



SOY NOTES

for Kansas soybean farmers

News from the Kansas Soybean Commission — the soybean checkoff | Summer 2021

FFA program connects to every part of agriculture

When you think of where your soybean checkoff dollars go, the return to the farmer by way of research deliverables, added industrial uses and emerging markets usually comes to mind. There is also a small, yet meaningful investment in youth education projects that empower the up-and-coming generations of agriculture professionals.

Commissioners voted unanimously in March to increase the Kansas Soybean Commission's FFA sponsorship to the 5-Star Partner level with \$20,000 invested.

"We think it is a good value for our money," says Commissioner Lance Rezac. "FFA can make a difference in someone's life, and the lives we want to affect are those who may be in agriculture one day."

Rezac, of Onaga, participated in FFA in high school - two decades before he became involved with Kansas Soybean. The program looked a little different when he was active, but the core pieces were still in place.

FFA still went by Future Farmers of America and was popular with both rural students and those who lived in town, Rezac says. It taught valuable lessons on leadership and public speaking and the opportunities for growth were endless. He notes that students could earn the state

degree, become a chapter, district or state officer and gain experience through judging classes and competitions.

Rezac remembers earning his state degree and winning the proficiency award in swine production. The highlight, he recalls, was serving as a district officer and being able to speak with other

agriculture in a positive light in the future as they get involved," he says. "I think they are great spokespeople and it's a good way to invest in our future."

Keith Miller, the district 5 commissioner from Great Bend, agrees that youth education programs are a wise investment. He participated in the Ellinwood FFA chapter

tion board and Farm Bureau boards and now as a commissioner.

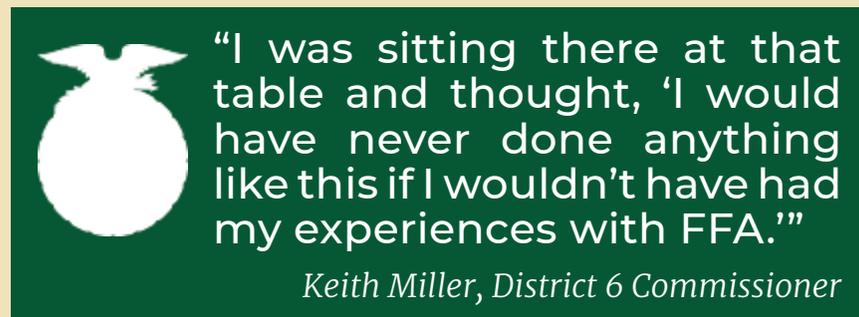
He specifically recalls one USMEF trade meeting in Beijing, China, where FFA positively impacted his leadership, "I was sitting there at that table and thought, 'I would have never done anything like this if I wouldn't have had my experiences with FFA.'"

Miller is a self-proclaimed staunch supporter of youth education programs, saying "It's truly important to keep promoting leadership through the FFA program. We must invest in our youth so they become leaders and our voice as farmers will always be heard."

Looking ahead, Miller believes youth education is crucial to continue forming leaders in agriculture. He sees that young FFA alumni are introducing valuable technology to farms and taking on leadership positions in agricultural organizations.

Ryan Stewart of Washington, Kansas, is one of the young FFA alumni introducing technology on the farm. He participated in FFA from 2013 to 2017, during which he focused on specializing his skills through agricultural proficiency awards. He is now integral in his family's seed dealership.

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FFA chapters in his district through the role. The experience translated well to serving Kansas Soybean on both the association board and commission in terms of conducting professional meetings.

When Rezac looks at current day FFA programs, he recognizes that leadership and public speaking are still essential skills that prepare today's students for their careers. Equipping student with these skills will ultimately bring value to farmers and all of agriculture.

"I think FFA students will do a great job of putting ag-

in high school and was an officer for two years. He recalls competing in many of FFA's events, including livestock and land judging and public speaking.

"A lot of the FFA projects I was doing came through my connections in 4-H," Miller says, crediting some success to early 4-H days. "I just kept going in FFA and it was well worth my time."

Many of the skills learned through FFA are still valuable to Miller today. He says it taught him how to be a leader, a lesson he relied on through positions on the U.S. Meat Export Federa-



AAA summit centers on opportunity



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Attendees at the May 5-6 Animal Agriculture Alliance Stakeholders Summit stepped away with new perspective on adapting to the many challenges animal agriculture is up against.

“The conversation really lived up to the theme Obstacles to Opportunities,” Hannah Thompson-Weeman, vice president of strategic engagement, says. “We talked about the challenges facing animal agriculture and the food system. We wanted to focus on how to turn those challenges into opportunities.”

There was a record-breaking attendance at 594 participants – some of which may be credited to the online format. The two-day schedule featured workshops on animal protein in the diet, animal agriculture’s place in the climate discussion and consumer perspectives on animal welfare.

Misinformation about animal agriculture and meat production was a key topic of the event, Thompson-Weeman says.

“Whether it’s about sustainability or animal welfare

– any of those hot topics – we talked at the summit about why that misinformation is out there, where it is coming from, and what we can do about it.”

Tim Caulfield, professor of health law and science policy at the University of Alberta, led the workshop on fighting misinformation in the midst of COVID-19. He says that the pandemic has become a hotspot for misinformation campaigns created to sell a certain narrative – one that is largely anti-agriculture.

Despite that spread of misinformation, the Animal Agriculture Alliance recognizes one opportunity coming from the pandemic is that many people have a higher appreciation for the food system, farmers and agriculture, according to Thompson-Weeman. She notes that farming climbed up the list of most trusted professions, with a Gallup poll reporting an 11% increase over the year.

To take advantage of that, “we need to be out there sharing positive information, especially about sustainability right now,”

Thompson-Weeman says. Sustainability is currently one of the organizations main focuses. Typically, animal welfare has topped the organization’s priority list; while that is still essential, the sustainability conversation has dominated in the media and industry.

“We are hearing from our adversaries the message that if you care about the planet – which we all do – you need to reduce and ultimately eliminate meat consumption,” Thompson-Weeman says. “That’s not really reality or supported by science, but it’s a prominent message out there.”

Notably, Kansas rancher Brandi Buzzard spoke on a panel about elevating farmer voices. Buzzard is a well-known champion for agriculture and has drawn the attention of many national news outlets while sharing her farming story.

The goal of the Animal Agriculture Alliance is to provide a united voice on behalf of animal agriculture and respond to emerging issues in the animal agriculture sphere.

FFA, cont.

Working in seed sales has provided Stewart the opportunity to visit fellow Pioneer dealers and train them on using drones to monitor fields. Technology is something he picks up quickly, he says, and that has allowed him to lead others in that area.

As for his leadership journey, FFA taught him how to be a self-starter. In his early high school years, he welcomed the guidance of his advisor and then transitioned to helping young-

er students navigate FFA awards in his later high school years. The leadership growth culminated when Stewart became a national finalist for the Star in Agricultural Placement Award post-high school.

Translating skills gained in FFA to the farm, Stewart says, “There needs to be a little self-leadership and motivation on a farm to be successful,” adding “FFA is one of the best ways to prepare yourself for anything in agriculture. It teach-

es leadership whether you farm, are in another agriculture career or not even in agriculture at all.”

FFA is connected into every part of agriculture, Stewart says, so the checkoff investment in the program is well placed.

KSC’s sponsorship package includes continued support of the Fiber and Oil Crop Proficiency Award as well as contributions to the BEST program and pre-service teacher scholarships and more.

Three KS Commissioners continue board leadership

Three Kansas Soybean Commissioners with extensive involvement in the soybean industry retained their positions on the Commission. The March 8 KSC meeting included appointment of two at-large positions and the western districts representative.

“There is a lot that Commissioners are tasked with when it comes to investing check-off dollars for the benefit of Kansas farmers,” says KSC Chairman Bob Haselwood, Berryton. “The knowledge and experience within our team is invaluable.”

Raylen Phelon and Lance Rezac retained their roles as Commissioners-at-large.

Phelon, a farmer from Melvern, grows soybeans, corn, wheat, hay and raises cattle with his son and wife. Phelon has long been a leader in the soybean industry. He first joined the Kansas Soybean Association board of directors as the Young Leader in 2004 and served as KSA president from 2015 to 2016. Following that service, Phelon became a Commissioner in 2018. He current-

ly represents Kansas on the U.S. Meat Export Federation board.

Rezac, a farmer from Onaga, grows soybeans, corn, wheat, hay and also runs a farrow-to-finish hog operation and raises cattle. He farms with his son, daughter, brother and two nephews. Rezac first became a leader in the soybean industry in 1998. He began in the Young Leader program and served on the KSA board of directors, including as president, for many years before joining KSC in 2012. Rezac currently represents Kansas on the United Soybean Board and is on the U.S. Soybean Export Council board through USB.

An appointment was also made for districts 1, 2 and 3. For the Kansas Soybean Commission, those districts in the western third of the state are represented by one individual. Kurt Maurath reprised this role.

Maurath, of Oakley, raises soybeans, corn and wheat and operates a cow calf operation with his brother. He became a Commissioner in

2002. He served as chairman of the Commission from 2016 to 2019 and previously represented Kansas through the World Initiative for Soy in Human Health. Currently, Maurath represents Kansas on the United Soybean Board.

The appointees take their seats on the Commission at the annual meeting scheduled for July 26.

Nine farmer-leaders serve on the commission, each elected by region to a three-year term. Commissioners volunteer their time to oversee the investment of checkoff dollars to improve profit potential for all soybean farmers in Kansas. They attend three meetings annually and participate in conference calls between those meetings. The soybean checkoff reimburses Commissioners for travel and other expenses related to their service.

The 2022 cycle of elections includes districts 7, 8 and 9 in the eastern third of the state. Visit kansassoybeans.org/about-the-commission to learn about the Commission’s objectives.



Top: Kurt Maurath, Oakley, Kansas
Middle: Raylen Phelon, Melvern, Kansas
Bottom: Lance Rezac, Onaga, Kansas

Study proves biodiesel is beneficial for human health

Research has proven biodiesel’s benefit to the environment. Now, a study released by Trinity Consultants in partnership with the National Biodiesel Board shows that biodiesel benefits human health, as well.

Using B100 – pure biodiesel – can decrease cancer risk and asthma attacks plus it can result in healthcare cost savings. The study occurred in 13 communities where diesel is frequently used with transportation and home

heating oil as the focus. When replacing petroleum-based diesel with biodiesel, the benefits were clear.

Researchers concluded the 13 communities would benefit from 340 fewer premature deaths, 46,000 fewer lost workdays and \$3 billion in avoided health care costs annually.

“The result of the study is great news for regions like California and the east coast where there is higher population density and more

traffic,” Dennis Gruenbacher says. Gruenbacher, the district 6 commissioner from Andale, represents Commission on the National Biodiesel Board.

For him, the results are no surprise. “It’s been known that biodiesel has a positive impact on the environment and clearing the air in populated locations. Now we have data to confirm it benefits human health.”

The study used an air toxic-based health risk assess-

ment to analyze fuel sources and translate the results into risk metrics. According to the study’s executive summary, Trinity Consultants used air dispersion modeling to complete the assessment, selecting emission and data models believed to provide the most transparent analysis.

The calculated metrics were compared with the Environmental Protection Agency’s

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Production research kicks off in 2021 growing season

As farmers rolled across fields dropping seed in the ground this spring, researchers rolled up their sleeves to begin or continue production research projects. Production research seeks to improve in-field functionality of crops, pesticides and other inputs to ensure top quality soybeans are grown in Kansas.

Solving SDS and root rot resistance

After hitting a snag in the 2020 growing season due to the pandemic and inability to conduct field experiments, Kansas State University researcher Chris Little says his project is back on track. Little's project examines sudden death syndrome and fusarium root rots – both major yield robber for soybeans.

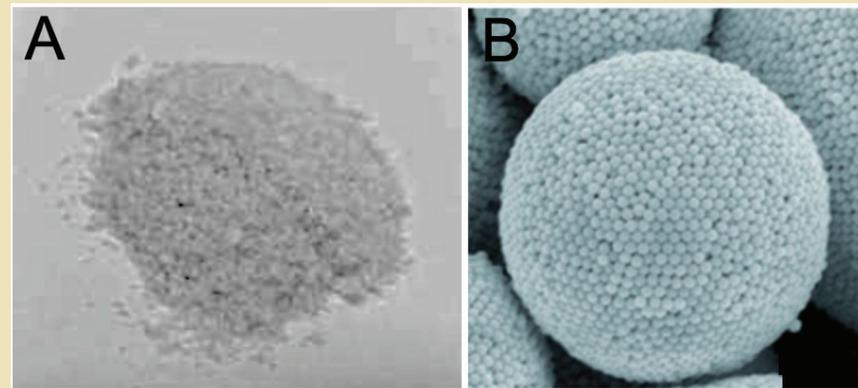
"We've got a full lab staff and full set of experiments going on in the field this year," Little says. "The project tests different types of assays to look at susceptibility and resistance in both soybean commercial varieties and germplasms in the breeding program at K-State.

He notes they have found some susceptible and some resistant materials in the lab and will continue that in the

field in Rossville, Kansas, to screen for field resistance. It is important to evaluate fungicide resistance within the SDS and fusarium pathogens that exist out in the field.

Little explains "we want to test active ingredients in seed treatments to see if there is any resistance in those pathogens to the active ingredients - there's some variability there."

Making M-SSM to improve irrigation



A. Synthesized M-SSM nanoclay
B. Model of montmorillonite coated soybean starch microbead

A project set to start in July examines nanoclays in the soil to maximize irrigation efficiency – something principal researcher Gibum Kwon believes will greatly benefit the western portion of the state.

Kwon works in the mechanical engineering department at the University of Kansas.

Recently he and his team found success manufacturing a new class of nanoclays, called M-SSM, by refining soybean starch into microbeads and dip coating them in the natural mineral montmorillonite. Proof-of-concept testing found that the material can improve irrigation in soybean fields because of its ability absorb, retain and release water.

Though the testing takes place in a lab for the first part of the project, the goal is to move to an outdoor envi-

ronment in the second year, Kwon shares.

With success of the project, he says "communities affected by desertification and soil erosion will benefit."

Wiping out weeds

Sarah Lancaster, Kansas State University extension

specialist, has much to look forward to for her 2021 research projects.

"We are looking at various herbicide field evaluation trials, plus I am really excited about some of the non-chemical weed control trials I'm going to get to be part of," she says.

One in the eastern part of the state will look at cover crop termination timing and planting green versus terminating cover crops weeks ahead of planting. Lancaster says she is excited to see data from that, as she considers it to be a hot topic.

Lancaster also plans to complete some on-farm research in central Kansas looking at non-chemical crop rescue treatments, "things like weed electrocution," she says, adding "I think that will be an interesting study."

Each fiscal year, the Kansas Soybean Commissioners meticulously review and fund research projects that will bring the most value to Kansas farmers. The current year's production research investment is \$524,934. A full list of funded projects' data and objectives are housed at soybeanresearch-data.com under the Kansas Soybean Commission tab.

The infographic features a green background with a blue silhouette of a person's head and shoulders. Inside the silhouette, the text reads: "BIODIESEL CAN REDUCE CANCER RISK BY 45% WHEN SWAPPING OUT ULTRA-LOW SULFUR DIESEL." The logo for "BIO DIESEL" is in the top right corner of the graphic.

Benefits Mapping and Analysis (BenMAP) tool, which determines the economic impact of air pollution-related deaths and illnesses.

The researchers identified target communities with a "broad range of facilities and sources that use large volumes of petroleum." The locations were primarily coastal communities with higher density populations and thus higher exposure to

petroleum pollution.

"It's always excellent to minimize pollution," Grubenbacher says. "That significantly improves human health and it's great that biodiesel can do that."

The National Biodiesel Board shared the results of the study April 29. NBB was a primary sponsor of the research along with several soybean boards and the Cali-

fornia Advanced Biofuels Alliance.

National Biodiesel Board CEO Donnell Rehagen says, "This study quantifies the health benefits and shows that by using renewable fuels like biodiesel and renewable diesel, we are bringing positive change to people's lives, the nation's health and the economy."

Learn more at biodiesel.org.