide quality red sorghum, we get a premium of 40 to 70 cents more per bushel than corn, so it pays to adopt a high-yield strategy.”

Plant Population and Protection

John and Justin started their bin-busting yield quest by planting elite sorghum hybrids and supporting them with

the fertility and crop protection inputs once reserved for corn. But they weren’t satisfied.

Yields began climbing toward 200 bushels when John and Justin boosted their usual 120,000 seeds per acre for hybrids including Pioneer 84G62 to 138,000 seeds per acre. With intensive management, they produced 12- to 13-inch heads without stalk lodging or disease problems. Justin credits crop protection with making that possible.

“After preplant fertilizer, we do an aerial application at flowering of 5 percent foliar nitrogen along with DuPont™ Aproach® fungicide and DuPont™ Asana® XL insecticide,” says Justin. “Adequate fertility for grain fill and reduced plant stress from disease and insect pressure allows maximum yield potential while maintaining high test weights.”

“Our high-yielding sorghum plan will be very similar next season,” says John, “although we might try boosting planting population by an additional 2,000 seeds per acre. We can still do better.”

Disease Management Boosts Yield

Todd Robran, DuPont Crop Protection fungicide and insecticide portfolio manager, agrees that foliar disease management can make a big yield difference. “Our multi-state sorghum test plots are showing 10 to 15 percent yield increases with Aproach® fungicide. An aerial application of Aproach® at flowering provides preventive and curative protection from key diseases such as gray leaf spot and common rust. This preserves green leaf tissue for better photosynthesis and grain fill, and reduces stalk lodging for easier harvest and cleaner grain.”

He says high plant populations could make Aproach® even more valuable. “A dense leaf canopy often holds moisture to create an environment that favors disease and can prevent some fungicides from getting to areas of the plant. Aproach® compensates for that because it moves systemically throughout the entire plant, even if only applied to upper leaf surfaces.”

For more information, visit aproach.dupont.com.

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From the Field

Joe Pennington, 65 *Raymondville, Texas*



1. Reflecting on planting, what management decisions paid off this year?

Our goal is always to get planted as early as possible. The wet spring this year made that a challenge and was not possible. We actually have three planting periods from February through May. But we put seed in the ground with conditions less than favorable. Because of this, we were forced to spray herbicide broadcast right behind the planter. Getting that herbicide down early paid great dividends though.

2. What tools do you utilize for weed management? What works for you?

We like to cultivate at least once, and like I said above, apply atrazine broadcast right behind the planting operation.

3. What is your fertility program?

We apply 80-90 units of N along with one quart of zinc per acre preferably pre-plant. With wet conditions this year, we were forced to side dress with our early cultivation.

4. What is your average yearly rainfall?

Normal is 18-26 inches.

5. On irrigated, how do you optimize your water allocation? How much irrigation will you apply?

We hope on our irrigated farms to get by with one flood irrigation of 4 to 6 inches. Hopefully we are able to accomplish this by having adequate and timely rainfall through the growing season.

Photograph by Jennifer Blackburn

From the Field

Shane Beckman, 33 *Seldon, Kansas*

1. Reflecting on planting, what management decisions paid off this year?

In regard to population, I did not make any changes with 70,000 dropped on good irrigation, 60,000 on limited irrigation and 42,000 on dryland. This year the milo is following corn ground so we applied a rootworm insecticide in furrow. We normally don't apply that.

We are about three weeks later than I would like to be. Normally, we plant around May 10, and this year the irrigated milo was planted June 1 and the dryland June 10. We were behind on planting, will be behind on flowering, and I have some concerns about an early frost. Our delayed planting was due to eight and a half inches of rain in May compared to the normal three and a half inches of average May rainfall. The only true worry with the delayed planting is an early freeze. We have an exceptional stand, especially in the irrigated ground.

2. What tools do you utilize for weed management? What works for you?

We will come in a month before planting and burn everything down. We put down 15 ounces of Banvel to keep everything clean and put down Lumax for our residual herbicide. This year during the first week of July, I had to come back with 2-4-D to spot spray and clean up weeds. Our weed issues are spotty and tend to occur where we apply manure.

3. What is your fertility program?

We came in pre-plant and spread about 120 pounds of nitrogen, 30 pounds of phosphorous and trace elements of sulfur and zinc. At planting we applied in furrow 10-34-0 at a rate of six gallons to the acre and trace elements. Here in about two weeks at pre-heading I will fertigate with 30 pounds of nitrogen. At grain fill to soft dough, we will do another 30 lbs of nitrogen. Through the season, I apply 180 to 200 pounds of nitrogen depending on soil samples. If we have fertilizer carryover from the previous crop that is adjusted in the pre-plant application, I like to keep the fertigation rates the same.

4. What is your average yearly rainfall?

My average annual rainfall is 18-19 inches, but in recent years it has been more around 14 to 15 inches. This year we have had 10.5 inches including the 8.5 inches in May.

5. On irrigated, how do you optimize your water allocation? How much irrigation will you apply?

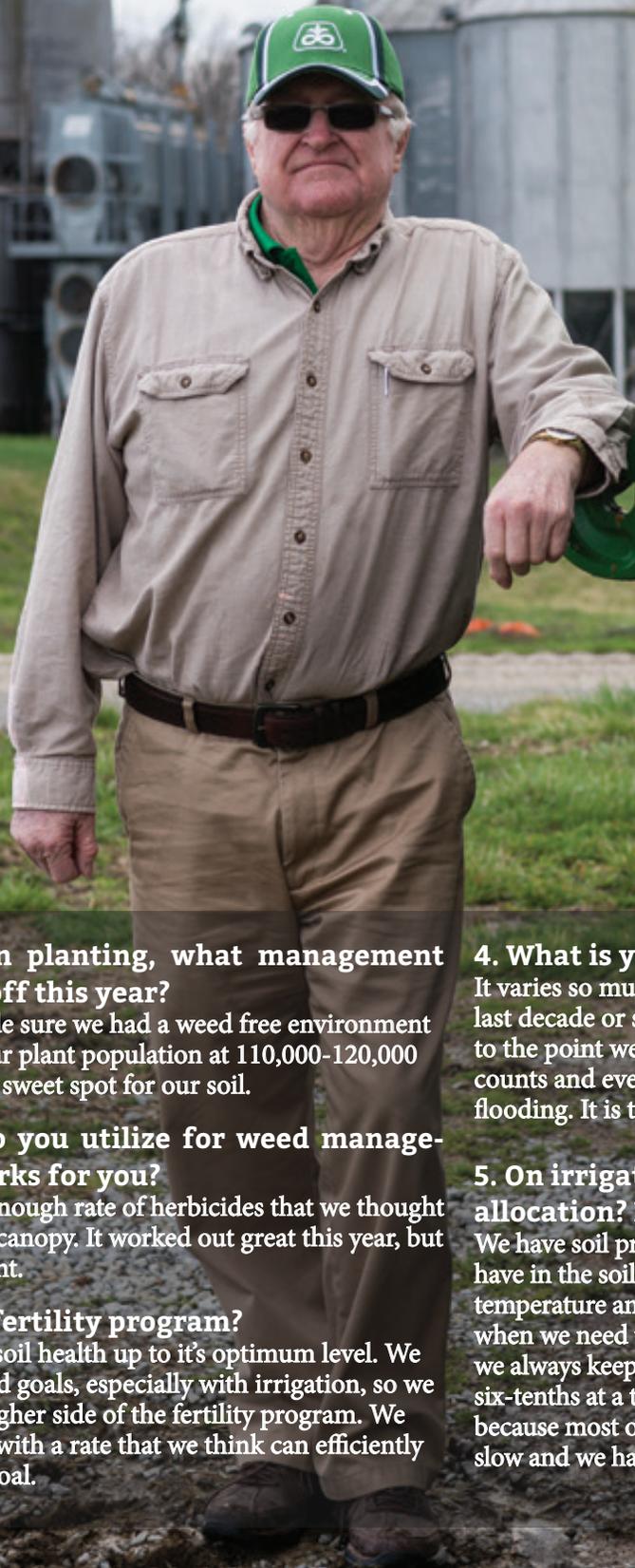
For full irrigated milo (9 inches) the yield goal is 200 and on limited irrigated milo (6.5 inches) the yield goal is 170 bushels per acre.



Photograph by Josie Alexander

From the Field

Scates Family Shawneetown, Illinois



Photograph by Steve Glover

1. Reflecting on planting, what management decisions paid off this year?

We are glad we made sure we had a weed free environment at planting. Also, our plant population at 110,000-120,000 still seems to be the sweet spot for our soil.

2. What tools do you utilize for weed management? What works for you?

We applied a high enough rate of herbicides that we thought would last through canopy. It worked out great this year, but every year is different.

3. What is your fertility program?

We try to keep our soil health up to it's optimum level. We have fairly high yield goals, especially with irrigation, so we tend to be on the higher side of the fertility program. We just try to come up with a rate that we think can efficiently get us to our yield goal.

4. What is your average yearly rainfall?

It varies so much from year to year and field to field this last decade or so. This year we have had way too much to the point we have lost nitrogen and whole field stand counts and even loss of entire fields, as we speak, the river is flooding. It is too late to replant sorghum.

5. On irrigated, how do you optimize your water allocation? How much irrigation will you apply?

We have soil probes that help us understand what water we have in the soil profile along with plant growth stage and temperature and humidity reports that all help us to manage when we need to irrigate along with lots of experience that we always keep acquiring. We typically can only apply about six-tenths at a time with our overhead sprinkler center pivots because most of our soils are tight and the infiltration rate is slow and we have runoff if we try to apply more than that.



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A New Generation

Young Farmers Find New Promise Returning Home

By Kelli Fulkerson

Many farm kids spend their adolescence dreaming of the day they will return home to the farm and continue their ancestors' legacy. For past generations, the structure of family farms was much simpler.

A new generation of 21st century farmers will face more issues than ever seen before – globalization, higher capital and financial requirements, overreaching government regulations, consolidation and advancements in technology to name a few. Not only will young farmers need to be successful financial capitalists, but they will need to possess superior intellectual skills, as well.

Family farms now need to be operated by a diverse team knowledgeable in marketing, technology, finance and production.

The past several years have brought higher commodity prices, affording the opportunity for young farmers and ranchers to return to their family's farms or start a farm of their own. As prices begin to contract, the farming community's talented younger generation must work to make their dream a reality.

Greg Glover, a 27-year-old West Texas farmer, grew up surrounded by his Uncle Warren's stocker cattle and sale barn operation in north Texas.

"I knew I wanted to be involved in production agriculture someday," Glover said. "Unfortunately, there wasn't a farm to return home to. I knew I would have to start something on my own."

Glover attended Texas Tech University where he met his now wife Vanda, and graduated with a degree in

agricultural education. He taught until 2013 when the opportunity to purchase farmland became available.

"I received a phone call from my father-in-law saying there was farm ground available to purchase," Glover said. "Vanda and I knew this was our opportunity to become involved in production agriculture, and we did."

Even though Glover now owned land, he didn't have the capital to purchase all the necessary farm equipment he needed. This became an opportunity to begin a business relationship with his father-in-law, Lynn Tate.

Tate and Glover began to share equipment, develop new business opportunities and share innovative cropping ideas. Together they developed a rotation system with sorghum silage and irrigated cotton, providing water to each crop at optimal growth stages.

As a West Texas native, Tate knew the silage would be a desired commodity to many of the local feedlots and dairy operations, and Glover saw a new way to increase the crop's yield and ultimately increase overall profitability early in his farming career.

Becoming business partners

Business planning is the most important step for determining a farm's success. It not only helps to formulate what the future of the business looks like, but it also clarifies if the plan and objective is even economically feasible.

Jake, 25, and Jessica, 24, Wyrill are fifth generation cattle and grain farmers of Kirwin, Kansas, and have

◀ A FAMILY AFFAIR. Jessica and her husband Jake with daughter Lexi Jene enjoy working together as a family on their Kansas farm.

established their role as partners in Wyrill Farms. Wyrill Farms consists of seven families and six hired hands.

“With so many family members being active in the farm, we host quarterly family meetings to discuss our business plans,” Jake said. “These meetings allow us to see the families’ different visions and put them together on the farm.”

Jessica’s family also farms in Kansas; however, her family’s business plan didn’t allow her the opportunity to return home to farm. This reality forced her to pursue a different opportunity in agriculture and she decided to attend Kansas State University with aspirations of becoming a wheat breeder.

“While attending K-State I met Jake, and we ended up getting married,” Jessica said. “It was in his family’s business plan for him to return to the farm, which also allowed me to return with him and have an active role in the operation.”

Communication helps farmers stay on track

As with anything in life, communication is key. When a producer is talking about transitioning his or her life’s work to another individual, even if this is a son or daughter, it can potentially be a difficult conversation to have.

Texas Lower Grande Rio Valley farmer Bryce Wilde, 23, has been back on his family’s fourth generation farm for a little over a year now with his mother Julie, father Glenn, brother Hunter, sister-in-law Courtney and soon-to-be wife, Kaitlyn.

“Dad never tried to sway me in any one direction,” Wilde said. “I’ve always loved the way farmers can incorporate their families into their everyday job if they want. I never desired to go anywhere else but back to farm.”

Wilde’s short time home has been rewarding; however, challenges have certainly presented themselves. In four short months the Texas Coastal Bend received more than 30 inches of much-needed rainfall, yet the event was very problematic to the Wilde’s tillage, planting and harvest schedules.

Despite the trials the Wilde family planted over half

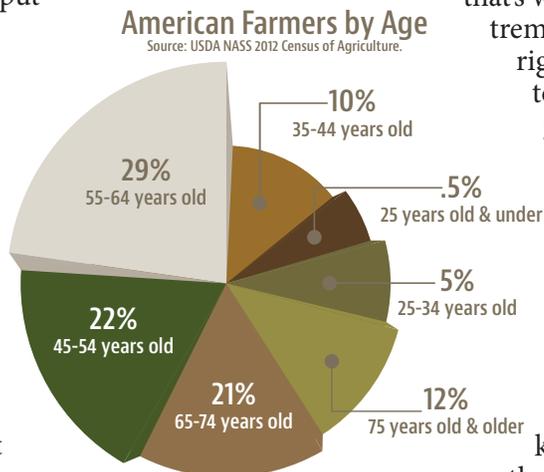
▶ TEACHING SUCCESS. Mark Wiethorn and his sons Matthew and Jason scout for pests in the sorghum field surrounding their home near McGregor, Texas.

of their acreage to grain sorghum, a multi-generation staple crop for their family.

“We all had our own ideas of what needed to happen in order to make the 2015 growing season profitable,” Wilde said.

The conflicting interests presented an opportunity for the Wilde family not only to work through their differences of ideas and opinions but also to increase their farm’s profitability.

“My dad always said, ‘When times are tough, that’s where you’ll find a prime time for tremendous opportunity,’ and he’s exactly right,” said Wilde. “Our family came together in a state of turmoil and set goals, developed guidelines and created roles everyone felt comfortable in.”



Defining your role

Defining roles is important and helps each family member utilize their individual strengths.

Third generation farmer Mark Weithorn and his sons Matthew, 19, and Jason, 17, of Crawford, Texas, know the value of defining roles on their grain and cattle farm.

Both Weithorn brothers wish to return home upon completing their college education. At this time, however, there isn’t enough land to support three full-time managers.

“Transitioning a farm isn’t easy,” Mark said. “I would love for both my sons to be able to return home to farm, but there aren’t enough acres at this time. We’ve begun defining each of their [Matthew and Jason’s] individual roles as well as mine.”

Mark’s focus is optimizing greater return on each acre of land. In the past three years they have put a large emphasis on precision agriculture through soil and yield mapping, variable rate fertilizer, plant population rates and soil testing.



This fall Matthew is headed to Texas A&M University to major in plant and soil sciences, and Mark believes Matthew's time at Texas A&M could greatly benefit the farm in this way even if he finds work outside of the farm and transitions back slowly.

Diversification

No matter the size, generation or geographical placement of a farm, diversification is inevitable. Diversification is special in the sense each farm and person does it differently, and there is no secret to its success.

Kansas is still experiencing a severe drought resulting in Jake and Jessica Wyrill having to develop ways to rotate crops in order to combat weeds. Sorghum has played a vital role in their diversified cropping rotation to assist with weed control.

"Weed control is one of our main not only short term but long term goals," Jake said. "Having a diversified cropping system with sorghum as a rotation is necessary in order to control weeds since herbicides are not always our best option."

Mark Wiethorn farmed grains all of his life and is meeting niche market needs with his grain sorghum but wanted to expand the operation even more and utilize the resources he had available. An opportunity to invest in cattle became an option and now he and his sons are

running a successful cow-calf operation.

"In order for my boys to return and our farm to diversify, we needed to incorporate something different," Wiethorn said. "Cattle fit into our rotation and my one son Jason has really taken a liking to it."

Bryce Wilde's father Glenn has always kept good relationships with the local Pioneer seed representative. In 2014, when Pioneer wanted to plant seed corn in the Texas Rio Grande Valley the representative offered Glenn a contract to plant seed corn. Due to weather delays, Pioneer was desperate for custom harvesters and once again reached out to the Wilde family to see if the sons would have the time to assist with harvest.

"Dad has and continues to create opportunities for my brother and I," said Bryce. "He has always kept good records, clean fields and great working relationships. This is vital to our success in the future."

Family Focus

Aside from the business side of farming there is one common dominator for all farms—family.

"My family's morals and values were what shaped our farm into what it is today," Bryce said. "My dad took his first 500 acres and created the family farm we have today. I can't wait to grow my family and continue to develop our farm into the future." 🌾



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Sorghum Update

Brought to you by the Kansas Grain Sorghum Commission

Kansas, Hard at Work, Building Our Industry

As wheat harvest closes, a crop that once took a back seat on many Kansas farming operations has surged into prominence in many more places.

In Kansas, grain sorghum continues to gain huge momentum.

A recent government report showed Kansas farmers planted much more sorghum this year. According to the National Agricultural Statistics Service, acreage for grain sorghum in Kansas this year was estimated at 3.3 million acres, a 16 percent increase over last year.

Kansas continues to lead the nation in sorghum production, and has experienced consistent demand as it was sought mostly for ethanol production. Additionally, with current water supply issues and proliferation of ethanol plants, it makes sense to grow sorghum in Kansas.

Lately, sorghum is in much higher demand a result of China's growing appetite for sorghum as an animal feed. The Chinese feed sorghum to their poultry and hogs, and also use it to make a whiskey-like drink.

Kansas Grain Sorghum, along with the Sorghum Checkoff, Kansas Department of Agriculture and the U.S. Grains Council hosted three large groups of Chinese sor-

ghum buyers to the state in June and July. The interest for Kansas grain sorghum is huge and continues to grow daily. During the visits, members of the group were shown the entire sorghum industry from planting to harvest to processing.

Chinese grain sorghum interest covers a wide spectrum from bulk grain to processed feedstuffs to DDGs. Kansas is producing exactly what they want, and it is apparent that they are ready to buy.

This new demand has spurred growth and development within the state, and Kansas as a whole is moving forward, working to improve the infrastructure of the state. As you read this article the Kansas Department of Transportation is working to identify locations for transloading facilities. The idea is to strategically locate five facilities across the state that could have the ability to deliver agricultural products via shipping containers. The advantage to our sorghum industry would be huge, reducing shipping costs and allowing flexibility to our end users.

Private entities within the state have also been working diligently to meet the goals set before them. Several new grain terminal facilities are up and running while others are still in the planning stages. Mid Kansas Coop recently opened an amazing terminal in Canton, having the ability to receive grain at a rate of 60,000 bushels per hour and load 110 car-unit trains in a matter of few hours.

The surge in sorghum demand, and higher prices as a result should see the crop make even more of a positive impact in Kansas where farmers know a good deal when they see it. Kansas farmers who have opted for more sorghum in their fields should be rewarded. They know the future of the state's agricultural landscape promises to be brighter with greater sorghum planting and yields ahead.



*Kansas Grain Sorghum Commission, 795 22nd Rd. NW, Lebo, KS 66856
(785) 477-9474, www.ksgrainsorghum.org*

China Demand for U.S. Sorghum Boosts Opportunities for Growers

By Tim Lust and Florentino Lopez

Looking out into the Machong port in China, a Panamax vessel is arriving with a shipment of U.S. sorghum. As the vessel undergoes a routine inspection, a nearby barge arrives to be loaded with sorghum to head up river to a local feed mill. In the midst of all the excitement, one can only imagine what the true potential of the Chinese marketplace is for sorghum.

China's introduction into the U.S. grain sorghum market is monumental. In just two years, China went from purchasing seemingly no sorghum in 2012/2013 to 326 million bushels in the 2015/2016 marketing year. This radical change in the marketplace has led to increased value with U.S. sorghum exports valued at \$677 billion in 2014.

One should always capitalize on new markets when they present themselves. This is what happened with China. The market for sorghum came open and sorghum reacted. The

Sorghum Checkoff, U.S. Grains Council and National Sorghum Producers worked to provide information and capitalize on this opportunity.

During our most recent visit to China, sorghum industry leadership visited with interested buyers and end-users. The sorghum landscape within China remains positive as livestock feeders continue to increase swine and duck inclusion rates.

The U.S. Grains Council indicates swine rations containing sorghum have increased 30 to 50 percent and could expand. The duck feeding industry inclusion rates likewise continue to increase. New uses for sorghum also continue to emerge, the most recent being use in the production of vinegar.

While interest in sorghum continues to expand, we are just beginning to tap into the Chinese market.

Looking at the size and scope of the Chinese marketplace, they are a country with a coarse grains demand of roughly 10 billion bushels. Many reports indicate China's demand could build by about 150 million bushels per year. One can quickly see sorghum's 326 million bushel jump in just two years is definitely significant for U.S. sorghum producers. Small in the grand scheme of China, there's a lot more room for growth.

China's economic advancement is staggering. The World Bank reports annual per capita income in China is less than \$7,400 compared to approximately \$55,000 in the U.S. Just 20 years ago, per

Continued on page 26

► **BUILDING TRADE RELATIONS.** Tim Lust and Florentino Lopez with the Sorghum Checkoff and Alvaro Cordero, Kim Karst and Robert Hurley of the U.S. Grains Council recently visited the Machong Port in China to further enhance trade relations and promote U.S. sorghum.





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capita annual income in China was only \$700. In line with this, gross domestic product is also growing at a rapid rate.

Today, China's GDP is \$10.4 trillion whereas 10 years ago, it was only \$2.3 trillion. Despite huge growth when compared to the United States' \$17.4 trillion GDP, there is tremendous room for China to grow even further.

These comparisons are incredible considering the U.S. is still a larger economy than China with 75 percent less people.

If China achieves even half of the per capita productivity of the U.S. at their current population, they would be a larger economy by approximately 130 percent.

With all things considered, massive economic expansion will

lead to a more protein-rich diet. ProExporter notes Chinese protein consumption has steadily increased over the last 20 years with average current consumption reaching 121 pounds per person. Trends show protein consumption increasing further, reaching 138 pounds by 2020, equivalent to a hamburger and a half per day, lending to a boost of 14 percent.

Critical shortages may also signify a structural change in global agricultural trade. According to the U.S. Grain Council, China currently contains 20 percent of the world's population with less than 10 percent of the globe's arable land and 6-7 percent of the water resources.

Considering nearly 40 percent of the world's grain crop is irrigated and water sources across the globe

are rapidly depleting, sorghum may very well be the crop of the future. Economic factors coupled with critical shortages in China could mean their highest demand for coarse grains yet.

Alvaro Cordero, manger of global trade for the U.S. Grains Council, indicates sorghum now has a foothold in the Chinese market whereas before, it wasn't even a consideration.

Now that China has gone through the exploratory stages and is comfortable with sorghum, it will remain a viable option as long as it is available and the price is competitive.

With all the excitement in the marketplace, rest assured, we will remain engaged and supportive to maintain sorghum's presence in China and other markets both domestic and international.



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Enhancing Grower Profitability Through a Regional Plan

The Sorghum Checkoff is dedicated to increasing opportunities for growth within the sorghum industry and believes regional development is a critical component in achieving that goal.

Through extensive analysis and evaluation, the Sorghum Checkoff has determined the driving force behind most producers decisions to plant sorghum is economic and agronomic impact. Producers want to know how to maximize their return per acre and whether the competitiveness, production and value of sorghum can outcompete other crops in their region.

“A vision was generated by the board of directors with producers in mind,” said Tim Lust, Sorghum Checkoff CEO. “The Sorghum Checkoff recently established a Regional Development Plan to help producers maximize profit and nurture the sorghum industry by increasing acres and the value of the crop.”

The plan involves breaking the U.S. into five unique regions in order to create change on a national level through regional development. These regions include the East Coast, Delta, Texas Blacklands, Eastern Kansas and Western Missouri and South Dakota.

The main component of the plan entails utilizing individuals who have already developed relationships within the region and are focused and capable of implementing change. This individual will assume the position of Regional Development Lead and will have a unique understanding and knowledge of the area and its needs. They will work to become more in tune with farmers’ needs and enhance perceptions of sorghum whether it be from a market or planting perspective.

This position varies greatly from the field staff positions already in place as they work more toward relationship building through general information sharing. Regional leaders duties include assessing challenges and opportunities involved while developing and implementing a plan to reach milestones set forth by the Sorghum Checkoff.

The ultimate goal for the plan is to focus on producer, end-user, and industry education through relationship development and overall improvement of the Sorghum Checkoff goal to increase profitability through demand and productivity increases. The plan aims to increase acres within each region to establish a marketplace that will continue to have a demand for sorghum.

“In essence, the vision of the plan is to establish sorghum awareness in areas with an opportunity to develop producer, industry and end-user relationships that end in maximizing potential profits through the supply chain,” said Florentino Lopez, Sorghum Checkoff executive director. “We hope to establish relationships with both producers and end-users that can build upon that initiative.”

The Sorghum Checkoff Regional Development Plan was approved during the 2015 February board meeting. In order to allow for a starting point of analysis and to limit initial spending, the plan will initially be implemented in two regions – the Delta and the East Coast. Brent Crafton, current Sorghum Checkoff field staff, has assumed the position of Regional Director for the Delta region. The search for a Regional Director for the East Coast is currently underway. ✓

Passing it Down: A Passion for Agriculture

Her days are spent working the ground. As she stares down at her dirty hands, she looks at her watch and realizes it's time to head home to cook supper. She has spent the last 38 years nurturing a family and raising crops on her farm in western Kansas. Being a mother and a farmer is a tough job, but she is proud to wake up and do it all again tomorrow.

Sorghum farmer Brenda Tankersley began farming with her mother in the 1970s and has raised her daughters in production agriculture, as well. Brenda is the owner and operator of her farm and comes from a family where three generations of farm women are present. Contrary to popular belief, the number of female principal farm operators is slowly increasing across the nation, signifying what might be a new era of agriculture on the rise.

The 2014 Agriculture Census indicates 86 percent of principal operators on farms are male. Female farmers in the United States represent less than one-tenth of a percent of the nation's entire population. To put this into perspective, that's one in every 1,000 people. Farming can be a very rewarding career and Brenda said knowing she has a hand in providing for others is something she is passionate about.

"We take care of the land because that's what allows you to make a living and feed multiple people," she said. "I just feel that it's important people realize we as farmers have their best interest in mind."

Brenda has had a long career in farming and said despite the long hours and hard work, she wouldn't want to be doing anything else.

"At the end of the day, I am very thankful I have had good harvests and can be a provider," Brenda said.

Brenda has shared this passion with her daughter, Kelsey Baker, as well. Kelsey grew up farming with her mom and now farms with her husband and children in western Kansas. Kelsey said she wants to pass the lessons she learned growing up farming from her mom onto her children.

"It is a blessing to be able to spend more time with our kids



and instill good work ethics and values in them," Kelsey said. "They will understand production agriculture and be able to grow crops to feed the world if they choose."

Both Brenda and Kelsey both grow grain sorghum, among other crops, on their no-till operations and have found many benefits utilizing sorghum in a rotation. They said uses for grain sorghum seem endless for producers today and the demand for sorghum in the food sector has only continued to increase.

Taking action on the growing market for food-grade sorghum, Brenda sought to meet elevated demand, which she said has improved her operation by adding a valuable crop in her rotation.

"I think there is a lot of potential in the white milo, which is gaining popularity," Brenda said. "We'll be able to fill niche markets with it, and I am looking forward to doing that."

Brenda provides grain for Nu Life Market, a sorghum food supplier, but her relationship with Nu Life Market is more than just supplying grain. Her daughter, Kelsey, has maintained a successful

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Leadership Sorghum: Where are they now?

3

Farmers are getting the rare opportunity to network with other farmers nation-wide, exchange valuable knowledge about the sorghum industry from seed to final product and are exposed to a new world of possibilities within agriculture. This is all made available to producers through the Leadership Sorghum program sponsored by the Sorghum Checkoff.

Since the inception of the program, 30 active sorghum proponents from 11 states have been established through this grassroots effort. Current class members and alumni represent the next generation of sorghum leaders and have already begun to take initiative.

Past and current class members now serve on various committees and boards at both state and national levels. Growers who have been a part of the program have had an overwhelming positive experience and made many valuable connections nationwide.

Kent Martin, Leadership Sorghum Class II member, said this experience has helped him tremendously when assuming leadership roles within the industry. Martin is on the Oklahoma Sorghum Association board and said components of the industry he was exposed to during the program have made a drastic impact on the decisions he makes for other farmers.

“We can better represent growers because we can think about the other components that we aren’t accustomed to thinking about or that don’t come natural to us,” Martin said.

Expanding grower knowledge base is a main objective for the Leadership Sorghum program. Mike Baker, Leadership Sorghum Class I member, said his new-found knowledge

from the program transformed his perception of the sorghum industry in a positive way. In fact, because of time spent in the program, he feels he is more educated to better serve on the Nebraska Grain Sorghum Board.

“It definitely opened my eyes to have experience dealing with different producers and experts we met during the program,” Baker said. “Because of that I was able to bring a lot of knowledge back.”

Participating in this program creates new avenues for growers to use their knowledge to improve not only their individual operations but their neighbor’s farms and even impact the entire industry.

“I strive to help others be better producers, too, and open their eyes to see what we can do to grow a better crop,” Baker said.

Martin said because of this program he has become more confident in interacting with other growers and speaking on behalf of the sorghum industry. His current involvement on the state board is not where Martin plans to stop. Throughout this experience, he is passionate about advocating for the sorghum industry and hopes to assume roles at the national level one day.

“The more relationships that we build and the more people that we know makes us feel comfortable speaking with other farmers and also lets us impact a larger group of people,” Martin said.

The selection of new applicants will begin in early 2016. To learn more about how to get involved in leadership sorghum or to meet the Leadership Sorghum Class members, please visit sorghumcheckoff.com. 

Leadership Sorghum Class I:

Mike Baker, Nebraska Grain Sorghum Board Director

Stephen Bigge, Kansas Grain Sorghum Commission Board Director

Martin Kerschen, Sorghum Checkoff Board Director

Luke Sayes, NSP Legislative Committee

Adam Schindler, NSP Legislative Committee

Jordan Shearer, NSP Legislative Committee

Leadership Sorghum Class II:

Daniel Atkisson, NSP Board Director

Carlton Bridgeforth, Sorghum Checkoff Board Director

Nathan Larson, Kansas Grain Sorghum Commission Board Director

Kent Martin, Oklahoma Sorghum Association Board Director

Craig Poore, Kansas Grain Sorghum Producers Association Board Director

Lance Russell, Kansas Grain Sorghum Producers Association Board Director

Passing it Down, Continued

owner-to-son transition for the life while working the farm with her father.

Missy's unique position as the life-tenant for 10 years gave direct-market-gain options including, selling to a family-owned company for the first seven years, Missy's ability pass her valuable knowledge over her son, further education opportunities with options.

"There are many things we can do for you."

Brant Bean Named Sorghum Checkoff Agronomist



Brant Bean, Ph.D., was recently named the representative for the Sorghum Checkoff. In Florida, Bean will provide leadership for the sorghum industry in identifying critical sorghum agronomic issues and helping implement national and regional level programs that provide best practices. His efforts will focus on grain, forage, and animal health programs.

"It was an honor to welcome Brant to the Sorghum Checkoff team," said Florida Sorghum Checkoff executive director "Brant brings a wealth of experience in the sorghum and sorghum products for the industry that will help the Sorghum Checkoff realize its goals and help the sorghum producing producers prosper."

Bean formerly was the director of programs for the Florida Sorghum and Sorghum products industry.

INDUSTRY CONTACTS

For more information on sorghum industry products, profitability and related sorghum industry

FOR MORE INFO:

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Communications Director
(877) 888-1007
marksmith@sorghumcheckoff.com

events said, "It's exciting to see my son's involvement."

Brant Bean's plan for the next growing year includes the purchase of a new combine for the sorghum grain and the purchase of a new combine for the sorghum grain.

Missy also plans her retirement with her son and she is excited to have her son working with her and especially to continue the legacy with her son.

"With more, I have a lot to do," Brant said, "and I'm excited, because the more people for sorghum."

research and technological innovation for sorghum and sorghum products.

The Sorghum Checkoff also includes a \$100,000 level of support for the Sorghum Checkoff and Sorghum for more than 20 years. The Sorghum Checkoff and Sorghum for more than 20 years from the University of Florida, and the Ph.D. in sorghum from the University of Florida. Bean has completed a report on sorghum and sorghum production of grain and forage sorghum, sorghum products and sorghum in a sorghum.

"They work very well with producers in their sorghum and sorghum," Bean said. "The Sorghum Checkoff provides a lot of the sorghum and sorghum products for me. I am a strong believer in sorghum, and I believe in sorghum management practices, and I'm excited to help sorghum producers with sorghum products."

Sorghum Industry Events

September 28-29 — Sorghum Harvest Days
Grand Island, Nebraska

November 15 — Leadership Sorghum Conference
Atlanta, Georgia

For more events, visit sorghumcheckoff.com/events

Domestic Market Development Efforts Drive Industry Forward

By Jesse McCurry

While Chinese feed grain demand and the domestic food market capture the headlines in the sorghum industry, National Sorghum Producers and Sorghum Checkoff staff often work behind the scenes to develop and enhance key markets for sorghum.

Over the last year, NSP and Sorghum Checkoff staff have facilitated several meetings between farmers and exporters in the Delta, helping lead to a historic increase in sorghum acres in Arkansas, from 170,000 acres last year to 500,000 this year.

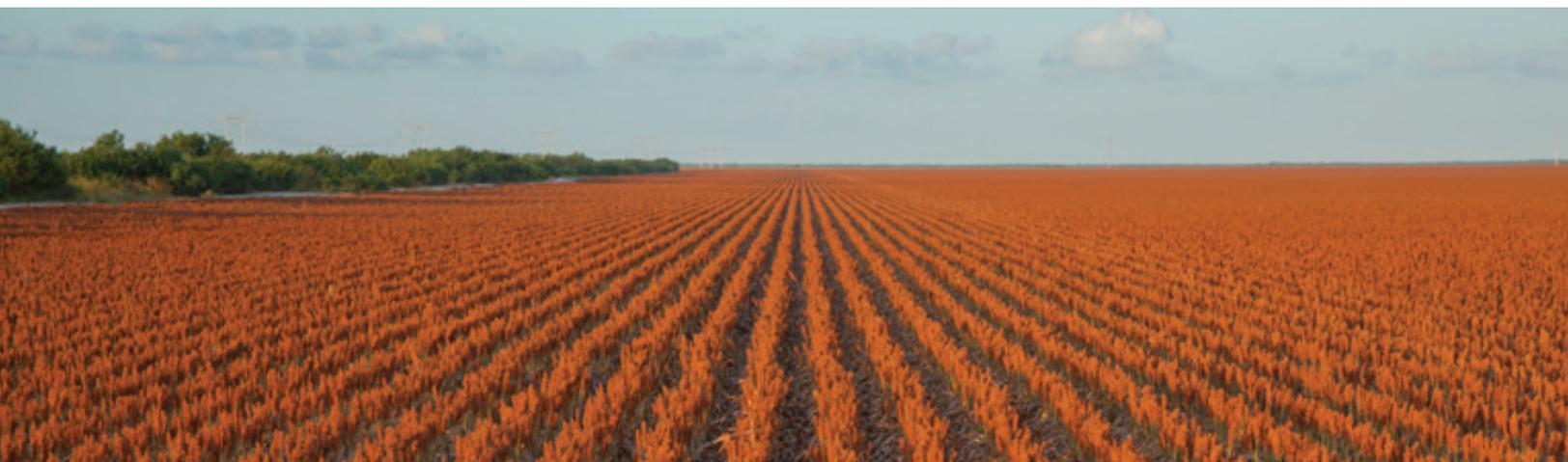
Work to meet Chinese demand is the culmination of over 50 years of vigorous advocacy by the sorghum industry as focused export promotion of the crop began increasing considerably around 1963. Though it is rarely mentioned, NSP was the founding member of the U.S. Grains Council, illustrating the sorghum industry's long-standing history with export markets.

Grain, forage and sweet sorghum farmers can benefit as each crop is needed to meet regional market demand. From ethanol on the Central and High Plains to Delta exporters buying grain for delivery to China, the close proximity of sorghum production to end-users and handlers in these regions allow farmers to capitalize on

the Sorghum Belt's extensive barge, rail and trucking networks. Now it is easier than ever for plains forage producers to manage risk since NSP has added the option of annual forage insurance for eastern Colorado.

Both forage and sweet sorghum can meet the forage needs of beef and milk cows, and sweet sorghum can be used as a feedstock to produce industrial sugars for the region's burgeoning renewable chemicals industry. In the Central and High Plains regions, grain sorghum contributes to beef, dairy, pork and ethanol production. More than 50 percent of the ethanol produced in the southern portions of these regions is typically derived from sorghum. This is more than 330 million gallons of ethanol, equating to about 120 million bushels of demand annually.

Though the ethanol industry has been around for decades with many small, often on-farm plants on the western plains buying sorghum since the mid-1970s, this market has taken off in the last 10 years. Upon the passage of two major pieces of renewable fuel legislation in 2005 and 2007, NSP began increasing efforts to facilitate the use of sorghum in several new ethanol plants. This work paid off as the 120 million bushels in demand contribute about 50 cents to sorghum basis—and have every year since 2006.



One coproduct of this industry, distillers grains, also provides a protein source for livestock. Since distillers grains produced from sorghum are about 40 percent protein, the crop is a leader in this area. NSP and the Sorghum Checkoff have undertaken several projects over the years to shore up this market, as sorghum-based distillers grains historically took a 20 percent hit in price compared to corn-based distillers grains. Today, the two coproducts' uses and price points are virtually identical.

It is often forgotten the cattle-feeding industry came to the Texas Panhandle because of a steady supply of sorghum. After hybridization in the late 1950s, an oversupply reduced prices to historic lows. Cattle proved a ready outlet. The market ebbed significantly over the next few decades, but because sorghum silage uses approximately 50 percent less water than corn silage, sorghum use by cattle feeders is undergoing a renaissance.

Westward expansion is also on the horizon for sorghum. Driving this is drought and sorghum's status as an advanced biofuel. With about 500,000 acres of corn in California, almost 400,000 of which are grown for forage, cattle and dairy producers face an untenable situation in the current environment. Early indications are that a large shift is underway, and sorghum acres will be up significantly in the Golden State this year.

Grain sorghum's attractiveness has also gone up in California after NSP obtained an advanced biofuel feedstock status for sorghum. Last year the Sorghum Checkoff hosted the state's three ethanol producers, Aemetis, Calgren Renewable Fuels and Pacific Ethanol for visits with grain originators in the Sorghum Belt. Both sides have significant interest in working together, as the ethanol producers annually consume about 80 million bushels of grain, each of which could be used to produce almost three gallons of premium advanced biofuel.

"We have the opportunity and obligation to seek new opportunities for sorghum in local and regional marketplaces," said Brent Crafton, Sorghum Checkoff regional director. "We attempt to translate the farmer's desire for more and better markets and the end-user's desire for more stable supply into more bushels leaving the balance sheet and thus higher prices."

Crafton says it is an evolving and sometimes challenging risk, but he says the risk is worth taking.

New uses have also risen in prominence, stealing headlines from the traditional markets like exports,

ethanol and livestock. Often considered a mere showpiece for an industry rooted in livestock markets, food is now seen as a significant demand-driver for sorghum.

The crop's newfound popularity in the culinary world is underscored by the Sorghum Checkoff's close relationship with Iron Chef Marc Forgione, who has headlined two sorghum events in the past year. Behind the scenes, the sorghum industry has been working since 2000 to build the relationships and knowledge base necessary for this kind of success.

"The producer board of directors insists on a well-developed, balanced strategy to build and maintain our industry," said Sorghum Checkoff Chairman Dale Murden. "This includes driving demand in the way NSP and the Sorghum Checkoff do every single day. We are set to end this marketing year with a carryout of only 17 million bushels and a price 108 percent that of corn. This is a testament to farmers and our industry enhancing sorghum demand."

Producers have benefited in direct ways, and market players value resources made available by the Sorghum Checkoff. Missouri-based technology company Enginuity has appreciated the help.

"Enginuity's technology is unique because we can use multiple feedstocks," said Enginuity's Susan McNay. "Sorghum is a new feedstock that we are excited to collaborate and evaluate in partnership as we begin to evaluate the grain. The Sorghum Checkoff has been very receptive in collaboration to prove the viability of sorghum not only in Missouri but wherever sorghum is grown."

Dr. Greg Aldrich, research associate professor at Kansas State University, said individuals ought to pay attention to the pet food market, a \$26 billion industry with room to grow.

"We tend to think of the 375 million pets in America as only dogs and cats," Aldrich said. "One hundred ninety million of the total is dogs and cats. There are a lot of mouths to feed from a number of species. The market expands every year – year after year."

Fortunately, sorghum's share of the market is growing as well. Aldrich is working to advance ancient grains into the pet food lexicon, and he has the experience through success in prior industry work.

"The Sorghum Checkoff called for ways to improve profitability from the pet food market" said Aldrich. "The industry is always looking for a novel ingredient. Sometimes it is right under your nose." 🐾



▲ SORGHUM, GOOD FOR YOUR PETS. Sorghum is now being included in major pet-food brands as a nutrient-rich, health promoting grain.



Sorghum Shortcuts

Sorghum Acres Expand to 8.84 Million

June reaffirmed industry buzz over new U.S. sorghum acre gains as USDA issued its prospective planting report showing grain sorghum acres up 24 percent over 2014 at 8.84 million acres. Kansas and Texas still lead the way with 3.3 million and 3.1 million acres planted, but other huge acre gains were made in many new regions outside the traditional Sorghum Belt like Arkansas where acres went from 170,000 to 500,000. National Sorghum Producers CEO Tim Lust said the increase in projected acres further signifies the sorghum industry is at a turning point. These new acreage increases across the nation are in large part attributed to new demand and favorable price environments for sorghum. ↴

Don't Forget - New 250 Bushel Yield Goal Through NSP Yield Contest

National Sorghum Producers has set a new yield goal of 250 bushels per acre or more to illustrate sorghum's yield potential. All division placings will be determined by yield only.

NSP is offering incentives with support from the United Sorghum Checkoff Program to award growers who reach this new benchmark. First place receives a 3-year pickup lease (Ford, Chevrolet, Dodge, Toyota), second place an ATV and third place a riding lawn mower. To learn more about the contest and prizes, visit sorghumgrowers.com/yield-contest. ↴



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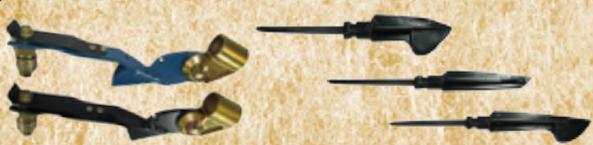
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