Uncertainty.

Recently, we have seen uncertainty in the global economic outlook. This uncertainty has not stopped short of the agriculture sector. In fact, we have started to see a genuine concern from agricultural companies that have started to lower staff numbers as well as futures markets that seem to, for the most part, remain unstable. All this to say that farmers will again be forced to tighten their belts and find ways of reducing costs per unit and hopefully find profit producing market solutions. From the beginning, the Sorghum Checkoff board of directors has been intent on working to help farmers reduce costs per unit by increasing productivity and pushing for diversity of demand to offer more market solutions.

In December, the board reaffirmed this commitment in pushing agronomic and economic assistance with sound funding decisions. These funding decisions topped $6.1 million. Funding for agronomic improvements exceeded $4 million. The lion share of these dollars is intended to bring new materials and genetics into the industry to help increase productivity. The remaining $2 million was invested to reinforce demand and value enhancements. Of these $2 million, roughly one-third was invested into the international marketplace, one-third into the bio-fuels marketplace, and the remaining directed into the domestic marketplace ranging from pet food to livestock to direct consumer reinforcement.

We believe the board’s commitment and desire to move the industry forward will continue to help you, the sorghum farmer. Undoubtedly, some of these improvements won’t be seen for some time, but the work must begin before it can end. Just like harvest comes from planting that single seed, so too is the work being done by your Sorghum Checkoff board. We are planting seeds (investments), looking for a bountiful harvest (profits).

We hope you enjoy reading more about your Checkoff in the following pages.

Florentino Lopez
Executive Director
Sorghum Checkoff
Sorghum gained a lot of attention with media and on social media during the first quarter. Sorghum was mentioned in over 100 articles in both printed and online media, including a cover story in The Furrow, and advertisements ran in the Farm Journal in November. The communications team worked on a number of initiatives with the staff, including the production of an informational sugarcane aphid booklet, preparations for the upcoming Leadership Sorghum program class and updating website content for the upcoming launch of a new Sorghum Checkoff website. This information as well as the utilization of social media keeps farmers, researchers, consumers, industry leaders and others up to date with the latest research and innovations in the sorghum industry.

The communications team joined farm broadcasters and industry professionals at the 72nd National Association of Farm Broadcasters conference in November. The Sorghum Checkoff had the opportunity to participate in the annual convention’s Trade Talk event. Trade Talk gave Vice Chairman Adam Baldwin the opportunity to connect with members of the farm broadcasting community about sorghum’s international and domestic marketplaces, expansive acreage, Department of Energy investments as well as sorghum’s growing place in the consumer food industry.

Two campaigns, Generation Sorghum and Yes, Sorghum Can, were developed in late November to increase awareness within the industry. A series of website banner advertisements increased traffic to the crop improvement section of the Sorghum Checkoff website. Impressions for the two advertisement campaigns totaled 296,470, driving 269 viewers to the website. What does that mean? A farm audience of roughly 300,000 was exposed to the tools they need to maximize production, which can lead to an increase in producer profitability.

The Sorghum Checkoff also announced new promotions and hires in the communications and high value markets departments. Faith Jurek was promoted to consumer communications strategist, Kelli Fulkerson was promoted to Sorghum Checkoff marketing coordinator under the high value markets program, and Michelle Macha, was hired as the communications manager, focusing on crop improvement, agronomy and renewables.
The past quarter represented several significant milestones in the long process of improving sorghum genetics and management. At the most recent board of directors meeting, the board approved funding to start the second five-year cycle for the Reinstated Sorghum Conversion Program. The first five-year cycle was very successful, churning out nearly 150 untapped genetic resources to the sorghum breeding community. The second five-year plan is even more robust with additional molecular work and genetic tracking to ensure the lines released from the program have the highest chance of improving yield, drought tolerance or other traits of value within sorghum. Pending USDA approval, the project, headed up by Texas A&M University, will start in the spring of 2016.

Another major effort of the Sorghum Checkoff is the development of the much needed breeding tool known as double haploids. The partnership with DuPont Pioneer represents a unique investment of sorghum farmer dollars, tackling one of the most limiting factors for bringing new genetic advancements to sorghum - time. Double haploid breeding technology is commonplace on other crop breeding programs and has the ability to save plant breeders up to five years on pre-breeding development and introgression of traits. Having this tool in sorghum would be a tremendous advancement in the speed by which sorghum breeders can develop new hybrids and bring traits like herbicide tolerance to the market.

The three-year partnership started in 2014 has several targets with the primary focus on the development of double haploid technology. Additional project objectives include screening for stalk lodging characteristics and the identification of low or non-tillering hybrids. Significant and positive progress has been made toward these objectives. Several preliminary lines have been identified as possible inducers, which is a major first step in developing double haploids. Several thousand more candidates are being evaluated from the winter 2015 and summer 2016 growing seasons. This positive first step is crucial for a successful outcome of the technology and is arguably the most challenging. We know that stalk lodging and tillering or lack thereof present major agronomic challenges for farmers. Both of these objectives have shown good initial results.

The unique collaboration between the Sorghum Checkoff and Dow AgroSciences has also paid dividends in answering key science and field-based questions regarding the management of the sugarcane aphid. The Sorghum Checkoff and Dow partnered with 22 scientists from 11 states who worked collaboratively to learn more about how sorghum farmers should manage the aphid, rates and effectiveness of various insecticides, and several other key components of integrated programs needed to control the aphid. The Sorghum Checkoff committed $350,000 to this effort and looks forward to final results being tallied in early January. In addition, the Sorghum Checkoff developed a sugarcane aphid booklet, which can be found on the Sorghum Checkoff website.
The first fiscal quarter of 2016 included a number of market development activities, focusing primarily on food, pet food and ingredient/supplement markets. Further expansion into these markets represents immense opportunities for sorghum growers. Appearances and presentations were made at a number of events, including Supply Side West, FNCE and the Petfood Innovation Workshop. In addition, food promotional boxes were sent to 40 culinary chefs across the country, bringing the total number of distributed promotional boxes more than 100.

In conjunction with the U.S. Grains Council, Sorghum Checkoff staff visited five different restaurant establishments in the Los Angeles area to support the USGC Japanese media-sponsored tour for sorghum food promotion. A television show on behalf of the Japanese media contingent was filmed during the visit to Hugo’s Restaurant due to their extensive menu conversion to sorghum. The health benefits of sorghum, costs and versatility have created a major push for west coast operations to include sorghum on their menus. This is due in part to their emphasis on sustainable and environmental considerations due to drought and resource restrictions. Hugo’s will be interviewed by NPR’s The Splendid Table in the near future to highlight these menu revisions that focus on sorghum. To date, Hugo’s is featuring sorghum on eight different menu selections.

With more than 10,000 attendees, the Sorghum Checkoff made its first attempt to showcase sorghum as a natural supplement in the nutraceutical and prebiotic markets during the Supply Side West trade show, a two-day event held in Las Vegas.

Bob Goodband, Ph.D., extension specialist at Kansas State University, submitted his most recent Sorghum Checkoff-funded research for sorghum-based diets on nursery and finishing pigs. The research supports a number of beneficial results for sorghum and swine, including available phosphorous levels, amino acid requirements, soy meal replacement, and feed efficiency equivalency with corn, especially with nursery pigs. The research attributes much of these advancements with enhanced sorghum breeding programs.

Nearly 350 products containing sorghum are now available and more products continue to be developed regularly. Nu Life Market has released an all-purpose sorghum flour in Mid-West region Costco stores. Additionally, Panera Bread has established gluten-free focaccia rolls containing sorghum. These can currently be purchased at Panera Bread Detroit stores.
The first quarter marked another big commitment to sorghum by the Department of Energy (DOE). In December, The agency announced a University of Illinois-led team would receive $5 million from the Advanced Research Projects Agency-Energy. The work will focus on increasing water use efficiency in sorghum, and the multidisciplinary team includes researchers at the University of Wisconsin at Madison, the University of Nebraska at Lincoln, Cornell University and USDA-ARS in Texas.

This project brings the total amount of funding committed to sorghum by DOE in calendar year 2015 to $62.5 million. Recognizing this, the USCP board added to funding already committed to DOE-related work, bringing the total to be invested by the sorghum industry in this effort to $500,000. This represents a significant contribution by U.S. sorghum growers to these forward-looking efforts, while leveraging producer dollars 125:1.

A renewables text message campaign was launched in December in conjunction with Farm Journal that hit on sorghum demand and markets. The initial text, shown below, directed recipients to a landing page on the Sorghum Checkoff website. It was released Dec. 16 to 657 producers in central and western Kansas in response to the concern about large sorghum piles across the countryside and lack of knowledge about current markets for sorghum, specifically ethanol plants. Farm Journal claims a 2.68 percent click-through rate with their text message program. The Moving the Mounds text performed very well with a 5.3 percent click-through rate to the website. Additional texts will be sent out during the second quarter.
Grain sorghum harvest was completed across the U.S. with an all-time high yield set at 76 bushels per acre, despite sugarcane aphid infestations in many areas of the country. Our best estimate is that approximately one-third of the U.S. sorghum acres were infested with sugarcane aphids at levels that warranted insecticide application. Information was sent to extension specialists, seed company agronomists and consultants across the country discussing the residues being set for ALS tolerant sorghum (Inzen Z trait). There are still a few hurdles to cross before we can actually use this technology in the field, but this was an important first step.

In collaboration with Dow AgroSciences, the Sorghum Checkoff allocated $350,000 to sugarcane aphid research for the 2015 growing season. Protocols were developed to answer the seven key questions listed below regarding treatment of the aphids. These questions were sent to various university researchers across the U.S. Dow was responsible for direct contact with individual researchers and making sure the key questions were addressed. Twenty-one different entomologists in 13 states received funding.

Sorghum Checkoff Agronomist Brent Bean and Crop Improvement Director Justin Weinheimer followed up with selected researchers during the summer. Early information collected was used to prepare the sugarcane aphid booklet titled 'Defense Against the Sugarcane Aphid'. Booklets were sent to extension specialists, seed company agronomists and others around the U.S. for use in winter meetings. The booklet has been very well received.

The Sorghum Checkoff requested preliminary presentations from key researchers. These were used to put together a sugarcane aphid presentation sent to consultants, seed company agronomists, and university entomologists and agronomists to use in winter meetings. Dow and the Sorghum Checkoff prepared a survey on sugarcane aphid and other insect management topics that was sent to university participants. The results of the survey will be helpful in giving the checkoff a better understanding of what growers did in 2015 in managing the aphid and other insects.

The collaboration culminated in a sugarcane aphid workshop in New Orleans in January. Presentations on each of the seven keys questions were made, followed by discussion. The presentations have been posted on the Sorghum Checkoff website. In addition, the information was summarized and sent to consultants, seed company agronomists and university entomologists and agronomists for further dissemination to growers. Key topics for research in 2016 were also discussed at the workshop, and plans are being made to not only collaborate in 2016 again with Dow but also Bayer CropScience.

1. What is the optimal spray threshold for sugarcane aphids, which results in optimal yield protection?
2. Do commercial available grain sorghum varieties have native resistance to SCA aphid?
3. What is the baseline susceptibility of sugarcane aphids to the industry standard Transform and other insecticides identified by university scientists/specialists?
4. What is the SCA efficacy of season long programs that incorporate Transform?
5. How can harvest aids be used in combination with Transform?
6. What is the effectiveness of various insecticides on sugarcane aphids in sorghum?
7. What is the effect of various adjuvant classes when used with Transform (and Sivanto) on sugarcane aphid control?
The Sorghum Checkoff regional directors were busy in their respective regions during the first quarter of the year, bringing sorghum growers the latest sorghum research and information as well as developing relationships and partnerships with key industry officials that will lead to future success for sorghum. In Texas, the checkoff was represented at numerous farm shows across the state, including the Amarillo Farm Show and the Mid-Tex Farm and Ranch Show in Waco. The Sorghum Checkoff hosted a booth at both of these shows where thousands of producers gained information on sugarcane aphids, commodity prices and upcoming planting decisions. The Blackland Income Growth Conference was held in conjunction with the show and offered a sorghum segment focused on the sugarcane aphid. Wayne Cleveland with Texas Sorghum Producers spoke at this session.

Regional Director Sarah Sexton-Bowser spoke at the December Center for Sorghum Improvement Lecture. The conversation addressed sorghum industry momentum, farmer perspectives and field level research needs as well as challenged the research community to better understand their role in moving the sorghum industry forward. This seminar complemented a day of hands-on learning and first-hand farming experiences Sexton-Bowser coordinated for Kansas State genetic researcher Geoffrey Morris, Ph.D, and his team at the Cott farm. Sexton-Bowser also spoke to over 40 agronomists during a Kansas Certified Crop Advisor continuing education program, focusing on key production opportunities and challenges facing growers as well as 2016 crop budgets.

Sorghum Checkoff board director David Fremark and Regional Director Jesse McCurry attended the FoodChina Conference in Shenzhen, China. Team Sorghum also met directly with the Foreign Agriculture Service, ADM, Cargill and others in Beijing, Shanghai, Shenzhen and Hong Kong. China remains in the sorghum market, and companies reflected interest in sorghum quality and how sorghum is priced.

Team Sorghum and DuPont Pioneer hosted a sorghum production and market development meeting near Alexandria, Louisiana, in November. Producers had the opportunity to learn about key agronomic considerations, market development opportunities, regional development and Leadership Sorghum from Brent Bean, Ph.D., Doug Bice and Brent Crafton. Cleve Franks, Ph.D., sorghum breeder for DuPont Pioneer, provided an outlook for what is coming down the research pipeline and how sorghum hybrids are developed. In addition, David Kearns, Ph.D, entomologist from the Louisiana State University Ag Center, presented on lessons learned and best management practices to consider going forward to combat the sugarcane aphid in Louisiana.

Brent Crafton met with sorghum growers in the Missouri bootheel throughout December regarding production through supply and demand in the North Delta region. The group identified that up-to-date sorghum hybrid yield comparison data is needed throughout the northern delta region in an effort to provide data to producers when evaluating crop planting decisions for the new crop year. A number of growers in the bootheel region will generally store sorghum for a 2-3 month period prior to delivery. The majority of the sorghum is marketed at county or river elevators, which is then moved down river to NOLA for exports. Other nearby domestic market opportunities includes smaller poultry operations targeting conventional or non-gmo feed grains.
FNCE
USCP staff and former NSP Chair, JB Stewart, manned the exhibit booth targeting the more than 10,000 dietitian/nutritionist attendees for the health-based trade show in Nashville, Tennessee. A cooking demonstration was held at the booth along with distribution of food samples, products, and nutrition-related brochures. Visitors to the booth included Campbell’s Soup, KIND Bars, Post, Kellogg’s, and General Mills to name a few.

Leadership Sorghum Class II Graduation
Leadership Sorghum Class II concluded during the December board meeting in Lubbock, Texas. To date, the Leadership Sorghum program has facilitated growers from 11 states, who bring different perspectives on the sorghum industry, cropping systems as well as their own farming operation structure. This program has been an excellent pipeline for leadership. In fact, Leadership Sorghum alumni and current class members are more involved within state and national sorghum organizations and committees because of the program. Recruitment for Class III has kicked off and the Sorghum Checkoff will be accepting applications Jan. 4 - April 30, 2016. The application and additional information can be found at leadsorghum.com.

Petfood Innovation Workshop
With a strong focus on sorghum as a key ingredient for pet food formulations, nearly 200 participants were involved with this lecture and a hands-on demonstration workshop at Kansas State University. Each of the major pet food manufacturing companies were represented at the workshop, along with entrepreneurs from smaller companies, leaders from trade associations and regulatory officials from various states. Beyond Kansas, the participants came from 22 states and 7 countries, Brazil, Canada, Costa Rica, Germany, India, Mexico and Thailand. A sorghum-based pet food treat was highlighted for participants as part of an extrusion process with Extru-Tech.

Presentations from industry speakers included Kansas Deputy Secretary of Commerce Steve Kelly and Secretary of Agriculture Jackie McClaskey. In addition, Kathy Gross, Ph.D., director of global clinical nutrition and claims for Hill’s Pet Nutrition, and John Kuenzi, CEO of Rubicon Scientific and former president/CEO of premium pet food manufacturer C.J. Foods, shared their insights and experiences with pet food innovation. Kansas State faculty presented their research on extrusion, sensory applications, vitamin degradation, contaminant mitigation, sorghum usage and insect infestation in pet food. Secretary McClaskey made a strong pitch for sorghum as an ingredient in pet food products during her presentation.

2015 Sunbelt Ag Expo
Brent Crafton and Jesse McCurry attended the 2015 Sunbelt Ag Expo in Moultrie, Georgia. Team Sorghum had the opportunity to visit with producers and consumers, alike, to promote the benefits of sorghum in crop rotation and as a grain that is highly suitable to meet demand for consumer, livestock, companion animal and export markets. Grain sorghum is also a valuable feed grain for the high-value game bird feeding and plantation hunting operations throughout the Southeast.