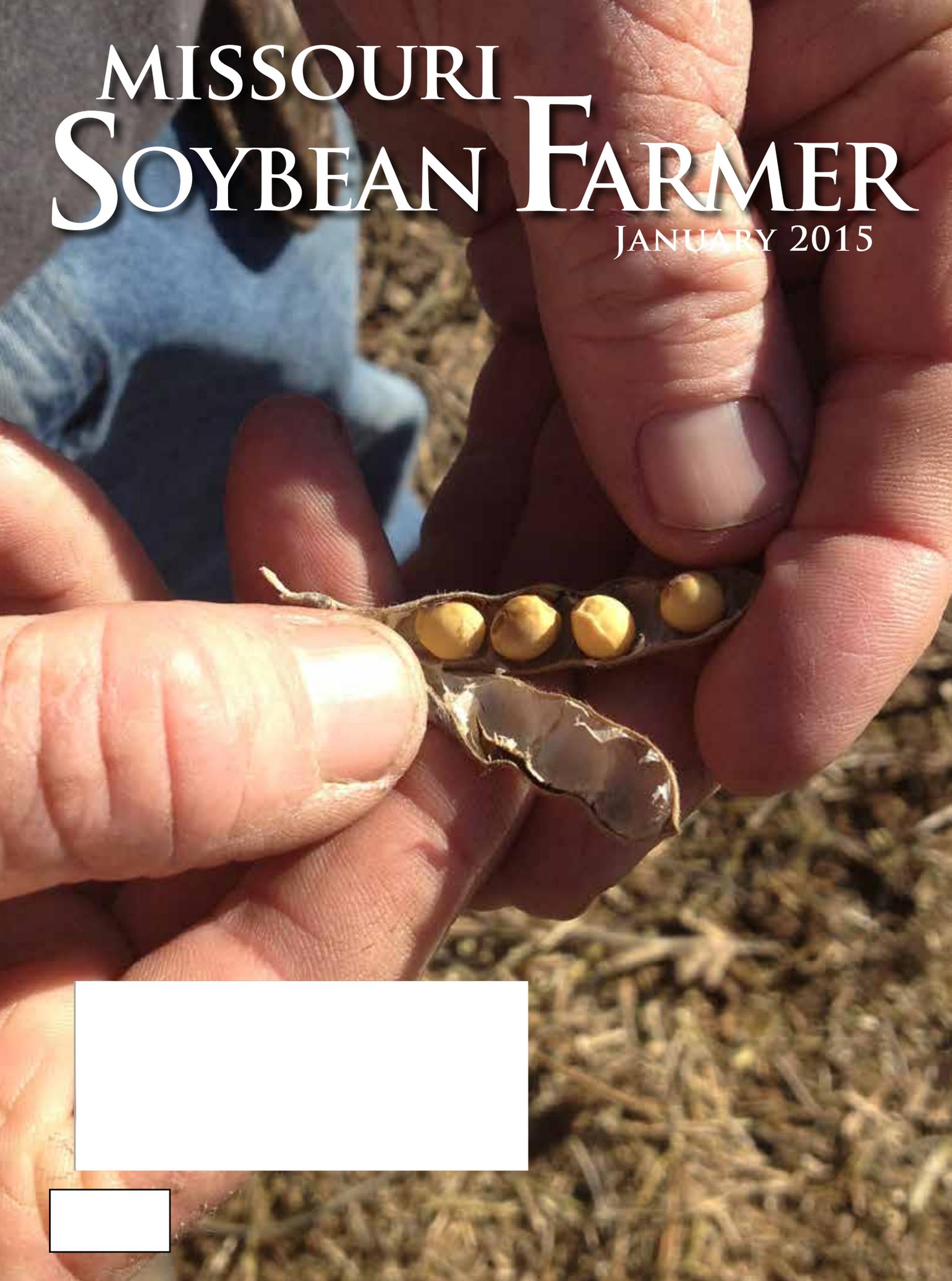
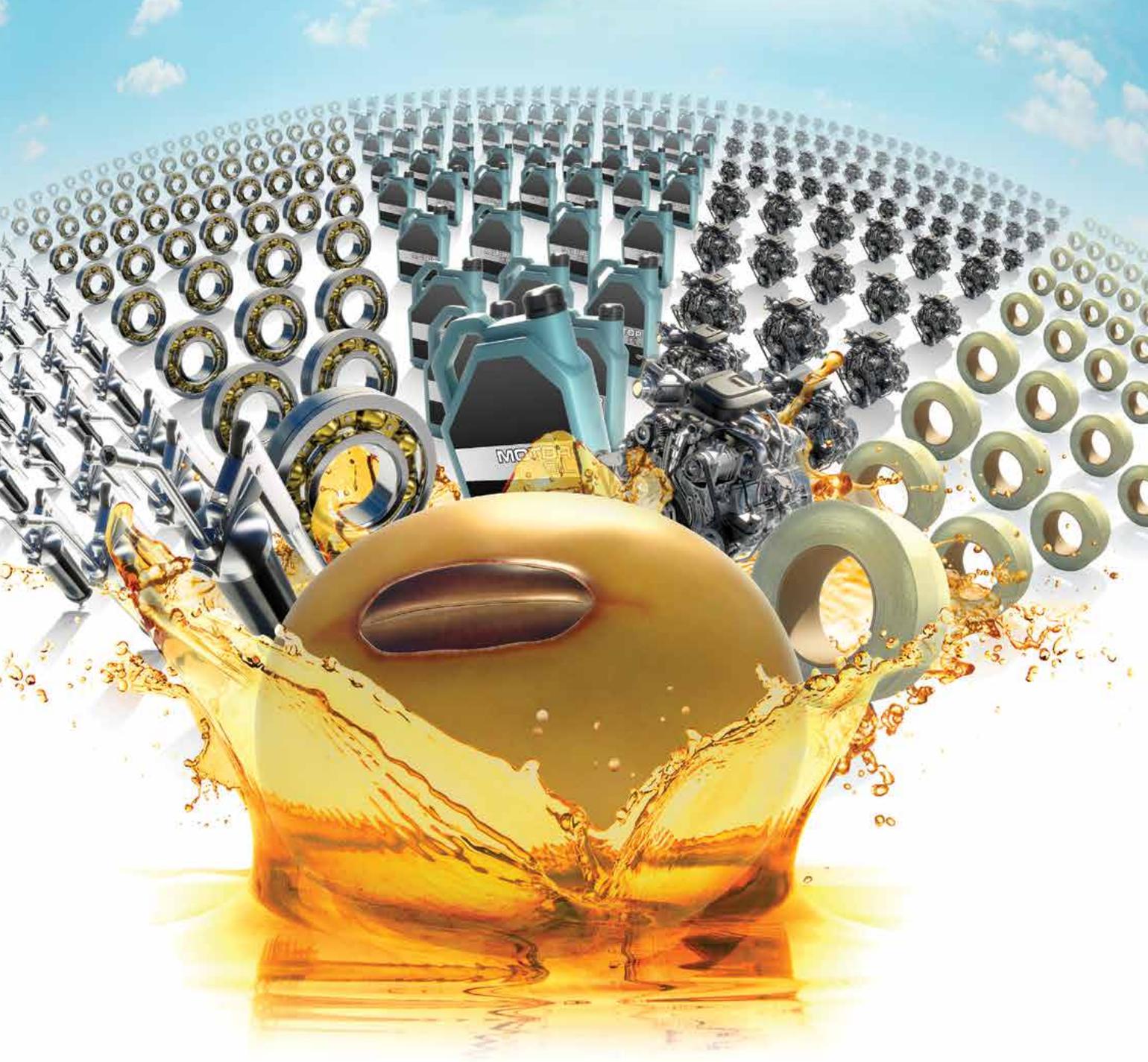


MISSOURI SOYBEAN FARMER

JANUARY 2015





INNOVATION THAT GROWS

The yield you want, the demand you need – that's high oleic.

High oleic soybeans are the top-performing varieties packed with innovation your end-use customers want. For industrial users, high oleic provides higher heat stability for a renewable alternative to petroleum products. For you, high oleic offers more market opportunities. Grow it now, and you grow your profitability.

Talk to your local seed rep for the best varieties in your area or visit SoyInnovation.com

HIGH OLEIC
Innovation in every pod 

Funded by the soy checkoff.

MISSOURI SOYBEAN FARMER



JANUARY 2015 | VOLUME 19 | ISSUE 1

IN THIS ISSUE



6

Southeastern Missouri farmers took the top spots in the Missouri Soybean Association's annual yield contest. The Hinkebein family of Cape Girardeau County placed in every category.



13

Get to know the leadership team for Missouri Soybeans' research farm, the Bay Farm Research Facility, located just east of Columbia in Boone County.



20

A quick web search results in a wide range of information on the use of antibiotics on the farm. CommonGround volunteers are sharing their experiences raising crops and livestock with consumers - including feeding and caring for their livestock.



10

Missouri continues to invest farmers' checkoff dollars into new uses for Missouri soybeans, including biodiesel. Learn more about Bioheat and blending biodiesel with home heating oil in this article.



14

Cover crops can have big benefits for Missouri farmers, from reduced soil erosion to increased nutrient levels. State soybean specialist Bill Wiebold discusses the latest research and reasons to consider covering up.



25

Missouri farmers' checkoff dollars are invested in a number of ways in the interest of growing opportunities for the future. Learn about the research and other programs supported by the soybean checkoff in Missouri.





Staff Contacts

Executive Director / CEO
Gary Wheeler
gwheeler@mosoy.org

Director of Communications & Public Relations
Christine Tew
ctew@mosoy.org

Director of Industry & Producer Relations
Dan Engemann
dengemann@mosoy.org

Director of Business Development & New Markets
Tony Stafford
tstafford@mosoy.org

Director of Compliance & Research Administration
Ebby Neuner
eneuner@mosoy.org

Office Manager
Mary Kever
mkever@mosoy.org

Accounting Manager
Jeff Bruemmer
jbruemmer@mosoy.org

Administrative Manager
Diana Coonce
dcoonce@mosoy.org

Missouri Soybean Programs
P.O. Box 104778
Jefferson City, MO 65110-4778
Phone: (573) 635-3819
Fax: (573) 635-5122
<http://www.mosoy.org>

Missouri Soybean Farmer is published five times annually by the Missouri Soybean Association and is an excellent opportunity to reach row crop farmers. Contact ctew@mosoy.org for advertising information and with story ideas.

Copyright Missouri Soybean Association, 2015. All rights reserved. Reproduction or use of any content without the express written permission of the publisher is prohibited.

ON THE COVER

The planning, dedication and hard work that goes into getting a crop into the bin or to the elevator is difficult to underestimate.

A special 'Thank you!' goes out to Missouri Soybean Merchandising Council board member Robert Alpers, for lending his hands and a four-bean pod to make this month's cover photo possible. It was great to spend a day of harvest with you and your family.

In this issue, we highlight the folks who are raising the bar, from the top-tier yields seen in the Association's annual competition, to the latest in land values and management practices from the University of Missouri Cooperative Extension Service and our partners in biodiesel and Bioheat. Our Missouri farm women are going above and beyond in their efforts with the CommonGround program, and our work to grow new opportunities for all involved with Missouri soybeans continues full speed ahead.

Thank you for your support of the Missouri Soybean Association, Missouri Soybean Merchandising Council and of Missouri Soybean Farmer magazine as we enter our 31st year.

--Christine Tew



The Missouri Soybean Association

The Missouri Soybean Association (MSA) is a statewide membership organization representing interests specific to the Missouri soybean producer.

The Missouri Soybean Merchandising Council

The Missouri Soybean Merchandising Council (MSMC) is a farmer-run organization dedicated to improving the profitability of the Missouri soybean farmer through a combination of marketing, research and commercialization programs.

LETTER FROM THE EXECUTIVE DIRECTOR

Here at Missouri Soybean, your elected farmer board (your peers) and your staff work tirelessly to secure the future of the soybean industry. While we have 20 years of growth and outstanding accomplishments as our foundation in Missouri, we have an even larger task facing us in the future - a global demand of protein requiring a 50 percent increase by 2030. How will Missouri play a part in delivering that increased need of protein? How will we help our growers meet that demand?

Fortunately, for every \$1 you invest in the soybean checkoff, you the producer receive \$5.20 in return. Now that is something to be proud of! Compare that to your personal investments over the past 10 years. With your ROI from the checkoff, we focus on the areas below. Your elected peers and staff will be working on these priority areas to sustain and grow our \$4.6 billion industry here in Missouri.

1. Increase the value of Missouri/U.S. soybean meal to the entire value chain.
2. Increase the value of Missouri/U.S. soy oil to the entire value chain.
3. Ensure that our industry and its customers have the freedom and infrastructure to operate as needed.
4. Meet our customers' needs with quality soy products and services to enhance and expand our markets.

You might ask the question of how this will be accomplished. Simply, investment into research, education, market development programs, coupled with investment into strategic partnerships like the US Meat Export Federation and US Soybean Export Council, and efforts like global biotech acceptance.

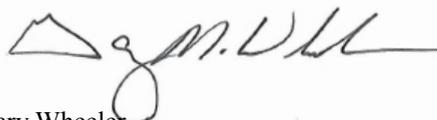
Missouri has and will continue to play a large role in meeting the growing demand for soy. Not only are we leaders in innovation and adoption of new technology, we're invested in partnerships in our state and across the US, as well as committed to differentiating our US soy products and services in the global marketplace.

There are always road blocks in the path to success. For you, it may be weed pressure or access to capital or labor. To assist in obtaining these goals we work with our most valuable partner, the Missouri Soybean Association. For us to be successful, we cannot do it without you, the grassroots – our association. We as an industry can be powerhouse in numbers but unfortunately we only have 1200 members working on an enormous list of issues. Issues like EPA overreach, Waters of the US, Farm Bill and so many more. Some might think, wow, 1200 farmers working on our issues? That's huge. It's not! We need more! We have 20,000-plus soybean farmers in Missouri and we only have 1200 members working on issues? You also have to keep in mind the 80/20 rule: Out of 100 percent, only 20 percent do the work. It's true. We need you and your neighbors, your neighbors' neighbor, your seed salesman, your banker; whomever touches your business needs to be an "active" member. We are stronger together!!

As your organization, as your staff, we need you. We know we have much work to do, and for us to stay on track, we need to hear from you on how we are doing. Call your elected peer within your district and tell them what you think of the above priority areas. Call us at the office at (573) 635-3819 or send me an email gwheeler@mosoy.org.

I look forward to hearing from you.

Best regards,



Gary Wheeler
Executive Director / CEO
Missouri Soybean Association
Missouri Soybean Merchandising Council



Gary Wheeler (right) discussing the strength of the soybean industry during a field day in southeastern Missouri.

Kyle Spradley

99 BUSHEL OF SOYBEANS TO THE ACRE

Southern Missouri farmers take top spots in annual yield contest, but no triple-digit yields in the mix this year.

By Christine Tew

Some Missouri farmers more than doubled the state's top average soybean yield with their entries into the annual statewide yield contest. Results from the Missouri Soybean Association's annual competition are in, with farmers from Cape Girardeau and Scott counties taking the top honors with soybean yields above 90 bushels per acre.

"Missouri soybean farmers continue to raise the bar with their harvests, and I am proud to see their dedication and outstanding skills recognized as they work to feed the world while being ever-more efficient and effective with our land and water resources," said Tom Raffety, a southeast Missouri farmer and president of the Missouri Soybean Association. "Congratulations to all participants in this year's yield contest, as well as to all our farmers who enjoyed a safe and bountiful harvest this year."

The top entries in all three contest categories were above 90 bushels per acre, with the top yield topping 99 bushels per acre in southeastern Missouri's Scott County.

That highest yield in the contest, 99.007 bushels per acre, was grown by John Engram of Sikeston, and entered into the Irrigated Soybeans category. Southeastern Missouri farmers took many of the top spots in the yield contest this year. Other outstanding growers' entries came from Jasper, Warren and Worth counties.



John Engram had the contest's top yield with 99.007 bushel bsoybeans

The Hinkebein Family of Cape Girardeau County placed in the top three yields in each of the three categories, with Charles and Glenda Hinkebein, as well as their son-in-law Carl Landewee growing soybeans with yields in the high 80s and above 90 bushels per acre.

In addition to recognition for the yield competition, these top Missouri soybean growers are eligible for cash and other prizes from their seed companies as a result of their outstanding harvests.

In comparison to those 90-plus bushels per acre yields, last year, Missouri's statewide average soybean harvest was between 35 and 40 bushels per acre according to the USDA National Agricultural Statistics Service. Missouri's record statewide average is 45 bushels per acre, and was set in 2004.

This year's contest had 226 entries – a continued increase in participation in the annual competition. To participate, individuals must raise at least 10 acres of soybeans in Missouri.

Congratulations to the 2014 Yield Contest Winners!

Conventional Soybeans

<u>Entry</u>	<u>Community</u>	<u>County</u>	<u>Seed</u>	<u>Yield (bu/ac)</u>
1st Glenda Hinkebein	Chaffee	Cape Girardeau	Asgrow 4533	91.779
2nd Carl Landewee	Chaffee	Cape Girardeau	Asgrow 4831	88.754
3rd Nathan Riegel	Washington	Warren	Pioneer 94Y22	85.388

Irrigated Soybeans

<u>Entry</u>	<u>Community</u>	<u>County</u>	<u>Seed</u>	<u>Yield (bu/ac)</u>
1st John Engram	Sikeston	Scott	Pioneer 47T36	99.007
2nd Curtis Warren	Lockwood	Jasper	Pioneer 93M11	86.660
3rd Hinkebein Farms	Chaffee	Cape Girardeau	Pioneer 47T89	82.655

No-Till Soybeans

<u>Entry</u>	<u>Community</u>	<u>County</u>	<u>Seed</u>	<u>Yield (bu/ac)</u>
1st Charles Hinkebein	Chaffee	Cape Girardeau	Asgrow 4934	92.509
2nd Hinkebein Farms	Chaffee	Cape Girardeau	Asgrow 5432	90.374
3rd Paul Tracy	Denver	Worth	Pioneer 28T33	88.501



Yield contest winners Charles Hinkebein (left) and Carl Landewee (right) are shown on their Cape Girardeau County farm in this photo from Charles' daughter, Ashley Aufdenburg. Hinkebein Farms, Charles, his wife Glenda, and their son-in-law Carl were tough to beat in the 2014 yield contest.

The top three entries in each category: conventional, no-till and irrigated are listed in the table at left, along with the seed variety used to reach their top-tier yield.

Beans entered into the no-till category must be grown in a field in which the soil is left undisturbed from harvest to planting, with the exception of nutrient injection. Beans entered into the irrigated category may be grown under mechanical or man-made irrigation systems under either conventional tillage or no-till practices.

Participants in the Missouri Soybean Yield Contest were required to enter their fields into the competition prior to harvest. The 2014 deadline was August 29. At harvest, participants were required to have a designated judge verify their yield results for the competition and submit those results no later than November 7. The top entries in each category were further verified by Missouri Soybean Association staff.

Participating in the Missouri Soybean Yield Contest requires a several-acre commitment at harvest time. Entries must be at least a five-acre block within a minimum 10-acre field. A minimum of two acres must be harvested in a continuous block for the yield measurement.

A second-two acre block adjacent to the first must be left un-

harvested, as a check. Yields exceeding 75 bushels per acre require a second sample and review by the specified contest judge using that adjacent plot. The judge must be present for the measurement, harvest, weighing and yield calculation in both plots.

All soybeans entered into the contest must meet minimum Federal Grain Quality Standards and state-certified scales and moisture meters must be used by producers and judges calculating contest yields. The Missouri Department of Agriculture oversees scale and moisture-meter certifications.

Participants in the contest also submit at least four ounces of their harvested soybeans for laboratory analysis as part of Missouri's Soybean Quality Contest. Those samples are analyzed for protein and oil content by the University of Missouri. Results of Missouri's 2014 Soybean Quality Contest will be announced in early 2015.

Details for the 2015 Missouri Soybean Yield Contest will be posted online at mosoy.org and announced in Missouri Soybean Farmer magazine during the summer of 2015.

For more information about the yield contest, review the official rules and reporting form on the Missouri Soybean Association website, mosoy.org.

grams directly benefiting producers each year. The annual soybean yield and quality contests offer quantifiable information farmers may use to compare their crops with others, while the summer golf tournament is a popular event for fellowship and networking with producers, industry representatives and other supporters.

Sixteen MSA directors represent the interests of soybean farmers across seven districts in Missouri. Each director serves voluntarily without pay and is elected by MSA members from his or her respective district. Directors are up for re-election every three years, with elections typically held around the state in January and February. A list of upcoming elections appears later in this issue and is posted online at mosoy.org.

Those directors, as well as all MSA members, are supported by a team of staff in Jefferson City, working not only on policy issues, but on business development, communications and research efforts, and often in conjunction with the soybean checkoff and soybean organizations in other states.

Why Join?

The Association was founded as a not-for-profit providing a collective voice in representing Missouri soybean producers and serves as the leading organization representing soybean growers' interests on policy. Unlike participating in the soybean checkoff, members of the Missouri Soybean Association opt-in to the organization and its advocacy and outreach efforts.

Memberships in the Missouri Soybean Association provide for efforts to ensure soybean farmers and industry partners

are represented on state, national and international issues. Under no circumstances may checkoff funds be used for lobbying purposes, making the Missouri Soybean Association and the national organization, the American Soybean Association (ASA) truly the voice of soybean farmers.

Annual dues to MSA, including membership to ASA, are only \$60, or join for three years for just \$160. Lifetime memberships are also available for \$1,000.

All members of the Missouri Soybean Association are automatically provided membership in the American Soybean Association as well, raising Missouri farmers' representation on national policy issues.

Membership in the Missouri Soybean Association also determines Missouri's level of representation on the American Soybean Association Board of Directors. The state is currently represented by two national directors, behind neighboring states like Illinois and Iowa. Gaining a third seat on that national leadership team hinges on Missouri soybean growers and their supporters participating in the Missouri Soybean Association.



Want to learn more?

Visit mosoy.org or call the office at (573) 635-3819 for more details about becoming part of the team growing opportunities for all Missouri soybean farmers.

MAKING A MEASURABLE IMPACT

Are you a member of the Missouri Soybean Association? If not, we'd like you to join our efforts right away as we advocate for you in Jefferson City and Washington, D.C. There's truly power in being a part of any grassroots organization, and as growers of the state's largest crop, together, we can be a major force to positively affect agricultural policy.

The Missouri Soybean Association has worked hard for the renewal of federal tax extenders legislation, which included the biodiesel tax credit, and Section 179 expensing and bonus depreciation provisions. We are engaged in Missouri and Mississippi River issues, advocating for continued investment in our river infrastructure so that we can efficiently transport our crop to market. We have been on the front lines regarding EPA's Waters of the United States proposed rule, urging the significant rewrite or withdrawal of the rule that stands to wreak havoc on our industry.

At the state level, we worked hard to obtain a 10 percent harvest weight waiver to allow you to more efficiently transport the record crop we had this year. In this session of the General Assembly, we are working to pass an omnibus agriculture bill, which includes an increase in hauling limits for grain.

The Missouri Soybean Association has set a goal of gaining 1,000 new members as we embark on a new membership year. To do that, we will be as visible as possible, attending many trade shows in the weeks ahead. Please stop by, say hello, and consider joining us! We need your help to meet this goal. If you're already a member, consider asking your farmer friends to join as well. At the Missouri Soybean Association, it's all about improving opportunities for YOU!



Dan Engemann

Dan Engemann is the Missouri Soybean Association and Missouri Soybean Merchandising Council's Director of Industry and Producer Relations. To contact Dan Engemann, call (573) 635-3819 or email DEngemann@mosoy.org.



BIODIESEL BRINGS INNOVATION TO HOME HEATING

The National Biodiesel Board is working with industry to create new markets, opportunities along the soybean value chain, directly benefiting soybean growers.

The US biodiesel industry continues to grow and provide benefit to the soybean industry year after year. Thanks in part to the soy checkoff's efforts, US biodiesel production has increased from 500,000 gallons in 1999 to a fully-commercialized nationwide industry with a market of nearly 1.7 billion gallons in 2014. Soybean oil continues to be the primary feedstock for US production and this connection means all US soybean oil has more demand, and more value.

Biodiesel can be used in any diesel application but one of the fastest growing markets is actually in millions of homes across the northeast United States. Bioheat® fuel, the trademarked name for biodiesel blends in home heating oil, results in a cleaner-burning, renewable fuel used to heat homes and businesses.

“Most of the country uses propane or natural gas for heat; but on the East Coast, they use a lot of heating oil to warm their buildings and homes,” said Paul Nazzaro, who leads the National Biodiesel Board's Bioheat outreach program. “Their industry realized that if they are going to lessen their carbon footprint and burn a cleaner fuel, they will need to blend with biodiesel.”

The home heating oil industry uses roughly seven billion gallons of distillate fuel annually, depending on the weather. If as little as five percent biodiesel was blended into all heating oil sold it would exceed 350 million gallons a year. Environmentally speaking, a 20 percent blend of biodiesel puts Bioheat® on par with natural gas, the biggest competitor to oilheat, while higher biodiesel levels up to 100 percent biodiesel could reduce the carbon footprint of Bioheat® up to 80 percent compared to traditional fuel oil.

“The fuel oil industry is reinventing itself as a 21st century fuel by moving to higher blends of low carbon biodiesel and near-zero sulfur levels across the board,” said John Huber, president of the National Oilheat Research Alliance (NORA).

The Bioheat® renaissance gives oilheat dealers, mostly small, family-owned businesses, the ability to provide their customers with a desirable new product, according to Huber.

While biodiesel is new to some oilheat dealers, the soybean industry has been behind it for more than 20 years. The Missouri Soybean Merchandising Council, the United Soy-

The National Biodiesel Board (NBB) is the national trade association representing the biodiesel industry in the United States. Based in Jefferson City, Missouri, NBB counts the Missouri Soybean Merchandising Council as a founding member. Learn more online at biodiesel.org.

A Bioheat truck pulls into the rack for loading in New York, where the use of biodiesel for home heating is gaining popularity and helping individuals reduce their carbon footprint.

bean Board, and many other state soybean checkoff organizations have recognized the value that a strong biodiesel industry brings back to farmers and have invested checkoff dollars in biodiesel and Bioheat® efforts at the National Biodiesel Board and with heating oil industry groups like NORA.

New ASTM standard eases adoption of Bioheat fuel

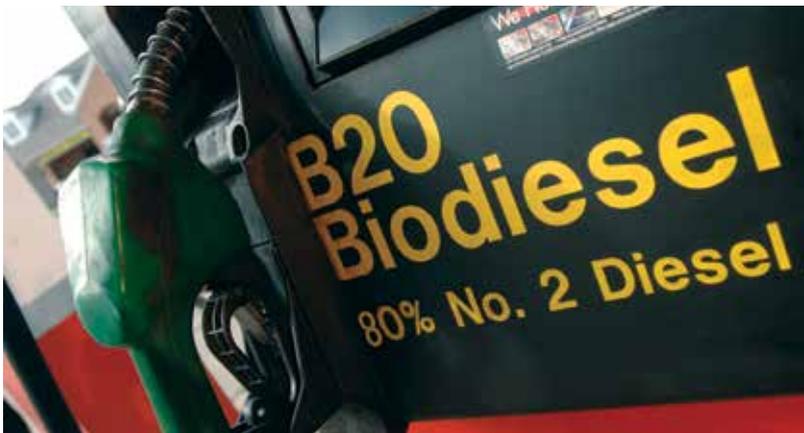
ASTM International, an organization which sets industry consensus standards for fuels and lubricants, recently voted to approve performance specifications for blends of six to 20 percent biodiesel with traditional heating oil. The move is a significant leap forward in the industry effort to boost the percentage of cleaner burning biodiesel that homeowners and building managers use in oilheat equipment and is similar to the ASTM standard set for biodiesel blends in on-road diesel fuel.

“The technical data with this ballot for the new B6-B20 grade verified what we have known for years—B20 made with high quality biodiesel works well,” said Seth Obetz, president of Pennsylvania-based Bioheat® distributor Worley and Obetz. “We have been marketing high quality B20 for 14 years and our customers see fewer problems with B20 than with conventional heating oil.”

The passage of five percent biodiesel into the No. 1 and No. 2 grades of ASTM D396 occurred in 2008. During the last six years, the Bioheat® Technical Steering Committee, comprised of industry technical experts and led by NORA and NBB, developed a tremendous amount of data that formed the basis of the ballot for B6-B20. These efforts wouldn't have been possible without the support of technical projects at NBB from organizations like the Missouri Soybean Merchandising Council.

The updated ASTM D396 Standard Specification for Fuel Oils, containing the new grade for blends of six to 20 percent biodiesel, will be finalized and published by ASTM for public use after the usual ASTM review and editing process and is expected by February 2015.

...continued on next page.



A B20 biodiesel fuel pump in Jefferson City, Mo.

BIOHEAT: SEEING IT FIRSTHAND

Having had the opportunity to view firsthand the Bioheat® and biodiesel efforts of New York City, I believe the biodiesel industry is in a position to make a real difference in the efforts to reduce emissions and meet the city's sustainability goals.



Tony Stafford

In discussions with fuel terminal operators, fuel distributors, and fuel marketers, it was very evident that they are excited about the opportunities for increased usage of biodiesel in not only vehicles, but as Bioheat® as well. The very real opportunity to increase the biodiesel blend rate in bioheat to 20 percent can only increase the demand for biodiesel.

In addition, they are currently evaluating soy-based lubricants and hydraulic fluids in some of their industrial vehicles. To date, those evaluations are very positive.

New York City was the pioneer in Bioheat® in the northeast and now has a proven track record in the use of biodiesel, Bioheat®, and other soy-based products. Other areas of the northeastern United States should be receptive to adopting biodiesel into their fuel and heating needs using New York City as a model.

Missouri's biodiesel production industry is well poised to develop a great production and marketing relationship with our neighbors from the northeast. This also represents an opportunity well worth looking into further for all those involved in biodiesel production in our state, from the soybean growers through processors and distributors.

Tony Stafford is the Missouri Soybean Association and Missouri Soybean Merchandising Council's Director of Business Development and New Markets. In December, he had the opportunity to travel to New York to see Bioheat® efforts firsthand.

To contact Tony Stafford, call (573) 635-3819 or email TStafford@mosoy.org.



Farmer leaders from 12 states saw firsthand the B20-powered equipment the Port Authority of New York and New Jersey use to keep the runways clear of snow at Newark, LaGuardia, and JFK airports.

Midwest group sees NYC biodiesel success firsthand

In December, a group of farmer leaders visited New York City, a shining example of successful biodiesel users. NBB hosted a group of farmers representing 12 state soybean boards and the United Soybean Board, as well as staff members, on a biodiesel and Bioheat® tour of New York City. Farmers saw firsthand what exactly is happening in the big city, including the city's love for soybean oil, biodiesel, and Bioheat®.

New York uses more heating oil than any other state at nearly two billion gallons a year. All heating oil sold in New York City must contain at least two percent biodiesel, replacing more than 20 million gallons of petroleum annually.

The City is also a leader in biodiesel use on road. The fleets of the City of New York, The NYC Department of Sanitation, and the NYC Department of Parks and Recreation make up more than 27,000 vehicles. All three fleets are leaders in green transportation and have featured their biodiesel use as a cornerstone of their sustainability efforts.

The tour provided an up-close look at the biodiesel facilities at Newark Liberty International Airport, operated by the Port Authority of New York and New Jersey, which uses B20 to fuel diesel vehicles critical for keeping the airport moving, such as snow removal equipment. The Port Authority's efforts are vital to keeping the region moving. It builds, operates and maintains infrastructure critical to the New York/New Jersey region's trade and transportation network. These facilities include America's busiest airport system, marine terminals and ports, the PATH rail transit system, six tunnels and bridges between New York and New Jersey, the Port Authority Bus Terminal in Manhattan, and the World Trade Center.

While in New York, leaders also visited the New York Mercantile Exchange. Just steps from the World Trade Center grounds, the Exchange handles billions of dollars' worth of energy products and other commodities being bought and sold and is the world's largest physical commodity futures exchange. Other stops showcased biodiesel stakeholders New York City Councilman Costa Constantinides, representatives from the New York Oil Heating Association, the New York Corn and Soybean Growers Association, Empire Clean Cities, National Oilheat Research Alliance, and a major petroleum distribution terminal.

All of this biodiesel activity is good news for US soybean farmers as continued growth in the biodiesel industry provides additional value to soybean oil. A 2013 study conducted by a group of state soybean associations found that biodiesel contributed to a \$15 billion increase in soy-oil revenues between 2006 and 2012. This also raised the value of soybeans by \$0.74 per bushel, according to the study. It is easy to see why biodiesel is having such a large impact when you consider nearly five and a half billion pounds of soybean oil was utilized by biodiesel producers last year. And nearly that much other fats and oils were utilized as well, which is mostly either used cooking oil – recycled soy oil, or animal fats – value added soy protein. Growing biodiesel markets in the Northeast, and across the country, have major financial benefits to America's soybean farmers and Bioheat® fuel is a market with lots of momentum and room for expansion.





**REDUCING SOYBEAN MEAL COSTS BY UP TO \$48 PER TON
FOR POULTRY AND LIVESTOCK FARMERS**

ADDING 74 CENTS PER BUSHEL TO THE BOTTOM LINE OF SOYBEAN FARMERS

BIODIESEL WORKS

Because higher biodiesel demand means more beans in the crusher, biodiesel helps to keep the cost of soybean meal down for poultry and livestock farmers. During a five-year period, biodiesel demand has saved animal ag farmers \$4.8 billion in soybean meal costs while adding 74 cents per bushel to the bottom line of soybean farmers. Biodiesel works. And thanks to farmer support and the soy checkoff, its success continues to grow. www.UnitedSoybean.org





STATE SOYBEAN UPDATE: THE GREAT COVER-UP

By Bill Wiebold

There's a cover-up going on in Missouri's soybean fields – and that's a good thing. The state's soil/landscape characteristics interacting with weather means that our state has the highest percentage of total cropland that is classified as highly erodible (HEL) among all Midwestern states. Over the years, soil erosion has been one of the biggest challenges for Missouri's soybean growers. The impacts from soil erosion can be subtle, but over time it robs fields of yield potential. And, that productivity is nearly impossible to get back.

Covering the soil surface with either dead residue or living plants is the best tool we have to combat soil erosion. Soil erosion is a three step process. First, soil particles are dislodged from the soil surface. These loosened soil particles are then transported by moving water and, finally, deposited in a different place. Nearly all soil erosion in Missouri is caused by water. Water-caused soil erosion starts with raindrops. Water is dense and raindrops hit the soil surface with considerable force. A typical raindrop is about 1/4 of an inch in diameter and reaches a speed of about 20 mph as it nears the soil surface. The force of impact is about 1/4 pound. This does not sound like much force, but a 1-inch rain event will pummel an acre of soil with nearly 11 billion raindrops.

These billions of raindrops damage exposed soil surfaces in two ways. Raindrops striking the soil surface compacts the soil, forming a crust. Some soil types are easier to compact than other soils, but if a crust forms the soil loses its ability to absorb water. Surface compaction causes greater water run-off. But, more importantly, the force of falling raindrops dislodges and elevates soil particles. Once these particles have been dislodged they are easily transported from the field with the run-off.

Covering the soil reduces soil erosion because it interferes with the first and essential step in the erosion process. Any cover, living or dead, intercepts the raindrops and dissipates their energy. Then, water strikes the soil surface with too little energy to dislodge soil particles. Soil particles that remain attached to many other particles are nearly impossible to move even if water flow is rapid.

Our crop plants cover the soil and are effective in reducing soil erosion. As crops grow they fill in the area between rows with leaves. A full canopy is when leaves from neighboring rows touch each other. At full canopy, most raindrops are intercepted by leaves and stems. Unfortunately, crops produce a full canopy for a short period of time.

Bill Wiebold is a professor in the Division of Plant Sciences, within the University of Missouri's College of Agriculture, Food and Natural Resources. He also serves as the state soybean specialist for Missouri's Cooperative Extension Service.

Cover crops are usually cool season plants that grow in times of the year warm season grain crops generally cannot. Radishes, shown at left, are one option Missouri farmers may consider. Other popular cover crops include Austrian winter peas, vetch, crimson clover, wheat, cereal rye and oats.

Soybean fields process a full canopy for about 80 days – or about 25 percent of a year. Although nearly 40 percent of Missouri’s yearly average rainfall comes during those 80 days, our soils remain unprotected and are vulnerable to erosion for too long. We need to employ other ways to protect the soil.

A relatively easy way to protect soil from erosion is to leave crop residue on the surface. NRCS defines conservation tillage as any tillage and planting system that covers 30 percent or more of the soil surface with crop residue. No-tillage is the most extreme form of conservation tillage. All of the residue from the previous crop is allowed to remain on the soil surface. Planting soybean into corn residue without tillage can greatly reduce soil erosion. Research in several Midwestern states, including Missouri, show 70 to 90 percent reduction. Soil erosion still occurs, but at a rate that is closer to what can be tolerated.

Most farmers will agree that no-tillage is not perfect. Residue can interfere with planters. Plant residue reflects more light than bare soil, so soil warms more slowly. And, water evaporation is reduced so soils dry more slowly. Cool, wet soil is a farmer’s enemy during spring planting. Planting occurs in between rain events in sometimes short windows of opportunity. A few days of slower drying may mean longer delays in planting. I understand these challenges and my patience is a scarce commodity during planting. But, our soils are so erosive, but also so valuable that we cannot overlook this effective tool.

Some farmers believe soybean planted without tillage yields less than soybean planted after tillage. In 1992 with support from the Missouri Soybean Merchandising Council, I started an experiment studying soybean yield under conventional tillage (chisel plow followed by field cultivator) and no-tillage. In 22 years of data collection, no-tillage yielded more than conventional tilled in 9 years, yielded the same as conventional tillage in 8 years, and yielded less than conventional tillage in 5 years. Overall, the no-tillage advantage is about 5 percent. This study is conducted on a Mexico silt loam soil with a clay pan about 14 inches below the soil surface. This soil is common in northeastern Missouri and is considered to be poorly drained. Conventional wisdom is that it is difficult to use no-tillage on poorly drained soils. Our results indicate that no-tillage is a viable option for Missouri farmers, even on poorly drained soils.

Recently, there has been increased interest in using cover

crops. That interest often centers on what is called soil health and not necessarily soil erosion. In my agronomy classes (more than several decades ago), we learned about two categories of crops: cover crops and green manure crops. Improving soil was associated with green manure crops. Current thinking has combined the advantages of these two crop classifications and attributes all of these advantages to cover crops. I don’t disagree with the soil health advantages of cover crops, but I don’t want us to lose sight of the primary reason to use cover crops and that is to reduce soil erosion.

Cover crops are usually cool season plants that grow in parts of the year that our warm season grain crop plants cannot. They extend the 80 days of full canopy that I discussed an additional several months before planting and after harvest. And, if cover crops are killed by freezing temperatures or become dormant during winter their residue continues to protect the soil surface.

Our work on cover crops is just beginning. Our initial results do not support the dramatic changes in soil health reported by some researchers. A slow change in soil characteristics associated with soil health is understandable. During 22 years of continuous no-tillage we increased soil organic matter about 0.25 percentage units. That sounds insignificant, but it is not. An acre of soil 6 inches deep weights two million pounds. A change of 0.25 percent means an additional 5000 pounds of organic matter per acre. The erosion control provided by cover crops is immediate. Then, with repeated use, soil health will slowly increase.

Mother Nature has presented Missouri farmers a huge challenge to reduce soil erosion and I’m proud to say that they have met the challenge. In 1982, average soil loss from cultivated land in Missouri was 10.9 tons/acre. The last estimate for Missouri’s soil erosion was released in 2010 and our state average for soil erosion is now 5.5 tons/acre. A reduction of nearly 50 percent. The amount of soil saved each year by careful stewardship of Missouri farmers amounts to two million dump trucks. Over 40 percent of Missouri’s soybean crop is planted with little or no tillage. In 1982, Missouri ranked second among all states in the U.S. for the amount of soil erosion. Regardless of the challenges of using no-tillage or planting cover crops, we cannot return to the bad old days of excessive erosion. Combinations of soybean management to produce healthy canopies, conservation tillage and appropriate cover crop species will ensure that we pass to the next generation of farmers a soil resource equal to or better than we farm today.



NRCS photo showing severe soil erosion

EXTENSION NEWS BRIEF: LAND PRICES PEAKING

By Jason Vance

Farmland prices have likely peaked, but expect cattle prices to continue upward. That was the message from Ron Plain, University of Missouri Extension agricultural economist, in his keynote address at the 2014 Missouri Livestock Symposium in Kirksville.



Ron Plain

MU Extension

Plain says farmland prices depend on interest rates and returns that can be generated by that land. Interest rates are steady but returns per acre have declined as crop prices have dropped.

“With the high crop prices we saw the last few years, we bid up cropland and it’s probably as high as it’s going to go for now,” Plain says. “For cropland prices the peak is here because we’ve cut corn and soybean prices in half.”

But pastureland prices, which depend on cattle prices and how much producers are earning, continue to increase.

“We had record prices for cattle this year but we are expecting higher prices for next year, so expect both cash rent and sale prices for pastureland to be higher in 2015,” Plain says. “As far as the peak in cattle prices, maybe 2016, and the peak in pastureland could be 2016 or 2017.”

However, weather could postpone that peak. Dry conditions reducing grass production could keep cattle prices high. Plain says a drought would cause producers to sell more heifers and cows, further delaying an increase in the cattle herd.

“With chickens, it’s 10 weeks from breeding to slaughter,” Plain says. “For cattle it’s nine months for gestation; they have calves one at a time, and then a year and a half to two to raise that calf. So a nearly three-year production cycle makes for a pretty slow change.”

Jason Vance is a writer for the University of Missouri Cooperative Extension Service. Learn more at extension.missouri.edu.




SOYBEAN QUALITY MATTERS



MORE DEMAND. BETTER PRICE.

If Missouri farmers increased the protein content in their soybeans by just 1 percentage point, they could earn an additional \$9.07 per acre.

NOW THAT'S BRINGING HOME THE BACON.

FIND OUT HOW YOU CAN IMPACT YOUR QUALITY AT
www.BEYONDTHEELEVATOR.com



STATEWIDE SOYBEAN VARIETY TESTING RESULTS

By Linda Geist

University of Missouri 2014 Variety Testing Program soybean yields topped state and national averages.

MU Extension agronomy specialist Bill Wiebold said MU test sites topped statewide averages of 50-plus bushels and national averages of 44 bushels per acre. Missouri's five-year state average is 37.8 bushels per acre.

Sudden death syndrome (SDS), a fungal disease, hit two test locations this year. "This was the worst year for SDS across much of Missouri in several years," Wiebold said. "Varieties differ for their susceptibility, and that was apparent from soybean yields at Chaffee and Annada. If producers are concerned about SDS, they should check with their seed dealer for variety ratings."

Demand remains strong for soybean, which brought \$10 per bushel in November, up from \$9.49 in October, according to United States Department of Agriculture.

Northern Missouri: The northern region of the state, stretching from the Mississippi to Missouri rivers, reported grand mean yields of 55.6 bushels per acre for Maturity Group 3 seeds. (Soybeans are classified into a number of maturity groups based on the climate and latitude for which they are adapted.) The highest yield was 77.4 bushels per acre at Craig.

Maturity Group 4 grand mean yields were 55.3 bushels per acre. Top yields were 81.7 bushels at Mooresville.

Central Missouri: In central Missouri, the area that lies between Interstate 70 and U.S. 36, the grand mean was 58.3 bushels per acre for Maturity Group 3. The top performer was 80.7 bushels per acre at Truxton.

Maturity Group 4 grand mean yields were 58 bushels per acre. Truxton fields again produced a whopping 81 bushels per acre.

In 2013, yields of 70 bushels per acre were reported in the Henrietta bottoms, while Truxton plots netted 35 bushels per acre.

Southwestern Missouri: The southwestern region along the U.S. 71 corridor reported 45.2 bushels per acre for Maturity Group 4 soybean. The highest yields were reported at Adrian with 79 bushels per acre.

UNIVERSITY OF MISSOURI
 Extension

The test plot at Harrisonville grew 35 bushels per acre; 52 bushels per acre were recorded at Nevada's irrigated test plot. Much of the area flooded in 2013.

Maturity Group 5 soybean in the southwestern region showed top yields of 66.9 bushels per acre at Adrian. The grand mean was 47.3 bushels per acre.

Southeastern Missouri: In 2014, the southeastern region grand mean for Maturity Group 4 was 69.1 bushels per acre. The highest yield was 86.5 bushels per acre at Portageville. Group 5 grand mean was 66.4 bushels per acre while top yields were 84.9 bushels per acre at New Madrid.

The MU College of Agriculture, Food and Natural Resources' Division of Plant Sciences release the test results. Since 1973, seed companies and organizations select several of their best varieties for evaluation at farmer-owned fields and MU test plots throughout the state. Experienced MU researchers use scientific principles and procedures to provide unbiased information to farmers and others.

Missouri ranks seventh in soybean production in the nation.

For more details on the variety test history, procedures and results, go to <http://varietytesting.missouri.edu/soybean>.



No-till Missouri-grown soybeans

Bill Wiebold

Linda Geist is writer for the University of Missouri Cooperative Extension Service.

For 100 years, MU Extension has engaged Missourians in relevant programs based on University of Missouri research. The year 2014 marked the centennial of the Smith-Lever Act, which formalized the Cooperative Agricultural Extension Service, a national network whose purpose is to extend university-based knowledge beyond the campus.



APPROVED FOR TAKEOFF

The University of Missouri recently received a federal Certificate of Authorization to fly Unmanned Aircraft Systems, also known as drones, for research purposes. Exploring the benefits to farmers and landowners is a top priority.

By Kyle Spradley

Drones have been a topic of conversation lately, unfortunately often in a bad light. But drones, properly called Unmanned Aircraft Systems (UAS) can have positive uses. Thanks to a recent certification, studies at a University of Missouri research center could find uses for UAS in agriculture, journalism and endless other possibilities.

With being granted a Certificate of Authorization (COA) from the Federal Aviation Administration, the Wurdack Research Center has become one of a few locations in the country approved to fly UAS.

The center in rural Cook Station is operated by the MU College of Agriculture, Food and Natural Resources (CAFNR) and has historically been known for its beef cattle and forage research but recently has looked at timber stand improvement and agroforestry systems.

“This COA broadens the utilization of Wurdack and the role of our Agricultural Research Centers to provide research to the people,” said Dusty Walter, superintendent of Wurdack. “Technology has always played a key role in agriculture. This COA allows us to be on the leading edge of integration in management systems. This will be a huge benefit for Missourians.”

Approval of the COA involved collaboration with the Missouri University of Science and Technology in Rolla and Saint Louis University. Currently the institutions have trained pilots to fly one fixed-wing UAS equipped with cameras and special sensors for research.

The nearly 3-pound craft with a 30-inch wingspan has the capability to fly a pre-determined flight pattern using GPS. By FAA standards, the craft cannot exceed an altitude of 400 feet and every flight has to be logged with the FAA.

Some uses for UAS in agriculture have already been determined to work in reaching better efficiency levels on the farm. Using cameras, the craft can help with crop scouting or surveying a property.

“How many times have we all driven out looking for a lost calf?” added Walter. “Instead of wasting fuel and time spent driving around, fire up the UAS and easily scout your pastures.”

Researchers across the county also have found that modifying cameras to read infrared light can aid in finding specific nutrient deficiency areas in a field. This allows a more direct, efficient application of lesser chemicals in a when-needed style of management.

Beyond agriculture, a camera mounted on a UAS can help survey a dangerous accident scene for newsgathering for journalists, assist police officials looking for a wanted suspect or aid rescue teams to search for victims in need of aid. Several conservation agencies have begun to look at potentials of UAS use for waterfowl counts and tree canopy analysis for growth and climate change.

Many believe this is just the beginning of a new frontier for UAS in the public and private sector.

“In the future we are looking to have a COA for more of CAFNR’s Agricultural Research Centers that are located across the state to help better provide information to our regional producers,” said Walter. “I hope that this can help spur new industries in Missouri to not only benefit the producers, but the rest of the state as well.”

Kyle Spradley was a strategic communications associate at the University of Missouri.



MU Extension Natural Resources Engineering Specialist Kent Shannon shares the latest updates in UAS technology and regulations, as well as what cameras the UAS has and what they can capture to help farmers.

MANAGING SOYBEAN FARMERS' RESEARCH INVESTMENTS

By Christine Tew

Just east of Columbia, the Bay Farm Research Facility is home to a number of outstanding partners working on research projects to benefit Missouri soybean farmers.

The Bay Farm Research Facility exists to support and facilitate the research, business and market development and educational programs of the Missouri Soybean Merchandising Council and Missouri Soybean Association. Since its official opening in August 2012 and with the support of the Mid-America Research and Development Foundation, the facility has been home to a collaborative effort between respected soybean scientists and Missouri farmers. The 160-acre property is operated under the mission to conduct high-quality research responsive to the needs of Missouri soybean producers, to showcase the importance of biosciences in agriculture, and to support Missouri's soybean industry in bringing reliable, safe, sustainable and profitable products to the marketplace.

Ongoing projects include efforts to develop soybean varieties and value-added traits that will optimize soybean yields and improve the profitability and competitiveness of soybeans grown in Missouri. Analysis of varieties' yields, nutritional value and oil content conducted at the facility directly impacts the bottom line of Missouri soybean producers and supports other researchers' work in Missouri, across the U.S. and around the world.

The Bay Farm Research Facility Leadership

The research conducted at The Bay Farm Research Facility is overseen by an advisory board comprised of representatives from the Missouri Soybean Association and Missouri Soybean Merchandising Council, the state's land grant institution, the University of Missouri; and industry partners. Tom Raffety, a southeastern Missouri farmer and president of the Missouri Soybean Association, leads that board.

Board members include:

- Bill Anderson, Missouri Technology Corporation
- Dr. Richard Joost, St. Louis, United Soybean Board
- John Kelley, Faucett, Missouri Soybean Merchandising Council
- Dr. Marc Linit, Columbia, University of Missouri College of Agriculture, Food & Natural Resources
- David Lueck, Alma, Missouri Soybean Merchandising Council
- Dr. Henry Nguyen, Columbia, University of Missouri College of Agriculture, Food & Natural Resources and the National Center for Soybean Biotechnology
- Dr. Nancy Parker, Columbia, University of Missouri
- E.L. Reed, Chillicothe, Missouri Soybean Association
- Tim Reinbott, Columbia, University of Missouri College of Agriculture, Food & Natural Resources
- Dr. Andrew Scaboo, Columbia, University of Missouri College of Agriculture, Food & Natural Resources
- Dr. Grover Shannon, Portageville, University of Missouri College of Agriculture, Food & Natural Resources
- Dr. Gary Stacey, Columbia, University of Missouri College of Agriculture, Food & Natural Resources and the National Center for Soybean Biotechnology
- Warren Stemme, St. Charles, Missouri Soybean Association
- Gary Wheeler, Jefferson City, Missouri Soybean Association and Missouri Soybean Merchandising Council

The projects implemented at the Bay Farm Research Facility and daily operations at the Bay Farm Research Facility are managed by members of the Advisory Board. The Bay Farm Research Facility team also includes research assistants, a laboratory technician and a farm hand working on Missouri soybean producers' behalf.

To learn more about ongoing projects at the Bay Farm Research Facility, visit mosoy.org.



The Bay Farm Research Facility includes more than 100 acres of research plots, as well as state-of-the-art laboratory space and storage for project-related seeds and equipment.



Tom Raffety

FINDING COMMONGROUND ANTIBIOTICS

Consumers have questions about their food. No doubt about it. Missouri farm women understand those questions, and are ready to discuss how their families raise the food consumers see and choose for their families in grocery stores, and at farmers markets and restaurants. There's an abundance of information out there and consumers aren't always getting the facts. Whether in a TV commercial or while shopping at the local grocery store, consumers are often offered products marked as "Antibiotic-Free" and marketed as being better than those without such a label.

Kristina Sutton is one of the Missouri farm women committed to helping find common ground on food, family and farming - including the use of antibiotics on the farm.



Kristina Sutton

Kristina on Using Antibiotics

"As farmers, we have a responsibility and code of ethics to abide by when caring for our animals. We have to put it in a perspective where our customers understand. We are passionate about what we do. We know if we take care of our animals, they will take care of us. When they are ill, we take action to ensure they are content and healthy," says Kristina.

Should I be concerned about antibiotics in my meat?

According to FDA and Food Safety and Inspection Service regulations, livestock antibiotic use requires specific withdrawal times, or a set number of days that must pass between the last antibiotic treatment and the animal entering the food supply. This ensures the drugs have sufficiently cleared an animal's system.

Why are antibiotics given to livestock?

Just as a parent treats their child when sick, farmers take care of the needs of their livestock.

Healthy animals provide healthy food. The judicious use of antibiotics helps prevent and control disease. This reduces the risk of unhealthy animals entering our food supply, according to FDA's Center for Veterinary Medicine.

Beyond that, the American Veterinary Medical Association says that U.S. farmers and ranchers must maintain good animal care, which includes making sure animals are healthy, comfortable, well nourished, safe, able to express the natural behaviors of their species, and not experiencing pain, fear and distress.

Is human health impacted by eating meat from animals given antibiotics?

The use of antibiotics and other medicines in livestock and poultry are carefully regulated to ensure consumers can count on a safe, wholesome food supply.

"The judicious use of all drugs in animals, particularly food-producing animals, is very important. The use of medicated feeds in food-producing animals is evaluated and regulated to prevent harmful effects on both animal and human health," said Steven D. Vaughn, D.V.M., director of the Office of New Animal Drug Evaluation in FDA's Center for Veterinary Medicine.

Kristina Sutton and her fiance raise soybeans, wheat and cattle on their farm near Potosi, Mo. Kristina is one of many Missouri CommonGround volunteers telling her story. Join her and others at findourcommonground.com.





MORE FROM COMMONGROUND

During the winter months, warm up with this chili recipe from Missouri CommonGround volunteer Laura Oliver. She and her family farm near Wellsville, raising cattle and crops.

White Chicken Chili

- 1 pound boneless, skinless chicken breasts, cut into 1/2-inch cubes
- 1 medium onion, chopped
- 2 teaspoons garlic powder
- 1 tablespoon soy, vegetable or similar oil
- 2 cans (15-1/2 ounces each) great northern beans, rinsed and drained
- 2 cans (14-1/2 ounces each) chicken broth
- 1 can (4 ounces) chopped green chilies
- 1 teaspoon salt
- 1 teaspoon ground cumin
- 1 teaspoon dried oregano
- 1/2 teaspoon pepper
- 1/4 teaspoon cayenne pepper
- 1/2 cup sour cream
- 1/4 cup heavy whipping cream



The Oliver Family

In a large saucepan, sauté chicken, onion and garlic in oil until chicken is cooked and no longer pink. Add beans, broth, spices and chilies. Bring to boil. Reduce heat and simmer, uncovered, for 30 minutes. Remove from heat and stir in sour cream and whipping cream before serving.

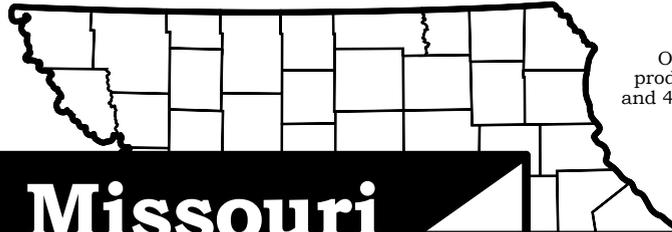
KIDS' CORNER



Did you know?

Crayons are made from soybeans.

Color this map of Missouri your favorite colors using crayons!



Missouri Soybean Fact
One bushel of soybeans produces 1.5 gallons of soy oil and 48 pounds of soybean meal.

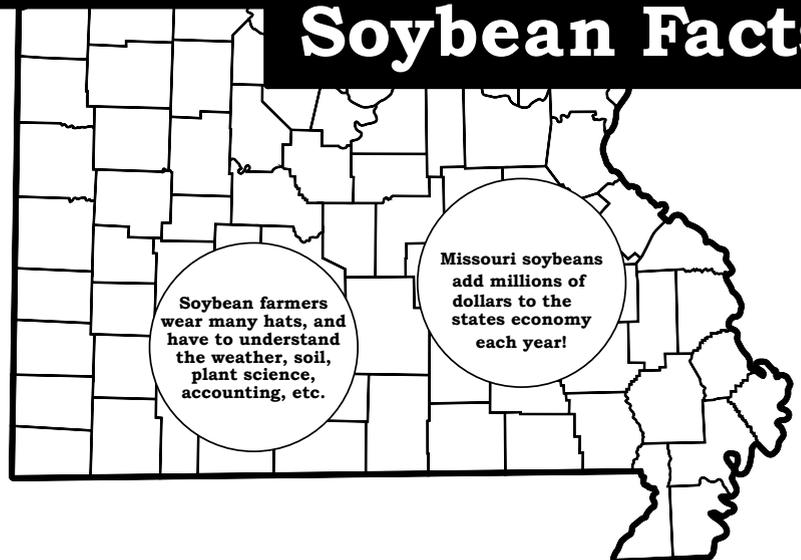
Missouri

Soybean Facts

Did you know?

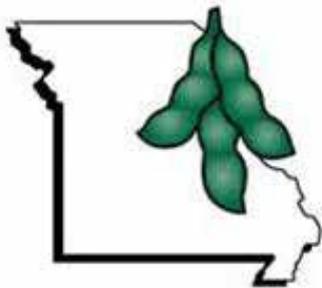
Animal agriculture is the number one market for soybeans, using an estimated 1 million tons of soybean meal each year.

Of that, roughly 30 percent goes into feed for broiler chickens and 14 percent to feed turkeys.



Soybean farmers wear many hats, and have to understand the weather, soil, plant science, accounting, etc.

Missouri soybeans add millions of dollars to the states economy each year!



HONOR WALL

Good news from those working on behalf of Missouri soybean farmers



American Soybean Association

Congratulations to Bill and Shelley Hayen of Chillicothe, Missouri's representatives in the 2015 DuPont Young Leader program! Through the program, they're gaining leadership skills, public speaking training and are participating in tours in partnership with the American Soybean Association. The 2015 group includes representatives from 26 states. They met for the first time in November and will meet again this winter.

The Hayen's were nominated by Missouri Soybean Association board member E.L. Reed, also of Chillicothe.

Will Spargo of Neelyville retired from the Board of Directors for the United Soybean Board in December.



Will Spargo

As a director for the United Soybean Board, Spargo was one of three Missouri farmers representing the state in investing soy checkoff funds on behalf of all U.S. soybean farmers. Projects included efforts to increase the value of U.S. soybean meal and oil, and ensure U.S. farmers and their customers maintain the freedom and infrastructure to operate.

Spargo continues to serve on the Missouri Soybean Merchandising Council Board of Directors, guiding soybean checkoff investments at the state level.



Steve Fairchild

Warren Stemme and Louise Bullock

STEMME HONORED BY ALOT

Each year, the Missouri Agriculture Leadership of Tomorrow (ALOT) organization gives the J. Bruce Bullock ALOT Outstanding Alumni Award to one individual who has made significant contributions to the organization, is respected, recognized and an outstanding example of the training provided by the ALOT program. The 2014 recipient was Warren Stemme of Chesterfield.

The award is named in honor of the late J. Bruce Bullock, a founder of the ALOT program. His widow, Louise Bullock, was on hand to present the award.

Denny Mertz, a fellow soybean farmer from the St. Louis area, assisted with Warren's nomination for the award.

MCCRATE, RAFFETY RETIRE FROM ASA BOARD

Matt McCrate of Cape Girardeau and Tom Raffety of Wyatt retired from the Board of Directors for the American Soybean Association (ASA) in December. Both completed their terms on the national board, overseeing policy, membership and advocacy efforts on behalf of soybean growers and industry.

Both McCrate and Raffety continue to serve on the Missouri Soybean Association Board of Directors; McCrate as vice-president and Raffety as president, respectively.

To learn more about ASA, visit soygrowers.org.



Matt McCrate



Tom Raffety

BREDEHOEFT RECEIVES SOYBEAN LEGACY AWARD

Agriculture leaders from across Missouri received high honors in front of hundreds of producers and agribusiness leaders during the 45th Missouri Governor's Conference on Agriculture, as Missouri's Director of Agriculture Richard Fordyce recognized recipients of the Missouri Agriculture Awards.

The awards included recognition for producers' commitment to innovation, support of their communities and implementation of innovative on-farm practices. Producers were also recognized for setting outstanding examples for future generations.

"Missouri agriculture's greatest asset is the people who have committed their lives to producing a quality food supply for consumers," said Director Fordyce. "It's truly an honor to recognize just a handful of individuals who have gone above and beyond. These men and women have made outstanding contributions to the industry, and we applaud them for giving back so much."

Among the awards presented was the Missouri Soybean Legacy Award, which went to Neal Bredehoeft.

Bredehoeft, who farms with family near Alma, was recognized for his decades of outstanding service and leadership. In 2013, he stepped in to serve as treasurer of Missouri Farmers Care, a coalition of many Missouri agriculture organizations, as well as providing leadership to the Missouri Soybean Association during a national search for a new executive director and CEO. He has been an advocate for producers on issues ranging from 2014's Right to Farm amendment, to increasing exports to Asia, to investing in much-needed upgrades to the Mississippi River lock and dam system.

In addition to that work, Bredehoeft continues to be a gracious host, opening his family farm to trade delegations, members of the media and the public, sharing his outstanding example of Missouri agriculture with them. He also volunteers with the local school district and Santa Fe AgriLeaders to bring agriculture education into elementary school classrooms and to give young people a chance to experience production agriculture firsthand.

Bredehoeft was nominated for the award by Missouri Soybeans' executive director and CEO, Gary Wheeler.

"Neal Bredehoeft represents the best of Missouri agriculture," Wheeler said. "He is a leader on the family farm, in his community and for our state, and he continues to give his time and energy to growing opportunities for Missouri soybean farmers, their soybeans and all of agriculture."

This was the first year for the Soybean Legacy Award. Director of Agriculture Fordyce was joined by Chris Klenklen, director of the State's Grain Inspection and Warehousing division, for the award presentation.

Other awards and their recipients include: Missouri Farm Broadcaster of the Year - Tom Steever of Jefferson City; Missouri Agriculture Corn Legacy - Mike Geske of Matthews; Missouri Agriculture Cotton Legacy - David Blakemore of Campbell; Missouri Agriculture Dairy Legacy - Randy Mooney of Rogersville; Missouri Agriculture Pork Legacy - Brent Sandidge of Marshall; Missouri Agriculture Poultry Legacy - Don Steen of Eldon; and Missouri Agriculture Rice Legacy - Ronnie Berry of Neelyville.

The 45th Governor's Conference on Agriculture was held at the Lake of the Ozarks in late December and was themed "Focus on Missouri Agriculture."



Neal Bredehoeft was recognized by Director Richard Fordyce and the Missouri Department of Agriculture during the 45th Governor's Conference on Agriculture in December.

Missouri Department of Agriculture

WHERE THE MONEY GOES: MSMC ANNUAL REPORT

The board of directors and staff of the Missouri Soybean Merchandising Council (MSMC) take the charge to invest farmers' checkoff dollars very seriously and work throughout the year to make the decisions that most positively impact farmers' bottom line in both the near and distant future. Providing transparency in how those dollars are spent is an important aspect of the responsibility for managing the dollars paid into the soybean checkoff. In Missouri, the Missouri Soybean Merchandising Council's annual budget is divided into a number of categories, subcategories, programs and projects. The primary categories are outlined in the following summary.



During the 2014 fiscal year, which ran July 1, 2013 through June 30, 2014, the Missouri Soybean Merchandising Council invested in both ongoing and new efforts with the goal of increasing the profitability of Missouri soybean growers. Each year, those investments, as well as the Missouri Soybean Merchandising Council's internal management of checkoff funds, is audited by an accredited, outside accounting firm. The Statement of Activities below includes those audited financials.

Research

The largest portion of Missouri farmers' checkoff dollars goes to support research projects directly benefiting soybean farmers. Each year, the MSMC Board of Directors solicits, reviews and selects research proposals for funding. Learn more about current research projects on the next page, as well as online at mosoy.org.

Consumer Information

The Consumer Information budget area is the home for efforts to connect the vast majority of Missourians not living on a farm or ranch to the incredible importance of agriculture, and helping those individuals understand their dependence on Missouri farmers and farm families. Missouri CommonGround, participation in the Missouri State Fair and other regional fairs, as well as involvement with Missouri Farmers Care education and outreach efforts all fall into this category.

Industry Information

Projects involving partners along the soybean value chain include efforts to partner with feed, seed and chemical companies to identify new uses and management practices for soybeans.

Producer Communications

This budget area includes the many ways checkoff funds are used to facilitate communications with soybean growers. Current efforts include participation in farm shows, hosting producer meetings and educational around the state, as well as producing Missouri Soybean Farmer magazine, radio broadcasts and other special programs.

Administration

This budget area includes the cost of necessary audits of the management of farmers' checkoff dollars, as well as of facilitating elections and meetings of the Missouri Soybean Merchandising Council's board of directors.

Background on the Soybean Checkoff

The national soybean checkoff amounts to one-half of one percent of the net sale of the price of soybeans at the time of first purchase. Of the funds collected, half stay within the state and half are directed to national programs overseen by the United Soybean Board.

Missouri Soybean Merchandising Council Statement of Activities Fiscal Year 2014

Revenue	
Assessment Revenue Collected	
First Purchases	\$15,542,840
Other States	\$1,969,242
	\$17,512,082
Less Assessment Revenue	
Remitted to Other States	\$3,753,811
Remitted to United Soybean Board	\$7,157,609
	\$10,911,420
Net Assessment Revenue	\$6,600,662
Contract Revenue	\$53,585
Other Income	\$219
Interest Income	\$34,808
Total Revenue	\$6,689,274
Expenses	
Program Expenses	
Promotion	\$88,456
Research	\$3,036,533
Consumer Information	\$158,501
Industry Information	\$170,145
Producer Communications	\$249,783
	\$3,703,418
Administration	\$869,250
Total Expenses	\$4,572,668
Increase in Net Assets	\$2,116,606

CHECKOFF RESEARCH PROJECTS

Working harder to grow smarter - in Missouri and around the world - to create opportunities for soybean growers.



By Christine Tew

As the world population continues to grow and the demand for food, feed and fuel reaches new heights, research efforts continue to grow in importance. Today, projects supported by the soybean checkoff have farmers here in Missouri, and all around the country, improving yields and quality, as well as fighting pests and weeds like never before. Missouri soybean farmers invest in a broad range of research projects and educational initiatives through their participation in the soybean checkoff. Current projects and researchers supported by checkoff funds distributed by the Missouri Soybean Merchandising Council are listed below.

Some of Missouri Soybean's Current Research Projects:

Using microgenomics to identify new sources of soybean cyst nematode resistance in soybean

Defense Peptides to Protect Soybean from Rust

Evaluation of Exotic Germplasm for Drought Tolerance

To Develop Productive Group IV and V Soybeans Resistant to Nematodes and Diseases

Evaluation of Germplasm and Genetic Mapping for Flooding Tolerance in Soybean

Evaluation of Elevated Oleic Acid Germplasm for Development of Soybeans with High Oleic Acid

Sudden death syndrome and Asian rust resistant transgenic soybean

Novel Construct Design for Plant Gene Silencing Employing Artificial tasiRNA

Support of MU Weed Science Extension Efforts Directed Towards the Management of Glyphosate-resistant Weeds

Novel Strategy for Gene Stacking through Coordinated Gene Expression

Development of soy based nanostructured materials for application as structural foams and adsorbents

Identification and Characterization of Soybean Germplasm to Improve Drought Tolerance

Improving Heat Tolerance: Identification and Characterization of Soybean Germplasm

Assessment of Flavor Scalping and/or Alteration of Flavor by cured Epoxidized Allyl Soyate (EAS) Based Can Coatings

Utility of Subsurface Drip Irrigation for Soybean Production

Improving Soybeans for Increased Productivity on Specific Soil Types — Sand, Loam and Clay

A detailed list of Missouri's current research projects is online at <http://mosoy.org/check-off-at-work/research/>.

In addition to supporting national research efforts through the soybean checkoff, Missouri soybean farmers also support research happening specifically in the Show-Me State, including the projects listed above. The Missouri Soybean Merchandising Council, under the leadership of its board of directors, reviews research proposals each year. Current research partners include faculty and staff from the University of Missouri and the University's Fisher Delta Research Center, Missouri University of Science and Technology, the Donald Danforth Plant Science Center, the National Biodiesel Board and others.

In 2014, the Missouri Soybean Merchandising Council funded more than 40 projects. For 2015, the board of directors reviewed nearly twice that many research proposals. The proposals range from projects in soybean production research, such as on-farm management practices, to soybean breeding, disease research, nematode-related efforts, insect studies and weed control methods. Projects may also include soybean quality research, new uses and outreach efforts.

To learn more about research supported by the soybean checkoff nationwide, visit <http://www.soybeancheckoffresearch.org/>.



Soybean breeding research is also conducted at the Bay Farm Research Facility outside Columbia.

HURST, REED ELECTED TO NATIONAL SOYBEAN ASSOCIATION BOARD

By Christine Tew

Two Missouri soybean farmers recently took on national responsibilities to advocate on behalf of their fellow soybean growers.

Brooks Hurst, a soybean farmer from Tarkio, and E.L. Reed, a soybean farmer from Chillicothe, were recently named to the board of directors for the American Soybean Association. They will work closely with national staff to represent Missouri soybean farmers on national policy issues in Washington, D.C., as well as in Missouri.

A primary focus of the American Soybean Association is policy development and implementation. The Association works throughout the year to connect with soybean growers, industry representatives, elected officials and others to ensure agricultural needs are represented throughout the legislative process. ASA currently represents more than 21,000 U.S. soybean producers.

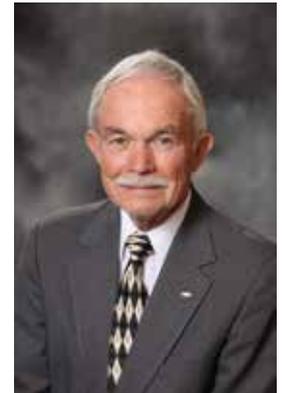
Hurst and Reed also serve on the Missouri Soybean Association Board of Directors, guiding policy, advocacy and outreach efforts on behalf of Missouri soybean farmers who have joined the state association.

Hurst and Reed fill Missouri's seats open following the retirement of Matt McCrate of Cape Girardeau and Tom Raffety of Wyatt, who previously served at the national level.

Want to contact Brooks Hurst or E.L. Reed? Call the Missouri Soybean office at (573) 635-3819 or email mosoy@mosoy.org. To learn more about the American Soybean Association, visit soygrowers.org.



Brooks Hurst



E.L. Reed



YOUR PERSPECTIVE IS WORTH GROWING

The soy checkoff is looking for farmers from diverse backgrounds to get involved in the United Soybean Board or Missouri Soybean Merchandising Council. There are a variety of opportunities to serve, and your talent and input can make a difference.

Help to lead the U.S. soybean industry into the future. Contact the Missouri Soybean Merchandising Council at www.MOsoy.org and get involved today, or visit www.UnitedSoybean.org/GetInvolved.



A GREAT YEAR FOR SOY, DESPITE OBSTACLES IN WASHINGTON

By John Gordley

Marked by gridlock between the Obama Administration, Senate Democrats, and House Republicans that continued to bottle up nearly all legislative progress, the 113th Congress won the dubious honor of being the second-least productive in history. The mid-term election campaigns preoccupied Members of Congress throughout much of 2014, and while the significant Republican gains in both the House and the Senate could result in greater cooperation going forward, the results are broadly seen as voter angst with the President and discontent with Congress' continuing failure to address the nation's most pressing problems.

Despite the negative environment, the soy industry achieved a number of major legislative and regulatory victories. ASA worked hard to ensure that the new Farm Bill preserved planting flexibility by decoupling both the Agricultural Risk Coverage (ARC) and Price Loss Coverage (PLC) programs to prevent future production distortions between crops. The bill also allows producers to update their payment yields and reallocate base acres, and raises the soybean reference (target) price in the PLC program from \$6.00 to \$8.40 per bushel. The law also consolidates conservation programs on working lands and provides full funding for the Foreign Market Development and Market Access Programs – export promotion programs key to ASA, USSEC and WISHH's success in developing foreign markets.

Also of great significance was the passage of the one-year tax extenders package, which included several provisions that have positive impacts on soybean farmers. It reinstated expensing provisions, including the Section 179 small business limitation of \$500,000 and the \$2 million phase-out amount for property placed in service during 2014. The tax extenders package also restored the 50 percent bonus depreciation provision and the dollar-per-gallon biodiesel tax credit.

ASA was also successful in helping achieve several long-standing priorities for waterways infrastructure. These included passage of the Water Resources Reform & Development Act (WRRDA), increased appropriations for the Army Corps of Engineers waterways operations and maintenance programs, and a nine-cent-per-gallon increase in the barge fuel fee that funds infrastructure upgrades via the Inland Waterways Trust Fund (IWTF). Within WRRDA were several significant policy victories that will result in additional revenues available for the IWTF and the Harbor Maintenance Trust Fund. Together, the barge fuel increase and the increased revenues from the changes in WRRDA will yield \$185 million per year in additional funding for waterways infrastructure improvements.

Just as important as these legislative victories were successful efforts by ASA and others on regulatory issues. While EPA has yet to withdraw its proposed WOTUS rule, it is expected to undergo significant revision in 2015. Another regulatory achievement was publication of a proposed rule that would allow aquaculture operations in the Gulf of



If you believe, belong.

Mexico, a critical first step to building a domestic aquaculture industry and opening opportunities to feed sustainably-produced U.S. soybeans to a growing industry here at home.

On trade, ASA was a leader in efforts by the U.S. Biotech Crops Alliance to convince the Obama Administration to make international biotech approvals a major trade policy priority. This led to China's decision to approve three longstanding applications for importation of biotech crops, including two soybean varieties, and to commit to a strategic dialogue on agricultural innovation and biotechnology. And the Administration moved to establish formal diplomatic relations with Cuba, whose top imports in 2013 included frozen poultry, soybean meal, corn and soybeans. ASA also continued to press the Administration on its priorities in the Trans Pacific Partnership (TPP) trade negotiations, and for maintaining and increasing access to European Union markets in the Transatlantic Trade and Investment Partnership (TTIP) negotiations, including on biotech approval regulations and the sustainable agriculture requirements of the Renewable Energy Directive.

ASA's success in these core policy areas, especially in the face of such a challenging political environment in Washington, should give all members reason for great confidence as our organization moves into a new year and a new Congress. As always, we are proud to serve the members of the American Soybean Association and all the men and women of the U.S. soybean industry in Washington.

John Gordley is a Washington, D.C. representative for the American Soybean Association. Learn more at soygrowers.com.

MISSOURI SOYBEANS' WINTER MEETINGS

The staff of the Missouri Soybean Association and Missouri Soybean Merchandising Council is working with producers around the state to host local meetings this winter, focusing on identifying opportunities to better serve Missouri soybean farmers. Meetings will include updates on checkoff programs and investments, as well as opportunities for question and answer sessions. Some meetings will be followed by elections to the Missouri Soybean Association Board of Directors, as marked below, as well.

Meetings scheduled thus far:

January 12, 2015

District 3

Hall's Catering

220 S. Main Street, Palmyra

6:00 PM

Joint meeting with Missouri Corn Growers Association

January 14, 2015

District 7*

Sikeston-Miner Convention Center

2610 E. Malone, Miner

8:30 AM

Held in conjunction with the University of Missouri Soybean Crop Management Conference

January 16, 2015

District 6

Perryville American Legion Hall

98 Grand Ave., Perryville

9:30 - Noon

Joint meeting with Missouri Corn Growers Association, held in conjunction with Perry County Farm Bureau Ag Production & Marketing Update

January 26, 2015

District 3*

Mexico Vo-Ag Center

905 N. Wade, Mexico

5:15 PM

January 29, 2015

District 4*

Bredhoeft Farm

8682 Hickory Grove, Blackburn

Noon

February 10, 2015

District 4

Thiebaud Auditorium

105 E. 11th Street, Lamar

9:00 - 3:00 PM

Held in conjunction with the Barton Co. Soils & Crops Conference



Follow us on mosoy.org to learn more!

February 17, 2015

District 6*

Hagies 19

618 N. Washington Ave., Union

6:30 PM

February 19, 2015

District 2*

Litton AgriLearning Center

10780 Liv. 235, Chillicothe

6:30 - 8:30 PM

Joint meeting with Missouri Corn Growers Association, held in conjunction with the Chillicothe Young Farmers Meeting

March 9, 2015

District 5

Prairie Grove Shotgun Sports

1420 CR 276, Columbia

Noon

March 10, 2015

District 1*

Bethany

(time and location TBA)

WANT MORE?

Visit us online at mosoy.org. "Like" us on Facebook and follow us on Twitter.



**Elections to the Missouri Soybean Association Board of Directors will be held.*

If you're interested in helping with winter meetings, whether participating with Missouri Soybeans' farmer leaders and staff, or bringing together folks in your community for a conversation, contact Dan Engemann at dengemann@mosoy.org.



CAPITOL UPDATE

By Scott Swain

January 7, 2015 began the 98th Missouri General Assembly. Missouri farmers had a banner year in 2014 and we look to continued success in 2015. Missouri's largest industry will be front and center as legislators meet this year to discuss final support for the Biodiesel Producer Incentive Fund, weight limit increases for harvest hauling and livestock, foreign ownership of Missouri land, marketing for Missouri livestock and much more.

Fewer and fewer Missouri farmers have chosen to run for elected office in recent years, however policy leaders from Governor Nixon on down know how important the agriculture industry is to Missouri's overall economy.

Senate Ag Chairman Brian Muzlinger, Senator Mike Parson and Senator Mike Kehoe are taking the charge to make government work for Missouri farmers.

We are also blessed to have a Department of Agriculture that works with farmers on a daily basis to make sure the regulatory process does not impede production but encourages it.

State Auditor Tom Schweich's office recently conducted an audit of the Missouri Department of Agriculture and found its overall performance "good."

Schweich said "It's probably the best audit we've given a

state agency since I've been auditor." He pointed out several areas that the department can improve but cited that the department is a "well-run" organization.

Speaker-elect John Diehl will take the House gavel soon and a new leadership team(s) will grant us the opportunity to maintain a strong relationship with House members of both parties.

The House is expected to lay out a new committee structure in 2015 and we expect a high level of debate for issues important to agriculture.

Optimism for issues like trade with Cuba, increased exports around the world and a steadfast growing biodiesel industry are what we will be continually educating legislators and policy leaders on in 2015.

Happy New Year!

Scott Swain of The Swain Group works with the Missouri legislature throughout the year on behalf of the Missouri Soybean Association and farmers across the state, advocating for soybean producers' interests on issues affecting Missouri agriculture.

CONNECT WITH MISSOURI SOYBEANS

UPCOMING EVENTS & ACTIVITIES

National Biodiesel Conference
Forth Worth, Texas
January 19-22

Heart of America Dairy Expo
Springfield, Missouri
January 22-24

National CommonGround Conference
Austin, Texas
January 25-27

Soybean Meal Quality Workshop
SEMO Port, Scott City
February 4

Missouri Pork Expo
Holiday Inn, Columbia
February 10-11

CAFNR Ag Unlimited Banquet
Holiday Inn Expo Center, Columbia
February 14

Missouri 4-H Legislative Academy
Jefferson City
February 16-18

Commodity Classic
Phoenix, Arizona
February 26-28

Earth Day at the Capitol
Capitol Lawn, Jefferson City
April 24

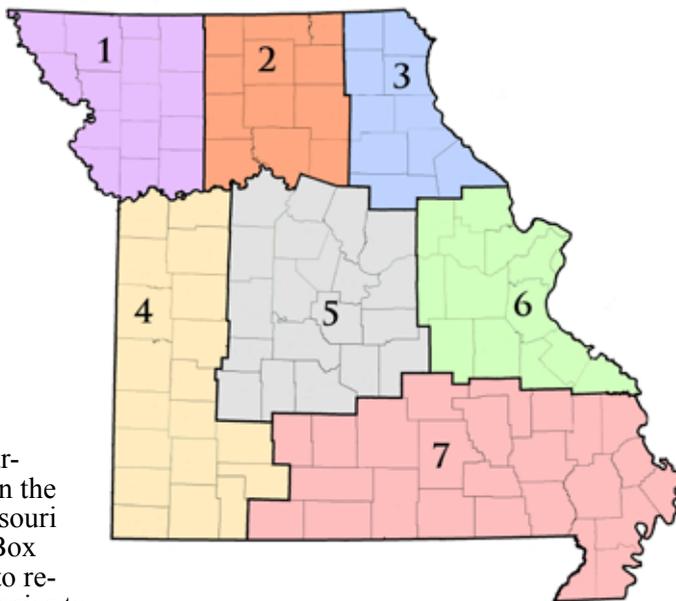
Crop Injury and Diagnostic Clinic
Bradford Research Center, Columbia
July 28-29

LEGAL NOTICE TO MISSOURI SOYBEAN PRODUCERS

An election will be held to elect four (4) soybean producers to the 13 member Missouri Soybean Merchandising Council, which manages the funds collected through the soybean checkoff program. The terms of office will be for three (3) years and the election will be as follows: four (4) members are to be elected; one (1) each from Districts 1, 2, 3, and 7. Ballots will be mailed by the Missouri Department of Agriculture on March 6, 2015, to each registered producer in the four (4) districts. Ballots must be returned to the Missouri Department of Agriculture in Jefferson City, by mail, postmarked no later than April 3, 2015.

Any duly registered commercial producer of soybeans is eligible to vote for the Council candidates from his/her District. Producers must be registered to vote. Current registered producers whose address has changed in the last five (5) years should re-register or contact the Missouri Department of Agriculture at (573) 751-5633 or P.O. Box 630, Jefferson City, MO 65102 by February 2, 2015, to receive a ballot. Non-registered producers must register prior to February 2, 2015, at the USDA County FSA Office or online at: <http://agriculture.mo.gov/councils> to receive a ballot for this election.

Any qualified producer may be nominated and have his/her name placed on the ballot, provided he/she presents the Director of the Missouri Department of Agriculture a nominating petition signed by at least 100 soybean producers prior to February 2, 2015. Such petitions are available at the Missouri Department of Agriculture in Jefferson City, Mo. Please direct any questions to Missouri Department of Agriculture, P.O. Box 630, Jefferson City, MO 65102, or (573) 751-5633.



FROM THE FIELD...



There is a season for everything. From planting to harvest, we know many of them well. In fact, most of us know when we can expect to be busiest, when Murphy's Law is most likely to strike, and when there just might be a few minutes to catch our breath.

With the holidays now in the rearview mirror, a new season is at hand. Winter is planning season. From looking at the results of yield data and fall soil samples to talking through plans for spring, this is the time of the year we allow ourselves to look ahead. We're optimistic on the tail of a good harvest, and for the promise of the coming year's crops.

Those of us with more than a handful of planning seasons under our belts may be a little cautious too - after all, as Eisenhower once said, "Farming looks mighty easy when your plow is a pencil..."

However, after a few weeks of that pencil and frigid weather, we're looking forward to getting back out there. Planning season can't give way to planting season fast enough.

Winter also brings the start of the annual planning session for the future of our state. Missouri's legislative session kicked off January 7, bringing with it some familiar topics like the Biodiesel Producer Incentive Fund, as well as new opportunities, including potentially increasing weight limits for vehicles hauling grain on state roads and highways.

I hope you'll dedicate some of your planning season to staying in touch with your Soybean Association staff and to talking to your legislators, making sure the folks in Jefferson City know what's important to you as they work on plans that affect us all.

Tom Raffety

Missouri Soybean Association President



When we talk about the impact the soybean checkoff has in Missouri, we're often talking about the way we reach out - with our education programs, taking agriculture into the classroom or the grocery store and helping our neighbors of all ages get a look at how their food is raised. Just as important for us to remember though, is the checkoff's impact on the farm.

Part of the checkoff mission is to improve the profitability of soybean farmers, and in Missouri we're doing that through research into new varieties and management practices. Each year, we invest millions of our checkoff dollars into partnerships with University of Missouri faculty, like Grover Shannon and Andrew Scaboo, and

others you read about in this magazine. They've brought us innovations like high oleic oil and continue exploring protein content and developing new drought and flood tolerant varieties.

About 25 percent of the soybean research funded at land-grant universities and other public institutions today is funded by the checkoff. Each year, state and national research investments from the soybean checkoff top more than \$50 million to help increase and protect soybean yields and to improve soybean composition.

Nationally, the U.S. soybean yield average has increased by 14 bushels per acre since 1981. Average yield is now 44 bushels per acre. In Missouri, we've seen our average yield roughly double during that time according to USDA. Those are impacts we as producers can see not only during harvest season, but throughout the year. And for me, those are dollars well spent.

David Lueck

Missouri Soybean Merchandising Council Chairman

MSA Board Members:

Steve Alexander, Hopkins
Neal Bredehoeft, Alma
Cindy Faulkner, New Madrid
Kelly Forck, Jefferson City
C. Brooks Hurst, Tarkio
T. Brooks Hurst, Tarkio
John Kleiboeker, Stotts City
Matt McCrate, Cape Girardeau
Tom Raffety, Wyatt
E.L. Reed, Chillicothe
Ron Russell, Richmond
Greg Sharpe, Ewing
Warren Stemme, Chesterfield
Larry Strobel, Bell City
Doug Thomas, Brashear
Matt Wright, Emden

MSMC Board Members:

Robert Alpers, Prairie Home
Cecil DeMott, Rock Port
Harold Gloe, Hermann
Tim Gottman, Monroe City
Patrick Hobbs, Dudley
John Kelley, Faucett
Bob Littleton, Dalton
David Lueck, Alma
Baughn Merideth, Caruthersville
Lewis Rone, Portageville
Will Spargo, Naylor
Jim Underhill, Palmyra
Rex Wood, Meadville

USB Board Members:

Richard Fordyce, Bethany
Todd Gibson, Norborne
Lewis Rone, Portageville

ASA Board Members:

C. Brooks Hurst, Tarkio
E.L. Reed, Chillicothe





I WILL TAKE ACTION AGAINST HERBICIDE-RESISTANT WEEDS.

I will know my weeds. When they grow. When they pollinate. And I will stop them before they go to seed.

I will take action in the field and do whatever it takes to give my crops the upper hand against weeds.

I will take action with careful herbicide management and use multiple herbicide sites of action, because every action counts.

I will take action because it's my bottom line. It's not about this year or the next. It's about the long term.

I will take action. This time. For all time.

Now is the time to take action against herbicide-resistant weeds. Visit www.TakeActionOnWeeds.com to learn how you can prevent herbicide-resistant weeds from spreading.

