

SUMMER 2020

SOYBEAN NEBRASKA

A Publication of the Nebraska Soybean Association and the Nebraska Soybean Board



DRIVING DEMAND

Our domestic marketing issue explores soy innovation and contributions to growth in other agriculture industries.

Learn more on pages 12-21.

- 6-7** | Read about this year's Nebraska Soybean Board candidates and be on the lookout for District 5 and 7 ballots in the mail. Your vote matters!
- 8-9** | Read a firsthand account of a family farm on the road to recovery after last year's extensive flooding.

Nebraska Soybean Association
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KEVIN KELLER

DEKALB® ASGROW® BRAND TECHNICAL AGRONOMIST
Kearney, Nebraska

Seeds and agronomy. They're the one-two punch for improving performance in any field. That's why farmers in south central and southeast Nebraska rely on DEKALB® Asgrow® technical agronomist Kevin Keller for management advice. He's been working in the region for seven years and is a great source for local knowledge. Here he addresses some of this year's pressing management questions.

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PLANTING

ASK AN AGRONOMIST

WHAT ARE SOME STRATEGIES THAT GROWERS CAN IMPLEMENT NOW FOR MAKING A SUCCESSFUL POST HERBICIDE APPLICATION IN SOYBEANS?

We are quickly approaching the timeframe for post herbicide applications in soybeans. As a grower, you have had a weed management strategy in mind, but it is not too late to fine tune that plan. Implementation of a good post herbicide application will reduce the chances for any later rescue treatments or further weed resistance down the road. In my opinion, there are four equally important components to a successful post herbicide application. First is timing, second is using overlapping residual herbicides, third is utilizing multiple effective herbicide modes of action (MOA) in a single growing season and fourth is maintaining recommended labeled rates. Early post application timing has been one of the critical key elements that I often see as being overlooked or underestimated. Post herbicides are much more effective on small weeds, especially tough to control weeds such as Palmer amaranth. When using overlapping residual herbicides, you can leverage your investment in those herbicides by applying early. Most residual herbicides will remain effective for 30 days or more, providing protection from now until canopy.

WHAT ARE SOME STEPS THAT GROWERS CAN TAKE TO MANAGE MID-SEASON DISEASES IN SOYBEANS?

The first step in managing diseases in any crop is to understand what puts you at most risk. For a disease to develop, you need to have a susceptible host, a pathogen and a favorable environment. You cannot easily predict how weather is going to impact disease development, but there are a few steps you can take to help manage diseases this

season as well as future seasons. The first step is to be observant and keep good notes on what you have noticed in the past, as well as anything that may show up in your fields. You can then formulate a plan for future product selections that offer at least some tolerance to those key

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diseases. Second is to do what you can to manage the environment. For many Nebraska growers, this may include a good water management strategy. Saturated soils from over-irrigation may promote root diseases, and frequent irrigation events may encourage foliar disease development. Third is utilizing a foliar fungicide, which can be very effective against key diseases when used timely. Lastly, it is a good idea to utilize a pathology lab such as the University Nebraska-Lincoln crop diagnostics lab to confirm plant samples for any diseases you are trying to diagnose.



ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. 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.

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The Nebraska Soybean Association (NSA) and the Nebraska Soybean Board (NSB) are proud to share the FY20 Summer edition of this publication with you—members of our shared community.

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The Nebraska Soybean Board is a private, nonprofit checkoff board responsible for the research and promotion of soybeans in an effort to increase the profitability of the state's 22,000 soybean producers.

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On The Cover

Tracy Zink, a farmer from Indianola, Nebraska, scouts a field using modern farm technology.

Photo Credit:
United Soybean Board

Note from the EXECUTIVE DIRECTOR



By Scott Ritzman

I write this note as the new executive director of Nebraska Soybean Board. I took over for Victor Bohuslavsky, who retired on April 1. I'm excited to represent our producers and support the board in finding new ways to invest checkoff dollars to benefit farmers' bottom line, engage consumers and build more demand for soybeans and soybean products.

This edition of SoybeanNebraska focuses on our domestic marketing programs. It is vital we continue to market the various uses soybeans can offer stateside and find new ways to utilize every part of the soybean. We know that 97 percent of the soybean meal produced feeds our livestock industry. The remaining portion goes into the alternative protein market. We continue to see steady soybean oil consumption in the food industry and increasing demand for soybean oil in the biodiesel industry. Soy-based products diversify as the industry finds new ways soybean oil can be incorporated into consumer products.

The challenges of the last few months have tested the supply chain worldwide. And these challenges have been felt especially here in the heartland. As all of you wrap up planting this year, know that there is a community that supports your work and consumers that still need sustainable food systems and various products that can be made from soy.

We are in it together!

View from the Chair

SHIFTING OUR FOCUS

By Eugene Goering
Nebraska Soybean Board Chairman, Columbus



Every growing season is unique. After the floods last spring, who could've expected another completely unique start to a growing season? The weather is more normal now, but I have to plan ahead to get planter parts and pick them up outside the dealer's door. In spite of COVID-19, we have our soybeans and seedcorn planted on schedule, up and growing. May started out cool and wet, but recent sunshine has the crop progressing.

COVID-19 has affected the entire world, and Nebraska farmers are not exempt. Besides keeping ourselves, our families and neighbors safe, we need to continue to farm and produce the next crop. Livestock producers have some of the most immediate concerns: keeping the packing plants online. Livestock is our largest market for soybean meal, so their concerns are also our concerns.

Our customers around the world are also managing their own outbreaks. I recently listened to a Zoom meeting with customers in the Philippines. Moving grain and feed is more challenging and international banking and shipping are moving much slower. Most of the world and Nebraska are anxious to find solutions to return to normal.

The Nebraska Soybean Board has consistently invested in domestic marketing of oil and meal, and COVID-19 has reminded us that the markets closer to home are essential. The federal and state governments have several programs to increase domestic soybean use, including assistance to the livestock packing industry.

I'm part of the Soy Aquaculture Association and we've been meeting with the National Aquaculture Association, which represents domestic fish farmers. They have been very successful this spring in getting legislation to grow the sectors of agriculture that impact us. Aquaculture can consume large percentages and quantities of soybean meal. The U.S. currently imports most of our seafood, so the market demand is already here. And domestic fish farmers want an opportunity to fill this demand.

So, each section of the agriculture industry in the U.S. is shifting its focuses to make the most of what we have. And I for one, am very proud and hopeful for the future. I wish you all a safe and productive season!

A Message on COVID-19

As COVID-19 continues to spread globally, the Nebraska Soybean Board (NSB) is working with our farmers and stakeholders to help ensure a stable and safe soybean supply chain, from producer to processor through exporter and consumer. NSB continues to support domestic and international programs to create opportunities for Nebraska soybean farmers. Our industry has been tested time and time again, and this is yet another test that we are confident we will overcome by coming together.

For more information visit

nebrasikasoybeans.org | unitedsoybean.org | usda.gov/coronavirus | farmers.gov

From the Association

SOYBEANS IN THE SPOTLIGHT

By Shane Greving, NSA President



What a difference a few months can make. In early March, we were working in the shop getting the planter ready to roll. The soy industry was anxiously awaiting the Phase 1 agreement with China and the signing of the U.S.-Mexico-Canada agreement. Everything seemed to be falling into place for business as usual.

Fast forward and the pandemic makes things look very different—in ways we never expected. I never would have thought our packing industry would face the challenges it is. Our livestock producers have been hit especially hard with declining prices and the backup of animals on the farm. I commend the hardworking men and women in the meat packing profession that process the meat protein sources for our grocery store shelves every day.

Soybean producers are hoping China holds up the commitments of the Phase 1 agreement for purchases of ag products, especially soybeans. The American Soybean Association (ASA) and our international marketing partner, the U.S. Soybean Export Council (USSEC), continue to seek out new international buyers and let them know the U.S. is open for business. The pandemic may have slowed down the supply chain and logistics, but our industry keeps things moving so we can support a reliable food supply.

The Nebraska Legislature will reconvene on July 20 for their regular session with 17 days remaining in the 60-day session. Be assured, the ag organizations will express the dire need for property tax relief and make sure the legislature knows relief must be a priority in the remaining days. With the losses in tax revenue, lawmakers will have some tough decisions to make. Some expectations may need to be adjusted and we will work to get all we can.

Farmers are eternal optimists. We face challenges and make adjustments as we go. The Nebraska and American Soybean Associations are here to continue the policy work for you. We are ag strong!

Have a safe summer.

Shane Greving



Soy Salute

The Nebraska Soybean Association recognizes Bill Kremlacek of Wahoo for over 20 years of service on behalf of the Saunders County Soybean Growers. Kremlacek is the master soy donut machine operator and has promoted the benefits of soy oil and soy products for many years. Bill has logged numerous hours operating the soy donut machine at events such as the Nebraska Soybean Day & Machinery Expo, Saunders County Fair and local FFA ag day events. The Saunders County Soybean Growers presented Bill with a certificate of appreciation during the Soybean Expo recognizing his dedication to soy production.



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NEBRASKA SOYBEAN BOARD 2020 JULY ELECTIONS

At-Large

7

5

MEET THE AT-LARGE CANDIDATES



At-Large

Greg Anderson NEWMAN GROVE, NE | MADISON COUNTY, AT-LARGE

- Greg has been farming near Newman Grove since 1977. Greg's farm includes land that his great, great, grandfather homesteaded in 1873.
- His operation consists of continuous soybeans, alfalfa, grass hay, and an Angus cow/calf herd. He has farmed no-till for 25 years.
- Along with being a director on the Nebraska Soybean Board, Greg currently serves as a governing board member on the National Biodiesel Board. He is a past chairman of the United Soybean Board (USB), having been appointed by three different U.S. Secretaries of Agriculture to USB.

I would like to continue as a director on the Nebraska Soybean Board to help make investment decisions of farmer checkoff dollars into projects that will yield the best return. The headwinds facing soybean farmers and all agriculture are very stiff during these challenging times. Through well-defined marketing and research programs, the soybean checkoff will continue to create demand for Nebraska soybeans and help make the soybean business a good business to be in.



At-Large

Jason Bonsack DANNEBROG, NE | HOWARD COUNTY, AT-LARGE

- Jason and his father own and operate Bonsack Farms LLC and Bonsack Land Company LLC based out of Wood River.
- He grows irrigated and dryland corn and soybeans in western Hall County and southwest Howard County. He is a U.S. Air Force and Nebraska Air National Guard Veteran. Jason attended Western New England College majoring in business. He was also a member of the Nebraska LEAD program, class 26. In the past, Jason has served on the Centura School Board as President and Vice President and as Vice Chairman of the Howard County Farm Service Agency Committee. He currently serves as the Chairman of the Cameron Cemetery Association.

- Jason and his wife have six children and reside outside of Dannebrog.

As a soybean farmer, I want to advocate for all soybean producers in Nebraska. Being involved in a See For Yourself trip, I've seen first-hand what checkoff dollars will do for producers. I feel having producers involved with these types of boards bring a lot of motivation in developing new markets and technologies that benefit both the consumer and the producer.



At-Large

Doug Pieper BEATRICE, NE | GAGE COUNTY, AT-LARGE

- Doug grew up on a farm southwest of Beatrice. He is a 4th generation farmer. He was actively involved in 4-H and FFA and graduated from UNL with a BS in Agriculture. Doug worked for Southeast Nebraska Co-op for over 32 years employed as Agronomist, Grain Merchandiser, Grain Operations Manager, and at last, involved with propane service and delivery.
- Doug started farming part time in 2006, growing corn, soybeans and wheat. He continued to farm part time until he took early retirement in 2018. At that time, Doug took over the full operation of the family farm. Currently, the operation consists of dryland and irrigated corn and soybeans, pasture, brome (hay) and prairie grass hay. Doug and his wife have three kids and his son would like to come back and take over the operation someday and be the 5th generation farmer.

- Doug currently serves on the NRD board as Secretary and has served in the past as President and Vice President. He is also on the Gage County FSA Committee. He has also served on the Chamber of Commerce, Ag Committee as Chairman.

I want to be the one to have a voice on how our checkoff money is being spent. I feel I have experience in not just farming, but my professional involvement in ag business has allowed me to see a varied perspective of agriculture. As part of my professional service in the grain industry, we hosted delegations of trade teams from China and Japan and other countries. Once these trade teams see first-hand the quality of Nebraska products, they are impressed. We need to cultivate these relationships. It is important to continue to fund research to develop new markets for our soybeans.



At-Large

Jared Sayer CAMBRIDGE, NE | FURNAS COUNTY, AT-LARGE

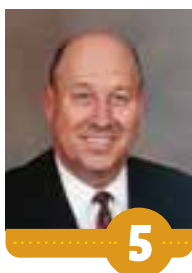
- Jared is a fourth-generation farmer now self-owned and farming independently for the past 30 years. Jared raises both irrigated and dry land soybeans, corn, wheat, grain sorghum, oats, alfalfa, and sunflowers.
- His farm ground is one hundred percent no till. He operates a two hundred fifty head cow-calf operation that involves all four of his children: Taylor age 19, Clayton age 18, Dierks age 13, Capri age 11 and wife Julie.
- Jared has worked as a crop adjuster for Hudson Insurance group for the past six years along with his own 20+ year trucking company. Jared is currently involved with the Furnas County 4-H, he holds the president position for

the 4-H counsel. He is a small arms instructor for shooting sports, on the livestock sale committee, the beef, and swine committee as well.

I would like to serve on The Nebraska Soybean Board (NSB) to help advocate the use of more soybeans being utilized into soy biodiesel, such as finding more ways to market and to get not only farmers to use soy biodiesel but all other industries that utilize diesel as well. The more soybeans we can use locally, we will be less dependent on soybean exports and the less influence foreign countries will have on our market.

District 5 and 7 ballots will be **mailed mid-July**. | Eligible voters must produce soybeans, be a resident of the district and pay the soybean checkoff.

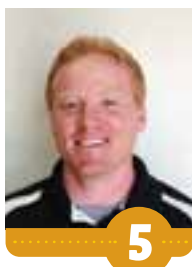
MEET THE CANDIDATES



Larry Hudkins MALCOLM, NE | LANCASTER COUNTY, DISTRICT 5

- Larry and his wife, Carol, who served as a Nebraska State Senator for 16 years, daughter, Kathy and son-in-law, Henrik, operate the family farm near Malcolm. They raise soybeans, corn, alfalfa, rye and have a crossbred cow-calf and back grounding beef operation.
- Larry's board, committee and leadership experience includes: Seward County Cooperative, Nebraska Cattlemen, National Cattlemen Beef Checkoff, LEAD, Nebraska Ag Relations Council, KRVN Rural Radio Board of Directors, Lancaster County Farm Bureau and State Board of Directors and the Malcolm Public School Board.
- Larry has also been a member of the Nebraska and American Soybean Associations for many years.

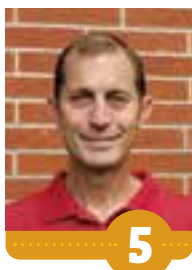
I have wanted to further serve the soybean industry ever since being asked to be part of a trade mission to China, sponsored by the NSB and AGP. We met with Chinese buyers, processors, farmers and government officials in formal and "boots on the ground" meetings. We discussed shipping and processing and toured hog, chicken, and fish farms. This was a real eye opener for me to see first-hand the tremendous potential we have to export more soybeans positively impacting Nebraska soybean farmers. I have been interested in serving on the NSB but as a long time Lancaster County Commissioner, I had meetings every Tuesday and Thursday. I also had budget meetings, Board of Equalization, general assistance meetings, and Public Building Commission and District Energy meetings, both of which I chaired. I retired from the Lancaster County Board of Commissioners two years ago and feel I now have the time, energy and desire to serve the soybean industry. I would appreciate your vote for the NSB and the opportunity to continue serving the business we call agriculture.



Klark Knipe AUBURN, NE | NEMAHA COUNTY, DISTRICT 5

- The Knipe family farm is a multigenerational farm. Klark currently farms with his father and we raise soybeans, corn and alfalfa.
- Along with the crops, the Knipes have a farrow to finish hog operation while also raising sheep.
- He has an educational background of a BA from the University of Nebraska Lincoln and a MS from Peru State College.

As a soybean farmer I can see the value of the NSB and the work they put into promoting Nebraska soybeans. There are many obstacles facing soybean growers currently such as profitability and sustainability. Finding more exports and demand for soybean products such as meal or oil can only help the grower in the future.



Brent Steinhoff SYRACUSE, NE | OTOE COUNTY, DISTRICT 5

- Brent and his family live on the farm where he was raised. He has been involved in agricultural production his whole life by raising crops and livestock.
- His operation began in 1997 and includes corn, soybeans, wheat, alfalfa and a small number of 4-H pigs for his children.
- After college, Brent was the nursery manager for a local hog facility and also has numerous years of experience in soil conservation construction.

After participating in NSB See For Yourself, I saw how important the Nebraska Soybean Board is for the industry. I knew that I wanted to be more involved in the promotion of the soybean industry and gain more knowledge of how the industry works. I think an important issue facing soybean producers today is staying competitive in the ever-changing world market. As other countries become more advanced in their production and infrastructures, the U.S. will have to work hard to maintain their foreign relations.



Matthew Favinger MINDEN, NE | KEARNEY COUNTY, DISTRICT 7

- Matthew is a fourth generation farmer and lives in Minden with his wife, Shannon, and daughter, Haylee. He graduated from the University of Nebraska-Lincoln in 2013 with a Bachelor's degree in mechanized systems management, with an emphasis in managing agricultural systems.
- After graduating from college, Matthew came back to the farm working full time, but it wasn't until 2015 that he started farming ground in his own name.
- He raises corn, soybeans, Piedmontese beef cattle, and one field of irrigated alfalfa that is currently transitioning to organic. All of Matthew's pivot-irrigated ground and dryland is no-till, and he is also using cover crops following all of the soybean acres and some of the corn acres.

Competition, both in the field and out of it, is the biggest challenge facing soybean producers. In the field, competition from herbicide resistant weeds is a current and continuing problem. Our effective modes of action are limited and if resistance develops to our currently used herbicides, we will have no other herbicide options to turn to. Out of the field, competition for limited markets has led to an over abundant supply of soybeans which needs to be addressed by finding new markets and expanding current markets, both internationally and domestically. I would like the opportunity to be on the Nebraska Soybean Board so I can help work towards addressing these issues and to serve the agricultural community.



Doug Saathoff TRUMBULL, NE | ADAMS COUNTY, DISTRICT 7

- Doug and his wife own and operate West Fork Farms, Inc. in northeast Adams County, where they grow irrigated soybeans, corn, seed corn and sorghum.
- He graduated from UNL in 1996 with a degree in Diversified Agriculture before moving back to the family farm to work with his dad and brother.
- His farming practices include ridge-till and no-till, as well as conventional tillage on a limited basis. Doug has continued to keep high oleic soybeans in his rotation the last few years. He is also a member of the Nebraska LEAD program, class XXV.

It has been an honor and a pleasure serving the soybean farmers in District 7 the last three years, and I would appreciate the opportunity to keep doing so. It is vital, now more than ever, that we continue to find new markets and fund new uses for Nebraska soybeans. Since day one, the Nebraska Soybean Board has led the way in research, marketing, and communication/education, and I would like to see that this continues. Seeing that the Nebraska soybean farmer's checkoff dollars are spent wisely and used efficiently has been a top priority of mine, and I will continue to do just that.

Qualified farmers who do not receive a ballot by July 17, 2020 may call **402-564-5827** to request a ballot. | **Ballots must be postmarked by July 31, 2020.**



FLOOD RECOVERY 2019-20

AND RESILIENCE ROARS

Story and Photos By Emily Frenzen

The Nebraska Soybean Board wanted to share a firsthand account of farm families recovering after last year's devastating floods. Emily Frenzen, who grew up farming with her parents Craig and Jan Frenzen, documented the damage and recovery at their farm north of Fullerton, Nebraska.

Her father is the third generation to work their land, and the farm is two-thirds corn and one-third soybean. Emily graduated this spring with a bachelor's degree in agricultural and environmental sciences communication from the University of Nebraska–Lincoln, and she graciously shared this abbreviated version of a story she published online in the aftermath.

We knew this day would come because we live in a floodplain and we farm in a floodplain, but no one ever expects mother nature's damage to hit home. And on March 13, 2019, it did. I went home for spring break of my junior year to find the safe haven I call home shaken.

We worked all day every day but I still felt powerless amongst the chaos around me. The days went on and so the farmers went to work to put things back together. In an unexpected event such as this, it was a learning experience with lots of trial and error.

Extension staff in Boone and Nance Counties organized and coordinated relief efforts for receiving and distribution of over

70 semi-loads of hay, bagged feed, vet supplies and fencing materials that came from across the U.S. There were 50+ loads of hay, 12+ loads of feed, vet and miscellaneous supplies and 9 loads of fencing supplies (wooden posts, steel posts, electric posts, barbed wire). In addition, over \$37,000 was donated for local relief and used to purchase feed and fencing supplies for area producers in need.

To coordinate the dispersal of these supplies, the University of Nebraska Extension Staff went above and beyond the call of duty to serve farmers, working weeknights and weekends. Those who weren't so far away offered their own two hands.

The debris was removed, the roads rebuilt, the fields repaired but by no means was it easy to do and scars still remain. Cuts still split through our fields.

Typically, the summer months would be spent irrigating. However, with the summer's sufficient rain, all physical and mental effort was put toward the recovery effort. The biggest challenge was the amount of debris and sand deposits. Had it been a normal summer, "I don't know how we would have gotten it done," my dad said.

Sand was dozed and box scrapers went to work to drag the sand away. Then deep chiseling and tillage followed to mix the sand and the base soil. Manure was spread in an effort to increase organic matter. Finally, cover crops (forage sorghum, rye, turnips, millet) were seeded for soil regeneration and livestock grazing. This falls into five main principles for soil health: no tillage, living root in the soil at all times, cover crops, diverse crop rotation, incorporating livestock into the system. Our topography isn't quite level enough on some acres that were previously flood irrigated, so investing in pivot irrigation may turn out to be a more feasible solution than re-leveling the ground.

An agreement had to be made to rebuild fence according to specifications and maintain it for 10 years to receive cost shares from Farm Service Agency (FSA). The county went to work fixing roads but independent contractors had to be outsourced to get the job of rebuilding done.

The FSA staff, although strained with a much heavier workload, delivered commendable service to farmers. "Because of them we can keep our heads above water and move forward without too much financial strain," my dad said.

The Emergency Conservation Program (ECP) is an annual program for which the United States Department of Agriculture (USDA) allots dollars. Because last year's event was so massive, USDA reset their budget and added 25% to the normal 50%. This meant farmers could receive up to 75% of the cost for removal efforts.

When my parents signed up for ECP from FSA, NRCS field staff used satellite imagery to estimate the area affected. Based on the white sand deposits shown on the imagery, they figured we had 400,000 cubic yards of sand to get off the fields. A contractor made estimates about sand and debris removal costs—initial estimates were \$300–400/acre but the total came close to \$600/acre.

The landscapes we live in are resilient. They have the capacity to bounce back after trauma. They desire to be known, appreciated and loved just like you and me. If you spend enough time with them, you just might hear them roar.

Read Emily's full story at bit.ly/ResilienceRoars.

BEFORE



AFTER



BEFORE



AFTER



BEFORE



AFTER



2020 SOYBEAN MANAGEMENT FIELD DAYS

SOYBEAN MANAGEMENT FIELD DAYS addresses issues that are important to farmers, as well as challenges on the home front and internationally.

SOYBEAN MANAGEMENT FIELD DAYS highlights checkoff dollars at work in: Research, Marketing, Promotion, New Uses, and Education.



Watch for updates: <https://enrec.unl.edu/soydays>

For over 20 years, Soybean Management Field Days have helped soybean growers maximize productivity and profitability through smart decisions and efficient use of resources. We've dealt with challenges - heavy rain, flooding, hail, high winds, and droughts. But we adjusted and provided quality educational experiences that growers expect from Soybean Management Field Days.

Now our team is accessing how to move forward with the latest challenge, the Covid-19 pandemic. While we don't have an exact answer as this magazine goes to press due to the fluidity of the situation, we are committed to sharing research-based information to improve your soybean profitability and also protecting your health and safety.

We are working hard to make sure growers across the state have the opportunity to learn from ongoing research and the 2020 plots at farms in Hildreth, Elgin, Shelby, and Arlington. Please watch for updates on the web, social media or contact the Nebraska Soybean Board or Nebraska Extension.

1-800-852-BEAN
1-800-529-8030



Scheduled dates, but watch for details
Aug. 11 Aug. 12 Aug. 13 Aug. 14
HILDRETH ELGIN SHELBY ARLINGTON



UNIVERSITY OF
Nebraska
Lincoln

University of Nebraska–Lincoln
Institute of Agriculture and Natural Resources

Extension is a Division of the Institute of Agriculture and Natural Resources at the University of Nebraska–Lincoln cooperating with the Counties and the United States Department of Agriculture. University of Nebraska–Lincoln Extension educational programs abide with the nondiscrimination policies of the University of Nebraska–Lincoln and the United States Department of Agriculture.




unitedsoybean.org

RESEARCHING A BETTER BEAN

Whether you're dealing with drought, flood, heat or other climate-related stress, the soy checkoff is working behind the scenes to diversify U.S. soybean genetics and increase stress tolerance. We're looking inside the bean, beyond the bushel and around the world to keep preference for U.S. soy strong. And it's helping make a valuable impact for soybean farmers like you.

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

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DOMESTIC MARKETING

DRIVING DEMAND

The Nebraska Soybean Board continues to invest in establishing relationships and partnerships with end users to grow domestic soybean demand.

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A growing world needs soy to eat, travel and more.

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Billions of reasons why soybeans further our economy.

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Research is helping soybeans find their way into all types of products.

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The ripple effect of the COVID-19 pandemic has paused booming biodiesel.

19 | Rural Bridges: The First Critical Link in the Supply Chain

Shedding light on an overlooked-but-essential structure in transporting soybeans.

20-21 | Supporting Our No.1 Customer

A healthy animal agriculture industry means a healthy future for soybean farmers.

DOMESTIC MARKETING COMMITTEE

From left to right, Richard Bartek, Eugene Goering, Jason Penke, Committee Chairman Greg Anderson and Doug Saathoff.



AS SIMPLE AS **A B C**

To drive demand, the Nebraska Soybean Board's domestic marketing committee focuses on building relationships with the **animal agriculture, biodiesel and consumer product industries.**

A growing world means more mouths to feed, more transit and more consumer goods—and soybeans stand to be a major factor to meet the demands of each.

"The soybean sector has seen the fastest global demand growth of major U.S. field crops, by far," said Greg Anderson, chairman of the Nebraska Soybean Board's (NSB) Domestic Marketing Committee. "Global demand for soybeans has increased by 145% since the 1990–91 marketing year. That outpaces corn at 76% and wheat at 21%."

Nevertheless, the NSB continues to work diligently to continue soybeans' desirability in all industries. By marketing the state's crop and pursuing partnerships with organizations in and out of state, Nebraska soybeans will continue to be sought after by countless end-users—from feedlots to tire manufacturers.

"We seek to continue to increase the utilization of soybean oil, support the improvement of soybean meal quality and demand and support the growth of Nebraska animal agriculture," Anderson said. "It's a team effort from the committee, and ultimately the whole board. I would like to recognize Domestic Marketing committee members Richard Bartek, Eugene Goering, Jason Penke and Doug Saathoff for the countless hours they put into these efforts."

The NSB works to drive that demand through the industries that most count on soybean oil and soybean meal.



Animal Agriculture

A hearty animal agriculture industry means healthy business for soybeans. High-quality soybean meal is an integral part of the diets of livestock and fish at home and abroad, and animals are the No. 1 consumer of American soybeans, eating 30 million tons of soybean meal each year. That accounts for 97% of all soybean meal consumption.

Partnerships with Nebraska's producers of beef, pork, poultry and aquaculture are mutually beneficial for the NSB and Nebraska animal agriculture.



Biodiesel

As its use grows and grows, the NSB continues to further biodiesel's markets. Concentrated efforts to improve infrastructure, quality and adoption have helped Nebraska soybeans fuel biodiesel usage in California and the Cornhusker State. Education—especially in highlighting the abundance of soybean byproducts to go around—is also a continued priority.

"It is important to show that we have a surplus of fats and oils here in the U.S.," Anderson said. "When we grow protein for the food industry, we need to debunk the myth that the food industry and the biofuel industry compete against each other for cropland. There is no 'food vs. fuel' debate—we grow both on the same acres—because of the productivity of the American farmer."



Consumer Products

While 34% of the oil from domestic soybean crush is used to produce U.S. biodiesel, plenty is left for additional uses. Many manufacturers are experimenting with soybean oil and finding that it adds greater performance to its products. Soybean oil can be found in passenger car tires, motor oil, solvents, paints and adhesives. High oleic soybean oil is growing within the food industry for its health benefits and flavor.

"One thing Nebraska farmers can do is look at growing high oleic soybeans," Anderson said. "High oleic will hopefully become the commodity bean in the future, as it provides a better oil for both food and industrial uses of soybean oil."

On the rise

Soybeans have the fastest growing global demand growth of major U.S. field crops.

8 billion

Pounds of soybean oil used in the last year to produce biodiesel.

70 million

Metric tons projected to be consumed annually for the next 10 years.

300%

Demand increase for biodiesel in the last decade.

145%

Increase in global demand for soybeans since the 1990-91 marketing year.



Learn more about the NSB's main focuses at NebraskaSoybeans.org/Topics.

ECONOMIC IMPACT

OF U.S. SOYBEANS & END PRODUCTS ON THE U.S. ECONOMY

NOPA partnered with the United Soybean Board in commissioning LMC International, an independent economic consulting firm that specializes in global agricultural commodity and agribusiness sectors, to develop this study. Economic impacts highlighted in the study are quantified in terms of revenue, wages, jobs and number of people dependent on the sector – all focused on the production, distribution and use of soybeans, and soybean products, spanning across the value chain, from soybean farming and production to consumers and exports. Findings are presented at the national and state levels, as well as by congressional district. The study also

includes one-page summaries for 39 key states where the soybean industry primarily operates.

KEY FINDINGS









Soybean's support to the U.S. economy is substantial, even in the face of lower commodity prices and efficiency gains in the sector, as the U.S. industry increases production to meet global needs.

- The total economic impact on the U.S. economy from the soybean sector averaged \$115.8 billion per year including \$7.96 billion from crushing – the equivalent of more than 0.65 percent of the U.S. gross domestic product (GDP),

and up to 9 percent of the GDP for certain states.

- 357,000 people are supported by the soybean sector, comprising 280,000 paid full-time equivalent jobs including over 17,250 at crush facilities, as well as an additional 78,000 family members, beyond growers themselves, who support and are supported by soybean farming operations.
- The total wage impact of the sector averaged \$11.6 billion, with approximately \$570 million from crushing operations.

The soybean industry provides direct benefits to 39 states throughout the country.

NEBRASKA RESULTS BY STAGE IN THE VALUE CHAIN		JOBS	WAGES	REVENUES*
	Soybean Production	11,140	\$362M	\$6,409M
	Soybean Delivery to Crushing Facility or Point of Export	1,460	\$48M	\$155M
	Elevators	3,580	\$120M	\$267M
	Crushing	1,070	\$36M	\$529M
	Soy Oil Refining	310	\$23M	\$56M
	Soy Biodiesel Production	150	\$7M	\$18M
	Feed Milling	970	\$43M	\$53M
	Selected Food Use	250	\$12M	\$72M

*Revenues represent the value to soy at each stage. This avoids double-counting the value of preceding stages.



Learn more at nopa.org



ACCELERATING DEMAND, FUELING KNOWLEDGE

MEG Corp continues to drive the soybean oil market through educational and promotional efforts.

By MEG Corp Staff

One of the Nebraska Soybean Board's (NSB) key strategic goals is continued demand growth for soybean oil. As more than half of all the biodiesel produced in the U.S. is made from soybean oil, the biodiesel industry is an important, high-volume customer of soybean farmers.

To increase demand for biodiesel, the NSB has partnered with MEG Corp Fuel Consulting, based out of Plymouth, Minnesota, to increase the awareness, availability and utilization of biodiesel in Nebraska by providing education and technical support to fuel distributors, fleet managers and end users.

Increased Infrastructure

Over the last few years, MEG Corp helped the NSB increase biodiesel infrastructure throughout Nebraska, making it easier for fuel suppliers to blend biodiesel with petroleum diesel in blends such as 5%, 10% and 20%. There is no biodiesel at the terminals where fuel distributors get petroleum products, so NSB has partnered with fuel suppliers to set up biodiesel loading facilities near the petroleum terminals. Fuel suppliers can access biodiesel at eight sites across the state which distribute approximately 15–20 million gallons of biodiesel annually.

Trade Show Promotions

MEG Corp staff was on hand at the 2020 Petroleum and Convenience Expo show (PACEshow) Feb. 4–5 in Kansas City, Missouri, to promote biodiesel to fuel suppliers and provide technical support. Attendees were made up of owners and employees of retail and bulk fuel businesses in the Nebraska, Kansas and Missouri tri-state area. During the industry luncheon, a panel of fuel distributors from each state discussed how biodiesel has benefited their companies.

Often fuel related-problems are incorrectly blamed on biodiesel but are usually related to storage and handling practices. So MEG Corp staff was on hand at the NSB booth during Husker Harvest Days 2019 with a diesel tank display illustrating the importance of routine tank maintenance.

Regional Education

NSB also utilizes MEG Corp to conduct diesel and biodiesel training to diesel technicians at community colleges and technical schools in the state. Students learn how diesel has changed in the last 10 years and how biodiesel fits into our national fuel supply chain. Technical information is presented so students can understand biodiesel is produced with strict, high-quality standards and compatible with petroleum diesel. Most importantly, workshops cover common fuel-related issues so future mechanics can detect and offer advice to prevent such problems. Diesel technicians are very influential with their customers, so the more they know about biodiesel, the better they can support biodiesel use among their customers.



\$0.63–\$1 Added value

contributed by the biodiesel industry to the price of each bushel of soybeans.



Biodiesel questions? Call MEG's Regional Diesel Helpline.

MEG Corp operates the Regional Diesel Helpline for diesel users and fuel distributors to get answers about diesel and biodiesel use and troubleshoot fuel problems and get recommendations.

Troubleshooting includes fuel and filter sample analysis through in-house testing and the use of outside laboratories when more extensive analysis is required.

Call the helpline at 800-929-3437 or email info@megcorpmn.com.

A SURGE OF SOY TECHNOLOGY

Soybeans are at the center of new formulations of sustainable, environmentally friendly consumer products of all shapes and sizes.

An “in” is all soy needs to show its stuff.

Take formaldehyde, for example. Once it was declared a carcinogen in the U.S., manufacturers were left looking for a missing ingredient in several products.

Enter soybeans.

“Soybean flour has been able to seamlessly replace formaldehyde in a multitude of products, which continues to increase,” said John Jansen, the United Soybean Board’s (USB) vice president of oil strategy. “As the soybean industry, it’s a win-win for us and the companies using U.S. soy. We have a fantastic product to bring to them.”

“The miracle crop” keeps finding its way into manufacturing plants in dozens of industries. Through funding, research and partnerships, organizations like the USB and the University of Nebraska–Lincoln (UNL) are pushing soybeans into its next frontier: consumer products.

“There are more than 1,000 different soy-based products available on the market today, including everything from turf grass to machinery lubricants to tires and asphalt,” said Mace Thornton, the USB’s

“

The industrial uses of soybeans are a true testament to smart investments made by farmers and their checkoff over the years.

— **MACE THORNTON, UNITED SOYBEAN BOARD VICE PRESIDENT OF COMMUNICATIONS AND MARKETING STRATEGY**

”

vice president of communications and marketing strategy. “Soy is a renewable ingredient and it feels like every day I come across another use or another research opportunity for a new use.”

First it was replacing formaldehyde, now it’s replacing road surfaces. Soy-based asphalt is being tested for viability through a joint research project being conducted by UNL’s Industrial Agricultural Products Center, the Agricultural Utilization Research Institute of Minnesota and the USB.

“This project demonstrates the ability to utilize a soybean oil-based road preservation product, RePlay, to compare applications in Minnesota and Nebraska to extend the life of recently established asphalt roads,” said Loren Isom, director of UNL’s Industrial Agricultural Products Center.

On top of the pavement, soybeans are becoming more prevalent in the engines traversing roadways. High oleic soybean oil is becoming an attractive alternative to petroleum. In a USB-funded project with Biosynthetic Technologies, a new high oleic soy-based motor oil displayed impressive functionality and life in U.S. Department of Defense fleet demonstrations and earned USDA certification as a biobased product.

“Soy-based motor oil is another great opportunity to drive demand for U.S. soybeans and allow companies to give customers what they want at the same time,” said Mike Korth, a USB grower-leader and soybean farmer from Randolph, Nebraska. “These partnerships benefit soybean farmers and agriculture, as well as a variety of industries and end users.”

Big-name companies are bringing soy-based products to market. After Goodyear used soy to develop an effective all-weather tire, Skechers is using the same technology to develop a new line of running shoes with plans to also create safety and work shoes in the future.

Solely because of the benefits of soy.

“The versatile chemical composition of soybeans is driving a surge of soy technology,” Jansen said. “The potential for U.S. soy in industrial uses is limitless thanks to a high-quality product and the farmers who grow it sustainably.”



Infusions of Innovation

Versatile soy components—protein and oil—are integrating into new products and improving them along the way. Here’s how soybeans help a handful of new soy-based products.



Asphalt road sealant

- ▶ Improves durability
- ▶ Helps recycle asphalt grindings



High oleic motor oil

- ▶ High-performing functionality
- ▶ Impressive longevity



Paint

- ▶ Environmentally friendly
- ▶ Easy to use



Shoes

- ▶ Better durability and grip
- ▶ Sustainably sourced



Synthetic turf

- ▶ Lower environmental impact
- ▶ Better field drainage



Tires

- ▶ Improved traction
- ▶ Better production efficiency



Find soy in more unexpected places—browse soy-based consumer products at **SoyNewUses.org**.

2020 BRINGS CHALLENGES, OPPORTUNITIES FOR BIODIESEL

By Donnell M. Rehagen, Chief Executive Officer, National Biodiesel Board



Donnell M. Rehagen

Many within the agriculture industry have experienced 2020's ups and downs already, and biodiesel is no different. Our industry started off with a bang. In January, we announced a new goal of producing 6 billion gallons of biodiesel and renewable diesel by 2030. A goal that will more than double use in the next decade. This fast growth trajectory is good news for soybean farmers, as we'll lean on you to supply a large amount of that fuel as demand continues to grow.

Fun fact before I go further—biodiesel has increased its use of soybean oil by 300 percent in the last decade, consuming over 8 billion pounds a year, more than one-third of the oil from U.S. crush. Combine that with our new goals for the next decade forward and you could say we're just getting started!

As 2020 continued, our industry's enthusiasm was dampened with the onset of the COVID-19 pandemic. While we have been

somewhat more insulated from the impacts than others in the ag industry, including ethanol, it has certainly brought challenges. With the foresight of our farmer leadership in the early days, we've prided ourselves in building an industry that has a diverse feedstock base. As used cooking oil and animal fat supplies were disrupted this spring, soybean oil has been there to step up and fill the short-term void.

The premature depopulation of swine and poultry herds during the closing of processing plants due to the pandemic were nothing less than devastating to all involved in animal agriculture. While biodiesel was able to put to use some of the fats from rendering these animals, we certainly recognize the impact on our partners in animal agriculture and processing and hope to never experience a situation like this again. As swine and poultry producers move to rebuild their operations, soybeans will play a vital role in providing much-needed protein in their feed rations. Biodiesel will be there too, taking the excess oil and turning it into better, cleaner fuel for our future.

Throughout the next decade, we'll look to a number of markets and opportunities to continue growing biodiesel and renewable diesel demand. The Renewable Fuel Standard and existing state programs will continue to give us a solid foundation, while carbon policies and expanding markets like Bioheat® and renewable jet fuel will lead to significant expansion. With these new and growing markets for our fuels, our 6-billion-gallon goal is certainly in reach.

U.S. biodiesel was founded by the soybean industry nearly 30 years ago. I am grateful for the fortitude and persistence of the early industry leaders who never gave up on biodiesel. NBB is ambitious and optimistic about the future of the industry and look forward to soybean farmers continuing to see the fruits of their labor.



RURAL BRIDGES: THE CRITICAL FIRST LINK IN THE SUPPLY CHAIN

By Mike Steenhoek, Executive Director, Soy Transportation Coalition

According to the American Road and Transportation Builders Association, of the 15,332 bridges in the state of Nebraska, 1,356, or 8.8 percent, are classified as structurally deficient. The state has the 13th highest number and the 17th highest percentage of structurally deficient bridges. While Nebraska has made recent advancements in addressing this need, much work remains.

Unfortunately for Nebraska farmers, a high percentage of these structurally deficient bridges is located in rural areas. The area of the state with the most acute bridge problem is also the area of the state with the fewest resources to address it.

Rural bridges are a critical component of the initial link in the agricultural supply chain. The subsequent modes of transportation—rail, barge, and ocean vessel—that accommodate soybeans, grain and other agricultural products fade in relevance if there does not exist an effective system of rural bridges that allows the first delivery from the farm to occur.

Closed or load restricted bridges can impose a profound cost to Nebraska farmers and other rural industries. For example, let's assume three rural bridges have weight restrictions preventing

soybeans, grain or other freight transported by semis to cross and that this restriction at each bridge results in a five-mile detour for any given semi.

Bridge #1

On average, 6 trucks were impacted each day and are therefore subject to the detour.

- 30 miles of detour are incurred each day (6 trucks X 5 miles)
- 10,950 miles of detour are incurred each year (30 miles X 365 days)
- \$13,688 annual cost of the detour to affected constituents (10,950 miles X \$1.25 cost per mile)

Bridge #2

On average, 13 trucks are impacted each day.

- 65 miles of detour are incurred each day (13 trucks X 5 miles)
- 23,725 miles of detour are incurred each year (65 miles X 365 days)
- \$29,656 annual cost of the detour to affected constituents (23,725 miles X \$1.25 cost per mile)

Bridge #3

On average, 25 trucks are impacted each day.

- 125 miles of detour are incurred each day (25 trucks X 5 miles)
- 45,625 miles of detour are incurred each year (125 miles X 365 days)
- \$57,031 annual cost of the detour to affected constituents (45,625 miles X \$1.25 cost per mile)

Therefore, **\$13,688 (Bridge #1) + \$29,656 (Bridge #2) + \$57,031 (Bridge #3) result in \$100,375 annual costs to local taxpayers.**

The Soy Transportation Coalition continues to focus on assisting local areas with effective methods for evaluating the condition of rural bridges and promoting innovative approaches for more economically repairing and replacing these critical components of the agricultural supply chain. For Nebraska soybean farmers to remain able to connect with international customers, it all starts with these essential, but underappreciated, rural bridges.



SUPPORTING OUR **NO. 1 CUSTOMER**

Nebraska's economy is strengthened by the symbiotic relationship between soybeans and animal agriculture.

Soybeans are used to feed chickens, cattle, hogs and even fish but the opposite is also true.

A strong animal agriculture industry feeds soybean growers by giving them a dependable and healthy demand for their crop. In Nebraska, soybeans and animal ag are a win-win.

"Any feed ingredients used that are high quality and provide consistency are beneficial to maintaining quality diets to insure we are producing high quality meat for our consumers," said Shana Beattie, who raises hogs near Sumner, Nebraska. "Soybean meal processed from Nebraska-grown beans provides this high-quality feed ingredient."

Through economic activity, jobs and the generation of income and property tax revenues, animal agriculture brings more than \$300 billion to the American economy each year. Combined, animals consume the soybean meal produced from 1.2 billion bushels of U.S. soybeans.

In Nebraska, where both industries are strong, their relationship is strong. The availability of local soybeans creates a robust, sustainable supply chain for farmers raising cattle, pork and poultry.

"Soybeans play a very important role in supplying quality feed to the industry and, in turn, quality poultry to the consumer," said Hannah Borg, who raises chickens on her family farm in Wakefield for Costco's Lincoln Premium Poultry plant.

“

If you want to support animal agriculture, I would encourage folks to learn more about the story from the producer.”

— JOAN RUSKAMP, CATTLE FARMER NEAR DODGE, NEBRASKA

”

The quality of Nebraska soybeans further strengthens the relationship. Researchers are working to improve the nutritional bundle of soybeans even though they're already a critical component of livestock's diet. For chickens, cattle and swine alike, soybeans—high in protein and amino acids—promote healthy growth.



Maintaining and expanding animal agriculture in the U.S. and supporting its long-term competitiveness are of critical importance to soybean farmers. Here are five reasons why:

1. Livestock producers are fellow farmers.
2. Meat is a great source of protein. A 6 oz. grilled pork chop yields about 42 g of quality protein.
3. Animal agriculture is soybean's #1 customer. Nebraska's animal agriculture consumed almost 573.8 thousand tons of soybean meal in 2018.
4. Animal agriculture is a vital economic engine. Nebraska can attribute 66,162 jobs to the animal agriculture industry and \$15 billion in economic output.
5. Demand for high-quality U.S. soybeans depends on the animal agriculture sector, adding profitability for soybean farmers

"Feeding quality ingredients like soybean meal is important. Because soybeans are high in protein, beef cattle can produce leaner beef," said Joan Ruskamp, a cattlegirl near Dodge, Nebraska. "When cattle do not receive enough protein, they will deposit more fat in the meat. Because of our ability to make sure cattle receive the right amount of protein, we are able to offer over thirty cuts of lean beef for consumers."

Supporting soybean farmers means supporting beef, pork and poultry producers. Beattie and Ruskamp both volunteer with CommonGround Nebraska, an organization of farm women educating communities about the important work

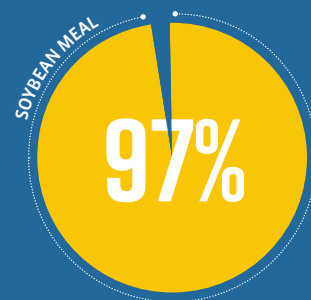
today's farmers are doing to feed the world and preserve the environment. CommonGround works to dispel myths about modern-day farming and educate both urban and rural audiences.

Showing the strength of soybeans and raising livestock is a great place to start.

"First and foremost, as farmers and ranchers it is important for us to share our stories of how we raise food and care for our livestock," Beattie added. "When doing this, it is important for us not to overlook our neighbors right here in our own communities. Engaging community members in what we are doing daily to care for the environment and our livestock is important."



A Blue Ribbon Customer



Animal agriculture consumes 97% of all soybean meal produced in the U.S.

TIPS AND RESOURCES FOR MANAGING STRESS

Times for any farmer can be stressful, worry-some and fear-inducing, yet no farmer is alone. State and national resources are available for anyone struggling with any level of stress.

- ✓ Asking for help is a sign of strength and self-awareness.
- ✓ With the help of technology, there are numerous ways to reduce stress through apps, podcasts, exercise, and other tools that can be utilized from the privacy of your own home.
- ✓ Slow down
- ✓ Get a physical checkup
- ✓ Seek local resources, including clergy, medical professionals, or others
- ✓ Talk with other farm families and neighbors
- ✓ Exercise daily
- ✓ Take regular breaks throughout the day
- ✓ Agricultural organizations across the country are banding together to provide resources for ways to manage farm stress. Help is available in your community, including in rural areas.

STAYING CONNECTED DURING TOUGH TIMES

Resources for Nebraska farmers, ranchers and their families



→ **Rural Response Hotline:** The hotline offers access to many attorneys, financial advisors, professional counselors, mediators, clergy and others. There are 167 behavioral health professionals working with the Rural Response Hotline. Ask about no-cost vouchers for counseling services.

800-464-0258

M-F 8:00 AM - 5:00 PM

→ **National Suicide Prevention Lifeline:** A national network of local crisis centers that provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

800-273-8255

Crisis Text Line: Free, 24/7 support for those in crisis, connecting people in crisis to trained crisis counselors.

Text GO to 741741

→ **Veterans Crisis Line:** Connect with this resource to reach caring, qualified responders within the Department of Veterans Affairs. Many of them are Veterans themselves.

800-273-8255, Press 1 or Text to 838255

→ **Negotiations Program:** Mediation services for agricultural borrowers, creditors and USDA program participants. Free one-on-one education on agricultural financial and legal matters.

402-471-4876

→ **The Boys Town National Hotline:** Not just for boys. For all teens and their parents, this hotline is available 24 hours a day, 365 days a year, with specially trained counselors. A TDD line is available (800-448-1833), allowing counselors to communicate with speech-impaired and deaf callers.

800-448-3000

→ **SAMHSA National Helpline:** Free, confidential, 24/7, 365-day-a-year treatment referral in English and Spanish for individuals and families experiencing issues with alcohol, prescription drug or other substance abuse.

800-662-HELP (4357)

→ **Nebraska LOSS (Local Outreach to Suicide Survivors) Teams:** Trained professionals acting as volunteers, bringing immediate support to those who have lost a loved one to a completed suicide.

Visit NElossteam.nebraska.edu for a map with phone numbers of LOSS teams across the state.

YOU ARE NOT ALONE. We care about you!

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ASA DISTINGUISHED LEADERSHIP AWARD RECOGNIZES STEVE WELLMAN



ASA President Bill Gordon (Left),
Steve Wellman (Right)



The American Soybean Association (ASA) has recognized Syracuse farmer Steve Wellman with the Distinguished Leadership Award during their annual awards banquet held in February. The award recognizes a soybean grower whose leadership has strengthened the national and state association and enhanced soy-related policy efforts.

Wellman served as a strong leader for both the Nebraska Soybean Association and ASA. He served as an ASA director for nine years and spent many of those years on the executive committee, including a term as ASA president and a two-year chairmanship of ASA's Strategic Planning Committee.

Engaging with and helping educate soybean farmers as well as participating in international marketing missions to grow the U.S. soy exports has been an important part of Steve's service. His wide-ranging leadership and extensive involvement with ag policy while serving at ASA has provided a strong foundation in his current role as director of the Nebraska Department of Agriculture.

The award was presented during ASA's recognition banquet held in conjunction with the Commodity Classic in San Antonio, TX.

KEEPING CONNECTED

CommonGround Nebraska continues to share information about food and farming amid COVID-19

While several events and speaking engagements were canceled recently due to COVID-19, CommonGround Nebraska has still been hard at work. Utilizing technology, CommonGround has moved to virtual conferences and meetings including the 2020 Nebraska Academy of Nutrition and Dietetics Annual Conference held in April.

In addition, having a media and online presence is now more important than ever to engage with consumers. The group of volunteer farm women can still be found on 10/11's Pure Nebraska each week and through the Fearless Food Update, a bi-monthly email newsletter focusing on current food topics and useful recipes. CommonGround volunteers have also been active on social media, sharing a glimpse of their farming operations online. Social media takeovers have allowed for quality engagement and educational opportunities for viewers.

Also, check out the Omaha World Herald for sponsored CommonGround Nebraska content. This 12-week campaign (March-June), reached more than 300,000 households, featured volunteers sharing truths about agriculture and the food we eat. The campaign was designed to reach urban and suburban consumers, miles from farm life, to educate and help bridge the gap between the consumer and the people who grow their food.

Engage with CommonGround online!

Facebook: CommonGroundNebraska | Twitter: CommonGroundNE

Instagram: CommonGroundNE | Fearless Food Update | CommonGroundNebraska.com

What are some tips to engage with people and dispel myths about agriculture online?

- Listen to their concerns.
- Ask more questions and put yourself in their shoes.
- Share your values — explain how they are the same or at least similar to their values. "You and I both want healthy food for our families. Here is what I know about food production on our farm..."
- Be transparent — show them your farm in photos, videos or even a visit — (after COVID-19)
- Use your farm and your story to show credibility, and refer them to other credible resources.
- Always keep the audience in mind. Sometimes, it's urban and suburban families with no ties to agriculture.
- Communicate how you're helping provide quality food for consumers and protecting the environment for the future.
- Stay true to these CommonGround values: **Inclusive, Positive, Credible, Real, Empathy**



TRUTH vs TALK

Check out some of these misconceptions you might find online and the truths that bring clarity to the question.



OPTIMIZE YOUR IRRIGATION

Photo credit: United Soybean Board

Nebraska farmers irrigate nearly 8.6 million acres, the most of any state in the country ahead of California at 7.8 million acres. Farmers depend on water from a variety of sources in order to raise a crop each year. SoyWater is a web-based decision-making tool for optimizing irrigation efficiency and energy use. This tool asks users a few, simple questions about the field to be irrigated.

Then, it provides daily estimates of crop water use and soil water status. The tool, updated in 2017, was developed using Nebraska soybean checkoff dollars. It continues to aid producers in scheduling irrigation and minimizes the amount of water needed for crop production.

Frequently Asked Questions.

I am a rainfed producer. Is SoyWater of any value to me?

Yes. Some herbicides, pesticides or fungicides may be cost-effective only if applied during a crop stage-specific window. SoyWater projects your crop's development, providing you with estimated calendar dates for those key stages. For example, fungicide applied during reproductive development is often only cost-effective if applied precisely at stage R3. Contact your county or state extension personnel for more information.

I use Watermark™ soil water sensors to monitor soil water depletion. Is SoyWater of any use to users of these sensors?

Yes. On the SoyWater home page, there is a 'Soil Moisture Sensor Calculator' tool. Click on this tool to translate centibar readings from the soil water sensor meter into inches of soil water depletion (but first input the soil texture type). The tool is not crop-specific, so corn growers with sensors can use it too.

Can I use rainfall collected at the weather station instead of rainfall collected at the field site?

SoyWater estimates of soil water depletion are more reliable if field-specific rainfall amounts are inputted. If the Station is too far away, users should check to see if there is a rain collection site nearer the field. See NeRain Site: Nebraska Rainfall Assessment and Information Network.

Get started at soywater.unl.edu and cornsoywater.unl.edu

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NSB Takes Farmers to THE PACIFIC NORTHWEST



It was very interesting to learn about the logistics to ship soybeans and meal both domestically and internationally. Watching a shipping vessel being loaded with soybeans from Nebraska really brought everything full circle. By learning about soy's journey after the elevator, I could see the checkoff working firsthand and build a better farmer perspective.

— JIM BROCK

Soybeans Beyond the Elevator

The See For Yourself program is designed to give Nebraska soybean farmers a hands-on opportunity to learn about their customers beyond the elevator and how the soybean checkoff markets Nebraska and U.S. soy.

This year, 15 participants visited businesses that play a part in moving soybeans and soybean products from Nebraska to international customers.

“This program was a great opportunity for Nebraska farmers to experience the complete process our product takes from field to ship,” said Ross Daake, a soybean farmer from Merna, Nebraska.

See For Yourself began with BNSF Railway representatives speaking to farmers about

the current infrastructure for hauling grain to the coasts and ports. The railways and ports of the Pacific Northwest are extremely important for Nebraska producers since a lot of their productions travel by rail to the northwest before being loaded onto ships bound for China, Japan and Southeast Asia.

Participants also had the opportunity to visit and tour two export terminals: AGP's export facility at the Port of Grays Harbor in Aberdeen, Washington, and a TEMCO, LLC facility at the Port of Tacoma in Tacoma, Washington. Both of these facilities receive soybean product from Nebraska and other Midwest states. Attending farmers saw TEMCO workers load a vessel with soybeans that originated from Nebraska and South Dakota.

Other stops during the trip included SSA Marine-Terminal 18, Grays Harbor and Renewable Energy Group.



Want to See For Yourself?

If you are a Nebraska soybean farmer interested in attending the 2021 See For Yourself tour, contact the NSB office at **402-441-3240** or visit our website at **nebraskasoybeans.org**. 2021 location and dates to be determined.

SOYBEAN GALL MIDGE BATTLE CONTINUES IN THE MIDWEST

By Carol Brown, USB database communications

The soybean gall midge is a recently discovered pest appearing in fields across several midwestern states. Scientists and farmers alike are concerned about its capacity for plant destruction and are researching how to stop it.

Justin McMechan, an assistant professor of entomology at the University of Nebraska–Lincoln, is working with the farming community and his colleagues in four states to learn about this yield-robbing pest.

The soybean gall midge was first identified as a new species in Nebraska fields in 2018. It has since increased with each cropping season and moved across state lines. Insect researchers scrambled to get ahead of the gall midge and are now making strides to understand its lifecycle and habits.

“We were awarded an emergency grant from the North Central Soybean Research Program (NCSRP) in 2018,” McMechan said. “With this grant, we were able to track adult midge emergence. I captured adults in the fall of 2018 at the Eastern Nebraska Research and Extension Center near Mead, which led to the identification of the soybean gall midge as a new species.”

Since identifying the species, McMechan and his colleagues have established initial details about the soybean gall midge and its interaction with soybeans. Around the early V3 stage of the soybean plant, the adult midge lays eggs in the natural cracks that form in the base of the plant stem. The hatched maggots then use the stem as a food source. The maggots eventually drop off the plant and burrow into the soil where they pupate. The adult midge emerges from the soil later in the summer but does not feed on the soybeans. It is assumed the adult midges only consume water.

The midge invasion starts at the edge of a field and works toward the center. Confirming a gall midge infestation takes close examination, as visual plant damage looks similar to other diseases and pests.

The entomologists are expanding their research with several projects funded by the United Soybean Board (USB) and NCSRP.

“In 2019, we set up sites at 27 field locations in Nebraska, Iowa, South Dakota and Minnesota to capture and track adult midge emergence in the spring, which was successful,” McMechan said. “We’re also

looking at host plant resistance, which is appearing to be a fundamental component of good pest management. If we can identify resistance—especially in combination with a number of management practices—that will help immensely.”

The scientists are looking for solutions from several angles including management practices to slow population growth and insecticide treatment and timing. Last year, insecticide tests did not completely eliminate the gall midge. However, the best results showed that treated fields increased their soybean yield by 50 percent compared to untreated fields.

“What we learned last year is that it’s unlikely a single tactic will provide an acceptable level of control for the soybean gall midge,” McMechan said. “Now, we’re trying to combine multiple cultural and chemical control strategies to treat infested areas. We know infestation doesn’t start as a whole-field scenario, so we’re looking at edge-of-field treatments and trying to understand how much of the area needs treated.”

Farmer Input is Needed

Two parts of the team’s research requires direct input from farmers. Last year, McMechan set up the Gall Midge Alert Network. Farmers can send their contact information to the network to receive alerts—just like a severe weather notification—regarding gall midge emergence notices and other timely information.

“This system allows us to quickly push information to farmers and use multiple platforms like text message, email or phone calls to make sure they get the message,” he said. “We have about 225 people from five or six states signed up.”

This year, the team is planning to send information to farmers in 12 states, which can help them identify if other states are seeing the gall midge. This will help them focus on specific areas and let research personnel know to be on the lookout.

“The farmers in Nebraska have been more than cooperative,” McMechan said. “Often they’re the ones asking me if we could do research on their land. They are helping us identify good sites for research and willing to put their farms at risk to do so.”

Multi-State Work

The project is focused heavily on the states where the soybean gall midge has been identified. The research team will monitor more than 30 sites for emergence and conduct tests on over 760 soybean lines for genetic resistance or tolerance of the pest. Other studies include changes in planting dates, tillage, mowing around fields and insecticide work.

McMechan said the gall midge symptoms vary geographically, so sharing information across state borders is important.

“Even though the insect is called a gall midge, we don’t usually see gall formations on the soybean plant until we travel further north of Nebraska,” said McMechan. “Symptoms are varying, especially with weather and management conditions. Last year, South Dakota had very atypical weather patterns. And Minnesota has a lot of tillage use. We’ll look at all of these variables to find differences in gall midge behavior so we can win the battle.”

Visit the Soybean Gall Midge Alert Network at soybeangallmidge.org and cropwatch.unl.edu/gallmidge



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