



# MICHIGAN SOYBEAN NEWS

Winter 2020

Volume 13 - Issue 1

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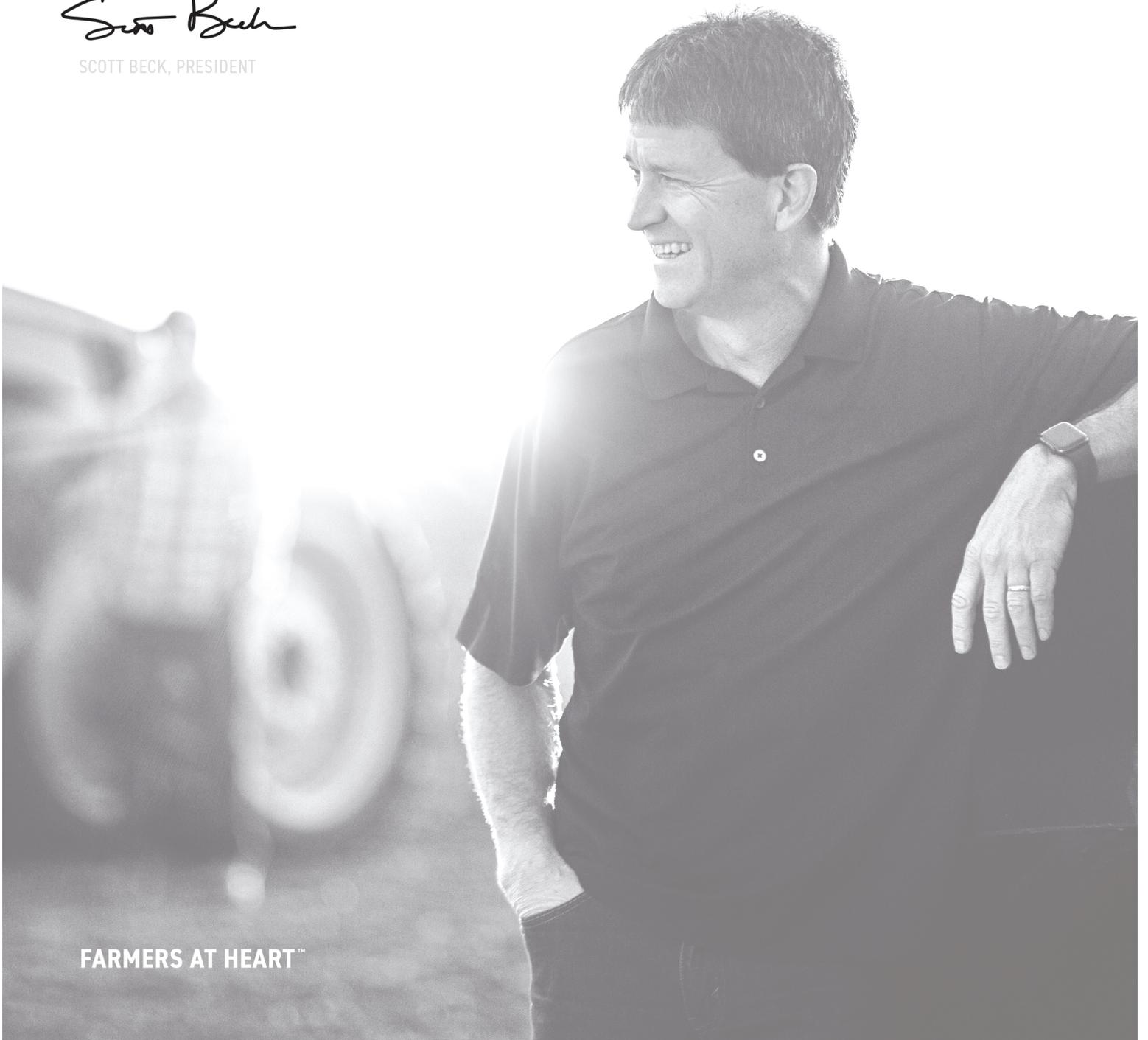


# AT THE HEART OF IT.

EVERY FARMER HAS THEIR REASON FOR WHY THEY DO  
WHAT THEY DO. **FOR ME, IT'S FAITH, FAMILY, AND FARMING.**

I CARE ABOUT HONORING GOD AND FULFILLING HIS  
PURPOSE IN MY LIFE, IN MY FAMILY, AND IN THE  
BUSINESS OF FARMING AND AGRICULTURE.

SCOTT BECK, PRESIDENT



FARMERS AT HEART™

# Michigan SOYBEAN NEWS

**Winter 2020  
Volume 13 - Issue 1**

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See what MSA is doing for its  
members.



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*Comments and suggestions  
can be submitted to:*

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### **Michigan Soybean Association's Mission Statement**

To improve and advocate for the Michigan soybean industry.

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# From Your MSA President...

As I write this, it's the day after Election Day. We don't have a declared winner yet. Hopefully by the time this article reaches you we will know who will sit in the Oval Office for the next four years. But it is 2020, so who knows. Between now and then, we could be invaded by martians. One thing I do know for certain, however, is no matter who the next President is, the farmers of Michigan will still have work to do. We'll all continue to bring our harvest in or tend to our livestock to ensure this great Republic continues to have the safest, most abundant food system in the world.

And along with that, the Michigan Soybean Association, along with the American Soybean Association, will continue to press those in Lansing and Washington, D.C. on the issues most vital to our industry. We may not like or align with each legislator who is voted into office, but at the end of the day we need to accept the changes, rise to the occasion and continue to educate and work with legislators on advancing our industry and way of life.

It's also important for us as an organization to hear from all of you. Please reach out to MSA on any issues you may have or concerns you want addressed. We are a collective voice for Michigan soybean farmers. The organization is a useful resource at your disposal, so please take advantage of it.

In this issue Michael Frederick writes about a legislative visit on our farm. It was a first for me and I would recommend for anyone interested in hosting one to reach out to MSA and express your interest. I won't steal any of Mike's thunder - I'll leave it to his article to explain who came out to the farm to learn more and share about how the day went.

Lastly, I wish everyone a safe and successful completion of harvest. Hang in there - 2020 is almost over. We've finally got BIG10 football back so God Bless and GO GREEN!



# USDA SECRETARY PERDUE VISITS MICHIGAN

Earlier this fall U.S. Secretary of Agriculture Sonny Perdue visited Michigan Farm Bureau President Carl Bednarski's farm in Unionville, Michigan.

Secretary Perdue joined Bednarski in a townhall with Michigan farmers and agriculture industry leaders to discuss the Coronavirus Food Assistance Program (CFAP), trade and President Trump's involvement in rural farming communities.

"You are our customers. We feel farmers are our customers at USDA," Secretary Perdue shared. He was very open and wanted to hear thoughts and concerns from the farmers in attendance saying, "We can't do everything but if we don't know, we can't do anything."

When asked about the future of crop insurance as it relates to ad-hoc disaster payments, Purdue indicated that we need to get the market back to higher prices and then use crop insurance as the real risk management tool it was designed to be.

Michigan Soybean Association (MSA) Executive Director Janna Fritz, MSA Director Nick Stone and United Soybean Board Director Jim Domagalski were all in attendance at the event.



## 47TH ANNUAL MEETING OF MEMBERS

### Notice for All MSA Members

Pursuant to Article V, Section I of the Bylaws of the Michigan Soybean Association (MSA), notice is hereby given that the Annual Meeting of the members of the Michigan Soybean Association will be held on Wednesday, December 16, 2020 at the Bavarian Inn Lodge, 1 Covered Bridge Lane, Frankenmuth, Michigan 48734, convening at 5:00 p.m.

The purpose of the Annual Meeting is to announce new directors and to transact such other business as may properly come before the members.

Call the MSA office at 989.652.3294 by Friday, December 11 to RSVP. Bring a farmer friend with you and encourage them to join the Michigan Soybean Association.

Dated this 26<sup>th</sup> day of November, 2020.

Sincerely,  
*Gary Parr*  
MSA Secretary



#### Reminder to all MSA Members:

Please return your MSA Director Election ballots to the Michigan Soybean Association office. All ballots must be postmarked by 5:00 p.m. on Monday, December 7, 2020. Please call the MSA office at 989.652.3294 if you have any questions.

# MSA NEEDS YOU TODAY!

People making decisions in Lansing and Washington, D.C. are getting further and further away from the farm. In the past, families had someone who was a farmer they could visit, but now generations are far removed and don't have a direct connection. "I've met several legislators that have never set foot on a farm. We as farmers need to be visiting with legislators and representing our land," stated Jay Ferguson, MSA past director. "There is a lot of education that needs to occur to our politicians and the public."

**PAYING THE SOYBEAN CHECKOFF DOES NOT MAKE YOU A MICHIGAN SOYBEAN ASSOCIATION MEMBER. CHECKOFF DOLLARS CANNOT BE USED FOR LOBBYING.**



Are you receiving the MSA eNews?  
Email [soyinfo@michigansoybean.org](mailto:soyinfo@michigansoybean.org) to sign up for this informative membership e-newsletter.

## PROTECT YOUR FARM AND WAY OF LIFE, JOIN THE MICHIGAN SOYBEAN ASSOCIATION TODAY!

### SOME MEMBERSHIP BENEFITS:

- Member benefit with AGI Sure Track Farms and free admission to grain school and workshops
- Through Auto-Owners Insurance/Cedar River Insurance Agency, an offer of premium discounts up to 10% on select policies is available
- Scholarship opportunities for your children and grandchildren
- Preferred pricing on the purchase or lease of most new Chrysler, Dodge or Jeep vehicles
- Cabela's gift card purchase discount
- Discounted registration to the Commodity Classic

### 3-YEAR OR LIFETIME MEMBERSHIPS:

- \$300 Specialty seed with a minimum order of 30 units
- \$50 soybean seed certificate good for Renk Seed
- 2-\$25 Soy Biodiesel certificates **OR** 2-\$25 Soybean Meal Bucks certificates

**The MOST IMPORTANT MSA membership benefit: *Having a voice in Lansing and Washington, D.C.!***



# MEMBERSHIP APPLICATION

First Name: \_\_\_\_\_  
 Last Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City/State/Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Cell Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_

1-yr: \$75     3-yr\*: \$190     Lifetime\*: \$750

**Payment Amount & Method:**

Check (Payable to MSA) or Credit Card  
 Credit Card Type: \_\_\_\_\_ Expiration Date: \_\_\_\_\_  
 Credit Card #: \_\_\_\_\_  
 Signature: \_\_\_\_\_

**Mail application with payment to:  
 Michigan Soybean Association  
 PO Box 287, Frankenmuth, MI 48734**

*Dues are not tax deductible as a charitable contribution for federal tax purposes, but may be deductible as a business expense. 18% of member dues are allocated to lobbying activities and are not deductible.*

\*3-year and Lifetime memberships can choose between receiving either (check one):

- 2-\$25 Soy Biodiesel Bucks certificates or
- 2-\$25 Soybean Meal Bucks certificates

Date of Birth: \_\_\_\_\_

Number of Soybean Acres: \_\_\_\_\_

Total Farm Acres: \_\_\_\_\_

**Occupation (check one):**

- Farmer     Retired     Other

What issues interest you most?  
 (Check all that apply)

- Biodiesel/Biobased Products
- Farm Bill
- Transportation Infrastructure
- Trade Agreements
- Conservation
- Consumer Education
- Biotechnology
- Freedom to Operate
- International Marketing
- Soy and Nutrition
- Other: \_\_\_\_\_

For a list of all membership benefits, visit [www.misoy.org/member-benefits/](http://www.misoy.org/member-benefits/).

## LIFETIME LOYALTY MEMBER PROGRAM

**As of October 1, 2016, if you have been an MSA member for 15 consecutive years, you will no longer need to pay dues - you have become a LIFETIME LOYALTY MSA MEMBER!**

**Call the soybean office at 989.652.3294 to check on your membership.**



# SOY AND THE CONCRETE JUNGLE

*Mike Frederick, The Frederick Group*

**W**e have all heard of the concrete jungle – the urban landscape packed with people, houses and businesses. Typically, there is nary a farm in sight. So, what does soy have to do with the concrete jungle?

Your team at the Michigan Soybean Association recently held a Legislative Outreach Farm Tour (LOFT) for an urban legislator so they could learn the benefits of our industry and how it impacts all parts of Michigan, both urban and rural. Our 2020 LOFT was held at MSA President Dan Keenan’s farm

and several legislators participated in the tour.

Senator Ken Horn and Representatives Ben Frederick and Tim Sneller joined MSA board members Dan Keenan and Samantha Krhovsky along with MSA and MSPC staff for a firsthand discussion and field visit during soybean harvest. Dan’s family has been farming since at least the early 1800s and this multi-generation operation has been producing soybeans and other crops for many years. The tour started with a general discussion on the importance of our industry, different types of soybeans, soybean markets, the challenges of farming and ended with a field visit.

While Senator Horn and Representative Frederick’s district includes Merrill, where the tour took place, and they have been on farms before, this was a first for Rep. Sneller. Rep. Sneller is an urban legislator from the Grand Blanc area and has little agriculture in his district. This was his first soybean farm tour.

Rep. Sneller is supportive of agriculture but was also very interested to learn about the markets for soybeans and how he might help our industry. OilChem of Flint processes soybean oil for use in various products and as a member of the House Transportation





our industry reaches all corners of our great state and goes into many products including animal feed, food, and other products like tires and asphalt. Our industry benefits the concrete jungle with unique products and provides jobs to those that make products from soy. Thanks to Sen. Ken Horn, Reps. Ben Frederick and Tim Sneller for spending an afternoon with us and learning more about our industry!

Committee, Rep. Sneller was interested to learn more about soy based asphalt and other products. He was also excited to learn that the auto workers in his district might be installing soy oil-based foam seating products in the cars they build.

The highlight of the tour was having Rep. Sneller spend some time in the combine with Dan and observe the complexity and the technology that goes into precision farming. This urban legislator is looking forward to his next farm visit.

While most people think farming only happens in rural areas,

*As always, The Frederick Group is here to represent you and advocate for your issues in Lansing. If you have any questions or if we can be of service, feel free to contact the office at 517.853.0413.*



## RENEWING MSA MEMBERS

Robert Adamic  
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 Dave Dyer  
 Ronald Gerstenberger, Sandusky  
 Mary Kelpinski, East Lansing  
 Tim Kruithoff, Kent City

Michigan Corn Growers Association, DeWitt  
 Larry Phelps, Vicksburg  
 Chris Rosselit, Niles  
 Carla Schultz, Mayville  
 Jordan Smith, Perry



Your Soybean Checkoff

# Soybean Checkoff Continues to Provide Return on Farmer Investments

Once every five years, the soy checkoff is required by the U.S. Department of Agriculture to undergo analysis of the economic effectiveness of the program to demonstrate its benefit to U.S. soybean farmers and other checkoff stakeholders.

The study measures the impact activities and programs of USB have toward the goals to increase consumption of U.S. soybeans, soybean meal and soybean oil both domestically and internationally.

The study also measures the benefits of USB activities in terms of incremental profitability for the soybean industry as a whole and compares the benefits to the costs of this work.

"These have been some of the toughest years to be a soybean farmer," said USB Chair Jim Carroll III, a soybean farmer from Brinkley, Arkansas. "We have to be wise and careful with our investments in this business, and I'm proud that our soy checkoff continuously adds value to our industry."

The ROI study analyzed the demand- and supply-enhancing activities funded by the soy checkoff between 2014 and 2018 and was conducted by Dr. Harry Kaiser, a leading research expert at Cornell University in the field of agricultural economics and its application to commodity checkoff programs.

"The study finds that USB's activities have had a positive and significant impact on soybean demand between 2014 and 2018," Dr. Kaiser said.

## KEY FINDINGS INCLUDED:

- U.S. soybean farmers received \$12.34 in added value for every dollar they invested in the soy checkoff over the last five years.
- Every dollar U.S. soybean farmers invested in international promotion activities produced \$17.95 in return value.
- Soy checkoff investments made toward demand-enhancing research and promotion returned an average value of \$18.18.
- Collaborative soy checkoff investments in production research that leverage industry and academic partners continue to provide promising returns to U.S. soybean farmers, returning an average value of \$9.42.

Learn more about the United Soybean Board at [unitedsoybean.org](http://unitedsoybean.org).



**\$12.34**  
IN ADDED VALUE  
FOR EVERY \$1 INVESTED



## Farmers are essential.

During these challenging times, we are grateful for our 'essential services' workers, which include our farmers who play a crucial role in feeding America. Now, more than ever, we recognize the important contributions of those who help put food on our tables. We want you to know that while you support our country, GreenStone is here supporting you.

**800-444-FARM**



[www.greenstonefcs.com](http://www.greenstonefcs.com)

# MSA 2021 POLICY PRIORITIES

The Michigan Soybean Association board of directors recently discussed and realigned their policy priorities to help outline their focus and develop goals for 2021. They set the following six policy priorities for the coming year:

- Keep and improve Michigan as a livestock (including aquaculture) production friendly state
- Expand the biodiesel industry in Michigan
- Support transportation, energy and communication infrastructure improvements
- Support farmers' freedom to operate, including their right to farm, without burdensome regulations
- Create and expand export markets and trade opportunities
- Support the use of soy biobased products



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2019-MAEPSC-6000-R1



# Selecting Soybean Varieties

Mike Staton, MSU Extension Soybean Educator

The soybean varieties you select will significantly affect your income in 2021. Because of this, you should consider yield, maturity, pest resistance/tolerance, herbicide-tolerant traits, lodging and quality when selecting varieties.

## YIELD

Yield is one of the most important characteristics to consider when selecting soybean varieties. I summarized yield data from the Michigan Soybean Performance Reports from 2013 to 2019 to demonstrate how dramatically variety selection impacts soybean yields and income. Table 1 summarizes how variety selection impacted soybean yield and Table 2 shows how variety selection affected gross income. This analysis shows that selecting the highest yielding varieties can increase yields by 6 to 12 bushels per acre and increase gross income by \$60 to \$120 per acre. A variety that performs well under ideal conditions may not yield as well as others when confronted with yield-limiting factors. Therefore, yield data collected from multiple locations and over several years will help you select the best adapted varieties for your farm.

**Table 1. Yield advantage of the highest-yielding soybean varieties over the average yield of all the varieties and the lowest-yielding varieties averaged across all locations and maturity groups from the "Michigan Soybean Performance Reports" (Roundup Ready varieties only).**

Year	High minus the average (bushels per acre)	High minus the low (bushels per acre)
2013	7.1	12.9
2014	6.5	13.6
2015	5.1	12.0
2016	5.6	13.6
2017	5.6	10.7
2018	7.1	14.3
2019	4.4	9.5
<b>Average</b>	<b>5.9</b>	<b>12.8</b>

**Table 2. Economic advantage<sup>1</sup> of the highest-yielding soybean varieties over the average yield of all the varieties and the lowest-yielding varieties averaged across all locations and maturity groups from the "Michigan Soybean Performance Reports" (Roundup Ready varieties only).**

Year	High minus the average (\$ per acre)	High minus the low (\$ per acre)
2013	\$92	\$168
2014	\$66	\$137
2015	\$46	\$107
2016	\$53	\$129
2017	\$52	\$100
2018	\$60	\$121
2019	\$38	\$81
<b>Average</b>	<b>\$58</b>	<b>\$120</b>

<sup>1</sup>Economic advantage was determined by multiplying the yield advantage of the highest yielding varieties by the USDA average prices received for each marketing year – \$13.00 per bushel for 2013-2014; \$10.10 per bushel for 2014-2015; \$8.95 per bushel for 2015-2016; \$9.47 per bushel for 2016-2017; \$9.33 for 2017-2018; \$8.48 for 2018-2019 and \$8.57 for 2019-2020 (estimated).

## MATURITY

An analysis of soybean yield and maturity data from the 2009-2016 Michigan Soybean Performance Reports showed that maturity has little effect on soybean yields when the highest-yielding varieties within the adapted maturity range for the area are selected. The analysis also

## Your Soybean Checkoff ✓



*soybean variety effect on lodging*

showed that on average, soybean harvest operations are delayed by one day for each 0.1 increase in soybean maturity group. Planting varieties from a range of adapted soybean maturity groups is recommended.

### **PEST RESISTANCE/TOLERANCE**

Significant yield losses from soybean aphids, soybean diseases such as Phytophthora root and stem rot, white mold, sudden death syndrome and soybean cyst nematodes can be reduced by selecting resistant or tolerant varieties. In fact, variety selection is your best option for managing these

pests. Seed catalogs are excellent sources for this information. Seed companies typically use a rating scale of 1 to 9 and producers need to be careful as 1 is excellent and 9 is poor in some catalogs, while in others it is the opposite. These ratings are useful when comparing varieties from a given company but not across companies.

Iowa State University conducts the most comprehensive soybean cyst nematode resistant variety trials in the U.S. Iowa State University Extension publication IPM 52 provides the source of soybean cyst nematode resistance, yield performance and soybean cyst nematode population suppression effects for all the entered varieties. The 2020 report will be available online at the Iowa State University SCN-Resistant Soybean Variety Trials website. The report should be transferable and useful on your farm provided the varieties tested are adapted to your farm and the soybean cyst nematode population type at the trials is similar to the soybean cyst nematode population type in your fields. Producers should rotate sources of soybean cyst nematode resistance and consult with seed suppliers, as they are an excellent source of information.

### **HERBICIDE-TOLERANT TRAITS**

Varieties having herbicide-resistant traits are an important tool for managing herbicide-resistant weeds such as waterhemp and marestail. Use the information provided on pages 14 and 15 to help you make this decision.

### **LODGING**

Lodged soybean plants can increase harvest losses and significantly delay harvest operations. Variety selection can help reduce lodging problems in productive fields.

### **QUALITY**

Producers should also consider quality characteristics when selecting soybean varieties. Some of our leading export markets demand soybeans consisting of 19 percent oil and 35 percent protein. As global competition increases, Michigan soybean producers will need to meet this standard to maintain access to these markets.



*Phytophthora stem rot*

# Michigan Specialty Soybeans Highlighted in the Netherlands

For the first time, the Michigan Soybean Promotion Committee recently participated in Bridge2Food, a virtual event sponsored by the Specialty Soya and Grains Alliance held in Amsterdam, Netherlands. The event was designed to market to the European Union and showcased the value chain of Identity Preserved (IP) soybeans.

In order to build new markets, relationships and trust must be built first. This event showed buyers the work and dedication of our growers, the due diligence of quality testing with our first purchasers, and the commitment to delivering a high quality, specialized soybean.

Michigan was represented by soybean grower Tim Boring, a sixth-generation farmer from Stockbridge, Michigan and Steve Herr, Vice-President of Bean Marketing for Star of the West Milling Company.

"As growers, we can add value to the products we sell through higher levels of management, such as specialty soybeans, but we can also add value by connecting buyers with a face and story behind that production," Tim said. "Trust is one of the most valuable but difficult to build aspects of a business relationship. When growers participate in these virtual events, it's building trust with buyers - trust in who is growing their soybeans, the way in which they are grown, in how the business relationship is valued. I see these virtual events as cultivating a business opportunity that helps give me access to the high premium specialty soybean market."



Virtual  
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September 15, 3.00 PM - 6.00 PM (GMT+2)

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In the middle, between buyers (in this case those in the EU) and soybean farmers is Star of the West Milling Company. "It's exciting to be a part of this industry, and we hope and trust we are bringing value to our customers, both on the grower side as well as the end user/manufacturer side of the equation," Steve said. "Virtual meetings have been an anxious environment for me, but with the help of Michigan Soybean Promotion Committee, the U.S. Soybean Export Council and Specialty Soya and Grains Alliance, it has evolved into a great platform in getting our company message and product information out to the global industry."

"I have been pleased with responses from buyers, both current and prospective, with our food grade soybean products, and sense the virtual world of meetings and trade shows is here to stay," continues Steve. "As industry expertise continues to evolve to participants' interests and requests, the virtual world for meetings and information exchange will continue to define efficient and effective cost and time savings, all the while developing new and hopefully prolific relationships for Michigan soybean production and commercial trade going forward. I appreciate the opportunities given to get involved, and look forward to staying engaged in these processes."

Whether face-to-face or virtual, building relationships up and down the value chain is key to having a sustainable market that benefits everyone involved from the grower, to the first purchaser, to the end consumer.



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*The mission of the Michigan Soybean Promotion Committee is to manage checkoff resources to increase return on investment for Michigan soybean farmers while enhancing sustainable soybean production.*

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# Herbicide-Resistant Soybean Traits Available for Michigan Farmers in 2021

*Dr. Christy Sprague, Professor and Weed Extension Specialist, Michigan State University*

**W**ith the 2020 soybean crop in the bin, it is time to start thinking about next season's crop. One of the first decisions that farmers need to make is, "What soybean seed am I going to plant?". Soybean seed selection has become more confusing as newer herbicide-resistant trait platforms have been commercialized. In addition to non-GMO soybeans, Michigan farmers now have the option of up to six different herbicide-resistant soybean trait platforms to choose from. Below is a summary of the different soybean trait platforms available to Michigan farmers in 2021.

## **ROUNDUP READY SOYBEAN:**

The 2021 growing season will mark the 25th season that glyphosate-resistant or Roundup Ready soybean have been available to Michigan farmers. This herbicide-resistant trait was revolutionary and provided farmers with an effective option to control weeds that they were once struggling with. Since its introduction, the use of glyphosate in Roundup Ready soybeans has been the backbone of many weed control programs. While farmers can still purchase Roundup Ready 2 Yield soybean seed, the recent spread of glyphosate- and multiple-resistant weeds, horseweed

(marehail), waterhemp, Palmer amaranth, common ragweed and giant ragweed in Michigan and across the U.S. makes it more difficult to manage these weeds in a Roundup Ready soybean system, and in many cases it can be as difficult to control these weeds in this system as it is in non-GMO soybeans.

## **LIBERTYLINK SOYBEAN:**

First commercialized in 2009, LibertyLink soybean acres in Michigan had remained fairly low until about five years ago when glyphosate-resistant weeds became more prevalent. LibertyLink soybean confers resistance to the non-selective herbicide glufosinate (i.e., Liberty, others). Glufosinate has been effective in controlling many glyphosate-resistant weeds, however glufosinate alone will not provide season-long weed control and a systems approach, such as using a preemergence herbicide prior to a postemergence glufosinate application, is required.

## **ROUNDUP READY 2 XTEND SOYBEAN:**

Over the past three seasons, several Michigan farmers have planted Roundup Ready 2 Xtend soybeans. The Roundup Ready Xtend system was developed as a tool to help manage

herbicide-resistant weeds. This system enabled growers to apply registered dicamba formulations both preemergence and postemergence in addition to glyphosate to soybeans designated as Roundup Ready 2 Xtend. In many cases, weed control where this technology has been used has been excellent. However, off-target movement concerns of dicamba to sensitive crops, along with the many guidelines and restrictions for dicamba use, have made farmers and applicators leery of this technology. In June 2020, the EPA issued cancellation orders for dicamba formulations registered for use in Xtend soybean. However, on October 27, 2020 the EPA announced that it was approving new five-year registrations for the dicamba formulations, Engenia and XtendiMax/FeXapan, and extending the registration of the premixture Tavium (dicamba + s-metolachlor). These new registrations will provide farmers an effective option to manage glyphosate- and multiple-resistant weeds. However, off-target movement of dicamba is still a concern and several new guidelines and restrictions will need to be followed.

## **LIBERTYLINK GT27 SOYBEAN:**

LibertyLink GT27 soybean was one of the first herbicide-

resistant soybean platforms that conferred resistance to both glufosinate (i.e., Liberty) and glyphosate. One of the benefits to this platform is that farmers could still take advantage of glyphosate to control susceptible species, while having glufosinate as an option to control glyphosate-resistant weeds. These herbicides can be applied sequentially or in combination. Research on tank-mixtures of glufosinate (Liberty) and glyphosate have provided mixed results. In some cases, these combinations have resulted in slight antagonisms of certain weed species, especially weeds that are harder to control with glufosinate (grasses and perennial weeds). However, in the case of controlling glyphosate-resistant species, in particular glyphosate-resistant Palmer amaranth and waterhemp, the addition of glyphosate does not appear to antagonize glufosinate's effectiveness on these species. Regardless of applying these herbicides alone or in tank-mixture, it is important to remember that one application of glufosinate or glyphosate alone will not consistently provide season-long weed control.

**ENLIST E3 SOYBEAN:**

The 2020 growing season

was the first season in Michigan where large number of acres were planted to Enlist E3 soybeans. This system enabled farmers to apply registered 2,4-D choline formulations, in addition to glufosinate (i.e., Liberty) and glyphosate on soybeans designated as Enlist E3. That made this the first soybean technology where three different herbicide active ingredients that could not previously be used together in soybean, an option for growers. The 2,4-D choline products, Enlist One and Enlist Duo (2,4-D + glyphosate), can be used in burndown herbicide applications right up to and after planting, and postemergence to Enlist E3 soybeans. The glufosinate resistance in the Enlist E3 soybean also provides an additional herbicide site of action that growers can use to manage glyphosate-resistant weeds. The use of both 2,4-D and glufosinate together provides the use of multiple herbicide sites of action to help manage glyphosate- and multiple-resistant weeds. However, as with any herbicide system it is important to keep in mind that every application of either glufosinate or 2,4-D increases the selection for herbicide resistance. If a grower decides to use this

**Your Soybean Checkoff ✓**

technology, it will be important to use an integrated approach to control problematic and resistant weeds. An overreliance on any one of these herbicides will lead to the development of additional herbicide resistances.

**XTENDFLEX SOYBEAN:**

The 2021 growing season will bring the full commercial launch of the next generation of Xtend soybean. The XtendFlex soybean platform allows farmers to make over-the-top applications of dicamba, glyphosate, and glufosinate (Liberty). The ability to apply dicamba and/or glufosinate provides growers with two effective herbicide sites of action to manage glyphosate-resistant weeds. Like other technologies, it will be important to use integrated approaches to control problematic and resistant weeds. Additionally, if a farmer decides to apply one of the registered dicamba formulations, new guidelines and restrictions will need to be followed to prevent off-target movement.

For more information on weed control in soybean consult the 2021 MSU Weed Control Guide for Field Crops and visit [www.MSUweeds.com](http://www.MSUweeds.com). Remember to always read the herbicide label.



# Biodiesel — Better. Cleaner. Now.

The Michigan Soybean Promotion Committee (MSPC) partners with the National Biodiesel Board (NBB) to promote local use of biodiesel and to expand the overall biodiesel industry. This renewable resource contributes approximately 13 percent of the overall cash price of soybeans to the farmer.

This year NBB launched a new tagline - Biodiesel: Better. Cleaner. Now! It tells the story simply. Biodiesel is better and cleaner than petroleum diesel - with proven environmental, health and economic benefits - and is ready to use now. No waiting around for some future technology. No new innovation needed. No billions of dollars in research. It is here, now!

In addition to a new tagline, NBB has developed a new vision statement. It reads, "Biodiesel, renewable diesel, and renewable jet fuel will be recognized as mainstream low-carbon fuel options with superior performance and emission characteristics. In on road, off road, air transportation, electricity generation, and home heating applications, use will exceed six billion gallons by 2030, eliminating over 35 million metric tons of CO2 equivalent greenhouse gas emissions annually. With advancements in feedstock, use will reach 15 billion gallons by 2050."



## Studies Proved Diesel is Here to Stay

New research from sources such as the Diesel Technology Forum revealed that diesel powertrains are expected to remain a dominant force for years to come, and the use of biodiesel blends in diesel equipment continues to be a preferred choice for fleets looking to improve the sustainability of their operations. Fuels Institute forecasts show that diesel vehicle stocks are expected to increase 14 percent by 2035, while diesel vehicle miles traveled are expected to increase 23 percent in the freight transportation industry during the same time period, all while the diesel vehicle fleet is set to become about 30 percent more fuel efficient under new standards. According to the NTEA's Fleet Purchasing Outlook Survey, biodiesel has consistently ranked as the most widely used alternative fuel option reported by fleets.

Diesel vehicle fleets are set to become about

**30% more fuel  
efficient**  
under new standards by 2035

These are strong goals but the soy family, including NBB and MSPC, believe we can reach that 15-billion-gallon mark by 2050. How do we hope to do that you may ask? The answer is through education and advocacy. Let's take a look at some of the advocacy and education efforts that are already underway.

## TAX INCENTIVES

- In December 2019, Congress renewed the biodiesel tax incentive retroactively for 2018 and 2019, and prospectively through 2022 - the longest period of forward-looking stability since the credit was first established.
- NBB built and coordinated an alliance of nearly 150 companies, trade associations and allies to advocate for the tax credit's extension.

## TRADE CASE

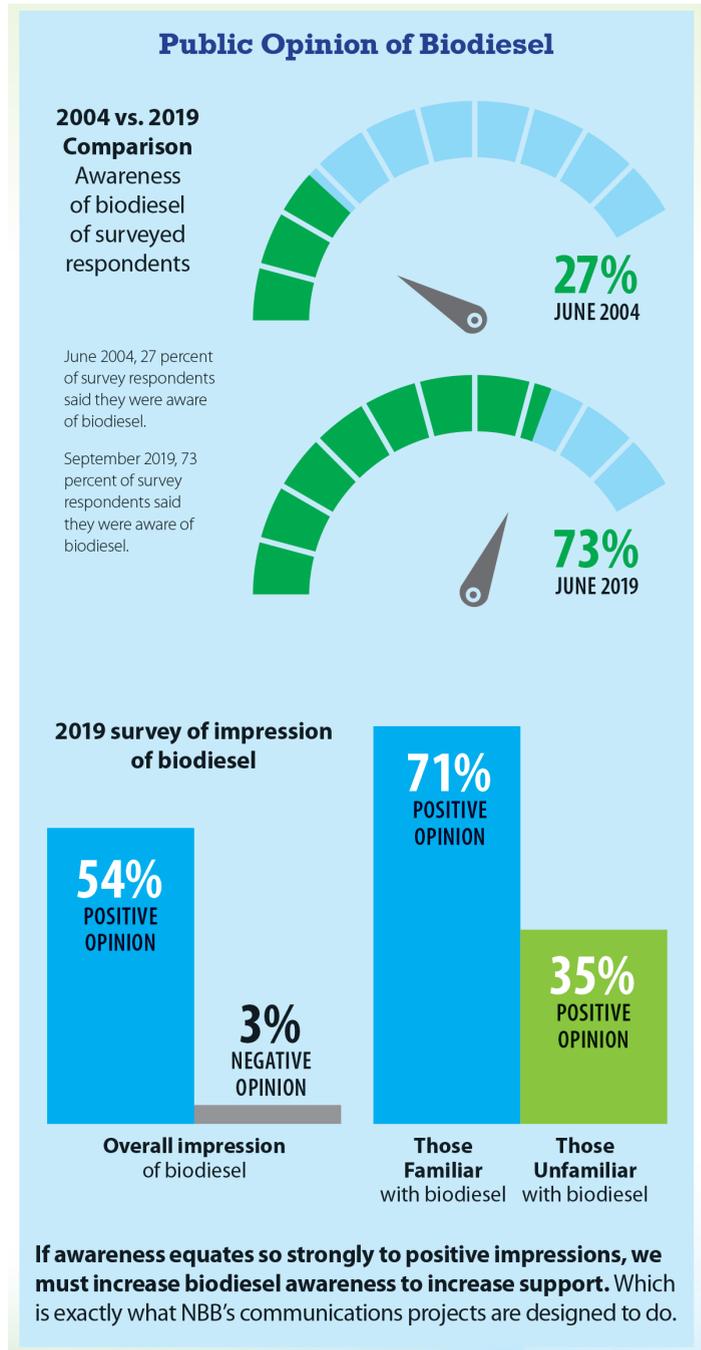
- NBB's Fair Trade Coalition met with Commerce Secretary Wilbur Ross and engaged members of Congress to recommend a cautious and careful review of continuing policy changes in Argentina.

- In May 2020, after accepting additional data from NBB, Commerce determined that no changes to the trade duties were warranted.
- NBB's Fair Trade Coalition continues to engage in U.S. Court of International Trade proceedings on trade duties. In July 2020, Argentina filed a new case on the outcome of the changed circumstances review.

**RENEWABLE FUEL STANDARD**

- In its 2020 RFS final rule, EPA included a prospective calculation of small refinery exemptions, which could limit future demand destruction for the biofuel industry.
- EPA acknowledged its duty to ensure that the annual obligations it set are met, mirroring NBB's legal arguments.
- In January, the U.S. Court of Appeals for the 10th Circuit ruled that EPA exceeded its authority in granting three small refinery exemptions. NBB is pursuing legal and policy arguments to extend the ruling universally to all exemptions.
- NBB is coordinating efforts with other biofuel trade associations and stakeholders to defend the RFS from refiners' attacks and EPA's efforts to undermine the program through waivers, small refinery exemptions and rulemaking delays.
- NBB ensured that USDA's Higher Blends Infrastructure Incentive Program (HBIIP) – part of the White House deal on RFS exemptions – included funding for higher blends of biodiesel (B20).
- MPSC is also working to develop partnerships in Michigan to further advance the biodiesel industry. Governor Whitmer recently called on the state to be "carbon neutral" by 2050. This effort will require steep reductions in greenhouse gas emissions and significantly greater use of renewable energy. Biodiesel can contribute positively to this initiative.

Please contact the MSPC office for more details on using biodiesel or to get involved in future promotional and educational events regarding biodiesel. You can also learn more about the biodiesel industry, including places to purchase biodiesel near you by visiting [biodiesel.org](http://biodiesel.org).



# FULL-CIRCLE RETURN

**HERE'S HOW THE SOY CHECKOFF WORKS.** The national soy checkoff was created as part of the 1990 Farm Bill. The Act & Order that created the soy checkoff requires that all soybean farmers pay into the soy checkoff at the first point of purchase. These funds are then used for promotion, research and education at both the state and national level.



\* Led by 73 volunteer soybean farmers, the United Soybean Board (USB) invests and leverages soy checkoff dollars to MAXIMIZE PROFIT OPPORTUNITIES for all U.S. soybean farmers.

[unitedsoybean.org](http://unitedsoybean.org)



# Michigan Farmers Appointed to State Soybean Board

Michigan soybean farmers are represented at the state level by the Michigan Soybean Promotion Committee (MSPC). The mission of MSPC is to manage checkoff resources to increase return on investment for Michigan soybean farmers while enhancing sustainable soybean production. The MSPC farmer directors who oversee this mission are appointed to serve by Governor Whitmer. This year two positions were up for appointment.

In District 1 (Berrien, Cass, St. Joseph, Branch, Van Buren and Kalamazoo counties), Dan Rajzer of Decatur was newly appointed to the board. Rajzer is a familiar face within the Michigan soybean family, as he recently completed one term of service on the United Soybean Board. Rajzer has also supported the MSPC On-Farm Research Program for the last nine years.

Rajzer is the owner of Dan Rajzer Farms. He holds a Bachelor of Science in Crop and Soil Sciences from Michigan State University (MSU). He worked as an MSU Extension agent for 26 years as well as an agricultural lending agent for eight years.

Rajzer succeeds Sarah Peterson of Niles,

who served two terms on the MSPC board. The MSPC board and staff greatly thank Sarah for her leadership and service for the last six years.

Additionally, the Governor reappointed Laurie Isley of Palmyra to represent District 3 (Wayne, Monroe, Lenawee, Washtenaw and Livingston counties). Laurie and her husband Jim operate Sunrise Farms, Inc., a family farm where they grow soybeans and corn. She is also a tutor coordinator for Adrian College Academic Services and holds a Bachelor of Science in Agricultural Education from Michigan State University and a Master of Arts in Educational Leadership from Concordia University.

Isley is currently serving as president of the MSPC board. She also represents Michigan nationally on the Soy Transportation Coalition and internationally on the United States Soybean Export Council. Laurie was also recently appointed to the United Soybean Board.

If you have interest in becoming more involved with MSPC, contact Janna Fritz, executive director at 877-769-6424.



Dan Rajzer



Laurie Isley



Your Soybean Checkoff

# Ways to Receive Soybean On-Farm Research Results



A sincere thank you goes out to the more than 60 farmers who have generously stepped up again this year to host soybean on-farm research trials throughout the state. The results of these trials are being analyzed and will be available soon. Due to COVID-19 restrictions and the unknowns of how restrictions may change in the coming months, we are adjusting our plans for sharing the results this year.

Our intent is to share as widely and completely as possible with the following:

- On-Farm Research Results publication – hard copy to be mailed in early January
- On-Farm Research Results available electronically on MSPC website – [michigansoybean.org](http://michigansoybean.org)
- Virtual presentations from MSPC, MSUE and MSU staff – web-based interactive sessions
- In-person grower meetings at regional sites – live and recorded presentations (dependent upon meeting restrictions in early 2021)

While we intend to offer as many of the above tools as possible, we are not able to share details of the in-person meetings at this time. Please be sure to watch the MSPC website ([michigansoybean.org](http://michigansoybean.org)), email messages (including the Soybean Weekly electronic newsletter), MSPC Facebook page and your mailbox for updates as they are available.



## MSU Extension Virtual IPM/ Crop Management Meetings

The winter meeting season is approaching and MSU Extension Specialists and Educators have been busy compiling the latest research information. Farmers and agribusinesses are invited to attend the MSU Extension Virtual Crop and Integrated Pest Management Regional meetings in the coming weeks. These virtual meeting options will be held in place of the live meetings we have hosted in the past.

Each region will feature selected topics pertinent to their location to meet the needs of farmers. While the content of the virtual meetings will be tailored to the farmers in that area, anyone can join any virtual meeting. Group discussions and Q & A will be an important part of each program.

Save the dates! The following meeting dates are planned. For more information, contact the MSU Extension Educator listed for each regional meeting or visit [www.msuenews.msu.edu](http://www.msuenews.msu.edu). Be on the lookout for more information concerning registration.

### ICPM FOR AGRIBUSINESS

Dec. 16      2020 Integrated Crop and Pest Management Update for Agribusiness  
Eric Anderson, [eander32@msu.edu](mailto:eander32@msu.edu)

### MSU EXTENSION VIRTUAL CROP & INTEGRATED PEST MANAGEMENT WINTER MEETINGS

Jan. 7      Central Region – Paul Gross, [grossp@msu.edu](mailto:grossp@msu.edu)  
 Jan. 13     Thumb Region – Bob Battel, [battelro@msu.edu](mailto:battelro@msu.edu)  
 Jan. 15     UP/N MI Region – Jim Isleib, [isleibj@msu.edu](mailto:isleibj@msu.edu)  
 Jan. 26     SE Region - Ricardo Costa, [costasil@msu.edu](mailto:costasil@msu.edu)  
 Feb. 2      Thumb (2) Region - Phil Kaatz, [kaatz@msu.edu](mailto:kaatz@msu.edu)  
 Feb. 15-16   SW Region – Bruce Mackellar, [mackella@msu.edu](mailto:mackella@msu.edu)

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THE BOARD AND STAFF OF THE MICHIGAN SOYBEAN PROMOTION COMMITTEE WOULD LIKE TO THANK SARAH PETERSON OF NILES FOR HER TWO TERMS OF SERVICE ON THE MSPC BOARD OF DIRECTORS.

THANK YOU FOR YOUR DEDICATION AND LEADERSHIP OVER THE LAST SIX YEARS!

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# The Most Effective Method for Soybean Cyst Nematode Management? Rotating Sources of SCN Resistance

Sita Thapa, Emilie Cole, Brian Levene and Dr. Marisol Quintanilla  
Michigan State University, Department of Entomology

## SOYBEAN CYST NEMATODE AND ITS DAMAGE

Soybean cyst nematode (SCN) is one of the most economically important pathogens of soybean worldwide. Adult females (Figure 1) are visible to the naked eye on the root surface as a pearly white sphere known as a cyst. Within the cysts are hundreds of viable eggs that will hatch into juveniles and further infect the

soybeans. SCN has been a major problem for soybean growers for years, across the United State. SCN is found in every soybean-producing county in Michigan's Lower Peninsula except Presque Isle and causes an estimated \$40 million in losses each year. Some management strategies for SCN include plant resistance, crop rotation, and nematicide seed treatments. While plant resistance is the most effective control strategy against SCN, some SCN populations have adapted to the resistance.

PI 548402 (Peking), and PI 437654 (Hartwig and CystX) are available commercially. Nearly all SCN resistant varieties rely predominantly on the genetic line PI88788. Moreover, the continual use of a few resistance sources has led to shifts in SCN populations, thereby resulting in resistance-resistant populations. Utilizing a rotation of SCN resistant soybean varieties should reduce the ability for SCN to build up resistance when compared to continual use of the same resistant varieties.



**Figure 1.** Soybean root infested with SCN. Spheroid shaped tiny white structures are SCN females.

## SCN RESISTANT VARIETIES ARE STILL THE MOST EFFECTIVE METHOD FOR SCN MANAGEMENT

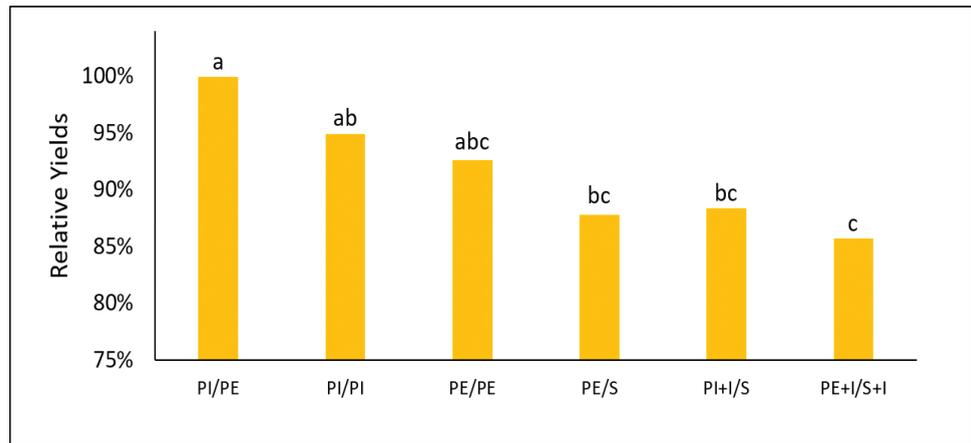
Although different management practices have been evaluated over time, rotation of the resistant varieties is the only tactic that consistently increases soybean yields in infested fields and/or reduces SCN population densities. There are hundreds of resistant soybean varieties available; however, only three genetic lines (PI 88788,

**Results from the Applied Nematology lab at Michigan State University confirm the rotation of SCN resistant varieties is effective in reducing SCN populations and producing high soybean yields.**

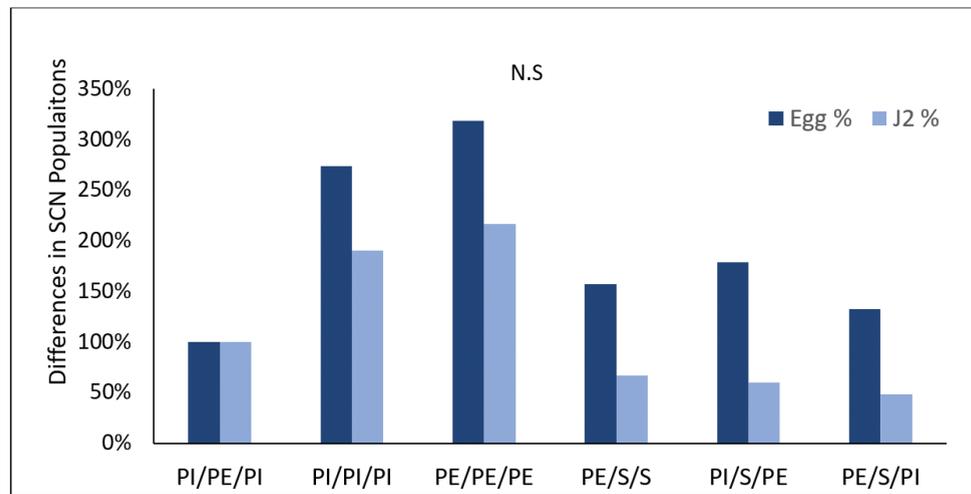
We just completed a four-year rotation trial in Saint Charles, Michigan. The objective was to observe how rotating sources of resistance impacted SCN populations and soybean yields compared to continuous use of a single line of resistance. In the first year of the trial, SCN

populations and yields were similar across all treatments. However, in year two, yield differences were apparent. Rotating resistance from PI88788 to Peking (2017/2018) resulted in the highest yields, while plots with the continuous use of PI 88788 or Peking had yields that were 5 percent and 8 percent lower, respectively (Figure 2). The rotation of PI88788 to Peking resistance also resulted in the lowest quantity of SCN cysts, eggs and J2 nematodes in the soil at harvest. Two successive seasons of PI88788 or Peking, however, had slightly greater SCN levels than when the resistance was rotated (Figure 3). Regardless of the type of SCN resistant soybean grown in 2017, all of the 2018 plots planted with SCN susceptible soybeans had the highest levels of SCN cysts, eggs and juveniles present in the soil at harvest, with 2-3 times greater levels than the PI88788 to Peking rotation. These trends continued in 2019, with the greatest yields observed in plots with rotated sources of resistance. Interestingly, in this study, three continuous seasons utilizing Peking resulted in the lowest yields. In the trial, we grew continuous soybeans to quickly evaluate the effect of rotating different sources of resistance. That said, the results are also applicable to soybeans rotated with corn (or another non-host to SCN) but greater time would be involved.

This soybean checkoff funded



**Figure 2.** Soybean yields relative to the best performing treatment (100%) for SCN Management in 2018. Treatments included PI88788 (PI), Peking (PE) and Susceptible (S) soybean varieties as well as some rotations treated with ILeVo seed treatment. Columns labeled with different letters are significantly different. Tukey’s HSD  $p < .05$



**Figure 3.** Percent differences in SCN populations from harvest 2017 to harvest 2018. Values lower than 100% indicate a decline in SCN counts over time. N.S. indicates no significance between treatments. Tukey HSD  $p < .05$ .

project helped to build confidence in the recommendation to soybean growers to rotate sources of resistance. Historically, the continual use of one source (mainly PI88788) has caused a shift in nematodes who are able to feed and reproduce on soybeans with that source of resistance. The same is true with the Peking source of resistance but the nematode’s ability to overcome this source occurs faster and populations grow faster. It is important to include Peking to slow the increase of those SCN

who have overcome PI88788 but be careful not to use Peking continuously. Peking should be used in rotation with PI88788, not as a long-term replacement. Just as a soybean grower rotates crops, they should also rotate sources of SCN resistance in their soybean variety selections. Farmers should discuss SCN sources of resistance with their seed supplier when making important decisions for the next year.

 *Your Soybean Checkoff*

# Field Crops Statewide Survey

**ATTENTION ALL MICHIGAN GRAIN AND FIELD CROP PRODUCERS, AGRIBUSINESSES AND ORGANIZATIONS — MSU EXTENSION NEEDS YOUR INPUT!**

Every 3 years, the statewide MSU Extension Field Crops work team asks Michigan field crop producers to help us understand the current needs and interests of their industries. We do this by preparing a short questionnaire and seeking responses from farmers, processors, ag suppliers and support organizations.

We use the information we receive from throughout Michigan to assure that current MSU Extension programs are on-track, and to develop new programs that will be meaningful to the people we serve. Your individual response will be confidential.

This year, to encourage participation, you have the option to be included in a drawing for a \$100 gas gift card. Three cards will be awarded to randomly selected people that complete the online questionnaire and 'opt-in' for the drawing.

To complete the online MSU Extension statewide field crops needs assessment survey, please visit <https://tinyurl.com/2020FieldCropSurvey> or use this QR code to access it on your smart phone. Thanks a million!



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## Commodity Classic Goes Virtual

Commodity Classic has announced it will transition its annual conference and trade show, originally scheduled for March 4-6, 2021, in San Antonio, Texas, to an alternative digital format. The change was necessary due to restrictions related to the COVID-19 pandemic. The new format is expected to be offered the first week in March 2021. To keep up to date, sign up for email updates at [CommodityClassic.com](http://CommodityClassic.com). More information on the 2021 Commodity Classic will also be available on the website.

Commodity Classic is now redirecting its efforts to developing alternative methods of connecting farmers and agricultural stakeholders. "We realize the total Commodity Classic experience cannot be completely replicated online. Yet a key benefit of Commodity Classic is the educational sessions and presentations from agricultural thought leaders, which are even more important in today's challenging environment," said Anthony Bush, an Ohio farmer and Commodity Classic co-chair. "We are already exploring ways in which we can deliver high quality content in unique ways that allow farmers to get the information they seek from the experts they trust."



Established in 1996, Commodity Classic is America's largest farmer-led, farmer-focused educational and agricultural experience. Commodity Classic is presented annually by the American Soybean Association, National Corn Growers Association, National Association of Wheat Growers, National Sorghum Producers and Association of Equipment Manufacturers. The 2022 Commodity Classic will be held in New Orleans March 10-12, 2022.

# Isley Appointed to United Soybean Board

The United States Department of Agriculture (USDA) recently announced the appointment of 19 members and one alternate to serve three-year terms on the United Soybean Board. The terms begin December 2020 and end December 2023. The United Soybean Board is authorized by the Soybean Promotion, Research and Information Act and is composed of 78 members representing 29 states and Eastern and Western regions. Members must be soybean producers nominated by a qualified state soybean board.

More information about the board and a list of board members is available on the Agricultural Marketing Service (AMS) United Soybean Board webpage and on the board's website, [Unitedsoybean.org](http://Unitedsoybean.org).

Laurie Isley of Palmyra was appointed and will serve alongside current Michigan representatives Dave Williams of Elsie and Jim Domagalski of Columbus. Laurie and her husband Jim operate Sunrise Farms, Inc., a family farm where they grow soybeans and corn. She succeeds Dan Rajzer of Decatur who served one term on the board.



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# Management of Soybean Phytophthora Stem and Root Rot

Austin McCoy, Graduate Student and Dr. Marty Chilvers, Field Crop Pathologist, Michigan State University

**P**hytophthora Stem and Root Rot (PRR) of soybean is a significant disease in soybeans worldwide, including Michigan. PRR can be managed with major resistance genes, termed Rps genes. Seed catalogs often list the Rps genes that the soybean varieties carry. Although Rps genes can effectively confer complete control against *Phytophthora sojae*, repeated use of any resistance gene can cause the pathogen population to adapt, rendering these genes ineffective. Surveys must be conducted regularly to track which Rps genes are effective or not within a state. With support from the Michigan Soybean Promotion Committee and Project GREEN we conducted a survey to determine which Rps genes are effective for PRR disease management.

A total of 69 soil samples were collected or submitted by farmers and crop consultants from across the state. We used a soybean baiting technique to obtain more than 100 *Phytophthora sojae* isolates. Using these *Phytophthora sojae* isolates, we tested them on a set of 14 soybean lines, each containing a single Rps resistance gene or none at all. By testing each *Phytophthora sojae* isolate against each of the 14 soybean lines, we

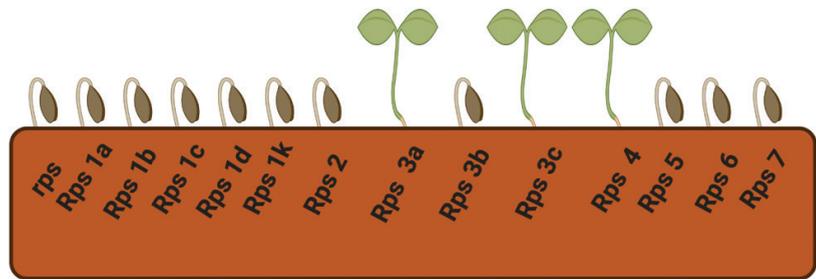


Figure 1: Illustration demonstrating the 14 soybean lines used to determine which Rps genes are effective for control of *Phytophthora sojae*. In this example a single *Phytophthora sojae* isolate was able to overcome and kill all plants containing Rps resistance genes except those containing Rps 3a, 3c and 4.

were able to determine which Rps genes effectively stop infection and which Rps genes are overcome, which leads to dead plants. The illustration above demonstrates the result for a single *Phytophthora sojae* isolate, which was capable of overcoming all the Rps resistance genes except Rps 3a, 3c, and 4.

By testing many *Phytophthora sojae* isolates from across the state, we identified which Rps genes are currently effective in Michigan. We were also able to compare our survey with a survey conducted 20 years ago. Effective resistance genes are typically considered those for which 40 percent or fewer *Phytophthora sojae* isolates can cause disease on. Alarmingly the most common resistance genes available commercially, Rps 1c and Rps 1k, appear to have lost efficacy since the last pathotype survey. Three effective resistance genes were identified in this study; Rps 3a, 3c, and 4. Of these resistance genes, only Rps 3a is available in commercial varieties commonly available in Michigan. This information is important, not only for Michigan farmers and agribusiness, but also for the seed companies and plant breeders as they work to develop new soybean lines.

Loss of the Rps 1c and 1k loci for control of PRR is an issue for Michigan farmers trying to manage PRR, particularly in years with heavy rainfall events or in fields with a history of disease



## Your Soybean Checkoff ✓

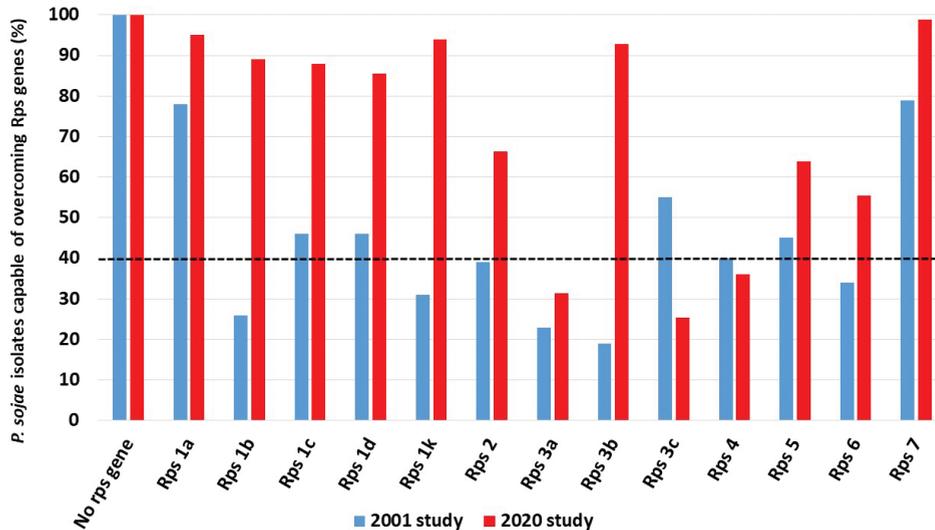


Figure 2: Graph demonstrating the percentage of *Phytophthora sojae* isolates in Michigan that are capable of overcoming Rps resistance genes. Note the general increase of *Phytophthora sojae* isolates that are able to overcome the various resistance genes in 2020 vs 2001.

We were also able to use this collection of *Phytophthora sojae* isolates from across Michigan to determine their sensitivity to fungicide seed treatments. We screened products such as metalaxyl/mefenoxam which is a component of most seed treatments, and newer products such as oxathiapiprolin (Lumisena™), and ethaboxam (Intego™). To date, all isolates of *Phytophthora sojae* appear to be sensitive to these fungicides. Although a seed treatment will not eliminate PRR it will help reduce disease severity,

particularly when paired with plant resistance.

problems. Without effective Rps resistance genes, management will need to rely more heavily on seed treatments and partial resistance (also called field tolerance). Partial resistance or 'field tolerance' is governed by many genes and is less likely to be overcome than these single Rps genes, however this type of resistance is not usually expressed at early growth stages, so it is important to pair with a seed treatment.



### TAKE HOME POINTS:

- *Phytophthora sojae* isolates in Michigan have overcome many of the commonly deployed Rps resistance genes such as Rps1c and Rps1k
- Field tolerance or partial resistance is an important component of disease management
- Field tolerance should be paired with an effective seed treatment
- We do not find any evidence for resistance to fungicide seed treatments



Your Soybean Checkoff

# 2021 Great Lakes Crop Summit Canceled

The Great Lakes Crop Summit (GLCS) is a joint effort of the Michigan Soybean Promotion Committee, Corn Marketing Program of Michigan and Michigan Wheat Program. Our three organizations work together each year to host a premier agriculture education opportunity and trade show for farmers from around the state.

After much consideration, we have made the difficult decision to cancel the 2021 event. This is not a decision we took lightly. Due to the logistical challenges with COVID-19 restrictions and concerns for the safety and well-being of our sponsors and attendees, we felt that the best course of action was to cancel the 2021 event.

We've already begun planning for 2022 and look forward to sharing details with you as they become available - be sure to save the date! The 2022 Great Lakes Crop Summit will take place January 26-27, 2022.



**WE APPRECIATE YOUR UNDERSTANDING AND  
LOOK FORWARD TO SEEING YOU IN 2022!**

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