

THE NORTH DAKOTA **Soybean** VOLUME 13 • ISSUE 3 JUNE 2024 GROWER MAGAZINE



INSIDE:
Changing the Soybean
Processing Landscape

PAGE 16




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NORTH DAKOTA SOYBEAN GROWERS ASSOCIATION

PRESIDENT

Kasey Bitz, LaMoire | D2 | kasey.bitz@NDSGA.com

VICE PRESIDENT

Chris McDonald, Leonard | D1 | chris.mcdonald@NDSGA.com

SECRETARY

Joshua Stutrud, Barton | D7 | joshua.stutrud@NDSGA.com

TREASURER

Spencer Endrud, Buxton | D3 | spencer.endrud@NDSGA.com

DIRECTORS

Dustin Helmick, Courtney | D4 | dustin.helmick@NDSGA.com

Caylor Rosenau, Carrington | D5 | caylor.rosenau@NDSGA.com

Brian Jodock, Northwood | D6 | brian.jodock@NDSGA.com

Michael Doll, New Salem | D8 | michael.doll@NDSGA.com

Andrew Cossette, Fargo | At-Large | andrew.cossette@NDSGA.com

Stephanie Cook, Davenport | At-Large | stephanie.cook@NDSGA.com

AMERICAN SOYBEAN ASSOCIATION DIRECTORS

Josh Gackie, Kulm | josh.gackie@NDSGA.com

Brad Thykeson, Portland | brad.thykeson@NDSGA.com

Justin Sherlock, Dazey | justin.sherlock@NDSGA.com

NORTH DAKOTA SOYBEAN COUNCIL

CHAIRMAN

Chris Brossart, Wolford | D11 | cbrossart@ndsoybean.org

VICE CHAIRMAN

Rob Rose, Wimbledon | D5 | rose@ndsoybean.org

SECRETARY

Mike Schlosser, Edgeley | D3 | mschlosser@ndsoybean.org

TREASURER

Jim Thompson, Page | D4 | jthompson@ndsoybean.org

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Dallas Loff, Wahpeton | D1 | dloff@ndsoybean.org

Ted Brandt, Enderlin | D2 | tbrandt@ndsoybean.org

JP (John) Lueck, Spiritwood | D6 | jlueck@ndsoybean.org

Evan Montgomery, Grand Forks | D7 | emontgomery@ndsoybean.org

Milo Braaten, Portland | D8 | mbraaten@ndsoybean.org

Jeremiah Blahna, Carrington | D9 | jblahna@ndsoybean.org

Adam Redmann, Saint Thomas | D10 | aredmann@ndsoybean.org

Jennifer Meyer, Wilton | D12 | jmeyer@ndsoybean.org

UNITED SOYBEAN BOARD DIRECTORS

Matt Gast, Valley City | mgast85@gmail.com

Darren Kadlec, Pisek | dkadlec@polarcomm.com

Cindy Pulskamp, Hillsboro | cpulskamp@rrv.net

Ryan Richard, Horace | ryanrichardusb@gmail.com

STAFF CREDITS

PUBLISHER/EDITOR

Nancy Johnson, NDSGA Executive Director

nancy.johnson@NDSGA.com | (701) 566-9300

STAFF WRITER

Suzanne Wolf, NDSC Communications Director

swolf@ndsoybean.org | (701) 566-9300

CONTRIBUTING WRITERS

Daniel Lemke

Stephanie Sinner

Jena Bjertness

Miki Miheguli

Shireen Alemadi

CONTRIBUTING PHOTOGRAPHER

Wanbaugh Studios

NORTH DAKOTA SOYBEAN COUNCIL

4852 Rocking Horse Circle South, Fargo, ND 58104

(701) 566-9300 | www.ndsoybean.org

NORTH DAKOTA SOYBEAN GROWERS ASSOCIATION

4852 Rocking Horse Circle South, Fargo, ND 58104

(701) 566-9300 | www.ndsoygrowers.com

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C

ontents

6 Immersed in the Industry

9 Much Appreciated

10 Soybean Symposium
Increases Collaboration

11 The Soybean Surge: North Dakota's
Agricultural Revolution

12 Soy Inside and Out

13 Clean Fuels Alliance America
Launches New Podcast

14 Distant Actions Cause Local Waves

16 Cover Story
Changing the Soybean Processing
Landscape

17 The Growing Focus on Foreign
Land Ownership

18 On a Mission to Tell the Soy Story

20 Getting a Clearer Picture of
Herbicide Resistance

22 Have SOY Much Fun

24 Computing Soybean Yield Loss from
Palmer Amaranth and Waterhemp
Interference

26 Promoting the Tasty Side of Soy

27 Hey, North Dakota Teachers: We've
Got a Great Workshop for YOU!

27 North Dakota 4th Graders Attend
Living Ag Classroom

29 Gackle Testifies at Ag
Committee Hearing

30 Boots on the Hill

D

epartments

4 ND Legislative Update

5 NDSGA President's Letter

8 NDSC Leader Letter

31 Bean Briefs

32 Getting to Know the NDSC
County Representative

33 Getting to Know the Expert

O

n the cover

One of the Cities Area Transit route buses features a new wrap promoting biodiesel while also sporting a fresh set of soy-based tires. North Dakota Soybean Council directors Rob Rose (left) and Evan Montgomery showcase the newly adorned bus that will be seen cruising the streets of Grand Forks.

—Photo by Anna Lemm-Wiegandt



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Interim Committees and Potential Problems

Our state legislators are looking for solutions to some thorny issues during the 20 months between sessions. Legislators always do so, sometimes gaining an understanding which leads to their committees proposing bills to be drafted and ready come January when the 80-day session begins. As I write this article, legislators have not yet been out a full year since the last session, and they have eight or nine months left to wrap up their interim explorations. A well-run interim committee can often learn enough about the assigned studies so that the efforts for turning ideas into law are practical and efficient. Time is short during the session, so people familiar with the issue at hand can help others, who are assigned to different committees, understand before voting on the floor. Of course, more learning happens while each proposed law is taken through a committee in both houses.

Our best legislators are the individuals who take the interim committee assignments seriously, show up and participate. The quality of who we elect will become even more important with the advent of term limits, which is now bearing down upon our state for the first time. Many other states have had these limits imposed, and virtually all legislators I have known as colleagues and friends in those states agree that term limits are detrimental to the process. While there are advantages for new blood, most insiders agree that, with the experience lost when veterans are forced out, state agencies and lobbyists who have been around and know the process gain importance and influence. You may be a fan of term

limits, but that increased influence of agencies and lobbyists is how people in the business of making laws have typified the influence of those limits.

Moving on to the current interim period, there is a big disrupter in the mix that could mess up the plans being made by many of the 27 committees. The disrupter is the proposed ballot measure to eliminate property taxes. At first blush, the idea sounds good, of course. At the elementary level, we all know that the only good tax is the one that somebody else pays. At the responsible level, questions are being asked: "Why even have county commissioners when local control will be gone if the measure passes?" "Where will the money come from?" "Do we really want this currently localized power to be centralized in Bismarck?" While there are many more questions and uncertainty than I can touch upon here, I can tell you that the Tax Relief Advisory Committee has been discussing this situation and will continue to do so during this interim timeframe. As of this writing, the necessary petition signatures, due June 29, have not been submitted to the secretary of state. Then, the validation of those signatures has to happen.

How does one budget with that type of uncertainty looming? The aforementioned Tax Relief Advisory Committee has, for example, discussed expanding the Homestead Credit for property taxes. All that planning and discussion would, essentially, be out the window if there is no property tax. The tax committee has been working on eliminating the marriage penalty for North Dakota's income tax as well as possibly expanding the



Phil Murphy

income-tax brackets, which would result in about 86% of potential taxpayers paying no income tax. Would this idea move forward in the coming session if the elimination of property tax passed? Would the Water Topics committee be able to recommend funding for water projects if many of the main funding sources were diverted to pay what property taxes used to provide? The common figure that I have heard for the needed revenue to replace property taxes is around \$2.6 billion. What happens to road and bridge funding? To my understanding, counties would be limited to the amount levied in 2024. These caps would quickly become obsolete, of course, due to personnel, equipment or other expenses. Many townships (1,300 or so) with snow to clear and gravel to put down would be begging in Bismarck for funding. Therefore, some people predict that, perhaps, the legislature would find it much simpler to eliminate townships and to let counties run things. At any rate, most of the people with whom I speak have little doubt that local control being lost would pretty much be a certainty. The North Dakota Soybean Growers Association has joined the Keep It Local Coalition. For a kicker, remember that rural folks have fewer legislators representing them than the urban dwellers do. For example, Fargo has 10 of the 47 state senators. Remember this food for thought as you ponder signing the petition or voting in November.

Together
our industry thrives

Add your voice to the hundreds of fellow producers. Together we bolster agriculture in our state and influence policy decisions. Make a personal commitment to the health of the soybean industry by joining the NDSGA today.

North Dakota
Soybean
Growers Association

To join us, visit
ndsoygrowers.com

Growing a Legacy

Spring planting is always an exciting time of the year. It's a big step in the process of growing a crop. We spend months planning our rotation, choosing the right seed, organizing a weed-management plan and maybe even marketing some of our crop before a single seed goes in the ground. We don't just scatter some seeds around and hope for the best. Each step we take, from planning to planting to harvesting, is intentional. The concept is the same for the North Dakota Soybean Growers Association (NDSGA).

If we want to continue being successful as farmers and having the freedom to operate, we have to be purposeful when sharing our stories and concerns. We can't expect positive results if we aren't actively speaking about issues on behalf of North Dakota agriculture.

I will be terming off the NDSGA board in June. I joined the board because I wanted to have the opportunity to tell my story and to share what was important to me as a young and beginning farmer. Through my role as a board member and as the NDSGA president, I've had the opportunity to talk with

lawmakers in Bismarck and in Washington, DC, telling them how various policies may affect me and thousands of other farmers like me. I've had the privilege to work with some dedicated fellow North Dakota farmers, and I've met like-minded growers from across the country who aren't satisfied to let others speak on their behalf.

We need more farmers of all ages who are willing to step in, to get involved and to be deliberate about shaping the future of farming in North Dakota. When challenges, such as trade disruptions, transportation concerns, access to crop-protection products or numerous other issues, that could hamper our ability to farm profitably and sustainably arise, we can't afford to linger on the sidelines and hope someone comes to our defense. We need to be intentional and to stand up for what's important to us.

The NDSGA's vision is to create a legacy of successful farmers. We can't do that task very well if we rely on someone else to build that legacy for us. Take the time to shape your own future by becoming an NDSGA member or choosing the next step to consider serving on



Kasey Bitz
President, North Dakota
Soybean Growers Association

Email:
kasey.bitz@ndsga.com

Website:
ndsoygrowers.com

the board. There is strength in numbers, and I'm certain that all of us will feel more certain about our legacy as farmers if we're the ones who are building it.



Membership Application

To join the North Dakota Soybean Growers Association and the American Soybean Association, complete and return this application with payment.

Name: _____

Spouse: _____

Date of Birth: _____

Farm/Company Name: _____

Address: _____

City, State, Zip: _____

County: _____

Phone: _____

Cell: _____

Email Address: _____

Occupation (Please check all that apply)

- ☐ Farmer ☐ Retired ☐ Agribusiness
☐ Finance ☐ Elevator ☐ Other

Do you raise: ☐ Cattle ☐ Hogs ☐ Poultry ☐ Dairy

Do you currently grow soybeans? ☐ Yes ☐ No

Soybean Acres: _____ Total Acres Farmed: _____

How did you hear about NDSGA? (Please circle one)

Recruited in person; Recruited by phone; Magazine;
Internet; Social Media; Mailing; Radio; Event; Other

☐ 3-Year Professional Membership: \$250 ☐ Retired Farmer: \$25

☐ 1-Year Professional Membership: \$110 ☐ 1-Year Student: Free

☐ Check enclosed (please make checks payable to NDSGA)

☐ Credit Card: Visa / MasterCard / Discover / American Express

Card Number: _____

Expiration Date: _____ / _____ CVC: _____

Name on Card (Please print): _____

Signature: _____

Mail application with payment to: North Dakota Soybean Growers Association, 4852 Rocking Horse Circle South, Fargo, ND 58104

A farmer wearing a grey jacket, blue jeans, and a baseball cap is crouching in a field of dry, harvested crops. The sky is overcast.

Immersed in the Industry

Farming is a family affair for Caylor Rosenau. He is a fifth-generation farmer who is working with his dad, brother and uncle near Bordulac in Foster County. Those close ties can sometimes fuel a little familial competition.

In his high school years, Rosenau was very active in FFA, serving as the chapter's vice president during his junior year and the president during his senior year. He was active with career-development events, including ag mechanics, crop judging and farm management, sometimes competing against his older brother for the coveted "baby bison."

"In North Dakota, if you earn a high individual ranking in a career-development event, you get a baby bison trophy," Rosenau explains. "My goal was always to match my older brother who had three baby bison awards. I also have three. It was kind of fun to try to beat him in events."

Rosenau earned a degree in ag systems management and a minor in economics from North Dakota State University. While he was in college, he was also farming at home, regularly making the nearly 300-mile round trip from Fargo. It became obvious that

farming was where Rosenau intended to stay.

"It was a lot of trips up and down I-94. I'm not going to lie," Rosenau says, "I didn't enjoy the classroom so much, but when I got out in a tractor in the field, I realized that's where I wanted to be."

Involvement Needed

After graduating from college and farming full time for several years, Rosenau recognized that something was missing. He

wasn't active in any groups at the time, and he wanted to get more involved. Former North Dakota Soybean Growers Association (NDSGA) director Greg Gussiaas called Rosenau and asked him to consider joining the NDSGA board.

"I joined soybean growers last year, but before that, I really wasn't in anything, and that's what sparked my ambition to get more involved," Rosenau states.

"Greg described what the NDSGA was all about, and I thought it sounded pretty cool. I like the policy side of things. I try to keep my ear to the ground on certain things—everyone has to pretty much nowadays because things in the industry moves so fast."

Rosenau was elected to the NDSGA board in 2023. One area of particular interest for him is the development and use of biofuels.

"That's going to be the next leap of where we try to market our product and get to that next plateau, and I don't think we can overstate that case," Rosenau asserts. "That's going to be where we get the most return on investment for soybean growers in our state. Securing policy to support using oil seeds for fuel like renewable diesel and sustainable aviation fuel is going to help get us to the next plateau for our soybean market, so I would like to see a lot of focus on that issue."

Rosenau is optimistic about the future of the soybean industry in North Dakota, particularly because of the new processing facilities that are operating or are



Foster County farmer Caylor Rosenau is the fifth generation of his family to farm in the Bordulac area.



Rosenau sees soy-based biofuels such as biodiesel and sustainable aviation fuel as game changers for the soybean industry.

about to open. The Green Bison Soybean Processing facility in Spiritwood is now operating, and the North Dakota Soybean Processors plant in Casselton should be crushing beans this fall.

Local processing plants offer a year-round market for soybeans, plus in most cases, the reduced basis is beneficial for farmers.

“Processing has been a game changer, and it’s going to be more of a game changer when Casselton comes online,” Rosenau says. “It’s changing how we use our soybeans. It’s a great opportunity, but there are going to be challenges.”

Speaking Out

In addition to working for growth with the soybean markets, Rosenau is also concerned about maintaining access to critical crop-protection products. Challenges with access to products such as chlorpyrifos and dicamba through government action are an ongoing concern.

“It does worry me because it was a concern when I was buying soybean seed this year,” Rosenau declares. “Regulations on pesticides and herbicides is an issue we need to monitor. We need

every tool in the toolbox that we can get. We can’t afford to have agencies chopping our feet away. We need everything we can get to keep getting these higher yields.”

While Rosenau is most at home while farming, he knows the importance of stepping out to advocate for agriculture. He states that, understandably, most farmers are

happiest when they’re left alone to produce the food, fiber and fuel that the world needs. However, that approach isn’t what’s best for North Dakota agriculture.

“If we don’t tell our story, someone else is going to tell it for us,” Rosenau contends. “I think every farmer needs to get involved in some way, shape or

form. It’s more important now than ever to be engaged because the number of farmers is so low compared to the rest of the population that, if you’re not going to tell your story, someone else is going to tell it for you, and I don’t think our farmers in North Dakota and in the country like that idea at all.”

Because many people across the country and in North Dakota are generations removed from agriculture, advocating for themselves and for farming is important for all growers. While he’s comfortable advocating for soybean issues, Rosenau recognizes that farmers who are familiar with other ag issues also need to make their voices heard.

“There are a lot of things in agriculture that I don’t know about, especially about issues on the livestock side and vegetable side and things like that,” Rosenau explains. “But those sectors need their own voice as well. You have to tell your own story. It’s so very important for our industry.”

—Story and photos by
Daniel Lemke



Protecting farmer access to crop protection products is a key issue for Rosenau.

The Sky is the Limit for North Dakota Livestock

Across the United States, animal agriculture remains the largest customer for soybean producers. According to the United Soybean Board, livestock, including poultry, hogs, beef and dairy cattle, consume 97% of the nation's soybean meal. During the 2020-2021 marketing year, soybean meal consumption by domestic animal agriculture totaled more than 33 million tons.

North Dakota is poised to play a much larger role in feeding the nation's livestock. With the in-state processing capacity growing, we have the potential to not only feed more animals around the world, but we also have the opportunity to grow our domestic livestock production.

Until recently, most North Dakota soybeans were loaded on a train and sent to distant destinations through ports in the Pacific Northwest. Now, we're in a position where more of our soybeans will be processed locally. For many years, soybeans were crushed for the meal they provide. The entire processing dynamic has changed. Soybean oil is now the driver behind the growth with soybean processing as the demand for low-carbon fuels, such as renewable diesel and sustainable aviation fuel, grows. The increased processing means that soybean meal will be readily available to be consumed locally.

The sheer volume of feed that will be available in the state is massive. Over the next decade, North Dakota has the potential to boost its hog population significantly, positioning

itself as a key player in the swine industry. To this point, most of those hogs and other livestock are currently fed outside North Dakota.

The North Dakota Soybean Council (NDSC) proudly supports the state's livestock producers, and our strategic plan includes priorities to help responsibly grow the animal ag sector in the state. Our board regularly receives and funds market development initiatives and research projects designed to support animal agriculture. As directors, we're committed to partnering with the meat and poultry industries in order to increase the demand for U.S. meat exports. We're also working with domestic feeding operations to help them understand the value of including soybean meal in feed rations. With the vast amounts of soybean meal that will be available in North Dakota, we support the expansion of a viable livestock supply chain in the state. The NDSC has and will continue to support projects that provide valuable data that farmers and others can use when considering livestock production expansion efforts.

As a grain farmer with an extensive animal agriculture background, I see domestic livestock production as another source of demand for my soybeans; this market need is not directly affected by tariffs, water levels on the Mississippi River, or export shipping rates. Animal ag generates a local, steady market that has the potential to benefit both the livestock producer and the soybean farmer.

I sit on the NDSC's market development



Evan Montgomery
Director

North Dakota Soybean Council

Email: emontgomery@ndsoybean.org

Website: ndsoybean.org

committee, and its view on this topic is that the more animals which are in the state and are working through the system, the more feed is going to be used. That consumption is good for us as soybean farmers, good for our bottom line and good for the value of soybeans. Livestock production also offers a way for farms to diversify and to bring even more family members into the operation.

It is an exciting time for North Dakota's agriculture sector. I believe that the state's soybean industry is well positioned to support a rapid expansion for the livestock sector.

For more information about the two new soybean crushing facilities in North Dakota, visit Green Bison Soybean Processing's website at greenbisonsoy.com, and North Dakota Soybean Processors' website at ndsoy.com.



Much APPRECIATED

At the North Dakota Soybean Council's (NDSC) March 19 Research Committee meeting, Emmett Lampert, Ph.D., of Wimbledon was recognized for his years of service as a research consultant. From 2015 through 2024, Lampert provided valuable input and expertise to the NDSC's Research Committee. On behalf of the NDSC, Research Committee Chairman Mike Schlosser, left, thanked Lampert, right, for his hard work, service, and commitment to the research program.

—Story and photo by staff



Do You Know Beans?

Attend 2024 NDSU Summer Field Days Featuring Soybeans, and You Will!

The North Dakota State University (NDSU) Research Extension Centers' Annual Field Days show North Dakota Agricultural Experiment Station research in action. The events, featuring speakers, presentations and tours covering a diverse array of topics, take place at the Research Extension Center (REC) sites across the state. The field days are open to the public.

The following dates are a list of the 2024 Field Days events. Please visit the Research Extension Center and Agronomy Seed Farm websites for more details.

- July 8** Central Grasslands Research Extension Center
 - 4824 48th Ave SE, Streeter / (701) 424-3606
- July 9** Dickinson Research Extension Center
 - Morning agronomy tour
 - 1041 State Ave, Dickinson / (701) 456-1100
- July 9** Hettinger Research Extension Center
 - 5:00 p.m. MDT
 - 102 Hwy 12 W, Hettinger / (701) 567-4323
- July 10** Williston Research Extension Center
 - 4:00 – 8:00 p.m. CDT
 - 14120 Hwy 2, Williston / (701) 774-4315

- July 15** Agronomy Seed Farm
 - 5:00 – 8:00 p.m. CDT
 - 15449 37th St SE, Casselton / (701) 793-4743
- July 16** Carrington Research Extension Center
 - Morning and afternoon tours
 - 663 US-281, Carrington / (701) 652-2951
- July 17** North Central Research Extension Center
 - 8:30 a.m. – 12:00 p.m. CDT
 - 5400 Highway 83 South, Minot / (701) 857-7677
- July 18** Langdon Research Extension Center
 - 8:30 a.m. – 12:30 p.m. CDT
 - 9280 107th Ave NE, Langdon / (701) 256-2582



For more info,
scan the QR code





Soybean Symposium Increases Collaboration

This year's symposium featured a farmer panel to discuss soybean production. From left to right: Mike Langseth, Barney; Rob Rose, Wimbledon; Adam Spelhaug, Kindred; and moderator Hans Kandel, Ph. D., retired NDSU extension agronomist.

Carrie Miranda, Ph.D., was a new faculty member and soybean breeder at North Dakota State University (NDSU) in 2020 when she organized the first Soybean Symposium to bring all the NDSU soybean researchers together in order to learn more about what work was being done. Four years later, the annual event continues but on a much larger scale.

"Originally, it was an opportunity for everyone to know what our research interests are and to form some collaborations, Miranda says. "Every year since then, it's grown, and we're getting more people involved throughout the state, including growers and growers' association groups."

The 2024 Soybean Symposium featured presentations about research for soybean breeding, pathology, utilization and new uses. The forum also included poster sessions for students to showcase their research projects. For the first time, the event featured a farmer panel.

"One thing I really try to emphasize to my students is that we are not smarter than what the farmers' needs are," Miranda ex-

plains. "In order for us to do our research successfully, we need to know what the needs of the state are and cater our research and breeding efforts to those needs. What better way to know what farmers need than to hear from them directly."

"Researchers generally know some of the issues that farmers and industry are facing, but when it comes to production specific issues, they're not in the field," asserts Miki Miheguli, the North Dakota Soybean Council's (NDSC) research programs coordinator. "Farmers are the ones who are in the field actually experiencing some of the challenges, production issues, so we want farmers to be in that room so that they can tell researchers what it's actually like to produce soybeans to communicate their challenges to researchers."

Event co-chair Wade Webster, Ph.D., NDSU soybean pathology specialist, contends that there is value in having researchers from various disciplines hear from colleagues about the soybean-related research being done at NDSU.

"Every discipline is going to think about problems a little bit differently," Webster states,

"so there were multiple times in which I saw people swapping business cards because, clearly, there were individuals who could see the value of collaboration in doing impactful applied research to bridge some gaps."

Webster says that sharing information is valuable, but turning the research into actionable items for farmers is an underlying purpose for the work researchers are doing.

"One of the overarching themes from the symposium was the clear emphasis that we have as an organization as a whole to put out applied research. Things that are applicable for farmers to actually use within a short period of time," Webster explains. "Across all of these different disciplines, I think it's really outstanding, and there's going to be an incredible amount of gains from the fact that there's so much investment and interest in soybean production and use."

In addition to NDSU faculty, the NDSC was also involved with planning and coordinating the Soybean Symposium. Miheguli describes how the council's goal for the event was twofold.

"We would like to facilitate more connections among

researchers," Miheguli states. "We want them to learn from one another and possibly find future collaborations, so it's important to have a forum to support researchers. It's also important to support graduate students and give them more platforms to present their work and to connect with their peers and other researchers."

The NDSC regularly invests in a wide range of research projects at NDSU and elsewhere to improve production issues and to increase utilization opportunities for soybeans.

"We're really fortunate here in North Dakota that the checkoff dollars go a very long way and that they are being used to solve real problems," Webster asserts. "Being such a high soybean production region, we have problems, unfortunately, but we have a lot of great opportunities to solve these problems, too."

—Story and photo
by Daniel Lemke

To learn more
about NDSU's
soybean breeding
program, scan the
QR code.





The Soybean Surge:

North Dakota's Agricultural Revolution

Once a peripheral crop with little footprint in the state's vast agricultural tapestry, soybeans have since undergone a transformation, marking a staggering 60-fold increase for production since 1980. Today, North Dakota proudly stands as a leader in U.S. soybean production, consistently ranking in the top five states for acreage and hosting four of the top-ten soybean-acreage counties nationwide. This remarkable growth not only underscores the crop's economic significance, but also highlights the strides in agronomic science and market demand that have propelled North Dakota to the forefront of the soybean industry.

Jena Bjertness, the director of market development for the North Dakota Soybean Council (NDSC), sheds light on this incredible journey.

"I think growth has been driven by genetics improving over the years to make varieties capable

of thriving in North Dakota's climate, coupled with an ever-increasing demand from local and global markets," Bjertness says.

The recent establishment of crush plants, including the first in Stutsman County and another upcoming in Casselton, signifies a demand shift that is set to further elevate North Dakota's status in the soybean sector.

Soybean growth in the state is not only a tale of quantity, but also of quality. The NDSC works with the U.S. Department of Agriculture's (USDA) National Agricultural Statistics Service (NASS) and the Northern Crops Institute (NCI) to conduct an annual Soybean Quality Survey, delving into metrics such as crude protein, essential amino acids, fatty-acid profiles and soluble sugars. This analysis provides buyers with a rich dataset that underscores the quality of North Dakota's soybeans, particularly the high concentration of essential amino acids, which are critical for livestock nutrition.

"Essential amino acid concentrations have been a big selling point with our buyers, especially with overseas feeders of livestock like poultry, swine and aquaculture," Bjertness states. "But it's taken a marketing shift to educate buyers about why these acids are important."

Bjertness adds that, when soybeans have fewer essential amino acids to make up the crude protein, the crop has more nonessential amino acids. Essential amino acids are required for animals to consume through feed, so these are most important to animal feeders.

"You may get more bang for your buck if you're going to formulate based on essential amino acids and formulate to the requirement of the animal versus a more generic measurement like crude protein," Bjertness adds.

In terms of economics, the influence of soybeans in North Dakota has been profound. For four consecutive years, they've reigned as the highest production value crop in the state, with a value of \$2.7 billion in 2023. This

figure, impressive as it is, merely scratches the surface of the soybeans' economic effect, which amplifies as the crop is processed into various products, including soybean meal and oil.

The latter has seen a remarkable reevaluation in recent years, transitioning from a byproduct to a highly sought-after commodity due to the increased demand for renewable diesel.

"In the past, what's driven the value of a soybean is soybean meal," Bjertness asserts. "What we've seen in the last four years is that the value of soybean is now driven by soybean oil, which used to be a byproduct. We have more demand for that oil than we could ever fill, so it's been a huge shift."

The continued expansion of crush plants within the state heralds a new era of growth and opportunity for North Dakota's soybean farmers. With each passing year, the state cements its role as a pivotal player in the global soybean market.

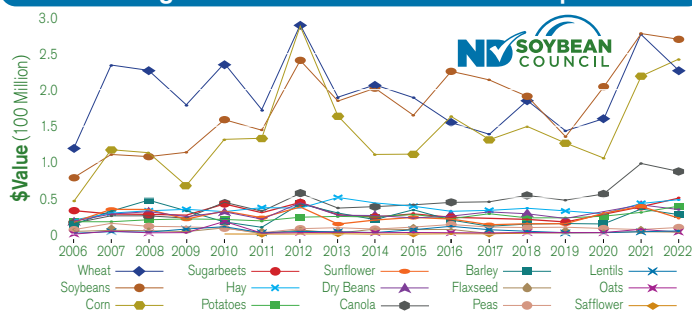
As the North Dakota Soybean Council continues to lead with cutting-edge research and market development initiatives, the future of soybeans in North Dakota shines bright, promising continued growth, sustainability and economic prosperity for the farmers and the global community they serve.

—Story and photo by staff

For more info and to review the latest Soybean Quality Report, scan the QR



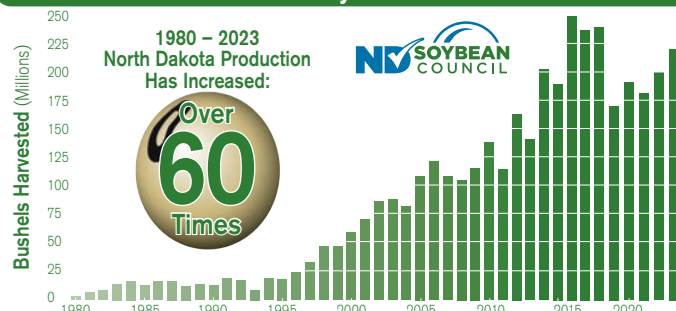
Farmgate Value of North Dakota Crops



©2024 North Dakota Soybean Council

Sources: NASS

North Dakota Soybean Production



©2024 North Dakota Soybean Council

Sources: NASS

Soy Inside and Out



For the past four years, city buses in Grand Forks have run for most of the year with a little something extra in their tanks. Buses operated by Cities Area Transit (CAT) are fueled by soy-based biodiesel, utilizing a 20% blend of biodiesel and petroleum diesel called B20 during the summer months. Lower biodiesel blends are typically used during the cold weather months.

While all the city buses use biodiesel on the inside, one bus has been wearing its support for biodiesel for all to see. The bus was adorned with a full, colorful wrap promoting the fact that it is

soy powered.

That bus is getting a fresh look for 2024 with a new biodiesel-themed wrap and a new, fresh set of Goodyear soy-based tires.

"They (CAT) were our ground level users of the biodiesel," says Rob Rose, a Wimbledon farmer and the North Dakota Soybean Council (NDSC) vice chair. "We definitely want to keep advertising and supporting that they're using biodiesel in Grand Forks."

Using biodiesel has been a positive move for CAT because analysis showed how biodiesel helped reduce emissions, delivered better mileage, resulted in fewer filter-plugging issues and

reduced the amount of diesel exhaust fluid that was needed.

"The city has had good results with biodiesel, so they continue to be willing to participate in projects like this," asserts Eric Lawson, a fuel consultant with MEG Corp. "This is an example of a municipality that's successfully using biodiesel blends."

Grand Forks has been a model of success for demonstrating the benefits of using biodiesel in municipal fleets. Several other fleets and buses across the country, including Sioux Falls, South Dakota, and Omaha, Nebraska, are fueled by biodiesel. Soon, Lincoln, Nebraska, will have biodiesel buses, too.

Not only are the Grand Forks

buses soy-powered, but their tires are also soybean-based. The NDSC purchased a set of Goodyear tires made from soybean oil for the wrapped CAT bus.

"Originally, there was a program for first responders, so there's a fair amount of soy-based tires on firetrucks and fire department grass rigs and deputy sheriff vehicles," Rose states, "but Grand Forks is among the first to use soy-based tires on a transit vehicle. This demonstrates the versatility of soy and its multiple uses."

"The NDSC is all about promoting the many uses of soybeans," contends Shireen Ale-madi, the NDSC outreach and education coordinator. "Fuel and tires are just a few of the many ways one of North Dakota's top crops is utilized in daily life. The partnership between NDSC and CAT has demonstrated remarkable effectiveness in highlighting the story of innovative uses for soybeans."

—Story by Daniel Lemke, photos by Anna Lemm-Wiegandt

To learn more about Goodyear's tires made from soybean oil, scan the QR code.



To learn where to buy biodiesel in North Dakota, scan the QR code.



David Tyce from Cities Area Transit (left) and North Dakota Soybean Council directors Rob Rose (center) and Evan Montgomery unveiled a new bus wrap promoting biodiesel in Grand Forks.



The NDSC decked out the CAT bus with a new set of soy-based tires.

Clean Fuels Alliance America Launches New Podcast

Clean Fuels Alliance America is proud to announce the launch of its new podcast which covers all aspects

of the biodiesel, renewable diesel and sustainable aviation fuel industries. The Better. Cleaner. Now! Podcast provides a unique opportunity to dive deeper into

the clean fuels industry and to obtain expertise from the Clean Fuels' program managers.

Throughout the podcast series, you'll hear authentic conversa-

tions that feature the dynamic benefits of biodiesel, renewable diesel and sustainable aviation fuel. The episodes will feature third-party testimonials, insights from members, information from industry experts and more.

A new episode of The Better. Cleaner. Now! Podcast will drop every Wednesday and will be available wherever you get your podcasts. The podcast is also available at bettercleanernow.org.

—Story courtesy of the Clean Fuels Alliance America, stock photo



Welcome to North Dakota!

The North Dakota Soybean Council (NDSC) and the North Dakota Soybean Growers Association (NDSGA) were pleased to welcome United Soybean Board (USB) CEO Lucas Lentsch to their Fargo office on May 2, 2024. Lentsch met with directors and staff to learn more about North Dakota's soybean industry.

Lentsch joined the USB on January 1, and the stop in North Dakota was part of his 21-day, multi-state tour to visit USB directors. Lentsch also visited USB Directors Ryan Richard of Horace, Matt Gast of Valley City and Darren Kadlec of Pisek, along with American Soybean Association President Josh Gackle of Kulm, during his visit to North Dakota.

From left to right: NDSGA Vice President Chris McDonald, Leonard; NDSC Director Dallas Loff, Wahpeton; NDSC Vice Chairman Rob Rose, Wimbledon; NDSGA Executive Director Nancy Johnson; Neal Pulskamp, Hillsboro; NDSC Executive Director Stephanie Sinner; USB Director Cindy Pulskamp, Hillsboro; and USB CEO Lucas Lentsch.



Distant Actions CAUSE LOCAL WAVES



Reports of Houthi rebels in Yemen using drones and missiles to attack shipping vessels passing through the Red Sea hit the news last November, with those actions making waves for the global shipment of bulk materials, including grain, most notably starting in December. What does this mean for soybean farmers in North Dakota?

The attacks caused shippers to rethink their routes and to adjust shipments. For example, North Dakota State University (NDSU) Extension Crop Economist/Marketing Specialist Frayne Olson, Ph. D., says that, instead of hauling wheat from the Black Sea through the Mediterranean Sea into the Red Sea around India and into China, shippers had to go all the way around South Africa to deliver products to China.

“You’re adding a couple of weeks of time, and you’re hauling a long distance, so it’s adding a lot to the cost,” Olson explains. “So now, instead of China buying wheat from Russia, they might be buying their wheat from Argentina, or they might be buying their wheat from Australia just because of the distance it’s hauled and the

freight costs.”

When commodities are shipped greater distances, delivery time and freight rates increase. It takes every vessel longer to haul the same product. Plus, grain shippers are competing with providers of other bulk materials, such as coal and iron

ore, for the limited bulk-shipping capacity, which can also raise shipping costs.

Freight rates have gone up since the attacks, but Olson states that the prices are starting to soften a bit as shippers find ways to manage the Red Sea disruptions. However, disruptions in one part

of the world can make sourcing ag products from other regions more cost effective.

“All shipping costs went up, so that started giving a slight advantage to soybeans and corn shipped out of the Pacific Northwest (PNW) relative even to soybeans and corn shipped out of the Gulf



of Mexico,” Olson asserts.

Unfortunately, North Dakota farmers didn’t attain many advantages from the disruptions because, by February, most North Dakota soybeans have already been moved, so soybean shipments from the PNW were limited.

“Timing makes a difference,” Olson contends. “If this problem with the Houthis and the Red Sea would have happened in October, we would have seen a big push for more soybeans out of the PNW. But the fact that this happened in January and February really didn’t have as big an impact on soybeans as a person might think because most of the beans that had been sold had already been shipped.”

More Upheaval Likely

North Dakota growers may not have seen much effect from the Red Sea situation, but that result

doesn’t mean there won’t be more events in the future that could affect markets. Olson says that, because of political instability in the Mediterranean and the Red Sea regions, more turmoil in that area wouldn’t come as a surprise.

Olson hopes that farmers recognize how ocean freight rates and what happens halfway around the world can influence the flow of grain and might affect basis levels at the local elevator. Then, growers will be prepared if disruptions happen somewhere in the world.

“I think the odds of something happening in the next 12 months are probably pretty high,” Olson contends. “We may see this sudden spike or surge in freight or ocean freight like we did before. When ocean freight rates go up and down, it does impact the flow of grain. It impacts the

relative competitiveness of U.S. versus Brazilian versus Argentinian soybeans. It also impacts the relative competitiveness of the PNW versus the U.S. Gulf.”

Shipping disruptions have varying effects on commodities based on the problem’s location and timing. As ocean freight rates increase, the change influences the relative competitiveness of different delivery points. Olson states that grain flows differently during times of high shipping costs versus periods with low shipping costs. Sometimes, the variation works to farmers’ advantage, and sometimes, it works against them.

Olson wants farmers and marketers to understand that freight is a very competitive market and that U.S. soybeans also compete with U.S. corn and U.S. wheat to use ocean vessels and freight rail.

Grain also competes with other bulk products for limited space. When something happens halfway across the world and forces vessels to be rerouted, the change can affect local grain prices because, suddenly, one region has a shipping advantage over another region.

“All of these things have these ripple effects,” Olson stresses. “We do need to pay attention to those kinds of disruptions because they might have an impact on your market. If it happens in the middle of summer, it probably won’t impact soybeans at all simply because we’re not shipping soybeans in the summer. But if it happens at harvest, it can have a huge impact on soybeans, and we’ve got to pay attention.”

—Story and photo by Daniel Lemke, graphic by NDSC

Get Ready to Corner the Market

NDSC Midseason Market Outlook for Soybeans

Online Webinar • August 8, 2024 • 8:00 a.m. – 11:30 a.m. CDT

The North Dakota Soybean Council (NDSC) is proud to offer the Midseason Market Outlook for Soybeans again this year. This program provides soybean producers and the industry with a midseason look at the soybean markets and offers a discussion about marketing strategies prior to harvest. Learn how the new North Dakota soybean crushing plants could change the market.

Bill Wilson, Ph.D., and Frayne Olson, Ph.D., of North Dakota State University will discuss how the season

is progressing, the world demand, and the marketing strategies and risk-management options for the 2024 soybean harvest.

- The webinar is **FREE** and is open to North Dakota soybean producers, industry members, educators and others who support North Dakota soybean producers.
- Registered participants will be given a link and instructions for logging in the day prior to the event.
- **Questions?**
Call (701) 566-9300.

Register by August 5
to participate:



Dr. Bill Wilson



Dr. Frayne Olson

North Dakota Soybean Council • ndsoybean.org



Changing the Soybean Processing Landscape

North Dakota farmers now have another option to market their soybeans. The North Dakota Soybean Processors (NDSP) facility in Casselton is currently buying soybeans for delivery in the last half of July, with the crushing plant expected to begin processing beans in August or September.

The NDSP is a joint venture that was formed by CGB Enterprises, Inc. and Minnesota Soybean Processors.

NDSP Commercial Manager Bill McBee says that construction of the new facility benefited from mild winter weather and that the building process is on schedule. The plant will have the capacity to process 125,000 bushels per day, or approximately 42 million bushels a year.

McBee states that the NDSP is getting a lot of inquiries about the soybean bids from farmers.

“The process we have in place

now is people need to call in and establish an account,” McBee explains. “Once we have that account established, we have an app that they can download on their computer or their phone. Once they get set up on the app, then they can get access to our bids.”

According to McBee, the NDSP plant is likely to draw soybeans from farmers in North Dakota, Minnesota and possibly Canada, depending on the soybean crop’s size and the time of year. Having a processing plant at their disposal is a game changer for many farmers because it offers a wider window for them to market their soybeans than had previously existed.

“It’s a year-round market,” McBee contends. “As most people know, the Pacific Northwest (PNW) market is pretty much over by February. So, one of our challenges is convincing farmers that it’s a good idea to store soybeans instead of just corn.

That idea is definitely something that we’re trying to promote and encourage because we’ll need soybeans in the summer months, too. It’s a year-round market because we plan on running the plant year-round.”

The NDSP will be the second-largest processing plant to open in North Dakota, joining Green Bison Soybean Processing in Spiritwood. McBee asserts that it’s exciting to be part of the changing landscape for North Dakota’s soybean industry.

“We keep telling farmers that we get the opportunity to keep the beans here in North Dakota instead of sending them overseas, and that’s a good thing,” McBee says.

The NDSP plant will produce soybean meal and oil. McBee states that the soybean meal could be headed for a number of locations, depending upon which destinations provide the best option. Some meal will be sent to the PNW for overseas shipment

while other meal supplies could be sent to Mexico by rail. Meal might also travel via barge to the Gulf of Mexico for export. McBee is hopeful that domestic meal markets will also expand.

“On the oil side, we’ll have a full refinery to make food-grade oil, so we’ll be marketing to the food companies,” McBee explains, “but we’ll also be selling into the renewable diesel market.”

The NDSP is planning an open house and ribbon cutting in early August for people to see the plant and to meet members of the NDSP team.

Farmers who are interested in establishing an account with the NDSP to receive bids can call 701-895-1010 and select 1 to be connected to a merchandiser.

*—Story and photo
by Daniel Lemke*

The Growing Focus on Foreign Land Ownership

A proposed wet-milling plant for corn, which would have been owned by a Chinese company near Grand Forks, was one of several events that created a flurry of questions and concerns around the U.S. about foreign land ownership. The Fufeng plant drew enhanced scrutiny because of its proximity to the Grand Forks Air Force Base. Land that is owned by a country which is considered to be an adversary and that is so close to a sensitive military installation was determined to be a national security threat.

Although the plan was eventually scrapped, it did bring the issue of foreign land ownership to the forefront and to the attention of lawmakers, both at the state and national levels.

"I think it is very safe to say that it was the driver of the discussion that happened last legislative session," says Rep. Paul Thomas, a farmer from Velva and the chair of the North Dakota House Agriculture and Natural Resources Committee.

Thomas states that the legislators took a hard look at the issue of foreign agricultural land ownership in North Dakota ahead of the last session. They determined that the state already had a robust set of laws in place regarding foreign ownership of ag land.

"North Dakota law already had most of the provisions in place to prevent foreign ownership of our land here within our state," Thomas maintains.

There are exceptions, Thomas asserts. Because of proximity and a friendly relationship with the U.S., Canadian citizens have the ability to purchase farmland in North Dakota.

"We did include in our law that no government, or entity

controlled by the government, except for the U.S. and Canadian government could own land, with one exception. We did allow for up to 160 acres of ownership for the purpose of agricultural research," Thomas contends.

Thomas describes how the largest area of foreign control for North Dakota land comes from wind towers. He says that many of those towers trace back to the government of Italy. In those instances, local landowners lease the land in small one-to-two-acre parcels while retaining ownership.

"That is an agreement made by that private landowner to maximize their revenue and use of that parcel of land for a benefit that they saw best suited for it," Thomas explains. "From a legislative perspective and a property rights perspective, we really thought that scenario is perfectly fine."

Thomas states that many North Dakotans feel strongly about private land ownership and that land management can be done much better by active producers. The best stewards and best caretakers of that land are the individual producers themselves, rather than a nonprofit entity or the government.

Who Owns the Land

Foreign ownership of and investment in U.S. agricultural land, which includes farmland, pastures and forest land, has grown almost 50% since 2017, according to the U.S. Department of Agriculture (USDA).

According to the American Action Forum, Chinese entities owned 0.94% of the total acres held by foreigners in 2021 and 0.03% of the total for the privately owned agricultural land in the United States. Canada is the largest foreign owner of U.S. agricultural land.

According to the Government

Table 1: Top 10 Foreign Owners, by Acres, of U.S. Agricultural Land, 2021

Country of Foreign Investor	Total Acres	Total Value (US\$)
Canada	12,845,209	11,570,797,000
Netherlands	4,875,034	6,873,789,000
Italy	2,703,340	5,378,113,000
United Kingdom	2,537,898	4,914,555,000
Germany	2,269,292	6,652,248,000
Portugal	1,482,785	3,380,452,000
France	1,315,748	2,974,709,000
Denmark	856,474	1,126,811,000
Luxembourg	802,249	1,832,757,000
Ireland	759,732	430,765,000

Source: American Action Forum

Accountability Office, foreign investors for U.S. agricultural land are required to submit forms describing the transactions to the USDA. This action is required by the Agricultural Foreign Investment Disclosure Act of 1978 (AFIDA). AFIDA was not designed as a national security program, and AFIDA forms focus on data collection rather than identifying potential national security concerns.

The Committee on Foreign Investment in the United States (CFIUS) is a federal government, interagency committee that reviews certain foreign transactions to determine the potential effects on the country's national security. CFIUS agencies, such as the Departments of Defense and Treasury, identify and review transactions, including some agricultural land transactions for areas that are situated near sensitive military locations. However, the USDA does not share complete and timely data with CFIUS agencies, information which these agencies need to identify and to review potential national security concerns, because of the challenges with how the USDA collects these data.

Recently, Congress directed the USDA to create an online submission process and database for AFIDA by the end of 2025. However, the USDA does not

have plans and timelines to do so, in part, because it has not received funding to create the database.

"It's been made very clear that there's not a fluid process between states and in national security for sharing that information even at the highest levels within state government," Thomas says. "As the attention grows, maybe there's going to be a more fluid process for states and federal security or those people in the know to pass potential red flags up the channel."

Action and Reaction

According to the National Agricultural Law Center, there are no states with an absolute prohibition on foreign ownership; however, approximately 24 states specifically forbid or limit nonresident aliens, foreign business entities or foreign governments from acquiring or owning an interest in private agricultural land within the states' boundaries.

Many laws are intended to prevent countries labeled as adversaries from owning U.S. lands. Those countries include China, Russia, North Korea and Iran. Those rules can have far-reaching consequences.

The state of Arkansas is requiring Syngenta, which is now Chinese owned, to divest a 160-acre research farm because of that

—Continued on page 33

On a Mission to Tell the Soy Story



In March, Dazey farmer and American Soybean Association Director Justin Sherlock was able to fulfill a childhood dream. Growing up, he wanted to be part of the trade development missions that helped pave the way for purchases of U.S. agricultural products.

"I always wanted to go on trade missions to other countries and tell them our story and be able to explain to them why they should buy U.S. commodities," Sherlock says.

Sherlock participated in the recent U.S. Soybean Export Council (USSEC) and Taiwan Vegetable Oil Manufacturers Association's U.S. Soy and Oil Marketing Training Camp. The annual event draws soybean-oil producers and users from across Taiwan to learn about a range of

industry-related topics, including marketing updates, the soybean supply outlook and prospects for the 2024 growing season.

"I went to give an explanation of the things I'm doing on my farm to improve my farming practices and become more sustainable, in particular in relation to reducing tillage and some of the practices I've done to lower my carbon intensity," Sherlock explains. "I also gave an update on the current weather conditions and some of the planting intentions."

Sherlock states that he relayed some of the factors which farmers consider when determining what they're going to plant to the training camp's participants. Those influences determine how many acres of soybeans are planted, which can affect the markets

in Taiwan.

In addition to participating at the U.S. Soy and Oil Marketing Training Camp, Sherlock and the USSEC staff traveled to two of Taiwan's largest crushing facilities in order to meet with plant executives. Sherlock, again, presented information about the coming crop and the decisions that he makes each year as a farmer.

"Then, we had good conversations about things that they would like to see or questions they have about how the United States can become a better soybean supplier to them," Sherlock apprises.

Sherlock asserts that, typically, about 55% to 60% of the soybeans which Taiwan imports come from Brazil, with the rest coming from the U.S. Surprisingly, Sherlock contends that some of the biggest soybean users import the crop in containers rather than via a large cargo ship.

Most of the soybeans consumed in Taiwan are for food or livestock feed. Sherlock says that Taiwan is self-sufficient with hog production. The country used to be a major pork exporter, but disease issues reduced the herd and took away some of the market share, which has, in turn, decreased the demand for soybeans. However, Sherlock states that there is room to grow in the future.

Sherlock maintains that many soybean buyers and animal



Dazey farmer Justin Sherlock (at podium) participated in a USSEC event in Taiwan to promote U.S. soybeans.

nutritionists recognize how U.S. soy products are superior to competitors, but price remains a key factor when making purchases. U.S. soybeans are typically more expensive than the beans produced in South America.

According to Sherlock, participating in trade missions and educational events is vital for building and maintaining soybean markets. Taiwan has been a consistent customer of U.S. soybeans. Taiwan is a mature market, is highly developed and is economically stable.

"They (Taiwan) have a relatively affluent economy because many of their citizens can afford to buy pork, chicken and eggs, so it's a reliable market for U.S. soy," Sherlock contends. "If we can maintain or even expand our market share, that's a good thing for us."

Sherlock says that it's rewarding to grow food to help make sure people around the world are fed. It is also fulfilling to be part of an effort to promote those same food products to export customers.

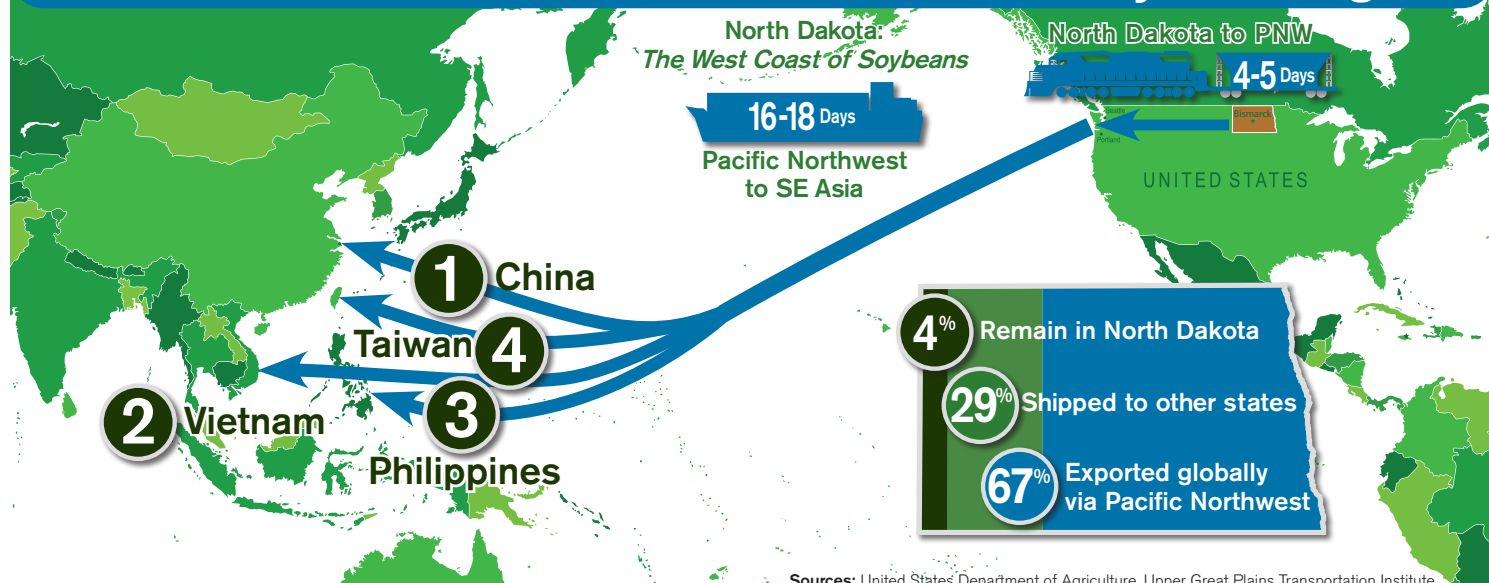
"This trip was extra special because it was the first time I got to finally tell people about my farm and why they should buy U.S. soy products," Sherlock explains. "It was the first time to do it internationally but hopefully not the last."

—Story by Daniel Lemke,
photos courtesy of USSEC



Justin Sherlock's (second from left) Taiwan visit was his first overseas mission to build soy demand. He met with existing and prospective customers.

Where in the world do North Dakota soybeans go?



North Dakota 2023 Soybean Crop

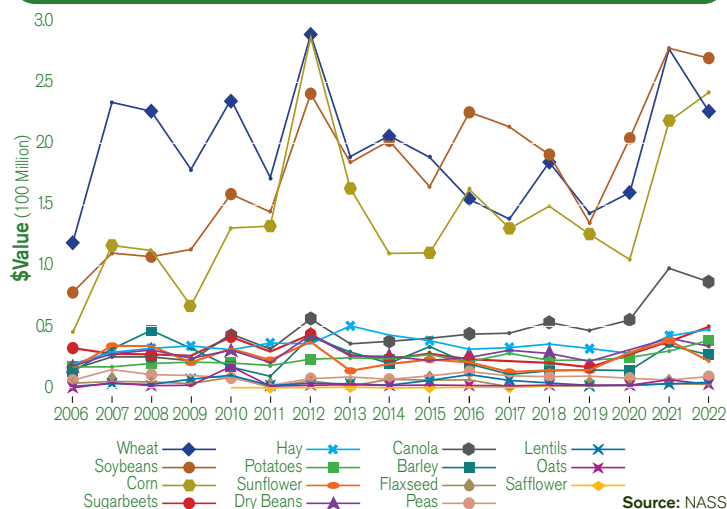
- North Dakota had the **top 3 soybean acreage** counties in the U.S. in 2023
 - Cass County is #1 in the U.S. in acres planted and harvested; #6 in bushels produced
 - Stutsman County is #2 in the U.S. in acres planted and harvested; #9 in bushels produced
 - Barnes County is #3 in the U.S. in acres planted and harvested; #14 in bushels produced
 - Richland County is #7 in the U.S. in acres planted and harvested; #17 in bushels produced
 - LaMoure County is #13 in the U.S. in acres planted and harvested; #25 in bushels produced
- North Dakota is #4 in the U.S. in total soybean acres planted and harvested
- Soybeans **planted**: 6.20 million acres, 2.51 million hectares
- Soybeans **harvested**: 6.16 million acres, 2.49 million hectares
- Average **yield/acre**: 35.5 bushels/acre, 2.39 metric tons per hectare
- Total **production**: 218.68 million bushels, 5.95 million metric tons
- 2020/2021 Market Year Average price per bushel: \$12.30
- Crop Value: \$2.69 billion
- North Dakota is the 9th largest soybean producer in the U.S. in total bushels

Source: NASS

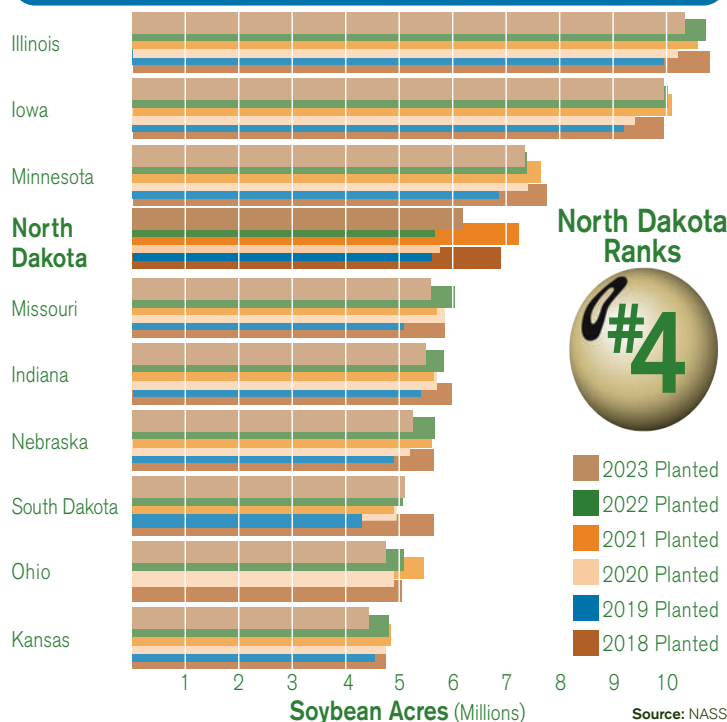


North Dakota Soybean Council
4852 Rocking Horse Circle S • Fargo, ND 58104
(701) 566-9300 • ndsoybean.org

Farmgate Value of North Dakota Crops



U.S. Soybean Acres



Getting a Clearer Picture of Herbicide Resistance

Weed control is an important part of every farm's management plan. Weed management can be complex. Weeds are becoming increasingly challenging because of resistance to certain herbicides. The North Dakota Soybean Council (NDSC), the National Agricultural Genotyping Center (NAGC) and the North Dakota Corn Utilization Council are encouraging farmers to participate in a free survey to test herbicide resistance.

The survey's goal is to combat herbicide-resistant weeds by better understanding the genetics and distribution of resistant pigweeds and kochia in North Dakota.

"We are currently focusing on two weeds," says NAGC Research Scientist Zack Bateson, Ph.D., "the pigweed group, including

Palmer amaranth, waterhemp, and the other pigweeds like red root and Powell amaranth, and then kochia. Across all of those weed species, we're looking at three resistant traits that are associated with Group 2, Group 9 and Group 14 herbicides."

The survey simply involves getting a free sample collection kit from local North Dakota State University (NDSU) Extension offices, collecting two leaves from near the top of emergent weeds, filling out a submission form and mailing the items in a prepaid postage envelope. This year (2024) is the second year for the herbicide-resistance survey.

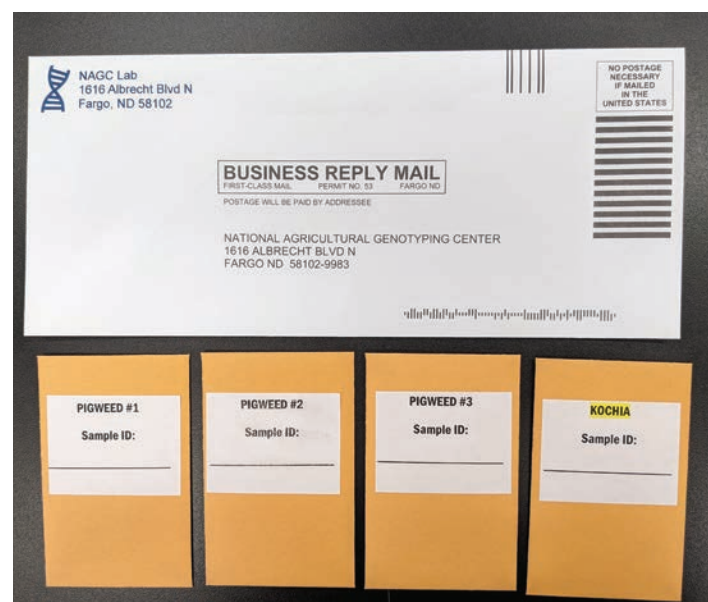
"Over the last year, we've received some of the kits back, and we've started testing both pigweeds and kochia

for resistance markers for Group 2, Group 9 and Group 14 herbicides," Bateson explains. "We're finding that there's widespread resistant markers across the

populations that we've received. We haven't reported on any of the kochia samples. That's still in the research and development stage. But we are seeing Group 2, Group 9 and Group 14 resistant markers from kochia samples we've received from western North Dakota. We're seeing mutations that are linked with herbicide resistance."

Researchers and ag leaders hope to get the kits into every corner of North Dakota. The NAGC has developed genetic tests to help determine if there are genetic markers that show resistance. Bateson describes how farmers who send in samples should get results back from the NAGC in about a week, which could allow farmers to make treatment decisions.

"We know that it is quicker to get the genetic test done versus waiting for the greenhouse results," Bateson states. "Survey participants can collect leaf samples and send them to us; we report out our findings. Then, farmers can have a conversation with their crop consultant or an agronomist about whether it's worth changing up the herbicides based on what we're seeing with the genetics of



Participating in the herbicide resistance survey is as easy as mailing leaf samples to the National Agricultural Genotyping Center.

these weeds. The hope is that we can have a quick turnaround time early enough in the spring that allows growers to adjust their weed management practices.”

Bateson contends that scientists and weed researchers are seeing patchy resistance around the state, but just because weeds in the county or in adjacent fields are resistant, it doesn’t mean all weed populations in your field have developed resistance.

To participate in this survey, weeds can be sampled at any time during the growing season, even if it is beyond the effective herbicide treatment window. Bateson says that it’s still important to understand the weed populations because that knowledge could be helpful for next year’s treatment options.

Farmers who send in samples will be notified about the results, but the results will not be shared publicly.



Researchers are striving to get a clearer picture of herbicide resistance in weed populations across the state while also helping farmers in their management efforts.

“We don’t share the submitters’ information,” Bateson says. “We provide a county level map each

year at the end of the season. (The map) does not contain the names or the specific locations of where these samples were collected. It’s totally anonymous, so a grower doesn’t have to worry about us sharing information about the weeds within their fields.”

Having a robust set of samples helps to paint a clearer picture about the extent of pigweed and kochia resistance.

“We have done this survey for pigweeds in the past, but we have really not done anything for the kochia,” explains Miki Miheguli, NDSC research programs coordinator. “We didn’t have the methods or assays to do it, but the NAGC has developed that method based on kochia samples received in 2023. It is (a) very important program that has a huge positive impact for North Dakota farmers for their weed management.”

Herbicide resistance remains a vexing issue for farmers nationwide. Bateson asserts that having more data will highlight the

magnitude of the challenge.

“We want to show how serious of a problem this is,” Bateson contends. “Herbicide resistance is a crisis, not only in our state but nationwide. I think it’s important to collect these data and to show not only to the growers, but to the policymakers that this is an issue, so we can get more funding and do more research emphasizing weed control and herbicide resistance issue in.”

—Story by Daniel Lemke,
photos by staff

To learn more about obtaining a free collection kit, scan the QR code.

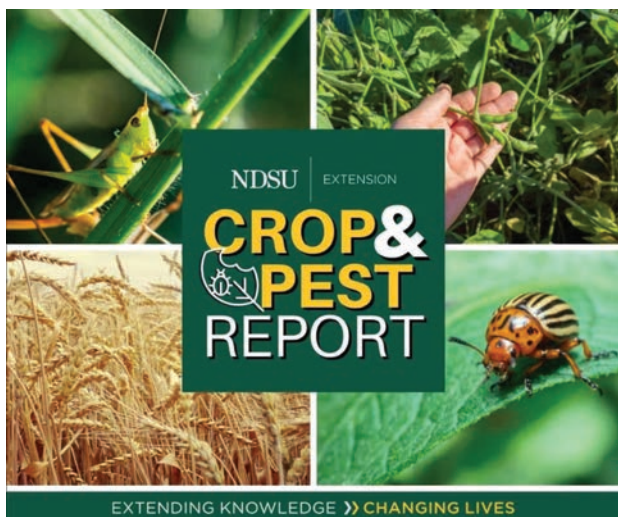


Or contact your local NDSU Extension office to learn more about a collection kit. Sample collection kits are also available at NDSU Research Extension Centers. The NAGC is accepting pigweed and kochia samples this spring and year-round.

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Have soy much fun

at the Red River Valley Fair, June 28-July 14!



The annual Red River Valley Fair (RRVF) in West Fargo, North Dakota, will be held over three separate weekends this summer. The 2024 fair will take place June 28-30, July 4-7 and July 11-14.

This extended schedule promises to make the fair even more accessible and enjoyable for families and visitors. With a full range of attractions, live entertainment, tasty food vendors and fun rides, the RRVF is set to be a highlight for the summer.

The fair will continue to feature beloved traditions, including agricultural exhibitions

in the Ag Education Center. The RRVF's Ag Education Center allows families to learn about the region's agriculture by having an interactive and educational experience. Attendees learn about North Dakota crops, including soybeans; farm animals; bees; and where our food comes from and how it gets to your table.

In 2023, the North Dakota Soybean Council (NDSC) proudly funded new, interactive, educational exhibits that feature soybeans. These displays are in the Ag Education Center.

Highlights of the new soybean exhibits are

as follows:

- Lifelike Reproduction of the Soybean Lifecycle.
- Meet Today's Family Farmers.
- Soy Trivia Game.
- Soy Panel Facts Tower.
- Soybeans: From Seed to Product Wheel.

In 2023, the NDSC funded the installation of spray-foam soybean insulation for the RRVF's Ag Education Center; the insulation



The North Dakota Soybean Council is sponsoring exhibits to help fairgoers learn more about the importance of soybeans in the state.

The Red River Valley Fair will feature agricultural exhibits in the Ag Education Center.



Interactive displays are featured to help attendees of all ages connect with agriculture.

is in both the walls and the ceiling. The soy-based insulation saves money on energy costs, reduces air leakage, fills in cracks and crevices, and provides better indoor air quality than traditional insulation.

“The soy insulation works great,” says Jim Thompson, the NDSC treasurer and a soybean farmer from Page. “The fair’s goal when installing the foam was to make the building cooler. The summer sun on the metal roof during the fair causes the interior temperature of the building to be very hot. The soy insulation

definitely improves the temperature in the building. Attendees can now enjoy the exhibits in a comfortable atmosphere, thanks to soy!”

The permanent soy exhibits will be open year-round in the RRVF’s Ag Education Center. The displays should reach more than 147,000 urban and rural families, as well as tourists, who visit the RRVF annually.

To learn more about soybean insulation, visit soynewuses.org. To learn more about the Red River Valley Fair in West Fargo, visit redrivervalleyfair.com.

—Story and photos by staff



The exhibit at the Red River Valley Fair includes a tower of farming facts.



Fairgoers learning about crops can also find out more about the farmers who grow them.



Fun and interactivity are the name of the game at the Red River Valley Fair ag education exhibit.



The Red River Valley Fair will be held three weekends in June and July, but the permanent soy exhibits will be available year-round.

Computing Soybean Yield Loss from Palmer Amaranth and Waterhemp Interference

Crops battle turf wars with weeds each growing season. When weed pressure begins to take over the turf and to declare victory, how are crop yields affected? Former North Dakota State University Assistant Professor Quincy Law, Ph. D., conducted a research project to measure soybean yield loss from waterhemp and Palmer amaranth interference and to gauge the economic threshold associated with the weeds' control.

The invasive and noxious weed specialist is working with colleague Joe Ikley, Ph.D., on a two-year project which is supported by the North Dakota Soybean Council and the North Dakota State Board of Agriculture Research and Education. The project's goals are to utilize a statistical model that computes yield loss from weed interference with actual weed density scenarios from research plots.

Waterhemp has been an issue in North Dakota's crop fields for some time, but Palmer

amaranth is a fairly new. Palmer amaranth was first identified in the state in 2018, Law explains, and has been confirmed in nearly 20 counties.

"Part of this project is to provide state officials with more data about Palmer amaranth because it's considered noxious, which means, by law, it must be controlled," Law states. Unlike weeds we have dealt with for some time, such as waterhemp, we're not sure about the herbicide resistance of these new Palmer amaranth infestations in North Dakota."

To compute the yield-loss model, Law needed actual numbers to enter into the equation, so the team established its own weed density scenarios research: one for Palmer amaranth and one for waterhemp.

"We attempted to reach our intended waterhemp densities via natural emergence from the soil seedbank in year one. The first flush didn't reach our goal, so we seeded waterhemp into the plots in mid-June and allowed exist-

ing waterhemp plants to grow," Law explains. "Conversely, we germinated Palmer amaranth in the greenhouse and transplanted them into the soybean plots at the cotyledon to true-leaf stage."

The Palmer amaranth was planted in the inter-rows with 0, then 0.5, 1, 2, 4 and 8 plants per meter, to achieve the different plant densities. Law describes how the weeds started to get dense at 4 and 8 plants per meter.

The team harvested the Palmer amaranth and the waterhemp at each site, which entailed cutting the plants by hand and measuring their biomass. Once the rows were clean of weeds, the researchers harvested the soybeans to measure the yield and to estimate loss as it related to weed density.

After the first year of the experiment in the Palmer amaranth plots, the researchers saw a yield-loss range from 27% per plant as the weed density neared 0 to an estimated

Palmer amaranth emergence timing in North Dakota Photo taken 11 weeks after planting (WAP)

8 plants m⁻¹
Transplanted 4 WAP

4 plants m⁻¹
Transplanted 0.5 WAP



A photo that was taken 11 weeks after planting demonstrates that early emerging Palmer amaranth at a lower density (right) can produce more biomass and can likely cause a higher yield loss than the later-emerging Palmer amaranth at a higher density (left). Both density and emergence timing can influence the yield loss.



Quincy Law, Ph. D., former assistant professor and invasive and noxious weeds specialist, Department of Plant Sciences, NDSU.



Joe Ikley, Ph. D., assistant professor and extension weed specialist, Department of Plant Sciences, NDSU.

57% maximum yield loss due to the weed's presence in the worst-case scenario (Figure 1). The waterhemp density wasn't uniform in the treatments, but the data showed an inverse relationship between the weed biomass and soybean yield (Figure 2).

"Timing is an important factor in this experiment as well as in real life. We transplanted the weeds into the plots 24 days after planting the soybeans, so they had nearly four weeks to germinate and grow before the Palmer amaranth was there," Law says. "In North Dakota, farmers are ideally planting in early May. Palmer amaranth and waterhemp usually emerge around the end of May. We modeled up to a 57% yield loss in this scenario."

During the second year of the experiment, the researchers transplanted the weeds in one set of plots less than one week after planting soybeans. Although the data analysis hasn't been completed, Law observed that the earlier-planted Palmer amaranth grew larger with the earlier emergence opportunity.

"We also saw that the early transplanted weeds, at 4 plants per meter, created more biomass and caused a greater yield loss than the 8 plants per meter that were planted later," Law adds. "Based on this preliminary observation, weed-emergence timing can be more important than weed density."

Other crops may not have the herbicide options that soybeans do, so Palmer amaranth and waterhemp in other crop fields maybe even more of an issue.

—Story courtesy of Soybean Research Information Network, photos and graphics courtesy of Quincy Law and staff

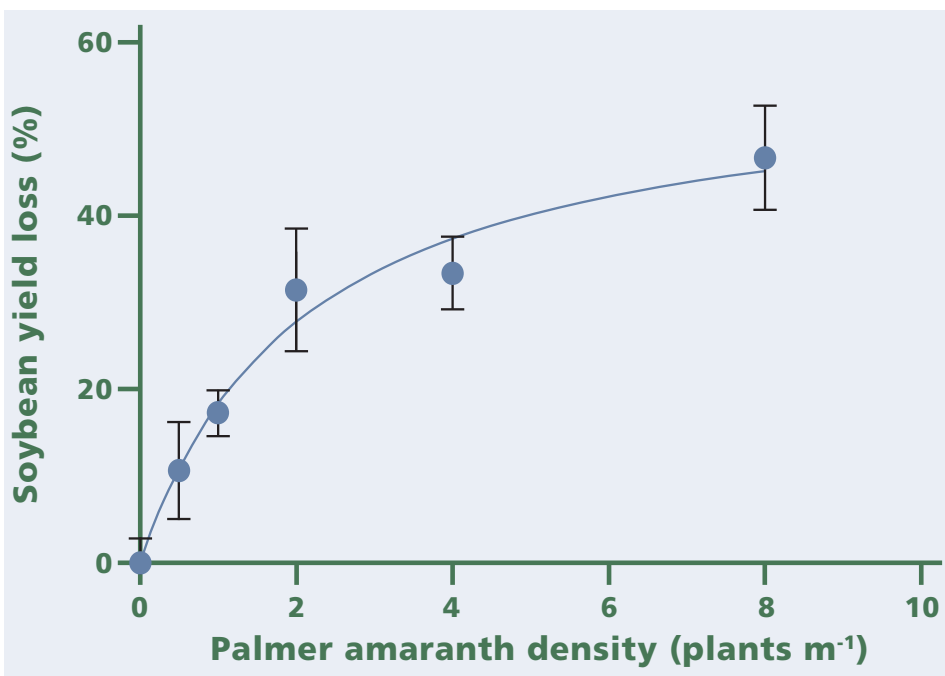


Figure 1. The soybean's yield (adjusted to 13% moisture) loss as influenced by the Palmer amaranth's density (expressed as plants per meter row).

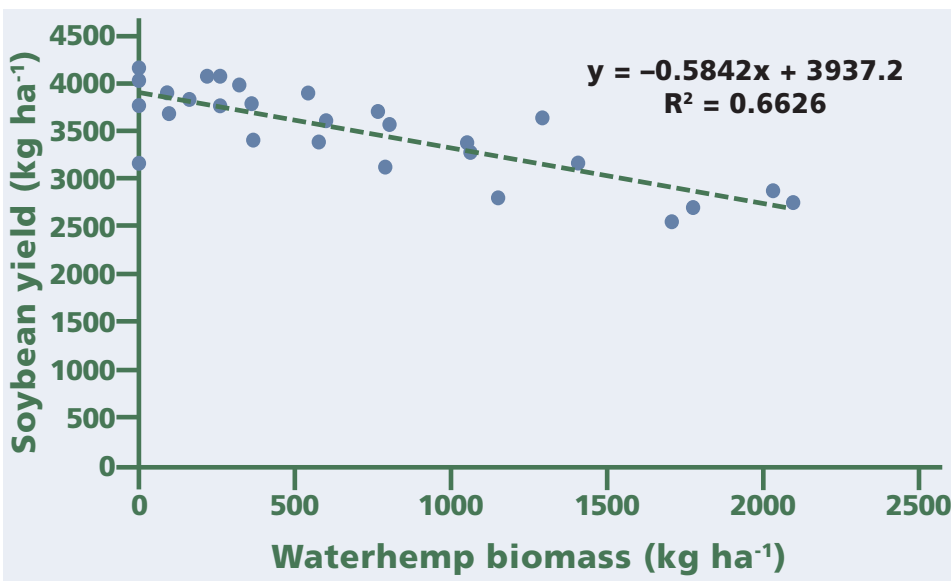


Figure 2. Soybean yield (adjusted to 13% moisture) as influenced by the final waterhemp biomass. Each data point represents one plot.



Promoting the Tasty Side of Soy

A great way to spread the word about the nutritional benefits and versatility of soy is to connect with nutritionists and dietitians who work to improve nutritional health. Therefore, the North Dakota Soybean Council (NDSC) and The Soyfoods Council's Executive Director Linda Funk were an active part of the annual North Dakota Nutrition Council (NDNC)

Conference in Grand Forks.

The NDNC works to improve the nutritional health of North Dakotans through the promotion of accurate and current nutrition information as well as to support nutrition professionals in their roles as educators and health advocates. Funk's presentation delivered the latest information about soy ingredients and products and their role in human health.

"We participate to make sure attendees have accurate information about soy," Funk says. "In addition, we make sure we provide them materials that they can use as they're going out in the community working as educators or health advocates."

Funk describes how she shared information about the health benefits of soyfoods. She also delivered copies of the new 2024 Soyfoods Guide.

"It's great to work with people who take the information we provide and disperse it out into all the communities around North

Dakota," Funk explains. "Nutritionists and dietitians certainly are well regarded, so having them bring that information out makes a lot of sense. It's a great way for us to disseminate our information."

The NDSC supported Funk's participation at the conference in April.

"We think it is important to connect with professionals to share the benefits of adding soy to a healthy diet, so they are able to take that information back to their communities and clients," states NDSC Outreach and Education Coordinator Shireen Alemadi. "The NDNC provides an opportunity to connect in person and share not only information, but delicious dishes they are able to taste."

In addition to providing information about soy's role in a healthy diet, Funk also prepared and shared a variety of dishes that incorporated soy ingredients. Several recipes were award winners from the NDSC's culinary contest.

Gathering information about soy nutrition and seeing recipes are one thing, but Funk says that, when it comes to soyfoods, tasting is believing.

"We had some great recipes that we made, including nachos, a green smoothie with edamame, some easy stuffed shells with tofu, a turkey tofu chili and an oatmeal cookie with textured soy protein," Funk contends. "We also showed just how easy it is to incorporate soy into really

normal foods. The recipes were not difficult or complicated. I don't care how healthy anything is. If it doesn't taste good, nobody will eat it. So obviously, all these foods are really tasty, too."

Funk describes how questions about the health benefits of soy, especially surrounding breast cancer, come up frequently.

"We're very happy to say that the leading cancer institutes conclude that soy is not only safe for breast cancer patients but may benefit them," Funk explains.

"There are so many benefits to adding soy-based products to your diet," Alemadi asserts, "One of the many health benefits is that soy is high in protein. Sharing with professionals and consumers the benefits of soybeans is another way we can support all the amazing farmers in North Dakota who grow soybeans."

For more information about the health benefits of soyfoods and a range of recipes, visit thesoyfoodscouncil.com.

To have a copy of the 2024 Soyfoods Guide mailed to you, email Shireen Alemadi at salema-di@ndsoybean.org or call (701) 566-9300.

—Story by Daniel Lemke, photos by staff

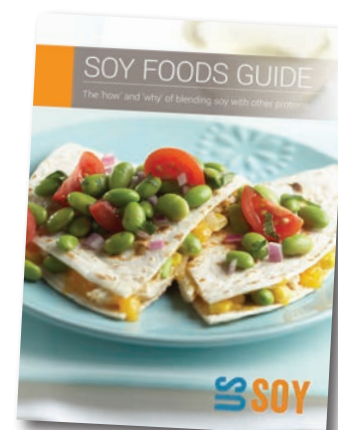


Turkey tofu chili was one of the recipes sampled at the nutrition conference.



Soyfoods Council Executive Director Linda Funk says it's easy to get the benefits of soy by adding it to nearly any recipe.

To review the new 2024 Soyfoods Guide, scan the QR code.





Hey, North Dakota Teachers: We've Got a Great Workshop for YOU!

Feeding and Fueling the World • June 19-20, 2024
North Dakota State University's Van Es Hall, Fargo

Middle and high school teachers, learn to integrate the science of modern food production into your classroom/career tech program by using inquiry-based lessons!

Are you an environmental science, chemistry, biology and/or biotechnology teacher at a middle or high school in North Dakota? If so, join us!

Teachers will learn how to lead students in the following areas:

- Testing and discussing human impact on soil and water quality.
- Connecting high-tech science careers to classroom learning.
- Exploring biotechnology and its scientific basis in agriculture.
- Making biofuels in the classroom

to mitigate climate change.

This two-day workshop will include three major components:

- Interactive, professional learning that lets teachers experience the material.
- A field trip to experience biotechnology in agriculture.
- An off-site dinner where participants can talk with industry experts to learn more about modern agriculture and its connections to food and fuel production.

All participants are expected to attend the entire workshop. Hotel stay and meals will be provided. The professional learning component explores practical, phenomena-based, (Next Generation Science Standards) NGSS-aligned lessons. Every participant receives \$300 worth of supplies for classroom use.

—Story by Daniel Lemke,
photos courtesy NGSS

To register for the Feeding and Fueling the World workshop, scan the QR code.



North Dakota 4th Graders Attend Living Ag Classroom

In January, February, March and April, the North Dakota Soybean Council educated thousands of fourth graders in Jamestown, Minot, Bismarck, Fargo and Lisbon. Students learned about soybeans' importance to the state, including how soybeans are grown and the array of products which are made from this "miracle bean." The Living Ag Classroom events are collaborative efforts for many North Dakota agriculture and commodity groups. These events educate fourth graders about the state's diverse agriculture as well as its role in feeding the nation and the rest of the world.





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Gackle Testifies at Ag Committee Hearing

With authority and firsthand experience, Josh Gackle could speak about the effects of a trade war with China. North Dakota growers, including Gackle, who farms near Kulm and is the American Soybean Association's (ASA) president, were among the hardest hit as a result of trade action that essentially halted the flow of soybeans to China for a time. The trade war began more than five years ago, and some of the tariffs levied at that time still exist.

Gackle testified before the U.S. House of Representatives' Agriculture Committee during a March hearing titled "The Danger China Poses to American Agriculture." He represented fellow industry members when sharing the stakes for soy if trade relations with China are not delicately maintained.

Gackle cited two distinct considerations that the House Agriculture Committee and Congress must weigh as they discuss the complex relationship which the nation has with China.

"There is a geopolitical relationship that affects national security and includes issues such as data privacy, human rights and intellectual property, and there is the economic, commercial trading relationship," Gackle says. "Our strong appeal is that careful consideration be given to maintain, rather than alienate, the economic relationship when discussions move forward in addressing geopolitical and other significant issues."

Soybeans are the country's largest agriculture export. In marketing year 2022/2023, the U.S. soybean export value totaled

approximately \$32.6 billion. China accounted for more than \$18.8 billion. China's demand for soybeans amounts to more than 60% of the global soy imports, with one in three rows of U.S. soybeans destined for China.

In the summer of 2018, soybeans were the prime casualty when the U.S. imposed tariffs on Chinese imports. China quickly responded with retaliatory tariffs, including on U.S. soybeans, a move that essentially halted soy exports to the country overnight. Gackle explained how the industry experienced not only an instant market-share loss for its largest export market, but also an immediate price drop of \$2 per bushel. The U.S. Department of Agriculture's (USDA) Economic Research Service issued a report showing a 76% reduction for the value of U.S. exports to China from 2017 to 2018 and estimating that the trade war cost U.S. agriculture over \$27 billion. Soybeans accounted for 71% of those annualized losses.

The ASA and its farmer leaders had worked 40 years to develop the China market, but tariffs that reached up to 27.5% during the height of the trade war immediately strained those relationships, altering global soy trade by opening the door for competitors such as Brazil. Shipments have since resumed through a tariff-exclusion mechanism included in the China Phase One Agreement which was signed in 2020, but the waiver that reset tariffs back to pre-trade war levels could be suspended by China any time.

"This environment (ambiguity of waiver procedure), anti-China rhetoric from Congress, the continued threat of tariffs from

both the U.S. and China, and the lack of a roadmap for long-term resolution of these challenges combine to increase uncertainty for U.S. farmers and exporters," Gackle testified. "There is substantial risk that more unanticipated tariff action will undermine investments, export prices and farm income."

Gackle also said that there is one point he cannot emphasize enough: "Even as the United States considers actions to protect our national security interests, we must also maintain and protect our economic and trade interests as well. Soybean growers need predictability and certainty that we will retain market access in China."

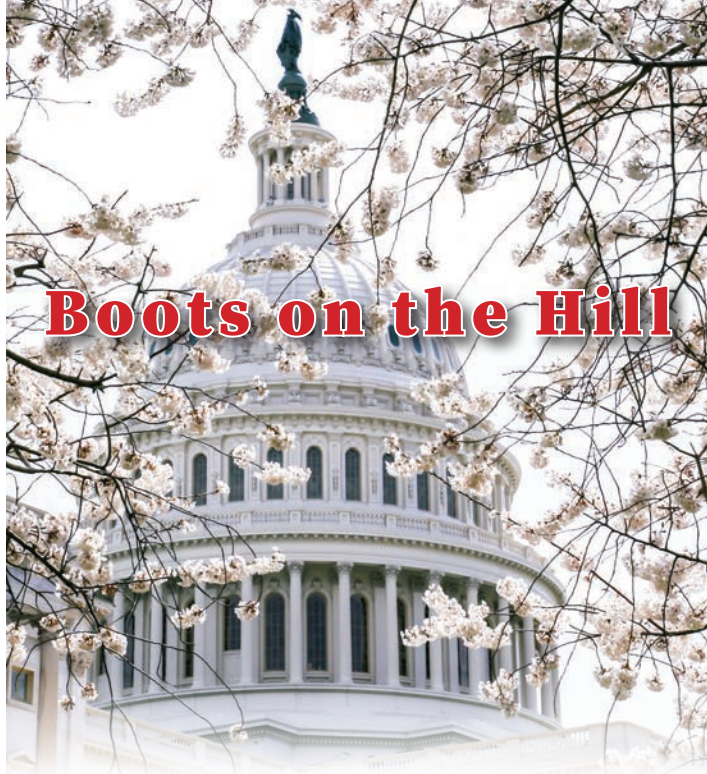
The ASA made specific policy recommendations, which included rejecting legislative attempts to repeal or modify China's Permanent Normal Trade Relations (PNTR) status, passing a comprehensive farm bill in 2024 that meets the needs of U.S. agriculture, and exercising congressional oversight authority to press the administration to reengage in negotiations for bilateral and multilateral free-trade agreements, to the Agriculture Committee.

"The scars of the 2018 trade war are still fresh and ongoing for our farmers," Gackle asserted. "Market access is one of the most important issues for U.S. soy, and we need certainty that access to our largest trading partner will remain, despite ongoing geopolitical issues."

—Story by Daniel Lemke,
photo courtesy of ASA



Kulm farmer and American Soybean Association President Josh Gackle testified before the U.S. House Agriculture Committee regarding China.



Boots on the Hill

While the ground in North Dakota was gradually thawing, farmers Chris McDonald, Brad Thykeson and Justin Sherlock were thousands of miles away, cultivating relationships with the state's federal delegation during visits to Washington, D.C. The trio was among dozens of farmers from across the nation who descended on the nation's capital for semiannual Capitol Hill visits.

American Soybean Association

(ASA) delegates formulate organizational positions and priorities at the annual Commodity Classic. ASA representatives waste little time bringing those policy positions to elected officials just weeks after the stances were developed.

"It's important that lawmakers hear from actual farmers about the issues that are important to us," says McDonald, the North Dakota Soybean Growers Association vice president and a farmer from Leonard.

ASA policy priorities for 2024

include the following items:

- Backing for a new and improved 2024 Farm Bill, which incorporates improvements to the Title I farm safety net; protects crop insurance; and maintains farmer-led, farmer-funded checkoffs.
- Opposition to efforts to revoke Permanent Normal Trade Relations with China, which accounts for 60% of U.S. soybean exports.
- Support for improvements and tax credits that benefit the biofuel industry and the expansion of market opportunities for soy-based biofuels.
- Oversight of the Environmental Protection Agency (EPA) to ensure that it incorporates the Endangered Species Act into its pesticide program by using a science-based regulatory approach to protect species while allowing for the continued, meaningful utilization of pesticides.

Thykeson describes how there have been several instances nationwide where crop-protection product use has been disrupted largely because of political agendas, which is why he and other soybean leaders pushed lawmakers to require the EPA to make science-based pesticide-use decisions.

"We want to make sure EPA is using sound science when they come out with rules and regulations," Thykeson, an ASA director and a farmer from Portland, explains. "We just want the EPA to keep relying on sound science in order to make their rulings so that they don't handcuff farmers in weed control and pest control moving forward. That's not good for anybody. It puts a bigger carbon footprint out there if we have to use more mechanical practices. We have these tools in the toolbox; don't take them away from us. We want to be safe, but we also want science to back up the decisions of the EPA."

Sharing policy positions with lawmakers is important, even in a state like North Dakota where ag issues aren't unfamiliar to the federal delegation.

"I think all of them are happy to hear from the farmers," McDonald asserts. "Not every state's delegation is probably as encouraging as North Dakota's because they pretty well know what we're thinking. There are lots of different viewpoints on things, and we try to get across to them the reasons why we feel how we do."

Advocating for issues is an important purpose for the hill visits, but it's also vital that farmers work to build trust and rapport with their federal representatives.

"In order to have your opinion heard, there has to be a respect level, and the only way you gain respect is to have a relationship and show that respect," Thykeson states. "If we don't show our faces out there and demonstrate our concerns, it's pretty hard to have that respect. In return, without the respect, your opinion doesn't weigh anything."

More information about the ASA's legislative priorities can be found at soygrowers.org.

—Story by Daniel Lemke, photo courtesy of Senator Hoeven's office



North Dakota Soybean Growers Association directors Justin Sherlock, (left) Brad Thykeson, (second from left), Chris McDonald (second from right) and NDSGA Executive Director Nancy Johnson (far right) met with North Dakota Senator John Hoeven during a visit to the nation's capital.

Bean Briefs

ASA Voices Concerns About the LCFS Updates

American Soybean Association (ASA) representatives participated in a public workshop, hosted by the California Air Resources Board (CARB), to discuss updates to the Low Carbon Fuel Standard (LCFS). The workshop addressed CARB's proposed regulatory amendments. While the ASA supported several aspects of the proposed changes, such as acknowledging the importance of liquid transportation fuels and chain-of-custody reporting for waste feedstocks, the organization expressed concerns about the absence of a vegetable-oil feedstock cap and the potential effect of certain proposals on the competitiveness of agricultural feedstocks.

The CARB amendments did not include a vegetable-oil feedstock cap for the biofuels included with the LCFS program. The ASA spent over a year pushing back on this concept, and while it was not included with the amendment package, CARB's Environmental Justice Advisory Committee (EJAC), once again, advocated for the cap during the workshop. Of note, CARB's presentation highlighted that implementing the EJAC vegetable-oil cap proposal would result in 900 million additional gallons of fossil diesel use in California.

One of CARB's notable proposals was the prohibition of virgin palm oil in the LCFS due to concerns about deforestation. Additionally, CARB suggested

a "sustainability guardrail" for crop-based feedstocks, which the ASA criticized for the potential cost burden, regulatory overreach through on-farm audits of production practices unrelated to carbon intensity and selective application only to agricultural feedstocks. The ASA plans to explore alternative solutions in order to address sustainability concerns while maintaining competitiveness for agricultural feedstocks.

The ASA remains actively involved with shaping the LCFS updates to ensure the sustainability and competitiveness of agricultural feedstocks in California's fuel market.

Ag Groups Oppose CARB's Freight Locomotive Regulations

The American Soybean Association (ASA), along with members of the Ag Tech Working Group and state soybean affiliates, urged Environmental Protection Agency (EPA) Administrator Michael Regan to deny a request from the California Air Resources Board for the authorization of regulations that target freight locomotives in California.

In a letter sent to the EPA, the organizations underscore concerns regarding the significant financial and operational burdens that these regulations would impose on freight rail carriers and their customers, particularly agricultural shippers and receivers. The group asserts that the proposed regulations may be

—continued on page 32



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Getting to Know the NDSC County Representative



Nathan Thomas
Mott, North Dakota, Hettinger County

Tell us about your farm.

I farm and ranch in Mott, North Dakota. I am a fourth-generation farmer and rancher. I partner with my brother-in-law, and together, we run GT Stock and Grain. We have a diverse rotation, which includes canola, corn, wheat, soybeans, sunflowers, durum, peas and other crops.

What do you like best about farming?

The thing I like best about farming is that, every day, there is

a new challenge. I also enjoy being my own boss. There are new things happening every day, and I also enjoy that I get to work with family.

Did you always know that farming was something you wanted to do?

Yes, I always knew that I would farm. At a really young age, I followed my dad around like a shadow. I knew I would farm one day. I just didn't know when.

Why did you get involved with the North

Dakota Soybean Council (NDSC) as a county representative?

I was asked by my Extension agent because I was raising soybeans, and my county needed someone to fill the position.

Why are soybeans part of your crop mix?

We always wanted to include a legume in our rotation because of the rotational benefits. I like raising soybeans more than the other legumes. Overall, soybeans have better genetics, which leads to higher yields. It is also easier to control weeds in soybeans compared to other legumes.

If you could change something about the current operating climate for North Dakota farmers, what would it be?

That we're guaranteed moisture. If we had a more consistent average rainfall, that would be ideal for all farmers in North Dakota.

What has changed most about farming since you've been involved?

Technology has changed drastically since I've began farming. Technology changes every year. It keeps getting better and better, and we have more options to use on our operations.

What changes do you expect to see on your

farm in the next 5 to 10 years?

I could see my parents retire, and then hopefully, my brothers-in-law's kids and my kids start to become more involved and begin to take over the operation.

What do you like to do outside farming?

I like to hang out and relax, fish, play cards, and do activities with friends and family.

If you could go anywhere, where would it be?

Australia/New Zealand, I think they have a unique farming world which would be extremely cool to see.

What's the one piece of farm equipment or technology you wouldn't want to be without?

GPS is essential. We are no-till, so if we didn't have GPS, it would be extremely hard to know where we've been in the field.

—Story and photo by staff

Nathan is one of the North Dakota Soybean Council's county representatives. To learn more about serving on the North Dakota Soybean Council as a county representative or board member, scan the QR code.



—continued from page 31

legally questionable, citing a U.S. District Court order affirming preemption by federal law. Additionally, the letter questions the feasibility of meeting regulatory goals, such as zero emissions, given the absence of commercially viable technology. The groups implore Administrator Regan to reject CARB's request for authorization, emphasizing the potential peril to U.S. agriculture and the broader supply chain.

Last year, CARB finalized loco-

motive emission regulations that would effectively require all locomotives to be electric by 2030. As with all locomotive regulations, the EPA is required to approve or to deny preemption requests when the regulation would impose more restrictions than the EPA guidelines. If approved, the CARB rule would affect both agricultural hauling and a growing market for renewable diesel.

The California rail network is significant, and many trains begin or end their journey in the state.

Stringent locomotive regulations will require railroads to either change locomotives before entering the state, causing delays, or to invest in electric propulsion technology, thereby increasing the pass-through costs for customers. Low-emission locomotives are an exciting new market for renewable diesel. The California rule would require railroads to move from the renewable-diesel technologies in exchange for electric technologies that are not yet widely available.

USDA WIC Updates Include More Soy

The U.S. Department of Agriculture (USDA) announced updates to the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) that could boost the number of soy products available to eligible program participants.

WIC food packages outline specific foods and drinks to supplement and to fill in key nutritional gaps in order to support

—continued on page 34

Getting to Know the Expert



Sam Funk, Ph.D.
Williston Research Extension Center

It's safe to say that Sam Funk, Ph.D., brought a diverse and extensive background to his new role as the director of the North Dakota State University (NDSU) Research Extension Center (REC) in Williston.

Funk is originally from Missouri, attended the University of Missouri, went to Texas A&M and earned his Ph.D. in agricultural economics from Kansas

State University (KSU). His work experience includes serving as the head of farm management programs at KSU. He was the chief economist for the United Soybean Board and the lead staff member for domestic opportunities. He also worked at Rabobank and the Iowa Farm Bureau Federation.

"I've literally traveled the world to try to enhance the markets for

U.S. soy," Funk says.

Funk has connections to North Dakota and NDSU, so when he became aware of the opening at the Williston REC, he jumped at the chance.

"I said, 'Hey, that fits me,'" Funk explains. "My wife and I are just rural farm kids that love being engaged in agriculture."

Funk's resume goes beyond economics and market development. He also has a background in science.

"I was a biochemistry major at the University of Missouri for three and a half years. I didn't start off as an economist, but I realized pretty quickly that the agricultural economics side was what I enjoyed most," Funk states. "I'm probably one of the few Ph.D. economists who knew a three-prime end of a DNA strand from a five-prime end."

Funk began his new role as the Williston REC's director in December. He understands that research and education will remain key factors for the future of agriculture.

"This world, obviously, has shifted in our society and in what people are going to demand and expect from agriculture. Part of that expectation is being able

to utilize the technologies that are available to us as we examine how we can operate and provide people what they want and create the best return for producers at the same time," Funk asserts.

The Williston REC is involved with wide-ranging research, including irrigation as well as operating a foundation seed program. Funk describes how he's committed to providing research and education for producers in the region.

"We're going to take the science and make sure that it works for the farms, the farmers, the families and the communities that depend on us," Funk maintains. "That's the nature of a land-grant institution; you've got the research, teaching and Extension missions."

Funk says that he is excited about what researchers at the Williston REC can do to support the region's agriculture and rural communities. "If there's one thing I just so love, it's when I see ideas and inspiration which impact the opportunities that somebody else can take."

*—Story and photo
by Daniel Lemke*

—Continued from page 17

state's law governing foreign land ownership. Chinese ownership came about through the sale and consolidation of Syngenta, which had been Swedish owned. Syngenta officials have said that the move will stifle valuable ag research in the state.

The Next Step

North Dakota has laws governing the ownership of agricultural lands, but the legislature

has authorized a study about the foreign ownership of all real estate. Thomas describes how that action becomes a much slipperier slope. Laws affecting real-estate ownership could mean delving into everything from who has invested in global hotel chains to the ownership of a local nail salon.

"It definitely is a whole different level of discussion when you talk about all real property versus just agricultural land," Thomas asserts.

Congress is considering several proposals that seek to restrict certain foreign purchases and acquisitions of U.S. land. Some measures, such as the Prohibition of Agricultural Land for the People's Republic of China Act, the Protecting Our Land Act, and the Securing America's Land from Foreign Interference Act, were considered during the previous legislative session and have been reintroduced during the current

congressional session.

"I recognize that some of these countries are very, very large trading partners with us, and we certainly don't want to give them any ownership interests in our agricultural land," Thomas contends. "However, we also don't want to create the impression that we're not willing to sell them the ag products that are critically important to North Dakota's economy."

—Story by Daniel Lemke

—continued from page 32

healthy growth and development during critical life stages. According to the USDA, the revisions are meant to align the food assistance packages with updated nutritional and health guidelines.

The ASA has long worked to help policymakers fully understand the many benefits that soy protein and soybean oil contribute to a healthy diet. ASA President and North Dakota farmer Josh Gackle commended the inclusion of additional soy in the nutrition program.

“As a high-quality, plant-based protein, U.S. soy can play an integral role in strengthening diets and food security,” Gackle says. “Soyfoods are low in saturated fat and cholesterol free, which provides a nutritious and satisfying addition to any diet. ASA supports improving nutrition and food security at home and abroad by expanding access to soy protein in foods and beverages, including foods used in federal nutrition programs like WIC.”

NASS Discontinues County-Level Data Reports

The U.S. Department of Agriculture’s (USDA) National Agricultural Statistics Service (NASS) announced that, due to budget restraints, reports for all County Estimates for Crops, among other surveys and studies, will be discontinued beginning with the 2024 production year.

In a notice, the NASS said that the agency will continue to review its estimating programs by using criteria focused on the needs of its mission and customers to prioritize budget decisions.

Leaders Seek Addition Food-Aid Funding

As Congress considers appropriations for the upcoming fiscal year, the American Soybean Association (ASA) and more than 100 other agricultural organizations are advocating for increased

funding for international food-aid programs. In a letter directed to leaders of the House and Senate Subcommittees on Agricultural Appropriations, these groups stress the vital importance of long-standing programs such as P.L. 480 Title II Food for Peace, Food for Progress, and McGovern-Dole International Food for Education, which have garnered bipartisan support for over seven decades. Specifically, the letter urges Congress to allocate a minimum of \$2.4 billion in funding for these initiatives within the FY25 agriculture appropriations bill.

Beyond addressing immediate humanitarian needs, the letter emphasizes the wider benefits of international food aid. By providing assistance labeled “from the American people,” these programs not only combat hunger, but also bolster U.S. economic and national security interests. Furthermore, utilizing American-grown commodities strengthens diplomatic ties with recipient countries, many of which have become vital trading partners.

ASA Submits Comments on BioPreferred Program

The American Soybean Association (ASA) has submitted comments about the proposed rule to adopt changes to and streamline the Biobased Markets (BioPreferred) Program to the administrator of the U.S. Department of Agriculture’s (USDA) Rural Development office.

Bioproducts offer sustainable solutions while supporting value-added markets for farmers. Soybean oil is one of the most versatile natural oils; its molecular structure and suitable fatty-acid profile can be used for many applications. Biobased products, including soy ink, soy foam and thousands of other products, represent an exciting and rapidly growing market for soybean growers.

The BioPreferred Program en-

courages the growth of biobased markets and fills a unique gap by providing these products with an important marketing tool: the USDA Certified Biobased Product label. Additionally, bioproducts with this USDA certification are made available through the BioPreferred Program’s product catalog, which governments and private companies can reference when making sustainable procurement choices.

While encouraged by efforts to streamline the program and to expand the product catalog, the ASA offered suggestions for improvement, including full federal participation.

“The U.S. government is the single largest purchaser of consumer goods in the world, yet this is not reflected in BioPreferred purchasing levels—despite the federal government’s legal obligation,” the ASA states in the comments. “ASA is concerned with this pattern of non-enforcement as federal agencies continue to increase their buying power every year.”

U.S. soybean farmers are leaders when it comes to the use of cutting-edge technologies and best management practices in order to increase economic and environmental sustainability. The ASA looks forward to continued collaborations with the BioPreferred Program as the program seeks to bolster the domestic bioeconomy.

Soy Growers Support Research Report

The 8th annual Feeding the Economy research report was released in April. This year’s project, led by the Corn Refiners Association, is supported by 32 food and agriculture organizations, including the American Soybean Association (ASA).

Feeding the Economy analyzes the food and agriculture sector’s contribution to the national economy, providing new data about jobs, wages and economic output at the congressional district, state and national levels. This research is crucial for conveying the important role, to both policymakers and the public, that food and agriculture play in our nation’s economy.

The 2024 report reveals a notable 11.8% growth for the total economic influence of these sectors over the past year, reaching an impressive \$9.63 trillion. This finding underscores the crucial role played by the food and agriculture industries to drive economic prosperity.

Key highlights include a surge in total jobs, wages and taxes, with assembling agricultural products now comprising nearly 20% of America’s manufacturing jobs. These findings emphasize the industries’ growing importance to the national economy.

—Story by Daniel Lemke



What is the Food and Agriculture Sector’s Impact in Your Community?

2024 Feeding the Economy Study Highlights



NCSRP: Getting into the weeds for Answers

Weed control in soybeans was revolutionized in the 1990s with the introduction of herbicide tolerant soybeans. Farmers could control weeds without killing the plants and reduce cultivation. But now as more weeds develop resistance to several popular herbicides, NCSRP is promoting what works today and exploring new innovations to enhance weed control.



SOYBEAN RESEARCH &
**INFORMATION
NETWORK**

WHERE WE'RE AT

Herbicide Resistance Management

Addressing weed resistance includes delaying potential resistance and taking control of herbicide-resistant weeds. **Through the Take Action Herbicide Resistance Management Program** funded by the soybean checkoff, farmers get the direction needed to manage weeds most effectively. Management practices such as rotating modes of action, adding in non-chemical political practices and more put farmers in control.

Non-Chemical Control

Effective herbicide-resistance management combines a variety of chemical and non-chemical management tactics to diversify selection pressure on weed populations and minimize spread of resistance genes. For example, **tillage works the soil and can control weeds through burial of small weeds**, disrupting roots and cutting or severely stunting weed growth. Tillage practices must be monitored to prevent buildup of weeds in the soil seedbank.



WHERE WE'RE GOING

Weed Electrocutation

One non-chemical weed control option gaining traction with researchers is weed electrocution. The **technology may prevent weed seed production** for some of the most common weeds found in Midwest soybean fields; including Palmer amaranth and waterhemp. Researchers in multiple states are comparing weed electrocution to other non-chemical treatments and exploring the overall effectiveness of weed electrocution on common weeds and weed density.

CRISPR Novel Resistance Traits

As existing and emerging weeds become tolerant to limited herbicides used in soybeans, researchers are collaborating to **equip soybeans with new genetic traits that confer tolerance** to three novel classes of herbicides. Improved cultivars amenable to a wider selection of herbicides would provide more effective weed control. Scientists are establishing a CRISPR base editing system to quickly and non-transgenically generate these new herbicide-resistant soybeans.

Funded by the soybean checkoff

13 NCSRP MEMBER STATES REPRESENT MORE THAN 355,000 SOYBEAN FARMERS



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The Soybean Research and Information Network (SRIN) is a joint effort of the North Central Soybean Research Program and United Soybean Board. The online resource contains checkoff-funded soybean production challenge research findings with direct links to the respective underlying scientific studies housed in the National Soybean Checkoff Research Database.

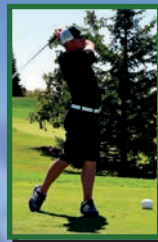
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