GARY WHITTON WINS FARM CREDIT MID-AMERICA PHOTO CONTEST!
When oil goes bad due to heat, oxidation and molecular changes, it can clog filters and not perform at its designed viscosity. Beyond serious deposit buildup, bad oil can lead to engine damage, lower mileage and higher maintenance costs. Cheap oil may save you in the short run, but it will cost you in the long run. That’s why CountryMark Advantage™ Lubricants are engineered to hold up to high temperatures and extreme cold. With detergents, dispersants and additional additives to reduce oxidation and improve viscosity, you can extend oil change intervals, reduce engine wear and lower maintenance costs.

Learn more about CountryMark’s Good Oil Advantage at CountryMark.com

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.

FULL-CIRCLE RETURN

FARMERS SELL BEANS TO ELEVATORS, PROCESSORS & DEALERS

1/2 of 1% of the total selling price collected per the national soybean act & order

0.5%

Half goes to the state checkoff for investment in areas that are a priority for that state.

ROI TO THE FARMER

Half goes to the national checkoff for investment in USB’s long-range strategic plan.

PROMOTION

RESEARCH

EDUCATION

Half goes to the state checkoff for investment in areas that are a priority for that state.

ROI TO THE FARMER

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12 Bidding Farewell to Jane Ade Stevens  
Indiana’s corn and soybean farmers with CEO Jane Ade Stevens a happy retirement after more than 30 years working with the checkoff. Ade Stevens will retire effective December 31, 2019.

20 Friend of Farmers Award Goes to… U.S. Rep. Jackie Walorski (R-IN-02) was presented the Friend of Farmers award from the Indiana Corn Growers Association and the Indiana Soybean Alliance Membership and Policy Committee. Rep. Walorski has shown dedication to Indiana farmers and has worked to make sure the Indiana’s agriculture remains strong.

33 ISA Paving the Way for Transportation ISA, through your checkoff dollars and in partnership with Purdue University, developed a soy-based sealant to resolve joint failure issues on Indiana’s roadways. This patented sealer is now in the commercialization phase, and represents another roadways. This patented sealer is now in the commercialization phase, and represents another

41 Safeguarding Against African Swine Fever USDA and the Indiana State Board of Animal Health are working to raise awareness of African Swine Fever among the state’s producers and integrators to make sure they’re prepared in the event of a potential virus outbreak.

About the cover: Gary Whitton captured an image that portrays the dramatic impact of this year’s devastating spring rains.
No doubt about it. This is one of the most challenging farming years I have ever experienced. Many have called it the perfect storm of farming – with China tariff issues decimating our number one soybean export market, African swine fever in Asia destroying pig feed demand, and the unstoppable spring rains preventing farmers from planting. I’ve never seen anything like it. And this perfect storm is ushering in drastic changes for us all.

Even within our organization, the Indiana Soybean Alliance is about to undergo a major change. After 10 years as our CEO and more than 30 years of tenure with the soybean checkoff, Jane Ade Stevens will retire as of Dec. 31, 2019 (see article page 12). Jane has served the checkoff since its inception, so this represents a far-reaching change.

And yet, while much of this change seems daunting, the ebb and flow of change means that, no matter what, change eventually marshals in renewed hope and unexpected benefits. Let’s start with our soybean market situation, for example.

The China tariff situation has led to a checkoff focus on developing new markets around the world and new uses for soybeans that will eventually result in dividends for farmers. African swine fever has brought opportunity for U.S. pork producers, whom we work with closely, which has buoyed demand for soybean meal right here at home. And reduced soybean acres this year, while painful, also create a pressure valve for the huge carryover that has put downward pressure on price.

Our staff leadership change brings opportunities as well. Yes, we will miss the creative vision, people relationships, and historical knowledge Jane Ade Stevens has leveraged for this organization over the years. But our new CEO, Courtney Kingery, promises to invigorate ISA with fresh insights and a new strategic direction.

While change can offer opportunity, the journey for some brings challenges. This year, in particular, many of my friends and neighbors have suffered from the psychological stresses of enduring too much adversity. For farmers, geographical isolation and a lack of services in rural areas can compound the issue.

If you’re struggling with the ramifications of this difficult year, make sure to talk with someone at home, at church, or in the medical community. There’s help available. Here are some places to start:

- National Suicide Prevention Lifeline: 1/800-799-4889
- National Drug & Alcohol: 1/800-662-4357
- Indiana National Alliance on Mental Illness: namiindiana.org.

Change often brings unexpected opportunity
Leveraging ag issues as the election approaches

While Indiana does not currently have presidential candidates criss-crossing our state like Iowa currently does, the 2020 election is getting closer by the day. In both the primary and general elections, rural and agricultural issues can get sprinkled into the debate, but it’s important to listen carefully when we get brought up, what points are trying to be made, and how a candidate might go about offering solutions.

Trade: This is the biggest and most frequent issue brought up by far as it relates to agriculture. Farmers get mentioned frequently when candidates discuss the impacts of trade disruptions and unapproved trade deals. While recognition of our trade challenges is one thing, clear articulation of what they plan to do forward. They need to understand how trade impacts agriculture, but that will only happen if we can adequately articulate our situation.

Biofuels: An issue like biofuels that is embedded in policy, regulatory, and market forces gets very complicated. For political purposes, it is probably an issue that everyone will bring up in Iowa, and some even say that a candidate’s position on biofuels will determine whether they have a chance to win the state. However, in this cycle, it will be particularly important to pay attention to how biofuels and the environment are positioned with respect to one another. Will these issues be in constant conflict? Is it possible for candidates to be supportive of both?

Immigration: Comprehensive immigration policy is something the U.S has been lacking for quite some time. When immigration is talked about, it can often focus on concerns about border security or the asylum process. However, for those of us in agriculture, we have to think about the workforce implications. You may not personally have any immigrant labor on your farm given what you produce, but know that there are many parts of our interconnected agricultural economy that absolutely depend on these workers.

Rural Economy: Stories about skilled workers like teachers and doctors not coming to or staying in small towns or stories about rural hospitals closing are things many of us can identify with in some way. However, obvious solutions are not quite as tangible. Recognition that the struggles in rural economies are a function of so many other issues is likely the key. Everything from trade to infrastructure and social services to education will impact the health of rural economies. There is definitely no silver bullet here.

May and November of 2020 might feel like a long time from now, but it’s really not. Be sure to listen carefully between now and then to make as informed a decision as possible.
Some of the most important plant interactions happen below the soil surface. Without a healthy root structure, uptake of water and nutrients can be hindered throughout the season. Boron is essential to fuel early-season root growth and elongation, setting soybeans up for success. Boron also impacts other physiological functions, including nitrogen fixation, structural integrity and the uptake of other important nutrients, like potassium.

Boron plays a crucial role in soybeans’ flowering and reproductive stages, impacting flower initiation and pollen development. But by the reproductive stage, sodium borate — the most commonly applied form of boron — may no longer be available in adequate amounts, due to its highly soluble form, which is susceptible to leaching. On top of this, boron cannot easily move from the leaves to other plant organs, like the flowers and pods. Therefore, since translocating boron isn’t an option, and the soil supply of sodium borate may be limited, growers hit a roadblock in crop nutrition.

But sodium borate isn’t the only option. An additional fertilizer, called calcium borate, is a more slowly soluble form which releases boron throughout the growing season. While some growers may apply foliar boron, its limited plant mobility reduces the effectiveness to only the plant tissues that foliar application touched. Applying only calcium borate, however, may not ensure adequate availability during early season growth, putting root and vegetative development at risk.

Up to 60 percent of yield comes from soil fertility, but sometimes, weather will delay fertilizer application and in some cases planting, like what much of the nation has experienced the last few years. While weather may not permit spring fertilizer applications, planning for fall fertilizer options, like Aspire®, is an ideal way to ensure your soil and crops will get the nutrition needed for optimal yields.

As genetic and agronomic practices continue to drive higher yield potential in soybeans, nutrient removal rates are also increasing, creating more demand for fertility. One micronutrient vital to many crops is boron, the world’s second-most deficient micronutrient, after zinc. Even though boron is only needed in small amounts, soybeans that have adequate boron throughout the entire growing season outperform those that don’t.

**A JOURNEY THAT STARTS AT THE ROOT**

Either form of boron is beneficial to soybeans; however, applying only one form may not be sufficient. Fortunately, Aspire® is formulated with two forms to ensure adequate boron all season long. Its NutriForm™ Technology combines potash with fast-release sodium borate and slow-release calcium borate into each granule, allowing for the flexibility to apply in the spring or fall. Additionally, Aspire provides uniform nutrient distribution across the field, unlike a traditional MOP fertilizer blended with granular boron. In fact, a recent study by The Mosaic Company found soybeans with sufficient levels of uniformly distributed boron more rapidly take up potassium, and ultimately increase yield compared to conventional MOP + granular boron treatments.

As genetic and agronomic practices continue to drive higher yield potential in soybeans, nutrient removal rates are also increasing, creating more demand for fertility. One micronutrient vital to many crops is boron, the world’s second-most deficient micronutrient, after zinc. Even though boron is only needed in small amounts, soybeans that have adequate boron throughout the entire growing season outperform those that don’t.

A journey that starts at the root

Conduct regular soil and tissue tests to determine your boron needs. Discuss the results with your retailer to find an option that works best for your operation. For more information on what Aspire® can do for you, or to find a retailer, visit AspireBoron.com.

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Reflecting on three decades

Jane Ade Stevens looks back on 30 years with checkoffs

BY DAVE BLOWER

After more than 30 years working with the soybean checkoff, Indiana Soybean Alliance (ISA) CEO Jane Ade Stevens decided other things in life need her attention. Some of those things include a toddler granddaughter and sailing in warm waters with her husband, Roger.

No matter how far she travels, her heart will not be far from the Hoosier farmers she has worked with, advocated for, and promoted for decades. “I will always have some connection back to agriculture,” Ade Stevens admitted. “It’s a passion of mine. I’ll always be involved in some way, and I’ll never get too far away from it.”

Then adding with a playful grin, “Now it could be agriculture in the U.S. Virgin Islands …”

In 2010, after working mostly in communications for many years, Ade Stevens earned the promotion to Executive Director and CEO of ISA, the Indiana Corn Growers Association (ICGA), the Indiana Corn Marketing Council (ICMC), and the Soy Aquaculture Alliance (SAA). “I think everybody knows when it’s time to step away and let the next generation take over,” she said. “I’ve had a great opportunity, and I’ve tried to make the most of it. But it’s time for the organizations to have new leadership – 30 years is a long time to spend in one place.”

While a firm believer in the benefits that agricultural checkoffs provide, she admitted to being particularly proud of the construction of the Indiana Corn and Soybean Innovation Center on the Purdue University campus and the Glass Barn museum on the Indiana State Fairgrounds. The Indiana Corn and Soybean Innovation Center supports Purdue’s genomics research in automated field phenotyping, analyzing observable characteristics in corn and soybean plants. The Glass Barn provides hands-on agricultural education for children and adults during the Indiana State Fair. The Glass Barn is also open to tours for school children.

“I am very proud of the long-term projects that the farmers have committed to,” she said. “The phenotyping center for corn and soybeans at Purdue and the Glass Barn are projects that will have a long-lasting impact. I’m very pleased that the farmers saw the value in these things and voted to fund them.”

As soon as word circulated in Indiana agricultural circles that she would retire at the end of this year, The Jane Ade Stevens Farewell Tour and subsequent awards began to line up to honor her service. On the night before the State Fair opened, Lt. Gov. Suzanne Crouch presented Jane Ade Stevens with the Sagamore of the Wabash – among the highest honors the Governor of Indiana can bestow on a Hoosier. “Jane is a tireless advocate for Indiana farmers,” Crouch said. “She is someone who knows how to get things done.”

Indiana State Department of Agriculture Director Bruce Ketter added, “She’s intentional and has been a fierce advocate for Indiana’s corn and soybean farmers, whether it was on trade or encouraging ethanol use. Her efforts have had a profound impact on the industry, and evidence of her leadership can be found all across the Hoosier state, from the Glass Barn to the phenotyping facility at Purdue. She’s taken all three organizations to the next level over the past decade, and I wish her the very best on her well-deserved retirement.”

Later the awards tour continued. On Aug. 14, the Indiana State Fair Foundation presented Ade Stevens with the Harvest Award during its annual Harvest Dinner. The award is given to an individual or company that has made a significant contribution to the growth of the state fair with a focus on agriculture, youth and education. The U.S. Grains Council (USGC) recognized Ade Stevens for 10 years of service.

On Oct. 1, Courtney Kingery will begin her service as the new CEO for the ISA, ICMC, ICGA and SAA. Ade Stevens is confident in the future.

“Farmers are resilient,” she said. “I’m sure we will meet the challenges ahead very well.”
Indiana's Congressional team unanimously supports disaster aid request

On July 22, U.S. Sen. Todd Young (R-Ind.) and U.S. Sen. Mike Braun (R-Ind.) along with all nine Hoosier members of the U.S. House of Representatives signed a letter in support of Gov. Eric Holcomb’s request for a disaster declaration from USDA Secretary Sonny Perdue. Gov. Holcomb, Lt. Gov. Suzanne Crouch, and the Indiana USDA State Emergency Board asked Perdue for the disaster designation for 89 of the state’s 92 counties as a result of prolonged rain that severely delayed the planting season before crop insurance deadlines passed.

The letter, led by Sen. Young’s office, said damages of at least 30 percent of a single crop is likely for a significant number of farmers in those 88 counties. The four counties not included in the disaster request are Benton, Rush, Shelby, and Warren. The letter said the availability of emergency loans through this designation will help alleviate the financial and economic burden caused by the extreme weather.

The state’s congressional delegation also believes the designation will provide struggling farmers with critical tools to enhance risk management strategies through this growing season.

“We hope you will support this effort to mitigate the immediate and long-term effects of planting hardship in Indiana,” the delegation wrote. “We ask for your favorable consideration of this request, and eagerly await your response.”


Indiana Ag Policy Summit attracts record crowd

The Indiana Corn Growers Association (ICGA) and the Indiana Soybean Alliance Membership and Policy Committee (ISA M&P) presented the Indiana Ag Policy Summit on Tuesday, July 30 at the Indianapolis Colts practice facility.

The Summit represents a much-anticipated annual event that brings Hoosier farmers, allied industry, agriculture stakeholders, and policymakers together to discuss issues critical to agriculture.

Made possible by generous sponsorships from Bayer, Bane-Welker Equipment, Co-Alliance, Farm Credit MidAmerica, FMCG, NineStar Connect, Syngenta, Indiana Corn Marketing Council, and Indiana Soybean Association, this year’s Summit attracted a record crowd.

“The stakes have never been higher for Hoosiers than they are today,” said ICGA President Sarah Delbecq. “Farmers were already experiencing a blitz of challenges with trade disruptions, reduced livestock demand due to African Swine Fever and EPA refinery waivers that have severely diminished ethanol demand. The unprecedented wet weather that delayed, reduced, and prevented planting has been a game changer - and not in a good way.”

Speakers including Indiana State Department of Agriculture Director Bruce Kettler, Director of Broadband Scott Rudd, and Rep. Jackie Walorski (R-IN-02), covered the details and possible policy responses to trade disruptions, the spring planting weather disaster, and other agriculture challenges.

ISA and ICGA’s next policy gathering, the Indiana Ag Policy Forum, will take place on December 5. Check out www.incorn.org or www.indianasoybean.com for details.

Rural Caucus addresses important issues

The Rural Caucus meeting at the 2019 Indiana State Fair included many topics important to rural legislators.

The meeting included an update on hemp regulations from the Indiana State Chemist, a discussion on challenges of rural school districts by rural school administrators, and an address by James Carroll, director of the White House Office of Drug Control Policy, outlining the progress made combating meth and opioid abuse in rural communities.

Headlining the meeting was a panel discussion on the impact the weather has had on this year’s crop and the resulting impact this will have on Indiana’s economy.

ISA and ICMC Grain Marketing Director, Ed Ebert, was joined by Harold Cooper of Premier Companies and Steve Wigges of Farm Credit.

The panel reviewed the 2019 planting and growing conditions and analyzed the impact this will have going forward. The short crop will have a negative impact on the overall economy in Indiana. This will impact food processors, ethanol companies, logistics companies, and other important sectors in rural Indiana.

Senator Jean Leising (R-Oldeburg) said, “Understanding how the weather is impacting Indiana’s economy is very important to rural legislators. We were very pleased to have Ed able to give his expertise on markets and get the perspective from the retail and farm lending sectors as well.”

Representative Terry Goodin (D-Austin) said, “It’s important to gain a statewide perspective of agriculture on Indiana so we can prepare to find solutions that work.”

Shop Talk sessions with Indiana’s federal lawmakers


The only two lawmakers to decline Shop Talks were Rep. Peter Visclosky (D-IN-01) and Rep. Andre Carson (D-IN-07).

First Farmers Bank and Trust, Farm Credit Mid-America, Bayer, Ceres Solutions, Pioneer, South Bend Ethanol, and Beck’s Hybrids sponsored the Shop Talk sessions.

Nearly 30 attended the Shop Talk on Doc Cottingham’s farm near Attica, Ind. on Aug. 13.
Winning $500 is Nick Dyakanoff of Lapel, Ind. for a stunning beauty shot of a barn reflected in a flooded and still-unplanted field, contrasted with a beautiful blue sky.

2ND PLACE
2ND PLACE

Farmer and ag industry photographers showed creativity, composition and powerful emotions in their photo submissions for the Farm Credit Mid-America photo contest that ended on August 15th. A panel of five judges – one corn farmer, one soybean farmer, a representative from Farm Credit Mid-America and two marketing staff – selected the winners. With about 65 submissions, it was a tough decision. But the winners are in.

Many thanks to everyone who submitted photos. We received so many creative shots. Here's a sample of some of the variety.

1ST PLACE
1ST PLACE

Winning $1,000 is Gary Whitton of Jeffersonville, Ind. for a photo that dramatically captures the struggle for survival of this year's corn planting season amid the constant spring rains.

PHOTO CONTEST WINNERS!
The Indiana Soybean Alliance Membership and Policy Committee (ISA M&P) and the Indiana Corn Growers Association (ICGA) went “rollin’ down the river” on the historic steamboat Mary M. Martin during the Ohio River Tour on Tuesday, Aug. 27. ICGA and ISA M&P organized the tour to highlight the economic importance of inland waterway shipping for Hoosier farmers.

An estimated 150 Indiana farmers, stakeholders and policymakers cruised along the Ohio River to witness the significance of the McAlpine Locks and Dam near Louisville, Ky. to moving Indiana commodities to global markets. Experiencing the lock-and-dam system firsthand highlighted the need for inland waterway infrastructure to remain up to date and worthy of government investment.

The Ohio River traffic transports millions of bushels of corn and soybeans around the country and the world. Indiana’s waterways represent a gateway to global markets. Making sure the ports, locks, and dams remain strong and functional is a priority for the ISA M&P and ICGA.

“So much of our crop gets used outside Indiana; having reliable and affordable ways of moving corn and soybeans to those markets is essential,” said ICGA Vice President Mike Beard, who farms in rural Clinton County, Ind. “Moving millions of bushels of corn and soybeans down the Ohio River, then to the Mississippi River, then to international ports from New Orleans is among the best, most affordable ways to reach those markets. For agriculture, keeping these waterways open with state-of-the-art infrastructure is vital.”

Using comparatively little energy, river barges have the ability to move approximately 855,000 bushels of soybeans or 787,000 bushels of corn in a single load, as reported by the Soy Transportation Coalition.

According to the USDA’s Agricultural Research Service, coal and petroleum account for more than 50 percent of the freight traffic on U.S. inland waterways. However, agricultural produce and farm-related chemicals and fertilizers add up to 20 percent of U.S. river barge traffic. Both shippers and farmers rely on this mode of transportation to remain strong.

“Once harvest is finished, farmers require reliable transportation systems to move the crop where it’s going to be used,” said Shelbyville, Ind. farmer Phil Ramsey, who is the chairman of the ISA M&P and a member of the United Soybean Board’s Soy Transportation Committee. “The Ohio River Tour gave us the opportunity to see how our crops get moved to major ports in the United States and beyond. Keeping that infrastructure in good shape is very important.”

The tour began with breakfast at 9 a.m. on the Belle of Louisville steamboat. The program included an overview of Indiana’s waterways by Ports of Indiana Director Jeff Miles, an update on grain transportation by Tara Deines of Consolidated Grain and Barge Company, and explanation of soybean checkoff investment in transportation infrastructure by Vanderburgh County, Ind. farmer and USB board member Mark Seib.

River tour sponsors include Conexus Indiana, Agrow, Agworld, the United Soybean Board, the Indiana Soybean Alliance, and the Indiana Corn Marketing Council.
The Indiana Corn Growers Association (ICGA) and the Indiana Soybean Alliance Membership and Policy Committee (ISA M&P) presented its Friend of Farmers award to U.S. Rep. Jackie Walorski (R-IN-02) during the organizations’ annual Ag Policy Summit on July 30 at the Indianapolis Colts practice facility.

“Farmers are at the heart of the American economy, and here in Indiana they play a vital role in making our communities strong, keeping families healthy, and helping Hoosiers succeed,” said Congresswoman Walorski. “I’m honored to receive the Friend of Farmers Award and grateful to work alongside the ICGA and ISA to make sure our farmers are thriving. I look forward to continuing our work together to keep Hoosier agriculture going strong.”

ICGA and ISA M&P created the Friend of Farmers award nearly six years ago to honor elected officials each year at any level of government whose service to Indiana farmers has gone above and beyond in advancing the mission of their organizations. Corn and soybean farmers have only given the award twice since its inception. Previous winners are State Rep. Ed Soliday in 2017 for touting comprehensive infrastructure legislation (HEA 1002), and U.S. Sen. Joe Donnelly in 2016 for his work on the Waters of the U.S. (WOTUS) regulation.

Based on a conservative application of 200N, 100P and 100K, $167.79 per acre - July 2019 average pricing provided by DTN Progressive Farmer (dtnpf.com)
Soils naturally progress toward low pH, resulting in acidic soil. But today, agricultural trends and fertilizer treatments are accelerating this natural progression. Why is this a problem? Because acidic soils undermine the effectiveness of expensive fertilizers and cause a significant yield drag.

To protect your investment and your yields, balance your soil pH with Indiana Aglime.

Indiana Aglime ensures the full value of expensive fertilizers

- Acidic soils inhibit a plant’s ability to uptake and use applied nutrients. When soil pH moves below 6.0, over 20% of applied fertilizer is wasted.
- Grubs and weeds, such as vine weed, thistle, dandelion, butter print and horsetail, thrive in acidic soil.
- Acidic soil increases the solubility and toxicity of aluminum, iron and manganese, which adversely affects your crop yields.
- Acidic soil reduces the breakdown of applied fertilizers into usable plant nutrients. Microbial bacteria necessary for breaking down fertilizers cannot thrive in acidic soils. Without bacteria, fertilizers lay inert until they are washed away by leaching, or until a more balanced soil pH is restored.

Indiana Aglime is a natural soil remedy, bolstering crop yields through a number of benefits. When your soil is too acidic, apply Indiana Aglime to:

- Balance the soil pH, optimizing your plants’ ability to uptake applied fertilizers.
- Slow the leaching of expensive fertilizers below the root zone.
- Add valuable nutrients such as calcium and magnesium back into your soil.
- Improve soil tilth by increasing the number of microbial bacteria that aid in the decomposition of agricultural residue, such as corn stalks and other plant matter.
- Promote deeper root growth in dry conditions.
- Improve drainage in wet conditions.

## Microbial Bacteria thrive in Neutral soil

<table>
<thead>
<tr>
<th>pH Level</th>
<th>Soil pH</th>
<th>Bacteria Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely Acidic</td>
<td>4.4</td>
<td>1.5 million</td>
</tr>
<tr>
<td>Strongly Acidic</td>
<td>5.2</td>
<td>7.9 million</td>
</tr>
<tr>
<td>Mildly Acidic</td>
<td>6.4</td>
<td>12.3 million</td>
</tr>
<tr>
<td>Neutral Soil</td>
<td>7.0</td>
<td>14.9 million</td>
</tr>
</tbody>
</table>

Indiana Aglime helps to keep water supplies clean and healthy by reducing the amount of nitrates and other fertilizer components that otherwise seep into the groundwater.

Furthermore, Indiana Aglime is a cost-efficient remedy for treating acidification in lakes, reservoirs and ponds. It reduces the toxic effects of aluminum, lead, zinc and other metals harmful to humans and aquatic life.

By adjusting the pH in water, Indiana Aglime supports the survival and reproduction of many fish populations and adds calcium, which aids in the growth and development of bones, scales and shells.
Regular soil tests provide vital information used to determine the best treatment plan for your specific soil needs. Soil pH, fertility, drainage, organic decomposition and other factors derived from the tests will develop the plan for healthy soil maintenance and optimum yield potential.

How often you should test your soil depends on a number of variables, including soil type, crops grown, amount of rain, irrigation tools, type and amount of applied fertilizer, and other farming practices. As a general rule, experts recommend testing your soil every 2 to 3 years.

How deep you should take your soil samples is a science, but, in general, samples should be taken at 2, 4 and 6 inches from at least three different locations for every two acres.

It’s important to note: every laboratory uses its own standard of particle size when recommending Indiana Aglime based on soil test results. Learn your lab’s particle-size standard to ensure you buy the correct amount and type of Indiana Aglime.

### AGLIME EFFECTIVENESS BY PARTICLE SIZE AND RATE

<table>
<thead>
<tr>
<th>Physical Description and Use</th>
<th>Particle Size</th>
<th>Within 1 Year</th>
<th>Within 4 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coarse: like sand with fine particles</td>
<td>Between the #8 and #60 sieve</td>
<td>~50%</td>
<td>100%</td>
</tr>
<tr>
<td>Fine: very fine to pulverized</td>
<td>Passing the #60 sieve</td>
<td>100%</td>
<td>Offers no sustained benefit after first year</td>
</tr>
</tbody>
</table>

**Particle Size Matters**

Common perception is that aglime is a slow-acting material with little to no results until one or two years after application. This is only true for particle sizes larger than that passing through a #8 mesh sieve.

Particles passing through a #60-mesh sieve have an immediate effect upon contact with the soil, and are fully used within one year.

Particles passing through a #100-mesh sieve are fully used within one month.

### READING THE Indiana Aglime Quality Report

The Indiana Aglime Quality Report indicates the percentage of elemental calcium (Ca) and magnesium (Mg) inherent in the aglime you can buy.

**Calcium** is necessary for organisms that break down and transform unusable nitrates in the soil into usable plant nutrients. Calcium may be deficient in soils where lime has not been applied, where potash fertilizer is used, or where crops are subject to drought.

**Magnesium** may be deficient in some soils. Dolomitic or high magnesium Indiana Aglime is the most economical way to add this precious nutrient back into your fields.

**PARTICLE SIZE + PURITY = RNV**

Understanding the significance of these two variables is key to making the wisest aglime sourcing selection for optimum results and value.

**Particle Size Sieve Analysis**

Particle size has a bearing on how fast Indiana Aglime will react in your soil and is depicted by the percent passing through a specified sieve size. #8 and #60 are the most commonly used measures.

Acidic soils needing an immediate pH balance adjustment call for a high percent of fine particles small enough to pass through #60 sieve.

To ensure full use of applied fertilizers, specify an Indiana Aglime product with a mix of coarse and fine particles, ensuring both a quick and sustained interaction.

**Purity CCE NV Percent**

Chemical purity is defined as “CCE NV percent” (or Calcium Carbonate Equivalent Neutralizing Value Percent).

Simply stated, CCE NV is a measure of an Indiana Aglime product’s ability to neutralize soil acidity, relative to that of pure calcium carbonate. For example, a CCE of 100 is equal to pure calcium carbonate.

Therefore, the higher the aglime product’s CCE, the less of it is needed to neutralize the soil.

**RNV INTERACTION**

This figure identifies the overall effectiveness of any particular Indiana Aglime product. The RNV percent, or Relative Neutralizing Value, indicates the interaction between particle size and chemical purity during the first year.
<table>
<thead>
<tr>
<th>County</th>
<th>Producer Member</th>
<th>Contact</th>
<th>Sample A</th>
<th>Sample B</th>
<th>Sample C</th>
<th>Sample D</th>
<th>Sample E</th>
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<tbody>
<tr>
<td>Adams</td>
<td>US AGGREGATES</td>
<td>90 30 24 106.8 21.9 12.8 63.7</td>
<td>94 26 22 102.6 21.2 11.8 62.5</td>
<td>99 89 79 101.7 21.3 11.9 59.5</td>
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<td></td>
<td></td>
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<tr>
<td>Allen</td>
<td>Franklin</td>
<td>100 99 95 97.6 20.5 11.2 71.7</td>
<td>100 99 95 97.6 20.5 11.2 71.7</td>
<td>99 49 46 92.6 21.6 9.3 68.5</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>Carroll</td>
<td>HANSON AGGREGATES MIDWEST</td>
<td>94 7 3 106.1 22.1 12.5 53.6</td>
<td>94 7 3 106.1 22.1 12.5 53.6</td>
<td>94 31 24 107.3 21.6 11.9 70.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clark</td>
<td>ENGALOGIC</td>
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<td>77 28 24 100.2 21.1 11.5 52.7</td>
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**Sieve Analysis (Mesh Size) Percent Passing**

- **#8 #60 #100**
- **% OD**
- **% HD**
- **% NV**

**Contact Information**

- Brian Baker | (812) 849-9999 | bbaker@rogersgroupinc.com
- Brent Baker | (812) 849-9999 | brem.baker@rogersgroupinc.com
- Steve Wanstrath | (812) 852-8599 | steve@newpointstone.com
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- Kurt Overton | (219) 406-1194 | koverton@newpointstone.com
Genetic innovation and emerging technology does not happen without investment to pay for research that leads to breakthroughs. That’s why the Indiana Soybean Alliance (ISA), your soybean checkoff, continues to invest in plant research projects. Purdue students and faculty revealed some of their research during the bi-annual Soybean Showcase on July 23 at the Beck Agricultural Center near the Purdue campus in West Lafayette, Ind.

“The Soybean Showcase represents a great opportunity for Indiana farmers to see the research that their soybean checkoff supports and provides the unique opportunity of allowing attendees to really interact with the researchers leading the way on these initiatives,” said Kirklin, Ind., farmer Nancy Cline, an ISA board director who attended the Showcase. “ISA remains focused on supporting on-farm research and tools that help soybean farmers maximize their farms’ performance while also being good stewards of the land. We’re all looking forward to seeing the progress that is being made.”

Plot tours at Purdue’s Agronomy Center for Research and Education (ACRE) featured the research as it sprouts from the soil. Purdue Field Crop Pathologist Darcy Telenko kicked off the tours with an update on soybean diseases many growers are facing during this growing season. Next, Karen Hudson, a molecular biologist with the USDA’s Agricultural Research Service (USDA-ARS) and a Purdue adjunct professor, compared the composition of today’s soybean seed to that of future soybeans. Among the presentations, Purdue plant research scientist Jeneen Abrams said her research focuses on discovery of disease-resistant traits in soybean plants. Purdue professors Guohong Cai and Gary Nowling, who are also with the USDA-ARS Crop Production and Pest Control Research Unit, discussed results of Uniform Soybean Tests, which evaluate the best of the experimental soybean lines developed by federal and state research personnel for potential release as new varieties.

The event included many other insightful presentations. Wrapping up the program, Dr. Katy Martin Rainey, who is the new Purdue Soybean Center Director and organizer of the Soybean Showcase, covered the latest news on soybean genetics and breeding at the center.

“This is a wonderful opportunity for Indiana Soybean Alliance directors and staff, agribusiness organizations, and others to learn more about the research conducted at Purdue University, which in part is supported with Indiana soybean farmer checkoff funds,” said Dr. Marshall Martin, Senior Associate Director of Agricultural Research in the College of Agriculture at Purdue University.
SHARING THE FARM TABLE

Checkoffs entice consumers with recipe newsletter

BY MELANIE FITZPATRICK

Educating consumers about modern production agriculture isn’t easy. Capturing their attention requires talking about things they care about in a compelling, creative way. And farming usually doesn’t make the top of that list. But food does. And farmers know a lot about that. So your Indiana corn and soybean checkoffs have launched a new initiative to share their farming story with consumers. It’s called “Sharing the Farm Table.”

The concept behind “Sharing the Farm Table” involves bringing families together around the celebration of food in a way that connects crop and livestock farming with Hoosier consumers. The initiative leverages multi-channel media (radio, digital, print, social, events and, of course, the Glass Barn) to emotionally connect around food in a way that opens the door to conversations about the technology, science, and practices that make it possible to safely and affordably produce delicious, nutritious food.

Here’s a first look at the Sharing the Farm Table newsletter. We distribute it to a growing list of nearly 6,000 Indiana consumers. The hook for the newsletter starts with recipes. Then, while we have their attention, we introduce them to a farmer and share a story of modern farming practices.

If you would like to receive the newsletter as well, contact Liz Kelsey at LKelsay@indianasoybean.com.

Philly Cheesesteak Sloppy Joe Sandwiches

Ingredients

• 1 pound ground beef
• 3/4 cup water
• 1 packet gravy mix (we typically use mushroom or onion gravy mix)
• 1 cup green peppers (chopped)
• 1 cup onions (diced)
• 1 cup mushrooms (chopped)
• 1 cup Italian blend cheese
• 4 - 6 Brioche or other sweet Hamburger Buns (we also like making sliders)

Instructions

1. Set Instant Pot to sauté and brown ground beef until there is no longer any pink.
2. Carefully drain excess fat from Instant Pot insert and return ground beef to Instant Pot.
3. Mix packet of gravy mix with 3/4 cup water and pour over ground beef. Stir well—ensuring meat is not sticking to the pot.
4. Layer chopped green peppers, onions and mushrooms over meat.
5. Seal Instant Pot and cook on high pressure for 2 minutes.
6. Natural release for 7 minutes. Stir well.
7. Serve on sandwiches and sprinkle Italian blend cheese over top.

Prep Time: 15 minutes | Cook Time: 2 minutes | Pressurizing and natural release: 15 minutes

Philly Cheesesteak Sloppy Joe Sandwiches in the Instant Pot are on repeat on our family menu! We love the combination of meat and vegetables on an easy sandwich that even our picky eaters enjoy! Using the Instant Pot makes this easy family meal so convenient!


HIGH-OCTANE ETHANOL

Powering race cars at ICMC-sponsored event

High-octane ethanol fuel powered an auto race in Indiana on Aug. 17-18, and the Indiana Corn Marketing Council (ICMC) boosted the action. An estimated 3,000 race fans drove to the Marion Airport, about an hour northeast of Indianapolis in Marion, Ind., for the fourth annual Indy Airstrip Attack, sponsored by the ICMC.

HIGH-OCTANE ETHANOL

Cars provided by MAB Motorsports owner Mark Bayles and McGinity Motorworks owner Tyler McGinity. Both are supporters of ethanol, and their companies are based in Indiana. Shift S3ctor, based in Los Angeles, puts on the entire event.

ICMC thanks MAB Motorsports owner Mark Bayles and McGinity Motorworks owner Tyler McGinity for being Hoosier companies that support ethanol. Each featured the ICMC logo on their cars. ICMC partners such as First Farmers Bank and Trust, Ignite and CIE also sponsored the race.

“One of the best ways to showcase the high-octane performance of ethanol is through the sport of auto racing,” said ICMC board member Josh Miller, who is a farmer in nearby Anderson, Ind. “This gives us a chance to show thousands of spectators the power of ethanol fuels.”

Approximately 120 cars competed for prize money in an event presented by Shift S3ctor. The Indy Airstrip Attack features half-mile, side-by-side, trap-speed racing with some of the fastest stock and modified street cars in the country. Many of the top speeds for the season happen at the Marion Airport each year.

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What’s a checkoff got to do with me?

Every bean and kernel harvested is driving economic impact in Indiana communities. And, at every stop along the way — farm to field to market, and ultimately, to your dinner table — revenue is contributed to the state, both directly from agriculture and indirectly.

Connecting these dots along the way — Indiana’s rural roads and bridges.

Indiana’s roads and bridges are a significant piece of agriculture’s daily business — Indiana’s corn and soybean checkoffs are investing in research, like county bridge testing, to assess the impact of every detour, every low-weight-limit bridge and every unmaintained road.

Detours Add Up

One closed bridge equals $1.8M lost annually.1

Implies state route closure, estimated cost for the average CRD (crop reporting district).

Learn more about the investments that the Indiana corn and soybean checkoffs are making at:

www.indianasoybean.com
www.incorn.org
www.upvestindiana.com

Moving Indiana’s Economy

A checkoff is an investment by farmers, for farmers — and all of Indiana.

Every $1 of GDI created directly by Indiana agriculture industries...

$0.88

...generates another $0.83 in economic activity in other industries in the state.1

$1.00

The Road to Success

Soy-based concrete sealant approaches commercialization

By Julie Ohmen

Indiana Soybean Alliance (ISA) is investing your checkoff dollars to drive forward the commercialization of its patented soy-based concrete sealer. Current sealers on the market cannot compare with this product in terms of protection offered or its unique benefits. In fact, this novel technology is changing the way concrete protection is viewed.

It’s the soy chemistry that provides the distinctive functionality that offers a competitive advantage. This technology provides a proven, biobased concrete sealant that is absorbed into the pores up to 50 mm below the concrete’s surface — making it 10 times more penetrating than existing products in the marketplace. This pore-blocking barrier repels water and salt, giving concrete an extended seven-to-ten years of life.

Current sealers create a surface film with penetration only occurring to a depth of .5 mm. These sealants are also harmful to the environment and toxic for the people applying them.

ISA partnered with Purdue University to develop this sealer to solve a joint failure issue the Indiana Department of Transportation (INDOT) expressed concerns about. After successful road trials on US 231 and roadways in Fishers, INDOT has approved the technology for application on new projects. New construction bids now include ISA’s concrete sealer to protect roadway joints.

In order to capitalize on its success, the Indiana soybean checkoff will expand promotions to other state DOTs nationwide, targeting states that experience the destructive effects caused by heavy salting of roadways. Additionally, ISA is targeting contractors, property maintenance, and landscape asset management companies. Based on the past research and application tests, we believe the soy sealer will effectively protect entire surface applications like bridge surfaces and parking garages, as well as steel. Beginning in October 2019, ISA’s team will launch additional application tests and begin case studies, expanding into these new market segments.

Driving demand for soybeans is easy with this innovative, effective technology sponsored by Indiana farmers. Its unique chemistry offers game-changing solutions to costly infrastructure problems within the state and throughout the country. This technology provides greater concrete protection while also offering a safer solution, thereby making it the superior choice. ISA’s vision is to provide a safe, sustainable, and effective product that protects infrastructure investments while growing demand to ensure your soybeans continue to have new markets to penetrate.

To learn more about soy-based concrete sealant, visit: https://www.soybasedsealer.com/

LEFT: Soy-based concrete sealant is easy to apply and is safe to use. All that’s needed is a sprayer from your local hardware store. RIGHT: Side-by-side testing over time shows how the soy-based concrete sealer-treated road on the left stayed intact, while the untreated road shows nicks and chips as it eroded.

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I and experience with global
Miller. “My economics background
plays in our agricultural economy,
free trade
public about the
farmers and the
to educate
board.
15-member
director
will serve as an
Cincinnatti this
Council board member Josh
Council, the country’s air quality, and
help India’s economy, improve
Indian government, which will
markets fits well with USGC’s
mission,” says Miller. “I’ve seen
how the global marketplace
operates, and USGC’s work to
market U.S. grains overseas is
critical to the future of
U.S. farmers.”
During his first term
with USGC, Miller worked
on a long-term project
to help the organization
achieve one of its goals:
exporting over four billion
gallons of ethanol overseas
by 2023. Part of this project
involves working to secure
an E-10 mandate with the
Indian government, which will
help India’s economy, improve
the country’s air quality, and
benefit U.S. farmers. In marketing
year 2017/2018, the U.S. exported
a record 1.62 billion gallons of
ethanol.
Miller is excited to continue
working toward this goal and
helping to ensure U.S. grain
products are available to foreign
markets. He says, “The Council
does amazing work with limited
resources. They’re able to help
support U.S. agriculture by finding
opportunities for U.S. grains
across the globe that add value to
U.S. farmers as well as overseas
customers and consumers.”

Indiana Lt. Gov. Suzanne Crouch
signed a letter of intent with Mexican
officials on July 11 that should improve
farm trade opportunities between
Hoosiers and businesses in the
Mexican state of Hidalgo. Crouch and
Hidalgo Secretary of Interior Simón
Vargas Aguilar signed an agreement
that calls for more cooperation in areas
like agriculture, education, and science
and technology.
The agreement includes several
action items, including organizing
industry events, providing
opportunities to collaborate with experts, and sharing best practices.
“Signing this letter with Hidalgo is a
win for both states, but now the real
work begins,” Crouch said. “With this
agreement as our roadmap, we look
forward to upholding our end of the
bargain and capitalizing on
this opportunity.”
During the July 7-11 trade
mission to Mexico City and Hidalgo,
Crouch brought along Indiana State
Department of Agriculture (ISDA)
Director Bruce Kettler, Indiana Corn
Marketing Council (ICMC) President
Mike Beard, Indiana Soybean Alliance
(ISA) Membership and Policy Chair
Phil Ramsey, and ICMC board
members Natasha Cox and Jeff
Gormong, among several others.
In Mexico City, the Hoosier
delegation met with representatives
from the Foreign Affairs, Economy, and
Tourism ministries. Crouch met with
the Mexican Undersecretary of North
America Jesús Seade, who spoke about
the importance of the Indiana-Mexico
trade relationship, valued at just under
$10 billion.
Indiana becomes the first U.S.
state to send an official delegation
to Mexico, after the country ratified
the U.S.-Mexico-Canada Agreement
(USMCA) in June. “The Mexican
government has shown their support
for USMCA and it is now up to
Congress to seal the deal,” Crouch
said. “But in Indiana, we’re not waiting
around. We want Mexico to know that
Indiana is open for business and that
we’re committed to developing and
enhancing our relationship with them.”
Kettler believes the trade mission
will lead to new opportunities for
Indiana’s farmers. “When we first
learned of Secretary Villalobos’ interest
in meeting with us, we were thrilled
because of the doors it could open for
our farmers,” he said. “That’s why
we’re here, and now that we have a
direct connection with the highest
agricultural office in Mexico, we
can work towards that goal
more effectively.”
Crouch concluded her trip by
meeting with Mexico’s Secretary of
Agriculture and Rural Development
Dr. Victor Villalobos to discuss
opportunities to promote trade
and enhance cooperation in the
areas of food production, economic
development, education, and
technology. They also talked about the
importance of sustainability, as well as
the need to encourage more innovation
on the farm.
“Mexico is relationship-driven,”
Kettler added. “As connected as we
are today, there’s still no substitute
for face-to-face conversation, so these
meetings were invaluable to growing
our already strong agricultural and
economic ties.”
Establishing value chain partnerships

BY JENNY WATZ

Field to Market: The Alliance for Sustainable Agriculture is a consortium of more than 140 members of the U.S. agricultural supply chain to define, measure, and advance food, fiber, and fuel production sustainability. Grower organizations involved represent agribusiness, food and beverage, restaurant and retail, conservation groups, and university and public sector partners. Indiana Soybean Alliance (ISA) and Indiana Corn Marketing Council (ICMC) are members of this consortium.

The group meets twice a year – every summer and fall – to discuss ways farmers can evaluate the impacts of their operations on sustainability. Building partnerships throughout the value chain helps enrich understanding of how different companies and stakeholders engage with farmers to address the issues they face and to determine how to work collaboratively to find solutions to those challenges.

This past January, the group announced a three-year strategic plan to address the complex challenges facing the U.S. agriculture industry to produce food, feed, and fiber for a growing global population while conserving natural resources and adapting to a changing climate.

Field to Market will leverage the influence of its diverse members to help create sustainable outcomes for U.S. agriculture.

At its recent summer meeting at Hamburger University in Oak Brook, Ill., June 24-25, ISA, ICMC, and other members of the consortium participated in crop sector dialogues. These sessions provided participants the opportunity to have authentic conversations about issues within the value chain and to explore ways to create shared value.

Supply Chain Demand Signals

What factors motivate companies to work with farmers on documenting and demonstrating sustainability? What are key factors that drive sustainability within U.S. agriculture (market access, risk mitigation, reputation)?

Shared Value in Field to Market Projects

What makes a successful project? How is value defined for all parties involved? What is the value of grower data and who should pay for it?

Value of Stewardship for Producers

What expectation should there be for farmers to adopt conservation practices in periods of low commodity prices and diminishing farm income? Can supply chains help mitigate risk or support the adoption of conservation practices somehow that will help improve sustainability outcomes? What role can agriculture business partners like lenders and landowners play in supporting conservation adoption?

Emerging Opportunities for Shared Value

What are some emerging programs and initiatives that demonstrate value throughout the value chain? Are there promising solutions out there that aren’t yet operating at scale? What role does the supply chain play in helping scale these solutions?

The group will meet again in November to continue exploring strategies to strengthen the value proposition for all segments of the supply chain, from farmers to the retail shelf.

What’s a checkoff got to do with me?

We’re impacting Indiana for the better. Agriculture is big (and small) business with big benefits for all Hoosiers.

Livestock is the number one consumer of Indiana-grown corn and soybeans. And, those plump pigs and tasty turkeys bring economic value to the communities they call home.

The impact of adding one new barn = county revenue, income and new jobs.

Learn more about the investments that the Indiana corn and soybean checkoffs are making at:


$3.7B
state revenue
21,000 farms

$3.7B state revenue
21,000 farms

GROWING HOMEGROWN OPPORTUNITIES – DOWN THE ROAD AND AROUND THE GLOBE.

A checkoff is an investment by farmers, for farmers — and all of Indiana
Each year, the Indiana Soybean Alliance (ISA) and the Indiana Corn Marketing Council (ICMC) traditionally fund over $300,000 in research projects with potential to advance corn and soybean production. For the past two years, ISA and ICMC have highlighted these research projects in a summary book publication, and will publish a new book this fall that summarizes the 2018 research projects funded by your corn and soybean checkoffs.

ISA and ICMC partner with state and university researchers to conduct the research that helps identify best management practices farmers can use on their farms.

The summary publication provides a look at the research funded, the objectives, the protocols used, and the potential impact of each project. Some of the research can be useful for farmers in the near term, while other research will provide potential benefits in the longer term. Ultimately, the research funded by your checkoffs helps improve efficiency and farm operations, increase yield potential, and minimize environmental impacts.

“The research funded by the corn checkoff helps make sure Indiana’s corn farmers operate efficiently and are as productive as possible,” said Denny Maple, ICMC director and supply committee member. “We know that we’ll reap the benefits of this research now and in the future. It helps us build our supply and increase our demand both at home and in foreign markets.”

ICMC also jointly funds projects with ISA to benefit Indiana’s farmers. Previous jointly-funded research included studying cover crop systems and soil health, water quality and quantity, and optimizing management practices.

This year’s research summary book will be distributed at field days throughout the state, and at winter meetings and conferences. The book will also be available for mailings. For more information, contact Aly Wells at awells@indianacorn.org.

LEVERAGING CHECKOFF FUNDS

North Central Soybean Research Program leverages checkoff funds to benefit farmers

The North Central Soybean Research Program (NCSRP) held its summer meeting in Wooster, Ohio in August to review, rank, and fund research proposals that have potential to increase the profitability of soybean farmers. Established in 1992 by state soybean checkoffs in the Midwest, NCSRP aims to leverage research dollars to maximize benefits for farmers within its member states and throughout the United States.

The Indiana Soybean Alliance (ISA) has been involved with NCSRP since its inception, and is currently one of 12 Midwest states that participates in this collaborative research effort. Illinois, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin also participate.

NCSRP’s goal is to maximize returns by coordinating regional research efforts that address the needs of soybean farmers in these states, and create synergies that eliminates duplication of efforts and improves profitability. The combined state checkoff funds also fund extension and outreach efforts along with communications that benefit soybean farmers. With multiple states and universities working on issues, more research can be done to increase soybean grower productivity and improve environmental stewardship.

During this year’s meeting, the NCSRP board of directors visited some research plots and met with researchers at the Ohio Ag Research and Development Center to get updates on their projects. The board reviewed research project proposals and funded over $2.9 million in research projects for fiscal year 2020. The research projects must address one of the following areas:

• Soybean yield enhancement through classical and molecular breeding to increase genetic yield potential and yield stability via gene discovery and germplasm development
• Basic and applied research directed at soybean disease, nematode, insect pest and abiotic stress biology, management and yield loss mitigation
• Management of weeds and weed resistance to herbicides for species of common occurrence and threat across the North Central region
• Soybean production practices, crop management, and conservation through on-farm research for increased yields and profitability in an environmentally sustainable manner

The NCSRP board meets three times per year: in December, in February during Commodity Classic, and in August hosted by a member state. For more information, visit www.ncsrp.com or www.soysoloadedcheckinfo.com.

Funds granted through this program are checkoff funds contributed to Qualified State Soybean Boards pursuant to the Soybean Promotion, Research and Consumer Information Act, 7 U.S.C. 6041 (1) (4). Work performed under this Agreement will be performed in accordance with the Soybean Promotion, Research and Consumer Information Act and the Soybean Promotion and Research Order, 7 CFR Part 1220.

RESEARCH PAYING OFF

ISA/ICMC research funding summary available this fall

By Jenny Watz

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Animal ag is your top consumer of soybean meal, eating 45.6 million bushels of Indiana soybeans a year. We continue to work with the poultry and livestock industries to keep this great #Croppportunity growing. And if you’re wondering where your meal will be next ...

MAKING CUSTOMERS

pig out

IS WHAT WE DO

Trends in Soybean Meal Consumption

#CROPPORTUNITY

Making customers pig out is what we do.

45.6 MILLION BUSHELS

of Indiana soybeans a year

JUST WATCH US

Source: 2017 Soybean Meal Demand Analysis

MAKING CUSTOMERS

pig out

IS WHAT WE DO

AFRICAN SWINE FEVER

Indiana’s prevention and preparedness efforts

BY BRET D. MARSH, DVM

To say pork production is important to Indiana’s economy is almost stating the obvious. With 3,000 commercial farms that employ 14,590 Hoosiers, the importance of safeguarding the health of Indiana’s swine herd is undeniable.

Since the diagnosis of African swine fever, or ASF, in China a year ago, the disease has spread throughout Asia and parts of Eastern Europe. The virus, which does not harm humans or the food supply, causes pigs to have hemorrhagic fever, depression, loss of appetite, abortions, and, ultimately, death. As the world’s leading pork producer, China has been hit especially hard. Sources estimate the number of hogs lost in China outnumbers the total U.S. swine population.

Indiana State Board of Animal Health (BOAH) has been working to raise awareness among producers and integrators as well as state and local partner response agencies to be ready for a possible disease event in the United States.

Drawing upon experience gained during response to the 2016 avian influenza event, BOAH developed the Securing Indiana’s Pork Supply plan based on the national Secure Pork Supply plan. The plan highlights five action steps producers can take now to be ready before an ASF diagnosis:

1. Premises validation: goes beyond the required premises registration to verify the location(s) of hogs
2. Biosecurity assessment and training: to reduce risk of disease introduction
3. Certified sampler training: to enable producers to collect samples for laboratory testing
4. Securing Indiana’s Pork Supply meeting with BOAH: to understand ASF’s impact and how response will proceed
5. Electronic movement permit training: to maintain continuity of business, so animals and products can move

For more information about ASF and Indiana’s preparedness efforts, or to receive electronic updates, visit BOAH’s website at www.in.gov/boah/2857.htm.
One of the most anticipated crop reports in recent history surprised farmers, the agriculture industry, and markets alike with what many consider an overly optimistic outlook for corn and soybeans. Farmer leaders from the Indiana Soybean Alliance (ISA) and Indiana Corn Marketing Council (ICMC) participated in the United States Department of Agriculture (USDA) National Agricultural Statistics Service (NASS) crop production report lockup on August 12, in Washington, D.C., where the Secretary of Agriculture (or in this case his designee, Deputy Secretary Steve Censky) saw the data and heard the report for the first time.

Markets reacted quickly once NASS released the report at noon, sending both corn and soybean prices sharply lower. For corn, the report predicted total U.S. production of 13.9 billion bushels based on 82 million acres harvested at 169.5 bushels per acre. If this prediction holds true, the 2019 harvest would be the fifth-largest recorded corn crop. While Indiana projections were not as optimistic, the optimistic estimates shocked the Hoosier farmers and staff in attendance. NASS projects Indiana corn production will reach 813.4 million bushels from 4.9 million harvested acres at 166 bushels per acre.

ISA directors Gary McDaniel, CJ Chalfant, Larry Wilkinson, and Roger Bommer attended the briefing along with Indiana corn farmer Luke Schnitker. All expressed concern that the report does not represent what they are hearing from friends and neighbors across the state. Concerns center around not only the late planting dates, but also the many holes within fields that farmers could not get in to replant with the wet conditions. “So many patches of corn simply drowned,” said Schnitker, an ICMC director and farmer from Seymour, Ind. “Driving by fields now, it might not look so bad. But drone imagery, and even flying over Indiana on the way to D.C., shows the truth – hidden patches of ground where nothing is growing.”

On the soybean side, NASS reduced total soybean production to 3.68 billion bushels, down from 4.54 billion bushels. This reduction in July acreage, under normal market conditions, would usually stimulate a rally in soybean markets, according to ISA Sr. Director of Grain Markets Ed Ebert. But with the abundant stocks of soybeans, coupled with trade concerns and other uncertainties, this did not happen. For Indiana, NASS predicts 268.5 million bushels of soybeans based on 5.37 million harvested acres at 50 bushels per acre.

As a final note, NASS bases the crop report on current conditions and does not predict unknowns, such as weather or fall harvest conditions. As a result, farmers still harbor concerns about what might happen this fall if an early freeze occurs. To find the complete report visit www.nass.usda.gov.
FEEDING THE WORLD

Yield increases and nitrogen efficiency help corn farmers feed the world more sustainably

BY DAVE BLOWER

A recent Purdue study shows how improved nitrogen efficiency helps with grain yields so farmers can produce more using fewer resources. The research indicated hybrid corn varieties for the past 70 years have increased both grain yields and nitrogen use efficiency at nearly the same rate.

Tony Vyn, the Corteva Agriscience Henry A. Wallace Chair in crop sciences and a Purdue agronomy professor, and Sarah Mueller, a past recipient of the Indiana Corn Marketing Council’s Gary Lamie graduate scholarship, conducted the research. Vyn and Mueller discovered that genetic improvements led to an 89 percent increase in grain yields since the 1940s, and a 73 percent increase in nitrogen use efficiency in that same time frame.

“There’s been a plateau in yields and nitrogen use efficiency at nearly the same rate,” Vyn said. “But we’re capturing more of the fertilizer we apply so that less is lost while more of the nitrogen captured by the plant is creating grain. In our case, we’ve documented progression from creating 42 pounds of grain per pound of nitrogen taken up in the plant to 65 pounds of grain. That essentially means that we’ve not necessarily sacrificed the environment in realizing much higher yields now than we did 50 or 70 years ago.

Improvements to corn hybrids since the 1930s led to increased yields. However, for many years those yields relied upon higher nitrogen application rates, and the loss of excess nitrogen can harm water and air quality as well as wildlife. Vyn and Mueller obtained seven commercially vital Pioneer hybrid seeds – approximately one per decade from 1946 to 2015. These hybrids were grown side-by-side with a variety of nitrogen management plans. The corn stalks were analyzed at several stages of growth to track nitrogen uptake and distribution throughout the plant. The research discovered that more recent hybrid corn kernels receive improves yields. “Kernels are going to pull nitrogen from somewhere in the plant,” Vyn explained. “Stems contribute almost nothing to photosynthesis, but keeping nitrogen concentrations higher in the leaves for more of the growing season allows for more photosynthesis and improved yields.”

Vyn said the research offers plant breeders options for how to continue to make improvements in yield and nitrogen use efficiency. Scientific Reports published the study’s results.

Regarding the high levels of nitrogen use efficiency, the researchers concluded that it was largely due to genetic improvements.

Throughout the state, pre-plantillage and planting operations were conducted in fields that were often too wet, so best, marginally acceptable in terms of soil moisture. One major consequence of those “wet” field operations was the creation of compacted soil layers or planter furrows that later restricted the development of the young plants’ root systems. Excessive rainfall in the weeks following, many Indiana farmers were heard uttering the words of that timeless nursery rhyme: “Rain, rain, go away… Come again another day.” Of course, what they really meant by those words was: “Please stop raining so that I can plant my crops and apply my herbicides and sidedress my corn…” But then please come back as timely rains for the rest of the summer.”

Unfortunately for many areas of the state, the rains began to dissipate in late June and have since abandoned much of the state. Much of the state received 50-75 percent of normal rainfall in July. As of August 10, accumulated precipitation for August ranged from nearly zero to 50 percent of normal. By the end of July, parts of Indiana appeared on the U.S. Drought Monitor map with “D1” (abnormally dry) drought severity ratings. By August 10, parts of thirty-seven Indiana counties held that dubious honor. The combination of a wet, late planting season with a mid- to late summer drought spells trouble for corn no matter how you look at it.

During the midst of our late planting woes last spring and in the weeks following, many Indiana farmers were heard uttering the words of that timeless nursery rhyme: “Rain, rain, go away… Come again another day.” Of course, what they really meant by those words was: “Please stop raining so that I can plant my crops and apply my herbicides and sidedress my corn…” But then please come back as timely rains for the rest of the summer.”

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Schwarck, Roth earn ICMC scholarship for corn-related research at Purdue

BY DAVE BLOWER

Purdue University grad student Lauren Schwarck and doctoral candidate Richard Roth earned the Indiana Corn Marketing Council’s (ICMC) Gary Lamie scholarship for 2019. Named in honor of former ICMC board member Gary Lamie, who died suddenly in 2013, the graduate student scholarships benefit students who conduct corn-related research that will benefit Hoosier farmers.

ICMC and Agricultural Research in the Purdue College of Agriculture collaborate to provide these funds for the Graduate Student Corn Research Assistantships. The ICMC awarded two $25,000 assistantships to Purdue University students in the Department of Agronomy. Students will use these funds to support the research phase of their master’s or doctoral programs.

Investment in the education of future research scientists or leaders ensures productivity for corn producers and the industry by providing the latest information and research in genetics, agronomy, disease management, insect management, and improving soil health with cover crops and marketing,” explained Marshall Martin, senior associate director of agriculture research at Purdue University. “The graduate student assistantships provided by the ICMC offer excellent motivation and support for graduate student research on corn production and use.”

Schwarck hails from Spencer, Iowa, and she earned her undergraduate degree from Iowa State University. Schwarck’s research aims to help Hoosier farmers accurately assess their potassium (K) needs for their crop. She said 2016 research found that one-quarter of soils in Indiana tested below state-established levels for K. With little information on K management and the declining soil test, the need for K research has increased, Schwarck added.

Roth is a doctoral candidate from Divernon, Ill. He earned his undergraduate and master’s degrees from Illinois State University. Roth’s research focuses on detailing cover crop management strategies to optimize corn yields. The conservation value of cover crops is at the heart of his study. Roth said within the past 10 years, Indiana has been the leader in cover crop usage – 5-10 percent of farmland. However, cover crops have not been widely used across the Midwest – only 2-5 percent of farmland.

The goal of the program is to support graduate students whose research is relevant to the knowledge base important to the corn industry,” said Denny Maple, an ICMC board member and a farmer from Greentown, Ind. “We know that success on the farm is directly correlated with continual advancements in research, and we are excited about the work we’ll be funding and students we’re investing in this year through the scholarship.”

For more information or to apply for a 2020 scholarship, contact Dr. Marshall Martin at marshallmartin@purdue.edu.
IT TAKES HEART.
Grit and determination got you here. Faith will keep you going. You were made for this.