SUMMER 2014

AMERICAN soybean

Vol.2, No.1

People. Policy. Profitability.

A PUBLICATION OF THE AMERICAN SOYBEAN ASSOCIATION

ASA
American Soybean Association®
If you believe, belong.

Conservation Legacy Awards

Tell us your conservation story and you could be a winner.

The Conservation Legacy Awards program recognizes U.S. soybean farmers who distinguish themselves through outstanding environmental and conservation practices while continuing to farm profitably.

Three regional winners will be selected. The regions are: Midwest, Northeast and South. All U.S. soybean farmers are eligible to enter.

Showcase Conservation on Your Farm

Applications will be evaluated on: management of soil, water and inputs; farmstead protection; sustainable practices; and overall conservation and environmental management.

- Win an expense-paid trip for two to Commodity Classic in Phoenix, Arizona, Feb. 26-28, 2015
- Be recognized at the ASA Awards Banquet at Commodity Classic
- Have your farm and conservation practices featured in *Corn & Soybean Digest* magazine and a special online video segment

Applications must be submitted online by **August 4, 2014.**

Visit **SoyGrowers.com** for application details and to view video features of past winners.

ASA American Soybean Association. If you believe, belong. BASF The Chemical Company MONSANTO Our Soy Checkoff Progress Powered by U.S. Farmers CORN+SOYBEAN DIGEST

AMERICAN soybean

SUMMER 2014

Vol. 2, No. 1

Publisher Bill Schuermann
Editorial Director Patrick Delaney
Managing Editor Jordan Bright
Associate Publisher/ Marketing Jill Wagenblast
Sponsorship/Ad Sales Chris Luelf, Michelle Hummel
Database Management Chris Merlotti
Production/Advisor David & Associates
Contributing Writers Barb Baylor Anderson, Marilyn L. Cummins, Patrick Delaney, Melissa George Kessler, Candace Krebs
Contributing Photographers Liz Morrison, Edwin Remsberg

American Soybean is published quarterly by the American Soybean Association, 12125 Woodcrest Executive Drive, Suite 100, St. Louis, MO 63141. Phone: 314.576.1770. Web: www.SoyGrowers.com

The American Soybean Association (ASA) represents all U.S. soybean farmers on domestic and international issues of importance to the soybean industry. ASA's advocacy, education and leadership development efforts are made possible through voluntary membership in ASA by farmers in states where soybeans are grown.

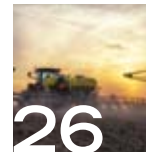
ASA American Soybean Association®
If you believe, belong.

CONTENTS

FEATURES

COLUMNS

DEPARTMENTS



PRINTED WITH SOY INK

Facebook.com/AmericanSoybeanAssociation Twitter.com/ASA_Soybeans

SOY news

ASU Students Bring Soy Solar Edge to France

A team of students from Appalachian State University (ASU) used soy-based products to design and build a solar-powered row house. They headed to France in May to compete against 20 global teams at the Solar Decathlon Europe 2014. ASU, located in Boone, N.C., is one of three schools chosen for the sister competition to the U.S. Department of Energy Solar Decathlon.

The students worked together to both design and build the "Maison Reciprocity" house and when they reached Versailles, teamed up with their partner school, Université d'Angers, to reassemble and compete in the house that offers multiple environmental attributes. Soy-based, formaldehyde-free plywood as well as durable floor matting are important features of Maison Reciprocity. The students used 1,700 square feet of Columbia Forest Products' PureBond® hardwood plywood made with its soy-based formaldehyde-free adhesive on floors, walls and stairs. The product won the Environmental Protection Agency's (EPA) Presidential Green Chemistry Award.

Source: United Soybean Board

Team members prepare panels to be hung in the solar row house.

Photo Credit: Appalachian State

HEALTH: Soy Sauce Compound May Help Stop the Spread of HIV

Soyfoods Association of North America recently summarized some of the most promising research released and the findings show promise in not only promoting nutrition, but preventing health risks. In 2001, Japanese soy sauce company Yamasa tested strategies to create more flavor in its signature condiment and discovered the EFdA compound, a flavor enhancer found in soy sauce. Upon further investigation of the flavor compound, they were surprised to find it could to halt the process that HIV uses to spread by blocking the virus' code from being added to the DNA of white blood cells.

Now, Stefan Sarafianos and his team of virologists at the Bond Life Sciences Center, University of Missouri-Columbia have proven that EFdA is 70 times more potent against HIV than Tenofovir – one of the most-used HIV drugs. HIV prevention is now the focus of research collaborations involving EFdA and the goal is to minimize transmission of the virus, especially in sub-Saharan Africa, where more than 70 percent of HIV cases occur. Worldwide 1.6 million people die because of HIV/AIDS- related illnesses each year.

Source: Soyfoods Association of North America

Photo Credit: University of Missouri.

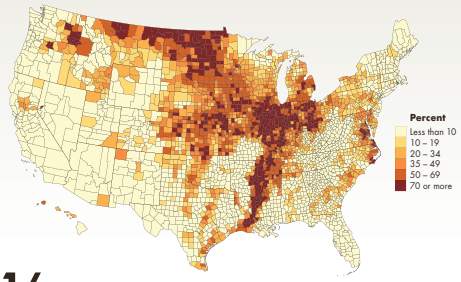
Virologist and researcher Stefan Sarafinos in the atrium of the Bond Life Sciences Center at the University of Missouri-Columbia.

BY THE NUMBERS

U.S. Agriculture Production

The 2012 Census of Agriculture lets us know what is produced in U.S. agriculture – from corn and soybeans to livestock and vegetables. Census data help expand access to resources for farmers and ranchers to make business decisions and to diversify into new markets.

Value of Grains and Oilseeds as Percent of Total Value Sold, 2012



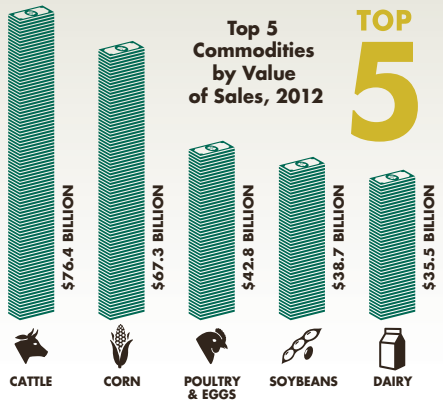
1/3 of the value of agricultural sales in the U.S. was for grains and oilseeds.

163.5 MILLION

The number of corn and soybean acres harvested in 2012.

For the first timeever, soybeans and corn for grain acres comprised more than 50 percent of all cropland harvested.

Top 5 Commodities by Value of Sales, 2012



5.2 MILLION

The number of acres in fruit, tree nut, and vine orchards in the U.S. in 2012.

Grape acres accounted for 22% of all orchards.

*Grape acres up 8% from 2007.**

$4.97 BILLION

The value of agricultural sales in Fresno County, CA in 2012.

Ranked #1 in the U.S., agricultural sales in Fresno County were greater than those in 23 states.

4.5 MILLION

The number of acres of vegetables harvested for sale in the U.S. in 2012.

Sweetpotatoes harvested totaled 125,726 acres nationwide.

*Sweet potato acres up 19% from 2007.**

8.5 BILLION

The number of broilers sold in the U.S. in 2012.

*Broilers down 5% from 2007.**

That's more chickens than people in the world.

619,172

The number of farms and ranches specializing in beef cattle in the U.S. in 2012.

That's 29% of all farms, the largest category of operations in the U.S.

* *Statistically significant change. Visit http://bit.ly/AgCensusFAQs.*

www.agcensus.usda.gov

U.S. Department of Agriculture
National Agricultural Statistics Service

USDA 2012 CENSUS OF AGRICULTURE

Source: 2012 Census of Agriculture, May 2014

87 percent – The percentage of all U.S. farms operated by families or individuals. (*2012 USDA Ag Census*)

$395 billion – Total value of ag products sold in 2012, and a 32.8 percent increase over 2007. (*2012 USDA Ag Census*)

280 million – The number of acres that are no-till farmland. (*2012 USDA Ag Census*)

50 percent – The percentage of all harvested acres that were soybean and corn acres, the highest it's ever been. (*2012 USDA Ag Census*)

$38.7 billion – The sales value of U.S. soybeans in 2012, up significantly from $20.3 billion in 2007. (*2012 USDA Ag Census*)

30 percent – The percentage of all farm operators that are women. (*2012 USDA Ag Census*)

250,000 – The number of farms in Texas, the state that leads the nation with most farms. (*2012 USDA Ag Census*)

57,000 – The number of farms that now produce renewable energy. (*2012 USDA Ag Census*)

21 percent – The increase in Hispanic-operated farms. In 2012 there were 67,000 Hispanic principal farm operators. (*2012 USDA Ag Census*)

SoyTown Hall

From regulation and weather, to use and stewardship—farmers across the country are facing numerous water challenges. We asked them to tell us what issues they're encountering in their states and how that impacts their farms. Here's what they said:

Ryan Horsley, Virginia

"In terms of regulation, like most we're trying our best to support people in the Chesapeake Bay area and communicate with lawmakers that farmers are not the main source of pollution and that most farmers are using best management practices on their farms that drastically improve the negative impact that row crop farmers have on the environment as a whole. As far as precipitation, we got more snow and had a more wet winter than typical and spring has also been wet—so we've had to delay planting soybeans."

Kevin Hoyer, Wisconsin

"Here in Wisconsin, our water issues deal with runoff and nutrient loads in our surface waters. It is important to keep the soil, nutrients and pest control products where they belong."

Dana Blume, Minnesota

"Too much water in western Minnesota right now, very little planted."

Jeffrey Froelker, Missouri

"In Gerald, Mo. cold May rains are delaying soybean emergence of beans that were planted on May 4–5."

Cynthia D. Alexander Garret, Texas

"We have had drought for such a long time in San Antonio, Texas—last good rain in December, then we got nearly four inches the last two days. Hoping for some more."

JD Bonham, Nebraska

"We will not irrigate six fields due to the reservoir (lake) being low. It's a huge impact on our small town."

IssueUpdate

Waters of the United States: Sorting Out the Issue

By **Patrick Delaney**

There has been an onslaught of opinion over the Environmental Protection Agency (EPA) and Army Corps' recent proposed rule to define "Waters of the United States" under the Clean Water Act (CWA), and while EPA maintains that the rule would not expand authority over farming operations, other groups hold that it will spell the end of production agriculture. ASA understands the critical importance of these issues to our members and that we must have a clear picture of what the proposed rule really means for farmers. Let's start with what we know, much of which has been gleaned from work by the Congressional Research Service, the research arm of Congress.

The rule, proposed in March, replaces guidance on CWA jurisdiction which was extremely controversial. Both supporters and critics of the guidance urged the agencies to replace it with revised regulations. Additionally, three Supreme Court rulings from 2006 also urged the agencies to initiate this rulemaking.

According to the agencies, the proposed rule would revise the existing regulatory definition of "waters of the United States." The rule excludes specified waters, including prior converted cropland, and makes no change to existing exclusions, such as exemptions for normal farming, ranching, and forest control activities.

EPA Administrator Gina McCarthy has repeatedly—including in the pages of this publication—assured the farming industry that all practices currently covered under the farming exemption of the Clean Water Act would continue to be exempted under the new definition of waters of the United States.

Additionally, at the same time the rule was proposed, EPA and the Corps issued an "interpretive rule" that identifies more than 50 conservation practices identified by the Natural Resources Conservation Service that qualify for exemption under the "normal farming practices" exclusion.

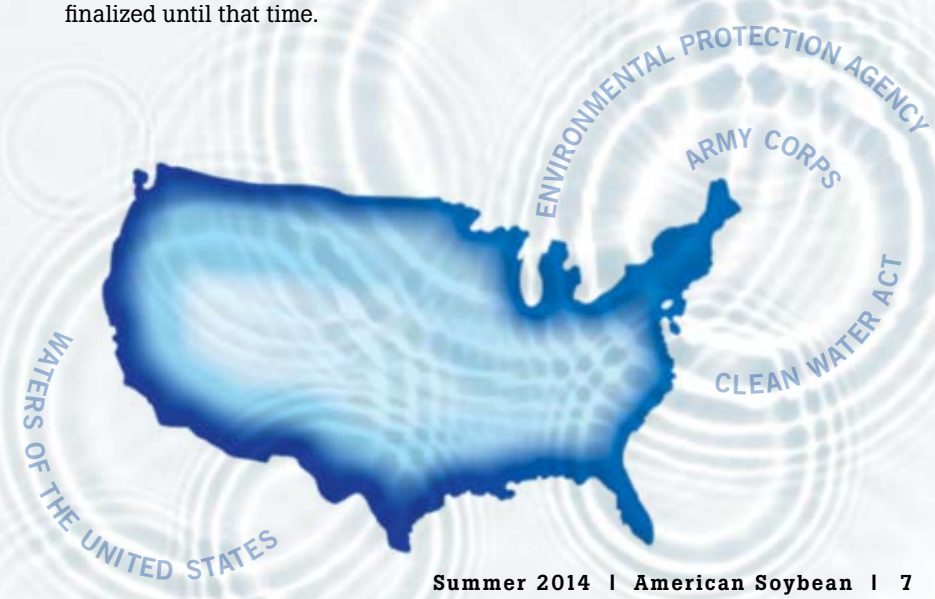
Further complicating the matter, the assessment of scientific reports that the agencies used to develop the rule remains under review by EPA's Science Advisory Board. Many critics have suggested that the rule should not have been proposed until the review is complete. The agencies pledge that the final rule will not be finalized until that time.

This proposed rule is much bigger and more complex than most others. Because of this, ASA is committed to taking the greatest care in assessing how the issue will affect soybean farmers.

ASA will continue to analyze and re-analyze these rules as well as work with Administrator McCarthy and her team at EPA, with state soybean affiliates and with fellow farm groups to determine what impacts the waters of the U.S. rule will have on soybean farmers.

ASA's end goal—as with all of its advocacy work—is a policy that benefits soybean farmers by enabling them to continue farming while protecting the nation's waters and their own livelihoods.

Source: "EPA and the Army Corps Proposed Rule to Define "Waters of the United States," Congressional Research Service, March 27, 2014. ◘



SoyState UPDATE

Status**ILLINOIS**

Photo: Illinois Soybean Assoc.

The Illinois Soybean Association (ISA) recently unveiled ILSoyAdvisor.com, a checkoff-funded resource to help Illinois soybean farmers increase yields. The site comes into existence as ISA celebrates 50 years as an organization and 100 years of Illinois soybean production. Combining a website with discussion forums, the site focuses on boosting Illinois soybean yields and profitability through collaboration and the latest management practices. The site connects farmers with industry experts, certified crop advisers and university researchers in a format where questions and ideas easily can be exchanged. A blog, real-time information, technical resources, case studies, videos and more make it a one-stop shop for Illinois soybean farmers.

Status**KANSAS**

Photo: Kansas Soybean Assoc.

The Kansas Soybean Association's (KSA) policy committee chairman, Dwight Meyer, (left in the photo) from Hiawatha, attended a U.S. Environmental Protection Agency (EPA) roundtable with agricultural stakeholders on April 29 to discuss the agency's "Waters of the United States" proposed rule. He sat next to EPA Region 7 Administrator Karl Brooks (center).

Status**KENTUCKY**

While the 2014 Kentucky General Assembly session headed into its final weeks, farmers in the Kentucky Soybean Association (KSA) took to the State Capitol on March 25 for lunch and legislative outreach. Farmers hosted a crowd of more than 250 legislators, staff and agriculture supporters at the Capitol Annex in Frankfort.

"We've been doing Frankfort visits for several years, but this was our first foray into an event for state lawmakers at the Capitol," said KSA Vice President Mike Burchett of Murray. "Any time we can go say 'thank you' to our legislators and visit them without a specific request or problem, it helps build the relationships we need for down the road when an issue emerges."

Photo: Rae Wagoner

Representative Jody Richards, of House District 20, and a staffer are served lunch by KSA Farmer-leader Becky Thomas and KSA staffer Becky Kinder.

Status**MISSOURI**

Missouri Soybean Association (MSA) recently welcomed new Executive Director/CEO Gary Wheeler. Wheeler comes to MSA with 15 years of association management, advocacy and industry relations experience and vast knowledge of checkoff appropriation, non-profit organizations and membership. He is also involved in numerous organizations including the U.S. Farmers & Ranchers Alliance, U.S. Grains Council and U.S. Meat Export Federation, Missouri Society of Association Executives, Missouri Farmers Care, Missouri Economic Development Council, Missouri Chamber of Commerce and the Jefferson City Environmental Quality Commission. Wheeler has a Bachelor of Science in agriculture and a Master of Business Administration. He also proudly served his state and country for 11 years in the Missouri Army National Guard.

Status**NEBRASKA**

Nebraska State Capitol.
Photo Credit: Lori Luebbe

The Nebraska Legislature completed its 60th Legislative Day in mid-April. The end of the 2014 session sees the departure of 17 senators who have fulfilled their eight-year terms and are no longer eligible to serve.

For agriculture and the Nebraska Soybean Association (NSA), the session was a success. Areas of interest included the passage of legislation to dedicate $32 million towards funding water projects, appropriation of an additional $25 million to the Property Tax Credit program to provide property tax relief, repeal the sales tax on agricultural machinery and repair parts, study means to increase the number of dairies in the state, and provide regulatory relief by removing the Commercial Drivers License requirement for drivers of farm-covered vehicles. Several NSA directors presented testimony on these issues during the hearing process this session.

Status**NEW YORK**

Patrick Delaney, ASA Communications Director, Greg Harding and Jack Litzelman, Channel seed dealers and Kaleb Little, National Biodiesel Board Communications Specialist, at the 2013 Dutchess County Fair.

The New York Corn & Soybean Growers Association will have a display at the Dutchess County Fair, Aug. 19-24 in Rhinebeck. NYCSGA volunteers will spend the week talking to consumers about modern agricultural methods. The display will include a new combine with attached soybean head, tractor and 16-row planter, soybean plants from seed to full maturity, everyday soybean household products, and information about New York's Bioheat© initiative. The Dutchess County Fair, which is located just 100 miles north of New York City, attracts over 500,000 visitors annually.

Status**SOUTH CAROLINA**

Jason Carter shows crimson root.
Photo Credit: South Carolina Corn & Soybean Association

Jason Carter, of Richland County, is in the process of converting from strip till to no-till, except for in-row subsoiling. He is using poultry litter as a nutrient source. His immediate goal is to use the Haney Soil Health Nutrient test, poultry litter and leguminous cover crop mixes to reduce the inorganic fertilizer inputs while still maximizing and maintaining crop yields.

Jason has participated in Environmental Quality Incentive Program, Conservation Stewardship Program, and is currently involved in a South Carolina Conservation Innovation Grant Funded by the Natural Resources Conservation Service and administered by the Richland County Soil and Water Conversation District. Jason is a recent winner in the South Carolina Corn & Soybean Association's yield contest in the category of non-irrigated beans with 80 bushels.

SOY HORIZONS

ROUGH WATERSHED:

Farming Near the Chesapeake Bay Poses Unique Challenges for Dave & Linda Burrier

By **Melissa George Kessler**
All Photos Edwin Remsberg

Dave and Linda Burrier make conservation and water stewardship a priority on their Maryland farm.

The phrase "Chesapeake Bay watershed" strikes fear in many farmers concerned about excessive regulation, widespread urban encroachment and a general lack of understanding about how important farming is to society.

But for the Burrier family, the watershed has been home and host to their family's farm for generations.

Dave and Linda Burrier manage the operation in Frederick County, Md., started by Dave's dad, Joe, in 1962. The family is now in the process of transitioning management to Dave's daughter, Becky Burall, and her husband, Jarrod.

Though they know better than anyone how real the well-known concerns about farming the watershed are, they also continue to prove, as Dave's mantra goes, "sustainability is profitability."

Farming in the Watershed

Joe, now 81, grew up farming in the area—less than 60 miles from Washington, D.C.—with his family, starting the operation with 109 acres and a dairy that closed in 2000. Now the Burriers produce 1,100

acres of soybeans, corn, wheat and hay, all on land considered highly erodible by USDA's Natural Resources Conservation Service (NRCS).

Since the beginning, innovation has been a part of life on the Burrier farm.

Joe did soil sampling in the 1960s, pioneering for the time. In the 1970s, he moved to no-till on his corn acres. In 1971, the family built a new waste storage facility for the dairy and started using manure they collected as fertilizer. Over the years, they also incorporated other conservation measures like buffer strips, farming in narrow strips to control erosion and crop rotations.

"His mindset was that if we lost a pound of dirt, that was a pound of dirt we couldn't get back in our lifetime," Dave said, who took over the farm full-time following 12 years as a certified crop advisor focusing on fertilizer. "His teaching to me was that we want to leave it better, even though it wasn't a common practice."

The Burriers have used mandated soil conservation plans since the 1960s and adjusted to more stringent regulations over time as the Chesapeake Bay's water quality has deteriorated. In 2010, the Environmental Protection Agency (EPA) issued total maximum daily load (TMDL) standards restricting nutrients released into the watershed, which also restricted the Burriers' ability to apply fertilizer on certain days or, in the case of manure, in certain months of the year.

The regulations have led to both extra work and extra expense because they require more passes through the fields, more labor, more management and more recordkeeping. The upside, Dave said, is significantly more information about what is happening on the farm and the efficiencies that can be achieved with that data.

Planning and Paperwork

The Burriers now keep records of every seed planted, chemical applied, who put it on and when. The Maryland Department of Agriculture, which enforces environmental standards on behalf of the federal government, requires reporting and can audit their records.

With corn, wheat or hay, they use similar amounts of nitrogen as in the past, but they "spoon feed it" in Dave's words, putting it on in two or three applications to achieve both yield and nutrient management goals.

The Burriers have added to their work an ever-widening array of techniques to manage the ground's health and runoff: soil sampling, planning for the best varieties by soil type, and use of cover crops. Today, the Burriers are applying fewer nutrients overall, and water samples show water is cleaner leaving the farm than when it arrived.

"Sustainability is a new word, a buzz word, but honestly we've lived that for a very long time. The green revolution has been on our farm for a long time," Dave said. "We try to be as environmentally sustainable as we can be and still make it profitable."

The added regulations can be, as many fear, impediments in a business that literally changes as the wind blows.

"There are a lot of non-farm people making decisions for farm people," Dave said. "Sometimes it might work in a text book and it might work in a rule book, but when you add Mother Nature into the equation, sometimes we can't be quite that rigid on the timeliness of our work."

This year, for instance, the Burriers were still planting their corn in early May, whereas they typically would have been done by May 9. That will affect their farm's timeline for the rest of the summer.

Additional regulation has also increased the Burrier's reliance on the latest technology to help document what is happening on the farm and know they are improving. That brings a need for more equipment and more debt load.

Looming Risk

Looking to the future, the family sees as much risk in the financial side of the operation as in added regulations.

"Unless we do a super job of management, we can run 24 hours on equipment and we won't make it. Key to our management is managing our risk," Dave said. "Every decision we make management wise is about managing risk. For the future to be here, that has to be front and center so we can continue with the sustainability of our farm."

Dave said that when he took over the farm's management, the business was still a fairly straightforward proposition: the harder you worked, the more you made. Now, the debt necessary to run a farm makes the transition to his daughter and her husband a five to 10 year process.

"Kids can't start with a few hundred acres because they cannot service the debt," he said. "You can't just buy a tractor and combine. It's not that way."

Joe, the patriarch, was raised on a dairy farm that used horses until 1946. He always assumed his life in farming would continue.

(continued on page 12)

(continued from page 11)

"When my wife and I got married, we never even discussed what we were going to do because we knew we were going to farm," Joe said.

Asked to recall Dave's transition to farm management, Joe described what many farm families experience: "We've been a team since he was big enough to follow me around."

In his years on the farm, Dave has seen the business become increasingly complex and high-risk.

"My dad prepared me, he was progressive, and he prepared me," Dave said. "But my dad never, ever had the risk we carry today. We've had to adapt and manage the risk."

"In many, many ways, farming has gotten harder, more detail-oriented, more demanding. The perception I hear is the Norman Rockwell version of the family farm, peaceful and laid back. I think it's anything like that. It's hectic."

Pictured L to R, Dave and Linda Burrier; daughter and son-in-law Becky and Jarrod Burall; Dave's parents Reba and Joe Burrier. Photo by Edwin Remsberg

The Next Generation

Like her grandfather, Becky, who is 29, has planned her "entire life" around coming back to the farm. She chose to become a nurse in part because the schedule will allow her to assume management duties. Her husband, Jarrod, is from a farm family and works for a farmer; together, they operate 80 acres independently while working to take over the Burrier place.

Shadowing her father much like he shadowed her grandfather, she has seen the changes in farming her dad describes, including the vast amount of new office work brought on by the combination of regulations and technology.

As she described it, her grandfather knew the good ground, her father had soil sampling that yielded meaningful information and now they have data on micronutrients to help them match the right seed and nutrients with the right piece of land.

"That's what nobody sees. They see the guy out on the tractor, but they don't see the planning," Becky said.

She's aware of the challenges ahead for the transition and running the entire operation in a time of dramatically increased risk and ongoing regulatory pressure.

"It's challenging us. It is scary, and it is worrisome. Is there going to be a place here for farmers in 20 years? Am I getting started in something I'm not going to be welcome in, in 20 years?" Becky said. "But you know, people have to eat. Where is the food going to come from?"

She said she enjoys the challenge of growing a good crop and meeting ever-tighter standards for doing so in the regulatory arena and the marketplace. She also relishes the opportunity to watch her 7-year-old stepson become interested in the farm and to eventually raise her children there to carry on what she builds.

"If you look at what my grandfather has seen in his time, he farmed with horses, and now we have tractors that steer themselves. If you look at the advances that we've made and the contributions that that's made to our management practices and decreasing the nutrient load on our water system, to me, I'm really looking forward to the next 50 years," she said.

"I can't imagine what I'm going to experience and what I'm going to get to be a part of in my lifetime. That's probably, to me, the most exciting part of my future. Where will we be in 50 years?" ◘

Today, the Burriers are applying fewer nutrients overall, and water samples show water is cleaner leaving the farm than when it arrived.

"Sustainability is a new word, a buzz word, but honestly we've lived that for a very long time."

Dave and Linda Burrier farm in Frederick County, Maryland, just 60 miles from Washington, D.C. and in the heart of the closely-scrutinized Chesapeake Bay Watershed.

ASA in Action

ASA First Vice President Wade Cowan is third from the left.

ASA First VP Cowan Addresses Taiwanese Soy Customers

First Vice President Wade Cowan represented ASA in Taiwan in May, discussing the state of U.S. soy and answering questions as part of the U.S. Soybean Export Council Soy Marketing Crushers Training Camp.

Cowan, of Brownfield, Texas, met with key Taiwanese officials to hear concerns and discuss America's ability to supply the world's fourth-largest soy importer's needs in the coming year. Within Taiwan's industry, Cowan met with TTET Union, the country's largest soybean processor and heard their concerns about soy protein levels, which were higher in 2013, and with Chung Hwa Food, the largest tofu processor in Taiwan, which sources 100 percent of their soybeans from the U.S. ◘

ASA President Tours New Iowa Soy Flour Mill

ASA President Ray Gaesser, far left, joined CHS Inc. management representatives George Madrazo, second from right, and Tom Malecha, speaking, along with U.S. Sen. Charles Grassley, R-Iowa, second from left, on a tour in May of the new CHS facility in Iowa, a $30 million soy flour mill in Creston.

Photo Credit: Kyle Wilson/Creston News Advertiser

ASA, eLegacyConnect Plan Six Regional Succession Planning Workshops

In partnership with eLegacyConnect, ASA kicks off the first of six regional succession planning education workshops in Sioux Falls, S.D. on July 30.

The workshops, titled "Five Keys to Effective Succession Planning," and taught by Kevin Spafford, founder of Legacy by Design, teach participants about preserving their farm and passing a successful operation to a well-prepared next generation. The one-day sessions are sponsored by Farm Credit and AGCO in addition to the Illinois Soybean Association, the Kentucky Soybean Association, Ohio Soybean Association and South Dakota Soybean Association.

Space at the following upcoming workshops is still available:

- July 30 – Sioux Falls, S.D., Sioux Falls Convention Center
- Aug. 4 – Memphis Tenn., Agricenter International
- Aug. 6 – Paducah, Ky., Julian Carroll 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

To learn more about the workshops, visit **soygrowers.com/succession-planning-workshop.**

Succession Planning Workshops
American Soybean Association with eLegacyConnect

With precision agriculture data quickly becoming a commodity unto itself, ASA farmer-leaders recently teamed up with representatives from the United Soybean Board and State Soybean Associations to form the Ag Data Working Group. One of the primary activities of this group is to develop answers to a list of questions around the topic of data ownership, stewardship and security. As the issue evolves, ASA will continue to compile and share insight and data on the topic with fellow farm groups and with farmers.

ASA Joins PrecisionAg Institute

The use of precision agriculture tools and methods continues to play a growing role in the sustainability and productivity of U.S. farm operations. Recognizing this fact, the American Soybean Association (ASA) joins the PrecisionAg Institute, an organization focused on advancing precision agriculture technology and its efficiency, stewardship and profitability for farmers.

ASA represents the first farmer-led organization to join the PrecisionAg Institute and will hold a seat on the Institute's advisory council, which sets the policy for the organization's activities and facilitates communication among industry partners and individuals. As a new partner in the Institute, ASA will play an integral role in future precision agriculture educational efforts, advocacy, research activities and award programs that recognize farmers and other industry leaders for their effective use of this technology.

Industry Perspective

Soybean Seed Developers Look to Tap Water-Saving Traits

| By **Candace Krebs**

Since widespread field-testing of Monsanto's Genuity® DroughtGard® corn hybrids started in 2012, the product has delivered a consistent yield advantage of five bushels an acre across the Western Great Plains, according to John Fietsam, technology development manager for DroughtGard. Due to seasonal variability, Fietsam says it's harder to put a finger on how that translates to water savings, but what he can say is after test trials in 2012, 70 percent of participating growers reported the hybrids out-yielded anything else on their farms and 80 percent said they definitely wanted to plant them again. Seed availability and market approvals for the product will expand dramatically in 2014.

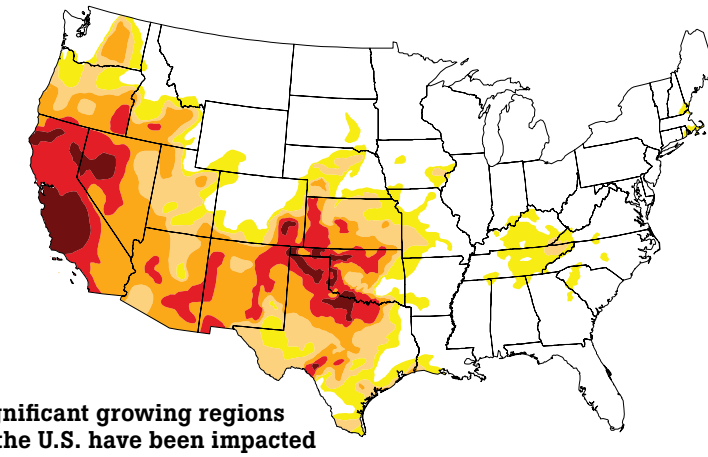
Identifying a similar breakthrough trait in soybeans is more difficult because of differences in plant physiology, Fietsam says. Corn is a determinate crop with a narrow pollination window, whereas soybeans are indeterminate, meaning they have multiple opportunities to flower as weather conditions fluctuate. So while their breeding improvement efforts continue, the company is also doing extensive soybean irrigation research at the Water Utilization Center in Gothenburg, Neb.

DuPont Pioneer's Optimum® AQUAmax® corn hybrids — already grown on seven million acres in the U.S. — have demonstrated a yield advantage ranging from 3.6 bushels under normal conditions to 6.9 bushels under water-limited conditions, not to mention 8.7 bushels over DroughtGard hybrids, according to Ryan French, corn marketing manager. Product availability has doubled since 2012, with 48 different hybrids now available.

Les Kuhlman, a senior research scientist at Pioneer's Lawrence, Kan., soybean research center, says the company is leveraging its work in corn to breed drought tolerant soybeans as well. "Pioneer has also recently introduced new enhanced charcoal rot rating scores," he says. "This widespread disease normally favors hot, dry conditions and is made worse when drought occurs, causing stress to the plant. Now each grower can select soybean varieties based on their particular situation, thanks to these tolerance scores."

Dr. Henry Nguyen, director of the National Center for Soybean Biotechnology at the University of Missouri.

John Fietsam, Monsanto's technology development manager for DroughtGard.



Significant growing regions of the U.S. have been impacted by drought in recent years.

At Syngenta, Chris Tingle, portfolio manager for water optimization, says AgriSure Artesian™ corn was introduced two years ago with an emphasis on "season long drought protection" rather than targeted to water use during critical reproductive stages. "It's not a defensive trait," he explains. "If a grower plants it and has great growing conditions, he doesn't sacrifice any yields. But if it stops raining, like it did in 2012, that is where optimization takes place, providing a 15 percent yield advantage above other hybrids."

Syngenta is also taking a holistic approach to water optimization in corn by partnering with other companies to provide integrated management solutions that go beyond new hybrids. The , introduced in collaboration with Lindsay Corp., is designed to harness new smart-irrigation software capabilities along with the latest science on how herbicide and fungicide use affects plant physiology. After preliminary testing in Nebraska, Syngenta plans to introduce a similar pilot program for soybeans in 2015, Tingle says. "There's huge demand at the grower level for an understanding of how management practices can impact water optimization," he notes, adding that Syngenta is currently providing all seed dealers with related training.

Molecular advances make it an exciting time to be a public soybean breeder, says Dr. Henry Nguyen, director of the National Center for Soybean Biotechnology at the University of Missouri.

Several factors have caused soybean improvements to lag corn, he says. For one, the crop is relatively new and originated in China then expanded to Brazil and Argentina, all countries that limit access to germplasm. Finally, there's the complexity of drought itself, requiring multiple field-testing sites and managed screening facilities.

As a result, networking with other public breeding programs is crucial; Dr. Nguyen is currently advocating for creation of a field-testing site in Kansas, where drought stress has been frequent in recent years.

He estimates biotech drought-tolerance in soybeans will trail similar advances in corn by about five years. In 10 years, he expects the soybean-growing region of the country to expand considerably as water use efficiency improves.

Dr. Nguyen applauds the United Soybean Board for filling a void left by lack of state and federal research funding. He's optimistic public programs like his will remain viable and continue to diversify farmers' seed options. ◘

Fungicide-Resistant Soybean Diseases Spreading

Soybean farmers have a new resistance challenge – fungicide-resistant diseases.

At the same time that many U.S. soybean farmers are battling herbicide-resistant weeds, now they have another issue for which their previous management methods may no longer work.

Carl Bradley, Ph.D., plant pathologist at the University of Illinois, says soybean farmers and agriculture in general could be facing a big obstacle.

"If fungicide resistance becomes more widespread, we will lose an important tool in disease management," he says.

As soybean prices have increased, so has the use of fungicides to increase yields and manage fungal diseases, such as anthracnose, Septoria brown spot, Cercospora leaf blight, frogeye leaf spot, pod and stem blight and soybean rust. Before using a foliar fungicide, Bradley advises farmers to scout and determine the type of disease present to help determine which products to use.

United Soybean Board (USB) Director Johnny Dodson, a soybean farmer from Halls, Tenn., has felt the effects on his soybean fields.

"I have experienced loss of yield and quality to fungicide resistance," he says. "It has forced me to select varieties that might not be the highest yielding in ideal growing conditions but will perform well when disease pressure is high."

Online resources can help farmers who are looking for more information

about the problem and how to prevent it. The Fungicide Resistance Action Committee website, www.frac.info, contains basic information about fungicide resistance.

Bradley and his colleagues, with support from USB, are also developing a fungicide-resistance site with the Plant Management Network. This site will have fungicide-resistance presentations and printable handouts that explain the basic principles of fungicide-resistance management. ◘

ELM Gears Up for High Oleic Soy-Based Machinery Lubricant Sales

Environmental Lubricants Manufacturing (ELM) keeps greasing the wheels of progress. The biobased machinery lubricants manufacturer is looking to expand the industrial market for high oleic soybean oil and use it to help U.S. soybean farmers gain more of the multibillion-dollar lubricants market.

For more than two decades, ELM has been replacing petroleum from nonrenewable oil fields with homegrown U.S. soybean oil in lubricants, railroad greases and hydraulic fluids. The company's products have even landed an appearance on the History Channel's

"Modern Marvels" TV program, as well as on the shelves of many farm-and-home stores. But it's a new microwave-based manufacturing process and the increased availability of high oleic soybean oil that have ELM excited about possible increases in demand.

"Soybean farmers got ELM started," says ELM President Lou Honary.

"Their support, coupled with our processing technology, is destined to make biobased lubricants the industry standard."

ELM estimates the current market for petroleum-based lubricants at 2.5 billion gallons, or more $20 billion each year.

The soy checkoff partners with companies like ELM to incorporate U.S. soy into their formulations. In the future, those partnerships could lead to more products made from high oleic soy, an innovative new soybean trait that helps farmers maintain their global competitiveness. ◘

Smart Planters, Drones and No-Till Technology Add Up to Big Sustainability Wins for Farmers

How does soy sustainability affect its commodity value and the price farmers receive? Richard Brock, president and founder of Brock Associates, a leading commodity marketing consulting firm, explains how sustainability is shaping new farming technology and what farmers can expect in the future.

Q: Do you think sustainability impacts the commodity value of soy?

A: Yes, this is a long-term trend. Consumers everywhere are becoming more and more health conscious. They want to hold everyone in the food chain more accountable for the food. We are in the early phases of educating the public on the importance of sustainability. Longer term, these issues are going to become more important.

Q: How is sustainability advancing farming technology?

A: We are all familiar with the trend of moving toward the no-till route, but something else a lot of companies are becoming involved with is drones. I just looked at a business plan for a drone that could take soil samples. This technology could enable farmers to take soil samples without driving over a field. Combine it with a smart planter and no-till technology, and we are going to see a combination of all these factors give us an explosion of yield.

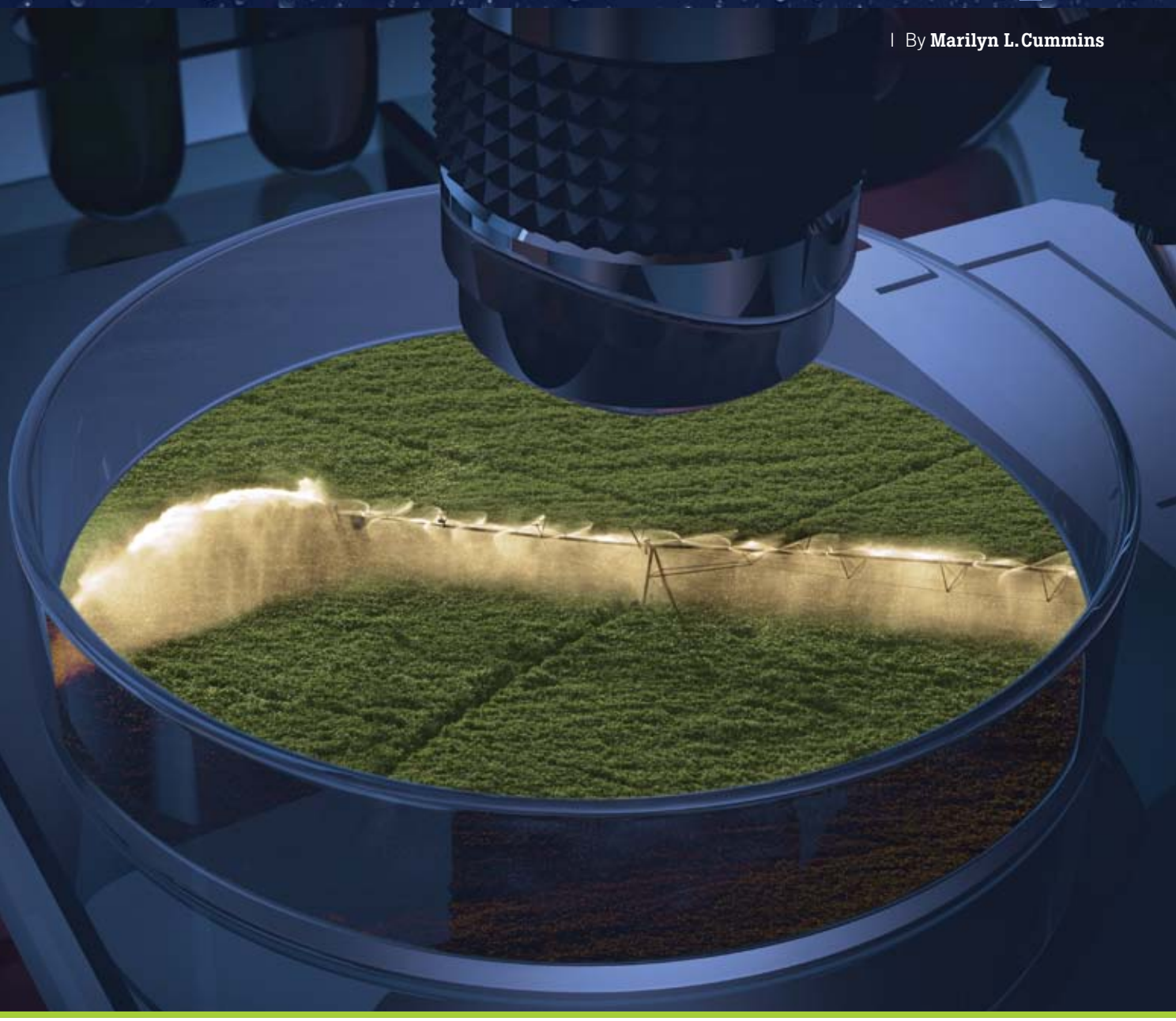
Q: Can we assume a large farm is an unsustainable farm?

A: We are seeing more 10,000 acre farms right now, whereas 10 years ago we had very few of them. A large farm can also be a sustainable farm.

As farm size increases, it may be due to better production technology and no-till technology. A consumer might believe a large farm can't be sustainable, but in reality, sometimes it's the opposite. The techniques on the large farm can result in more acceleration toward sustainability practices. ◘

WATER
Under the Microscope

| By **Marilyn L. Cummins**



More than ever before, it seems all eyes are focusing on the way agriculture uses and cares for water. While the increased attention has its pros and cons, many thought-leaders are optimistic about what the future holds.

In talking about the future of water and agriculture with several key leaders in the field – from farmers to conservation advocates to Environmental Protection Agency officials – a common theme stands out. To varying extents, they say they believe the best way to manage a finite and precious resource – water – and meet the future food and fiber needs of the world, is to work as partners to give farmers and landowners the tools, incentives and support they need to voluntarily use the best practices for their farms and watersheds in sustainable and profitable ways.

Water-quality trading

Dave White, former chief of the National Resources Conservation Service (NRCS) and now president of Ecosystem Services Exchange, lays out the challenge facing agriculture this way: "Farmers are going to have to produce the same amount of food in the next 40 years that has been produced in the last 10,000 years combined. And we're going to have to do it in a way that adapts to climate change. We're going to have to do it so those little Americans who follow us will still have clean air, and clean water, and abundant wildlife and a healthy environment. It's really the challenge of our time."

He says agriculture has made amazing progress in improving water quality, especially in the past five years, but there is great room and need for improvement. One example he gives is the more-than 100 million acres of farmland that are artificially drained, the majority with tile lines that let the water run 24/7 instead of being managed to hold water in the soil profile for dry times.

"Tools are coming along for real-time drainage water management where you can open and close valves with your smartphone," White says. "There are practices like bio-reactors, and a new practice is being developed by the Agricultural Research Service right now called saturated buffers. So there are some structural ways that we can help with the water-quality issues and even quantify the nitrogen reductions, and if water-quality trading comes about, then we may even have a new asset class for farmers."

To help fund on-farm conservation practices that have the biggest off-site impact on water quality, he envisions robust trading systems in which regulated entities like a city's water treatment plant could meet its pollution-release permit requirements at substantially less cost by investing in on-farm nutrient reduction vs. building a new plant.

"If we could get water-quality trading up and going, if we could get that bio-reactor or drainage water management as an asset so the farmer looks on it the same way they do their tractor, their silo or their barn, then that's a whole different world," White says.

"I think that the fate of the environment really is going to depend on the quality of the decisions that the men and women who own and operate that land make everyday. For that reason, I think the voluntary, incentive-based approach to private land conservation is what will work best."

(continued on page 22)

(continued from page 21)

Brian Hicks tests controlled drainage on his farm near Tracy, Minn. He adjusts one of two tile outlet control structures that control the water table in this flat 100-acre field. Photo by Liz Morrison

Being proactive

Brian Hicks, who raises corn, soybeans and his "main crop, 10 kids," at Tracy, Minn., installed a controlled drainage system on 125 acres in 2005 and has been monitoring and sampling to measure its effects for the past decade.

"When we started, my main goal was yield enhancement, keeping more water in the soil profile longer into the growing season. Now, because of my work with water quality and drainage issues and a multitude of different things dealing with water, nutrient retention is becoming a higher priority on the list every year," Hicks says.

"Our friends in the Gulf of Mexico who make their living fishing have told us loud and clear that they don't want our nutrients because of the hypoxic zone. I spend lots of dollars every year to apply those nutrients in my fields to grow the crop, so it just became blatantly obvious to me that we have got to find a way to better manage these nutrients and keep them on our farms."

In addition to conserving nutrients and having water when he needs it for his crops, Hicks says he has additional incentives: "I want to be proactive, and I want to prove to the EPA and government agencies that what we're doing here out in the prairie isn't as detrimental as what they'd like us to believe."

"I want to be proactive, and I want to prove to the EPA and government agencies that what we're doing here out in the prairie isn't as detrimental as what they'd like us to believe."

–Brian Hicks

Stopping nutrient loss

The director of environmental programs and services for the Iowa Soybean Association (ISA), Roger Wolf, says the big challenge with nutrient loss from the agricultural land is that it's a weather-driven system, and growers are experiencing more extreme weather events that are impacting production systems.

"Particularly in the upper Midwest, we've drained the landscape; we have high organic soils; and we have a lot of rainwater that has to be managed. So in order to have technologies that are effective in reducing nutrients being washed from the ag landscape, we really need to look at starting in the field with optimizing the management and then using practices that build organic matter and change the water-holding capacity in the soils and so on. But also we need to think about treating the landscape with buffers and wetlands and edge-of-field practices that can help capture and really treat the water that's leaving."

Iowa Soybean Association Director of Environmental Programs and Services Roger Wolf.

Wolf says there are private benefits to farmers, but some edge-of-field practices lead more directly to a public benefit.

"What we're seeing is that it's more of a good role for federal farm bill dollars, and we're really keen on the new Regional Conservation Partnership Program, because then that can come into play and really help watersheds and groups of farmers deploy some of those practices that might not provide as much private benefit," he says.

ISA is working aggressively to assess the science of innovative edge-of-field practices like bioreactors and saturated buffers and translate the results into what it means for individual farms and targeted watersheds. The association has employed 20 wood-chip bioreactors on tile drainage systems and is monitoring the effectiveness while working closely with NRCS to refine the practice standard.

"Farmers like the idea that it has a small footprint on their production system and a relatively low cost, and it actually performs really well," he says of the bioreactors. And he says the use of cover crops and the ensuing changes in organic matter and water-holding capacity "could be a game-changer in Iowa from the nutrient strategy perspective."

(continued on page 24)

One of ISA's 20 wood-chip bioreactors.

(continued from page 23)

Adopting new technology

Trey Cooke, executive director of Delta F.A.R.M (Delta Farmers Advocating Resource Management) in northwest Mississippi, points out how different both production and water management practices are for farmers in the lower Mississippi River Valley than for those in the Midwest. They get 50 inches of rain a year or more – just not at the right time, so they still have to supplement water needs during the growing season with furrow irrigation.

Delta F.A.R.M Executive Director Trey Cooke.

"We depend on a shallow alluvial aquifer that's very productive, recharged by the Mississippi River and other surface sources," Cooke says. "But today, Arkansas and Mississippi are in a non-sustainable pattern. We're using more than is being recharged.

"So we have to as producers, as an ag industry, to learn how to better use our water resources to irrigate our crops to continue to be competitive and to continue to make the yields required for a producer to be profitable. Because if we're not profitable, we're not farming, it's just that simple."

The good news is that "we're learning that those technologies they've been using out West are transferable and are very effective here in our production systems," he says. Extension research using conservation practices like soil moisture sensors, surge valves and PHAUCET (Pipe Hole and Universal Crown Elevation Tool), an engineering program to get universal flow for irrigation, has achieved equivalent corn and soybean yields using nearly six fewer inches of irrigation water per acre, which is about a 40-percent reduction.

Even so, adopting existing conservation technology that will reduce water demand while maintaining yields – "almost a mandatory part of our long-term future" – may not be enough to ensure a sustainable water supply for agricultural irrigation needs, Cooke says. They also need to capture some of the 50 inches of off-season rainfall and hold it until irrigation season.

In Mississippi, he says they're exploring how to use the least-productive land as well as existing streams, wetlands and drainage systems to store water for later use (without flooding). He says state officials "feel strongly that our cheapest and easiest way to preserve our water is to do voluntary conservation first."

With soils high in natural phosphorous, northwest Mississippi farmers also have spearheaded farmer-led nutrient-reduction strategies in the mid-South, with all water-quality approaches focused on sediment reduction and erosion control, Cooke says. "We try to develop our conservation approaches to be conjunctive, to address both water-quality and water-supply issues."

"I am very optimistic that our long-term future is very bright when it comes to water supply and irrigation water supplies in the Mid-South," he says. "However, we won't be able to get there if we continue to employ the practices that our parents have been using."

Sustainable intensification

Having improved water quality outcomes is one of the main goals of The Nature Conservancy, says Sean McMahon, the group's North America agriculture program director. He says there has been tremendous progress by agriculture toward improved sustainability in recent decades, but more needs to be done regarding improving water quality at the watershed scale.

"There is really good national data that bears that out, and it reflects very well on the soybean sector in terms of the continuous improvement that has been attained," he says, noting the strides made in reducing the resources needed to produce a bushel of soybeans per the Field to Market national indicators report. "But I see in the next decade that what's going to be really important is going beyond that kind of national aggregated data and really getting at

The Nature Conservancy North American Agriculture Program Director Sean McMahon. AP Photo.

what's happening on the ground in particular growing regions as far as water quality."

McMahon also says he believes that it's not enough to manage water "just at the farm or edge-of-field scale in terms of a bunch of random acts of conservation that don't roll up into a collective outcome as far as improving water quality in an entire watershed." He underscored the importance of realizing water quality improvement at the watershed scale "so that we're able to maintain our current regime of voluntary conservation incentives and freedom to operate for producers."

The Nature Conservancy is also interested in seeing agriculture be able to meet the increasing domestic and global demand for food, feed, fiber and fuel in an increasingly sustainable manner while protecting as many natural areas as possible from conversion to cropland – an explicit strategy it calls sustainable intensification.

"We would like to see 100-bushel soybeans, 300-bushel corn," McMahon says, "but we would like to see that realized in as sustainable a manner as possible while maintaining or improving water quality and being more efficient about our resource utilization."

Farmers: First line of defense

When it comes to keeping as much water-quality management as possible voluntary, count the Environmental Protection Agency as an ally, says, Allison Wiedeman, acting agricultural counselor to the administrator of the EPA.

"The people in agriculture are our natural allies, in that they want the same thing that EPA does: they want clean air, clean water, clean land. We want to build better relationships with agriculture to achieve that goal, because they're absolutely our partners.

"Farmers are our first line of defense when it comes to environmental protection for the country," she says, and funded programs and recommendations have "to improve their bottom line. We recognize that we have to do things that are good for the farmer economically as well as environmentally, and there's no reason those two things can't work together."

Wiedeman acknowledges obstacles on the path to the EPA working more closely with farmers and some farm organizations, with trust being the biggest.

"Farmers don't want us to come on their land, because they've heard bad stories about EPA. What we need to do is overcome those bad stories and change the way we work with them," she says.

She cites the National Water Quality Initiative, in conjunction with the U.S. Department of Agriculture and other agencies, as just one example of new outreach to work with farmers on voluntary programs. EPA also helps sponsor recognition programs like the "Farmer Heroes" with the National Association of Conservation Districts, highlighting the stories of farmers who are implementing specific best management practices to reduce pollution while also improving or sustaining their profits, soil quality and/or yields.

"In the past, we spent a lot of time focusing on folks that were not in compliance. Now we are increasing the recognition of the majority of the farmers out there that are doing great things on the ground." ◘

Restored riparian forest buffers provide protection from nutrients running off into ponds and the downstream watershed. Photo: Peggy Greb

Soy SHOTS

"My 3 year old son, Dane, lives to help with anything farm related," said John Horter of Andover, S.D. *Photo Courtesy: John Horter*

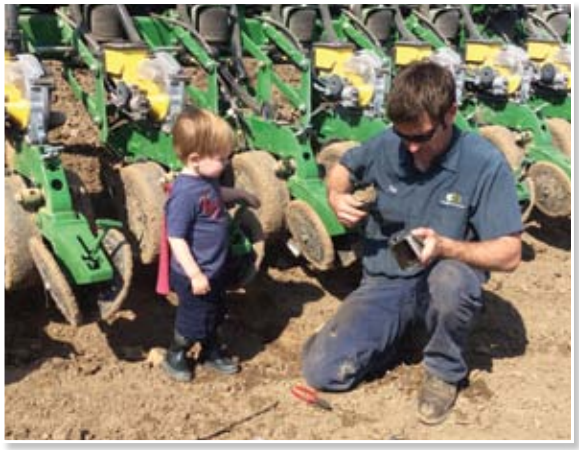
Submit Your Soy Shots at:

membership@soy.org

Dean Campbell *(right)* hauls out a box of soybeans so Nathan Hasheider can reload the planter on Dean's farm in Coulterville, Ill. *Photo Credit: Jordan Bright*

Steve Carlson, Vasa, Minn., heads into the setting sun to plant the last field of beans for the spring of 2014. *Photo Credit: Linnae Carlson*

The Davis family *(from left to right)* Deagan, Corey, Reagan and Daxton pose in a soybean field at their family farms, S&L and G&L, near Hughes, Ark. *Photo Credit: Spring Davis*



"Superman" (Kai) helps his dad, Todd DuMond of Union Springs, N.Y., fix some discs on their planter. *Photo Credit: Savanna Kittell-Mitchell, NY Corn & Soybean Growers Association*

Erica Podhajsky observes as soybeans are stored in bags and dried down with a wood burner in Piracanjuba, Goiás, Brazil, during an agriculture study abroad trip with the Waterloo, Iowa Community College. *Photo Courtesy: Erica Podhajsky*

Nutritious, Delicious Soy Foods in Developing Countries

U.S. soy protein ingredients are being used in many exciting new African and Hispanic foods, including soups, beverages, meat products, cereals and more.

In Guatemala, food company Alimentos S.A. launched three soy-based Amelia Cream Soups to help boost protein intake. Futuro Vivo, a company that provides many soy products for school nutrition programs in Guatemala, is offering a new soy cereal.

Ugandan food maker SESACO Ltd. introduced SoySip, to which hot water is added, along with sugar and ginger, for a beverage similar to coffee. SESACO is also using soy meat to make many protein-based side dishes.

The American Soybean Association's World Initiative for Soy in Human Health (WISHH) program works with these and many other supply chain partners to help them understand how protein-rich soy can be used to create foods that fit with a country's local diets and food preferences.

"We are seeing a bumper crop of new foods containing U.S. 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. "The U.S. Departments of Agriculture and Agency for International Development and soybean checkoff funds 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."

These are some of the new soyfood products introduced by various WISHH supply chain partners.

Learn more about soy products released by WISHH partners at www.wishh.org/aboutsoy/soyfoods. ◘

Reducing Malnutrition with Soy

Some 842 million people, or roughly one in eight individuals, suffered from chronic hunger in 2011-13, not getting enough food to lead active and healthy lives, according to a report by the United Nations' food agencies. Of those 842 million hungry people, 98 percent live in developing countries.

The World Soy Foundation (WSF), a 501c3 nonprofit organization, is the philanthropic arm of the American Soybean Association (ASA) and the soy family. Through community development, nutrition education and direct distribution of soy products to improve protein deficient diets, WSF is addressing hunger and malnutrition through the power of soy. ◘

Sustainability

More Eyes on Ag in Key Illinois Watershed

By **Barb Baylor Anderson**

Six generations of John Traubs have farmed in the Indian Creek Watershed in east central Illinois. But recently, the amount of attention on the watershed—and subsequently the crop farming that occurs there—is on the rise.

For the current John Traub, who raises corn and soybeans with his father, John, and sons, John and Ben, near Fairbury, Ill., that means continuing to fine-tune soybean production practices to manage soil and water quality.

"Our land was first farmed by my great-great grandfather, John. Today that farm produces as many calories per acres as it has ever produced," he says. "Protecting that land and keeping it productive doesn't happen by accident. We maintain productivity for the next generation."

Traub has been farming since the late 1970s. Today, 85 to 90 percent of their soybean acreage is no-till and more than 75 percent of their corn acreage is strip till. Second-year corn is mulch tilled. He says less tillage has led to better soil tilth and health.

Their tillage plans dovetail into participation in the Conservation Stewardship Program (CSP). Current activities include evaluating cover crops, utilizing swath control with crop input applications, nitrate stalk tissue testing in the fall and pre-sidedressing nitrogen.

"We have verified our practices work. We used to put all nitrogen down in the fall. Now we split apply, placing 80 to 90 percent of it during the growing season, and we have better yields. Soon we also will be able to topdress nitrogen," he says. "More timely and more precise is the future. Step back and see what makes economical and environmental sense."

Some of the stewardship tactics the Traub family applies are tied into the Indian Creek Watershed Project coordinated by the Conservation Technology Information Center, the Livingston County Soil & Water Conservation District, Illinois Environmental Protection Agency and USDA's Natural Resources Conservation Service. The project combines real farmers like Traub, implementing conservation systems with real research that demonstrates and measures successes of new techniques and technologies in local settings.

"Farmers need to be proactive and put real data on the ground,

John Traub views sharing information and insight with fellow farmers as key to his sustainable approach to farming.

rather than have regulators tell us that nitrates in the Gulf are linked only to us and our use of nitrogen," he says. "This project measures true life experiences instead of extrapolations."

The Indian Creek Watershed project includes gathering water quality data to measure changes. The goal is to determine water quality impacts when half of farms and acres in the watershed adopt systems that are effective, profitable and sustainable.

The project also includes an outreach strategy to inform the public about what farmers do to sustain water and other natural resources. The Traubs' farm is less than an hour's drive from two large metropolitan areas; Peoria and Bloomington. He says for being located in the center of agricultural production, many consumers do not understand what farmers do, and when he can, he shares exactly what practices occur on their farms to conserve resources.

"More people are watching what we do," he says. "We need some regulations, but we do not need shoot-from-the hip decisions. We need science to guide us." ◘

"More people are watching what we do," he says. "We need some regulations, but we do not need shoot-from-the hip decisions. We need science to guide us."

–John Traub, Indian Creek Watershed, east central Ill.

SoyForward

The Future of Conservation Policy

By **Krysta Harden, Deputy Secretary, U.S. Department of Agriculture**

As the daughter of Georgia farmers, I grew up knowing that we had to take care of the land. If we didn't take care of the land and our natural resources, we wouldn't be able to make a living. After 16 years with both the American Soybean Association and the National Association of Conservation Districts, I realize that my passion and commitment for conservation started on the farm learning from our first and finest conservationists: American farmers.

Today, I'm proud to represent USDA. We have the responsibility of delivering results for American producers – helping them to conserve the natural resources we depend on, while at the same time boosting their operations for the long-term. Thanks to a strong conservation title and robust conservation investments in the 2014 Farm Bill, we have the tools and resources to make this happen.

In the new bill, USDA's tried and true conservation programs are still going strong, and we have a new kid on the block: the Regional Conservation Partnership Program (RCPP).

RCPP represents the future of conservation policy. It brings in all the capabilities of our conservation programs, including our easement programs, financial assistance and stewardship, while putting our partners in the driver's seat. Our partners will tell us where they want to work on conservation and what resource issues are important in their areas – whether that's water quality, air quality, soil health, wildlife habitat loss or other concerns. We will award the most innovative projects to yield the greatest benefits for agriculture and natural resources.

RCPP is open to a host of organizations and groups – be it agricultural producer associations, state or local governments, tribes, water districts, NGOs (Non-Governmental Organizations), universities or others. We want to bring new partners to the conservation mission and along with them new ideas, new resources, innovation and local expertise. RCPP will challenge existing partners to step up to the plate and come up with new and exciting projects to address natural resource concerns.

RCPP is funded at $1.2 billion, but we have a goal to double the total investment in resource conservation activities from both federal and non-federal contributors. This means that over five years, our goal is for RCPP to catalyze a total investment of more than $2.4 billion.

As venture capitalists provide financial resources to high-potential growth start-ups, through RCPP we're hoping to lead a new venture conservationist movement that empowers and launches new, high-opportunity start-up partnerships that deliver locally-led conservation solutions.

This is a big idea that will spark innovation and change. I believe that decades from now the RCPP will be seen as a milestone in the proud history of American conservation. ◘

Krysta Harden is Deputy Secretary of the U.S. Department of Agriculture. From 1993 to 2004, she worked closely with the American Soybean Association, as Senior Vice President with Gordley Associates. A major concentration in her work with the ASA was conservation issues. From 2004 to 2009, Harden was the Chief Executive Officer of the National Association of Conservation Districts

2015 Grow the Leader in You

The 2015 Young Leader Program is designed to strengthen and build upon the individual's existing skills, providing them with tools, information and a strong peer network to help advance the soybean industry domestically and internationally.

Through in-depth and hands-on training Young Leaders will:

- Strengthen their leadership and communications skills
- Build relationships with other growers from across the country and Canada
- Expand their agricultural knowledge

The two-phase program is designed for actively farming couples or individuals 21 years or older. Spouses who attend are active participants in the program.

Phase I Nov. 18 – 21, 2014, Pioneer Headquarters, Johnston, Iowa

Phase II Feb. 24 – February 28, 2015, Phoenix, Arizona (Held in conjunction with Commodity Classic)

DuPont YOUNG LEADER PROGRAM
American Soybean Association

For more information and to Apply: www.soygrowers/LinktoApplication

Application deadline is August 1, 2014

ASA American Soybean Association®
If you believe, belong.

DUPONT®