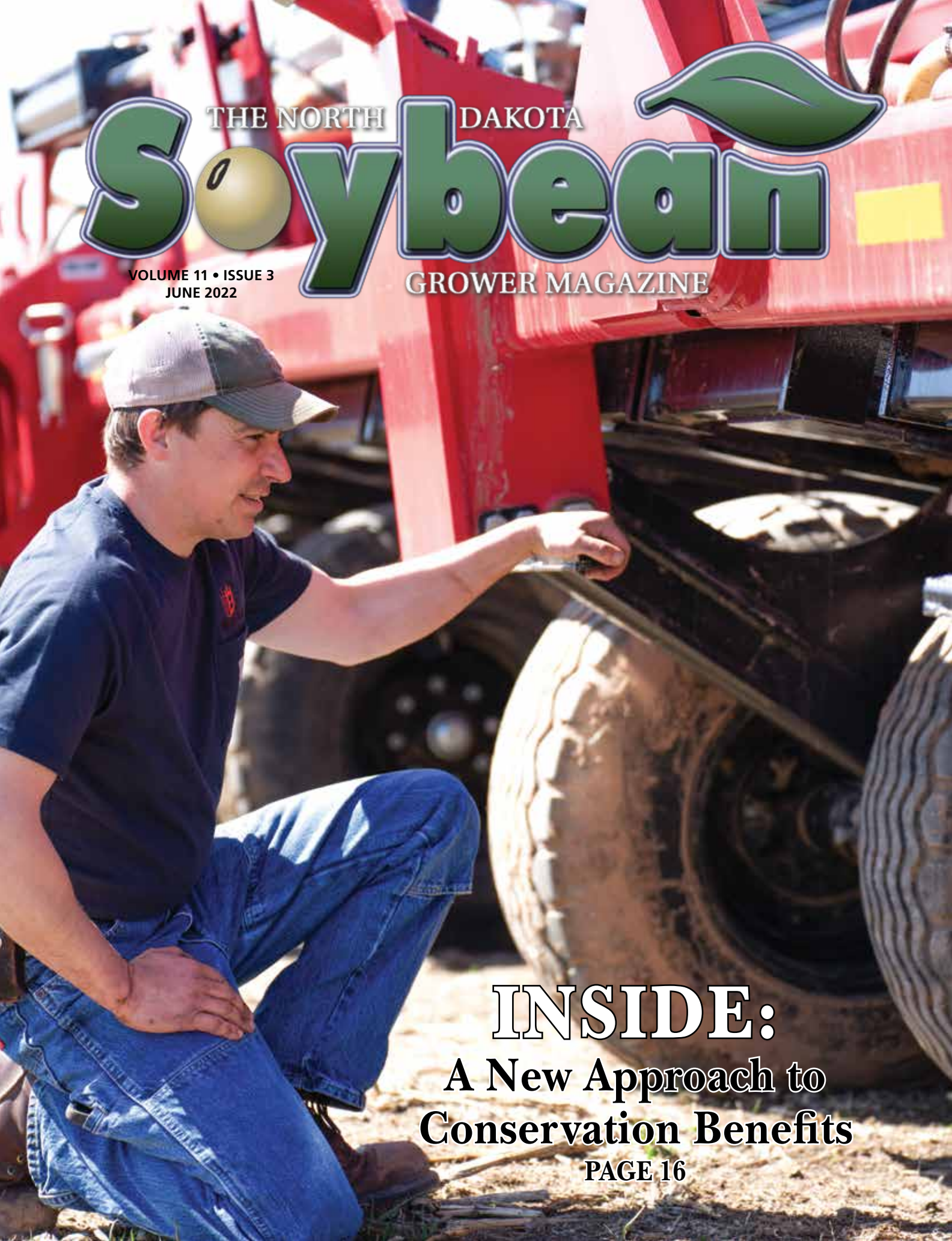




THE NORTH DAKOTA **Soybean** GROWER MAGAZINE

VOLUME 11 • ISSUE 3
JUNE 2022

INSIDE:
**A New Approach to
Conservation Benefits**
PAGE 16

Driving Demand for Higher Oil Soybeans



Demand for biofuels like biodiesel, renewable hydrocarbon diesel and sustainable aviation fuel is spurring development of additional soybean crushing capacity throughout the Midwest. Several processing facilities in the region are expanding, are under construction or have been proposed to extract the valuable oil that soybeans produce.

For many years, soybean meal was the driving force in the soybean market as a high-quality protein source for livestock like pigs, chickens and dairy. More recently, soybean oil has increased in value as a source to help meet growing biofuel needs. States like California and Oregon that have low-carbon fuel standards in place are turning to biodiesel and renewable diesel to meet carbon requirements. Combine domestic demand with an increased desire for energy independence in light of world events like the invasion of Ukraine, and soybean oil is a hot commodity. The emerging opportunity is not lost on farmers.

Mustang Seeds Soybean Product Manager Mason Roerig says the growing demand for soybean oil has farmers interested in planting varieties with a higher oil content.

“We’re just starting to see some guys interested in that,” Roerig says. “All these crushing plants going in across the region is really going to spike that interest. There are some plants that have just started construction and that’s going to increase the demand for soybeans in the entire area.”



A typical 60-pound bushel of soybeans produces about 12 pounds of oil. Soybean breeders are working to develop and propagate soybean varieties capable of producing more oil. Roerig says Mustang Seeds and its partner GDM recognize the opportunity higher oil production presents to soybean farmers.

“We’re working with GDM to analyze oil data from GDM germplasm across the territory to identify the best oil-yielding soybeans,” Roerig explains. “We’re targeting the high-yielding and high oil varieties. We’re going to be working with GDM to get varieties at the oil levels we want them to be.”

According to the American Soybean Association (ASA), U.S. farmers planted 83.1 million acres of

soybeans in 2020, producing 4.14 billion bushels of beans. ASA reports 24.9 billion pounds of soybean oil produced in the U.S. in 2019-2020. That number will likely increase as demand for soy-based biofuels grows.

“The main thing is identifying these higher oil varieties because it hasn’t been an industry focal point the past few years, but now that it is. We’ll be able to identify those varieties and have them available to growers,” Roerig says.

Roerig encourages farmers to consider planting higher oil varieties or simply shift to more soybean acres so growers can capitalize on some of the value that crush plants are going to bring.

Mustang Seeds is making higher oil variety education and information a point of emphasis with their sales managers and dealers, according to Roerig. Interested farmers should connect with their sales representative to get pointed in the right direction.

“We’re aware of the rising biofuel market in the area and our goal is to get ahead of it and help our farmers capitalize on it the best they can, all the way from Nebraska to North Dakota and everywhere in between,” Roerig says.

To learn more about Mustang Seeds and their seed portfolio, visit mustangseeds.com.





NORTH DAKOTA SOYBEAN GROWERS ASSOCIATION

PRESIDENT

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

VICE PRESIDENT

Ryan Pederson, Rolette | D7 | ryan.pederson@NDSGA.com

SECRETARY

Greg Gussiaas, Carrington | D5 | greg.gussiaas@NDSGA.com

TREASURER

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

DIRECTORS

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

Logan Ferry, Marvel | D6 | logan.ferry@NDSGA.com

Mike Appert, Hazleton | D8 | mike.appert@NDSGA.com

Joshua Stutrud, Barton | At-Large | joshua.stutrud@NDSGA.com

Justin Sherlock, Dazey | D4 | justin.sherlock@NDSGA.com

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

Dustin Helmick, Courtney | Corvea Young Leader | dustin.helmick@NDSGA.com

AMERICAN SOYBEAN ASSOCIATION DIRECTORS

Josh Gackle, Kulm | josh.gackle@NDSGA.com

Monte Peterson, Valley City | monte.peterson@NDSGA.com

NORTH DAKOTA SOYBEAN COUNCIL

CHAIRMAN

Austin Langley, Warwick | D9 | alangley@ndsoybean.org

VICE CHAIRMAN

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

SECRETARY

Mike Langseth, Barney | D1 | mlangseth@ndsoybean.org

TREASURER

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

DIRECTORS

Dan Spiekermeier, Sheldon | D2 | dspiekermeier@ndsoybean.org

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

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

JP Lueck, Spiritwood | D6 | jlueck@ndsoybean.org

Brian Jodock, Northwood | D7 | bjodock@ndsoybean.org

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

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

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

UNITED SOYBEAN BOARD DIRECTORS

Cindy Pulskamp, Hillsboro | cpulskamp@rrv.net

Darren Kadlec, Pisek | dkadlec@polarcomm.com

Matt Gast, Valley City | mgast85@gmail.com

Ryan Richard, Horace | ryanrichardusb@gmail.com

STAFF CREDITS

PUBLISHER/EDITOR

Nancy Johnson, NDSGA Executive Director

nancy.johnson@NDSGA.com | (701) 640-5215

STAFF WRITER

Suzanne Wolf, NDSC Communications Director

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

CONTRIBUTING WRITERS

Daniel Lemke

Stephanie Sinner

Jena Bjertness

Betsy Armour

CONTRIBUTING PHOTOGRAPHERS

Wanbaugh Studios

Betsy Armour Images

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

The N.D. Soybean Growers Association and the N.D. Soybean Council do not endorse the use of products promoted in this magazine.

C

ontents

- 6 Mantador Farmer Dedicated to Biodiesel
- 8 North Dakota Soybean Processors Plant Approved
- 11 Clean Fuels Alliance America to Lead the Future of Low-Carbon Fuels
- 12 Advancing the Herbicide-Resistance Battle of Palmer Amaranth with Genetics
- 13 Behind the North Dakota Soybean Scenes
- 14 North Dakota Soybean Council Welcomes Miki Miheguli as its Research Programs Coordinator
- 15 Concerns with Kochia
- 16 Global Ripples from Ukraine
- 18 **Cover Story**
A New Approach to Conservation Benefits
- 20 Taking Noxious Weeds to Task
- 22 New Horizons for North Dakota Soybean Processing
- 24 Southern Louisiana and Soybean Farmers: A Productive Partnership
- 26 Evaluating Rhizobium Populations in Field Soil
- 27 Second Annual NDSU Soybean Symposium Facilitates Research Collaboration
- 28 Turning By-Products into Products: Can Acidic Soils be Amended with Sugarbeet Lime?
- 29 Culinary Opportunities with Soy
- 31 A Boom for Beans
- 32 Making Ag Data Count
- 38 NDSGA Executive Director Honored for Leadership
- 4 ND Legislative Interim Update
- 5 President's Letter
- 10 North Dakota Soybean Council Report
- 34 Getting to Know Your NDSC County Representative
- 35 Getting to Know the Expert
- 36 Bean Briefs

O

n the cover

Dickinson farmer Ed Kessel sits on the steering committee of a farmer-led coalition working toward the development of a pilot program that would pay farmers \$100 per acre for practices that provide soil and water benefit. The Rural Investment to Protect our Environment, or RIPE program, takes a novel approach to climate smart agriculture.

—Photo by Timothy Jokerst



The North Dakota Soybean Grower is published six times a year by the North Dakota Soybean Growers Association, 4852 Rocking Horse Circle South, Fargo, ND 58104. Website: www.ndsoygrowers.com.

To update subscription information, please call (701) 566-9300 or email info@NDSGA.com.

Send editorial and advertising materials to Nancy Johnson, 4852 Rocking Horse Circle South, Fargo, ND 58104, nancy.johnson@NDSGA.com. Publication of editorial or advertising material in The North Dakota Soybean Grower magazine does not imply endorsement by the North Dakota Soybean Growers Association. Check agronomic advice with local sources and always read and follow product labels.

Legislative Leadership, and the Interim Tax and Water Committees

Citizens of every state should be knowledgeable about their governments. A democratic republic like ours is based on an educated populace taking the time to understand the structure and actions of the individuals elected to conduct the business of running the institutions. In this vein, I would like to recognize several of those leaders who have chosen to resign in the past few months so that we may be aware of and thank them for their contributions to our industry. While much could be written about each of these former colleagues, due to a lack of space, I will be brief.

Senator Rich Wardner (R), Dickinson, led the Senate as majority leader for the last 10 or so years. No one was a greater supporter of North Dakota State University (NDSU) research and Extension, water and transportation funding. Much the same was Senator Joan Heckaman (D), New Rockford, who was the minority leader and served since 2007. If agriculture needed a vote, Heckaman could be counted on. Both senators had open doors and were outstanding in the way they deal with people. Senator Ray Holmberg (R), Grand Forks, served longer than anyone currently involved and was, for a long time, chair of the Appropriations Committee, aka the money man. He led with humor, wit and a mastery of language and the budget. All three of these leaders were known for civility and grace under tremendous pressure. Representative Chet Pollert (R), Carrington, was majority leader of the House and was also known for his thoughtfulness and his patient approach to people and policies. While there are many truly wonderful legislators who advocate for agriculture that may or may not be back for the coming session, these four longtime leaders deserve credit for decades of service to agriculture. Thank you for your service.

On April 6, North Dakota Soybean Growers Association (NDSGA) Executive Director and newly named American Soybean Association Leadership Award winner Nancy Johnson showed why she deserves both titles when she addressed the North Dakota Tax Interim Committee. When this committee last met, I testified in favor of keeping the soybean crush tax incentive, and the legislators agreed. Chairman Dale Patten asked if there were anything more that the committee

could do to aid the soybean industry, and Johnson answered the call with a succinct presentation, explaining the size and scope of soybean growth and processing. She proposed that the legislature look at indexing or increasing the incentive amount to account for inflation. She then answered questions with a depth that is only possible by being immersed in the soybean business every day.

The Water Drainage Committee met again in its effort to bring changes to how Water Resource Districts (WRD) function and their relationship with the Department of Water Resources (DWR). Most people agree on combining the conflicting Century Code as that fine tuning continues. More in question is how or if to change the benefit/cost analysis for drainage projects. Chairman Larry Luick is concerned that some projects have landowners who believe that costs exceed benefits. He also says that the process needs uniformity from county to county. WRD Association leader and attorney Jack Dwyer asserts that WRDs already do some of that analysis, and he told the committee that landowners vote to tax themselves for assessed drains because they see the benefits. The committee discussed snagging and clearing, and Dwyer told committee members why the process was used. There were far-ranging discussions about the appeals process; one of the upshots was described by the DWR attorney, Jen Verleger, who stated that there is confusion about when a final decision is made by a WRD, which has often left a hearing open for further input. She asked that the committee firm up that process and then allow the appeals process to proceed when the hearing is closed so that both sides know what it is that they may be mediating on or judging for appeal. Upon questioning, she stated that, from 2010 to 2021, of the 19 appeals to the DWR, 10 were dismissed, and only one went to district court. DWR economist Dr. Duane Pool said that the goal with a cost-benefit analysis is to ensure that taxpayer dollars are spent efficiently while WRD representative Dwyer spoke about the great cost associated with conducting the analysis.

Another water committee, Water Topics, has also met since I last wrote you. At that March meeting, attorney Jack Dwyer, the executive secretary of the Water Resource Districts Association, testified in front of the Water Topics Interim



Veteran lawmaker and educator Phil Murphy is the NDSGA liaison between legislators and farmers.

Committee concerning bill number 2208 from last session. This bill failed and became a study for the interim session. Dwyer titled his presentation “SB 2208 and the Formation of the Water Drainage Committee—A Result of the Sargent County Drain 11 Dispute.” While you can view his slides under the agenda of that meeting (scan QR code below), the gist of the presentation was that the WRDs saw Senate Bill 2208 as an anti-drainage and anti-WRD bill which stemmed from some persistently complaining landowners in the assessment area. Established in 1917, the 41-mile-long drain was no longer operating properly and needed some improvements which were studied in 2014 and 2015. In 2016, the WRD voted to move the improvements forward using the annual maintenance levy for financing. Dwyer explained that opponents have framed this project as the Sargent County WRD (SCWRD) board conducting backroom meetings and sliding the project through strong landowner opposition without a vote and without considering the landowner benefits. Dwyer asserted that the opposite is true; the project was vetted extensively at the local level, and the SCWRD held nearly 100 public meetings with proper notice. He also noted the delays and that the engineering costs have risen due to inflation.

Thanks for your attention, and if you're not a member of the NDSGA, please consider becoming one to support your interests.

bit.ly/WRDAPresentation-Dwyer



A Game of Adjustments

Anyone who has ever played or watched sports knows that success often lies in being able to make some adjustments. Most teams go into a contest with a game plan in mind, but they may have to shift their strategy on the fly based on how the game is going or how their opponent is reacting.

Farming is also a game of adjustments. We may wrap up fall harvest and have a plan in mind for the next growing season, only to change those plans because of circumstances that are beyond our control or because unexpected opportunities arise. We've certainly had plenty of both experiences in the past few months as markets and prices have experienced volatility.

Global supply chain issues continue to vex nearly every industry, including agriculture. The availability of crop protection products and the rising cost of fertilizer have caused thousands of farmers across the country to reexamine their planting intentions. The U.S. Department of Agriculture estimates that U.S. farmers will shift about 4 million acres from corn to soybean production in 2022. North Dakota's intended acreage for 2022 is slightly

lower than last year, but 7 million acres of soybeans still places us among the top soybean producing states.

Farmers in Brazil dealt with weather issues this past growing season, so their production was lower than expected. Global soybean demand remains strong, so South American weather challenges became an opportunity. Better soybean prices were realized because the world turned to U.S. farmers to supply its needs.

The Russian invasion of Ukraine has thrown the world into turmoil and disrupted the flow of many agricultural products from this rich agricultural region. Although Ukraine doesn't produce many soybeans, it is a large wheat and sunflower producer. Because Ukraine isn't currently exporting any sunflower oil, global vegetable oil supplies have tightened, increasing the demand for soybean oil.

Domestic oil use is only going to grow as the demand for low carbon fuels, such as renewable diesel and biodiesel, accelerates. With soybean crushing capacity on the rise in North Dakota so, too, is the opportunity for soybean producers.

Not every year is going to be as volatile as this one, but the North Dakota Soybean



Kasey Bitz
President, North Dakota
Soybean Growers Association

Email:
kasey.bitz@ndsga.com

Website:
ndsoygrowers.com

Growers Association is doing its part to make sure that the state's soybean farmers have opportunities and the latitude to adjust to those possibilities.



Membership Application

To join ASA and the North Dakota Soybean Growers 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 NDSCA? (Please circle one)

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

☐ 3-Year Membership \$200 ☐ 1-Year Membership \$75

☐ Check enclosed (please make checks payable to NDSCA)

☐ 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

Mantador Farmer Dedicated to Biodiesel



The weathered biodiesel sticker clinging to the fuel tank on Terry Goerger's rural Mantador farm is a testament to the fact that Goerger's support for biodiesel has been steady through more than a few North Dakota seasons.

For a pretty simple reason, Goerger has actively used and promoted biodiesel for decades.

"We're making it from soybean oil, that's what caught my interest," Goerger explains. "I raised soybeans, and biodiesel comes from soybean oil. I thought I probably ought to try it."

Goerger's first experience with biodiesel did nothing to dissuade his support for the soy-based fuel.

"The biodiesel didn't affect performance; in fact, it got better on some of the tractors. I would burn fewer gallons per hour, and I noticed the smell of the diesel was gone," Goerger recalls. "It was more of French fries kind of

smell. Everything performed just beautifully. In fact, I had an older tractor that actually ran better, so I was convinced using biodiesel

was a good thing to do."

The experience convinced Goerger to not only continue using biodiesel, but also to become

an advocate for it. Not long after his first experiences, he started working with the North Dakota Soybean Council and with what



Mantador farmer Terry Goerger was recognized at the 2022 National Biodiesel Conference as being the longest-serving individual member of the National Biodiesel Board.

was, at that time, the new National Biodiesel Board (NBB) doing promotions to get more people to try biodiesel. Goerger has been an individual member of the NBB, which changed its name to Clean Fuels Alliance America earlier this year, for more than 20 years. He also became the chairman of North Dakota's Biodiesel Task Force.

"We did a lot of education programs throughout the area," Goerger recounts. "It was somewhat difficult to convince people because it was new, but I put B20 (20% biodiesel, 80% petroleum diesel) in everything I had here and kept track of usage to know what the difference was. I found it to be really easy. Blend it in, or have it blended and brought in. It was really easy to use, and I didn't have to change anything."

Education Focus

Most of the biodiesel industry's early efforts involved education. Informing farmers and others about biodiesel and its favorable characteristics of increased lubricity, reduced harmful emissions and improved engine performance took Goerger, who has been farming since 1974, to numerous locations across the United States. He says that he's talked to thousands of farmers and others about biodiesel to find out their concerns and then try to overcome them so that people would try biodiesel.

"We did a bus trip one time in Montana for NBB. It was a lot of media people and people in city government. We took a trip down to Yellowstone Park to where Jim Evanoff (former Yellowstone National Park environmental protection specialist) had used 100% biodiesel down in the park. I educated on the way down what biodiesel was, and Jim talked about how they utilized it. It was just another opportunity," Goerger states.

Goerger's outreach efforts also

took him to industrial settings, including mining operations in the western United States, to promote biodiesel use in heavy-duty circumstances. Once engine manufacturers became convinced that biodiesel was a legitimate fuel and they approved of its use in their engines, biodiesel became an easier sell.

"We had a short line railroad here out of Breckenridge, Minnesota, and they switched to biodiesel. They had Caterpillar engines and they just switched it over to a 20% blend, and they promoted it," Goerger asserts. "I was out in the mining areas, and we were working with them, trying to get them and, of course, they have a very high-pressure fuel systems, but once the engine manufacturers came out and approved it, they were a little bit more ready to use it."

Bright Future

The list of biodiesel users continues to grow. Entities such as the New York Port Authority rely heavily on biodiesel as does the St. Louis airport fleet. Closer to home, the Grand Forks Cities Area Transit bus system has found great success using biodiesel. Many states have biodiesel blended into every gallon of diesel fuel that's sold.

With the push for lower carbon fuels and the desire by companies and individuals to lower their greenhouse gas emissions, interest in biobased fuels such as biodiesel, renewable diesel and sustainable aviation fuel is growing rapidly. Goerger sees those avenues building on what biodiesel has started.

"They'll be great opportunities, especially since the world doesn't want to cut back on energy," Goerger contends. "We want to keep using the energy, and we're adding more and more. So, we have to look at every avenue of energy that we possibly

can, and every piece of energy is a piece of the puzzle. Whether it's biodiesel, electric, hydrogen, there's going to be a use for all of them. There's still going to be a use for diesel fuel as part of the fuel system. I think we've got to think about utilizing everything. If we want to continue to utilize more energy, we've got to make more energy."

Farmers First

Goerger explains that, in the early stages of biodiesel, fuel availability and infrastructure could be challenges. Now, most of those issues have been resolved. Biodiesel is available from many North Dakota fuel distributors.

With fuel available and farmers

benefitting from the use of biodiesel, Goerger strongly encourages farmers to be their own customer.

"I wish that every farmer would take a look at putting 20% biodiesel in their equipment and make themselves more money by supporting the industry," Goerger states. "It's simple and very easy to do. Farmers should be looking at it and saying, 'This is my product. I should be using it myself. I should be promoting it because it's putting more money in my pocket.' Not using it doesn't help your pocket."

—Story by Dan Lemke,
photos by Dan Lemke and Clean
Fuels Alliance America



For more than two decades, Terry Goerger has promoted biodiesel in North Dakota and across the U.S. He encourages farmers to help themselves by using biodiesel in their operations.

North Dakota Soybean Processors Plant

APPROVED

North Dakota Soybean Processors (NDSP), a joint venture of Minnesota Soybean Processors, based in Brewster, Minnesota, and Louisiana-based CGB Enterprises, had sought approval for the construction of the plant at the edge of Casselton. The \$400 million project will process an estimated 42.5 million bushels of soybeans each year.

“Cass County has more soybean acres than any other any other county in the country, so this is soybean country,” says Ron Obermoller, board chair for Minnesota Soybean Processors.

Besides being located in the middle of large-scale soybean production, Obermoller states that the intersection of two different rail lines at Casselton was also a major reason the site was selected. The location gives NDSP access to major markets.

Presently, most of North Dakota's soybean production is transported outside the state for processing or is shipped overseas as whole beans to markets such as China. Obermoller describes how North Dakota farmers were greatly affected by the lack of access to China during the recent trade war. Having domestic processing provides some certainty and market options for growers.

“This will be a constant market for farmers,” Obermoller explains. “We’re talking up to 20-cent basis improvement. But a lot of it is bringing value back to the farm. It’s a very good location with a good supply of good beans. Over the

years, North Dakota farmers have proven to be reliable supplier of beans. The nearest we could tell, this is probably the premiere spot in the country to build a crush plant.”

“I think, from a price standpoint, we’re going to provide some elevated markets more than likely,” asserts Steve O’Nan, senior vice president for CGB Enterprises. “Also, we’re going to be in the market for beans year-round. A processing plant crushes beans every single day. Unlike when you’re exporting beans where you only have a narrow window when the export market is trading, we’ll be buying beans every day. It’ll give the farmers some optionality on their marketing. It gives them some assurance that there will be a

market ongoing.”

Some Casselton residents and others were opposed to the plant’s location due to increased truck traffic as well as the potential for noise and light pollution. Obermoller says that project leaders met with residents and concerned citizens to allay as many concerns as possible.

“We’ve been working for a couple of months with them, listening to them, and there’s been a lot of changes in the plant itself to address the issues,” Obermoller explains. “There was a lot of work done up here to get the approval. It was a very well vetted project. We’ve done a lot of things to address the concerns. I think residents will be surprised how good a

neighbor we are and what kind of economic activity we’ll bring into the area.”

Obermoller expects a June or July groundbreaking at the site while final air quality permits are obtained. He contends that the NDSP is hoping for an 18-month construction phase, which means the plant could start purchasing soybeans in late 2023.

NDSP joins Green Bison Soybean Processing, LLC, in Spiritwood, as new crush facilities being constructed in North Dakota. Green Bison Soybean Processing is a joint venture between ADM and Marathon Petroleum, and the plant is expected to be operational by 2023.

“These value-added projects will provide opportunities not only for farmers now, but for future generations of North Dakota farmers,” North Dakota Soybean Growers Association President Kasey Bitz states. “These enterprises will provide farmers with new marketing opportunities, and the competition for soybeans is a good thing for growers. Plus, these plants could lead to more animal agriculture development in the state as well as other unique opportunities that create demand for our soybeans.

“I think it’s going to be a really good thing,” O’Nan contends. “Soybean processing plants don’t come and go when they’re built. They typically are in it for the long haul.”

Obermoller explains that the NDSP plant will deliver some important rural economic development for the region.

Obermoller says that the Minnesota Soybean Processors’ plant in Brewster draws soybeans from a 90-mile radius. He expects the NDSP plant to potentially draw soybeans from Minnesota and South Dakota as well as North Dakota.



Minnesota Soybean Processors Chair Ron Obermoller says the North Dakota Soybean Processors plant in Casselton will provide area farmers with a year-round soybean market.

—Story by Daniel Lemke,
photo by Rolf Hagberg

WISHH graduates entrepreneurs from **global training** for high-quality foods and feeds.



Connect with WISHH
wishh.org



WISHH is a program of the American Soybean Association and is funded in part by the United Soybean Board and state soybean board checkoff programs.

A Whirlwind of Progress

Checkoff
Investment



The phrase that comes to mind when I reflect on my six years on the North Dakota Soybean Council (NDSC) is “whirlwind of progress” because so much has changed in the soybean industry during that time. My tenure with the NDSC ends in June, and it has been a most memorable experience.

When I joined the board, we placed an emphasis on research. We jumped headfirst into new uses for soy products. Now, we have products such as road-dust suppressants, tires, shoes and so many other products that are made with soy. At that time, we dreamed of having a soybean crushing plant. Today, we have the real possibility of having very large, state-of-the-art crushing plants in Cass County and Stutsman County, two of the country’s top soybean-producing counties.

The growth and emerging opportunities for soybeans are a testament to all the farmers in North Dakota. We’ve expanded our acres, but along with that growth, we’ve kept our yields up. We’ve proven to the world that we can grow beans and that they’re good-quality beans. North Dakota farmers accomplished this task through China’s tariffs and during years with extremely challenging weather conditions, including drought and too much rain.

The NDSC is part of the Northern Soybean

Marketing group, which was a concept six years ago. Now, it’s a full-fledged organization that has earned solid traction in international markets by demonstrating the full nutritional bundle from northern-grown soybeans that perform so well in livestock diets. This multi-state cooperative effort helps to position our soybeans in a competitive global market.

The staff is a vital part of the organization, and in recent years, we’ve added capabilities at the NDSC to better serve farmers. In October 2021, we welcomed Shireen Alemadi to our newly created outreach and education coordinator position to support NDSC in program execution; work with industry partners, producers, and consumers on soybean related programs; and help extend the reach of checkoff resources. We recently said farewell to the retiring Kendall Nichols, who directed our research programs. Nichols was on top of all the research projects, making sure that the research was organized, completed and published. It’s not only important that we got those research projects done, but also that we got the information to producers. We’re very pleased to announce that Miki Mihoguli recently stepped into the role as research programs coordinator. See page 14 to learn more about Miki.

I was fairly young when I started on the



Austin Langley, Warwick, North Dakota

**Chairman
North Dakota Soybean Council**

Email:
alangley@ndsoybean.org

Website:
ndsoybean.org

board, and I really didn’t know what I could contribute. I didn’t know if my experiences or my qualifications would help the soybean industry at all. Other farmers who consider joining the NDSC now may feel the same way. When you start networking with the other board members, working with other state soybean councils, and connecting internationally with some of our buyers and other industry groups, you get other ideas, and you can put them to work back at home. It’s easy to get ideas and inspiration from meeting other people.

I admit that I wouldn’t have been able to do a portion of what I’ve done for the North Dakota Soybean Council if it weren’t for my family back home, including my wife, my uncle and my dad. Thank you for helping to take care of things at home.

While it’s my time to step off the board, it’s time for someone else not only to shine, but also to learn. This is a very exciting period in the soybean industry. We have record high prices, possibly record soybean acres in North Dakota and a growing global demand. I encourage interested farmers to consider serving on the NDSC. It’s important to obtain new directions and fresh ideas. This board is a good one to be a part of because you have a great staff and a great industry. You will stay engaged, and your mind will keep moving when you’re serving on the soybean council.

Biodiesel Rebate Available for North Dakota Farmers

Program Details

- Receive a 10 cent per-gallon rebate for B20 purchased, or receive 5 cents per gallon for B10.
- Each participant may collect a maximum rebate of \$1,500.

Eligibility

- North Dakota farmers who purchase fuel in quantities of 1,000 gallons or more are eligible.
- Preference is given to individuals with proof of a soybean-checkoff payment in 2020 or 2021.

How to Participate

1. Apply for the program through North Dakota Soybean Council partner MEG Corp before ordering your B20 or B10. Rebate-program funds are limited, with allocations for each North Dakota Soybean Council district.
2. MEG Corp will contact you to inform you that you have been approved.
3. Contact your fuel supplier to order B20 or B10.
4. Submit your fuel bills of lading or invoice showing the date, gallons, type of fuel and delivery address to MEG Corp.
5. MEG Corp will send you a rebate check after receiving the proper documentation.

Questions?

Contact MEG Corp at info@megcorpmn.com or (952) 473-0044.

To Apply for the Rebate

Visit bit.ly/NDSCbiodieselsebate22





Low-Carbon Fuels

On March 18, the Clean Fuels Alliance America celebrated National Biodiesel Day and honored Rudolf Diesel on his birthday. This year was especially meaningful as the industry celebrated 30 years of clean-fuel innovation, recognizing how far it's come since the early days of biodiesel. Today there has been an explosion in demand for low-carbon fuels such as biodiesel, renewable diesel and sustainable aviation fuel. It is this industry growth and diversification that inspired the National Biodiesel Board to announce a new name and brand: Clean Fuels Alliance America.

The organization formally transitioned to Clean Fuels Alliance America in order to further its position as a proven, innovative part of America's clean energy mix and better represent all industry members: biodiesel, renewable diesel and sustainable aviation fuels. The goal of Clean Fuels is to continue connecting people to accelerate America's clean fuel future and drive industry growth, with biodiesel remaining the foundation on which the industry was built.

"Our industry has seen and will continue to see significant growth as the world around us focuses on clean energy," explained Donnell Rehagen, CEO of Clean Fuels. "We are an integral part of the solution for sustainable energy that's not only affordable, but also scalable and available now. Further, our new name and brand represents the connected energies of our members and positions our industry for a clean fuels future."

Alan Weber, an economist and farmer from Missouri, has been involved with biodiesel from the

beginning. As a student at the University of Missouri in the early 1990s, Weber approached the agricultural economics chair with a concern that had been plaguing him for some time: "The cash flows on our farm were terrible, and I wanted to do something that helped create demand," he said. His concerns led him to work with another professor who was involved with turning vegetable oils into fuel. "I've been involved in the biodiesel industry for essentially 30 years now. The first 10 years were focused on research and answering baseline questions, and then, the focus shifted, and for about 20 years, that focus has been on the commercial phase."

Today, Weber asserted, "Carbon is very much on the forefront of people's minds. We can actually, through our farming practices, have an impact on the carbon-intensity score of the fuels that we

use, such as biodiesel and renewable diesel, and that is something we can do right now. I've been involved for approximately 30 years in this industry, and in some ways, I think we're just starting to get to some of the exciting stuff, and I'm all in!"

The clean-fuels industry has seen and will continue to see significant growth as the world further prioritizes clean energy.

The organization is grateful for their origins on the farm and for the individuals who had the vision to develop the biodiesel industry over the last three decades. Now, Clean Fuels Alliance America enter the next phase of growth and diversification with biodiesel continuing to lead the way.

*—Story and photo courtesy of
Clean Fuels Alliance America*

About the Clean Fuels Alliance America

Made from an increasingly diverse mix of resources, such as recycled cooking oil, soybean oil and animal fats, the clean-fuel industry is a proven, integral part of America's clean energy future. Clean Fuels Alliance America is the U.S. trade association that represents the entire biodiesel, renewable diesel and sustainable aviation fuel supply chain, including producers, feedstock suppliers and fuel distributors. Clean Fuels receives funding from a broad mix of private companies and associations, including the United Soybean Board and the North Dakota Soybean Council (NCSC).

As a member of Clean Fuels Alliance America, NDSC contributes to projects that help promote and create strong demand for soy-based biofuels.

To learn more about Clean Fuels Alliance America, visit cleanfuels.org.



Alan Weber, an economist and farmer from Missouri, has been involved with biodiesel from the beginning. Weber's story is unique and his passion for the industry is contagious.



Advancing the Herbicide-Resistance Battle of Palmer Amaranth with **GENETICS**

An invasive weed in the pigweed family, palmer amaranth, has recently reared its ugly (seed) head for North Dakota farmers. Palmer amaranth has been intensifying in the state within the last few years.

Zack Bateson, a research scientist with the National Agriculture Genotyping Center (NAGC) in Fargo, is working with seed scientists, seed companies and other researchers to help them identify Palmer amaranth seed and its possible herbicide resistance through studies supported by the

North Dakota Soybean Council.

“Palmer amaranth became of interest to us in 2018 when it was first reported in North Dakota,” Bateson says. “It can be tricky to identify a palmer amaranth seedling in the field because it can look like its relatives within the pigweed family. Palmer amaranth seed also looks identical to waterhemp and other pigweed species, including redroot pigweed and powell amaranth. To help identify pigweeds in the field and contaminated crop seed, we developed a test that genetically distinguishes them from one another.”

NAGC research scientist Zack Bateson adds Palmer amaranth DNA samples to a PCR plate to detect genetic markers that are associated with herbicide resistance.

Correctly identifying weeds is important for farmers, especially when herbicides aren't fully effective. It's also crucial for weed specialists and seed companies to know what kind of weed seeds they have in their seed pool. One of Bateson's research projects includes looking at the genetic markers of several pigweeds to identify which plants may be resistant to certain herbicides.

“We're collaborating with Drs. Joe Ikley and Michael Christoffers on a project in North Dakota State University's plant science department,” says Bateson. “We've conducted a survey to look at seed collections from 50 populations of pigweeds in eastern North Dakota for herbicide-resistance identification.”

From those collections, the North Dakota State University (NDSU) weed specialists shared leaf samples with Bateson; then, they grew weeds in greenhouses by utilizing the seeds of those collected plants. The weeds were sprayed with herbicides including a PPO-inhibiting herbicide, an ALS-inhibiting herbicide and glyphosate to see which plants survived.

Checkoff Investment



Bateson and his team are looking at genetic data from the original leaf samples (the parent plant) as well as the greenhouse samples (the offspring). The goal is to compare genetic test results from original leaf samples to the greenhouse-grown weeds and their reactions to the three herbicide applications. The team has preliminary data from glyphosate-resistance testing and will continue with the other herbicides in the same fashion.

“With a previous glyphosate trial, we saw a 90% agreement between the greenhouse results and what we were seeing genetically,” Bateson states. “The remaining 10% disagreement could be from other genetic markers associated with glyphosate resistance that we're not testing for now. We will be looking into it in the future.”

The NAGC tests use DNA-based markers. About 200 seeds can be pooled up in a genetic-identification test. The tests take a few days at the most, but specific tests can be turned around in a day if needed.

“These genetic tests are helpful for the seed labs and seed companies when they receive seed samples from fields,” Bateson explains. “We can extract the DNA and tell them what pigweed species are present and whether there is herbicide resistance.”

This research is supported by the North Dakota Soybean Council, the North Dakota Corn Utilization Council and the North Dakota Department of Agriculture.

The NAGC is a non-profit, independent diagnostic testing resource for plant breeders, growers and researchers. The center was founded in 2016 and is ISO certified. The center performs tests for the North Dakota State Seed Quality Department and other



Farmers:

Contact NAGC at (701) 239-1451

**for assistance testing suspicious weeds,
including Palmer amaranth**



Before herbicide application, NDSU research specialist Stephanie DeSimini (background) and undergraduate research assistant Emma Mitchell (foreground) collect leaf samples from pigweed seedlings for genetic testing by the NAGC.

Checkoff
Investment



state seed labs, private companies and producers.

For more information about the NAGC, visit NAGC website: genotypingcenter.com.

For more information regarding soybean diseases, pests, diagnostic tools and more, visit soybeanresearchinfo.com.

—Story courtesy of Soybean Research and Information Network, photos courtesy of NAGC

Behind the North Dakota Soybean Scenes

The North Dakota Soybean Council (NDSC) is directed by a board of soybean farmers who are elected by other farmers to oversee the investment of checkoff funds. Working side by side with the grower leaders is a dedicated staff of professionals who help implement the NDSC's vision.

In our ongoing series, we introduce you to the men and women who work to advance the state's soybean industry and to increase farmer profitability.

Suzanne Wolf Communications Director

Suzanne Wolf is more than just a veteran member of the NDSC staff. She's also a veteran of the U.S. armed forces. Wolf grew up in northern California foothills east of Sacramento. She graduated from the California State University, Chico, with a degree in journalism and an option in public relations.

Prior to joining the NDSC, Wolf served four years in the U.S. Army.

"I specialized in military intelligence as an intel analyst," Wolf

says. "I had the opportunity to travel quite a bit in the Army, traveling to South Carolina, Arizona and Kuwait, and I was stationed in Texas and South Korea."

After completing her service, Wolf followed her husband to North Dakota. She also served three years in the North Dakota National Guard with the 141st Engineer Battalion in Valley City. "My military experience was rewarding and made me a stronger person, a team player, and a proud and grateful American," Wolf explains.

When she arrived in Fargo in November 2000, Wolf began applying for positions, including the communications director position with the NDSC.

"I was thrilled when I was offered the position in January 2001," Wolf recalls. "Over the years, I really have learned so much about North Dakota agriculture and soybeans. It's quite rewarding to help share farmers' stories and to showcase the successes of the soybean industry."

Wolf manages all NDSC communication programs, including



NDSC co-workers Jena Bjertness, left, and Suzanne Wolf, right, are proud residents of Kindred, North Dakota.

advertising, the website, direct mail, email, social media, as well as content for the North Dakota Soybean Grower magazine and other publications. She also oversees media-relations activities and the promotion of NDSC programming.

"I really enjoy the variety of my work. Every day is different, which I really value and appreciate," Wolf states. "The best part of my job is definitely meeting and working with farmers and their families. North Dakota soybean farmers are hardworking, humble, honest and fun."

Wolf lives in Kindred and stays busy with her two sons: Rodney, 15, and Elliott, 12.

Jena Bjertness Director of Market Development

NDSC Director of Market Development Jena Bjertness grew up in Vermillion, Minnesota. She graduated from North Dakota State University (NDSU) with a bachelor's degree in animal science and microbiology, and a master's degree in animal science with a focus on animal nutrition.

During graduate school, Bjertness worked in the NDSU animal nutrition lab. After graduation, she joined Cargill as a chemist but later returned to the NDSU animal nutrition lab as the assistant manager. She then joined the staff of the

—Story continued on page 34

North Dakota Soybean Council Welcomes Miki Miheguli as its Research Programs Coordinator

Checkoff
Investment



The North Dakota Soybean Council (NDSC) is excited to announce the addition of Miki Miheguli as the research programs coordinator. Miheguli joined the staff team March 1, 2022.

“The NDSC is very pleased to have Miki join our team as research programs coordinator,” says NDSC Executive Director Stephanie Sinner. “This position serves a critical role supporting the North Dakota soybean producers

and the industry. Miki brings to the position true passion and enthusiasm for research and working for North Dakota soybean producers. Her work experience with numerous partners in research and extension programs for northern crops will contribute to the success of (the) NDSC’s checkoff-funded research, bringing greater value to North Dakota soybean farmers. We are delighted to have Miki on our team!”

Miheguli is a graduate of the University of Saskatchewan, where she received a Master of Science in Soil Science. She is a professional agrologist and a certified crop adviser with much experience in crop production practices, research, project management and the agriculture industry. She’s worked in agronomy, research and extension for more than seven years. Her previous positions include being an instructor and researcher at North Dakota State University (NDSU) and a research extension specialist with the Saskatchewan Canola Development Commission (SaskCanola).

As the research programs coordinator, Miheguli will work with the NDSC regarding the selection and oversight of funded research projects that will be most impactful to North Dakota soybean

farmers. In addition to managing research projects, Miheguli will serve as the staff liaison between the North Central Soybean Research Program (NCSRP) and the NDSC. She will have a high level of interaction with NDSU and NDSU Extension.

“I am thrilled to have an opportunity to work with North Dakota soybean producers, soybean researchers and research organizations on projects that can bring value to North Dakota soybean growers and the soybean industry,” says Miheguli. “I look forward to contributing to the success of North Dakota soybean farmers.”

Dr. Jay Goos, professor emeritus of soil science at NDSU, had the opportunity to work with Miheguli. “I was very happy when I learned that the North Dakota Soybean Council had hired Miki to be their research programs coordinator,” states Dr. Goos. “We worked together on student laboratories for a class she was teaching at NDSU, and I was impressed by her attention to detail and positive attitude. I think she’ll be a great addition to the staff of the council.”

Miheguli replaced Kendall Nichols who, after more than 40 years serving agriculture, retired at the end of March. His tenure included nearly a decade with the North Dakota Soybean Council.

—Story and photo by staff



Miki Miheguli joins NDSC staff team as research programs coordinator.

Do You Grow Soybeans?

Please participate in North Central Soybean Research Program’s (NCSRP) short online survey to help develop a cropping system optimization decision tool. Dr. David Kramar, Precision Agriculture Specialist at Carrington Research Extension Center is leading this survey in North Dakota.

Learn more at bit.ly/NCSRPsurvey22





Concerns With Kochia

Kochia remains to be the most-challenging weed in North Dakota, especially with the development of resistance to multiple herbicides.

"Kochia would be our number one weed statewide," contends North Dakota State University (NDSU) Extension Weed Specialist Dr. Joe Ikley. "We just continue to deal with more kochia issues. The drought last year really made kochia an issue for us. It produces a tremendous amount of seed, so we anticipate kochia will be back with a vengeance again in 2022."

Ikley says that kochia is a very drought-tolerant weed that grows in areas where farmers have issues establishing crops, such as saline areas or sodic soils. Kochia is also well suited for drought. Kochia hadn't been an issue in some of the fertile soils of southeast North Dakota, but thanks to the 2021 drought, the threat continues to spread.

"Kochia can have quite robust root system and is able to find water in areas where crops can't," Ikley states.

Along with being present in every North Dakota county, kochia is becoming increasingly difficult to control because it has developed tolerance to some herbicides.

Growing Resistance to Herbicides

Ikley explains how, for decades, kochia has shown increased tolerance to 2,4-D, so the rates of 2,4-D

that farmers can use with Enlist soybeans alone won't be enough to control kochia. Ikley says that there is also widespread resistance to Group 2, ALS-inhibiting herbicides.

"We do have quite a bit of glyphosate resistance around the state, and that's increased in its footprint in the last three to five years. So, controlling kochia of course, is becoming a major issue for us in soybean production," Ikley asserts. "Then, we do have some resistance to dicamba."

Ikley states that there are also certain level of resistance to fluroxypyr (Starane), which is frequently used with wheat. Fluroxypyr is another growth regulator that is similar to dicamba.

"If dicamba resistance continue to grow, that's going to make it more difficult for soybean growers as well, even in the Xtend® soybean system," Ikley contends.

Kochia control in soybeans starts with a good pre-emerge herbicide.

Scientists have conducted several years of research at NDSU North Central Research Extension Center, applying flumioxazin (Valor) on no-till ground in the fall before the ground freezes. Ikley says that, because kochia is one of the earliest-emerging weeds, there is residual chemistry left in the soil when kochia germinates. Ikley states that a fall pre-emergence application doesn't work as well with conventional tillage.

For traditional pre-emerge

NDSU's Joe Ikley helps farmers identify different weeds at KMOT Ag Show in Minot.

Checkoff Investment



applications, Ikley describes the best options are applying herbicides with sulfentrazone (Trade names include Authority or Spartan.) or metribuzin (including Sencor or Dimetrice). Ikley explains that farmers can get some control with flumioxazin, but it isn't as effective as sulfentrazone and metribuzin.

"If we use the half-pound rate of dicamba, we can get some residual activity out of that as well," Ikley says.

Good kochia control starts with a good pre-emergence program, but for post-emerge applications, Ikley states that one of the best-available tools is using dicamba and the Xtend® soybean system. Another effective option that farmers have is glufosinate, which is available in products such as Liberty®.

"The issue we'll run into with kochia once it gets over three inches is there's just a lot of growing points on kochia. If you don't get complete coverage with something like glufosinate, then you'll burn some of the tissue, but it will regrow," Ikley explains. "Once kochia gets over two or three inches, it becomes a lot more difficult to control with any of herbicide options. That's one of the reasons dicamba is so popular. It can do a little bit better on those three- or four-inch-tall plants than some of the other options."

Kochia does have the ability to regrow and produce quite a lot of seeds even after the wheat fields have been harvested. Ikley asserts that, if wheat fields had poor control last year and nothing was done for good management after harvest, there could be a lot of kochia seed waiting to germinate.

"If you had a problem last year, you'll probably have an issue again this year," Ikley warns.

Multi-Crop Management

NDSU and University of Minnesota Extension Sugarbeet

Agronomist Tom Peters knows full well the challenges that kochia presents to North Dakota and Minnesota farmers.

"I worry a lot about water hemp in sugarbeets, but I'm scared to death of kochia because there's just so few tools that we have, period," Peters says. "I just don't want to see it re-establish itself here."

Most North Dakota farmers plant a variety of crops. Peters encourages farmers to look at the big picture when managing kochia.

"I would say that the best program for managing kochia in sugarbeets is your crop rotation. What you used in soybeans two years ago and what you used in wheat last year. That's your best program," Peters explains.

Peters asserts that good weed management involves a plan, not just reactionary tactics.

Peters continues, "You have to manage the fields that you're planting to sugarbeets, not just sugarbeet fields. The message I give to growers is, if there's going to be sugarbeet somewhere in the crop sequence, then prepare for that by knowing what your most important weeds are in your fields; then, plan and do something about them."

Crop rotation and monitoring the weed control are important for controlling kochia. Because kochia can blow from neighboring fields or uncontrolled areas, such as ditches and railroad right of ways, kochia control requires farmer vigilance.

—Story by Daniel Lemke,
photo by staff

For more information, download NDSU's 2022 Weed Control Guide: bit.ly/NDSU2022weedguide





the day that Ukraine was invaded, all major ports closed, and they have not reopened.

Ag Impacts

Russia is the largest wheat exporter by volume. Before the invasion occurred, Ukraine was number four. Olson states that Ukraine has a major influence on wheat and wheat products, primarily for hard red winter wheat.

The United States is number one for corn exports while Ukraine is the fourth-largest corn exporter. Both Ukraine and Russia are major exporters of feed barley, which is used widely instead of corn in the European and Middle Eastern markets.

“The feed grain complex globally has also been impacted by the fact that Ukraine cannot export anything,” Olson asserts.

Olson says that the planting schedule in southern Ukraine and southern Russia is similar to that of South Dakota. Serious questions remain about what and how much planting will occur in

Global Ripples from Ukraine

Russia's invasion of Ukraine and responses to that action are causing global geopolitical and economic repercussions that are felt all the way to North Dakota.

The United States, western European countries and other nations have primarily responded to the invasion through economic sanctions, which North Dakota State University Crop Economist and Marketing Specialist Dr. Frayne Olson says are having an economic effect on Russia and its ability to manage its finances.

Olson states that the economic sanctions first hit the Russian banking system and the money flow.

“Think about the money flow within the country as the blood that runs through your body. What countries are trying to do is cut off the blood flow,” Olson explains. “That action can have a very stark and immediate impact. The value of the Russian ruble on the international stage has dropped dramatically. The stock market within Russia has been closed since about day two of the conflict and has not reopened. You can imagine what would hap-

pen if the stock market in Russia were to reopen and what would be the value of their companies.”

The second major effect of the economic sanctions is through trade flow. Olson describes how Russia generates a lot of its new wealth from exporting natural resources.

“When you look at the composition of the Russian economy, it's very heavily based on natural resources, much like North Dakota,” Olson says.

Regional Fallout

Russia is the world's second-largest exporter of crude oil, behind Saudi Arabia, and Russia is the largest exporter of natural gas. Much of Russia's natural gas goes to manufacturing nitrogen fertilizers, but it's also used for heating. Olson states that western Europe has become very dependent upon crude oil and natural gas supplies for industrial applications, home heating and electrical generation.

Olson asserts that the sanctions' effectiveness will depend upon China's response. If Russia is able to shift its product flows from European and Middle Eastern markets to the Chinese market,

that change would reduce the influence of the economic sanctions. So far, Olson explains that China has taken a very neutral position.

Russia's ability to export energy products, such as liquefied natural gas and crude oil, through the Black Sea ports has been slowed but has not stopped. In contrast,



North Dakota State University Crop Economist and Marketing Specialist Dr. Frayne Olson says the ongoing war in Ukraine is having far-reaching effects.

Ukraine this year.

“The biggest issue for Ukrainian farmers right now is fuel supplies and labor. Not only the fact that they may or may not be able to get into the field, but from an input side, fuel supplies and labor are major issues,” Olson explains.

As the conflict drags on, there are varying accounts about how much Ukrainian farmers will be able to plant. Estimates range from a 25% to over 50% reduction in planted acres, depending upon the crop.

Olson states that the Ukrainian government has asked farmers to focus on growing food, not feed grains. Therefore, the emphasis will likely be on planting and harvesting wheat and vegetable crops with less focus on corn or feed barley.

Russian farmers are also affected by the military invasion of

Ukraine. Olson describes how the biggest issue for Russian farmers is access to credit. The Russian government has allocated about 1.2 billion U.S. dollars for short-term loans so that Russian farmers can purchase their inputs.

“The likelihood that there will be some production shortfalls or at least some lower plantings or some lower yield potential coming out of Russia is also very high,” Olson explains.

Ukraine and Russia are the world’s two largest exporters of sunflower oil. Their inability to export and to deliver the sunflower oil that they normally would is putting added pressure on vegetable-oil prices globally. In late April, Indonesia, the world’s largest palm oil exporter, announced a ban on exports of palm oil (crude and refined products) in response to increased global vegetable oil

prices and domestic food security.

Olson says that global palm-oil supplies are short, and that situation is spilling over into the U.S. oilseed market and, in particular, affecting soybean oil.

“We’ve seen soybean oil futures more than double in the last 12 months,” Olson states. “There’s a blessing and a curse in that increase.”

On the crushing side, Olson asserts that the higher demand is welcome because crushers can sell oil and meal at higher prices and because profit margins should remain strong. However, meal and oil end users are feeling the pinch of higher prices.

Russia is a major exporter of fertilizer, including urea and anhydrous ammonia. Olson says that Russia typically supplies Brazil, Argentina, Europe, India and sometimes China.

**Checkoff
Investment**



“Because Russia doesn’t have the supplies available, global prices have increased, which now is trickling back into the U.S. market. This is a global market,” Olson explains, “so, even if fertilizer is manufactured in the U.S., if the price is right, it’ll get loaded onto a vessel and shipped to India or Brazil. North Dakota farmers are competing right now against everybody else in the globe.”

Olson expects the availability and cost of fertilizer products to be a lingering challenge for U.S. farmers as a result of the Ukraine invasion and the global supply chain issues.

—Story and photo Daniel Lemke

Get Ready to Corner the Market

NDSC Midseason Market Outlook for Soybeans Online Webinar • July 29, 2022 • 8:00 – 11:30 a.m. CST

The North Dakota Soybean Council is proud to offer the Midseason Soybean Market Outlook again this year. This program provides soybean producers and industry with a midseason look at the soybean markets and a discussion about marketing strategies prior to harvest.

Dr. Bill Wilson and Dr. Frayne Olson of NDSU will discuss how the season is progressing, the world demand, and the marketing strategies and risk-management options for the 2022 soybean harvest.



NDSU

This event will be an online webinar held on July 29, 2022.

- The webinar is **FREE** and is open to North Dakota soybean producers, industry, educators and others who support North Dakota soybean producers.
- Register before **Friday, July 22** to participate.
- Registered participants will be provided with a link and instructions for logging in the day prior to the event.

Questions, call (701) 566-9300

Register online at

bit.ly/NDSCMidseasonMarketOutlook



Dr. Bill Wilson



Dr. Frayne Olson

North Dakota Soybean Council • ndsoybean.org

A New Approach to Conservation Benefits

Programs designed to pay farmers for carbon sequestration have increased rapidly in recent years because people and organizations recognize the significant role that agriculture can play in reducing carbon. One group that has frequently been left out of these programs is the farmers who have already employed conservation practices such as reduced tillage or the use of cover crops.

A multi-state, farmer-steered conservation program aims to change that equation.

Rural Investment to Protect our Environment (RIPE) is a coalition of farmers, ranchers and

representatives from agricultural trade associations who are pushing climate policy that integrates fair agricultural solutions. The RIPE100 program is a proposal from this group to directly pay farmers or ranchers \$100 per acre or animal unit for voluntary land stewardship practices that can provide a greater benefit to the public. Those public benefits include carbon sequestration, improved soil health, cleaner water, water conservation, flood mitigation, pollination, biodiversity and other environmental services.

“The RIPE100 program looks to pay farmers \$100 per acre to raise cover crops and ranchers

\$100 per animal unit for practices like rotational grazing,” Ed Kessel, Dickinson farmer and a member of the RIPE steering committee says. Kessel also serves as first vice president for the North Dakota Grain Growers Association, one of RIPE’s partnering organizations.

Kessel explains how the \$100-per-acre payment would help to cover farmers’ costs for the resource-saving practices that are employed.

“That’s the unique part about RIPE100. It covers all your costs and ensures you a little bit of a profit,” Kessel states. “All those practices that RIPE has selected have more than \$100 in public

value. The public is getting value out of farmers and ranchers doing these practices through benefits like soil health, water quality and air quality.”

RIPE100 program is designed to remedy many of the shortcomings with carbon farming payment programs, which program leaders say are a net economic loss for most farmers.

Early Adopters

Kessel raises a variety of crops each year and employs various conservation practices, such as strip till and cover crops. Most years, about one-third of his farm is seeded into cover crops. Because he has a history of utilizing conservation practices, he’d be ineligible for many carbon sequestration programs.

“One of the things we’re looking at is the fact that RIPE100 doesn’t penalize early adopters: the people currently doing these practices,” Kessel explains. “Some of the other programs want to pay you to change. RIPE will pay you for the practice because you’re already doing it and the benefit is there for the public. That’s one of the things that really interested me. If I’m doing the practice already and it’s benefitting the public, but there’s a cost to me, I’m able to recoup that cost.”

Kessel describes how acreage flexibility is another attractive feature with the RIPE100 program.

“With RIPE, you just sign-up total acreage on your farm. On my farm, we can only put about one-third in cover crops because of the way our rotation works, but I’m not tied into specific farm numbers, it’s just acres,” Kessel contends. “Some of the



The RIPE100 program would pay farmers \$100 per acre for conservation practices like planting cover crops.



Dickinson farmer Ed Kessel says one attractive feature to the RIPE100 program is that it wouldn't penalize farmers who have already adopted conservation practices.

other programs, you're tied into a specific farm."

Kessel explains how the RIPE100 program won't tie a farmer's hands if circumstance force growers to change their original intentions.

"If it doesn't work this year to get a cover crop in, I just don't get a payment on those acres. If something changes on the farm and I need to change what I plant, I'm not tied into cover crops," Kessel adds. "When we talk to farmers about RIPE100, that's some of the things they like about it."

Collaborative Effort

RIPE is governed by a board of directors and includes a steering committee with representatives of agriculture organizations from across the country. Participating organizations include the North Dakota Grain Growers Association and the North Dakota Farmers Union.

In order to get the RIPE100 program off the ground, RIPE is seeking funds from the U.S. Department of Agriculture (USDA), which earlier this year

made \$1 billion available for partnerships to support America's climate-smart farmers, ranchers and forest landowners. The Partnerships for Climate-Smart Commodities will finance pilot projects that create market opportunities for U.S. agricultural and forestry products which use climate-smart practices and include innovative,

cost-effective ways to measure and to verify greenhouse gas benefits. Funds were made available through the Commodity Credit Corporation (CCC).

Kessel says that RIPE is applying for the CCC grant to conduct a pilot program. If the funding is secured, the pilot program would take place in North Dakota, Arkansas, Virginia and Minnesota. RIPE organizers stress that funding for the RIPE100 program should not come from any existing USDA programs or allocations; the new proposal should not remove funds from other important programs.

"Getting that pilot would allow us to demonstrate that the RIPE100 program will get producers to use and add acres and practices to their farms," Martin Barbre, vice president of engagement and government relations for RIPE states. "We're also pursuing some other options for pilots through standalone appropriations."

Current USDA conservation programs include many aspects that RIPE is hoping to draw upon,

including stewardship practice protocols, farmer self-verification and USDA technical expertise. However, RIPE leaders contend that current working land programs neither compensate at levels that reflect the public benefits delivered, nor do they fully account for the expenses that farmers incur through practice adoption and the increased input costs due to climate policies.

The RIPE100 program policy proposal provides farmers with profitable compensation that reflects the environmental benefits which are delivered.

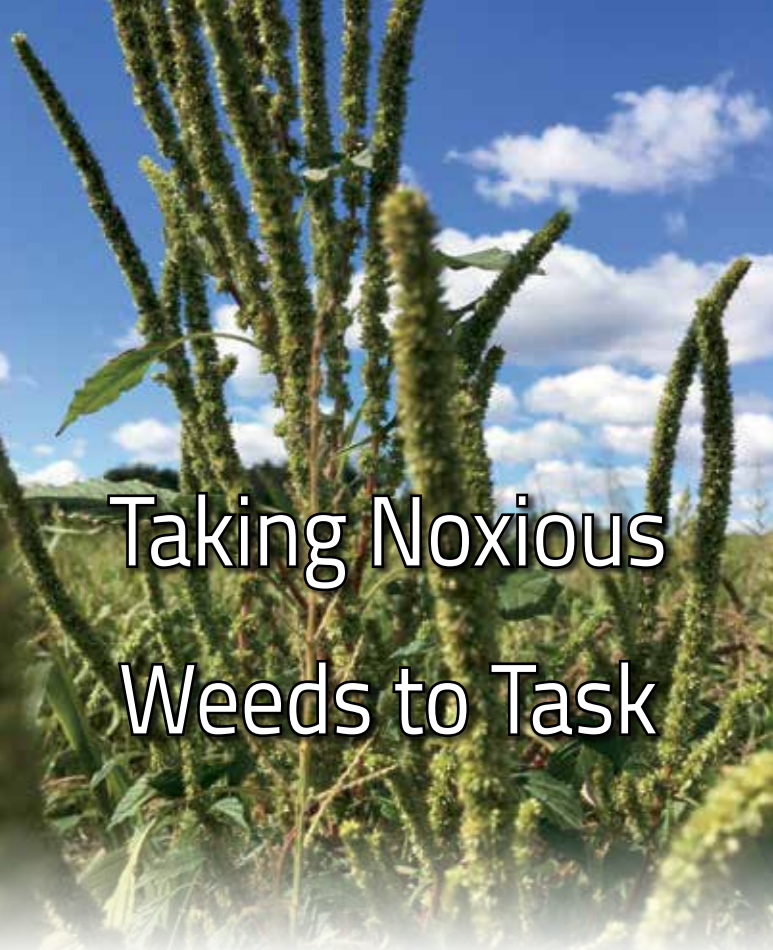
"Farmers have to be profitable," Kessel asserts. "If we can't stay on the land, we can't do the practices that provide public benefits."

—Story by Daniel Lemke, photos by staff and Timothy Jokerst

Learn more about RIPE and the RIPE100 program, go to bit.ly/RIPE2022



Kessel says farmer profitability is a key component of any conservation program.



Taking Noxious Weeds to Task

Weeds are a constant management challenge not only for farmers, but also for county weed officers and weed boards. Dozens of county weed officers, North Dakota State University research and Extension officials, commodity group and agriculture association members, and agribusinesses took part in a noxious-weed task force meeting called by North Dakota Department of Agriculture Commissioner Doug Goehring to discuss how to best manage noxious weeds across the state.

“I wanted to bring everybody together to convey a lot of information about what state law says, what responsibilities are with the county weed officer, the county commissioners, the county boards and then the authority that the commissioner has,” Goehring says, “and then talk about some of the challenges that exist out there, talk about all noxious weeds and why you can’t single one out once it’s put on the list.”

Palmer amaranth is a recent addition to the noxious weed list,

but there are others that also require management. North Dakota’s noxious weeds are absinth wormwood, Canada thistle, dalmation toadflax, diffuse knapweed, houndstongue, leafy spurge, musk thistle, Palmer amaranth, purple loosestrife, Russian knapweed, saltcedar, spotted knapweed and yellow toadflax.

“Agriculture operates with inherent risk,” Goehring states. “We want to help mitigate some of the risk with best management practices in as many areas as feasible.”

Goehring describes how the task force’s goals were to review statewide weed control procedures, to identify areas that may contribute to the spread of noxious and invasive weeds, and to provide a better understanding about the prevention and weed management plans for high-risk areas.

Goehring explains that the noxious weed laws apply to plants. He says that there is also a noxious weed seed list for the seed industry. For the feed industry, feed is considered adulterated under state law if it contains viable noxious weed seeds

above 4.5 seeds per pound.

State law requires everyone to do all things necessary and proper to control the spread of noxious weeds. Goehring contends that there is a different level of engagement for noxious weed management across the state.

“Every county is different, and you can’t impose or force counties and county commissioners and weed boards to be active or not. They’re limited by what they can do in the law, how far their authority goes,” Goehring asserts. “We encourage the Weed Control Association to reach out to less active counties to talk to them about what their authority entails.”

The North Dakota Department of Agriculture has two programs to help weed boards with noxious weed management.

The Targeted Assistance Grant (TAG) program focuses on noxious weed control needs and provides a cost-share opportunity for county and city weed boards to meet those needs. TAG supports noxious weed programs by offsetting the costs of core supply purchases, such as software, mapping equipment, computers and spraying equipment.

The Landowner Assistance Program (LAP) provides weed

boards with cost-share assistance for noxious weed control. A majority of weed boards have used these funds to provide landowners with herbicide cost-share assistance. Eligible county and city weed boards are responsible for developing a LAP cost-share program for their areas.

“That program (LAP) is targeted at non-cropland acres,” Goehring explains. “In North Dakota, it’s about 12.5 million acres that are non-cropland. These funds, which are authorized by the legislature, can be used to help offset the cost of herbicide or application.”

Wimbledon farmer Joe Ericson, a former North Dakota Soybean Growers Association president, took part in the task force meeting.

“About half of the state’s weed boards aren’t as involved as the other half, whether it’s because of funding or manpower, they just can’t keep up. That’s a hurdle we’re going to have to work through,” Ericson says.

No date was set for any future task force meetings, but “what I sensed was a greater appreciation for where everyone’s at and that we have to continue to work together,” Goehring states.

—Story by Daniel Lemke,
photo submitted



North Dakota Agriculture Commissioner Doug Goehring convened a noxious weed task force to discuss how to best manage weeds statewide.



(YOU)

You're where the rubber meets the road.
And the engine. And the interior.

All soybean farmers, including you, are busy replacing petroleum with your soy oil. How? By pooling your resources through your soy checkoff. Learn how your soy checkoff is bringing tangible returns back to you and your operation at unitedsoybean.org/hopper.



Moving Soy Forward.
Moving You Forward.



©2021 United Soybean Board (61133-1 7/21) ND



New Horizons for North Dakota Soybean Processing

Growth in low-carbon fuel demand has North Dakota in a potentially enviable position. Fuels such as biodiesel, renewable diesel, and sustainable aviation fuel made from soybean oil are poised for tremendous growth.

Renewable diesel from soybean oil holds strong potential for soybean-oil usage. Green Bison Soy Processing, LLC is a joint venture between ADM and Marathon Petroleum. The plant in Spiritwood will process soybeans and will deliver the oil to Marathon's Dickinson renewable-diesel refinery.

"It's a 75% to 25% split, with ADM being the majority owner, where we will produce the feedstock for the Marathon Dickinson facility," stated Charles Mueller, finance manager for Ag Services and Oilseeds at ADM. "We're looking to produce about 600 million pounds of refined and bleached oil a year, and that will roughly equate to about 75 million gallons of renewable green diesel, which is a drop-in fuel."

"When you think about typical petroleum products, the renewable green diesel will serve as an equivalent, meaning that you can pump it into your car and go,"

Mueller said.

Uniquely Positioned

North Dakota's abundant farmland, strong yields and support for biofuels put the state in a good place to take advantage of the growth opportunities with low-carbon fuels.

"North Dakota is properly positioned to leverage this and to continue to add more value where beans are historically being exported out to the Pacific Northwest. Now, there's going to be other avenues for the growing community to be able to not only produce the soybeans in North Dakota, but (also) to have them be further processed for value-added products, including renewable green diesel," Mueller asserted.

Challenges Ahead

For the growth with renewable diesel to continue, policy decisions will bear watching. Federal and state decisions will have a major effect on the how those industries are shaped in the future.

"The first thing we've got to do is successfully navigate through the Renewable Fuel Standard (RFS) transition at the end of this year to make sure that we have access to the market," explained

Jeff Zueger, CEO of Midwest Ag Energy and Chairman of the North Dakota Ethanol Council.

"We see that there is a demand that is going to continue to incrementally build," Mueller contended. There are certain states that are more key to the market in terms of

where the renewable green diesel is going now. But it would be a great idea and a dream of ours to be able to see this actually happen in North Dakota as well and to have an open market where we can not only have the growers producing soybeans in the state,



Charles Mueller, finance manager for Ag Services and Oilseeds at ADM was a featured panelist during a discussion on processing opportunities at the Northern Corn and Soybean Expo.

processing them in the state, but also consuming as well.”

Zueger stated that 2022 is a very pivotal year because of the RFS. Congress has specified RFS volumetric requirements through 2022 for total renewable fuels, advanced biofuels, cellulosic biofuels and biomass-based diesel. For years after 2022, the volumes of

each renewable fuel will be determined by the U.S. Environmental Protection Agency (EPA) along with the Secretary of Energy and the Secretary of Agriculture. The law requires the EPA to set RFS volumes for 2023 and beyond. That situation puts added pressure on the biofuel industry to make the case for increased biofuel use.

Mueller describes how the soybean crushing facility at Spiritwood provides a unique value proposition and will create a year-round demand for soybeans. Some soybeans will likely need to be brought in to keep the plant running at full capacity.

“We’ve been in North Dakota for quite some time, whether in Velva or Enderlin, and our investment in Spiritwood is just a testament to what the local growing community provides,” Mueller explained. “You have phenomenal production of soybeans. You’ve had a market that (has) historically been focused on export, and we were thrilled at the opportunity to not only partner with Marathon that has a strong foothold in Dickinson, but also just to have the ability to offer a new, value-added proposition to bolster the growing community, to continue to offer value-added products that are

**Checkoff
Investment**



locally grown.”

Growth with the renewable diesel markets would benefit more than the soybean farmers. Additional supplies of soybean meal would likely mean lower-cost feed ingredients, which would encourage more livestock production.

—Story and photos by
Daniel Lemke

Video presentations from the 2022 Northern Corn and Soybean Expo, including the New Horizons for North Dakota Corn and Soybean Processing presentation, can be viewed at

bit.ly/NorthernCornSoyExpo



Getting it Right

The 2022 Getting it Right Soybean Production videos are available to watch online. North Dakota

State University (NDSU) Extension specialists and soybean experts provide the latest research-based soybean production information for this growing season, including planting tips from

Greg Endres of Carrington Research Extension Center.

Videos are available at
bit.ly/2022NDSUGettingitRight



Soybean Marketing Seminar for Women

Thursday June 16, 2022 | 10:00 a.m. – 4:00 p.m. CST | Lunch Provided

NDSU Commodity Trading Room in Barry Hall in Fargo

WHO:

Female North Dakota soybean farmers involved with marketing and risk-management decisions for their operations are invited to attend this one-day seminar.

WHY:

The seminar is conducted by Naomi Blohm. Ms. Blohm is an expert at advising farmers how to manage their cash marketing needs; outlining the basics of properly using futures and options; as well as understanding the importance of managing basis, delivery-point consideration, cash flow, and contracts.



PLAN TO ATTEND:

This program is designed specifically for women who are involved with North Dakota soybean production. Come learn and network in a friendly environment with colleagues who are making the same decisions for their farms.



Register by June 10 at bit.ly/NDSCwomensoymarketingseminar

This event is free for North Dakota soybean producers.

Registration is required. Questions? Call (701) 566-9300





Southern Louisiana and Soybean Farmers: *A Productive Partnership*



In March, North Dakota soybean farmer-leaders visit the Port of Southern Louisiana to learn about the challenges and opportunities in exporting soybeans from that facility. From left to right: Spencer Endrud, Buxton; Jim Thompson, Page; Rob Rose, Wimbledon; and Chris Brossart, Wolford.

The majority of soybeans grown in North Dakota follow a specific pathway: go West by rail to the Pacific Northwest, and on to Asian markets. In 2021/22, the Pacific Northwest region accounted for just over 30% of U.S. soybean exports. The Soy Transportation Coalition (STC) hosted a tour of the lower Mississippi River soybean and grain export facilities near New Orleans to demonstrate how the other 60% of U.S. soybean exports move. Members of the STC board of directors, along with state and national soybean staff members, visited the Zen-Noh export facility in Convent, Louisiana and the Cargill export facility in Westwego, Louisiana.

The 256-mile stretch of the Mississippi River from Baton Rouge,

Louisiana, to the Gulf of Mexico accounts for 60% of U.S. soybean exports, along with 59% of corn exports, by far the leading export region for both commodities. The overwhelming majority of these soybeans and the corn arrive via barge from states located along the inland waterway system. The ability of barge transportation to economically transport large volumes of soybeans and grain long distances is a significant reason that farmers in the interior parts of the country can access international customers. (See the “Cargo Capacity” graphic.)

“What happens down here impacts what happens up there, and what happens up there impacts what happens down here. There is a very strong linkage between soybean production in the middle of the country and the export capacity

along the lower Mississippi River,” explains Mike Steenhoek, executive director of the Soy Transportation Coalition (STC).

“Even though soybeans and grain produced in North Dakota will rarely be transported by barge along the inland waterway system, it is important for us to understand the significance of the lower Mississippi River to the success of the U.S. soybean industry,” says Chris Brossart, a farmer from Wolford, North Dakota, and a vice chairman of the North Dakota Soybean Council and the Soy Transportation Coalition. “When a disruption occurs at the Mississippi Gulf, it can cause congestion elsewhere, including the supply chain to the Pacific Northwest, which is important to North Dakota farmers. We need to make sure we maintain

and improve all of the links in our supply chain if we want to remain successful in the future.”

During the visits, the group received an update on the current effort to deepen the lower Mississippi River shipping channel from 45 ft. to 50 ft. The project received approval in February of 2020 and commenced in September of 2020. Soybean-farmer organizations - including the STC, the United Soybean Board, the American Soybean Association and numerous state soybean associations - effectively collaborated with stakeholders in Louisiana to make the project a reality. The United Soybean Board allocated \$2 million to help offset the planning, design and research costs of the overall project.

Research conducted by the STC concludes that the shipping costs

Cargo Capacity

Checkoff Investment



One Semi
910
bushels of soybeans



One rail hopper car
3,500 to 4,000
bushels of soybeans

or

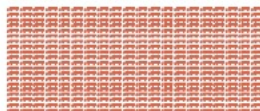


Four semis



100 car unit train
350,000 to 400,000
bushels of soybeans

or



400 semis



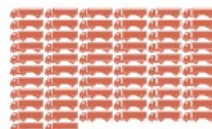
One barge
52,500 to 57,000
bushels of soybeans

or



16 rail hopper cars

or



62 semis



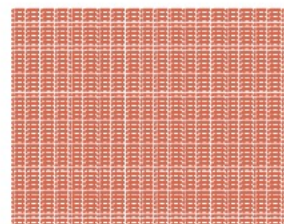
One 15 Barge Tow
787,500 to 855,000
bushels of soybeans

or



219 rail hopper cars

or



940 semis

for soybeans from the Mississippi Gulf export terminals will decline 13 cents per bushel (\$5 per metric ton) once the lower Mississippi River is dredged to 50 ft. A deeper river will allow both larger ships to be utilized and the current ships to be loaded with more revenue-producing freight. The average vessel loads will increase from 2.4 million bushels of soybeans (66,000 metric tons) to 2.9 million bushels (78,000 metric tons), an increase of 500,000 bushels (21%).

The allowable depth for the first 175 miles of the lower Mississippi River was recently increased to 48 ft. due to the dredging work that began in the fall of 2020. Ultimately, the full 256 miles from the Gulf of Mexico to Baton Rouge will enjoy a full 50 ft. of depth,

increasing the competitiveness of U.S. soybean exports.

"We sincerely appreciate the partnership between the Port of South Louisiana and U.S. soybean farmers," states Paul Matthews, executive director for the Port of South Louisiana. "The lower Mississippi River deepening project is a great example of how the Mississippi Gulf region and the interior of the country can come together and get things done. I look forward to continuing this successful collaboration."

Established in 2007, STC is comprised of thirteen state soybean boards, including the North Dakota Soybean Council, the American

Soybean Association, and the United Soybean Board. The goal of the organization is to position the soybean industry to benefit from a transportation system that delivers cost effective, reliable, and competitive service.

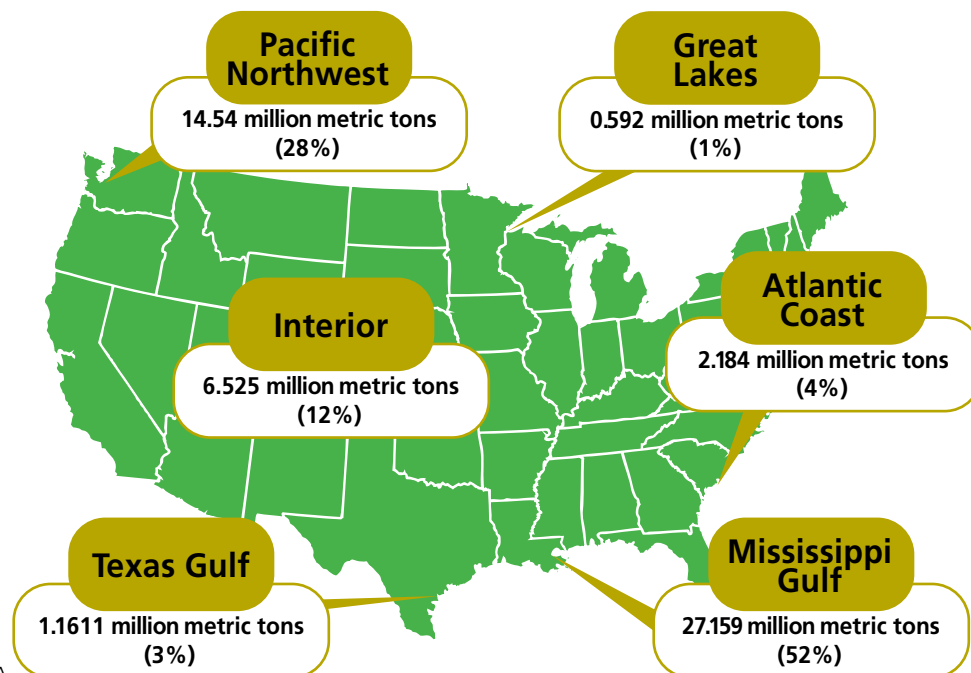
As a member of STC, the North Dakota Soybean Council has two voting seats on the board. NDSC directors Chris Brossart of Wolford and Jim Thompson of Page repre-

sent NDSC on the STC board.

To learn more about the Soy Transportation Coalition, visit soytransportation.org.

—Story and graphics courtesy of the Soy Transportation Coalition, photo courtesy of Rob Rose

Percentage of Total Soybean Exports for 2021



Source: USDA

Your Input Needed!

To offer soybean checkoff funded events and opportunities most beneficial to North Dakota soybean farmers and their operations, input is needed on topics producers would like offered, along with preference of engagement. Please complete a short survey.



bit.ly/NDSCeventsurvey2022

Evaluating Rhizobium Populations in Field Soil

Checkoff
Investment



Successful nodulation of soybean plants by the soil's rhizobia is important to maximize yield and to alleviate the requirement for nitrogen fertilizer. It is important to introduce rhizobia to the fields by inoculation during the planting process when legumes are grown for the first time. Inoculation for subsequent years (at least 5 years after initial inoculation) is generally not required with soybeans. However, challenging soil conditions (acidic pH or salinity) or weather conditions (drought or flooding) may affect inoculant survival in the soil and the benefits during subsequent years.

The Geddes Lab, which is in the North Dakota State University (NDSU) Department of Microbiological Sciences, is developing a tool to quantify rhizobia populations in the farmers' fields; this approach could help inform farmers about whether inoculation might be beneficial. Early results are promising, and with version 1.0 of the assay, they are able to detect

rhizobia down to ~1,000 rhizobia per gram; robust field populations are often ~10,000 to 100,000 rhizobia per gram of soil.

Interested in Getting Involved?

While further optimization is ongoing, Dr. Barney Geddes believes that the tool is ready to test in real-world scenarios. Geddes is looking for farmers who are interested in having their fields tested for rhizobia abundance during Fall 2022. Fields should be planned for soybean production in 2023 and should have a known production and inoculation history (last 5 years). Participation by growers from western North Dakota, where the inoculant persistence in the soil is less understood, is especially desired.

Participating farmers will receive a report that provides the assay results as well as a chemical analysis of their field soil. Select fields will be scouted during Summer 2023 to assess soybean nodulation. There are also opportuni-

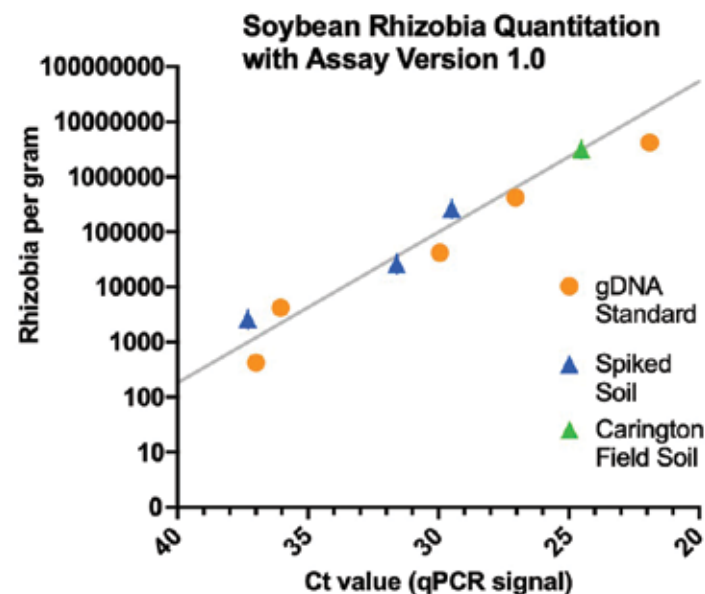


Figure 1. Example output for the rhizobium quantitation assay. Field soils (green) are compared to a standard curve that was developed using rhizobium DNA as well as soil that was spiked with known amounts of rhizobia.

ties for longer-term engagement in the project in order to investigate the effects that agronomic practices, such as crop rotation, have on the soil's beneficial microbes.

Interested farmers should contact Geddes by email at

barney.geddes@ndsu.edu, or by phone at (701) 231-7612.

The Geddes Lab thanks the North Dakota Soybean Council for funding this work.

—Story and graphic courtesy of
Dr. Barney Geddes, NDSU

Do You Know Beans?

Attend 2022 NDSU Summer Field Days Featuring Soybeans and You Will!

The following dates are a list of the 2022 Field Days events. Please visit the Research Extension Center and Agronomy Seed Farm websites for more details.

July 11 Central Grasslands Research Extension Center, Streeter

July 12 Hettinger Research Extension Center

ag.ndsu.edu/hettingerrec

July 13 Dickinson Research Extension Center

ag.ndsu.edu/dickinsonrec

July 13 & 14 Williston Research Extension Center

ag.ndsu.edu/willistonrec

July 18 Agronomy Seed Farm, Casselton

ag.ndsu.edu/agronomyseedfarm

July 19 Carrington Research Extension Center

ag.ndsu.edu/carringtonrec

July 20 North Central Research Extension Center, Minot

ag.ndsu.edu/northcentralrec

July 21 Langdon Research Extension Center

ag.ndsu.edu/langdonrec



NDSU



Second Annual NDSU Soybean Symposium Facilitates Research Collaboration

Scientists of all disciplines were invited to participate in expanding research collaboration and opportunities at the second annual 2022 NDSU Soybean Symposium on March 17 at the North Dakota State University (NDSU) Memorial Union in Fargo.

The symposium was hosted by North Dakota's soybean breeder, Dr. Carrie Miranda, with the purpose to bridge scientists and students in soybean-related research. The North Dakota Soybean Council (NDSC) was a sponsor.

"The main goal of the symposium was to bring soybean-focused scientists, students and private organizations from all disciplines together at one event," says Miranda.

According to Miranda, the symposium showcased NDSU soybean

research at a national level.

"It was also an opportunity for students to present their soybean research and contribute to the future of the soybean industry, and for soybean researchers of many disciplines to facilitate new collaborations," states Miranda.

Miranda is an assistant professor and project leader for NDSU's soybean breeding program. Her project objectives are to produce high-yield varieties while discovering new genetic mechanisms for useful traits to ensure that North Dakota farmers have access to superior soybean varieties.

To learn more about Dr. Miranda's breeding program, visit bit.ly/NDSUsoybreeding

—Story and photos courtesy of
NDSU Agriculture Communication



Dr. Carrie Miranda visits with Stephanie Sinner during the second annual NDSU Soybean Symposium.



The soybean symposium brought together scientists, students and private organizations.



NDSC Treasurer Rob Rose, Wimbledon, congratulates graduate students for best research presentations on March 17.



NDSC Executive Director Stephanie Sinner welcomes NDSU Soybean Symposium attendees and provides a short presentation on NDSC and the soybean industry.



A crew of students from North Dakota State University hand-apply beet lime within the orange hoops in the spring after soil was sampled and soybeans were planted. Just prior to harvest, the hoops are removed, and soil samples are taken again after harvest.

Turning By-Products into Products:

Can Acidic Soils be Amended with Sugarbeet Lime?

Farming systems in each state have their own identity because of the soil types, precipitation amounts and topography. These factors affect what crops are grown in a state or region. North Dakota is no exception. In addition to soybeans, corn and wheat, sugarbeets are a prominent crop that is grown in the state. There are approximately 30 beet-sugar processing plants in the United States, seven of which are in or near North Dakota.

Dr. Chris Augustin, a soil scientist at North Dakota State University's Research Extension Center (REC) in Dickinson, is looking at whether beet lime can be used to improve acidic soils in the state. The work is funded by the North Dakota Soybean Council.

"Beet lime is a by-product of making beet sugar," says Augustin, the Dickinson REC director. "For this research project, we're using beet lime from Sidney Sugars, Inc. in Sidney, Montana. They have mountains of it. For us, beet lime is much less expensive than ag lime, as it is costly to get ag lime delivered to western North Dakota."

NDSU soil scientist David Franzen and Augustin began exploring whether beet lime could be used as an amendment to reduce soil acidity in areas of the state. If they could improve the soil pH using beet lime, how would that change affect soybean yield?

"We know that, under extreme acidic soil conditions of less than 5.5 pH, crop nutrients and activity of the nitrogen-fixing rhizobia bacteria can decrease. These are yield-limiting factors," Augustin explains. "After a couple years of this study, we haven't seen a yield response or a quality response in soybeans. But North Dakota has been abnormally dry for four or five years now, which could be something that's curbing the response."

Augustin led the project last year, which was conducted on 12 farms mainly in the western portions of North Dakota. Based on the soil tests from these soybean-field sites, the results could indicate how much lime is needed to alter the soil pH.

"We are waiting for results from the 1,200-some soil samples

we collected," Augustin asserts. "From these results, we'll get a pH response curve to see how much lime we should be putting down."

Just because Augustin hasn't seen soybean benefits yet, it doesn't mean he never will. Variable factors in agriculture could be affecting the soybean's non-response. In addition to dry conditions, no-till management could play a role. Augustin describes how no-till has many benefits, such as improving the soil's organic matter, reducing soil erosion and reducing fertilizer inputs; the technique is prevalent in western North Dakota. He's found some soil stratification in long-term no-till soils.

"Where people have been applying fertilizer year after year, we can find zones of extreme acidity two-to-three inches down in the soil profile," Augustin says. "It doesn't matter the fertilizer type; all fertilizers will slowly acidify. A benefit of soybeans is we can greatly reduce fertilizer inputs, which can slow down the acidification process and save the producer money by reducing input costs."

In addition to weather and tillage methods, crop rotations could play a factor in the soil's acid levels, which is why Augustin is expanding the tests and seeking support from other commodity groups, such as the North Dakota Wheat Commission and the North Dakota Corn Council.

"Our thought is that soil pH impacts all crops. We're trying to cast a wider net to look for variability in the western half of North Dakota," states Augustin. "It may take longer to see yield response in soybeans, and beet lime may impact other crops more effectively. I want to conduct some longer-term studies and use different crops to test these variables."

The agriculture industry in North Dakota may benefit from beet lime as a soil amendment, and the sugarbeet industry may benefit from the utilization of this by-product. Augustin hopes that his research results will find a synergistic solution for both.

Farmer collaborators are needed to continue this research in 2023. Producers who have an acidic field and are willing to support this research, please contact the NDSU Dickinson Research Center by calling (701) 456-1100 or visiting bit.ly/NDSUDickinsonREC

For more information regarding soybean diseases, pests, diagnostic tools and more, please visit soybeanresearchinfo.com

—Story and photo courtesy of the Soybean Research and Information Network



Chef Marcia Kramer and NDSCS culinary student Derek Wolf of Bismarck prepare pan sauces for pork roulade and ribeye steak using soy ingredients.

The training with the NDSCS students was a follow-up to a tour that Funk conducted last fall. She stated that, in their evaluations last fall, the students requested additional education about the extensive soy-based food options on the market today.

For Funk, who organizes dozens of training sessions around the country each year, the main goal was to help chefs and culinary students get a better feel for ways to use soy in a menu and for recipe planning.

"I wanted the students to see how easy it is to work with soy, the many products that are available, and that soy and meat can work well together," Funk asserted, "as well as recognizing that soy is the preferred plant protein."

Funk described how soy can be used in many applications, whether as a stand-alone protein source or teamed up with other ingredients. She affirmed that a highlight of the soy training was seeing and tasting the recipes

which students developed. However, a fuller understanding about how soy could be used in a wide range of applications was the preferred outcome.

"Understanding how easy it is to incorporate soy onto the menu as well as understanding it is not all or nothing," Funk explains. "Soy can work well with meat, dairy and many other foods, and it works for all the dayparts, including breakfast, lunch, dinner, and appetizers and desserts. No matter what chefs are creating, there is a soy product that works by itself or combined with other ingredients."

Soybean farmers deliver healthy protein sources to feed livestock of all kinds, from cattle and pigs to fish and poultry. Farmers also provide healthy protein options for human consumers.

"Soy is the perfect lean plant-protein option with great health benefits. Soybean farmers have it covered, no matter if consumers request meat or plant protein."

—Story by Daniel Lemke,
photos by staff

Culinary Opportunities with Soy

Whether its pork, chicken, fish, beef or soy protein, soybean farmers have a hand in delivering healthy food products for home or food-service consumption.

To better understand how to incorporate soy in menu options, dozens of current and aspiring North Dakota chefs took part in training during April. Changing consumer demand is enhancing the need for protein choices.

"Most chefs need to have plant-protein options on their menu these days, and soy should be the first plant protein they choose," says Linda Funk, executive director

of The Soyfoods Council.

Students from United Tribes Technical College and the North Dakota State College of Science's (NDSCS) culinary program participated in the soy foods education and demonstrations. The training also included a lecture and demonstration for the North Dakota Red River Valley American Culinary Federation (ACF) Association chapter in Fargo. ACF is a professional association for working chefs.

Funk explains that the purpose of the soy foods training was to help educate the next generation of chefs who are making their way into the food-service industry.



Linda Funk of The Soyfoods Council distributes soy milk to students at United Tribes Technical College as they sample beef bourguignon with soy ingredients.



Local area chefs participate in a lecture and training session with Chef Marcia Kramer at Mezzaluna's restaurant in Fargo. Chef Kramer is a culinary expert and was a chef instructor at Johnson & Wales University in Denver, Colorado for 20 years.



unitedsoybean.org

INVESTING IN NEW MARKETS FOR U.S. SOY

From promoting the profitability of using high-quality soybean meal in India to training animal producers on nutrition in Colombia, the soy checkoff is working behind the scenes to develop more market opportunities for U.S. soy. We're looking inside the bean, beyond the bushel and around the world to keep preference for U.S. soy strong. And it's helping make a valuable impact for soybean farmers like you.

See more ways the soy checkoff is maximizing profit opportunities for soybean farmers at unitedsoybean.org

Brought to you by the soy checkoff.

©2018 United Soybean Board. Our Soy Checkoff and the Our Soy Checkoff mark are trademarks of United Soybean Board. All other trademarks are property of their respective owners.



A BOOM for Beans

U.S. farmers expect to plant a record number of soybeans and less corn in 2022. The U.S. Department of Agriculture National Agricultural Statistics Service's (USDA-NASS) annual Prospective Plantings report shows that U.S. farmers intend to plant a record high 91 million acres of soybeans, up 4% from last year. Corn growers intend to plant 89.5 million acres in 2022, down 4% from last year.

The Prospective Plantings report provides the first official, survey-based estimates of U.S. farmers' 2022 planting intentions. The NASS's acreage estimates are based on surveys conducted during the first two weeks of March; a sample of nearly 73,000 farm operators from across the nation was used.

At its annual Ag Outlook Forum in late February, the USDA released early planting estimates of 92.0 million acres for corn and 88.0 million acres for soybeans. Rising input costs had many farmers and analysts expecting a movement to more soybean acres, but the size of the shift was eye opening.

"Most of us were expecting that we would see a drop in corn acres and an increase in soybeans, but a shift to this degree was a little bit of a surprise," Randy Martinson of Martinson Ag Risk Management in Fargo says. "When you get into the Corn Belt, it was almost a one-for-one exchange where what we saw drop in corn acres was an increase in bean acres. It looks like they're kind of pulling away from corn on corn and going closer to a

50-50 rotation."

"It's a pretty big switch," agrees American Soybean Association Economist Scott Gerlt. "If you're just looking at the historical corn-to-price ratios coming into this report, they would have favored corn. But as we all know, input costs right now for items like fertilizer are really high, which affects corn more. There was some expectation of farmers shifting from corn to soy, but the amount—almost 4 million acres—was a big change. These are obviously just planting intentions, and the final numbers will likely be different—but they are historically accurate."

North Dakota farmers look to be bucking the national trend for more soybean acres. Growers are expected to plant 7 million acres of soybeans, down 3% from the 7.25 million acres planted in 2021.

"What was surprising to me in North Dakota is that we not only saw soybean acres decline, we also saw corn and spring wheat acres decline," Martinson explains. "Most of the producers went toward specialty crops or towards contract crops, which will be a little harder to switch back into some other market. If we get a rally in wheat or a rally in corn, those acres aren't going to change."

Rising costs and the availability of inputs, such as nitrogen fertilizer and crop protection products, were the primary factors for farmers considering a switch from corn to more soybeans.

"Number one is input costs," Gerlt states. "That's the biggest story here because the demand is strong for soy and because prices

are very good for beans. Historically, given the corn and soybean prices, we would probably see more corn and less soy if input costs weren't a factor. At the end of the day, input costs are what drove these numbers."

For North Dakota farmers, Martinson asserts that there were some attractive options for farmers to plant crops other than corn and soybeans.

"I think the reason we're seeing a little bit of a decrease is some of these specialty crops, like barley, sunflowers, peas and lentils, grabbed a little bit more of the acres because of lower input costs and because of decent contracts," Martinson explains.

Pricing Opportunities

Not surprisingly, the initial market response to the large, expected acreage increase was lower prices. However, global demand for soybeans has remained strong. Production issues reduced the volume of soybeans available from South America, and the situation in Ukraine has tightened the global vegetable oil supplies. Still, Martinson describes how the increased U.S. acreage for 2022 will likely affect how farmers market their soybeans.

"Right now, we're projected to have the highest acres of soybeans on record, and it looks like we're going to be building our stocks estimate, especially if we use trend line yields," Martinson says. "Now, all of a sudden, instead of having opportunity and potential weather scares giving us some opportunity to price during the growing season, it turns

into any recovery in the soybeans. Any rally is going to be met with selling because of the expectation for stocks being as big as they are. So right now, it turns from being patient and waiting for a weather scare to doing some pricing, to now waiting for a recovery and then having to price beans because of the potential for having bigger stocks and depressed price."

Martinson states that the U.S. saw an unseasonably strong soybean export demand during the first quarter of 2022, which was largely driven by a poor crop in Brazil. If Brazil and Argentina continue to have weather and production problems, those issues could lead to another surge in exports in the summer months, which would help to use some of the expected increase for soybean production.

"To say that this increased acreage rules soybeans out and to say that the party's over, that's kind of early," Martinson explains. "Soybeans are resilient. They can bounce back, and if the export demand can stay strong, it certainly will help bring some underlying support in this market and keep it from falling out of bed too far."

Increased soybean acreage may not be a one-time event. Martinson asserts that the upward trend will likely continue as the domestic crush capacity increases and as more states adopt low carbon fuel standards, which would likely drive the demand for soybean-based renewable fuels such as biodiesel and renewable diesel.

—Story by Daniel Lemke,
photo by Wanbaugh Studios

Quick Stats

Double click any cell below to filter the data by that item. Right click on column heading to pivot or hide columns.

Save :: Spreadsheet :: Printable :: Map :: (1 rows)

Navigation History: Data

Program	Year	Period	Geo Level	State	State ANSI	watershed_code	Commodity	Data Item	Domain	Domain Category	Value
SURVEY	2022	YEAR	NATIONAL	US TOTAL	...	00000000	SOYBEANS	SOYBEANS - ACRES PLANTED	TOTAL	NOT SPECIFIED	90,955,000

Making Ag Data Count

The U.S. Department of Agriculture (USDA) recently published its Prospective Plantings report, which showed that farmers planned to shift about 4 million acres from corn to soybeans for the 2022 growing season. That information was gathered from surveying nearly 73,000 farmers.

The USDA relies on information from farmers to obtain an accurate picture of agriculture in the United States.

"Surveys completed by farmers and ranchers provide science-based statistics that help make better decisions than conjecture, anecdotal evidence or guessing," Darin Jantzi, North Dakota state statistician for the USDA-National Agricultural Statistics Service (NASS) says. "NASS gathers some information from satellite imagery and from other statistical agencies, but the bulk of our data comes directly from producers who complete their surveys."

Jantzi explains how the more farmers and ranchers respond to the surveys, the more reliable the data are. He states that NASS data allow farmers, policy makers, agribusinesses, researchers and many others to make well-informed decisions that eliminate guesswork, reduce risk and improve profitability.

"These decisions impact producers, communities and industries, which is why it's important for producers and their operations to be represented in the data," Jantzi adds.

Farmer's Voice

Jantzi describes how NASS selects a sample of survey respondents and reaches out to them by mail and/or by phone. Respondents can complete a paper questionnaire, answer survey questions by phone or reply online. NASS then compiles and releases the aggregate data.

Depending upon the topic, data results are delivered in weekly, monthly, quarterly or annual reports that are available to the public at nass.usda.gov. The data are also available and searchable in the Quick Stats database:



quickstats.nass.usda.gov

Special data tabulations can also be requested from statisticians.

Farmers generate a lot of valuable data in their day-to-day operations. Jantzi says that NASS takes numerous steps to guarantee that farmer's private information is kept secure.

"The information provided to NASS is used for statistical purposes only," Jantzi states. "Farmer and rancher names, addresses, phone numbers and the data reported about individual operations are fully protected by federal law. Only authorized persons working for NASS, as employees or sworn agents, can access individual records and only for approved official purposes."

Jantzi explains that anyone who discloses protected information is subject to a fine, a jail term or both.

In addition, NASS keeps paper responses in a secure area and stores electronic responses on a secure server. Jantzi asserts that all questionnaires are destroyed, as required by law. When NASS prepares official statistical estimates, it does so under tight security, only publishing aggregated data so that no individual or operation can be identified.

Other agencies within the USDA, including the Risk Management Agency (RMA) and Farm Service Agency (FSA), also gather information from farmers. Jantzi describes how the data gathered by the various USDA departments vary by content and timing.

"NASS produces information that is timelier and is generated more often," Jantzi explains. "FSA, for example, collects planted acres, but the data aren't complete until summer or fall. RMA receives acreage and yield data, but not until well after harvest is complete. Their data are very useful, and NASS uses FSA and RMA data in our process, when available."

2022 Census of Agriculture

In addition to regular surveys, the USDA conducts a Census of Agriculture every five years. That census will take place in 2023 and will report information about the 2022 production year.

"The Census of Agriculture is a complete count of every U.S. farm and ranch, and the people who operate them," Jantzi says. "It is conducted just once every five years and is the only source of comprehensive and impartial ag

data for every state and county in the nation. Through the ag census, producers have a voice. The data show the value and help shape the very future of U.S. agriculture."

Data collection for the 2022 Census of Agriculture will begin in November. Farmers and ranchers who did not receive the 2017 ag census and do not receive other NASS surveys have until June 30 to sign up to be counted:



agcounts.usda.gov/static/get-counted.html

Jantzi states that Census of Agriculture data can be used by everyone who serves producers and rural communities and even by the farmers and ranchers themselves.

"They may consult the data themselves to make better business decisions for things like production and marketing practices or use ag-based products and services that rely on NASS data," Jantzi contends.

Jantzi explains how census information can help agribusinesses decide where to locate facilities. Ag census data inform the farm bill and can be used to make decisions about technology development, ag education, the expansion of broadband and other services for rural communities, the development or continued funding of assistance programs, and more.

—Story by Daniel Lemke

WISHH catches new markets for U.S. soy by **advancing aquaculture.**



ASA/WISHH is helping explore opportunities for soy-based feeds to grow aquaculture in 8 sub-Saharan African countries, including Ghana, Nigeria, Senegal, Togo, Burkina Faso, Uganda, Kenya, Tanzania

Connect with WISHH
wishh.org



WISHH is a program of the American Soybean Association and is funded in part by the United Soybean Board and state soybean board checkoff programs.

Getting to Know Your NDSC County Representative



Chase Dewitz, Steele, North Dakota, Kidder County

Tell us about your farm.

Our main farm is by Steele, and we farm from Steele towards Sterling. We are a diversified operation, growing soybeans, barley, sunflower and corn, along with a 2,300 head feedlot and 1,400 mother cows. My parents still live on the farm, and my dad is semi-retired.

What do you like best about farming?

I enjoy progress and seeing advancement and improvements on my farm. I particularly enjoy seeing planting underway in the fields at the beginning of the season and then reaping the rewards at the end of the season with harvest.

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

Yes, I never had any other interests other than agriculture. From the time I was a little kid, there was never a question what I was going to do in life. I was always extremely passionate about farming and agriculture.

Why did you get involved with the North Dakota Soybean Council as a county representative?

I wanted to become more involved in the soybean industry, which has a very bright future with

biofuels, production research and the expansion of acres in the state, especially in my region.

Why are soybeans part of your crop mix?

I planted soybeans for the first time in 2008, and now, soybeans have become our highest crop percentage we raise every year. Our area is very suitable to grow soybeans, and we see good yields conducive to our environment. Since soybeans are relatively new to our area, we don't see a lot of diseases currently. Soybeans have become a mainstay crop for us in terms of profitability.

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

I would like to see more domestic demand for soybeans in the state. With the new plants coming on board, what are we going to do with the soybean meal since we have a lack of concentration of livestock in the state? Are we going to be exporting soy meal via the Pacific Northwest in the future?

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

Technology. What we can do now with precision placement of seed, fer-

tilizer and chemical on the number of acres we can accommodate today is all thanks to advanced equipment technology. Technology has made farmers so much more efficient.

What changes do you expect to see on your farm in the next 5 to 10 years?

I would like to collaborate more with farmers in my region. With machinery costs so astronomical, including high labor costs, I think we, as farmers, need to set our egos aside, and more collaboration is needed.

What do you like to do outside farming?

We like to camp. We bought a camper a couple years ago, and the kids really enjoy that.

If you could go anywhere, where would it be?

I am really intrigued with Germany and would like to take a European trip some point in my life. I really enjoy war history and would like to see the history of World War II.

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

I would say sprayer section control.

—Story by staff, photo courtesy of Chase Dewitz

Chase 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, visit ndsoybean.org/council-election

—Story continued from page 13

Northern Crops Institute (NCI).

"NCI really showed me the full picture, especially meeting that overseas buyer and really forcing me to think about how this industry moves from soybeans in a field in Richland County to soybean meal in the Philippines," Bjertness explains.

Bjertness works to ensure that there are markets for North Dakota soybean farmers.

"For a long time, that has been overseas, going out as whole beans through the Pacific Northwest," Bjertness says. "But in a very exciting shift, starting next year, about a quarter of our beans are going to be crushed in the state, so it's a pivot right now to working on livestock development in the state to use up the meal, then also focusing more time on biofuel markets for the oil."

Crush capacity in North Dakota is expected to take one-quarter of the state's soybeans in 2023.

If another proposed plant comes online, upwards of half of the state's soybeans could be processed in state.

"That's a huge shift for farmers, and I think it's going to be a few years of adjustments because we also have to talk about the infrastructure to move soybean meal," Bjertness states. "There are a lot of pieces that need to come together in the next few years. We're going to do our best to work through the growing pains that are sure to come."

Bjertness describes how working

with and for farmers is rewarding.

"I get to work with farmers who have that drive to give of their own time for the greater good of the industry," Bjertness asserts, "and that's my favorite part of the job. I get to work with farmers who are passionate about making the industry better."

Bjertness lives in Kindred with her husband, Mike, and kids: Eleanor, 2, and Henry, 5.

—Story by Daniel Lemke, photo by staff

Getting to Know the Expert



**Dr. Carrie Miranda, North Dakota State University
Assistant Professor and Soybean Breeder**

Where did you grow up?

I don't have a traditional ag background. I grew up in Cleveland, Ohio.

How did you get connected to agriculture?

My bachelor's degree is from Cleveland State University, where

I studied biology. I was still interested in the sciences, but I was interested in environmental science, like invasive species removal. I decided to do some volunteer work with AmeriCorps doing invasive species removal. Then, I went to South Korea and taught English for two years. I did some research at a university

while I was there. I came back to the states and got my master's at San Diego State University in molecular biology, doing cancer research. It wasn't quite the right fit. I decided I wanted to do something that's going to be really impactful to everyday human lives. I had always had an interest in plant science, so I decided to pursue plant breeding. I received my Ph.D. in plant breeding at the University of Missouri.

Why plant breeding?

When I found my Ph.D. adviser, she was working on an international project, so I actually did my Ph.D. research in Ghana, West Africa. I lived abroad doing breeding work to adapt soybeans to the equatorial tropics. That experience was really impactful because, then, you're definitely seeing how your work directly affects people.

What led you to NDSU?

After moving back to the U.S., I worked for a small food company

as a pea breeder in Iowa. I started to think, maybe, industry isn't the right choice for me, so I decided to go into academia. I did post-doctoral work for a year with (the U.S. Department of Agriculture) USDA in Missouri, and then, the NDSU offer came up.

My husband is from Ghana, which is the tropics, so I was concerned about moving to Fargo. When I came up and visited, I was really impressed by the city. I knew that this was the place I wanted to work and live. NDSU is also unbelievably supportive of young scientists. I really cannot say enough about what an amazing work environment NDSU is. I'm really just so appreciative of everything, and I get so much support in the plant science department. This is definitely the smartest career move I could have made.

What do you enjoy about your work?

What's so nice about working as a public breeder is that, through the North Dakota Soybean Council and then just phone calls that I get direct communication with farmers. My position doesn't have an Extension component, but I am available to answer questions. I get a lot of calls about iron deficiency chlorosis testing that we do every year, which, again, is coming up. It's just really nice to actually have time to talk to growers directly and see what their needs are.

What do you like to do away from work?

I like to go for runs on the trail next to the Red River, and you'll often catch me at Island Park walking my dog. I swim a lot at the YMCA. Other than that, I'm just catching up on Hulu and Netflix.

—Story and photo by staff

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.



To join us, visit ndsogrowers.com

Mixed Results from the Denial of Refinery Exemptions

U.S. soybean farmers are pleased with the news that close to three dozen small refinery exemptions (SREs) granted by the previous administration in 2019 and later remanded by the U.S. Court of Appeals for D.C. back to the Environmental Protection Agency have been denied.

Brad Doyle, American Soybean Association (ASA) president and a soybean grower from Weiner, Arkansas, commented on behalf of the ASA, saying, “We appreciate EPA denying these waivers from 2018. While we wish the SRE petitions were resolved sooner, we are very glad EPA is working to remove the backlog of pending waiver requests and is requiring refineries to comply with more stringent hardship and economic impact reporting requirements.”

While, at its face value, the announcement is positive, the EPA is allowing an alternative option for the 31 refineries affected by the denials; these refineries can meet their new 2018 compliance obligation without any further need to procure or to redeem additional compliance credits. The 31 SREs represent roughly 1.3 billion gallons of biofuels, demonstrating how SRE volumes can quickly add up and can risk undermining the integrity of the Renewable Fuel Standard (RFS) as well as why the EPA continuing to deny waivers is important for the biofuel industry.

The agency is still wading through 69 pending SRE requests, dating from 2016 to 2021, from refineries. The Biden administration is also working to finalize the renewable volume obligations under the RFS for 2020, 2021, and 2022 by this summer.

Ag Leaders Push for Trade Support with Panama

The American Soybean Association is one of several agricultural organizations that are urging the Biden administration to support the current U.S.-Panama Trade Promotion Agreement (TPA). This support is in response to a letter that was sent to the Office of the U.S. Trade Representative and the U.S. Department of Agriculture from the government of Panama; the letter requested a renegotiation of agricultural provisions in the agreement.

The agriculture groups argue that the agreement is still in the process of being fully implemented, with gradual annual tariff reductions and small growth in tariff rate quotas (TRQs). Panama’s TRQs for pork and pork products, chicken, dairy, potatoes, onions, kidney beans, corn, rice and processed tomatoes have been in place for 10 years and were negotiated to slowly transition and to minimize the potential negative effects.

Additionally, making modifications to an implemented TPA would be an alarming precedent to set. With the lack of any new free trade agreement (FTA) negotiations taking place, uninterrupted implementation of the current market access opportunities secured through the existing FTAs is more vital for American farmers and food manufacturers. Panamanian consumers welcome high-quality, U.S.-grown and produced goods, and the TPA helps U.S.-origin products to be cost competitive with other foreign suppliers.

EPA Pursuing Nutrient Pollution Reductions

The U.S. Environmental Protection Agency (EPA) has released a policy memorandum titled “Accelerating Nutrient Pollution Reductions in the Nation’s Waters.” In the memo, the EPA commits to supporting innovation and to pursuing science-based and data-driven strategies to reduce excess nutrients in the nation’s waters, along with technical assistance and other support to help scale effective nutrient loss reduction strategies. Funding from the bipartisan infrastructure law will provide resources to accelerate these efforts, such as the work happening through the Gulf Hypoxia Taskforce on state nutrient reduction strategies.

The EPA plans to accelerate progress for controlling nutrient pollution by pursuing three primary strategies: deepening collaborative partnerships with agriculture; increasing efforts to support states, tribes, and territories to achieve nutrient pollution reductions from all sources; and using the EPA’s Clean Water Act authorities to drive progress, innovation, and collaboration.

The American Soybean Association (ASA) appreciates that the EPA plans to deepen collaboration with agriculture in Washington, D.C., and on the ground, working to help the U.S. Department of Agriculture target funds to locations and practices that will best reduce nutrient loads as well as expanding engagements with ag stakeholders and highlighting the successes. Soy farmers look forward to working with the agencies on voluntary, incentive-based strategies to build on years of success with reducing nutrient loads in our nation’s waters. The ASA also appreciates the EPA’s focus on all sources of nutrient

pollution—not just the agriculture sector—as well as the agency’s focus on market-based approaches, including credit trading, to meet water quality goals.

The memo highlights that the Clean Water Act regulatory authorities are the foundation for nutrient pollution reductions. The definition of “waters of the U.S.” underscores those authorities. The ASA continues to recommend that the EPA should pause the Clean Water Act rulemaking while the Supreme Court reviews *Sackett v. EPA* and must, ultimately, issue a science-based rule that includes longstanding exemptions for agricultural practices and prior converted cropland, as well as well-defined provisions that give farmers clarity to manage their businesses from year to year.

SCOTUS Reinstates Trump-Era Regulation

The U.S. Supreme Court has reinstated a Trump administration environmental regulation—Section 401 Certification—that limits the states’ authority to certify infrastructure projects under the Clean Water Act. In a 5-4 decision, the justices agreed to halt a lower court judge’s order that threw out the Trump-era rule and sent it back to the U.S. Environmental Protection Agency (EPA).

Section 401 requires states to certify that big infrastructure projects will not harm water quality. Several states used that authority to block or to place serious restrictions on projects, including an export terminal in Washington as well as pipelines in New York, Virginia and North Carolina. In response to those actions, the EPA issued a regulation in 2020 that curtailed the states’ role in the permitting process, only allowing them to consider and to place restrictions on a project’s direct dis-

charges, not the proposed project as a whole. When President Biden took office, his administration announced its intent to replace the Trump-era regulation with its own policy. In October 2021, a federal district judge in California vacated the Trump regulation while the EPA worked on a replacement.

In court papers, the administration said that the EPA expects to finalize its new regulation by spring 2023.

Stepping Up for Stepped-Up Basis

U.S. Reps. Tracey Mann from Kansas, Jason Smith from Missouri and Bob Latta from Ohio led more than 70 of their colleagues to introduce a bipartisan resolution that recognizes the important role of a longstanding provision in the tax code for preserving family owned farms,

ranches and small businesses.

Stepped-up basis prevents heirs from paying capital gains taxes on inherited assets such as land, equipment or buildings. The American Soybean Association and other ag groups have strongly opposed any change in the capital gains tax policy that eliminates or scales back the stepped-up basis because that change could result in a massive tax burden for the agricultural sector.

White House FY23 Budget Released

The White House has released President Biden's proposed budget for the 2023 fiscal year (FY23). The budget request contains a 9% increase for the U.S. Department of Agriculture (USDA), including significant increases for agricultural research and conservation technical assistance as well as a

new round of funding for rural broadband expansion.

Regarding the 2023 Farm Bill, the budget states, "The administration looks forward to working this year with Congress, partners, stakeholders and the public to identify shared priorities for the 2023 Farm Bill that position USDA to live up to its moniker as 'the People's Department' and deliver on its mission to serve all Americans by providing effective, innovative, science-based public policy leadership in agriculture, food and nutrition, natural resource protection and management, and rural development." The budget lists climate smart agriculture, renewable energy, rural development and food assistance as farm bill priorities.

Agricultural related budget proposal allotments include \$31.13 billion in discretionary spending

for the USDA for the next fiscal year, \$2.6 billion more than fiscal year 2022 (FY22) levels, according to the department. The Natural Resources Conservation Service would receive slightly over \$1 billion for conservation technical assistance during FY23, up from \$832 million in FY22, plus an additional \$1.7 billion that are estimated to be available in EQIP, CSP and other farm bill programs; \$4 billion would be available for the USDA's research, education and outreach programs, including \$315 million that are targeted to under-served populations.

—Story by staff



SOYBEAN RESEARCH & INFORMATION NETWORK

N. DAKOTA

NEW STORY OF A FANTASTIC SOY SAGA

RESEARCH TO THE RESCUE

When it comes to decoding production issues on your farm, you can count on soybean checkoff research to save the day. For decades, research superheroes have partnered with farmers to track down and battle in-field archenemies with great success. Their extraordinary powers not only help them pursue new solutions for old problems, but also clash with emerging foes that threaten to rob soybean farmers of yield potential and profitability in the future.

Funded by the soybean checkoff



Recent North Dakota Soybean Council-funded research includes pursuing these production adversaries:

- Finding alternative management options for acidic soils
- Breeding glyphosate-resistant soybean cultivars and non-GMO cultivars
- Making visual ratings for iron deficiency chlorosis
- Optimizing fungicide spray volume and frequency for improved white mold management in soybeans
- Developing a tool for cheap and rapid tracking of soybean inoculant populations in the field
- Surveying for pyrethroid-resistant soybean aphids and detecting soybean gall midge



GET
THE 411

ON SOYBEAN RESEARCH AT
SOYBEANRESEARCH.INFO.COM

NDSGA Executive Director Honored for Leadership

North Dakota Soybean Growers Association (NDSGA) Executive Director Nancy Johnson has been awarded the American Soybean Association's (ASA) Distinguished Leadership Award. The ASA Distinguished Leadership Award recognizes a soybean grower or an association staff leader who has shown a high level of dedication and who has successfully led others to meet goals and to achieve successes that benefit soybean farmers.

Johnson has served as executive director of the NDSGA for the past nine years. Johnson's leadership has focused on enhancing communication, engagement and vision.

"I'm very humbled and so

grateful to receive this honor based on a nomination from the North Dakota Soybean Growers Association board," Johnson says. "We have an outstanding board that is a joy to work with. I love what we do and look forward to going to work every day, maybe not the hour drive from the farm, but the rest of what we do. Our staff helps make me look good, and the North Dakota Soybean Council supports our work. Thank you for acknowledging the work that I love to do."

Johnson has worked to create longstanding relationships and support among soybean farmers, industry stakeholders and community organizations to strengthen the North Dakota soybean industry. She has worked to build her

state association's membership base and to increase engagement with farmers, in addition to working with the farmer-leaders to create and implement a strong strategic vision for the NDSGA.

Johnson places significant importance on education and advocacy, making sure that farmers are given the necessary information and that they are represented and heard regarding the policy issues which affect them at the state and national levels.

"Nancy's leadership has helped farmers all across North Dakota, including those that have had the privilege to serve on the board," NDSGA President Kasey Bitz states.

Johnson is a great proponent of providing farmers with leadership

development opportunities, in addition to spearheading communication and education projects for issues such as transportation, water management, trade, financial effects, carbon opportunities, farm stress and more.

Johnson's dedication; dependability; and strong, positive approach to her work have made her an exemplary executive leader at the NDSGA as well as an asset to the soybean industry at large.

The ASA Distinguished Leadership Award was presented at an ASA awards ceremony in New Orleans, Louisiana, during the 2022 Commodity Classic.

*—Story by Daniel Lemke,
photo by Alissa Armstrong*



NDSGA Executive Director Nancy Johnson (center) was presented with the American Soybean Association (ASA) Distinguished Leadership award at the ASA awards banquet during the 2022 Commodity Classic in New Orleans. Johnson is pictured with the contingent of North Dakota farmer leaders attending Commodity Classic.

When the world relies on you for healthy food choices, rely on **SOYLEIC®**

SOYLEIC® is a non-GMO, high-oleic option for today's soybean farmers — and those they serve.

- Maturity Groups for Your Area
- Competitive Yields
- Added Value for Culinary and Livestock Markets

That means the future of a healthier food system isn't manufactured — it's grown.

See why soybean farmers are embracing SOYLEIC®.

soyleic.com



(573) 635-3819  

734 S. Country Club Drive
Jefferson City, MO 65109

NORTH DAKOTA SOYBEAN
GROWERS ASSOCIATION

4852 Rockinghorse Circle South
Fargo, ND 58104
(701) 566-9300



PRSR STD
US POSTAGE PAID
Fargo, ND
Permit #684

FORE
the fun
of it!

19th Annual
NDSGA Golf
Tournament



Join the NDSGA for a day of fun on **August 23, 2022** at Rose Creek Golf Course in Fargo. Golf, lunch, social, dinner and prizes. Register yourself or a whole team by August 5

by going to the Events tab at NDSoyGrowers.com. For more information, contact Nancy Johnson at (701) 640-5215 or nancy.johnson@ndsga.com.