





SUSTAINABILITY NEVER GOES OUT OF SEASON

PEST MANAGEMENT

Customers prefer U.S. soy because it's sustainable. But demands for sustainability continue rising. Carefully managing crop protection technologies increases their long-term effectiveness and decreases your need for additional pest control. Adopting this practice is another step forward in improving your sustainable footprint. Show your commitment to sustainability with a free truck magnet available at unitedsoybean.org/sustainability





NORTH DAKOTA SOYBEAN GROWERS ASSOCIATION

Joe Ericson, Wimbledon | At-Large | joe.ericson@NDSGA.com

VICE PRESIDENT

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

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

TREASURER

Eric Broten, Dazey | D4 | eric.broten@NDSGA.com

DIRECTORS

Kasey Bitz, LaMoure | D2 | kasey.bitz@NDSGA.com Spencer Endrud, Buxton | D3 | kasey.bitz@NDSGA.com Sam Landman, Northwood | D6 | sam.landman@NDSGA.com Mike Appert, Hazelton | D8 | mike.appert@NDSGA.com Matt Swenson, Kindred | At-Large | matt.swenson@NDSGA.com Logan Ferry, Manvel | DuPont Young Leader | logan.ferry@NDSGA.com

AMERICAN SOYBEAN ASSOCIATION DIRECTORS

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

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

NORTH DAKOTA SOYBEAN COUNCIL

CHAIRMAN

Joe Morken, Casselton | D4 | jmorken@ndsoybean.org

VICE CHAIRMAN

Troy Uglem, Northwood | D7 | tuglem@ndsoybean.org

Matt Gast, Valley City | D5 | mgast@ndsoybean.org

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

Mike Langseth, Barney | D1 | mlangseth@ndsoybean.org Dan Spiekermeier, Sheldon | D2 | dspiekermeier@ndsoybean.org Mike Schlosser, Edgeley | D3 | mschlosser@ndsoybean.org Levi Taylor, Ypsilanti | D6 | Itaylor@ndsoybean.org Perry Ostmo, Sharon | D8 | postmo@ndsoybean.org Mike Muhs, Langdon | D10 | mmuhs@ndsoybean.org Chris Brossart, Wolford | D11 | cbrossart@ndsoybean.org Daniel Mock, Braddock | D12 | dmock@ndsoybean.org

UNITED SOYBEAN BOARD DIRECTORS

Jared Hagert, Emerado I jchagert@msn.com Jay Myers, Colfax | jmyers@rrt.net Darren Kadlec, Pisek | dkadlec@polarcomm.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 Josephine Hudoba

CONTRIBUTING PHOTOGRAPHER Wanbaugh Studios

NORTH DAKOTA SOYBEAN COUNCIL

4852 Rocking Horse Circle South, Fargo, ND 58104 (701) 566-9300 | www.ndsoybean.org

NORTH DAKOTA SOYBEAN GROWERS ASSOCIATION

4852 Rocking Horse Circle South, Fargo, ND 58104 (701) 566-9300 I 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.

ontents

- Soybeans' Steady March
- North Dakota Soybean Council Welcomes Harrison Weber as Director of Market Development
- Pulling for Biodiesel
- 10 North Dakota Soybean Farmers Experience Firsthand Checkoff Dollars at Work at the Annual See For Yourself Program
- 11 Collaboration is Key for the World's Soy Production
- 12 Teaming Up for the SCN Fight
- 13 Association Applauds the North Dakota Soybean Council
- 14 Stress on the Farm
- 15 North Dakota Soybean Council Internship Provides Experience While Building Skills
- 16 Cover Story Trade Turmoil
- 17 Trump Unveils \$12 Billion Package for Farmers Hurt by Tariffs
- 18 Filling the Bill
- 20 Celebrating Modern Agriculture at the Red River Zoo
- 21 North Dakota Farmer Talks Sustainability with Taiwanese Soyfood Producers

- **22** Work Safely Around Grain
- 23 Spotlight on North Dakota Dairy
- 24 Is America Ready for Natto?
- **26** Food Quest to Feature North Dakota Soybean Industry
- **27** Fall is Right Around the Corner
- **28** Building Bridges E-Tour Connects Farmers, EPA
- 29 Scholarship Helps Cossette Master Ag Economics
- **30** To Store of Not to Store
- Fifth Annual Jamestown Golf Tournament

epartments

- Legislative Report
- Guest Letter
- North Dakota Soybean Council Report
- **32** Getting to Know the Grower
- **33** Getting to Know the Expert
- 34 Bean Briefs

n the cover

This Divide County farm overlooks an oil drilling rig. The expansion of soybeans to western North Dakota is one of the reasons for a huge increase in soybean production. North Dakota farmers rely on exports for the bulk of their soybean markets. Exports opportunities that used to be a sure thing have recently become problematic. This issue of the North Dakota Soybean Grower takes a closer look at the trade issues that are causing concern for the state's soybean farmers.

—Photo by Wanbaugh Studios



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) 556-9300 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.

f roads, water and research

The North Dakota Soybean Growers Association (NDSGA) has ongoing efforts to inform and to unite various groups about underfunding for the state's transportation system, namely its roads and bridges. Generally, the Department of Transportation (DOT) budget enables the state to fund infrastructure at about 30 percent of the depreciation rate. In addition to this unsustainable path, the Executive Branch is ordering further budget cuts for state agencies, a fact which would accelerate the need for funding.

To help remedy this situation, NDSGA members and staff have met with top DOT officials, offering to help look for appropriate revenue sources, and we have set up a meeting later this summer for some commodity groups. Education about the rate and causes of road and bridge consumption can only help the world of agriculture make the most of the transportation dollars. We are looking to bring in other organizations as we attempt to make our infrastructure as sound as possible.

In our last issue, a portion of this space was devoted to water issues in eastern North Dakota. I recently returned from the 2018 North Dakota Water Joint Summer Water Meetings and Executive Briefings which were held in Williston. The NDS-GA was invited to attend the North Dakota Water Resource Districts (WRD) Association's Board of Directors meeting where discussions focused

on how to restore funding to the WRDs so that effective drainage for farmers can move forward.

Another day of the summit was devoted to agriculture; we learned about the interactions of soil water and crop growth from Dr. James Staricka of North Dakota State University's (NDSU) Williston Research Extension Center. My main takeaway was that research over the past six years shows how irrigating to about 75 percent of full watering is just as effective as irrigating to 100 percent. Staricka theorized that this result may be due to the plants sending down greater root systems.

According to the latest information (2015) from the state water commission, the total consumptive water use in the state was topped by irrigation at 54 percent. Municipal use was 20 percent; rural water consumed four percent; non-fracking industrial/power/multi use was 16 percent; and water depots, including fracking, used five percent. If this NDSU research holds true, a lot of water could be saved by the state's irrigators.

We also learned about the status of Waters of the U.S. (WOTUS) in the court systems, a tale with more twists and turns than I can recount here. A WRD director turned to me when the attorney explained that they had recently taken a year and a half arguing about which court they should be arguing, saying, "You can't make this stuff up."

A number of summit participants and I toured the Williston Research Station, and I also took part in the Dryland Tour. It was my first Crop Tour/Field Day, and there were well over 120 of the roughly 180 people in attendance, scribbling notes as the researchers discussed pathogens, weeds and

treatments. This tour gave me greater insight about the incredible number of factors you have to consider when planting, spraying and rotating crops. My hat is off to you, and as always, I can see why agronomists and extension agents are often consulted. My head was spinning as Dr. Brian Jenks from NDSU discussed the various weeds and the seemingly equal number of chemicals to combat them.

Another day was devoted to a different site about 25 miles east of Williston; we went to the Nesson Valley facility for the Irrigation Tour. Nesson Valley has four 40-acre plots with variable-rate, linear irrigation systems. The 2001 legislature authorized the purchase of those 160 acres, and the land is under the management umbrella of the Williston Research Center. Some experimental plots featured soil that was tilled; some land was no till; and there were various crop rotations. Soybeans were included on many plots, and the soybeans surprised researchers with the ability to handle no till fairly well.

Another stop on the tour included intercropping, where farmers grow a combination to enhance the outcome of both crops. For instance, there was one combination called Chax, which is a combination of chickpeas and flax, with the idea being that the flax stems give the chickpeas something to grab.

It seems that there is always plenty to learn about and research, but with cuts to the research and extension programs last session, there is concern going into this winter's legislative activity.

—Story by Phil Murphy



Congratulations to Beltz on Retirement

After serving on the State Board of Agricultural Research and Education (SBARE) for 8 years, 4 of those as chair, Mike Beltz (right) recently retired from the board. Current Chair Keith Peltier presented Beltz, of Hillsboro, North Dakota, with a bison statue to commemorate the occasion. Beltz was one of the row crop appointees nominated by the North Dakota Ag Coalition. Among other duties, SBARE is charged to:

- Develop ongoing strategies for the provision of research solutions and resources to negate adverse economic impacts on crops and livestock produced in this state
- Develop proactive strategies for NDSU Extension to fulfill the mission of improving the lives and livelihood of the citizens of North Dakota by providing research-based education
- Develop, with the North Dakota Agricultural Experiment Station and NDSU Extension, an annual budget for the operations of these entities
- Develop a biennial budget request based on its prioritized needs list and submit that request to the President of NDSU and the SBHE, and forward its prioritized needs list and request without modification to the Office of Management and Budget and the appropriations committees of the legislative assembly
- Provide a status report to the budget section of the Legislative Council

recently had the opportunity to travel to Brazil in order to participate in the XXI International

Oilseed Producers Dialogue (IOPD) on behalf of the U.S. soy industry. This conference, which ran from June 25 to 28, provides international participants with the opportunity to meet with oilseed producers from other countries, giving us a chance to discuss issues of common interest and to develop partnerships. This kind of cooperation helps provide support for key market issues.

In addition to building international markets, U.S. soy needs market access for trade. IOPD provides a chance for U.S. soy delegates to discuss international trade dynamics and to build relationships with like-minded organizations from around the world.

As a U.S. farmer, market access has long been of vital importance to me. It's one of the reasons that I believe so strongly in farmers coming together to speak as one voice on issues that affect all stakeholders in the soy value chain. This is why my fellow growers and I volunteer for a number of boards at the local, state and national level. To me, it's clear that collaboration is the only way to make things happen. That's true whether you're working

with your peers on the next farm over or on another continent.

For this particular mission, I traveled with two of my fellow farmers. John Heisdorffer serves as the president of the American Soybean Association (ASA) as well as a former U.S. Soybean Export Council (USSEC) director. Lewis Bainbridge is the chairman of the United Soybean Board (USB).

John and Lewis believe, as I do, that working together and having a dialogue with farmers and associations from other countries can accomplish things that we might not be able to do as one.

This year's IOPD was held in Mato Grosso, Brazil's largest soybean-producing state. The meetings took place in Cuiaba, the state capital. In addition to host-country Brazil, the European Union, Germany, France, Paraguay, the U.S. and Canada gave industry overviews for their country or region. Countries shared perspectives about key issues, including international trade and the global regulatory environment for new breeding technologies. With robust dialogue to address common challenges, our countries are working together in



Monte Peterson
USSEC Vice Chairman and ASA Director
Email:
monte.peterson@NDSGA.com
Websites:

order to meet the needs of the future.

ussec.org | soygrowers.com

We also had the opportunity to visit a biodiesel production plant and a corn-ethanol production plant in the city of Lucas do Rio Verde, followed by a visit to the city of Sorriso where we saw a soybean-crushing plant and a farm.

Each year, IOPD provides the opportunity to learn and to understand the issues that are important to our fellow oilseed producers within their respective countries around the world. As producers and as competitors, we have similarities with common challenges, but what is most important to understand, I believe, is how we might view possible solutions differently.

The three U.S. farmers agree, that although people in other countries might not have the same challenges we do, it's important to remember that we all have our struggles. The friendships and relationships that we're building with key individuals around the world could be of great value sometime in the future when we need to work together.

—Story by Monte Peterson, photo courtesy of USSEC



U.S. Soy leadership participated in the XXI International Oilseed Processors Dialogue in Brazil. From left: American Soybean Association (ASA) CEO Ryan Findlay, USSEC Senior Marketing Director – Market Access Roz Leeck, United Soybean Board (USB) chairman Lewis Bainbridge, USSEC vice chairman and ASA director Monte Peterson, ASA president and former USSEC director John Heisdorffer, and USSEC CEO Jim Sutter.



he sweeping expanses of north-central North Dakota used to be dominated by fields of wheat. Now, soybeans

are just as likely to dot the landscape.

Larry Fandrich is the third generation to farm his family's land near Harvey. After 16 years of trucking, Fandrich returned to the farm that his grandfather started in 1945. Fandrich's father took over in 1965. By the time Larry Fandrich began in 1996, a few farmers in the region had already started raising soybeans, but the acreage was far from the current levels.

"I started raising soybeans in 1997," Fandrich says. "There was better money in soybeans than there was in wheat by a long shot."

In addition to soybeans, Fandrich raises about 1,000 acres of row crops, including corn. He also grows hay and raises about 150 head of beef cattle. Fandrich's wife, Fay, operates a floral shop, Cabin Creations, in nearby Fessenden.

Part of the Rotation

Larry Fandrich has been growing soybeans for 20 years, but he's still

perfecting ways to get the most from his production. Among his primary management decisions is selecting the right varieties.

"We have a short season, so we have to plant varieties that provide yield but mature early enough for us to get them harvested," Larry Fandrich says. "We're typically working to get the soybean crop off in October, and then, we work on the corn in November."

To get the most from his soybeans, Larry Fandrich tries to give them a helping hand. He plants his soybeans in 30-inch rows and uses starter fertilizer to get the plants off and running. He also adds microbes to help the soybeans grow and perform better.

"I really have to push them. That's why I use the fungicides and microbes," Larry Fandrich says.

Larry Fandrich says that this growing season has been a challenge. Conditions were dry to start; then, the rains came.

"We started out really dry, and people were screaming drought.

Then, we got rain and mudded the crop in after that," Larry Fandrich says.



Fay (left) and Larry Fandrich (right) have incorporated soybeans into their crop rotation for more than 20 years.

Salinity is also becoming an issue for Larry Fandrich as the water table rises and evaporating water leaves behind salt deposits. He uses calcium and lime to deal with the salinity. He also uses different crops that are more salt-tolerant to manage those areas.

Whatever the field conditions, Larry Fandrich says that economics are always the driving factor for his cropping decisions. Despite challenging swings in the grain markets, soybeans will remain an integral part of his rotation.

"We plan in advance and try to survive each year," Larry Fandrich says. "Soybeans and corn make a good rotation, so I plan to keep raising soybeans."

Research Focus

Farmers aren't the only ones putting more focus on soybeans. At the sprawling North Dakota State University North Central Research Center (NCREC) in Minot are hundreds of test plots which are growing wheat, barley, lentils, chickpeas and even grapevines. Increasingly common, there are soybean trials.

"I came to the research center 10 years ago to work on pulse crops," says NCREC Director Shana Forster. "Very few people in the area were growing soybeans at that time. Two years ago, the number-one crop in Ward County was soybeans, so we've seen a very rapid progression."

Forster says that soybean research

at the Minot facility, as well as at other farms near Wilton, Mohall and Garrison, is occurring because soybeans are becoming an increasingly important option in counties that previously relied on other crops.

In addition to university research, seed companies are actively breeding shorter-maturing varieties that perform well in a tighter growing season because farmers want soybeans.

"Soybeans went from a small percentage of our crop to a large percentage in a short period of time," says Courtney Meduna, Monsanto's technical agronomist and a farmer. "Soybeans come in as a really good rotational crop for us, but farmers need crops that grow in a short window, so we pumped up our breeding to meet those needs."

Even though north-central North Dakota is comparatively new to the soybean scene, Forster says that farmers in Ward County average about 40 bushels per acre. Soybean's northward and westward march continues; Forster has been invited to speak in Canada, where she says that work is ongoing to develop varieties that mature in Canada's shortened growing season while still offering good yield and quality.

Forster also says that soybean research at university facilities will continue because soybeans are here to stay.

"Farmers have gotten used to having soybeans in their rotations," Forster says.

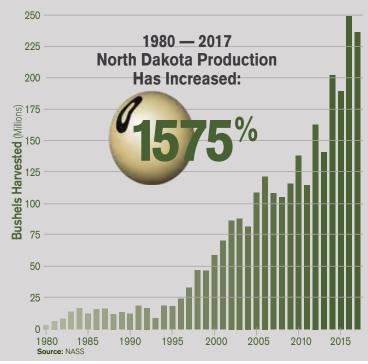
—Story and photos by Daniel Lemke

Soybean Expansion is **No Myth**

Soybean statistics demonstrate how dramatically soybean production has increased in North Dakota.

According to data from the National Agricultural Statistics Service (NASS), soybean production in North Dakota grew 1,575 percent from 1980 to 2017.

North Dakota Annual Soybean Production



In 1942, North Dakota farmers planted 4,000 acres of soybeans and averaged 10 bushels per acre. By 1997, more than 1.1 million acres were planted with soybeans. North Dakota farmers planted an estimated 6.6 million acres of soybeans in 2018, compared to 3.35 million corn acres.

While the southeast corner of North Dakota has the highest concentration of soybean acres, soybeans are grown in nearly every county.

North Dakota 2017 Soybean Production

Harvested Acres



Production in Bushels



Five North Dakota counties ranked in the top 10 soybean producing counties in U.S. by bushels: #1 Cass #2 Stustman #3 Barnes #6 Richland #8 LaMourse: NASS

alue of research

It's not by accident that North Dakota's soybean production has skyrocketed from 1.85 million acres in 2000 to 7.05 million acres in 2017. Soybean production in the state increased by 1,575 percent between 1980 and 2017. North Dakota now ranks fourth nationally in planted acres for soybeans.

We've also seen yields climb from 17.5 bushels per acre in 1980 to a record 41.5 bushels per acre in 2016. That's quite an improvement.

It's safe to say that soybean production in North Dakota has changed dramatically in the past few decades. Agribusiness companies are investing in new technology and new genetics to make us more productive, but public research is also playing a huge role in helping us to become better educated and more proficient.

Each year, the North Dakota Soybean Council (NDSC) invests checkoff funds in a broad range of soybean research efforts which are designed to help all of the state's soybean farmers. Whether it's disease testing, resistance management or agronomic practices, the NDSC is committed to supporting work that makes us all better.

On average, the NDSC supports 30-35 research projects in North Dakota every year. That research has many forms. The NDSC supports work by North Dakota State University (NDSU) Extension

researchers on production practices such as plant populations and stand establishment. The more we know about getting our soybeans off to a good start, the more productive we can become.

Herbicide-resistance management is another key focus. The NDSC recently supported sending NDSU Extension staff to Nebraska in order to learn more about identifying and eradicating Palmer amaranth. Fortunately, North Dakota doesn't have an issue with Palmer amaranth, but we feel that it is vital to keep it that way. Having trained experts to help farmers identify and manage an infestation is extremely valuable.

Other research projects focus on fertility, disease management, managing pests and much more.

It can be difficult to measure how much value is realized from research investments. The NDSC recently worked with NDSU Extension on a series of Getting it Right in Soybean Production events at four locations across North Dakota. At these events, farmers were asked to place a monetary value on the information they received during the sessions. The responses averaged to \$7.95 per acre. Since the more than 150 farmers in attendance managed an average of 988 soybean acres, the value of this activity was about \$1.5 million.

Supporting relevant soybean research is a prior-



Troy Uglem Vice Chairman, Research Committee Chair North Dakota Soybean Council

Email:

tuglem@ndsoybean.org

Website:

www.ndsoybean.org

ity for the NDSC. As farmer leaders, we take the responsibility of investing checkoff funds very seriously. We know, without a doubt, that research is an important factor to keep North Dakota soybean production growing. The NDSC will do its part to provide the state's farmers with the information that they need to enhance their productivity.

orth Dakota Soybean Council Welcomes Harrison Weber as Director of Market Development

The North Dakota Soybean Council (NDSC) is excited to announce hiring Harrison Weber as director of market development. Weber started his position with NDSC on August 1, 2018.

"The NDSC is very pleased to have Harrison Weber join our team as the director of market development," says Executive Director Stephanie Sinner. "This position is a critical piece to helping support the North Dakota soybean industry, and Harrison brings to the position true passion and enthusiasm for working with our North Dakota soybean producers. His hire will help our producers succeed in accessing more markets around the world. We are delighted to have Harrison on our staff!"

Weber is originally from Casselton, North Dakota. He received a law degree from the University of North Dakota in 2017. He holds a bachelor's de-

gree in business administration-management from Valley City State University. Most recently, Weber was a regional project manager with the Minnesota Soybean Research and Promotion Council and Minnesota Soybean Growers Association. Weber's background also includes serving as a legal intern for the Senate Agriculture Committee with the North Dakota Legislative Council and as a law clerk in Fargo. Weber is actively engaged in his family's farming operation with his uncle, cousin, father and grandfather near Chaffee, North Dakota. He has experience with grain marketing, agronomy, crop production and farm management.

"I am excited to join the North Dakota Soybean Council staff as their director of market development," says Weber. "The soybean checkoff is an extremely valuable investment made by soybean producers and their families. I look forward to working on behalf of North Dakota soybean farmers by exploring market opportunities and creating value for their operations."

—Story by staff. Photo by Betsy Armour







rowing up on a family farm near Gardner, North Dakota, Rob Bell had an early introduction to

horsepower. That exposure primed a young farm boy for a serious hobby.

"My dad took us to tractor pulls during the summers when we were growing up," Bell says. "Dad never was a tractor puller, but he liked to watch. Being raised on a farm and working at a dealership now, pulling is something that I'm very interested in. I thoroughly enjoy it."

Bell lives in Hillsboro and is the shop foreman for Valley Plains Equipment. He's also a nearly 30-year veteran of the Midwest tractor-pull circuit.

"I started pulling in 1989," Bells says. "I graduated from antique stock tractors to some antique, slightly modified tractors to these Hot Stock tractors that I'm running on 20 percent soy biodiesel."

A Tractor Story

Bell pulls with two different tractors, both in the Hot Stock class. He says that Hot Stock tractors are limited to 3,000 RPMs and a 2.6-inch turbo. One of Bell's tractors is a 4430 John Deere; the other is a 1206 Farmall that he calls the Farm Boy's Dream.

"Growing up, my dad had an 806 Farmall, and our neighbor kid's dad had a 1206 Farmall. We would ride bicycle between farms, and I'd see his dad's tractor was hooked to the six-bottom plow, and my dad only pulled four bottoms with his. I thought 'that has to be the most powerful tractor in the world that can pull six bottoms," Bell recalls. "I always wanted a tractor like that. I wanted my dad to buy one. Finally, I ended up buying one myself, and that's why it's called Farm Boy's Dream."

Bell's 4430 John Deere is adorned with a deer foot for a shifter and deer antlers as a helmet holder. Not surprisingly, there's a story behind that tractor, too.

"I favor John Deere, and I've worked at a John Deere dealer for 33 years. Different customers would call me the Deere Doctor or Dr. Deere, so we thought that would be a fitting name," Bell says. "We actually had a graphic made of me working on a deer, so that's why this one's called the Deere Doctor."

Bell's pulling schedule takes him as far north as Manitoba; south and east into Minnesota; and as far west as Drake, North Dakota.

"We travel about a 225-mile radius. Last year, we were at 23 different events," Bell says.

Spreading the Message

While pulling is serious fun, Bell also uses the pulling platform to promote the benefits of soy biodiesel. Bell has used biodiesel in his pulling tractors since 2006. The North Dakota Soybean Council helps sponsor Bell's efforts.

"I was raised on a farm and our family still farms, so whatever we can do to help our farmers here is going to be to our advantage," Bell says. "If we can grow our own fuel, it's better than paying another country for it."

Fuel is a big deal for pullers because they're constantly looking for ways to generate more power without damaging the tractor's engine. Bell has found biodiesel to be the best way to power his pulling.

"The soy biodiesel at 20 percent has better lubricity than even the old diesel fuel with the sulfur in it. In a case like this where we're pressing everything to the max, I've not had any trouble with sticking injectors or any injector pump problems," Bell says.

Bell says that pulling starts the conversation about biodiesel between him and people who come watch the events.

"Most of the conversations that I have are with spectators and farmers. A lot of farmers will come up and say 'you're using that soy biodiesel,' or they'll notice and say the exhaust smells like French fries, and a lot of times the announcer will even say that," Bell adds. "There's a lot of myths that you don't develop as much power or that you lose power on soy biodiesel, and that's not true. One of my tractors is running about 500 horsepower, and the other is running about 700 horsepower, both at 3,000 RPMs.

Bell says that he enjoys the thrill of seeing how much power his tractors can generate. Biodiesel is helping his tractors perform at their highest level. He is looking forward to another successful season which is powered by soy biodiesel.

—Story and photo by Daniel Lemke



North Dakota Soybean Farmers Experience Firsthand Checkoff Dollars at Work at the Annual

See For Yourself Program

group of North Dakota soybean producers who wanted to learn more about the transportation

system beyond the elevator as well as the soy checkoff's role in marketing U.S. soy to customers participated in the North Dakota Soybean Council's (NDSC) "See for Yourself" program in Portland, Oregon, on July 10-13. Annually, approximately 72 percent of North Dakota's soybean crop is transported by rail to the Pacific Northwest (PNW) where it is shipped overseas to international customers.

The group toured the Port of Kalama, the Export Grain Terminal (EGT), Kalama Export Company and the Tacoma Export Marketing Company (TEMCO). The PNW is a crucial port for exporting North

Dakota soybeans to our largest markets of China and southeast Asia.

Participants also toured the Bonneville Lock and Dam, an inland waterway system on the Cascade River, and SeQuential, the longest-running biodiesel production facility that serves the Pacific Northwest. SeQuential Pacific Biodiesel utilizes regionally sourced, used cooking oil to produce a local, clean-burning biodiesel. The company is also set up to utilize oils such as soybean and canola.

The group also met with Ryan Lamberg, executive director of the California Biodiesel Initiative; Tom Verry, director of outreach and development with the National Biodiesel Board; Kristin Meira, executive director of the Pacific Northwest Waterways; Captain Rick Gill, a Columbia River pilot; Michael Titone, executive director of Columbia River Bar Pilot; and Greg Guthrie, Director of Ag Products, an agricultural products ombudsman with BNSF Railway. The farmers also



See For Yourself participants view the ship loading terminal at TEMCO at the Port of Kalama where North Dakota soybeans are loaded for export.



participated in a weed-management educational session with NDSC Director of Research Kendall Nichols.

"Our annual 'See for Yourself' program is an excellent opportunity for North Dakota soybean producers to engage directly with the programs their checkoff dollars fund," says NDSC Executive Director Stephanie Sinner. "For North Dakota, transporting our soybeans to export markets is a critical piece of our industry. This program is an opportunity to see all the pieces in action, including meeting the important folks who help get North Dakota soybeans to our customers around the world."

The delegation of North Dakota farmers included Brent Johnson, Hope; Charles Bina, Lankin; Daniel Bishoff, Cogswell; Dustin and Kristen Mumm, Wahpeton; Griffin Zimmer, Munich; Jacob Osland, Mayville; Jason Rayner, Finley; Kevin Forde, Bismarck; Kyle Marquette, Rutland; Lyle Shepard, Crystal; Matt



See For Yourself participates in a tour of the Kalama Export Company.

Leavitt, Burlington; Roger Waslaski, Langdon; Sam and Whitney Landman, Larimore; Sam Ongstad, Harvey; Thomas Shephard, Crystal; and Levi Taylor, Ypsilanti. The program was coordinated by NDSC Executive Director Stephanie Sinner, with NDSC Director of Research Kendall Nichols assisting and accompanying the group. Sabrina Hill, a farm

broadcaster with the American Ag Network, also attended. She provided daily updates/radio news footage and social-media coverage.

—Story and photos by staff



See For Yourself participants in front of a Sequential truck that collects used cooking oil to process into biodiesel, a renewable fuel.

I had an amazing experience with my fellow soybean growers across the state during this program," says
Thomas Shepard of Crystal, North
Dakota. "It was very cool to see the part of the soybean story once beans leave our farm and where they go. It was a neat opportunity to see how the process fits together with the different steps of the soybean system.

Interested in seeing these locations for yourself or learning more about your checkoff investments?

Join us next year for NDSC's annual "See for Yourself" program. Watch for more information in future North Dakota Soybean Grower Magazine issues; give us your email address to be added to the list; and be the first to learn about these opportunities. To get on the email list, contact swolf@ndsoybean.org.



n the 1990s, soybean cyst nematode (SCN) infestations caused tremendous losses to U.S. soybean production.

To combat the challenge, the SCN Coalition was formed to help farmers recognize the impact that SCN was having on North Dakota soybeans.

The coalition coined the slogan, "Take the test, beat the pest." Farmers began to pay closer attention to SCN. They tested their soil for SCN and started planting varieties with SCN resistance. Soon, damage was reduced. Eventually, the SCN Coalition disbanded.

It's back. In the 1990s, North Dakota's soybean production was less than a million acres. Today, it's over 6 million acres. Because of that expansion, the spread of SCN and the reduced effectiveness of some SCN-resistant genetics nationally, SCN is as big of an issue as ever, prompting the SCN Coalition to be reborn.

"There is no soybean disease that causes more damage than SCN," says Sam Markell, North Dakota State University Extension plant pathologist. "Nationally, SCN accounts for an estimated \$1 billion in losses annually. SCN also compounds other issues like Sudden Death Syndrome and Brown Stem Rot."

SCN Partnership

The SCN Coalition is a multistate, public-private effort to raise awareness about the continuing threat posed by SCN. Multiple universities and agribusinesses are cooperating to provide resources to help farmers better understand SCN management. Soybean-checkoff funds are being used to support the SCN Coalition along with funds from private companies.

SCN is an insidious pest that lives in the soil and can reproduce rapidly. Soybean cyst nematodes are microscopic roundworms that infect soybean roots and use the plant's nutrients for their own growth and reproduction, disrupting normal soybean-plant function. SCN is also highly prolific. Each cyst can produce

more than 200 eggs. The nematode can complete several life cycles in one growing season, so populations can explode quickly.

SCN can survive up to 10 years without a host, so once populations are established, they're nearly impossible to eliminate. For years, farmers managed SCN populations by planting SCN-resistant soybean varieties. After more than 20 years of using the same genetic resistance, the resistance is losing its effectiveness because SCN has adapted.

"Things are changing," Markell says. "In many areas in the U.S., the genetics we've been using aren't working as well because the SCN is developing resistance. In our area, the genetics are still effective, but the nematode is being spread rapidly in North Dakota, and many growers may not realize how big of yield threat they may face if they don't manage SCN. The rebirth of the SCN Coalition is to increase grower

Evaluating soil for SCN.

understanding that genetic resistance isn't working as well as it once did and that SCN continues to spread as soybean acreage grows, so farmers will have to actively manage SCN."

Managing SCN

SCN moves with soil, so farm equipment, water and even wind can transport infected soil from one field to another, causing SCN to spread. Markell says that the first thing farmers need to do is test their soil to determine if they have SCN.

If SCN is identified, it's important to actively manage those fields, beginning with crop rotation. Markell says that planting non-host crops, such as wheat or corn, helps to keep egg levels low while crops such as dry edible beans are susceptible to SCN and may make matters worse.

Rotating SCN-resistant genetics is an important step. Much like glyphosate tolerance in weeds, the resistance gene PI 88788 is losing its effectiveness against SCN. Farmers need to plant varieties that feature other genetics rather than relying on one.

Markell says that, in some cases, farmers may consider using a nematode-protectant seed treatment.

The SCN Coalition has a robust website with materials that can be downloaded to help farmers manage their SCN populations. Visit www. thescncoalition.com to access these resources.

—Story by Daniel Lemke, photo courtesy of Wanbaugh Studios

Association Applauds the North Dakota Soybean Council



We think that it is important for the North Dakota soybean farmer to know that the Northern Food

Grade Soybean Association (NFGSA) recognizes and extends its appreciation for the support and consideration of the Human Utilization Projects presented to the North Dakota Soybean Council.

Over the past several years, the NFGSA has worked with neighboring states to partner on projects that have a significant benefit to the region's soybean producers. North Dakota has taken a lead on many of the projects. The NFGSA firmly believes this has influenced the other states to take a more active and global look at the importance of Human Utilization Projects.

Country projects that the NFGSA supports are in Japan; Korea; India; China; and multiple countries in

southeast Asia, such as Thailand and Vietnam. Each country has its own unique opportunities and challenges. Some countries are more mature while others are emerging markets.

One of the projects that the NFG-SA is very proud of its participation in the U.S.-Japan Natto Summit. August 2019 will be the third year for this summit. Japan imports about 75 percent of its annual natto-soybean needs from the U.S.; of that amount, nearly 80 percent comes from the Red River Valley. This market is extremely important for this region; our current market share over Canada is 10 to 1. This summit is the only one that we know of in the soybean industry that brings many supply chain partners and competitors together

for a two-day conference in order to discuss and to share the concerns and challenges everyone has within this industry.

The Japan Natto Summit is now attracting the largest companies to the smallest companies. It has created a dialogue among competitors that many people had thought would never happen. As an industry, we are now openly sharing best practices, practices or ideas that don't work. and what we need to do to build a stronger future. We all know the sayings "A supply chain is only as strong as its weakest link." and "The sum is greater than the parts." This summit provides a platform for U.S. farmers and suppliers to continue being industry leaders.

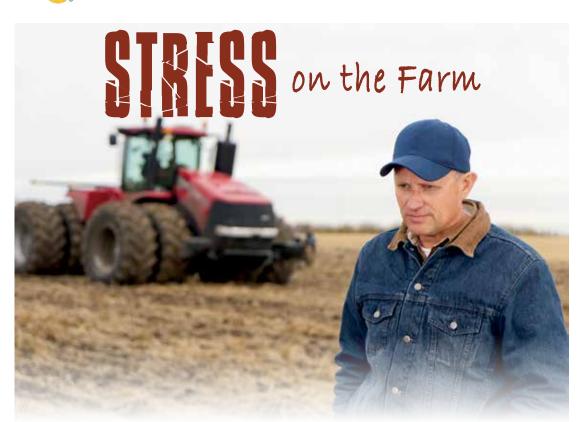
Members of NFGSA promote food-grade soybeans globally.

Projects like this one are powerful not only to hold our competitive advantage, but also to build a stronger future. They also create the roadmap for future summits with other industries and countries. Success and excitement are contagious, and they build momentum for the industry.

The NDSC should be proud of its leadership, its insight and its willingness to support these projects. The projects continue to provide producers with unique, value-added opportunities that many areas of the country do not have.

The NFGSA sincerely thanks the NDSC and the North Dakota soybean growers for their help with these projects. Thank you!

—Story and photo courtesy of NFGSA



arming has always been a stressful occupation. Several years of depressed commodity prices and challenging

conditions mean that crops and livestock aren't the only things growing in North Dakota.

In 2017, North Dakota State University (NDSU) Extension conducted a statewide survey to assess perceived stress levels in the agricultural community. NDSU Professor and Extension Family Science Specialist Sean Brotherson says that the survey showed how expectations for economic conditions in farming and ranching in the year ahead were projected by 70 percent of the respondents to be "slightly worse" to "significantly worse." Expectations for family stress levels in farming and ranching in the coming year were projected by 76 percent of the respondents as "slightly increased" to "significantly increased."

Brotherson says that, with a combination of low commodity prices, weather concerns and other factors, the stress levels among farm populations across the region are higher than usual.

"Some of the pressures that occur in the agricultural industry are unique and beyond a person's control, which can be difficult and lead to feelings of frustration," Brotherson says. "These unique pressures include weather difficulties that affect crops or livestock, and market prices that vary without warning. Individuals and families who work in agriculture are tightly linked to the agricultural system, and pressures in the agricultural system then lead to stresses on the farm financial situation and/or the family financial situation."

Stress shows up in a variety of ways because each affected person responds differently to stress. Brotherson says that signs of stress are like flashing lights on a car dashboard which warn you to pay attention, to slow down and to take steps in order to check for difficulty.

Each person responds to stress differently. Some physical signs of stress may be stomach upset and fatigue while other individuals may deal with severe or persistent headaches. Other people show emotional stress signals by withdrawing while some individuals may become angry and irritable. Changes in sleep habits, irritability and getting into conflict with others, or constantly working to avoid relationships are other potential signs of stress.

A Painful Progression

The Centers for Disease Control (CDC) reports that suicide rates increased in North Dakota by over 57 percent from 1999 to 2016. The CDC also shows that farmers are three to five times more likely to die by suicide than other American workers. Brotherson says that, while farmers have typically had a higher-than-normal suicide rate, the increase is alarming.

"This dramatic rise in suicide rates among the farm and ranch population coincides with an overall increase in the United States, but this pattern of increase in North Dakota stands out and is definitely a cause for major concern," Brotherson says.

The CDC says that more than half of all suicides are carried out by people with no mental-health diagnosis.

"While an individual may not have a specific mental-health diagnosis if suicide occurs, it is generally agreed that most individuals who die by suicide have an accompanying mental-health concern, and it is often undiagnosed," Brotherson says. "This suggests that we must do a better job removing the stigmas around mental and emotional health, provide resources to assist those who may be struggling, empower individuals across all areas of society to understand mental health needs, and link people to available resources."

Be a Good Neighbor

Chronic, persistent stressors can lead to a crisis when a person no longer can cope. The sources of stress may vary, but in a crisis, everyone struggles to cope, Brotherson says. If you or someone you know is exhibiting unusual behavior, such as a lack of focus or motivation, uncharacteristic anger or alcohol abuse, it may be time to evaluate stress levels and the overall farm situation.

"If you feel or see a problem, please do not ignore it. People often don't get the help they need simply because they don't know where to begin," Brotherson says. "If you are dealing with thoughts of depression or anxiety, talk to your primary-care physician and ask about available mental-health services."

Like many other professions, farmers are self-reliant, accustomed to solving problems and facing adversity





themselves. This can make reaching out for help difficult. Persistent stress can lead to symptoms of depression. Untreated depression impairs a person's ability to function and can increase the risk of health problems and suicide.

–Story by Daniel Lemke

Depression Warning Signs

While people suffering from stress may not recognize the symptoms themselves, family members and friends can be an invaluable resource to identify issues.

A formal diagnosis of a major depressive disorder may include

- Depressed, sad mood (persistent) or irritability
- Loss of interest and pleasure in nearly all activities
- Change in appetite (weight loss or gain)
- Restlessness/agitation or slowing in physical movement
- Fatigue or loss of energy
- Feelings of worthlessness or hopelessness and/or excessive and inappropriate guilt
- Inability to concentrate and/or make decisions
- Sleep disturbance (insomnia or sleeping too much)
- Recurrent thoughts of death or suicide; suicide plan/attempt or statements about suicide
- Impairment in daily life functioning: social isolation, withdrawal, neglect of responsibilities and/or appearance, failing to complete tasks, etc.

Other depression warning signs include

- Alcohol or drug use
- Over-involvement with work
- Withdrawal from relationships
- Rigid demands ("leave me alone")
- Avoiding others
- Increased anger and/or aggressive behavior
- Engaging in reckless behavior
- Talking about suicide or ending it all
- Giving away possessions

Where to Turn for Help

The North Dakota State University Extension service offers these suggestions for farmers with extreme stress or depression:

- Call 9-1-1 for an emergency.
- Call 2-1-1 for listening support, suicidal thoughts, mental-health issues, crisis and referral.
- Call the National Suicide Prevention Lifeline at 1-800-273-TALK (8255).
- Reach out to a loved one; talk about how you are feeling.
- Talk to friends, clergy or a medical provider.

North Dakota Soybean Council Internship Provides Experience While Building Skills

Josephine Hudoba joined the North Dakota Soybean Council (NDSC) as the marketing communications intern. Hudoba began the internship at the end of May.

This fall, Hudoba will be a senior at Minnesota State University Moorhead (MSUM); she is majoring in Spanish and is minoring in both Public Relations and General Agriculture. She takes her agriculture classes at North Dakota State University (NDSU) as a tri-college student. On campus, Hudoba is a member of the swim team, treasurer of the Spanish Club and part of a Bible study. She works as a swim instructor, lifeguard, campus tour guide and a belayer at the rock wall. She also teaches Sunday School at St. Joseph's Catholic Church.

"The NDSC is pleased to continue it's fourth year of having a student intern in our office. We enjoy getting to work with our student interns and helping them learn about the career opportunities in the agriculture industry. Josephine has been a great addition to our team and is always eager to jump in and help with anything from marketing, to promotions and communications, to research," says NDSC Executive Director Stephanie Sinner.

Hudoba grew up in East Bethel, Minnesota. She began learning Spanish at a young age because she attended a Spanish-immersion elementary school in Forest Lake, Minnesota. Although she did not grow up on a farm, she has always had a strong passion for agriculture.

"Ever since I can remember, when anyone asked me what I wanted to be when I grew up, I always said 'a farmer," says Hudoba.

Her parents were very supportive of her passion for agriculture. She raised poultry, had her own garden and was actively involved with 4-H and FFA.

Hudoba summarized her experience thus far: "Working for the North Dakota Soybean Council has been great! I am learning so much, and everyone has been so kind to me. After only about a month and a half, I can say this internship experience has really confirmed that working in the agricultural industry is the right career path for me. I am really grateful for this opportunity to work with both the office staff and the North Dakota soybean farmers, and I am happy to continue helping in any way that I can."

—Story and photo by staff



Josephine Hudoba



ith about 70 percent of the state's soybean production shipped overseas via the Pacific Northwest,

North Dakota farmers are as much in the crosshairs of the current export turmoil as any farmers in the country. Many people are anxious about the current status of trade and how dramatically their farms will be affected.

Already facing a soft farm market and declining prices, China's retaliation against President Trump's 25 percent tariffs on \$34 billion worth of Chinese goods took effect in early July. Soybean farmers, whose crop represents 41 percent of the product value on China's tariff list, are feeling the full effect.

The value of U.S. soybean exports to China has grown 26-fold from \$414 million in 1996 to \$14 billion in 2017. Since talk of the tariffs

began in March, U.S. soy prices have dropped more than \$2.00 per bushel.

"It's difficult to project what the outcome may be," says Valley City farmer and American Soybean Association (ASA) Director Monte Peterson. "There are two possibilities: One is that we are doing irreparable damage to our trade, or the other is that we are negotiating a deal. Either way, this will have a dramatic impact."

Unknown Impact

Soy growers rely heavily on exports to China: In 2017, China imported 31 percent of U.S. production, equal to 60 percent of the total U.S exports and nearly 1 in every 3 rows of harvested beans. Over the next 10 years, Chinese demand for soy-

beans is expected to account for most of the growth in global soybean trade, underscoring the importance of this market for future U.S. soybean sales.

When the possibility of tariffs first arose, agriculture groups such as the ASA asked President Trump to consider other policies to reduce the U.S. trade deficit with China. Other efforts included a fly-in to urge Congress to pressure the administration to rethink the tariffs. Finally, a last-ditch social-media effort by individual soybean farmers appealed directly to the president and his advisers. Those efforts ultimately proved to be unsuccessful.

"As a soybean farmer, the current situation makes me anxious because

soybeans are my number-one crop," says Josh Gackle who farms near Kulm, North Dakota, and is also an ASA director. "We've had stable and accessible markets for years. This uncertainty makes things much more difficult. With the market ups and downs and prices at historic lows, it's very difficult to plan or make a balance sheet work."

Gackle says that the ASA and farmers, in general, understand the need to have mutually beneficial trade arrangements. There have been major concerns with Chinese trade, including companies there infringing on intellectual property developed by U.S. companies.

Because China's appetite for soybeans and soy products is massive, some farmers and marketers are optimistic that some U.S. soybeans could still make their way to China through another country, possibly even Brazil. Gackle says that, even if that were to happen, it would hardly offset what could be lost by trading directly with China.

"We know China is the number-one buyer of our soybeans," Gackle says. "To put that at risk and hope it works out isn't the best strategy."

Rather than falling victim to a trade war, Peterson says that it makes more sense to build upon agriculture's trade strength.

"Let's use ag products as a means of helping with a trade imbalance. Use them to close the gap rather than being used as a pawn in negotiations and retaliatory tariffs on ag," Peterson says.



NDSGA board members Josh Gackle, Monte Peterson and Joe Ericson met recently with Senator John Hoeven and staff member Ty Kennedy on trade and tariff issues and the farm bill.

Organizations such as the United States Soybean Export Council are developing other international markets, but farmer leaders say that it would to be tough to replace \$14 billion in exports.

NAFTA, Too

Chinese tariffs are having an immediate impact on soybean markets and are causing justifiable angst among soybean farmers. That situation is far from the only circumstance causing uncertainty. Talks about a new North American Free Trade Agreement (NAFTA) have stalled, putting trade with two of the United States' leading trade partners on edge.

NAFTA is a 25-year old agreement among the United States, Canada and Mexico; it was implemented to promote economic growth and prosperity away from the usual trade barriers. Trade among the United States, Canada and Mexico exceeds \$1 trillion. NAFTA facilitates a trade zone where agriculture, cars and other goods are imported and exported across the continent.

President Trump has openly pushed to rework NAFTA, looking for a better deal.

"Renegotiation isn't a bad thing, but it needs to be brought to a conclusion," Gackle says. "Lingering negotiations cause uncertainty in the market, and the market reacts to uncertainty in very volatile ways."

NAFTA not only affects soybeans and soybean products, but it also heavily influences pork exports; hogs are key consumers of U.S. soybeans.



NDSGA board member Josh Gackle and Executive Director Nancy Johnson met with Representative Kevin Cramer to discuss the impact of retaliatory tariffs on the soybean industry.

With NAFTA negotiations stalled, other factors are developing and will shape how any new agreement looks.

Newly elected Mexican president Andres Manuel Lopez Obrador has indicated that he is willing to rework the agreement. Mid-term elections in the U.S. could change the makeup of Congress, which could influence whether the current Congress is willing to address NAFTA in a lame-duck session. There is also the potential for the administration to pull out of NAFTA altogether if it doesn't get the wanted agreement.

"Even those in the ag industry that try to watch how negotiations are going aren't always privy to the latest information," Peterson says. "We do out best to remain optimistic that we, as farmers, will benefit from better negotiated agreements."

Soybeans have become a highly sought global commodity, but uncertainty with exports and international trade is being felt locally on farms across North Dakota.

—Story by Daniel Lemke, photos by staff and Congressional offices



Senator Heidi Heitkamp met recently with NDSGA board members Joe Ericson and Monte Peterson about tariffs and the farm bill.

Trump Unveils \$12 Billion Package for Farmers Hurt by Tariffs

In late July, President Trump announced that, this fall, the Department of Agriculture would roll out a relief plan for farmers hit hard by the trade tariffs imposed in July. Since discussions about an exchange of tariffs between the U.S. and China became serious in late May, U.S. soy prices have dropped more than \$2.00 per bushel.

The president vowed for weeks that he would "take care" of farmers, but the American Soybean Association (ASA) and other agriculture groups were uncertain what that help would look like.

The plan outlined by the Trump administration includes three components: direct payments to farmers to mitigate the lower prices resulting from China's tariffs, direct commodity purchases by the USDA, and funding for a temporary program similar in purpose to the current Market Access Program and the Foreign Market Development program. The package's cost is expected to total around \$12 billion, spread across multiple commodities, including soybeans.

Soybean industry leaders appreciate the administration's recognition that the tariffs have caused reduced exports and lower prices, but caution that the announced plan only provides short-term assistance. The ASA continues to call for a longer-term strategy to alleviate mounting soybean surpluses and continued low prices, including a plan to remove the harmful tariffs.

Farmers are seeking a comprehensive, long-term solution to protect soybean producers and markets from continued harm. This includes

expanding market opportunities by completing the North American Free Trade Agreement and by actively pursuing new free-trade agreements among other actions.

In 2017, China imported 31 percent of the U.S. soybean production, equal to 60 percent of the total U.S exports and nearly 1 in every 3 rows of harvested beans, making solutions for the tariff war critical for the soybean industry.



rdinarily, discussions about a new federal Farm Bill to replace the one that is set to expire at the end of

September would be front and center for farmers. This year, however, Farm Bill discussions have been overshadowed by major trade issues with China, including retaliatory tariffs on U.S. soybeans. Work on the important 2018 Farm Bill is progressing, despite the attention being paid to the current trade challenges.

The U.S. House of Representatives and the U.S. Senate have both passed bills, and differences between the two bills are being negotiated by a conference committee. Soybean-industry leaders are pushing for on-time passage of a final bill before the 2014 Farm Bill expires at the end of September.

Differences Remain

In late June, the U.S. Senate passed its version of the 2018 Farm Bill with a vote of 86-11. The Senate version maintains much of the 2014 Farm Bill structure and includes protections for crop-insurance and commodity programs.

The Senate bill continues the structure of Title 1 commodity pro-

grams and offers producers a choice between the Price Loss Program (PLC) and the county Agricultural Risk Coverage (ARC-CO) program. American Soybean Association (ASA) leaders pushed to double the funding for the Foreign Market Development (FMD) and Market Access Program (MAP), which did not happen; however, MAP and FMD funding remains intact and is protected by consolidating those two



Valley City farmer Monte Peterson is optimistic Congress can reach agreement on a new Farm Bill.



Josh Gackle of Kulm says delays in Farm Bill passage creates additional uncertainty for farmers.

programs under one export-promotion umbrella.

The House version of the Farm Bill, which passed a week earlier but by a razor-thin margin, has similar structures for crop insurance, commodity programs and foreign-market development funding. However, there are contrasts between the competing bills. The House bill includes reforms for the Supplemental Nutrition Assistance Program (SNAP), or food stamps, that are not included in the Senate version.

The Senate bill reduces the adjusted gross income cap for Title-1-program payment eligibility from \$900,000 to \$700,000. The House bill broadens the definition of "actively engaged in farming." The House version also eliminates the Conservation Stewardship Program and increases acreage for the Conservation Reserve Program (CRP) from 24 million acres to 29 million acres. The Senate bill increases CRP acreage to 25 million acres.

"The most important point is that we support enacting a new Farm Bill before the 2014 bill expires," says Wendy Brannen, ASA communications director. "Now that both the House and the Senate versions have passed and move on to Committee, we are hopeful that a new Farm Bill will be put in place before the end of September. Farmers and ranchers need long-term certainty when dealing with risk. That's why we need a new bill rather than just passing an extension."

Pushing for Passage

North Dakota soybean leaders have traveled to Washington, D.C., to meet with lawmakers and to encourage the legislators to pass a bill that is needed to help farmers plan.

"The House and Senate have taken input and put together language that we feel would be good for farmers," says Josh Gackle, a farmer from Kulm, North Dakota, and an ASA director. "The trick is getting the bill passed. The longer it takes, it's another cause for uncertainty."

Soybean leaders say that the majority of the 2014 Farm Bill has worked for farmers and that changes for the 2018 Farm Bill are mostly tweaks to the existing measures.

"Generally, I think most producers are satisfied with the current bill," says Valley City, North Dakota, farmer and ASA Director Monte Peterson, "but some fine tuning needs to be done."

Differences for the SNAP program, including the work requirements for SNAP recipients that are in the House version, and conservation issues are likely to be stumbling blocks in the negotiations when House and Senate conferees work to hammer out a compromise. The conference committee includes North Dakota Senators John Hoeven and Heidi Heitkamp, and Representative Kevin Cramer.

Some farmer leaders are optimistic that a 2018 Farm Bill can be passed in advance of the September 30 deadline, but they're leaving nothing to chance.

"We are continuing to stay in touch and let congressional leaders know that passing the Farm Bill is a priority for us," Brannen says. "We don't want a band-aid extension. We want a new bill. We will keep a bug in their ear to keep it moving."

Peterson agrees that the Farm Bill is too important for U.S. and North Dakota farmers to not see the process through to completion.

"It brings security knowing that there are some means to address volatility in this business with a good, strong Farm Bill," Peterson says. "There is way too much risk in farming today to not have a Farm Bill backing us up."

—Story and photos by Daniel Lemke

PREMIUM SOYBEAN PRODUCTION CONTRACTS AVAILABLE

SB&B FOODS, INC.



A Family Heritage Since 1906

- Full Production Contracts with Act of God Protection
- Attractive Premiums
- Guaranteed On-time Payment
- Flexible Pricing Options
- Wide Range of Soybean Varieties Available
- Direct Access to Global Food Markets

Scott Sinner

Jeremy Sinner

PO Box 549 Casselton, ND 58012 Phone: 701-347-4900 www.sb-b.com

Email: foods@sb-b.com

Convenient Delivery Location





The Red River Zoo recently opened a new exhibit that highlights modern agriculture. The exhibit's grand

opening took place during the Agriculture Adventure Day event that was held on Saturday, July 14, 2018. This exhibit is sponsored by both the North Dakota Corn Council and the North Dakota Soybean Council in partnership with North Dakota State University Extension Soil Health and the Red River Zoo. The new exhibit is an interactive, educational space that highlights conservation, crop production, precision agriculture, end-use products, fuels and exports.

Highlights of the exhibit include

- A five-level soil climber where kids can feel like a worm exploring different soil layers
- A combine cab where parents can get pictures of their kids harvesting crops
- Ethanol and biodiesel pumps where kids can pretend to fill up a car or a pickup
- Flip panels about food and industrial products from corn and soybeans crops
- A Plinko game that shows kids where corn and soy crops go after harvest

- Play tables for toddlers which have toy tractors
- Information throughout the exhibit for both kids and adults to help foster agriculture outreach and education

One of the featured spaces in the new exhibit is a replica of a farmer's machine shop. This area provides a spot for activities and highlights the importance of family legacy on the farm. This area also shows different careers in agriculture with the tools used on the job. Some tools are a set farmer's pliers, a researcher's microscope, an agronomist's drone, a consultant's computer and an extension agent's spade. Illustrating different agriculture careers through

this exhibit is one way to inspire kids to think about choosing a career in agriculture.

This permanent exhibit will be open year-round. It is anticipated to reach more than 150,000 urban and rural families as well as tourists who visit the zoo every year.

—Story by staff, photos courtesy of Dr. Abbey Wick



Grand opening of new modern agriculture exhibit at the Red River Zoo on July 14, 2018.

North Dakota Farmer Talks Sustainability with Taiwanese Soyfood Producers



olfax farmer Jay Myers, a director for the United Soybean Board (USB), recently traveled to Taiwan

where he participated in several activities on behalf of the U.S. soy industry.

On June 30, the U.S. Soybean Export Council (USSEC) and CropLife Taiwan organized a screening of "Food Evolution," a documentary that seeks to inform a fact-based public dialogue about the world's food system. Myers attended the screening as a special guest, taking part in a panel discussion after the film. More than 120 people attended this event.

The Taiwan Tofu Technology and Management Seminar took place on July 1. The seminar was put together by the USSEC to educate Taiwan's key soyfood producers about the advantages of U.S. soy as a food ingredient with a special focus on U.S. sustainability. The seminar reinforced the safety of GMO soybeans for food processing as well as the opportunities that exist to utilize sustainability in promoting and differentiating their soyfood products.

Communicating the U.S. Soy Advantage directly to end-users is

important to maintain the U.S. market share. Myers gave a presentation during the workshop; he discussed the steps that the U.S. soy industry takes to ensure the sustainability and



Myers gave a presentation to more than 70 attendees of the Taiwan Tofu Technology and Management Seminar on July 1. Hearing facts firsthand from a U.S. soybean farmer helped the attendees to learn a great deal about the sustainability of U.S. soy.



After the screening, Myers took part in a panel discussion.

reliability of its supply, along with sharing information about his own farm's operations.

Taiwan imports all of its soybean needs for its 23 million consumers. While the U.S. market share there is 51 percent, its share in the soyfood sector is 70 percent.

In 2016, the USSEC rolled out the Sustainable U.S. Soy (SUSS) logo. As more consumers demand sustainable products, corporations are demanding supply chain sustainability, elevating sustainability from a "want" to a "need." The U.S. Soybean Sustainability Assurance Protocol (SSAP) provides third-party sustainability verification that helps businesses meet and document sustainability demand, and SUSS adds value by helping businesses adhere to their corporate sustainability policies and their suppliers' guiding principles, thus differentiating themselves from their competition. Companies that use the SUSS logo sign a sustainability license agreement with the USSEC and can use the sustainability seal on their packaging as well as on internal brochures and in videos, with customers and at trade shows.

Myers' presentation was key to directly demonstrating U.S. soy's sustainability to attendees. After the seminar, two soyfood processors asked the USSEC for more information about how they could utilize the SUSS logo.

> —Story and photos courtesy of Jen Del Carmen, USSEC

Work Safely Around Grain

Make sure everyone working around stored grain understands the hazards and proper safety procedures. Using appropriate safety practices when working around grain is vital.

"Make sure everyone, including family and employees, working around stored grain understands the hazards and proper safety procedures," says North Dakota State University Extension Service Agricultural Engineer Ken Hellevang.

"Too many people ignore safety practices and suffer severe injury or death while working around grain," he adds. "They get trapped in grain, tangled in auger flighting, or develop respiratory problems from exposure to grain dust and mold particles."

Grain-Bin Dangers

Never enter a bin while unloading grain or to break up a grain bridge. Flowing grain will pull you into the grain mass, burying you within seconds.

Stop the grain-conveying equipment, and use the "lock-out/tag-out" procedures to secure it before entering the bin. Use a key-type padlock to lock the conveyor switch in the "off" position in order to assure that the equipment does not start automatically or that someone does not start it accidentally.

Bridging occurs when grain is high

in moisture content, moldy or in poor condition. The kernels stick together and form a crust. A cavity will form under the crust when grain is removed from the bin. The crust isn't strong enough to support a person's weight, so anyone who walks on it

under the surface."
Stay Outside the

Stay Outside the Bin, and Use a Pole or Other Object to Break the Bridge Loose.

If the grain flow stops when you're removing it from the bin, but the grain surface has a funnel shape and a door with a long pole. A wall of grain can collapse, or avalanche, without warning, knocking you over and burying you.

Follow the recommended storage-management procedures to minimize the potential for crusting or bridging and for chunks of grain blocking the unloading.

Also, never enter a grain bin alone. Have at least two people at the bin to assist in case of problems. Use a safety harness when entering a bin.

Rescuing a Trapped Person

If someone gets trapped,

- Shut off all the grain-moving equipment.
- Contact your local emergency-rescue service or fire department.
- Ventilate the bin using the fan.
- Form a retaining wall around the person by using a rescue tube or plywood, sheet metal or other material to keep grain from flowing toward the person; then, remove grain from around the individual. Walking on the grain pushes more grain onto the trapped person.
- Don't try to pull a person from the grain. The grain exerts tremendous forces, so trying to pull someone out could damage the person's spinal column or cause other damage.

—Story continued on page 32



As you prepare for harvest, take time for safety around grain bins.

will fall into the cavity and be buried under several feet of grain.

"To determine if the grain is bridged, look for a funnel shape on the surface of the grain mass after some grain has been removed," Hellevang advises. "If the grain surface appears undisturbed, the grain has bridged, and a cavity has formed shows some evidence that grain has been flowing into the auger, a chunk of spoiled grain is probably blocking the flow. Entering the bin to break up the blockage will expose you to being buried in grain and tangled in the auger.

If grain has formed a vertical wall, try to break it from the top of the bin with a long pole on a rope or through



Never enter a storage bin while unloading grain because flowing grain can pull you in and bury you within seconds.



Grain kernels may stick together, forming a crust or bridge that isn't strong enough to support a person's weight after the grain below it is removed.



Don't try to break a grain bridge or blockage loose from inside the bin.



Try to break up a vertical wall of grain from the top of the bin, not the bottom, because the grain can collapse and bury you.

Spotlight on North Dakota Dairy

une is National Dairy Month, and the North Dakota Livestock Alliance (NDLA) was honored to participate

in two exciting events: Northern Lights Dairy's Breakfast on the Farm and Qual Dairy's Future of Dairy open house.

Northern Lights Dairy held its Breakfast on the Farm on June 16th in Mandan, and Qual Dairy from Lisbon brought National Dairy Month to a close with three consecutive open houses, celebrating the addition of its new robotic-rotary milking system and state-of-the-art free-stall barn.

Northern Lights Dairy's Breakfast on the Farm was a huge success, attracting over 2,500 people. Attendees were taken on guided farm tours and hay rides to see how farmers care for their cattle. NDLA Executive Director Amber Boeshans shared information with attendees about the tremendous care taken by livestock producers to ensure animal comfort and health, their respectful land-management practices, and their diligent

adherence to food-safety and quality standards. Boeshans also emphasized the value of livestock development to the revitalization of rural communities and to sustain North Dakota's farmers through farm diversification, livestock's positive impact on commodity prices and the value of manure for soil health.

"My favorite fact to emphasize in these on-farm dairy tours is how dairy cows are the ultimate recyclers," Boeshans says. "Their use of products left over from fuel and food production, such as dried distillers grains and soybean meal, reduces waste and increases profitability for our farmers and processors. The cows' ability to utilize these feedstuffs to create nutritious and wholesome dairy products, then create the manure to grow their own feed, is a talent worth celebrating."

Along with the on-farm tours, there were multiple children's games,

a petting zoo, farm equipment and firefighting demos.

The first of Qual Dairy's three on-farm events, The Future of Dairy, was held the evening of June 26th. This invitation-only gathering with around 150 attendees was focused on dairy-farmer education by providing technical details and tours of the robotic-rotary parlor system. Dairy producers from across North Dakota, Minnesota and South Dakota came to see this ground-breaking, new technology. There are only two parlor systems like the one that Qual Dairy uses in the United States.

Two other events were open to the public and focused on consumer education about the use of technology in dairy farming as well as how it contributes to food safety and cow comfort.

"Opportunities for the public to experience the farm and to see for themselves how much we care for our animals is vital to the future of livestock production in North Dakota," Boeshans says.

The 7th Annual Dairy Day at Dr. Dawn's Pet Stop in Jamestown was held June 14, 2018. The event's goal is to share information with the public about family dairy farming and to provide positive dairy-related experiences.

The event was started in 2011 and has grown yearly to well over 500 attendees in 2018. The theme is to teach, through games and other interactive learning methods, as well as to provide agriculture literacy resources, dairy recipes and dairy-related activities for homeschool/classroom teachers, daycare providers



The purpose of this event is to bring dairy cows and dairy farming to the public. It is important that consumers know where their food comes from and that they recognize the tremendous care taken by farmers to provide those wholesome and nutritious dairy products. Dairy is a very local and fresh product because milk goes from the farm to the store within 48 hours, making it one of the freshest products you can eat.

and parents. This year's take-home activities included instructions to make ice cream in a bag and to make yogurt finger paint.

Milk is America's number-one source of calcium, potassium and vitamin D. Cheese is number two. It would take seven cups of raw broccoli to equal the amount of calcium in 8 ounces of milk.

—Story by Daniel Lemke, photos courtesy of Amber Boeshans and Dr. Dawn



Attendees had a chance to pet calves and to learn how to milk a cow on a cow model. There were also dairy games, including dairy bingo, and, of course, ice cream!











Is America Ready for Natto?

Yrture Food LLC, a natto producer in New York that relies on North Dakota soybeans, believes so.

With the generous support of the North Dakota Soybean Council, NYrture held a first-of-its-kind Natto Dinner event in New York City in June.

The meal was intended to increase the profile of natto soybeans, to demonstrate the versatility of this ancient soyfood, and to educate American and Japanese audiences about the importance and quality of North Dakota soybeans. The event was covered by Japanese NHK TV and multiple American journalists.

At the trendy Japanese restaurant-lounge Megu, in the heart of Manhattan's Meatpacking district, the New York Natto Dinner was a six-course showcase of culinary creativity which featured different varieties of NYrture's natto in every

course, including dessert and a custom cocktail.

The house was packed with over 120 diners who were eager to enjoy dishes created by chefs David Rashty (Megu), Emily Yuen (Bessou) and Angela Dimayuga (Standard International) as well as mixologist Arley Marks (Honey's). Linda Funk, executive director of The Soyfoods Council, joined the event as a representative of the North Dakota Soybean Council. With her soyfoods expertise, she helped as an educator for the guests and the media.

"This Natto Dinner was a perfect way to showcase natto, increase awareness and let people taste it firsthand in delicious dishes," says Linda Funk, executive director of The Soyfoods Council.

The diverse group of attendees included natto fans as well as many people for whom natto was completely new. After a welcome cocktail

based on Japanese whiskey and natto, "soyfaba," and an amuse-bouche of avocado-turmeric-natto toast, NYrture founder Ann Yonetani gave a short presentation that explained natto's



Garnishing natto dishes.

Funded by the North Dakota soybean checkoff









traditional place in the Japanese diet, its potential role as a versatile addition to Western cuisine, its numerous health benefits and the key role of North Dakota soy in the global natto industry. The prix-fixe course menu also included a chilled cucumber-natto gazpacho, impossible meat gyoza dumplings with natto-ponzu sauce; Wagyu steak with natto polenta; Japanese natto curry; natto-maki sushi rolls, and a choice of black natto ice cream or black natto yogurt parfaits for dessert.

There was lively discussion throughout the evening, with many diners expressing delight at how well natto could be incorporated into such a wide range of dishes. Others were impressed by the many healthy properties of this ancient Japanese superfood and vowed to start incorporating it into their diets.

The vital role of sustainably grown North Dakota soy in the Japanese natto industry was also a source of surprise. The Japanese NHK TV network highlighted this point in its coverage of the dinner and followed up with a visit to Fargo to share this story.

Despite the stereotype that natto is too challenging for Americans, diners at this New York event enjoyed a variety of NYrture's natto products with gusto. Well-known actress, chef and Indian cookbook author as well as natto enthusiast Madhur Jaffrey commented that American cuisine is rapidly evolving and will continue to incorporate more traditional foods from a wider range of cultures, reflecting our country's international fabric of heritages.

"When will the next Natto Dinner event be?" asked many who attended the sold-out event as well as more people who couldn't make it. The event was successful, informative and delicious; NYrture certainly hopes that it is the first of many more to come. We were pleased to see that enthusiasm for natto is building in the United States!

—Story and photos by Ann Yonetani



Incorporating natto into western cuisine.



Linda Funk of The Soyfoods Council and Ann Yonetani of NYrture.





he North Dakota Soybean Council partnered with the television series "Food Quest." The television

production team visited North Dakota July 30 through August 1. "Food Quest" will produce a series of segments that highlight the North Dakota soybean industry, including soyfoods and food-grade soybeans, sustainable and generational farming, and the importance of soy to the livestock industry. These segments will air on the A&E channel and the

FYI Network October 11, 13, 18, 20, 25 and 27. Check your local listing for complete details.

The Soyfoods Council's Executive Director Linda Funk was on hand for soyfood cooking demonstrations and explained the health benefits of soy. North Dakota soybean farmer Jeremy Rittenbach and his family from Jamestown provided insight about

growing food-grade soybeans. Levi Taylor and his family from Yspilanti discussed his multi-generational farming operation as well as the environmental and sustainable ways that he farms. Dan Speikermeier, a producer from Sheldon, explained how the animal-agriculture industry is soybean's number one customer.

Thank you to Brad Sinner, Tom



- ▲ Linda Funk of The Soyfoods Council.
- **◆ Dan Spiekermeier** of Sheldon.

Bresnahan and Harvey Morken, Casselton; Lance and Jared Bueling, Sheldon; and Ken and Jan Promersberger, Fargo, for their help during production.

Food Quest takes viewers on epicurean adventures like no other. Co-hosts Mario Lopez and Kim Alexis guide each show which travels around the globe, finding the most delicious delights as well as unique food and spirits that the culinary world has to offer. The hosts meet the world's finest chefs, explore a variety of restaurants, and learn the secrets behind producing the world's most exciting and delicious foods.

> —Story and photos by staff and Betsy Armour



Jeremy Rittenbach of Jamestown.



Levi Taylor and family of Ypsilanti.



Once August is here, signs of fall are upon us: school is starting; harvest is beginning; and the weather is cooling. Routines are back in full force. As the weather changes, we start to crave warm and hearty foods. Tomatoes are usually plentiful in August and September. Maybe you have canned or frozen tomatoes? If so, the tomatoes are just as delicious in these recipes.

Soybean Chili

Ingredients

- 2 large onions, chopped
- 1 large green pepper, chopped
- 1 large red, sweet pepper, chopped
- 1-2 tablespoons chili powder (depends on how much spice you like)
- 1 teaspoon dried oregano
- 1 teaspoon garlic salt
- 3 cans (15 to 16 oz.) black soybeans, rinsed and drained
- 1 can (14.5 oz.) diced tomatoes with chilies (can use homemade tomatoes, add a small can of chilies)
- 4 cups tomato juice (If using homegrown fresh or frozen tomatoes, put the tomatoes in a blender, and blend until there is a smooth consistency.)
- 34 cup dry Textured Vegetable Protein (TVP)*

Toppings

Shredded cheese, sour cream and chopped onion

Serve over cooked pasta (optional)

Directions

In a large Dutch oven, sauté the onion and peppers until the meat is browned. Add chili powder, oregano and garlic salt; stir to blend. Stir in the beans, tomatoes, tomato juice and TVP. Bring to a boil; reduce heat, and simmer for 40 minutes, stirring occasionally. Serve with your favorite chili toppings or on top of prepared pasta. Yield: 6-8 servings.

Textured Vegetable Protein and Textured Soy Protein are the same thing. They are both trademarked names. If a recipe calls for one or the other, they are interchangeable.



Finding enough time to prepare nutritious and delicious meals always seems to be difficult with children's after-school activities, working at home or outside the home, and combines running 24/7. It is always a welcome sight to have food in the freezer that is ready at a moment's notice. These recipes freeze well and are easy to reheat. They include heart-healthy soy protein. This protein has a high satiety value and makes you feel fuller longer. Soy protein is also low in saturated fat and is cholesterol free.

Another easy-to-make recipe for a snack on the go is edamame trail mix. It is perfect when the stomach is rumbling and a meal is a few hours away. Keep it handy in the car; pop it in a tote bag for soccer games; or keep it at your desk. Enjoy Fall!

—Story, recipes and photos courtesy of Linda Funk, The Soyfoods Council

Easy Stuffed Shells

Ingredients

18 large pasta shells

- 1 26-ounce jar of your favorite pasta sauce or homemade tomato sauce
- 1 egg
- 1 12.3-ounce package of silken, soft tofu (mashed)
- 2 cups shredded mozzarella cheese, divided
- 3/4 cups grated Parmesan cheese, divided
- 2 tablespoons chopped fresh parsley

Directions

Cook pasta shells according to package directions; drain. Preheat oven to 350°F. Spray the bottom of 13 X 9 X 2-inch, glass baking dish with non-stick cooking spray. In a large bowl, beat the egg. Stir in the tofu, 1¾ cups mozzarella cheese,

½ cup Parmesan cheese and the parsley.

To assemble, spread 1 cup of the sauce in the baking dish. Fill the cooked shells with the tofu/cheese mixture. Arrange the filled shells in the baking dish. Pour the remaining sauce over the shells. Top with the remaining mozzarella and Parmesan.

Bake, covered with foil, until bubbly for about 45 minutes. Uncover and continue cooking until the cheese is melted, about 5 minutes. Let stand for 5 minutes before serving. Yield: 6 servings.

If meat is desired, add 2 cups of ground beef, chicken, turkey or pork that has been browned. Drain the fat before adding the meat to the tofu mixture.





t's not often that regulators from the Environmental Protection Agency (EPA) are welcomed on a farm,

much less given guided tours and in-depth explanations of modern farming practices. For each of the past 25 years, that scenario has played out on farms across North Dakota.

The North Dakota Grain Growers Association (NDGGA) E-Tour brings staff from the EPA to North Dakota to visit farms, agribusinesses and research sites in order to obtain a firsthand look at modern agriculture and technology. The tour highlights the practices which farmers use to steward the land and the crop-protection products which are regulated by the EPA. The tour also helps EPA staff to gauge how the regulations may affect farmers.

"We bring in the EPA, and we take them around to various farms and actually educate them on the policies and procedures that they write, and basically forge relationships and friendships," says Hurdsfield, North Dakota, farmer and NDGGA President Jeff Mertz.

Up Close

In late June, 11 EPA staff members from Washington, D.C., and Denver, Colorado, took part in the annual tour. Clambering onto a tour bus for countless hours on the road, the delegation toured the state to get a well-rounded picture of farming. Participants saw aerial spray-application demonstrations, visited research plots where new pesticide formulations are tested, toured a potato farm that relies on irrigation, learned about tile drainage and how farmers work to protect groundwater, and even took a flyover tour of North Dakota's prairie-pothole region.

"They're very interested in how pesticides and insecticides are being applied, so we showed them the new technologies that are out there," Mertz says. "They're utterly amazed at how we implement spray technology and how we reduce overlap. We're finally getting the point across that we're not out there just dumping chemicals on our fields. We want to use as little as possible because it's an economic issue for us. The less money we have to spend on chemicals, the better."

Bill Chism is a senior biologist for the EPA's Office of Pesticide Programs. Chism works in the Biological and Economic Analysis Division which conducts benefit assessments.

"Some of our statutes are risk/ benefits based," Chism says. "We have risk assessors doing human health and environmental issues. Our division looks at the benefits. So, if a label is going to be changed, will that impact the grower? If we're going to register a new product, is that of benefit to the grower? So, we have agronomists and economists looking at the benefits of different products."

Chism says that the E-Tour is an opportunity for EPA staff members to do legwork behind the scenes so that any regulations or product labels they write are thoroughly researched and developed.

"When we look at impacts to the growers, we consider alternatives. Are the products effective, are they economical? Can farmers actually use them with their equipment? Is there some other constraint like a plantback issue or some phytotoxicity issue, or is the formulation they have available not going to control the pest they have? That's why chatting with the growers and seeing how the products are used is really important for us," Chism says.



E-Tour participants learn about insects and water usage at the Kasowski potato farm near Karlsruhe, North Dakota.

Mutual Benefit

The EPA delegation uses the E-Tour to connect with farmers as well as to see how products are used and how regulations and product-label requirements affect growers. Farm groups, meanwhile, use the week-long event to build bridges. The NDGGA hosts and coordinates the E-Tour, but other agriculture groups, including the North Dakota Soybean Growers Association (NDSGA), help to sponsor the event.

"I think this tour is very valuable because you can put faces with names and voices with phones," says Joe Ericson, a Wimbledon farmer and NDSGA president. "You can see who they are, and they can come out and see how we operate our farms. They come out and see what kind of equipment we use, and how we do our day-to-day spray operations."

It's breaking barriers down," Mertz adds. "It's establishing communication. It's interesting because, those individuals that are writing regulations for us, we know them now. We've got people in the EPA who we can call, contact and connect to a face. When we're in Washington stomping around the Hill, we can get in contact with them if we need to discuss an issue."

Not only do farmers find the E-Tour to be worthwhile, but EPA staffers also recognize the value of getting out from behind a desk to visit farms and farmers.

"We don't get a lot of opportunities to get out like this," Chism says. "A lot of people really appreciate this tour, and we sort of lobby within the agency to go because of the value to us."

"It's a big hit with EPA members because I've talked with several participants, and they said that they've heard for years that they need to come on this trip," Ericson says, "so we must be doing something right."

—Story and photos by Daniel Lemke



Scholarship Helps Cossette Master Ag Economics

Fargo, North Dakota, native Maximillion (Max) Cossette's educational path is taking an alternate route thanks to a scholarship from the North Dakota Soybean Growers Association (NDSGA).

Cossette is the 2018 recipient of the North Dakota State University (NDSU) Development Foundation's NDSGA Scholarship. The scholarship provides \$5,000 to a student in the College of Agriculture, Food Systems and Natural Resources at NDSU and is designed to help that student further his or her education.

"I was ecstatic when I heard I would be receiving the scholarship," Cossette says. "It was too good of an opportunity to pass up. It will take a huge financial burden off my back."

Cossette grew up on a soybean farm just outside Fargo.

"It's probably the closest farm to Fargo," Cossette says, "The city is growing up around us."

Cossette plans to be the sixth generation on his family farm that is currently operated by his father Kirk Cossette. Max Cossette graduated from Fargo Davies High School and enrolled at NDSU as an ag economics major. The school's proximity allows Cossette to help on the family farm with planting, with harvest and over the summer. However, his return to full-time farming has been put on hold as a result of the NDSGA scholarship.

"I was going to graduate in the fall (2018), but then, I received the scholarship, so I thought about getting a

minor," Max Cossette says. "I talked to my adviser and decided to get my master's degree in ag economics."

Max Cossette says that ag economics makes sense for him and his return to the family farm because the business side of farming is becoming increasingly complex. The additional education will be a valuable asset to the business.

"I've learned a lot about finances and economics that will help out when I return to the farm," Max Cossette says.

Max Cossette says that NDSU recently introduced an accelerated master's program that will allow him to apply graduate classes toward his undergraduate degree, allowing him to earn both his bachelor's and master's degrees in four and a half years. He is now on pace to graduate in the fall of 2019.

Max Cossette says that the scholarship will help him forego a winter job to help pay for school and will allow him to focus on his graduate courses.

"I highly recommend that others apply for the scholarship. The application process is simple," Max Cossette says. "The scholarship takes a huge financial burden off of my back and allows me to focus on my schooling."

To be eligible for the NDSU
Development Foundation's NDSGA
Scholarship, applicants must be
enrolled at NDSU, have completed
at least 90 credits, and be the child or
grandchild of an NDSGA member.

—Story and photo by Daniel Lemke



Max Cossette



inimizing variability is the goal of many businesses, including farms. Current trade tariffs which are

imposed on U.S. soybeans and soy products exported to China are affecting grain markets. In addition, trade negotiations for agreements such as the North American Free Trade Agreement are injecting widespread uncertainty into farm markets and driving prices down.

North Dakota State University (NDSU) Extension crops economist and marketing specialist Frayne Olson says that tariffs affect prices immediately while trade agreements tend to have longer-term effects. Both scenarios are putting farmers in difficult marketing positions.

"There is a lot of uncertainty right now, and that impacts how farmers need to think about marketing," Olson says.

Olson says that the current trade environment is putting farmers in nearly unchartered waters. The Russian grain embargo of 1980 delivered some similarities, but Olson says that global trade is much different today than it was 40 years ago. Because many of the tariff and trade negotia-

tions are based on politics, Olson says that it is difficult to forecast how the countries will eventually work out the trade challenges.

Because current grain prices are depressed, most farmers are reluctant to sell grain. Olson says that many growers are choosing to store their grain and hope that conditions gradually improve, giving them marketing opportunities down the road.

Cash Demand

Olson says that cash-flow needs are a key consideration. Farmers have to sell grain in order to pay for expenses such as land rent or to pay down operating loans.

"Farmers have to market grain to meet those needs, and hopefully, they have pre-priced enough grain to meet their short-term commitments," Olson says. "Cash-flow needs drive a lot of decisions. My first recommendation is, don't guess. Run the numbers, and calculate needs so that you can make conscious decisions about how you want to manage those needs."

Right now, Olson says, there are

no really good options for marketing grain. Farmers may have to pick the best of the worst options.

Storage Costs

Storing soybeans and waiting for higher prices is a common approach with challenging market conditions. However, Olson says that farmers need to calculate the benefits and costs of storing soybeans before finalizing a plan. He says that costs are relatively easy to estimate while revenues are much fuzzier.

Storing grain may help farmers respond to market opportunities, but Olson says that most farmers underestimate storage costs, especially for soybeans. Interest costs are often overlooked and can add up quickly.

"On average, it costs farmers six to seven cents per bushel per month to store soybeans," Olson says, "and that doesn't include the cost of the bins."

When it comes to calculating the revenue potential from storing grain, Olson says that the picture becomes less clear.

Analyzing Benefits

Olson says that on-farm grain storage typically offers farmers gains in four areas. Storage helps with harvest efficiency because it allows farmers to quickly unload grain and to keep moving during a hectic time of year. Storage also helps farmers take advantage of carry in the futures market.

"When you look at the different futures market contracts, prices usually are higher for time periods further into the future. This increase in futures market prices, called 'the market carry,' can help you pay for the cost of storage," Olson says, "but it rarely pays the full bill."

Storage also allows farmers to monitor and to react to changes in basis levels. Olson says that basis levels are the local cash market's way of telling farmers if it wants more or less grain to flow. The widest basis typically occurs around harvest and narrows when the cash market needs more grain, usually when the export demand is at its highest.

Olson says that the fourth way storage affects farmers is by giving them the ability to react to changes in underlying grain prices.

"There you're gambling and speculating on the cash market, hoping prices go up," Olson explains. "Everyone counts on it, but we don't always know when it's going to happen."

Storing grain may be the best option for farmers to deal with the current market uncertainty, but no one knows how long it will take for the current trade disputes to be resolved.

"I'm not saying farmers should or shouldn't store their grain," Olson says. "They do need to understand the implications of putting their grain in storage and understand what their costs are."

Olson has adapted an interactive spreadsheet for North Dakota to help farmers calculate the cost per month to store grain. The NDSU storage-decision tool is available at ag.ndsu.edu/farmmanagement/tools

—Story by Daniel Lemke, photos by Wanbaugh Studios







Fifth Annual Jamestown Golf Tournament

Thank you for making the Fifth Annual Jamestown Golf Tournament successful! The tournament is a way for the North Dakota Soybean Growers Association to say thank you to members and supporters. Your membership dues and sponsorship of NDSGA events help provide the funds necessary to continue policy-advocacy work in Bismarck and Washington, D.C. We're proud of our past successes and are continually working to make things better for soybean growers throughout North Dakota.

For more photos of the tournament, check out facebook.com/ NorthDakotaSoybeanGrowersAssociation.

Congratulations to our tournament winners:

First Place: Nick Blaskowski, Brandon Stahlhut, Myles Torgerson and Cole Diede.

Second Place: Brett Williams, Andy Heflin, Matt Schwarz and Jamison Fettig.

Third Place: Brad Kallenbach, Joe Burgard, Trent Sletto and Russ Grueneich.

Congratulations to our contest winners:

Longest Drive #3: Donny Schroeder

Longest Drive #16: Myles Torgerson

Closest to Pin #4: Joe Ericson with a hole in one!

Closest to Pin #8: Brian Carlson

Closest to Pin #12: John Christianson

Closest to Pin #14: Trent Sletto

Thank you, golf tournament sponsors:

Hole Sponsors: Advance Trading, Inc., Agassiz Seed, AgCountry

Farm Credit Services; BASF, Bayer; Bushel; Central Sales, Inc.; Centrol, Inc.; Crary Industries; Ellingson Drainage; FMC; Gavilon Grain LLC; Innovative Agronomy; MEG Corp; Midwest Seed Genetics; Mosaic Company; Mustang Seeds; Proseed; Richland IFC; Sky Farmer Ag Services; and Valley Plains Equipment

Lunch and Dinner: BNSF Railway

Player Carts: National Biodiesel Board

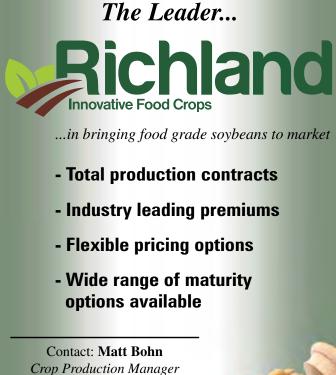
Golf Balls: Asgrow

Welcome Bags: North Dakota Soybean Council

Signs: D-S Beverages

Program: Farmers Union Insurance
– Garitt Irey Agency

—Story and photos by staff



100 N 10th St

Breckenridge, MN 56520 218-643-1797 | 701-640-2279

matt@richlandifc.com

www.richlandifc.com





Getting to Know the Grower



Chris Brossart Wolford, North Dakota

Tell us about your farm.

I farm with my wife, Jennie, and three children: Bria, Braden and Beric. We grow soybeans, spring wheat, corn, barley and canola.

What do you like best about farming?

Being your own boss and making your own decisions. Also, being responsible for those decisions.

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

Yes! However, I was not sure if I

would be able to come back to the family farm right away. I studied agronomy in college, so I thought I would work as an agronomist for a while before returning to the farm. I am happy with the way everything worked out though, and now, the farm is only about 15 miles from my hometown.

What's most exciting about the upcoming growing season?

The most exciting thing about the upcoming growing season is harvest and the potential for good yields. We have had timely rains this year which is always a good thing.

How and why did you get involved with the North Dakota Soybean Council?

A neighbor of mine asked if I would be interested in serving, and I thought it would be a great opportunity to be able to give back to the industry and to see and learn from a lot of important things like the research.

How has your involvement been beneficial to you?

My involvement is not only beneficial to me, but it really helps to benefit the people around you. The North Dakota Soybean Council is so involved, and it is great to see how big of a difference it can make in each grower's operation.

Why are soybeans a part of your crop mix?

It is a good cash crop. It also offers a good rotational value. We like what it does for the soil and to be able to spread out the harvest.

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

No extreme swings in the weather.

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

A lot actually, such as technology with auto-steer and section control. Also, with fertilizers and tillage practices.

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

Drones, variable rate technology, self-driving, autonomous vehicles. Being able to program vehicles.

What do you like to do outside farming?

Spend time with family. Also coaching wrestling, traveling and meeting up with friends as much as possible.

If you could go anywhere in the world, where would it be?

I'd go to Costa Rica for the scenery and waterfalls., or I'd go to Alaska.

If you could add equipment or technology to your farm, what would it be?

A second planter to get across acres faster. However, there is not much else we need right now which is a good thing. We are waiting for the new technology.

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

Section control in the planter.

—Story and photo by staff

Story continued from page 22—

 Cut holes in the bin sides to remove grain if the person is submerged.
 Use a cutting torch, metal-cutting power saw or air chisel to cut at least two V- or U-shaped holes on opposite sides or more holes equally spaced around the bin. Grain flowing from just one hole may injure the trapped person and cause the bin to collapse.

Dust and Mold Pose Health Hazards

Even low-level exposure to dust and mold can cause symptoms such as wheezing, a sore throat, congestion, and nasal or eye irritation.

Higher concentrations can cause allergic reactions and can trigger asthma

episodes and other problems. Typical symptoms include shortness of breath; burning eyes; blurry vision; light sensitivity; a dry, hacking cough; and skin irritation. People may experience one or a combination of these symptoms.

In rare cases, severe symptoms, such as headaches, aches and pains, and/or fever, may develop. People's sensitivity varies based on the amount and type of mold. In addition, certain types of molds can produce mycotoxins which increase the potential for health hazards from exposure to mold spores.

The minimum protection for anyone working around moldy grain should be an N-95-rated facemask, according to Hellevang. This mask has two straps to hold it firmly to the face and a metal strip over the nose

to create a tight seal. A nuisance-dust mask with a single strap will not provide adequate protection, he says.

Other Dangers

Getting tangled in the unloading sweep auger is another major hazard. Entanglement typically results in lost feet; hands; arms; legs; and, frequently, death due to the severe damage.

Although you shouldn't enter a bin with an energized sweep auger, it may be necessary in some instances, Hellevang says. All sweep augers should have guards that protect against contact with moving parts at the top and back. The only unguarded portion of

the sweep auger should be the front point of operation.

If someone must go into the bin, make sure to have a rescue-trained and equipped observer positioned outside the storage bin. Use a safety switch that will allow the auger to operate only while the worker is in contact with the switch.

Never use your hands or legs to manipulate the sweep auger while it's in operation. The auger should have a bin-stop device that prevents the sweep auger from making uncontrolled rotations.

—Story by Ken Hellevang, NDSU; graphic courtesy of MidWest Plan Service, Iowa State University and photo courtesy of Wanbaugh Studios

Getting to Know the Expert



Bryan Hanson NDSU Research Agronomist

Where did you grow up?

I grew up on a farm northwest of Litchville, North Dakota. We raised small grains and cattle. I graduated from North Dakota State University (NDSU) with a bachelor's degree in agronomy. After I graduated from NDSU, I attended Oklahoma State University (OSU) where I received a master's degree in agronomy.

What is your position at NDSU, and what led you here?

I'm currently the research agronomist at the NDSU Langdon Research Extension Center (LREC). After I graduated from OSU, I saw a job announcement for a newly created agronomist position at Langdon that seemed to be a good fit for me. I am currently in my 34th year as the LREC research agronomist.

What is your area of focus?

My responsibilities include the variety testing program for all crops in our region, including new crops that producers may be planting in the future. Since 2015, we have tested varieties and production practices for industrial hemp. We have a large soybean-variety testing program with locations at Langdon, Cavalier, Park River and Pekin.

My other area of focus is crop-production management studies. This can range from seeding date and rate trials, cropping sequence trials, fertility and biological studies, and a limited number of weed-control studies. Canola is an important crop in our region, and a lot of my focus has been on that crop, but soybeans have recently become an important crop, so I have been focusing more on them as well.

What interested you in this area?

I enjoy doing research work that is readily applicable to area producers in their farming practices.

You researching soybean planting dates, what is the goal of that work?

The vast majority of seeding-date research in North Dakota has been conducted in the central, east central and southeast regions of the state. Developing a seeding-date database for soybeans is critical for the cooler and shorter growing-season region of northeast North Dakota. Excessively wet spring conditions may shift seeding

dates towards the end or beyond the seeding window for optimum crop performance. In 2017, a severe hail storm swept through the eastern third of Cavalier County and parts of western Pembina and Walsh Counties on June 9. Estimated replanted soybeans for the affected area was 91,000 acres. Events like these exposed the lack of good, research-based information on soybean seeding date in our area. This information will provide producers, insurance agents and the Risk Management Agency with the tools necessary to increase soybean production and profitability for soybean producers in northeast North Dakota.

How has soybean production changed?

Soybean acreage has increased

dramatically in northeast North Dakota recently, especially the northern-tier counties of Cavalier, Towner and Rolette. Acreage in those three counties has gone from 86,000 acres in 2011 to 417,000 acres in 2017. Much of that growth can be attributed to newer, shorter-maturing varieties that are adapted to the state's coolest region and the profitability that comes with growing soybeans.

What do you like to do away from work?

Visiting family and friends, camping, traveling and hanging out with my new grandson are at the top of the list.

—Story by Dan Lemke, photo by staff



Wondering if you have Soybean Cyst Nematodes (SCN)? Let the North Dakota Soybean Council (NDSC) help.

Q: How does the SCN sampling program work? **A:** The NDSC covers the cost of up to 2,000 SCN samples for growers in N.D. NDSU labels, codes and distributes sample bags. Growers bag and mail sample bags to the lab.

Q: When will the sampling program begin? **A:** Sample bags will be at County Extension offices in mid-late August and at SCN field days.

North Dakota Soybean Council Our World Is Growing. **A:** Each N.D. grower can get up to three bags at their County Extension office. This is a first-come first-serve program.

Q: When is the best time to sample?

A: The number of eggs and cysts in the soil increases throughout the growing season, making SCN detection most likely if you sample at the end of the season; from just before harvest to just before freeze-up is generally recommended.

Q: What do the results tell me?

A: Results indicate if you have SCN or not. If you do, you will want to actively manage it; resistance, rotation and maybe seed treatments. If you don't have it, be happy, and test again in coming years.

Contact Sam Markell at NDSU with questions samuel.markell@ndsu.edu • (701) 231-8362



Seeking Young Leaders

The North Dakota Soybean Growers Association (NDSGA) and Corteva Agriscience, the agriculture division of DowDuPont, are seeking applicants for the 2018-2019 Young Leader Program.

Sponsored by Corteva Agriscience and the American Soybean Association (ASA), the Young Leader Program is a two-phase educational course for actively farming individuals and couples who are passionate about agriculture's future possibilities. The women and men who participate in this program will be the leaders who shape the future of agriculture.

Phase I of the 2018-2019 Young Leader Program will take place in Johnston, Iowa, Nov. 27-30, 2018. The program continues Feb. 26-Mar. 2, 2019, in Orlando, Florida, in conjunction with the annual Commodity Classic Convention and Trade Show.

"The Young Leader Program is among the most impactful training programs in agriculture, recognizing the value of engaging and encouraging a diverse agricultural leadership. The training allows participants to realize their leadership potential and create meaningful relationships with other growers from the U.S. and Canada, improving collaboration throughout the industry," said ASA President John Heisdorffer, a farmer from Keota, Iowa. "We can't thank Corteva Agriscience enough for their longstanding support and commitment to building strong, passionate agricultural leaders."

Soybean-grower couples and individuals are encouraged to apply for the program which focuses on leadership and communication, the latest agricultural information and the creation of a strong peer network. Spouses are

encouraged to attend and will be active participants in all elements of the program.

The NDSGA is working to identify the top producers to represent North Dakota as part of this program.

"America's farmers provide the strongest voice for, not only agriculture, but also for rural America. We are proud to support the Young Leader Program which is developing the next generation of grower leaders and advocates for U.S. agriculture," said Matt Rekeweg, U.S. industry affairs leader, Corteva Agriscience.

The application deadline is September 4, 2018. Apply online at soygrowers. com/learn/young-leader-program

Soybean Growers Request Accurate Bioengineered Food Labeling

Soy leaders are supporting transparency and are urging the USDA to follow statutes while finalizing a bioengineered food rule. The American Soybean Association (ASA) filed comments with the U.S. Department of Agriculture's Agricultural Marketing Service (AMS) regarding the AMS' proposed rule to implement the National Bioengineered Food Disclosure Standard (NBFDS).

The letter accompanying the comments noted, "As farmers, we understand and support the consumer's desire to know what is in their food. We are proud of the methods and technology we use to deliver a safe and affordable product to the consumer while developing ways to reduce impacts on the environment." The letter went on to say that biotechnology allows farmers to reduce inputs such as water, fertilizer and pesticides.

The NBFDS headed off a potentially chaotic situation of having a patchwork of conflicting bioengineered labeling requirements for grocery products at the state level that would have been confusing to consumers as well as cumbersome and costly for processors and food companies. The ASA strongly supported enacting the law which

established the standard, preempting individual state's labeling laws such as the one in Vermont.

While the ASA's comments commend AMS for trying to arbitrate competing views by offering several options for the final rule, the ASA urges the USDA to adhere to the statutory definition of bioengineering which requires mandatory labeling for foods that "contain genetic material modified through transgenic biotechnology and exempts products that could be developed through conventional breeding techniques or found in nature." The ASA further argues that the USDA should adopt five percent as the threshold for the presence of bioengineered content which is required to trigger mandatory disclosure and emphasizes that the law's purpose is to establish a marketing mechanism, not a food-safety standard, because foods produced with bioengineering have already been found to be safe.

In addition to its comments to AMS, the ASA is a member of the Coalition for Safe Affordable Food which has filed joint comments on its members' behalf.

EPA Increases Proposed RFS Volumes

The American Soybean Association (ASA) is pleased with the proposed biodiesel and advanced biofuel volumes released by the Environmental Protection Agency (EPA), opening the door for the growth of future biodiesel volumes.

In the rule, the EPA calls for biomass-based diesel (BBD) volumes within the Renewable Fuel Standard (RFS) of 2.43 billion gallons for 2020, a 300-million-gallon increase over the 2019 levels.

ASA President John Heisdorffer, a soybean farmer from Keota, Iowa, applauded the EPA, saying, "This increase supports a valuable, growing market for soybean oil. We have an increased capacity on the domestic market to meet the demand for renewable fuels blended into the nation's fuel supply."

Heisdorffer pointed out that pro-

posed future increases in BBD volumes could be negated by the unwarranted waivers for RFS volumes that the EPA has recently granted to some oil refiners.

"The waived volumes need to be reallocated to ensure the RFS remains whole and that proposed future increases are meaningful," Heisdorffer explained. "The biodiesel industry has the potential to support agriculture by creating jobs, diversifying fuel sources and reducing America's dependence on foreign oil. We encourage the EPA to continue supporting growth by limiting waivers that water down the benefits of these increased levels."

Senate Passes Appropriations Bill Funding Waterway Infrastructure

The U.S. Senate passed its version of the FY19 Energy & Water Appropriations bill which includes funding for the U.S. Army Corps of Engineers' (USACE) waterway programs. The Energy & Water Appropriations bill was part of a package of appropriation bills that overwhelmingly passed. The Senate bill provides for full use of the Inland Waterways Trust Fund, \$3.74 billion for the USACE Operations & Maintenance account, and \$1.528 billion for the Harbor Maintenance Trust Fund (HMTF). This HMTF level exceeds the target of \$1.4 billion that was established in the Water Resources Reform Development Act (WRRDA) of 2014. The Senate bill will now go to a conference committee to negotiate differences with the House version.

For comparison, the House Energy & Water Appropriations bill also calls for full use of the Inland Waterways
Trust Fund, provides a record-level
\$3.8 billion for USACE Operations & Maintenance, and has \$1.6 billion for the HMTF. The funding levels in both the House and Senate bills represent strong support for these American Soybean Association (ASA) transportation and infrastructure priorities.

—Story by staff





SUSTAINABILITY NEVER GOES OUT OF SEASON

REDUCED TILLAGE

Customers prefer U.S. soy because it's sustainable. But demands for sustainability continue rising. Adopting a common practice like reducing tillage to control erosion and increase organic matter is another step forward in improving your sustainable footprint. Show your commitment to sustainability with a free truck magnet available at unitedsoybean.org/sustainability



NORTH DAKOTA SOYBEAN GROWERS ASSOCIATION

 $4852\ Rockinghorse\ Circle\ South$

Fargo, ND 58104 (701) 566-9300

PRINTED WITH SOY INK



PRSRT STD US POSTAGE PAID Fargo, ND Permit #1159



Big Iron Farm Show • Booth C8 Expo Center • September 11-13, 2018 Red River Valley Fairgrounds • West Fargo, ND