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SUMMER I 2014

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Ohio Soybean News

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Summer I 2014 • Vol. 4, No. 3



About the Cover: The Ohio Soybean Council (OSC) has partnered with Engineering Mechanics Corporation of Columbus (Emc²) to establish the feasibility of using soybean hulls to replace a portion of the petroleum polymer used in many industrial and consumer applications without sacrificing performance.

Photo provided by the United Soybean Board



The Tradition Continues ...
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Bret Davis
Ohio Soybean Association Chairman
Delaware County soybean farmer

A Letter From the Chairman

Hello, Spring!! The planting process got off to a later start than usual in certain parts of the state. As I write this in Delaware County during early May, we have seen some cold and rainy days but the fields did dry out and planting has begun!

This issue of *Ohio Soybean News* includes several informative articles relating to both the Ohio Soybean Association (OSA) and Ohio Soybean Council. This issue also contains information on great opportunities that you can take advantage of in 2014. Some examples include: the 2014 Ohio Soybean Yield and Quality Contest, Beck's Young Farm Leader Program, Succession Planning Workshops, Ohio State Fair and a chance to sign-up for OSA's new Policy Connection e-newsletter.

On the legislative news front, new legislation was introduced to establish a federal voluntary labeling standard for foods made with genetically modified organisms, or GMOs. OSA fully supports Federal legislation to establish voluntary labeling standards for the presence or absence of GMOs in food products and prevent inconsistent state labeling laws.

The Safe and Accurate Food Labeling Act would:

- Direct FDA to provide guidance for companies that wish to label their products for the presence or absence of GMOs
- Officially, make mandatory an FDA safety review of all new GMO traits before they are brought to market and enable FDA to mandate labels on any product shown to pose a health, safety or nutrition risk
- Direct the FDA to define the term "natural" for use on food labels

Remember to check out all the opportunities for the upcoming year and visit www.soyohio.org for additional news and information on the Ohio soybean industry.

Hope you have a safe and productive planting season.

Bret Davis



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72% OF AMERICANS UNAWARE OF FOOD SOURCES

According to a July 2011 study by the U.S. Farmers and Ranchers Alliance (USFRA) – a grass-roots organization of farm and ranch families – 72% of Americans are unaware of where their food comes from. This lack of knowledge is a conversation that Americans need to have.

between farmers and consumers has resulted in people being unfamiliar with agriculture and what it means to them. This lack of knowledge is a conversation that Americans need to have. Add to that our lack of information we



information about food. Not from firsthand knowledge of agriculture or direct contact with farmers. Their sources tend to be media, the Internet and special interest groups. This growing gap

between farmers and consumers has resulted in people being unfamiliar with agriculture and what it means to them. Add to that our lack of information we ultimately, we all can reach our common goals: to put the highest quality food on everyone's table; feed, fuel and clothe the world; and protect the environment.

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We're helping you write a better end to this story.

Your soybean checkoff dollars are helping to spread your message to consumers, educators, and community leaders, helping to ensure your freedom to operate both today and well into the future.



This message brought to you by Ohio soybean farmers and their checkoff.



2014 Ohio Soybean Yield and Quality Contest

By Katie Bauer

The Ohio Soybean Association (OSA) recently announced the launch of the state's fifth Soybean Yield and Quality Contest for the 2014 growing season. Contestants must be current members of OSA and raise at least 10 acres of soybeans in Ohio. Those who are not currently OSA members may join when entering the contest. The entry fee is \$100 and entrants may submit multiple entries.

The following seed companies have agreed to pay the entry fee for their varieties entered: Beck's Hybrids, CROPLAN, LG Seeds, R Farm Seeds, Rupp Seeds, Seed Consultants, Shur Grow, Stine Seed Company and all

Monsanto varieties including, but not limited to, Asgrow, Channel and Stewart Seeds.

Entrants can choose to enter one or more of four categories that include:

- conventional tillage
- no-till
- non-GMO soybeans — conventional tillage
- non-GMO soybeans — no-till

Developed to promote the importance of oil and protein, the quality contest is optional to enter. However, a farmer must enter the soybean yield contest in order to enter the soybean quality contest. This contest is based on the overall highest percentage of oil and protein content in the state. Entrants in the quality contest must submit a two-

pound sample of soybeans for testing.

Entrants will be eligible for several prizes. An overall state yield winner will be awarded along with category prizes for the top placing entrants. Awards will also be given to the top placing entrants in the quality contest based on the percentages of oil and protein. All prize packages will be announced mid-September at www.soyohio.org/yieldcontest.

All entry forms and entry fees must be received by August 29, 2014. The entry form along with a complete listing of contest rules can be downloaded at www.soyohio.org/yieldcontest.

Additional sponsors of the 2014 Soybean Yield and Quality Contest include: Ohio AgNet, Ohio's Country Journal and Ohio Soybean Council. ♦

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ENTRY FORM

2014 Ohio Soybean Yield and Quality Contest

This form must be completed in full and signed. Please read the 2014 Contest Rules before filling out this form.
If you have any questions, call the Ohio Soybean Association office at 614-476-3100.
Entry form and contest rules also available at www.soyohio.org/yieldcontest.

Please type or print legibly.

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____ County of Field Location _____

Ohio Soybean Association Membership # _____

Soybean Variety Name and/or Number _____

Planting Date _____

Category of Entry: ☐ Yield Only ☐ Yield & Quality

☐ Conventional tillage ☐ No-till ☐ Non-GMO conventional tillage ☐ Non-GMO no-till

Seeds planted per acre _____ Row spacing _____ Soil type _____

Requested contest officials (*refer to #2 in the rules section for a list of suggested officials*):

Official's Name _____ Title _____

Company/Organization _____

Address _____

City _____ State _____ Zip _____ Phone _____

I hereby certify the information provided on this Entry Form to be accurate to the best of my knowledge and agree all contest information shall become the property of the Ohio Soybean Association and can be used at the discretion of the Ohio Soybean Association.

Signature of applicant _____ Date _____

Entry fee: \$100 - Make check payable to the Ohio Soybean Association

- Each entrant will be granted a one-year membership to the Ohio Soybean Association. If you are currently a member, your membership will be extended for one year. If you wish to waive the membership grant, check here. ☐
- If you have multiple entries, each additional entry will go toward a one-year endowment to a member of FFA or an individual in an agricultural field of study in an Ohio college or university.

Entry deadline: Postmarked by August 29, 2014

Submit this form along with your entry fee to:
Ohio Soybean Association Yield Contest - 918 Proprietors Road, Suite A, Worthington, Ohio 43085

Questions? Call or email Adam Ward at 614-476-3100 or award@soyohio.org.



OSA Farmer-leaders Travel to Washington, D.C.

By Katie Bauer

Farmer leaders of the Ohio Soybean Association (OSA) recently traveled to Washington, D.C. to meet

with lawmakers and regulators on critical soybean industry issues including the recently passed farm bill, the Renewable Fuel Standard, waterways bills now in conference, trade, regulatory, biotechnol-



From left to right: Allen Armstrong, Jerry Bambauer, Jeff Sollars, Lane Osswald, Tom Price, Mike Heffelfinger and Bret Davis, all OSA board members, spent time on Capitol hill lobbying on behalf of Ohio soybean farmers.

It's no secret that soybeans are very sensitive to climate conditions. This is especially true in the pre-flowering and post-flowering stages, which cause inconsistent yields from year to year.

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ogy, sustainability and aquaculture.

Eight members of OSA lobbied on behalf of Ohio Soybean farmers during visits. Representatives included: Bret Davis (Delaware County), Allen Armstrong (Clark County), Jeff Sollars (Fayette County), Adam Graham (Logan County), Jerry Bambauer (Auglaize County), Tom Price (Putnam County), Mike Heffelfinger (Van Wert County) and Lane Osswald (Preble County).

“As a group, we were able to meet with several members of Ohio’s congressional delegation to discuss important issues facing the soybean industry,” said Adam Graham, OSA board member and soybean farmer from Logan County. “There is no substitute for face-to-face communication and Hill visits are a great way to build relationships with our lawmakers.”

While in Washington, D.C., Davis, Sollars and Bambauer participated in the American Soybean Association (ASA) board meeting. More than 100 soybean farmers, including the 43 members of ASA’s board met to discuss the policy victories and challenges facing the soybean industry in the near and long terms.

ASA also presented Senate Agriculture Committee Chairwoman Debbie Stabenow (D-Mich.) with the Soy Champion Award for her outstanding leadership and advocacy on behalf of soybean farmers. Chairwoman Stabenow played an instrumental role in the battle over the farm bill and has been a driving force for progress on risk management, biobased products, renewable fuels, trade, agricultural research, conservation and many other issues that impact soybean farmers’ success. ♦



Ohio Soybean Association Recognizes Brown and Gibbs as Legislators of the Year

By Jennifer Coleman

The Ohio Soybean Association (OSA) recently recognized Sen. Sherrod Brown (D-OH) and Rep. Bob Gibbs (R-OH) as OSA Legislators of the Year. OSA awards this distinction to a legislator or legislators who have shown a tremendous contribution to the success of the Ohio soybean industry.

Brown and Gibbs both played critical roles in the passage of the farm bill in early 2014 as both men served on their respective chambers' Agriculture Committee. Thanks to their work, Ohio soybean farmers' priorities were front and center in the new bill.

"As agriculture is only one percent of the U.S. population, it is more important than ever to cultivate the relationships

we have with the legislative leaders who understand farmers' contribution to U.S. citizens and the economy," said Jerry Bambauer, OSA president and Auglaize County soybean farmer. "I want to thank Sen. Brown and Rep. Gibbs for recognizing that contribution and working so hard on behalf of Ohio's 24,000 soybean farmers."

During the farm bill process, Brown partnered with Chairwoman Debbie Stabenow (D-MI) to be the leading voices of support for the Agriculture Risk Coverage program, supported by OSA.

OSA farmer leaders presented the award to Brown during a special event and meeting at the farm of Bret Davis, OSA chairman and Delaware County soybean farmer.

"With one in seven jobs related to food and agriculture in Ohio, it's crucial that Ohio farmers have the resources they need while saving taxpayers' money," said Sen. Sherrod Brown. "This farm bill achieved that balance and the members of the Ohio Soybean Association helped to push this bill across the finish line. Representing Ohio farmers is an honor and I thank the Ohio Soybean Association for its recognition as legislator of the year."

Brown and Gibbs have both been very accessible to soybean farmers and held multiple conference calls with leaders across the state. They supported expanded funding of the Biobased Marketing Program and the continuation of the Renewable Fuel Standard, which includes a required level of use of biodiesel, the only advanced biofuels currently available on the market. Gibbs was officially presented this award in



Jerry Bambauer, OSA president (left) and Bret Davis, OSA chairman (center) present Rep. Bob Gibbs (right) with the OSA Legislator of the Year award in Washington, D.C.

March during OSA's visit to his office on Capitol Hill.

"I am honored to receive Legislator of the Year from the Ohio Soybean Association," said Rep. Bob Gibbs. "OSA was critical throughout the development of a market-driven farm bill that would ensure American consumers would continue to have an abundant, safe and affordable food supply. Ohio's farmers are a key driver of our economy and job creation and I am grateful for all they do every day to produce wholesome food for all Americans."

In addition to the farm bill, Brown and Gibbs currently support the passage of the Water Resources Development Act, which will help ensure farmers' ability to get their product to both domestic and international markets. Without the final passage of this legislation, U.S. infrastructure will continue to decay. ♦



Sen. Sherrod speaks to a group of Ohio farmers at Bret Davis' farm after accepting his award as OSA Legislator of the Year.



ASA Helps WISHH Partners Launch New African and Hispanic Foods Containing U.S. Soy

By Karen Edwards

April was Soyfoods Month in the United States but the excitement for new foods containing soy goes far beyond U.S. borders. The American Soybean Association's (ASA) support for World Initiative for Soy in Human Health (WISHH) Program work has helped companies and groups in developing countries introduce nutritious and delicious Hispanic and African soyfoods in 2013-2014.

Examples include three soy-based Amelia cream soups launched by Guatemalan food company Alimentos Sociedad Anonima (Alimentos SA) in March. Ugandan food maker SESACO Ltd. has introduced SoySip, a just-add-hot-water beverage that comes with packets of ginger and sugar. Multiple companies are extending meat products, ranging from beef to fish nuggets, with soy.

"WISHH introduces the benefits of soy and then trains developing country companies and organizations that are eager to add U.S. soy protein to their foods," said Bret Davis, Ohio Soybean Association (OSA) Chairman and soybean farmer from Delaware County who serves on the WISHH committee as an ASA representative. "The teamwork creates new markets for all, and helps local consumers have healthier diets."

"We are seeing a bumper crop of new foods containing soy offered by companies and groups that WISHH has assisted through training, product samples and more," said WISHH Chairman David

Iverson, a South Dakota soybean grower. "Soybean checkoffs, the U.S. Departments of Agriculture (USDA) and Agency for International Development (USAID) are assisting WISHH and its partners to help meet the enormous need for protein in nutritious foods that are also affordable and available for developing country diets."

Thanks to USDA Foreign Agricultural Service support, WISHH's many spring 2014 activities included hosting educational conferences in Kenya and Ghana. At these programs, African and U.S. food industry as well as government participants explored opportunities in school feeding and retail programs to offer healthier foods.

WISHH's USAID-supported work in Liberia is also an example of

how production of new soy-based foods creates jobs, including for women, and makes much-needed protein available to local diets. Under the USAID-HANDS program, WISHH and Opportunities Industrialization Centers International have built two processing facilities where women manufacture fortified-blended "Super Gari" cereal made with local cassava. Adding U.S. defatted soy flour helps fill the protein gap that was in the traditional gari.

U.S. and developing country diets share common ground in that protein is needed for good health. The majority of U.S. consumers (78 percent) agree that protein contributes to a healthy diet and more than half of adults say they want more of it in their diets, reported the NPD Group in a study released in March.



"WISHH introduces the benefits of soy and then trains developing country companies and organizations that are eager to add U.S. soy protein to their foods," said Bret Davis, OSA Chairman and soybean farmer from Delaware County. "The teamwork creates new markets for all, and helps local consumers have healthier diets."

Global protein ingredient market revenues are expected to reach USD 28.90 billion by 2020, according to a new study by Grand View Research. Plant proteins—led by soy—accounted for over 56% of global volumes in 2013, and are expected to continue dominating the market over the next six years, growing at an estimated compound annual growth rate of 6.3% from 2014 to 2020. Soy-based ingredients accounted for more than 70 percent of global volumes in 2013.

In addition to OSA, the Ohio Soybean Council (OSC) is among several state soybean checkoff boards that provide financial support to WISHH. As a result, OSC board member Keith Roberts of Marion County sits on the WISHH committee and helps to shape the organization's strategic approach. ♦



Register Now for ASA Succession Planning Workshops

Planning for your farm's future, or succession planning, is more than just creating a will. If you want to transfer your farm to the next generation, they'll need the right leadership and business management skills to ensure financial security. Now you can learn more about how to successfully transition your farm and protect your legacy at the ASA Succession Planning Workshops.

The American Soybean Association (ASA), in partnership with eLegacyConnect, will hold a series of six regional succession planning workshops to help farmers in this process. The Succession Planning Workshops, titled "Five Keys to Effective Succession Planning" are sponsored by Farm Credit, AGCO, Illinois Soybean Association, Kentucky Soybean Association, Michigan Soybean Association and the Ohio Soybean Association.

"ASA is dedicated to enhancing and

protecting the livelihoods of soybean producers. Today's tax laws and regulatory landscape are making it harder to keep the farm in the family," said Bob Worth, ASA membership and corporate relations chairman. "Succession planning is a watershed issue facing all soybean producers and these workshops will provide soybean producers with the basics in getting a succession plan started."

Workshops are taught by Kevin Spafford, founder of Legacy by Design, a firm dedicated to succession planning for farm families and agribusiness owners. Over the last 10 years, he's spearheaded initiatives to improve the way farmers, ranchers and agribusiness owners engage in the succession planning process.

For more information about these workshops visit the ASA website at www.soygrowers.com. ♦

2014 Workshop Dates / Locations

June 24 Memphis, Tenn. The University of Memphis/University Center Ballroom A-B

June 26 Paducah, Ky. Julian Carroll Convention Center

July 30 Sioux Falls, S.D. Sioux Falls Convention Center

Aug. 19 Columbus, Ohio

Renaissance Columbus Downtown

Aug. 21 Fort Wayne, Ind. The Landmark Centre

Dec. 4 Moline, Ill. Stoney Creek Hotel and Conference Center

Each workshop begins at 9 a.m. and concludes by 3 p.m. Lunch is provided.

Registration Information

Register online by going to www.soygrowers.com and selecting the location you want to attend. There is a minimal registration fee for each attendee. ASA members are \$50 for first registrant and \$30 for each additional family member/guest. Non-ASA members are \$90 for first attendee and \$70 for each additional family member/guest.

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Get Connected to the Issues that Matter Most

Ohio soybean farmers regularly report that regulatory policy and legislative issues are top of mind when they think about the future success of their farms. Staying up-to-date on these issues and other industry trends will keep you ahead of the competition and better prepared for the future.

With that in mind, the Ohio Soybean Association (OSA) is proud to introduce the OSA Policy Connection e-newsletter, an exclusive benefit for OSA members only.

OSA Policy Connection will provide bill action alerts, industry news, regulatory updates, meeting and event schedules and much more — directly to your email.

To sign up, just visit www.soyohio.org/connection or fill out and mail the attached form. Don't worry — OSA will never share or sell your personal information.

The OSA Policy Connection

The mission of OSA is to provide leadership for Ohio soybean farmers by promoting effective policies and legislation to ensure a growing and profitable soybean industry.

To accomplish our mission, OSA farmer leaders work hard to stay on top of bill movement, regulatory rules and other changes to policy that are moving through our state and federal government. And when something comes up that will affect your bottom line, we're there in the offices of your legislators to ensure your voice is heard.

But we can't do this alone. Ohio soybean checkoff dollars cannot legally be used for lobbying activities, so your OSA membership is vital to the continued work that we do. Membership dues and your ability to mobilize when needed and call your legislators is critical in the legislative process.

If you are getting the *Ohio Soybean News* magazine, it doesn't necessarily mean you are automatically an OSA member. If you would like to be an OSA member and enjoy benefits like the OSA Policy Connection e-newsletter, visit www.soyohio.org/membership.

Thanks to the new OSA Policy Connection e-newsletter, you can stay connected to those issues that matter most to you and your farm. So take a minute and sign up!



Sincerely,

Jerry Bambauer

Jerry Bambauer
OSA President
Auglaize County soybean farmer

Sign Up Online!

www.soyohio.org/connection



YES, I want to receive the OSA Policy Connection e-newsletter.

Name: _____

Email: _____

I'm interested in the following issues (check all that apply):

- ☐ Legislative Action Alerts
- ☐ Industry News
- ☐ Agronomic Information
- ☐ Regulatory Updates
- ☐ Biodiesel Basics
- ☐ Leadership Training
- ☐ Meeting Schedules and Events

Mail this form to:

**OSA Policy Connection
918 Proprietors Road, Suite A
Worthington, OH 43085**

www.soyohio.org/membership



Apply or Nominate Someone for the Beck's Young Farm Leader Program

The Ohio Soybean Association (OSA) and Beck's Hybrids share the belief that building a grassroots network of young agricultural leaders is important to the continued success of the soybean industry and all of Ohio agriculture. For this reason, OSA and Beck's Hybrids have partnered to create the Beck's Young Farm Leader Program to showcase the hard work, dedication and leadership of young Ohio farmers.

One farmer each quarter will be chosen by a selection committee consisting of OSA and Beck's Hybrids representatives. Each farmer selected will be highlighted in a story published in several Ohio agricultural publications. The stories will focus on the individual's leadership roles, both on and off the farm, and how he or she has built a foundation for farming success. One of the Beck's Young Farm Leaders will be selected as the 2014 Beck's

Guidelines:

- Farmers must be between the ages of 21 and 45.
- Any soybean farmer may apply for the Beck's Young Leader Program; selected participants are required to have a current Ohio Soybean Association membership.
- Applicants are not required to grow Beck's Hybrids products to be eligible to win.
- Applicants should demonstrate an interest in pursuing leadership roles within the soybean industry.

All applications postmarked by the following dates will be considered. Applications will carry over to subsequent quarters for consideration, but will not carry over to the 2015 Beck's Young Farm Leader Program.

August 1, 2014:

3rd Quarter Applications Due

October 31, 2014:

4th Quarter Applications Due

Submit application by mail to:
Ohio Soybean Association
Beck's Young Farm Leader Program
918 Proprietors Road, Suite A
Worthington, Ohio 43085

Young Farm Leader of the Year and receive a trip for two (\$2,000 value) to the 2015 Commodity Classic in Phoenix, Arizona. Beck's Young Farm Leaders may also be chosen to attend OSA and/or Beck's Hybrids leadership

INTERESTED IN NOMINATING

SOMEONE? Contact Adam Ward at award@soyohio.org or 614-476-3100.

training programs, board meetings, events and other relevant activities.

Frogeye Should Be on Your Radar

Recently, soybean researchers from Kentucky, Indiana, Illinois and many states in the southern U.S. that border the Mississippi River reported the presence of the fungus *Cercospora soja* that is resistant to the strobilurin fungicides. This fungus causes frogeye leaf spot on soybeans.

"To date, we have not identified any *Cercospora soja* isolates from locations in Ohio that are insensitive to these fungicides," commented Anne Dorrance, professor from The Ohio State University. "More monitoring will take place in 2014," she continued.

Samples were taken in Ohio last year, and it was found that this fungus is not as widespread here. However, if farmers think they have frogeye, they should send it to the lab immediately and researchers can have

an answer within 48 hours. They will let you know if the strobilurin fungicides will still be effective or if you will need to consider a triazole compound.

"We have had a hard winter and most farmers practice good rotation with their field crops and plant varieties that are resistant to frogeye, so they shouldn't be too concerned, but it is still a good idea for farmers to be on the lookout," said Dorrance. "If it is caught early, we can advise farmers on what to do," concluded Dorrance.



Soybean Rewards
Knowledge to Grow



Managed by the Ohio Soybean Council and soybean checkoff, the Soybean Rewards Program helps Ohio soybean farmers increase productivity, yield and profitability by providing information and research related to premium opportunities, new varieties, disease and pest management and conservation practices.

On the Hunt for Kudzu Bugs in Ohio

By Andy Michel, The Ohio State University Extension, Ohio Agricultural Research and Development Center

In 2009, the Kudzu bug was first spotted near Atlanta, Georgia. Since then it has spread up the Atlantic Coast to Maryland, and westward across the Mississippi into Louisiana. Thankfully, it has not reached Ohio yet, but was found in southern Kentucky in 2013. This is a serious invasive pest of soybean, and has presented numerous challenges to soybean producers in the Southeast, causing an average of 18% yield loss as well as numerous insecticide applications. Its importance and rapid spread might also cause problems for Ohio soybean producers once it arrives.

The Kudzu bug is a small, brown insect related to stink bugs and native to Asia. Adults overwinter near kudzu, wisteria or even homes, and then emerge in the spring around April or May. Normally, it will search and feed on kudzu, the invasive weed that is more prevalent in the south, but this plant is also known to occur in southern Ohio near the Ohio River. After egg laying and nymphal development into adults, this new generation will disperse to soybean—adults are usually found in the late V stages. The nymphs of the kudzu bug are the most damaging, and these can be found in the early reproductive stages. Kudzu bugs will most likely be found on the stem, and are easily seen by direct observation or by sweep net collecting. Like soybean aphids or stink bugs they have piercing/sucking mouthparts, and their direct feeding contributes to yield loss.

This year, researchers from the Ohio Agricultural Research and Development Center, along with The Ohio State University (OSU) Extension Educators will be actively scouting and monitoring for this pest, with support from the Ohio Soybean Council (OSC) and soybean checkoff. We will be placing PVC kudzu bug traps (developed by Virginia Tech University) in

counties along the Ohio River. These traps are white in color (kudzu bugs seem to like the color white) and have sticky paper wrapped around them to hold them until trap cooperators check the traps. We are also going to place traps along the I-75 corridor. Part of the reason why the kudzu bug has spread so rapidly is because it is a very good hitchhiker with vehicles. I-75 runs right through the heart of kudzu bug country, which may be a potential way they can invade Ohio.

Since it is not known to occur in Ohio, our best strategy at this point is to survey and monitor likely areas of invasion. Soybean growers should inspect their fields this year for



PVC kudzu bug traps are white in color and have sticky paper to hold them until trap cooperators check the traps.

the presence of kudzu bugs, especially those in Southern Ohio. If kudzu patches are also nearby, these should be scouted as well in late spring, early summer. If you think you have found kudzu bug, please contact Dr. Andy Michel (michel.70@osu.edu) or your local OSU Extension office. Thankfully, soybean checkoff supported research has led to management recommendations to limit yield loss—but let's

hope we do not get to that point. For more information, including a soybean management guide, please see [kudzubug.org](#). ♦



About the Researcher

Dr. Andy Michel's research focuses on characterizing the genetic basis for insect adaptation and how these adaptive traits spread across the landscape. His overall goal is to understand how insect pests adapt to rapidly changing selection pressures in agroecosystems, such as host-shifting to important crops or resistance to management tactics. Understanding and demonstrating how insects adapt, as well as communicating research-based insect management recommendations, delays the evolution of resistance or the emergence of pests and ensures a safer and more productive food supply.

He received his BS in entomology from Purdue University (2001) and his Ph.D. in biology from the University of Notre Dame (2005). After postdoctoral research also at Notre Dame (2005-2007), he joined the Department of Entomology at the Ohio Agricultural Research and Development Center at The Ohio State University with research and extension appointments in field crops entomology. He has focused much of his research on the soybean aphid, *Aphis glycines*, but has also investigated adaptation in corn pests, such as western bean cutworm and western corn rootworm. Overall, he has received over \$2 million in research funding and has published more than 35 peer-reviewed papers and two book chapters. Additionally, he has provided over 70 extension presentations on field crop insect management, including the use of biotechnology and insect resistant crops.



Creating Value for Ohio Soybeans

Engineering Mechanics Corporation of Columbus, Ohio invests in soy-based technology

By Katie Bauer

After Ohio soybean farmer Keith Roberts unloads his soybeans at the elevator he often reflects on where they will be going next.

"Ohio soybeans offer an abundant and renewable supply of ingredients for food and livestock feed," said Roberts, Marion County soybean farmer and Chair of the Ohio Soybean Council's (OSC) New Uses Committee. "In addition, soybeans make it possible for companies to reduce the petroleum content in commercial and industrial products by using soybean meal, oil or hulls in a variety of applications."

One goal of the OSC and soybean checkoff program is to make known the expanding universe of soy-based products, and to make it easier for consumers to purchase them. OSC continually supports research to ensure new soy-based products are commercialized and sold in the market.

In the past two years, OSC has partnered with Engineering Mechanics Corporation of Columbus (Emc²) to establish the feasibility of using soybean hulls to replace a portion of the petroleum-based polymer resin used in many industrial and consumer applications without sacrificing performance. This material is known as Soy-based Advanced Natural Fiber Composite (S-ANFC) and incorporates soybean hulls as fillers and reinforcements for plastic parts while maintaining a competitive price and performance that will increase soybean demand for consumer and industrial products.

"Replacing a significant portion of the petroleum-based polymer with soybean hulls produces a compound with strength and flexibility properties on par with a 100% petroleum-based polymer compound," said Dr. Prabhat Krishnaswamy, Senior Vice-President of Emc² and technical lead on the project.

Moving Toward Commercialization

Emc² has been working with GDC, Inc. of Goshen, Indiana to commercialize this soy-based technology. GDC is an automotive parts manufacturer that has been in business since the 1950s and specializes in product development and production. In July 2013, GDC co-located its first Ohio manufacturing facility and production line to make S-ANFC components adjacent to the Emc² pilot plant in Wooster, Ohio. This facility was installed in collaboration with The Ohio State University's Ohio Agricultural Research and Development Center. The pilot manufacturing facility offers a six-million pound annual capacity for S-ANFC material and contains all necessary equipment and infrastructure for production.

Trial runs are being undertaken to establish the feasibility of



Dr. Prabhat Krishnaswamy, Senior Vice-President of Engineering Mechanics Corporation of Columbus

using S-ANFC in a variety of applications, specifically outdoor and automotive applications. One specific trial replaced 20-30% of a petroleum-based polymer with soybean hulls. This material was then used to produce soybean-hull based

composite deck boards for the bed/liner of a manure spreader.

"Before commercial adoption of soy hull-based materials is widely achieved, a wide range of short-term and long-term material studies need to be conducted to ensure a successful launch of any commercial product," said Krishnaswamy. "Additional trials are in process that will lead to the introduction of soy hull-based products into the market that will replace petroleum-based materials without compromising performance."

These trials are expected to be completed in the next several years with product sales estimated to begin in 2016. The expected revenues for S-ANFC parts are projected to be \$500,000 in 2016, growing to \$3,000,000 within five years.

BioPreferred Program

In addition to increasing the demand for soybeans and lowering production costs of these targeted petroleum-based polymer compounds with no loss in performance, this new technology has the potential to meet the BioPreferred requirements set by the United States Department of Agriculture (USDA). The BioPreferred program includes a list of bio-based products that are eligible for Federal procurement preference, as long as the product meets or exceeds USDA-established minimum bio-based content requirements and is reasonably priced and available.

A poll conducted by OSC found that 88% of Ohioans believe it is important that Americans begin to use more products that are environmentally friendly.

"The research and development of new products, particularly those that support the utilization of soybeans, has long-term economic and environmental benefits," said Roberts. "As a soybean farmer myself, I look forward to seeing more and more products that are utilizing soybeans for the development of soy-based consumer and industrial products."

The soybean checkoff has helped bring hundreds of soy-based products to the market, ranging from cleaning supplies to carpet backing to energy-efficient roofing materials. ♦



4R Nutrient Certification Program Creating Unified Effort to Clean Water



PHOTOS: NRCS

By Dan Toland and Emily Widener

As a soybean farmer, you're a steward of the environment. From the fields you plow to the crops you grow, you impact the land and water around you. As an Ohio soybean farmer, your impact travels along the current of the Ohio River, from Pennsylvania to the Mighty Mississippi and to the shores of Lake Erie, from Michigan to New York. Your impact is vital to Ohio's water quality.

"Many variables affect the quality of Ohio's waterways, not just agriculture. From industrial pollution and urban storm runoff to private septic systems and municipal waste from failed sewer systems, they all take a toll on water

quality," said John Motter, Ohio Soybean Council (OSC) board member and soybean farmer from Hancock County who also serves on the 4R Advisory Committee & Nutrient Stewardship Council. "While farmers can't control any of these factors, they can work to improve that of fertilizer runoff, an issue that hits close to home for many Ohio farmers."

The current issue at-hand involves nutrients from farmland, like phosphorous, entering Ohio's waterways. How much and why are still largely unknown, making farmers' efforts to proactively alleviate the problem that much more important. But with a late start in the fields this spring and harvest just on the horizon, farmers value every minute of

every day.

That's why it's important that those who work hand-in-hand with you on your farm, such as agricultural retailers and nutrient service providers, are well-versed and educated, and continually improving their efforts to better serve you, your customers and the natural resources we all use and enjoy.

Agricultural retailers and nutrient service providers in the Western Lake Erie Basin are now being encouraged to join in a unified, comprehensive and responsible approach to nutrient management aimed at the long-term improvement of Lake Erie's water quality through the new 4R Nutrient Stewardship Certification Program.

The 4R approach — using the Right

Nutrient Source at the Right Rate and Right Time in the Right Place — serves as the science-based guideline for the new certification program, which is administered by the Ohio AgriBusiness Association (OABA) on behalf of the Nutrient Stewardship Council, a diverse set of stakeholders from business, government, university and non-governmental sectors with a common goal of maintaining agricultural productivity while also improving the quality of Lake Erie and its contributing watersheds.

According to the Nutrient Stewardship Council, Lake Erie is a source of drinking water for millions, home to more than half the fish in the Great Lakes and a draw for tourists. Harmful algal blooms in Lake Erie and other bodies of water have been on the rise the past five years, leading to increased water treatment costs and negative impacts on fishing and tourism

“The program has several features that will make it very effective in reducing the problems with algae blooms in Lake Erie,” said Bill Stanley, assistant director of The Nature Conservancy in Ohio and a member of the Nutrient Stewardship Advisory Committee. “Most important are a set of scientifically rigorous standards developed with industry and academic involvement, as well as independent, third-party audits to ensure that those standards are followed.”

The Nutrient Stewardship Advisory Committee is the original steering committee for the project. The diverse group

of non-governmental organizations, government, farmers and industry folks provide advice and input on the program, specifically on the auditable criteria.

Officially launched March 18, the new program provides a consistent, recognized standard for agricultural retailers to adopt proven best practices in Indiana, Michigan and Ohio, where surrounding waters drain into Lake Erie.

“As ag retailers, we have to be proactive in finding ways to improve water quality, and the 4R certification is a tool that will pay off in a big way,” said John Oster, with Morral Companies, an ag retailer in Morral, Ohio, which served as a partner in piloting the program. “We believe that by enacting this, we will become part of the solution, and we know we can fix our part and make things better.”

The first phase of the 4R Nutrient Stewardship Certification Program will begin this summer with sign-ups and launch of a three-year focus on initial training and ongoing education, monitoring of 4R implementation and nutrient recommendations and application.

The program has already received high-level recognition, as Carrie Volmer-Sanders, the Western Lake Erie Project Direct for The Nature Conservancy and chair of the Nutrient Stewardship Council was recently honored as a Next Generation of Conservation Leaders Champion of Change by the White House.

“With the teamwork of the agricultural, government, research and conserva-



tion communities in the Lake Erie basin, we think we have found some solutions that will achieve lasting conservation, because it is good business for farmers and for Lake Erie,” Vollmer-Sanders said in her blog posted on the White House website in conjunction with the award.

While individual farmers aren't included under the scope of the standard, Ohio AgriBusiness Association President and CEO Chris Henney said it's critical they work in concert with agricultural retailers to adopt best practices to realize long-term improvements. “We're excited about the initial interest in the program, and encourage those interested to check out our website and commit to participate.”

Ohio soybean farmers should talk to their agricultural retailers and nutrient service providers about the new 4R Nutrient Stewardship Certification Program, express a desire to implement best 4R practices, and encourage them to join the effort to improve the waters we all use and enjoy.

While we can't control all the contributors to our water quality issues, we all have an opportunity to contribute to its solutions.

For complete program information, requirements and to register, visit 4Rcertified.org or contact OABA at info@oaba.net or call 614-326-7520. ♦



The 4R Nutrient Certification Stewardship Certification Program was created to address the following goals:

- Maximize crop uptake of nutrients and minimize nutrient loss
- Create long-term positive impacts on water bodies associated with agricultural production areas
- Encourage sharing of the most up-to-date information about responsible nutrient stewardship with Nutrient Service Providers and growers
- Help the agriculture sector adapt to new research and technology in the area of nutrient stewardship



Ohio Soybean Council to Sponsor 2014 Ohio State Fair

By Katie Bauer

The 2014 Ohio State Fair will begin on July 23rd and throughout the twelve day event, fairgoers will have the opportunity to learn about soybeans and soybean farmers thanks to the Ohio Soybean Council (OSC) and soybean checkoff.

OSC is excited to be one of the presenting sponsors of the Ohio State Fair, 2014 Junior Livestock Shows, Rabbit & Poultry Pavilion, Voinovich Livestock & Trade Center and the O'Neill Swine Building.

Additionally, OSC will host the third annual Ohio Soybean Day at the fair on Saturday, August 2nd. On Soybean Day, OSC will exhibit at the Cardinal Gate on the north side of the fairgrounds where

several OSC board members (all volunteer Ohio soybean farmers) will be available to speak with fairgoers about soybeans and the many uses of the miracle crop.

"We understand that many people are curious about farming today," said Steve Reinhard, OSC board member and soybean farmer from Crawford County. "One goal during the fair is to provide people with accurate information about soybeans and the markets that are supported by soybean products. While there is some misinformation out there about farming and food production, OSC wants to keep families informed about food and farming and how the two are supporting communities, the economy and many aspects of our daily lives."

In addition, OSC will also be a part

of the Nationwide Donahey Ag & Hort building for the duration of the fair. OSC will incorporate interactive displays and contest give-a-ways that will educate fairgoers of all ages about the benefits of soybeans and soybean farming. During the 2013 Ohio State Fair, a total of 903,824 walked through the gates making it Ohio's largest outdoor event and highlight of the summer. On Soybean Day alone, 105,611 people visited the fair throughout the day.

Join us this year at the 2014 Ohio State Fair

All Ohio soybean farmers can gain admission to the fair free of charge on Soybean Day with the coupon below. With the same coupon, family members will be admitted at a discounted price. ♦



OHIO SOYBEAN DAY AT THE FAIR Saturday, August 2nd, 2014



Ohio Soybean Farmers
Sustaining Life. Respecting Nature.



Ohio Soybean Council

This voucher allows one FREE admission per household to an Ohio soybean farmer or an Ohio Soybean Association member, and \$4 admission to each family member in their party on **Ohio Soybean Day at the Fair, Saturday, August 2nd, 2014.**

*All special days and discounts are not valid with other offers. Voucher cannot be reproduced or duplicated.
Only original copy will be accepted.*

Code: OHIO SOYBEAN 8-2-14



Investing Checkoff Dollars



GROW
NEXT GEN

HERE'S A LITTLE HOMEWORK ASSIGNMENT FOR OHIO TEACHERS

Please review the content at GrowNextGen.org – a timely resource that helps students better connect science with high-demand career opportunities.

It contains more than 75 pieces of curricula, including e-learning courses, career videos and ways to share knowledge with other site users.

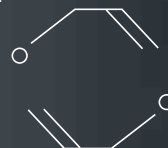
GrowNextGen.org is funded by Ohio soybean farmers with the goal of encouraging students to pursue careers related to agriculture, including:

BIOTECHNOLOGY

PLANT AND ANIMAL SCIENCE

ENVIRONMENTAL SCIENCE

ENGINEERING



OPEN UP YOUR LAPTOPS AND GO TO GROWNEXTGEN.ORG

Sponsored by Ohio soybean farmers and their checkoff.



Ohio Soybean Farmers
Sustaining Life. Respecting Nature.

Exploring the Potential for Private Investment in Locks and Dams

By Mike Steenhoek

Executive Director of the Soy Transportation Coalition

America's inland waterway system, including the network of locks and dams, has been and continues to be a major contributor to the profitability and competitiveness of the U.S. soybean farmer. For U.S. agriculture, the nation's navigable waterways are unique not because of their ability to accommodate commercial traffic, but rather due to their close proximity to the most productive farm ground in the world. While other countries have navigable waterways, they are often far removed from those regions most accountable for agricultural production. In the United States, these waterways are very accessible to a high percentage of the nation's agricultural production, thereby allowing farmers to connect with international customers in a cost effective and reliable manner.

Despite the recognized importance of

the inland waterway system to the success of the American soybean farmer, and the broader economy, the condition of the nation's locks and dams continues to degrade due to repeated and persistent underinvestment from the federal government. As a result, a recent study funded by the soybean checkoff explores the potential for engaging and accessing private funding to enhance the condition of the inland waterway system.

"Given the continued lack of federal resources toward our lock and dam system, more attention is being devoted to alternative sources of funding, including private equity," says Patrick Knouff, soybean farmer from Minster, Ohio, chairman of the Soy Transportation Coalition and chairman of the Ohio Soybean Council. "While there is substantial interest in this concept, there is little understanding in how it could work. The

goal of this report is to increase the awareness of both the potential advantages and shortcomings of such an approach. As we proceed toward possibly accessing private investment for our locks and dams, we need to make sure we have our eyes wide open."

The study, "Proposed Public-Private Partnership Projects for U.S. Inland Waterways Infrastructure Financing, Operations, and Governance," was performed by The Horinko Group. The analysis provides an introduction to the concept of public-private partnerships, suggests locations that would be likely sites for such an approach, and highlights successful public-private partnerships (P3) in other industries that could serve as a model for the inland waterway system.

A P3 is a contractual agreement between a public sector agency and a private sector entity to deliver a public service. In a future P3, a non-federal entity, either one or more private entities or a public authority, could assume responsibility for the funding, operation and maintenance, replacement, and/or major rehabilitation



that the cost of one lock construction project (\$376.8 million) is approximately equal to the cost of nine major rehabilitation projects (\$40.7 million each), the Soy Transportation Coalition concurs with the recommendation that a P3

of the locks and dams under a cooperative agreement. The Army Corps of Engineers is the agency with jurisdiction over the lock and dam system and would therefore be the federal partner in a P3 agreement. The research recommends that the U.S. government, under the jurisdiction of the Army Corps of Engineers, would retain ownership of any lock and dam site under a P3 arrangement.

The analysis suggests that under a P3 arrangement, the private sector would likely not have the appetite for investing in the construction of new lock and dam facilities. The more likely approach, according to the report, would be for private investment being devoted to proper maintenance of existing sites.

The Soy Transportation Coalition continues to argue that a predictably good inland waterway system is better than a hypothetically great one. Given the reality

project focused on maintenance is more viable than one premised on new construction. Just because you open the door for private investment does not mean private investment will want to walk through that door. The investment opportunity must be attractive. Emphasizing maintenance of lock and dam sites over new construction will make this investment opportunity more appealing to the private sector.

The analysis highlights two possible sites for a P3 pilot project – Peoria and LaGrange locks and dams on the Illinois River and Locks and Dams 24, 25, 26 (Melvin Price Locks and Dam), and 27 on the Upper Mississippi River. The lock and dam sites at Peoria and LaGrange may be appealing due to their location exclusively within the state of Illinois, which could result in a more streamlined and efficient administrative process. The four lock and dam sites on the Upper Mississippi River

may be appealing due to their high volume of barge traffic along with comparatively lower maintenance costs required in the immediate future.

It is widely accepted and anticipated that the final version of the Water Resources Development Act will authorize the establishment of a series of pilot projects to examine the feasibility of a P3 approach to the inland waterways system. Congressional negotiators are currently finalizing the legislation. It is expected to be considered and passed by both the House of Representatives and the Senate and signed by the President in May or June.

A public-private partnership approach for locks and dams could be appealing because of the potential for better project execution and delivery. The private sector often is better able and equipped to deliver the same or elevated services at a lower cost. The Soy Transportation Coalition believes it is appropriate to examine and investigate alternative methods to finance, operate, maintain, and enhance our inland waterway system. We hope this analysis and soybean farmers in general can play a constructive role in this important discussion.

The full results of the study can be accessed at www.soytransportation.org or www.unitedsoybean.org. ♦

Palmer Amaranth: A New Threat

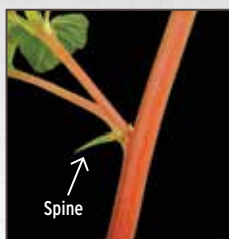


Palmer amaranth is native to the southwest U.S., but recently has moved into the Soybean Belt. Compared with native pigweeds (*Amaranthus* species), Palmer amaranth poses unique management challenges. Therefore, preventing its spread into new areas is important. This document will help you differentiate Palmer amaranth from other pigweed species.

Both waterhemp and Palmer amaranth are highly variable in appearance. While there are differences in vegetative characteristics, these traits are not completely reliable due to the diversity within both species. Because of this, it is important to become familiar with the floral characteristics of both species.

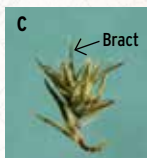
SPINY AMARANTH

Plants have long (up to 1/2"), sharp spines at nodes on the stem. These spines are sometimes mistaken for the sharp bracts on female Palmer amaranth inflorescences.



DOES THE PIGWEED HAVE A HAIRY STEM?

YES	NO
	
Redroot pigweed Smooth pigweed Powell amaranth	Waterhemp Palmer amaranth Spiny amaranth

	PALMER AMARANTH		WATERHEMP	
VEGETATIVE TRAITS	• Rounded leaves • Some leaves may have petioles longer than leaf blade • Dense cluster of leaves at top of canopy		• Elongated leaves • Open canopy	
REPRODUCTIVE TRAITS <i>Both species are dioecious, having separate male and female plants. The inflorescences of both species are highly variable.</i>	Palmer amaranth (A) generally have long terminal branches greater than a half inch in diameter. 		Most waterhemp (B) have slender branches less than six inches in length; however, some plants produce long branches more than a half inch in diameter. 	
	Female Palmer amaranth flowers (C) have a long (up to 1/2") bract that extends beyond the five tepals and seed capsule. The bracts become sharp at maturity, making female plants painful to handle. 		Female waterhemp flowers (D) have a small bract that does not extend beyond the single tepal or seed capsule. Male plants have a short bract with five tepals. 	

For more information and links to additional resources, visit www.TakeActionOnWeeds.com.

Technical editing for this publication was led by Robert Hartzler, Ph.D., Iowa State University, in partnership with other universities in the soybean-growing regions of the United States. The United Soybean Board does not make any representations or warranties relating to the use of the advice contained herein, and is not liable for the use or misuse of the information provided. Take Action is supported by BASF, Bayer, DuPont, Dow, Monsanto and Syngenta. ©2014 United Soybean Board.

HOW DOES THE SOYBEAN CHECKOFF WORK?

IT STARTS HERE



to



$\frac{1}{2}$ OF 1% OF THE TOTAL SELLING PRICE
GOES TO THE STATE SOYBEAN BOARD

HALF OF THOSE FUNDS STAY WITH THE
OHIO SOYBEAN COUNCIL



Led by 18 farmer-leaders, the Ohio Soybean Council works to **IMPROVE SOYBEAN PROFITABILITY** for all Ohio soybean farmers.

AND THOSE FUNDS GO TO

RESEARCH



MARKETING



EDUCATION



AND THE OTHER HALF GOES TO THE
NATIONAL CHECKOFF

Led by 69 volunteer soybean farmers, the United Soybean Board (USB) invests and leverages soy checkoff dollars to **MAXIMIZE PROFIT OPPORTUNITIES** for all U.S. soybean farmers.



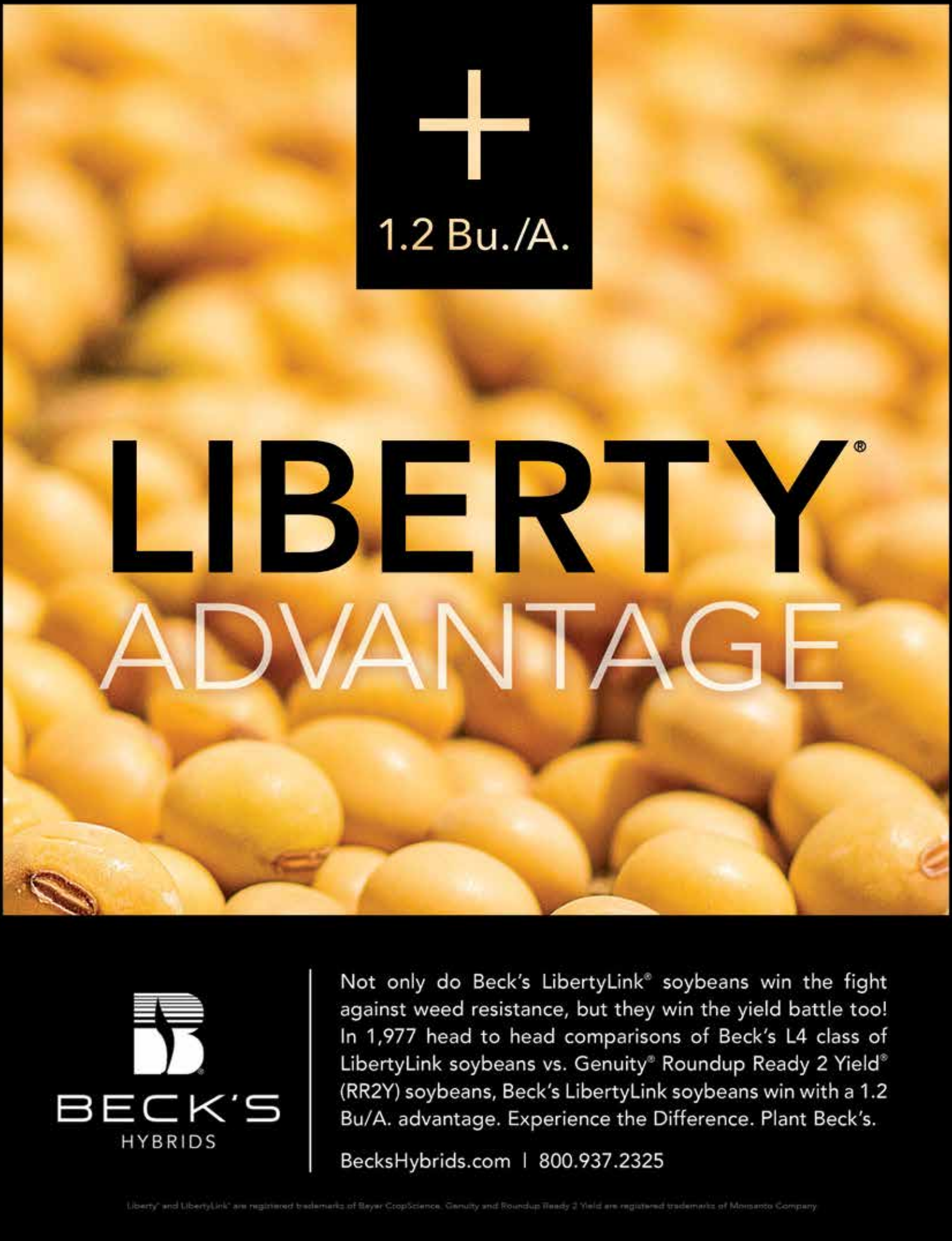
RETURNS TO FARMER

CHECKOFF MATH
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Source: Texas A&M 2009





+

1.2 Bu./A.

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