

THE NORTH DAKOTA Soybean GROWER MAGAZINE

VOLUME 7 • ISSUE 3
JUNE 2018



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ASK AN AGRONOMIST

Seeds and agronomy. They're the one-two punch for improving performance in any field. That's why farmers in the southeast part of North Dakota and the northwest part of Minnesota count on DEKALB® Asgrow® Technical Agronomist Eric Nelson to stay out in front. He's been working in the region for 11 years and is a great source of local knowledge. Here he addresses some of the year's most pressing questions about protecting soybeans.



ERIC NELSON

DEKALB Asgrow Technical Agronomist
West Fargo, North Dakota

WHY IS IT IMPORTANT FOR FARMERS TO TREAT THEIR SOYBEAN SEED?

The short answer is that you should always treat your seed. The key soybean diseases that treatments protect against thrive in slightly different environments. Pythium is more prevalent in cool, wet, poorly drained and compacted soils. Phytophthora thrives in warm and wet soils. Rhizoctonia is most prevalent in warm and moist, but not saturated soil conditions. As temperatures increase throughout the spring, disease pressure doesn't go away, but the disease spectrum changes. It is an easy knee-jerk reaction to skip the treatment as temps warm, but that isn't always well advised.

WHAT ARE THE MAIN SOYBEAN SEEDLING DISEASES TO BE CONCERNED ABOUT?

There are a couple components to answer this question. After planting, our first concern is stand establishment, as seed rots will decrease our effective stand. These will cause missing seedlings in the row and generally poor emergence. Common pathogens

“ **AFTER PLANTING, OUR FIRST CONCERN IS STAND ESTABLISHMENT, AS SEED ROTS WILL DECREASE OUR EFFECTIVE STAND. THESE WILL CAUSE MISSING SEEDLINGS IN THE ROW AND GENERALLY POOR EMERGENCE.** ”

for seed rot include Pythium, Phytophthora and Phomopsis.

After our beans are emerged and growing, we become more concerned with damping-off diseases. This keeps Pythium, Phytophthora and Rhizoctonia in mind, plus Fusarium to a lesser extent. It is always frustrating to have a good stand of soybeans emerge, only to watch stands go backwards as plants die. Acceleron® Seed Applied Solutions contain three fungicides for overlapping control of the key soybean seedling diseases. These include Pyraclostrobin and metalaxyl for Pythium; Pyraclostrobin and fluxapyroxad for rhizoctonia and fusarium; and metalaxyl, which provides excellent control of phytophthora. Multiple modes of action with overlapping control makes Acceleron Seed Applied Solutions an excellent choice for protecting emerging soybeans.

OUTSIDE OF SEED TREATMENTS, HOW CAN FARMERS PROTECT THEIR SOYBEANS?

While seed treatments protect our young plants and seeds from key diseases, there are other ways to help keep the stand healthy. Product

selection is a key component in disease prevention. We know that some products have a greater tolerance and protection from phytophthora than others. This information is in the seed guide showing both PRR field tolerance and major genes present for phytophthora protection.

Field preparation and drainage are also very important in disease prevention. Prolonged soil wetness and compaction will both increase disease incidence. Making sure your fields are fit for planting and planting into good soil conditions are very important in terms of setting up for high yields in the fall as well.

All too often we don't find that we have a seedling disease problem until we are out of good options for protection. Where we can decrease our abiotic stress with good preparation, add product selection for genetic tolerance and seed treatments for protection, we can set up our stands for good early season growth and yield potential in the fall.



FIND MORE AGRONOMIC UPDATES AND TIPS AT ASGROW.COM/AGRONOMY

Performance may vary, from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields.

FOR SOYBEANS, EACH ACCELERON® SEED APPLIED SOLUTIONS OFFERING is a combination of separate individually registered products containing the active ingredients: BASIC Offering: metalaxyl, fluxapyroxad, and pyraclostrobin. STANDARD Offering: metalaxyl, fluxapyroxad, pyraclostrobin, and imidacloprid.

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n the cover

North Dakota farmers braved a seemingly endless winter that delayed planting in many areas. Despite a challenging start to the growing season, the U.S. Department of Agriculture estimates North Dakota farmers will plant over 7.1 million acres of soybeans in 2018, the fourth highest in the nation.

—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) 566-9300 or email info@NDSGA.com.

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

N DSGA Tracks Committee Activity

Since the last issue of the North Dakota Soybean Grower, the Agriculture Interim Committee met once. The committee discussed the study of the State Soil Conservation Committee and the upshot was that the committee's new leadership, as well as the legislative look into its structure and operation, is helping to revitalize the Soil Conservation Committee's activities. It appears that a pending bill draft will allow further committee-member training, which had been forbidden by statute.

The Agriculture Committee also studied the desirability and feasibility of a wetland bank for mitigation purposes. After hearing from the agriculture commissioner about that department's program and the Natural Resources Conservation Service's state conservationist, as well as reviewing what South Dakota is doing, the committee appears to be willing to shelve any further development for the coming session. There is plenty of demand to buy credits, but very few people with qualifying wetlands are willing to sell.

The Health Department was there to update its nutrient-management plan. The department is still taking input from stakeholders.

The study about grain testing for vomitoxin, falling numbers and protein appears to have ended with the committee members not willing to change North Dakota law because the action could create a regulatory island for the state, which is not helpful when we are selling to markets outside our borders.

If you would like a more-detailed explanation of these events, please go to the North Dakota Soybean Growers Association's (NDSGA) website (www.ndsoygrowers.com), and click on the Blog. Blog #54 addresses that Agriculture Committee meeting while Blog #53 goes into greater detail

on the interim Natural Resources meeting about Public Service Commission (PSC) siting changes. There is a new state law that gives the PSC greater weight over local governments when it comes to siting, and wind farms got the most attention. There have been few sitings under the new law, and the jury is still out as to the law's efficacy. The Northwest Landowners Association had several concerns that are outlined in Blog #53.

North Dakota Soybean Growers Legislative Director Scott Rising has been following the Initiated and Referred Study Commission where many issues, such as the financial effects of reporting or not reporting, filing deadlines before general elections, out-of-state contributions, etc., are being discussed. If interested, go to the North Dakota Legislature site; look under 65th Interim; go down the list of committees; and then, click on it, and the minutes should be there.

Rising covered another interim committee, Water Topics, which received a report from the Red River Retention Authority (RRRA). One RRRA goal is a 20-percent flow reduction for the Red River, and Minnesota is on board with that goal. The RRRA's primary goal is to solve local problems, and the 20-percent flow reduction is a secondary, long-term goal. The 20-percent flow reduction was not a viable alternative to the diversion plan because it did not provide enough protection for Fargo. The Natural Resources Conservation Service (NRCS) provided the Red River Retention Authority with \$12 million through the Regional Conservation Partnership Program to implement watershed-protection projects in the Red River Basin. The NRCS also allocated \$50 million to the Red River Retention Authority under the 2014 Farm Bill to assist



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

landowners and water districts with implementing flood-damage reduction practices. The NRCS does almost no work without local partnerships, and the NRCS partnership with the RRRRA is one of seven projects that the NRCS has in North Dakota. The RRRRA has two years left to spend the \$50 million allocated under the 2014 Farm Bill and, to date, has spent \$15 million of the money. Souris River Basin stakeholders agreed that they could benefit from the \$50 million. The NRCS has met with members of the Minot community and will meet with agriculture producers in that area soon.

With road and bridge funds lagging behind the need, the NDSGA leadership asked for and was granted a meeting with the new director of the North Dakota Department of Transportation, Tom Soral. He asked for input and listened to concerns.

Most recently, NDSGA staff leadership met with Upper Great Plains Transportation Institute (UGPTI) staff members to ascertain the effect of various proposals that the UGPTI presented at the Department of Transportation Symposium would have on North Dakota agriculture and soybean producers specifically. Those findings and potential proposals are currently being developed.

—Story by Phil Murphy



Secretary of Agriculture Sonny Perdue was in North Dakota during March. Then-NDSGA President Craig Olson, far left, was among the individuals providing input about farmer concerns during the roundtable held at NDSU.



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Introducing the new president of the North Dakota Soybean Growers Association

Greetings.

I hope that everyone's wheels are finally turning this spring after a delayed and often-challenging spring.

I would like to take this opportunity to introduce myself. My name is Joe Ericson, and I am your new North Dakota Soybean Growers Association (NDSGA) president. Allow me to tell you a little about myself.

I moved to the farm from Fargo in 2009. I farm by Wimbledon, North Dakota, with my father-in-law and brother-in-law. We raise soybeans, corn and wheat. My wife, Rachael, and I have three wonderful children: Jack, Josie and Lucy.

I started on the NDSGA board in 2014 as the state's DuPont Young Leader. That class taught me a lot about the policy side of agriculture that

not many people get to see. Because I wasn't raised in a farming family, it really opened my eyes and made me want to continue as an at-large director on the NDSGA board, working to help North Dakota soybean farmers. Being a member of our organization keeps you up to date on agricultural policy and issues at both the state and national levels, including topics such as the upcoming farm bill, crop insurance, water-management issues and infrastructure funding.

I would also like to thank Craig Olson for his time on the board and for his leadership in the soybean industry. I have big shoes to fill, but I will try my best. My phone is always on, so don't be afraid to give me a call to talk about your issues, to vent, or to chat about anything on your mind.

Have a safe and productive planting season.



Membership Application

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

Name: _____

Spouse: _____

Date of Birth: _____

Farm/Company Name: _____

Address: _____

City, State, Zip: _____

County: _____

Phone: _____

Cell: _____

Email Address: _____

Occupation (Please check all that apply)

Farmer Retired Agribusiness

Finance Elevator Other

Do you currently grow soybeans?

Yes No

Soybean Acres: _____ Total Acres Farmed: _____

Do you raise:

Cattle Hogs Poultry Dairy

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

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

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

Check enclosed (please make checks payable to NDSGA)

Credit Card: Visa / MasterCard / Discover / American Express

Card Number: _____

Expiration Date: ____/____/____ CVC: _____

Name on Card (Please print): _____

Signature: _____

Mail application with payment to:

North Dakota Soybean Growers Association

4852 Rocking Horse Circle South

Fargo, ND 58104

STANDING TALL



The acrylic sign attached to the wall in the Peterson Farms Seed

headquarters near Harwood, North Dakota, says it all: “We will sell no seed we wouldn’t be happy to plant on our own farm.”

“That’s our guiding principal; that’s the bar,” says Julie Peterson, who along with her husband, Carl, owns and operates the family business.

Peterson Farms Seed has grown from a family farm to the region’s largest independent corn and soybean seed company, even though starting a seed company wasn’t necessarily their original intent.

The couple met while students at Iowa State University. They married in 1981, packed up their 1977 AMC Gremlin and headed back to Carl’s parents’ farm near Prosper, North Dakota, where they had purchased 300 acres of farmland. The newlywed farmers were promptly greeted

by the farm crisis.

“We started farming during the second-worst time of the last 100 years,” Carl Peterson says. “Our farm value dropped by 50 percent. It took us 10 years to get back to zero net worth.”

The Petersons survived the farm crisis but faced another challenge when scab devastated wheat growers in the Dakotas and Minnesota a decade later. Carl and Julie took the leap and invested in seed-cleaning equipment. They spent the entire winter cleaning wheat for themselves and their neighbors. That experience and their equipment investment prompted the Petersons to go into the seed business in 1995.

They soon realized that there was a lot more to operating a seed business than simply cleaning seed. The Petersons quickly learned about



A simple sign on the wall at Peterson Farms Seed encapsulates the company’s guiding principles.

the importance of genetics, traits, marketing, sales and distribution.

“Maybe it’s a blessing to be stupid,” Carl Peterson quips. “We didn’t have a frame of reference of how it was supposed to be done. That led to some mistakes, but it also allowed us to learn some things that actually work very well.”

Farmers First

Although the Petersons may have had to learn some things the hard way, they’ve grown the business to include soybean and seed-corn distribution throughout North Dakota, South Dakota and Minnesota. They have more than 55 employees and around 100 contract growers across the upper Midwest who are growing their commercial seed production.

Peterson Farms Seed also has genetic technology and trait licenses with multi-billion-dollar companies

that give them and their customers access to the most up-to-date seed technology, including the Liberty-Link, Roundup Ready 2 Xtend and Enlist varieties. First and foremost, Carl and Julie Peterson say that the company works hard to maintain its farm focus.

“As farmers, we come at it with a different approach than the large multi-national seed companies because our loyalties are different,” Carl Peterson contends. “We don’t have to meet quarterly earnings. We only answer to our customers. Julie and I own the company, so we do what we feel is right, not because it’s what investors want.”

“I think it resonates with farmers that we’re independent and we’re farmers, too,” Julie Peterson adds. “We’re always looking to do what’s right over the long term.”



The Petersons are active advocates for agriculture, including hosting Banquet in a Field through CommonGround North Dakota.



A computer system coordinates the rigorous process of cleaning and processing soybean seeds.

Quality Focus

Carl Peterson opened the heavy metal door leading to the company's high-tech soybean-processing facility. When the Petersons expanded their facility in 2012, they added state-of-the-art equipment that helps separate soybean seed to make sure that only the best beans make the grade. The three-phase process includes optical scanning equipment that can evaluate 50,000 seeds per second and can direct sub-par beans outside the seed stream.

"It goes back to the standard of 'what would you want to plant?' I believe seed quality is underrated by farmers," Peterson says. "Knowing the difference in performance of low-quality seed versus high-quality seed is equal to what you see from different genetic qualities."

Julie Peterson says that Peterson Farms Seed has a fairly narrow lineup of both soybean varieties and corn hybrids because of strict quality standards. She says that the company takes a lot of effort to select and to grow varieties and hybrids that work best in the geographies where it sells seed. The efforts include evaluating more than 40,000 replicated tests in 2017.

"We put a lot of effort into selection. We're looking at seed for several years sometimes before they are ready for commercialization," Julie Peterson says. "We have to like the seed we're producing because we're going to end up planting it on our farm."

Leadership Opportunity

Thirty years ago, before Peterson Farms Seeds was even formed, Carl and Julie participated in the American Soybean Association (ASA) DuPont Young Leader Program as North Dakota's representatives. The program provided valuable connections to other farmers from across the country, some of whom were involved in the seed industry.

"We made friends with other farmers in the seed business and we got some good advice about starting our company," Julie Peterson says.

"We both appreciated the opportunity to be on other people's farms and to get to know farmers from other states. Many of the farmers in our class went on to be state and national soybean association leaders."

The Petersons stay in contact with a number of the farmers who were in



Carl Peterson says soybean seed quality makes a difference.

the class with them. Julie Peterson so appreciates the ASA DuPont Young Leader program that she tries to contact the newly chosen participants each year, encouraging them to embrace the opportunity to learn and grow. The program also served as a springboard for Carl Peterson, who served on the North Dakota Soybean Growers Association board of directors in the 1990s.

"We really appreciate what the soybean association is all about," Julie Peterson adds.

More Than a Slogan

Peterson Farms Seed's printed literature and even its radio commercials contain a familiar tagline: "stand tall." Both Julie and Carl Peterson acknowledge that it's more than just a marketing slogan.

"Be proud of who you are, and do the right thing," Julie Peterson

says. "Provide a legacy to the next generation."

The Petersons are also willing to use their visibility to speak on behalf of farmers and modern agriculture. They've hosted Banquet in a Field with CommonGround North Dakota, and Carl and Julie Peterson are asked to speak about the company and modern agriculture at multiple events every year. Their visibility gives them a platform that others may not have, and they use it to voice support for necessary tools, such as fertilizer and biotechnology.

"We all have a function in society, and we do our best work for society when we are able to do our best in our chosen profession. Farmers get to feed people, and we can't do the best job of feeding people of all income levels around the world if we're hamstrung with a lot of misconceptions and anti-science crusaders," Carl Peterson says.

Owning a recognized seed brand provides opportunities, but because their name is on the bag, the Petersons have learned that they have to be true to themselves.

"Who we are is more important than how much we sell," Carl Peterson says. "We, maybe, could have done some things differently and had a bigger business, but that's not the path we wanted to take. Sometimes, decisions you make can be painful in the short term, but in the long run, they turn out."



Carl Peterson highlights equipment that can evaluate 50,000 soybean seeds per second.

—Story by Daniel Lemke, photos by Daniel Lemke and Betsy Armour

Dear Fellow North Dakota Soybean Producers,

We are becoming a strong customer base for biodiesel, and spring and summer are the perfect time to begin using B20 (20 percent biodiesel, 80 percent petroleum diesel). Biodiesel provides an opportunity to create a demand for the crops we grow through on-farm use. Our commitment to biodiesel is reflected in our \$25 million investment in the product with checkoff dollars.

As farmers, we recognize that biodiesel is a high-quality product to use for our farm equipment. Even low blends of biodiesel, such as B2 and B5, offer exceptional lubricity, thus slowing engine wear and tear. Plus, it is a cleaner-burning fuel that is friendlier to the user and the environment.

I encourage you to ask your local fuel distributor to carry biodiesel. Petroleum distributors are increasingly making it available to their customers as they realize that there is demand for the product.

U.S. soybean farmers helped to

establish the biodiesel industry, and we have benefited from its growth. The demand for biodiesel increases the demand for, and the value of, U.S. soybean oil by 11 cents per pound, adding 63 cents of value to every bushel of soybeans. Biodiesel also works for the U.S. soybean industry's number-one customer—animal agriculture—by lowering the price of soybean meal by \$21 per ton.

Routine maintenance is key to avoid fuel-related problems. Take a few moments to run through the following checklist:

- Check for water and sediment in the tanks PRIOR to fuel delivery by looking at a sample from the tank's bottom. Remove any free water so that it doesn't get stirred into your fresh fuel.
- Check all hoses, caps, gaskets and vents for leaks. Make sure that everything is in proper working order.
- Install a dispenser filter on the

storage tank. You want to capture any contaminants with a dispenser filter in order to keep them from getting into the vehicle tanks. A 30-micron size is sufficient.

- If you have a dispenser filter, change it before every planting season and again before every harvest. Make this step part of your routine.
- Check the vehicle's fuel filters, changing them if necessary. Follow the OEM specifications.
- Check vehicle fuel caps to make sure that they are secured tightly.
- If you have a water separator, monitor and drain it if it contains water.
- Fill your vehicle and storage tanks with fuel when the planting season ends. If you keep the fuel tanks full, it reduces the amount of air in the tank. Air is the main source for water in fuel tanks, and it can also lead to oxidation and the degradation of fuel.



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Work closely with your fuel distributor to ensure that you are receiving a quality product and to minimize potential fuel problems. If you are using biodiesel, ask your supplier if the fuel meets ASTM specifications. If you have any fuel-related questions or need help troubleshooting a fuel-related problem, contact the Regional Diesel Helpline at 800-929-3437.

North Dakota Soybean Council Hires Stephanie Sinner as Executive Director

The farmer-leaders of the North Dakota Soybean Council (NDSC) have named Stephanie Sinner as their Executive Director, effective March 12, 2018.

"The North Dakota Soybean Council is proud of the outstanding work in the areas of research, market development and education benefiting soybean producers of North Dakota," says NDSC Chairman Joe Morken. "Our board of directors are pleased with our decision to hire Stephanie Sinner as our new executive director to continue to enhance NDSC's efforts. I look forward to working with her, and the board and I would like to congratulate her in her new role."

late her in her new role."

Sinner has been with the NDSC since 2013. She was the director of market development and, most recently, served as the interim executive director since December 1, 2017. She has more than 12 years of market-development experience promoting North Dakota agriculture both domestically and internationally.

A native of Colorado, Sinner has a Master of Science in International Studies, with an emphasis in International Agriculture Trade and Development, from Oklahoma State University. She holds a bachelor's degree in Spanish and an Associate of Arts in Agriculture from Fort Lewis

College in Durango, Colorado. Prior to joining the North Dakota Soybean Council, Sinner worked for the North Dakota Department of Agriculture as a policy analyst and then as the international marketing specialist.

"I am looking forward to being part of the continued success and growth of the soybean industry in the state and overseas while supporting the vision of the board and the state's soybean producers," says Stephanie Sinner. "It is an honor to continue my work in the North Dakota agricultural industry and to be a part of the great work of the North Dakota Soybean Council."

Sinner is currently the presi-



Stephanie Sinner

dent-elect of the Fargo PM Rotary Club and is involved with community service projects in the area. She lives in Fargo with her husband Scott.

—Story by staff, photo by Scherling Photography



Palmer Amaranth: The #1 Weed Problem in the Country is not in North Dakota. Yet.

Any mention of “Palmer amaranth” is likely to bring a shudder from farmers who have been forced to deal

with it. Palmer amaranth is a type of pigweed that has been common in the southern United States for several

years, but this devastating weed keeps creeping further and further north. It has now been identified in South

Dakota, Iowa and Minnesota. North Dakota farmers need to establish a zero tolerance for this weed.

“Palmer amaranth’s prolonged emergence period, rapid growth rate, prolific seed production, and propensity to evolve herbicide resistance quickly makes this the most pernicious, noxious, and serious weed threat that North Dakota farmers have ever faced,” says Dr. Rich Zollinger, retired North Dakota State University (NDSU) extension weed scientist.

Palmer amaranth is a competitive and aggressive pigweed species that poses a major threat to North Dakota crop production. Here’s why.

- Grows aggressively: Can grow 2 to 3 inches per day in optimum conditions
- Can grow to 6-8 feet tall
- Has reduced yield up to 91 percent in corn and 79 percent in soybean
- Prolific seed producer: Up to 1 million seeds per plant
- Emerges throughout the growing season
- Very prone to herbicide resistance (multiple modes of action)

“It’s the only weed I’ve seen that can drive a farmer out of business,” says Dr. Bill Johnson, Purdue University Extension Weed Specialist.

University of Tennessee Row Crop Weed Specialist Dr. Larry Steckel

explained that farmers have a very small window of opportunity to spray Palmer plants when they’re a manageable size.

“You might have plants that are 2 or 3 inches tall, but then it rains and the next chance you get to spray, the plants are beyond control,” Steckel explains. “In a matter of days, it’s easy to go from having a chance to kill them to having to till a field and replant.”

Steckel also shared other facts about Palmer amaranth, including:

- It loves hot weather. Palmer plants have a taproot that can reach at least 5 feet deep, giving it outstanding drought tolerance and making it very comfortable in hot weather. “Actually, this year has been kind of hard on it,” Steckel says of the mild temperatures that much of the soybean-producing region of the country has experienced this summer.
- It looks like waterhemp. In young plants, it’s hard to tell the difference between Palmer plants and waterhemp. The best way is to look for a single hair growing out of the end of the Palmer leaf, which waterhemp almost never has. However, later on, it’s easy to see the difference in mature plants. “If you measure the seed head infect, it’s Palmer; if you



Stutsman County Extension agent Alicia Harstad with a Palmer Amaranth plant.

—Continued on page 10



From left to right: Secretary Matt Gast, Valley City; Vice Chairman Troy Uglem, Northwood; Chairman Joe Morken, Casselton; and Treasurer Austin Langley, Warwick.

North Dakota Soybean Council Re-Elects Executive Officers

Executive-board officers were elected during the North Dakota Soybean Council's (NDSC) board meeting

on March 28, 2018. Joe Morken of Casselton was re-elected as chairman of the board. He serves soybean farmers in Cass County. Along with

his parents and wife, Morken raises soybeans, small grains and sugarbeets on their third-generation farm. Northwood soybean producer

Troy Uglem was re-elected as vice chairman. He represents soybean farmers in Grand Forks and Traill Counties. Uglem and his wife grow

soybeans, corn, wheat, dry peas, black turtle beans and spearmint.

Matt Gast of Valley City, North Dakota, was re-elected as secretary. Along with his brother-in-law and father-in-law, Gast raises soybeans and corn on his family farm.

Warwick, North Dakota, soybean producer Austin Langley was re-elected as treasurer. Langley represents soybean farmers in Eddy, Foster and Wells Counties. He grows soybeans, edible beans, wheat, barley, alfalfa and corn along with his father and uncles on their no-till farm. His family also runs a cow/calf operation.

—Story and photo by staff

—Continued from page 9

measure it in inches, it's waterhemp," Steckel says.

- Yearlong germination. Palmer amaranth can germinate from March through October, so new plants are still coming up while

crops are drying down. Farmers might need to keep spraying to keep a field harvestable and seed out of the seed bank.

Identification

Palmer amaranth seedlings have egg-shaped leaves with a hair-like

protusion at the leaf tip.

Reporting

If you think you have found Palmer amaranth, contact your local NDSU Extension agent. Again, Palmer amaranth has been found as near as Minnesota and South Dakota,

but it has not yet been found in North Dakota. Please help keep it out by watching for it and reporting any sightings.

—Story courtesy of NDSU and United Soybean Board, photos courtesy of NDSU



Palmer amaranth can be distinguished from waterhemp by its petiole length. The length of the petiole will be as long or longer than the leaf.



Another distinguishing feature of Palmer amaranth is the small spike sometimes found at the tips of the leaves.



New Directors Join The North Dakota Soybean Council

In April, two new directors were elected to the North Dakota Soybean Council (NDSC), and two directors

were re-elected. Each director will serve a 3-year term.

Edgeley, North Dakota, soybean farmer Mike Schlosser was elected to represent District 3: LaMoure and Dickey Counties. Along with his father, Schlosser grows soybeans, corn and wheat. He graduated from North Dakota State University with a bachelor's degree in Plant Protection, and Crop and Weed Science. He is active with the North Dakota Farmers Union and is a member of the American Soybean Association. Schlosser is also involved with his church and his children's sports teams.

Chris Brossart, a soybean farmer from Wolford, was elected to represent District 11, which consists of 13 northwest North Dakota counties. He grows soybeans, spring wheat, barley, corn and canola with his parents and his wife on a third-generation family homesteaded farm. He graduated from North Dakota State

University with a degree in Crop and Weed Sciences, and Agribusiness. Brossart is active with the North Dakota Farm Bureau and the Nodak Insurance Board. He is also involved with his local church.

Joe Morken, a soybean producer from Casselton, was re-elected to represent District 4: Cass County. Morken has been farming soybeans with his parents and his wife for 19 years. He comes from a third-generation small-grain and sugarbeet farm. Morken attended North Dakota State College of Science and has served as the treasurer for the Cass County Ag Improvement Association.

Levi Taylor of Ypsilanti was also re-elected to represent District 6 Stutsman County. Taylor has been farming corn and soybeans with his father-in-law and brother-in-law for eight years. He graduated from Jamestown College with a bachelor's degree in Health and Fitness Admin-

istration. Taylor has been involved with the Farm Bureau's Young Farmers and Ranchers program; and he is a director for the Ypsilanti Equity Elevator.

"We are excited to welcome Mike and Chris to the board and look

forward to seeing the valuable contributions they will make to our organization," says Stephanie Sinner, NDSC executive director. "We also congratulate Joe and Levi on their re-election to the board and look forward to their continued leadership and counsel."

—Story and photo by staff



New board directors Chris Brossart and Mike Schlosser.



Matt Danuser

Many Thanks!

At its March 2018 board meeting, the North Dakota Soybean Council (NDSC) bid farewell to veteran board members Matt Danuser of Marion and Derik Pulvermacher of Crosby. The NDSC extends its deepest gratitude to these two men for their years of dedication and service to North Dakota's soybean industry. Appreciation plaques were presented by Chairman Joe Morken.

—Story by staff, photos by Wanbaugh Studios



Derik Pulvermacher



North Dakota Soybean Farmer Talks About the Importance of Biotechnology During a China Mission



“ During the trade mission, two film-screening events for the documentary “Food Evolution” took place in Shanghai and Beijing as a way to promote scientific knowledge and understanding about genetically modified crop technologies.”

Peterson (far left) was part of the ISGA delegation that visited China April 16-21. The organization works to consolidate the soybean producers’ voices to oppose market restrictions; excessive tariffs; and scientifically unsound non-tariff barriers, such as biotechnology approvals.

Soybeans are important to Valley City farmer Monte Peterson. He recently traveled to China on behalf of

the oilseed industry.

Peterson was part of the International Soybean Growers Alliance (ISGA) delegation that traveled to Shanghai and Beijing April 16-21. The alliance, formed in 2006, works collaboratively to maintain a solid market position against competitor oilseeds in their respective markets. The ISGA also helps to consolidate the soybean producers’ voices to oppose market restrictions; excessive tariffs; and scientifically unsound non-tariff barriers regarding environmental, health, chemical residue, or biotechnology approvals.

Peterson and other representa-

tives from U.S. soybean-farmer-led organizations joined their counterparts from Argentina, Brazil, Canada, Paraguay and Uruguay to discuss the benefits of biotechnology with the Chinese stakeholders. This trip marked ISGA’s fourth mission to China.

In addition to his service as a director for the North Dakota Soybean Growers Association (NDSGA) and the American Soybean Association (ASA), Peterson serves as the vice chairman of the U.S. Soybean Export Council (USSEC). His work with the ISGA highlights the concerns shared by both U.S. growers and

farmers from other countries. Delayed biotech approval processes are one of those areas.

During the trade mission, two film-screening events for the documentary “Food Evolution” took place in Shanghai and Beijing as a way to promote scientific knowledge and understanding about genetically modified crop technologies. The documentary looks at one of the most critical questions facing the world today, food security, and shows how easily fear and misinformation can overwhelm objective, evidence-based analysis.

ISGA and Guokr, a popular

science-education media outlet in China, organized the Shanghai film screening. Over 40 Guokr followers were selected and invited through the organization’s social-media platforms. The Beijing screening was organized by the Alliance for Science Communications on Food and Nutrition (ASCFN), with ISGA as the key event sponsor. ASCFN is a coalition which was initiated by Chinese media, scholars, and food and nutrition experts to address the increasing public anxiety about issues in those areas.

An official from the Chinese Ministry of Agriculture; an academician from the Chinese Academy



of Engineering; and several other renowned Chinese scholars from the food, agriculture, and communication sectors attended the Beijing event, also participating in roundtable discussions with ISGA members in order to address specific science questions and to offer insights about how science communication can be more effective in China. During both film screenings, Chinese consumers had the opportunity to ask questions of the U.S. soy farmers and other ISGA delegates.

At the end of the mission, Peterson and the other members of the U.S.

soy delegation participated in a media conference call to spread the word about their efforts.

“We look forward to having those biotech traits approved so that we can

start utilizing them on the farm,” says Peterson. “That’s common amongst the producers in ISGA and that’s something we can certainly stand united on and try to get those traits

approved in a more timely process than what’s currently been happening.”

—Story and photos courtesy of Jen Del Carmen, USSEC



Peterson (middle) listens during an ISGA roundtable in China.

Farewell and Best Wishes to Intern Lauren

In early May, the North Dakota Soybean Council (NDSC) bid farewell to Marketing Communications

Intern Lauren Hopke. She graduates from NDSU in May with a major in agricultural economics and a minor in animal science.

Hopke grew up on a small hobby farm in Saint Augusta, Minnesota. She was an active member of Stearns County 4-H for 14 years. Her involvement in 4-H sparked her passion for agriculture. She showed poultry, swine and goats, as well as participating in a variety of other projects, during her time as a 4-Her.

After graduation, Hopke will be joining the Fellowship of Catholic University Students (FOCUS) as a full-time missionary. She will work with students on a college campus,

introducing them to the hope and joy of the Gospel through one-on-one discipleship, Bible studies and mission trips. FOCUS is modeled on the Great Commission (Matthew 28:19-20), and she will be striving to fulfill it! Hopke is very excited to begin her adventure and to apply the skills that she’s gained while interning at the North Dakota Soybean Council to her career with FOCUS.

The NDSC sincerely thanks Lauren for all her help and hard work during the last year. She was a great asset to the NDSC’s team. Congratulations and best wishes, Lauren!



Lauren Hopke

—Story and photo by staff



North Dakota Soybean Grower Participates in 2018 U.S. Soybean and Oil Marketing Training Camp in Taiwan

More than 70 percent of North Dakota soybeans and more than 60 percent of the soybeans grown

in the United States are shipped overseas. Building and enhancing personal relationships helps the U.S. soy industry to maintain and to expand markets around the world.

Kulm grower Josh Gackle understands the importance of enhancing global relationships. The stamps on his passport are a testament to that.

The North Dakota Soybean Growers Association (NDSGA) and American Soybean Association (ASA) director recently visited north Asia to spread the word about the

U.S. Soy Advantage at the 2018 U.S. Soybean and Oil Marketing Training Camp in Taiwan.

The event, hosted by the U.S. Soybean Export Council (USSEC) and the Taiwan Vegetable Oil Manufacturers' Association (TVOA), brought together end users and associated influencer groups, including executives, sale-force representatives, soybean-purchasing staff, and the crushers' manufacturing and quality-control technicians to learn about the advantages of U.S. commodity soybean oil on April 12 and 13. The workshop delivered technical information about how to optimize the quality and sustainability of U.S. soybean oil.

Soybean oil is used in Japan, Taiwan and Korea because it is relatively cost-effective for various food applications compared to alternative oils. If market dynamics shift and a slightly cheaper oil becomes available, U.S. soybean oil risks losing market share among food-grade oil users. The USSEC's strategy involves educating frontline U.S. soybean-oil sales representatives about the advantages of U.S. soybean oil, such as function-



Gackle visits the USSEC's Taiwan office with Lin and Grace Chan, the USSEC's marketing manager.



Gackle visits TTET Union, a large soybean-crush plant in Tainan, Taiwan.



North Dakota Soybean Grower Participates in Second Annual U.S.-Japan Natto Summit

ality, nutrition and sustainability, so that they can communicate these attributes to their customers.

Gackle provided an update for the U.S. soybean market and spoke to attendees about his soybean-planting intentions and his sustainability methods on his farm.

“I had a very positive experience during my short visit to Taiwan,” says Gackle. “In addition to participating and presenting at the soy-oil training camp, I had the opportunity to meet with U.S. soy buyers and crushers, which provided a good opportunity to enhance the relationship between these buyers and U.S. soy providers.”

“I really enjoyed meeting with our customers in Taiwan. They were very curious to hear about how we do things at my farm and to learn more about the U.S. soybeans that they’re purchasing,” Gackle continues.

“And for me, it was pretty neat to realize that some of my beans from North Dakota might have ended up in Taiwan.”

USSEC Taiwan representative Julian Lin says that forging relationships in all parts of the U.S.-soy value chain is very important.

“Josh’s attendance demonstrates U.S. farmers’ strong support to our customers and helps to build a good relationship with them,” Lin states.

“It’s important for USSEC to continue to provide periodic updates to the training-camp attendees regarding all things U.S. soy,” Gackle says. “These folks are very interested in growing-season updates, price, availability and market impacts.”

—Story and photos courtesy of Jen Del Carmen, USSEC

The U.S. Soybean Export Council (USSEC), together with the Japan Natto Cooperative Society Federation (JNCSEF), held the second annual U.S.-Japan Natto Summit in Takasaki City, Gunma Prefecture, Japan, on February 21 and 22.

Sheldon farmer and North Dakota Soybean Council (NDSC) Director Dan Spiekermeier participated in this event which NDSC also sponsored. Approximately eight percent of North Dakota soybeans grown annually are food-grade soybeans.

Natto is a traditional Japanese food that is made with fermented soybeans, and the Natto Summit allowed Japanese natto makers and U.S. soybean producers to collaborate. The event aimed to improve natto quality, to strengthen its marketing and to solve problems

through the exchange of information and discussion. The current situation and distribution for natto made with U.S. soybeans, natto research reports in Japan, market trends and future prospects were presented, and an active exchange of opinions took place. The 2018 summit followed the inaugural summit which was held in Fargo, North Dakota, in March 2017.

Natto soybean production in North Dakota, Minnesota and South Dakota is extremely important to Japan’s natto manufacturers. This region supplies about 60 percent of the natto used in Japan, and accounts for nearly 80 percent of all the natto that is imported into Japan.

—Story by Jen Del Carmen, USSEC, photos courtesy of USSEC and Dan Spiekermeier



Spiekermeier, representing U.S. soybean farmers, provided an opening greeting. “The natto summit is a great opportunity for U.S. producers and Japanese natto makers to work together to tackle our challenges.” He thanked the Japanese attendees for their business and said that U.S. growers look forward to continuing to provide them with stable, good quality soybeans. Japan is the top global market for identity-preserved (IP) soybeans, non-GM soybeans separated and managed by IP handling.



The Natto Summit was held at Hotel Metropolitan in Takasaki City, Gunma Prefecture. About 50 Japanese natto manufacturers participated.



The Scout Squad

Without saying a word, your soybean fields can tell you a lot. You just have to pay attention.

In-season scouting is an important practice not only for the current growing season, but also for future years. Walking fields during the growing season can provide farmers and agronomists with a wealth of information. Mid-May through July can be a critical period for scouting to help farmers make management decisions in order to get the most from their soybeans.

Plant Stand

Even with later planting dates, by the middle of May, growers should pay attention to plant emergence.

“Generally, by the last half of May and into June, you’ll be able to tell what kind of plant stand you have,”

says Greg Endres, North Dakota State University area cropping systems specialist at the Carrington Research Extension Center. “You’ll want to see uniform plant stands with adequate populations.”

If plant stands aren’t uniform, Endres says that it may mean farmers need adjust the planting rate upward or plant a different variety in that field. Endres says that the goal of soybean stands is to achieve canopy closure by early July.

“Canopy closure starts at planting time,” Endres says. “Achieving closure early in the reproductive stage goes a long way to getting good yields. The canopy shades out weeds, keeps the

soil cooler so there’s less moisture loss, and captures more sunlight.”

Disease Pressures

Endres says that scouting is a good way to take note of disease pressures. Early season diseases such as phytophthora can affect plant emergence and stand. Even though there isn’t much farmers can do to combat root diseases once the seeds are planted,

farmers or crop consultants can make notes for future years to plant a disease-resistant variety or to utilize seed treatments in affected areas.

Weed Pressure

By early June, soil applied, pre-emerge herbicides will start losing their effectiveness to control weeds. Endres says that farmers should note the size and species of weeds which are present in order to be timely and effective with post-emerge herbicide applications.

Waterhemp emerges throughout the mid-May through July period. Other glyphosate-resistant weeds, including kochia and ragweed, may also be present.

Dan Moser is a crop consultant who works in the Grand Forks, North Dakota, area. He works with a number of no-till and minimum-till farmers. As is the case with growers practicing conventional tillage, weed control is important for individuals using reduced tillage.



Regardless of the season, keeping a watchful eye on soybean fields can provide useful information. Mark Wagner monitors planting progress near Eldridge, ND.

PROBLEMS WITH GOOSE DEPREDATION?

The North Dakota Game and Fish Department and USDA Wildlife Services offer assistance programs for producers who are experiencing crop depredation by geese, including scare devices, harassment techniques and training.

For chronic problems on agricultural land, special depredation permits are available that allow destruction of nests and eggs, and direct killing of Canada geese and goslings that do not respond to nonlethal deterrents.

Producers who have not had a depredation permit in the past require a site inspection from USDA Wildlife Services, and can call 701-355-3300 to begin the process. For more information about Canada goose depredation permits, visit the Game and Fish website at www.gf.nd.gov/plots/landowner, and scroll down to “Depredation Assistance.” Qualified previous permit holders can renew their permit at the Game and Fish web address above, or call 701-328-6610.

NORTH DAKOTA GAME AND FISH DEPARTMENT
 100 North Bismarck Expressway
 Bismarck, ND 58501-5095
 701.328.6351 Email: ndgf@nd.gov
 Web: gf.nd.gov



“We are trying to get the crop out of the ground with a good stand and ahead of the weeds,” Moser says. “We want to achieve that so that farmers only have to make one or two post-emerge herbicide applications, not three or four.”

In any cropping system, there will always be weed escapes and late flushes. Scouting fields to evaluate populations and weed varieties will help to determine the best post-emerge strategy. Early detection is key because nearly all herbicides are most effective when the targeted weeds are small.

Moser says that an inadequate soybean canopy can allow the sunlight to spark more weed growth, so regular scouting is important to catch later weed flushes.

Dicamba

For the second growing season, North Dakota farmers had the option of planting dicamba-tolerant soybean varieties in 2018. Spraying dicamba-based herbicides, such as

XtendiMax, Engenia and FeXapan on their soybeans offers farmers options to deal with herbicide-resistant weeds, but the products come with their own requirements.

The North Dakota Department of Agriculture has imposed several state-specific requirements for dicamba applications. No applications may be made after June 30 or after the first bloom (R1 growth phase), whichever comes first. It's important for farmers to scout before and after application in order to determine if they achieved the weed control they wanted or if there is any potential off-target movement.

“Applications need to be timely, and label restrictions need to be followed,” Endres says, “because we want to avoid any non-target plant injury. The correct timing of any post-emerge application is also important to maximize weed control.”

Critical Stage

Endres says that soybeans can tolerate significant stress during the

vegetative stage with a minimal effect on yield. Soybeans are typically in the vegetative stage through June. Once soybeans begin to flower (reproductive growth stage), management gets more challenging, and any plant stress will reduce yield.

“R3 (pod formation) through R6 (full seed) are, by far, the most crucial stages for soybeans,” Endres says. “That typically occurs about two weeks after first flower (R1 stage). Farmers will want to have everything in place by then, including having proper plant nutrition and pests managed.”

Present and Future

Scouting fields provides information that is not only helpful for the current crop year, but those data also can be very valuable for future seasons.

“It's critical to save that information for future years,” Moser says. “I have 20-plus years of data on some farmer's fields, and that really helps us out with what products can be used.

Things like weed records help us show what products we've used in the past, so we know what we can do in the future.”

Moser says that scouting and cropping history can be beneficial to farmers who use variable-rate technology. For example, by understanding which field areas face iron-deficiency chlorosis (IDC) pressure, Moser says that farmers can plant IDC-tolerant varieties in those areas. “Then, when we move out of those areas, we can change to a more offensive bean.”

As with other management practices, the grower gets out of their scouting what he or she puts into them. Driving past fields and watching from the road doesn't constitute effective scouting. Getting into the fields and putting some dirt under your boots can pay dividends for growing seasons to come.

—Story by Daniel Lemke,
photos by Wanbaugh Studios

Get Ready to Corner the Market

NDSC Market Outlook for Soybeans

July 27, 2018 • 10 a.m. – 3 p.m.

Two Locations:

Bismarck State College Campus – Bismarck • NDSU Barry Hall Commodity Trading Room – Fargo

Join North Dakota Soybean Council for a midseason outlook at the soybean markets and discussion of marketing strategies prior to harvest. Dr. Bill Wilson and Dr. Frayne Olson will

discuss how the season is progressing, the South American crop, world demand and walk producers through marketing strategies and risk management options for the soybean harvest.



NDSU

Free for ND Soybean Producers • Registration Required by July 20

Contact Kathy Wiltse: (701) 566-9300 • kwiltse@ndsoybean.org
or register online at ndsoybean.org



Dr. Bill Wilson



Dr. Frayne Olson

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Keeping Up WITH THE Data

Farmers have been gathering data from their farms for years, but growers may not be aware of how much

information they have. There hasn't always been a good way to make those data pay.

The on-the-go combine yield monitor hit the market in the early 1990s. Since then, most farm equipment, from combines to fertilizer spreaders, has come equipped with technology to help farmers gather information. Throw in soil-test information and even remote-sensing data, and farmers have virtual mountains of information at their disposal. There is a big difference between collecting data and making it pay.

Jesse Cook spent more than a decade working in the farm-equipment industry before joining Farmers Business Network in 2015.

"Equipment could collect a lot of data, but there was no one who could help process that information and give them something back to help farmers make decisions," Cook says. "We couldn't tie data back to decision making."

North Dakota State University (NDSU) Extension Specialist John Nowatzki agrees that many farmers are leaving valuable information on the table.

"A lot are collecting; very few are putting that information together into something that helps them make decisions," Nowatzki says.

Decision Aids

Cook says companies such as Farmers Business Network and others are helping to make sense of what farmers are collecting. By utilizing an individual farm's data and aggregated information from other farms in the region, Farmers Business Network aims to use what's been collected to make better management decisions.

Cook says that most farmers have the technology to gather data; some

farmers may not know it, or they haven't used it to its fullest capabilities. Tying factors like soil fertility, seed varieties, plant populations, planter speed, weather data and yield information together can give farmers a clearer picture of what's happening on their farms. It can also take the guesswork from the decision making.

"There are a lot of things you may think you know, but when you look at 20 years of data, including variables

like temperature and plant population, there's a lot more you can track," Cook says. "When you can show that data set, you can start to make decisions and have the data to back it up."

Farmers are often in a rush when it comes time to plant, but making sure monitoring equipment is set up right from the beginning will mean better information on which to base decisions next year. Cook says that spending 20 minutes on the headlands in the spring to get equipment set up right and data input correctly could save farmers tens of thousands



Farmers generate a lot of data but knowing how to use the information to make management decisions is critical. Jamie Richard tracks soybean planting progress near Horace, ND.

of dollars in the long run.

“Bad data in, bad data out,” Cook says. “Although we can get some information and clean some of the data up after the fact, it would be time very well spent to get it right on the front side. We can glean a lot more information and give farmers much more valuable data to make decisions if they spend that 20 minutes on the headland.”

Make it Pay

Cook says that farmers who don't currently use precision technology would recognize instant efficiency gains through reduced planter and sprayer overlap as well as reduced driver fatigue just by incorporating technology such as autosteering and auto shutoff. While there may be near-term savings, the bigger benefit comes when farmers use their data to make decisions for next year. Cook says that, if farmers look at their own data and aggregated information, they can address potential opportu-

nities with input costs. Minor things can save big dollars in terms of inputs and varieties.

Cook says that one client preferred planting a particular variety of corn every year. After reviewing data from his own farm and aggregated data from other growers, the farmer switched hybrids and saved \$80 a bag in seed-corn costs without sacrificing any yield.

Cook says that analyzing the data reveals things on the back end, too. Analyzing yield data and comparing them to planting data can show that variables such as planter speed may have an effect on yield.

“When margins are tight, that's the time farmers need to use their data. In many cases, they've spent \$10,000 to \$20,000 on monitors, so the cost of a service is minimal, comparatively,” Cook contends. “Services can take the data they gather and generate information farmers can use to make decisions.”

Timely Decisions

Nowatzki says that many farmers are using their data to some degree, but the data will be more valuable if farmers have a system to analyze data and to provide real-time analysis.

In 2018, Nowatzki and NDSU will be establishing “smart farms” at research centers in Minot and Carrington in order to take a look at a wide range of technologies, to collect

the data and to transfer them in real time. The goal is to be able to analyze the data and to incorporate agronomics in order to determine what decisions have the greatest effect.

“If you look ahead 10 to 20 years, we will be using data in real time to make agronomic and economic decisions,” Nowatzki says.

—Story by Daniel Lemke,
photos by Wanbaugh Studios

Mainstreaming Precision

Regardless of color or brand, most new farm implements come equipped with some precision-technology capability. From autosteering to remote-sensing technology, precision-agriculture technology and acceptance are expanding rapidly.

A study by the U.S. Department of Agriculture's Economic Research Service (USDA-ERS) shows that many farmers are adopting precision technologies, and they're saving money because of it. The USDA-ERS study investigated recent trends in precision-agriculture adoption, the production practices and farm characteristics associated with adoption, and whether adoption resulted in greater farm profitability. The study examined adoption rates for three types of precision-agriculture technologies: Global Positioning System (GPS)-based mapping systems, guidance or autosteering systems, and variable-rate technologies (VRT) for applying inputs such as seed and fertilizer.

According to the USDA-ERS report, yield mapping via GPS grew faster for corn and soybeans than for other crops.

Yield monitors that produce the data for GPS-based mapping are the most widely adopted and are used on about half of all corn and soybean farms in the U.S. Guidance or autosteering systems are used on about a third of those farms, and GPS-based yield mapping occurs on about 25 percent of the farms. Soil mapping by using GPS coordinates and VRT is used on 16 to 26 percent of these farms.

Large farms, those over 2,900 acres, have double the precision-agriculture adoption rates of all farms. About 70 to 80 percent of large farms use mapping; about 80 percent use guidance systems; and 30 to 40 percent of the large farms use VRT.

Corn and soybeans have higher shares of acreage using yield mapping than other crops, but the USDA-ERS study shows that the use of yield maps has also increased for crops such as peanuts, rice and spring wheat.

Return on Investment

Farmers utilize precision-agriculture technologies to improve efficiency and to maximize inputs. According to the USDA study, guidance systems, mapping and variable-rate technologies all show positive influences on net returns, including overhead expenses, and operating profits.

GPS mapping shows the largest estimated influence among precision technologies, with an increased operating profit of almost 3 percent on corn farms. The effect of mapping on net returns is almost 2 percent.

Guidance systems raise the corn farms' operating profit by an estimated 2.5 percent and net returns by 1.5 percent.

Variable-rate technology raises both operating profit and net returns on corn farms by an estimated 1.1 percent.



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Growing Demand for North Dakota Soybeans



As a new member of the U.S. Meat Export Federation (USMEF), the North Dakota Soybean Council is

now in a partnership that works to increase the demand for U.S. pork, beef and lamb around the world.

The USMEF explores new markets, works to resolve trade-access issues, and promotes the quality and value of U.S. red meat to consumers and food importers in more than 100 countries.

Using funding from a variety of sources—including pork, beef, lamb, corn, sorghum and soybean checkoff programs—the USMEF increases the demand for U.S. meat in international markets through in-store promotions, trade seminars and consumer education.

North Dakota soybean producers will now play a big part in those efforts.

What's the return for soybean producers? The answer is pretty simple: increased exports of U.S. pork, beef and lamb create a greater

demand for livestock here at home. That results in a greater demand for livestock feed, including the soybeans which North Dakota producers grow.

Along with promoting U.S. red meat, the USMEF also helps resolve trade issues in order to develop market access and helps packers and

others in the meat industry to work through the technical aspects of exporting meat. The staff at USMEF's headquarters in Denver works hand-



The U.S. Meat Export Federation works to increase U.S. meat exports around the world.



in-hand with international staff at more than a dozen USMEF offices around the globe to, as the USMEF likes to say, “Put U.S. red meat on the world’s table.”

The effort has paid off. The 2017 year was record breaking for U.S. red-meat exports, with the beef-export value exceeding \$7 billion for only the second time. Pork exports easily surpassed the previous year’s volume record. The pork exports totaled 2.45 million metric tons in 2017, breaking the 2016 record by 6 percent. The export value was \$6.49 billion, up 9 percent year-over-year and the second-highest value on record, trail-

ing only 2014 (\$6.65 billion). Beef exports totaled 1.26 million metric tons, up 6 percent from 2016.

Some examples of recent USMEF efforts to push those export numbers even higher in 2018 are as follows:

- The USMEF offered importers in Colombia and Chile educational seminars about the advantages of U.S. pork for further processing as well as updates on U.S. pork production and supplies. The seminars targeted the two markets that import a majority of the U.S. pork sold to South America.
- Taking an innovative approach to get more U.S. pork in South

Korea’s institutional catering sector, the USMEF partnered with a major food distributor in Seoul to conduct a catering-recipe contest and a U.S.-pork sales competition.

- Sharing information about the U.S. red-meat products available in Indonesia and educating chefs about ways to improve profits by using new cuts, the USMEF conducted a chef-training seminar to interest more restaurants and foodservice operations.
- Promoting the quality and flavor of U.S. pork and beef to one of the fastest-growing foodservice sectors in Japan, the USMEF recently par-

ticipated in the Yakiniku Business Fair, the largest annual trade show for Japan’s yakiniku industry.

- A team of Chinese chefs and media representatives got a close look at the U.S. beef industry on a USMEF tour that included visits to ranches, slaughter plants, retail outlets, restaurants and a university research facility that aimed to improve beef quality.

—Story and photos courtesy of USMEF



USMEF works to build preference for U.S. meat products, sometimes by working with chefs, caterers and even sponsoring recipe contests.



North Dakota Livestock Alliance Joins Celebration of Fairview Colony's New Swine Finishing Barns



The North Dakota Livestock Alliance (NDLA), together with Standard Nutrition Services, hosted an

open house at the new, state-of-the-art, swine finishing barns at the Fairview Colony by LaMoure in March. This facility will require 5,200 tons of feed annually. This includes approximately 148,000 bushels of corn and 950 tons of soybean meal. Around 300 people attended the celebration, including neighbors and members of the nearby communities, members of the media, farmers and ag-industry affiliates from across the state, and members of 10 Hutterite Colonies. The excited crowds were served a delicious pork lunch and could walk freely throughout the new barns.

The colony's dedication to a sturdy design and flawless craftsmanship was evident everywhere the visitors turned. Eli Wipf, minister for Fairview Colony, summed it up perfectly when he said, "These are Cadillac buildings." These barns are carefully designed for maximum herd health and safety. The barns are equipped with innovative technologies, including monitors for ventilation, temperature and humidity, that will automatically adjust to optimize the pigs' environment in the barns and

will immediately notify the barn managers if an issue, such as a loss of power, arises. The barns are also equipped with AgPlus internet-based information and communication systems that will transfer real-time data to allow the employees to interact with offsite management teams.

Construction for these barns started in the fall of 2017. Most of the work on the two 103'x252' barns was completed by Fairview with help from neighboring colonies. The addition of this 6,000-head finishing operation is another link in the Fairview Colony's swine-development program. The completed farrow-to-finish operation will send 16,000 pigs to market every year. The colony currently farrows 1,100 sows by utilizing Hypor genetics. When the piglets grow to 30-60 lbs, they will be moved from the farrowing to the finishing barns. It will take approximately 18 weeks for these pigs to be raised to 280 lbs and then sent to market. Throughout those 18 weeks, they will be fed 8 different feed rations which are specifically formulated for their life stage by

Standard Nutrition Services.

This farm's manure-handling system has been permitted by and will be routinely inspected by the North Dakota Department of Health. All animal waste will be stored below the buildings in concrete pits that are specially engineered to protect the health of the pigs and the employees. These pits will prevent the nutrients in the manure from being degraded by the sun or diluted by rain so that the manure can retain a higher value as crop fertilizer. The manure will be applied to neighboring land every fall in a manner that minimizes odor and best utilizes the nutrient value for crop production. Several of the neighbors were present at the open house and spoke fondly about the positive influence that the manure has had on their soil quality and crop production.

Now, back to the bacon. Fairview Colony sells to a unique market. The colony raises pigs without using any antibiotics. The pigs are finished and sold for a premium price to Coleman Natural Foods. At this farm, animal care is of the utmost importance,

and the farm will undergo routine Common Industry Audits. If a pig does get sick, it is treated with antibiotics in accordance with the veterinarian's instructions; then, the pig is placed in a separate pen. The animal will eventually be sold into the conventional pork market after the medication's meat withdrawal period is met. Antibiotics used on animals intended for meat has a Meat Withdrawal Period on its label. The label defines the number of days that it will take the medication to clear the animal's system; therefore, the farmer is required to wait that period of time before sending the animal to market. It is important to remember that all pork in the U.S. is antibiotic free and is inspected by the USDA.

Fairview Colony will supply all staff and management for day-to-day operations, and the veterinary services will be provided by Standard Nutrition Services. When staff members arrive, they will shower on-site before and after entering the pig housing. Vehicle traffic will be restricted to only those that have undergone biosecurity protocols and are approved by the management staff. When a group of pigs is sent to market, the entire barn will be cleaned and disinfected via a built-in power-washing system before the next group enters. Fairview Colony hauls its own livestock, so the trucks undergo a wash-and-decontamination treatment before returning to the farm. All of these steps are important to keep the animals illness free, therefore not requiring treatment with antibiotics.

These on-farm events are a crucial part of the NDLA's mission to share animal agriculture's story with the citizens of North Dakota. The NDLA is truly grateful to Fairview Colony for getting to share in the celebration.

—Story and photo courtesy of Amber Boeshans, NDLA



Putting the Numbers to White-Mold Development

There are a few wives' tales about forecasting weather: snow sticking to the north side of a tree signals the

last snow of the season; a large brown band on a wooly caterpillar indicates a long winter; and, for farmers, a cooler July means more soybean disease.

Rather than rely on folklore, researchers, funded by the North Central Soybean Research Program (NCSRP), put the last wives' tale to the test.

Researchers participating in the NCSRP project, led by Martin Chilvers of Michigan State University, worked to determine several factors in order to soundly predict white-mold development. The group found the following factors to be predictors of white mold:

- July rain between ¾ of an inch and 4.5 inches.
- Average July temperature of less than 67 degrees.
- Narrow row spacing.

"Weather predictions typically aren't good for more than three days," Chilvers, an assistant professor in the department of Plant, Soil and Microbial Sciences at Michigan State University, said. "We were able to identify specific environmental parameters that drive disease, so we have a better idea of the factors that create white mold to potentially predict severe outbreaks in the future."

While farmers can't control the rain or the temperature, they can determine their row spacing. Trials were completed comparing 15-inch to 30-inch rows to see if the disease acted differently based on the management. Soybeans planted in 15-inch rows supported earlier apothecia (mushroom-like structures that produce spores of the white-mold fungus) development and around 50 times more apothecia overall.

White mold is costly for farmers in the North-Central region of the U.S. From 2010 to 2014, scientists said

that yield losses exceeded 100 million bushels. At \$9 per bushel, that's nearly \$900 million in losses.

Predicting outbreaks could be crucial for helping to stop white mold (caused by *Sclerotinia sclerotiorum*). Currently, there isn't one particular product or management practice that offers complete control of the yield-robbing pathogen.

"Variety resistance is something that has been lacking, and we really need to put more emphasis on it," said Chilvers. "In Michigan, especially in the thumb, we have growers dealing with white mold every year. We need to do what we can in terms of agronomic practices, fungicides and germplasm."

Other NCSRP researchers are doing just that. A three-year study titled "Biology and Control of *Sclerotinia Rot (White Mold) of Soybean*" addresses host resistance, factors affecting fungicide efficacy, and outreach and disease-management strategies. Mehdi Kabbage, principal investigator, said the \$270,000 study has yielded promising results.

"We've learned that there are some chemistries that control white mold well, but one day, we're hoping farmers won't even have to spray for it," said Kabbage, an assistant professor of plant pathology at the University of Wisconsin-Madison who specializes in plant-fungal interactions.

The disease girdles the soybean stem and disrupts the transport of water and nutrients within the plant, causing a yield loss: 5 to 10 percent is typical, although severe cases can reach 50 percent or more.

Researchers identified four soybean NADPH oxidase genes that can be silenced to bolster white-mold resistance in soybeans. Kabbage said that the science is sound and expects it to be in commercial varieties in the near future.

During the study's first two years, scientists discovered the most effective fungicides and application times for white mold. They also found genes that can be "turned off" to make soybeans resistant to the disease.

This year, work continues to

- Test new transgenic soybean plants

for resistance to white mold in the greenhouses and fields.

- Develop a new smartphone application for farmers to assist with timely fungicide spraying.
- Create updated, grower-centric and economic outreach materials.

"Our overall goal is to develop highly resistant soybean varieties so we don't have to worry about white mold in the future," Kabbage said.

Until new varieties are developed, farmers must keep detailed records of their white-mold issues. There are a couple models that have attempted to predict when white mold will appear based on the weather, but they have been met with limited success. In order to help farmers predict potential white-mold issues, researchers in the North-Central region have developed a model based on fungal development.

"What's different about our model is that we're trying to model the fungal biology," said Damon Smith, project lead and an associate professor at the University of Wisconsin-Madison. "We're using remote-accessed weather information to predict the development of the mushroom-like structure. You need the presence of that little mushroom in fields to have white mold develop, so if we can accurately predict that event, we can predict when a fungicide needs to be applied in real time."

Improved weather information has also set this model apart from previous attempts.

The model has been tested in Iowa, Michigan and Minnesota as well as Wisconsin. The developers believe that it will be applicable for all 12 NCSRP states. To get the model into farmers' hands, Smith and his team turned it into a phone app. "Spore-caster" is expected to be released in May of 2018 for both iPhone and Android devices.

—Story by Allie Arp, NCSRP, photo courtesy of Daren Mueller at Iowa State University



Cool, wet conditions and narrow rows are predictors of white mold.

CommonGround ND

DISHING UP Dialogue

CommonGround North Dakota had opportunities for two communities to ask questions about food, farming and fuel, as well as connecting with farmers who represented different aspects of North Dakota agriculture.

The events were held at the Coteau des Prairie Lodge in Havana and Gourmet Chef in Minot. CommonGround volunteers Polly Wyrick-Ulrich, Joey Tigges and

Christie Jaeger were involved with bringing home the CommonGround message, answering questions, and providing insight and their experiences with North Dakota agriculture.

Katie Heger led the event in Havana, sharing her tips and tricks in the kitchen, as well as creating some quick-and-easy meals that are not only budget-friendly, but also make meal times easy during this busy season. She led the group in



Cooking up quick-easy recipes while conversing about food and farming.



CommonGround North Dakota volunteer Katie Heger, Underwood, shares kitchen tips and tricks.

some discussions about agriculture trivia, showcased some crops that are grown in North Dakota and gave North Dakota statistics for many of the crops that were used during the day. CommonGround Coordinator Val Wagner led the Minot event, kicking the day off with a snapshot of CommonGround for new volunteers and wrapping up with tips and tricks; she also gave attendees the tools to be successful with continuing the conversations with others that were started that evening.

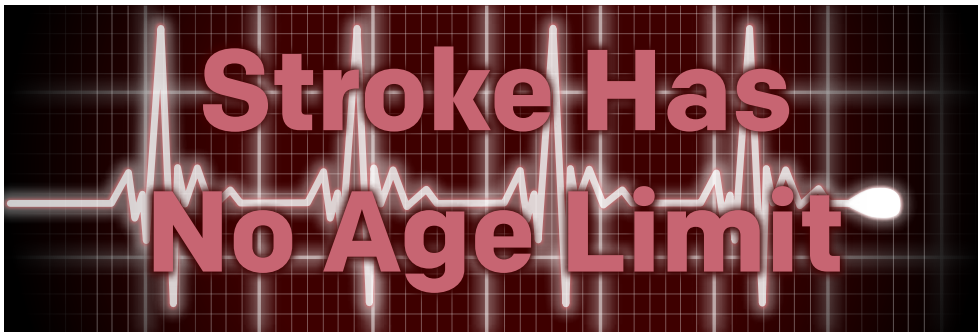
Conversations were lively and engaging, with questions regarding local foods, food preservation, having conversations about tough topics and creating similar events at home. Everyone left with not only recipes in hand, but also feeling empowered about their choices at the grocery store, connected more closely to their food choices and with resources

to make informed decisions at the market.

The weather has wreaked havoc with scheduling the spring events for CommonGround North Dakota, with blizzards, ice and more making it difficult to plan activities. As the weather improves, so does the outlook for more opportunities! Plans are underway for a variety of events which will be led by volunteers across the state. Stay tuned for more information.

If you're interested in learning more about CommonGround North Dakota, or if you'd like to see what's happening with CommonGround around the state, be sure to like the Facebook page and keep up to date on where you can find us next.

—Story and photos courtesy of Val Wagner, CommonGround North Dakota coordinator



As a parent, there are few things more terrifying than watching your child being loaded onto

an airplane for a lifesaving emergency procedure at a hospital more than two hours away. Cody and Callie Krause of Carrington, North Dakota, experienced that terror earlier this spring when their five-year-old son, Cruz, suffered a rare stroke.

Usually a buzz of activity, Cruz had seemed lethargic and dizzy one April morning. Callie took him to the hospital in Carrington, where a CT scan showed that something was wrong in Cruz's brain. The team in Carrington sprung into action and activated the state's Stroke System of Care, a coordinated system that ensures that patients across the state of North Dakota have access to interventional stroke care within the critical time window needed to ensure their best odds of survival and recovery.

Within moments of his arrival at the hospital in Fargo, Cruz had an MRI, which showed that he was having a basilar stroke. Cruz was rushed to surgery, a procedure that took only 12 minutes to perform. Within a week of his stroke, Cruz was back home in Carrington and was his usual energetic

self. Shila Thorson, state cardiac and stroke system coordinator for the North Dakota Department of Health, points to Cruz's story as a great example of the positive outcomes that can occur when all the pieces of the system are functioning properly.

"Just like with a heart attack, every minute saved in stroke treatment can directly improve survival and recovery times," Thorson says.

Last May, the American Heart Association/American Stroke Association announced a state-wide commitment of \$5.6 million for its Mission: Lifeline Stroke initiative to expand and to enhance stroke care in North Dakota. The foundation of this new initiative is a 3-year grant of \$4.3 million from The Leona M. and Harry B. Helmsley Charitable Trust.

Mission: Lifeline is the American Heart Association/American Stroke Association's community-based initiative to develop "systems of care" in order to improve outcomes for heart-attack and stroke patients. These systems bring hospitals, emergency medical services and first responders, government agencies and insurance providers together in order to provide a seamless plan of action to treat patients from the moment their symptoms appear through their rehabilitation and recovery process.

The North Dakota Mission: Lifeline Stroke project finished its first year on May 31, 2018; as Cruz's story illustrates, great strides have already been made, and lives are already being saved.

"We believe that where you live shouldn't dictate whether or not you survive a heart attack or stroke in the state of North Dakota," explains Thorson. "North Dakota's Stroke System of Care and Acute Stroke Ready Hospital designation program helps make this possible. So, from Williston to Devil's Lake or from Dickinson to Valley City, we want to make sure citizens of North Dakota are getting the care they need within the critical time window for the best recovery and rehabilitation."

For more information on the Mission: Lifeline Stroke project in North Dakota, please visit www.Heart.org/NorthDakota.

—Story, photos and graphic courtesy of Chrissy Meyer, American Heart Association



Cruz on one of his trips to the hospital.

Do You Know the Signs and Symptoms of a Stroke?

F – FACE DROOPING: Does one side of the face droop, or is it numb? Ask the person to smile. Is the person's smile uneven or lopsided?

A – ARM WEAKNESS: Is one arm weak or numb? Ask the person to raise both arms. Does one arm drift downward?

S – SPEECH DIFFICULTY: Is speech slurred? Is the person unable to speak or hard to understand? Ask the person to repeat a simple sentence, such as "The sky is blue." Is the person able to correctly repeat the words?

T – TIME TO CALL 9-1-1: If someone shows any of these symptoms, even if the symptoms go away, call 9-1-1 and say, "I think this is a stroke" to help get the person to the hospital immediately. Time is important! Don't delay. Note the time when the first symptoms appeared. Emergency responders will want to know.

*Unsure? Call 9-1-1 anyway... Don't wait!
Time is brain!*



The Warm Days of MMER

Summer is a time for family fun, lots of baseball and time to relax a bit. It provides the opportunity to get out the grills, to enjoy the outdoors and to have some great-tasting healthy meals. When the weather is warmer, lighter meals are in order. Think about adding soy protein to meals,

and remember 1 or 2 servings a day can have a positive effect on critical health numbers.

The American Heart Association says knowing your numbers is important. They recommend that you be aware of five key numbers: Total Cholesterol, HDL (good)

Cholesterol, Blood Pressure, Blood Sugar and Body Mass Index (BMI). These numbers are important because they will allow you and your health care provider to determine your risk for developing Cardiovascular Disease by Atherosclerosis. This includes conditions such as Angina (chest pain), Heart Attack, Stroke (caused by Blood Clots) and Peripheral Artery Disease (PAD).

Soy protein may help reduce LDL (bad cholesterol) and possibly blood pressure, and isoflavones may improve arterial health. In addition, when soyfoods replace protein-rich foods that are sources of saturated

fat, LDL cholesterol and coronary heart disease (CHD) risk will likely be reduced.

What are the reasons for not including soyfoods in a healthy diet? Whatever the reason, give soyfoods another try. There are so many choices that taste good, are easy to find and are a snap to include in everyday diets.

This recipe can be done indoors or outdoors. It is easy and delicious. Add whipped sweet potatoes to complete the meal.

—*Story, recipe and photo courtesy of Linda Funk, The Soyfoods Council*

Spicy Cajun Shrimp with Edamame Mango Succotash

Shrimp

- 1 pound large shrimp, peeled and butterflied
- 2 Tablespoons cajun or Old Bay seasoning
- 1 Tablespoon soybean oil

Salsa

- 2 mangos, peeled and diced
- 1 red bell pepper, chopped
- ½ cup chopped green onion
- 1 cup shelled edamame, cooked and cooled
- ¼ cup chopped cilantro, optional
- 2 Tablespoons lime juice

- 2 teaspoons soybean oil
- ¼ teaspoon salt

Directions

In a medium bowl, toss the shrimp with seasoning. Heat the oil in a heavy skillet over medium-high heat. Add shrimp; sauté 7 minutes or until the shrimp are browned and done. To prepare the salsa, in a medium bowl, combine all ingredients; toss well. Serve the shrimp with the salsa.

Yield: 4 servings.






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- Salinity
- Weed management









Polly's Kitchen

Polly Ulrich of Ashley is a volunteer with CommonGround North Dakota. She was featured on Agweek TV in April where she promoted April Soyfoods Month. A big thank you goes to Polly for helping the North Dakota Soybean Council with two great soyfood cooking-demonstration segments. Here are her two recipes which were featured on TV.

—Recipes courtesy of Polly Ulrich, photos courtesy of Agweek TV



From left to right: Soybean farmers Terry and Polly Ulrich, and Agweek TV team Rose Dunn and Trevor Peterson.

Asian Noodle Salad

Salad Ingredients

- 1 lb. linguine pasta, cooked al dente
- 1 lb. coleslaw or broccoli slaw (Napa cabbage, kale, spinach, carrot and radish)
- 1 cup shelled edamame
- 1 cup soy nuts

Dressing Ingredients

- ½ cup sugar or ¾ to 1 cup honey
- ¾ cup soy sauce
- ¼ teaspoon allspice
- 2 tablespoons sesame seeds
- ¼ cup rice-wine vinegar
- ½ cup vegetable oil
- 3 tablespoons sesame oil
- You can also add chicken, steak or shrimp.



Edamame Hummus

- 1 ½ cup frozen, shelled edamame
- ¼ cup tahini
- ¼ cup water
- ½ teaspoon grated lemon zest
- 3 tablespoons lemon juice
- 1 clove garlic
- ¾ teaspoon salt
- ½ teaspoon cumin
- ¼ teaspoon coriander
- 3 tablespoons olive oil
- 1 tablespoon parsley
- Serve with pita chips, corn chips, salsa or veggies.



Dicamba's Second Season

During the 2017 growing season, most farmers who used them considered dicamba-based herbicides to

be very effective for controlling weeds, especially because herbicide resistance has become increasingly challenging. However, off-target movement dampened enthusiasm for the new products.

North Dakota Department of Agriculture (NDDA) survey information estimates that more than

160,000 acres of crops were damaged by off-target movement, prompting the NDDA to add additional state-specific application restrictions to dicamba-based soybean herbicides.

Crop-protection companies and others are working to help steward the dicamba products and to provide farmers with the necessary tools to successfully

apply the products. Companies such as Monsanto and BASF have led thousands of required dicamba training sessions across the country in advance of the 2018 growing season.

Monsanto has launched a new mobile app to help farmers and applicators apply their XtendiMax® herbicide. The RRXtend Spray App is

a digital tool that provides location-specific weather forecasts, digital record-keeping capabilities and educational resources. By the end of April, the app had been downloaded more than 10,000 times, according to Ryan Rubischko, Monsanto's North American dicamba lead.

"The main reason we developed this app is because relevant weather forecasting is key to prepare for spraying," says Rubischko. "We're focused on getting farmers forecasts



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for their fields, including wind speed, direction and inversion risk.”

Rubischko says that most weather data are collected at a 10-meter height. The RRXtend Spray App provides information at the boom height. The app delivers hourly weather forecasts 16 hours in advance, so farmers and applicators can plan when the conditions are conducive for a safe application.

In addition to weather information, Rubischko says that the app

provides a record-keeping function that will allow applicators to fill out, save and export key application information. The roundupreadyxtend.com website also contains additional training resources.

BASF has developed an interactive web portal to help steward its Engenia® technology. The Engenia® Stewardship web portal provides farmers and applicators with a host of resources, including access to an online training tool, a checklist of key

information and tank-mix options. The web portal is accessible by computer or mobile device, and includes record-keeping resources.

The EPA-approved label for dicamba use in soybeans is only approved through 2018. To keep products such as XtendiMax®, Engenia® and DuPont’s FeXapan available in future years, farmers and others understand that it’s important for products to be stewarded properly.

“Ninety-seven percent of farmers

were very satisfied with the weed control they achieved,” Rubischko says. “This technology works as part of a weed-management system. Our focus is to ensure success for 2018 and beyond.”

Application and handling information can be found at www.engeniastewardship.com, www.roundupreadyxtend.com and www.dupont.com.

—Story by Daniel Lemke,
photo courtesy of Mary Morken

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North Dakota Dicamba Label Requirements

North Dakota has established state-specific use protocols for dicamba formulations of XtendiMax®, Engenia® and FeXapan which are in addition to the federal requirements:

- No applications may be made after June 30 or after the first bloom (R1 growth phase), whichever comes first.
- No applications may be made if the field’s air temperature at the time of application is over 85 degrees Fahrenheit or if the National Weather Service’s forecasted high temperature for the day exceeds 85 degrees Fahrenheit.
- North Dakota has a unique climate that is different than other soybean-producing states. The application season typically has low humidity. The dry and less-humid environment can significantly increase product evaporation and potential off-target movement.
- Product applications may only be made from one hour after sunrise to one hour before sunset.
- Applicators must maintain a speed of 12 miles per hour or less when applying products.
- Any applicator working under the supervision of a certified private applicator will also be required to complete the dicamba-specific training course before being allowed to apply the product.
- Applications must be made with a minimum of 15 gallons of spray solution per acre.
- No applications may be made using 80-degree or less spray nozzles.

The Other Data

As technology and data management become an increasingly vital part of farming, the demand for

cellular coverage and broadband internet service takes on added importance. Farmers not only gather data, but they also use data to power mobile devices and farm technology. The data demand is likely to grow.

Like many farmers, Dazey, North Dakota, farmer Eric Broten pushes data usage to the extreme, especially when planting and harvesting.

“There are a lot of layers,” Broten says. “I’m logging all my data on two systems, so as I plant, everything is sent wirelessly to the cloud through a hot spot.”

Broten says that he runs two planters during the spring, and both are connected wirelessly. A guidance path on one machine can be shared with the other planter, so both machines run the exact same path and won’t overlap. Via the internet, Broten can also monitor how both planters are working from the cab of the other tractor.

The systems that Broten use also log data and help him analyze his decisions. All that technology demands some serious wireless horsepower.

“We use a lot of data, up to 100 gigabytes a month,” Broten says. “The monitoring systems are sending out, bringing in and recording a ton of information like GPS position, tractor horsepower, fuel consumption and test weight. It gets to be a lot of information per data point.”

Broten says that he works with his cellular-service provider to adjust his plans up and down as demand changes during the year.

Solid Coverage

For most North Dakota farmers, wireless coverage is not an issue. According to www.broadbandnd.gov, mobile wireless service is available across most of the state.

Overall, North Dakota residents have good access to mobile and broadband internet services.

“Depending on how you measure internet access, a strong argument could be made that North Dakota is a leader across the country,” says Duane Schell, network service division director for the North Dakota Information Technology Department. “That said, being a leader should not be interpreted that we have the high-speed internet access required. We still have areas within the state that are considered unserved and underserved, and in those areas that we do have access, the increase in demand continually drives the need to improve infrastructure.”

Schell says that, because technology is already an indispensable part of doing business for farms and rural businesses, the ongoing adoption of technology will ensure that North Dakota remains competitive in a worldwide economy. Existing technology and the adoption of new technology are increasing the demand for high-speed internet access.

“The challenge is ensuring that high-speed access is available, not just in our home and communities, but is also available everywhere to support all industries, including farming and ranching, across the state,” Schell says.

According to Schell, North Dakota is fortunate that many providers are making significant investments in both fiber and wireless broadband technologies across the state. Schell

says that it’s critical that providers, consumers, local leaders and policy makers find creative solutions that will enhance high-speed access in order for North Dakota businesses to stay competitive.

Schell says that farmers can get the most from their technology by understanding the high-speed access that is available, the requirements of the technology they’re using and the increased demand of any new added technology.

“If high-speed access is insufficient, contact your local providers to determine how to improve access,” Schell says. “If improved access is not possible or a solution is not readily available, engage with the technology manufacturers and vendors to determine how to minimize bandwidth consumption while still realizing the valuable benefits they provide.”

Growing Demand

Schell says that virtually all technology, including autonomous vehicles, drones, telematics, automation, robotics and sensors, are dependent upon high-speed access. The increased adoption of these and emerging technologies will amplify the need for high-speed access.

Broten also expects demand to increase as technology is more widely adopted and as farmers increase the specificity of the data they gather.

“As agriculture starts to get heavier into precision agriculture, demand is only going grow,” Broten says. “We started managing by the zone, then by the acre; now, the areas are getting smaller and smaller. There are 43,560 square feet in an acre. If we manage by the square foot, it’s amazing the amount of data that would be needed.”

Broten expects that farmers will soon enlist more variable-rate technology and more data analysis to provide them with even more specific productivity and profitability information. As that process grows more complex, the demand for data will only surge.

—Story by Daniel Lemke,
photos by Wanbaugh Studios



Today’s precision farming technology can easily eat up many gigabytes of data, which makes it easier to coordinate two planters in the same field near Valley City, ND.



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Getting to Know the Grower



David Teigen
Rugby, North Dakota

Tell us about your farm.

My wife and I farm alongside my parents and raise spring wheat, barley, soybeans and peas in Pierce County. We are the fourth generation farm near Rugby, but tracing back

through my mother's side of the family, we're the fourteenth generation farming in America.

How long have you been farming?

This year will be my 16th crop. I returned to the farm in 2003 after graduating from NDSU.

What do you like best about farming?

The variety. No other career would include plant science, soil science, outdoor work, chemistry, accounting, marketing, ag policy, mechanics, physical labor and self-employment.

How and why did you get involved with the North Dakota Soybean Council's Research Committee?

Five years ago, I was asked to fill a vacancy for a non-council position on

the committee. At that time, the research committee had no representation from as far northwest as Rugby, so I filled a geographic vacancy as well. I'm very interested in ag research, so the opportunity was a natural fit.

If you weren't a farmer, what do you think you would've done?

Probably agronomy/consulting but farming was always my clear choice, so I was never satisfied with a "Plan B."

If you could tell a non-farmer one thing about agriculture/farming, what would it be?

To please ask questions! We farmers have a lot on our plates, and telling our story gets neglected.

People outside agriculture are curious about what we do and want to know more about farming, but oftentimes, neither we nor they know where to start the conversation.

What do you like to do outside farming?

Family time. We like to head out on the side-by-side with the kids and to explore the countryside for duck nests, coyote tracks, prairie roses and other things that farm kids should know about.

—Story by staff, photo courtesy of David Teigen



Officer Elections Held

The North Dakota Soybean Growers Association (NDSGA) held officer elections during its recent board of directors meeting. NDSGA officers elected included President Joe Ericson of Wimbledon, Vice President Ryan Pederson of Rolette and Secretary Greg Gussiaas of Carrington. Treasurer Eric Broten of Dazey, North Dakota, was re-elected.

Monte Peterson of Valley City and Josh Gackle of Kulm will continue to serve as the American Soybean Association representatives to provide a voice for North Dakota soybean producers on national farm policy. Logan Ferry, Manvel, is the DuPont Young Leader on the board of directors.

The North Dakota Soybean Growers Association is a statewide, not-for-profit, member-driven organization. It conducts legislative activities in Bismarck, North Dakota, and Washington, D.C., to improve the sustainable prosperity of its members and the entire soybean industry. The North Dakota organization is one of more than 25 which are affiliated with the American Soybean Association.

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Spencer Endrud
Buxton, ND

Tell us about your farm.

This will be my fourth year farming since I took over the operation from my dad and my uncle. My father passed away of cancer during the winter of 2016, and my uncle still enjoys working with me. I employ one full-time guy and some additional seasonal help during harvest.

Did you grow up on a farm?

Yes, I grew up on our farm and helped out my whole life. I always knew I wanted to farm. I just wanted to go out and do my own thing first.

What did you do before farming?

I have a degree in Finance and International Business from Bethel University, St. Paul, Minnesota. In college, I had an internship in Hong Kong with a multi-national conglomerate, which connected me to my first job in Salt Lake City, Utah. After about two years, I realized I did not enjoy the corporate world and wanted to go back to the farm. I just wasn't ready to settle down yet, so I got a rotational job in the North Dakota oilfields as a wireline engineer and would go back to the farm on my days off.

What is your favorite part of the growing season?

Harvest. It's the time of year when you get to see all your hard work pay off.

Why did the NDSGA board position interest you?

I like to understand the big picture of things. There are so many times while I'm sitting in the tractor that I wonder about the ins and outs of the commodities economy and how it all works and how it affects me as a farmer. What's the journey of my beans once I haul them to the elevator, and what needed to happen to allow that? How can we grow demand for American commodities and find new markets, and what can we do to better the future for the farmer?

In your opinion, what issues are most pressing for North Dakota farmers?

Trade relations, not only in the sense of what's happening as of late, but also in terms of promoting our beans over competing countries, and not restricting GMO (genetically modified organism) beans.

What do you like to do when you're not farming?

I like to attend sporting events, collegiate and professional. I like to work out; it's a nice stress reliever from the farm. In the off season, I love traveling to new places, especially abroad when I can, to experience new cultures.

If you didn't become a farmer, what would you have done?

If I wouldn't have become a farmer and could go back to do it all again, I would've studied something completely different, like oceanic exploration, and tried to get a job on an exploratory boat on the ocean.

—Story by Dan Lemke, photo by staff

Do You Know Beans?

Attend NDSU Summer Field Days Featuring Soybeans and you will!



Summer 2018 Field Day Schedule:

June 14 NDSU Carrington Research Extension Center
Crop Management Field School [Pre-registration and fee required,
information: (701) 652-2951]

July 11 NDSU Dickinson Research Extension Center
Field Day [Information: (701) 456-1100]

July 11 NDSU Williston Research Extension Center
Dryland Tour at 4:00 p.m. [Information: (701) 774-4315]

July 12 Williston Research Extension Center
Irrigation Tour at 8:30 a.m. [Information: (701) 774-4315]

July 16 NDSU Casselton Agronomy Seed Farm
Tour at 5:00 p.m. [Information: (701) 347-4743]

July 17 NDSU Carrington Research Extension Center
Field Day at 9:00 a.m. [Information: (701) 652-2951]

July 18 NDSU Minot North Central Research Extension
Center Field Day at 9:00 a.m. [Information: (701) 857-7679]

July 19 NDSU Langdon Research Extension Center
Field Day at 8:00 a.m. [Information: (701) 256-2582]

August 14 NDSU Oakes Irrigation Research Extension
Field Day at 8:00 a.m. [Information: (701) 652-2951]



NDSU

North Dakota Soybean Council
(701) 566-9300 • ndsoybean.org

Soy Growers Urge Congress to Rethink Tariffs

Soy growers, again, expressed grave concern about the Trump administration's use of tariffs to address China's unfair trade practices.

The American Soybean Association (ASA) and several other supply chain stakeholders sent a letter to the House Ways & Means Committee. The letter urged Congress to develop a strategic plan to address problems with China and to ensure that U.S. families are not paying the price.

The groups also pointed out that the administration's approach does not adequately account for the role of the global supply chain in product production and assembly, which can take years to establish. The groups underscored that subsidies are not a long-term solution and that the loss of the Chinese market would be exponential.

USDA Developing Procedures for Rural Broadband Pilot

The U.S. Department of Agriculture (USDA) is working to establish requirements and procedures to roll out the \$600 million rural broadband program approved by Congress in the omnibus spending bill.

The pilot loan and grant program adds funding to existing USDA broadband programs.

As agriculture continues trending into a technology-driven sector that is increasingly dependent on access to broadband technology, the American Soybean Association (ASA) applauds the inclusion of the funds and looks forward to how the program will enhance the soy grower's ability to farm, to find markets for and to transport beans.

According to the Federal Communications Commission (FCC), 80 percent of the 24 million American households that do not have reliable, affordable high-speed internet are in rural areas.

Farm Groups Urge Funding for Farmers in Crisis

More than three dozen agriculture and rural organizations, including the American Soybean Association (ASA), are urging Congress to reauthorize the Farm and Ranch Stress Assistance Network (FRSAN) with adequate funding in the next farm bill.

The groups told congressional leaders that financial risk, volatile markets, unpredictable weather and heavy workloads all place a significant strain on a farmer or rancher's mental and emotional well-being. A 2016 study by the Centers for Disease Control and Prevention revealed that farmers had a much higher rate of suicide than any other occupation. Farm leaders say that issues are exacerbated by the fact that 60 percent of rural residents live in areas that suffer from mental-health professional shortages.

Net farm income has dropped by more than 50 percent since 2013, and current projections indicate that the rebound could be years away. The Economic Research Service recently forecast net farm income to drop another 6.7 percent in 2018, its lowest level since 2006.

The 2008 Farm Bill established FRSAN to provide grants to extension services and nonprofit organizations that offer stress-assistance programs to individuals engaged in farming, ranching and other agriculture-related occupations. Eligible programs include farm helplines and websites, community outreach and education, support groups and home delivery of assistance.

The farm groups contend that, despite the growing need, the FRSAN has never received funding, leaving many producers without access to important behavioral health service, and they urge Congress to reauthorize the FRSAN and to provide adequate funding.

ASA Welcomes USDA Announcement on Plant-Breeding Innovations

The American Soybean Association (ASA) registered strong support for a recent announcement by the U.S. Department of Agriculture (USDA) that it has no plans to regulate plants that could be developed through traditional breeding techniques, including genome editing.

The "ASA commends Secretary Perdue and USDA for their decision to clarify that plant-breeding innovations will be treated in a similar manner as plants developed through traditional breeding methods," says ASA President John Heisdorffer, a farmer from Keota, Iowa. "This science-based approach encourages innovation and economic development."

The ASA says that the USDA decision will also facilitate the development of new and beneficial crop traits by reducing the cost and time required to bring products to the marketplace. According to the ASA, this decision will require the federal government to take a lead role in working with other countries to ensure that they adopt science-based regulatory systems that are consistent with U.S. policies.

"We appreciate (the) USDA's role in the regulation of biotechnology and Secretary Perdue's confirmation that plant-breeding innovations, which can be developed through traditional breeding techniques, are separate and distinct in both the science and risk to plant health," Heisdorffer says.

International Trade Commission Votes in Favor of NBB in Antidumping Case

The International Trade Commission (ITC) voted 4-0 in favor of the National Biodiesel Board (NBB) Fair Trade Coalition's position that the industry has suffered because of

unfairly dumped imports of biodiesel from Argentina and Indonesia.

In March, the Commerce Department calculated final dumping rates that ranged from 60.44 percent to 86.41 percent for Argentine producers, and 92.52 percent to 276.65 percent for Indonesian producers. The ITC's final vote was the last procedural hurdle before the U.S. Commerce Department could issue final antidumping orders.

Once the Commerce Department publishes the final antidumping orders, the process for the initial round of administrative proceedings for both the antidumping and the parallel countervailing duty petitions filed in March 2017 will be completed. Parties can appeal these decisions in the Court of International Trade in New York. This action requires a new round of legal defenses and strategies moving forward, but all duties for both cases remain in place throughout any appeals proceedings.

The U.S. government found that a flood of dumped and subsidized biodiesel imports from Argentina and Indonesia resulted in market-share losses and depressed prices for domestic producers. These imports severely injured American manufacturers and workers. Specifically, biodiesel imports from Argentina and Indonesia surged by 464 percent from 2014 to 2016, taking 18 percentage points of market share from U.S. producers. These low-priced imports prevented U.S. producers from earning adequate returns on their substantial investments and caused the U.S. producers to pull back on further investments.

—Story by staff



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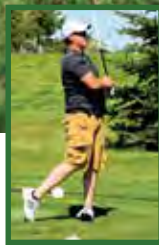


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GROWERS ASSOCIATION

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Join the fun! Sign up for the NDSGA 15th Annual Golf Tournament on **August 28, 2018** at the Maple River Golf Club in Mapleton, N.D. Golf, lunch, social, dinner and prizes are included. Register yourself or

a whole team by August 3 by going to the Events tab at NDSoyGrowers.com. For more information, contact Nancy Johnson at (701) 640-5215 or nancy.johnson@NDSGA.com.

