CONSERVATION TECHNOLOGY INFORMATION CENTER INFORM **CONSERVATION AT THE** LEADING **EDGE** CHAMPION

2019 CONSERVATION IN ACTION TOUR • IOWA, AUG 20 - 21











2019 CONSERVATION IN ACTION TOUR + IOWA, AUG 20 - 21

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CONSERVATION TECHNOLOGY INFORMATION CENTER

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IOMA

CONSERVATION AT THE LEADING EDGE

Guided by the Iowa Nutrient Reduction Strategy and led by innovative producers, crop consultants, retailers and researchers, Iowa farmers are at the leading edge of conservation practices—from the heart of the state's rich cropland to the edges of its fields and the banks of its rivers.

The conservation farming systems here are scientific, reasonable and cost-effective, helping farmers protect the environment and strengthen relationships with their non-farm neighbors while also improving the economics of their operations.

Thank you for being with us today to explore how lowa's agriculture community is putting conservation to work...at the leading edge.

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GREETINGS FROM CTIC



It is a pleasure to welcome you to the 2019 Conservation in Action Tour on behalf of the CTIC board of directors. It's especially exciting to be here in Iowa, where farmers have long been on the front lines of the effort to safeguard their state's natural resources, engage with stakeholders in Des Moines and other cities and towns, and put conservation practices into action that protect both the environment and the economic realities facing growers everywhere.

Whether it's working with their ag retailers to implement the 4Rs of Nutrient Stewardship or with their land improvement contractor to invest in edge-of-field conservation systems, Iowa's farmers truly represent the leading edge of conservation.

We will walk together along that leading edge and share perspectives with each other. In doing so, we will bring to life CTIC's mission to Connect, Inform and Champion.

THANKS FOR JOINING US Terry

TERRY TINDALL, PHD, CHAIR OF THE CTIC BOARD OF DIRECTORS AND DIRECTOR OF AGRONOMY, J.R. Simplot Company

I welcome you to CTIC's 12th annual Conservation in Action Tour and my first. It's fitting that during a year with so many issues raising conservation questions we come to Iowa – a state with a rich history of conservation, innovation, and leadership in agriculture.

Much of the discussion at this year's tour will focus on the Nutrient Reduction Strategy and the 3 Ps that push all conservation efforts forward: People, Principles, and Practices. We'll learn about the practices that comprise the toolkit for conservation in Iowa. There will be discussion about principles that guide decision-making for conservation, such as the 5 principles of soil health. Most importantly, we'll have the opportunity to connect and learn from the people that are moving this forward in Iowa.

Thank you for joining us on this year's tour. I look forward to the opportunity to reconnect with many old friends and also meet some new ones.

ENJOY THE DAY Wike MIKE KOMP, CTIC EXECUTIVE DIRECTOR

THANK YOU

Thank you to our partners in Iowa and around the country who shared their perspective, expertise, and—just as important, their time and energy—to help make this the best tour ever.

Peyton Harper - co-Chair

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The Fertilizer Institute

Tim Palmer - Co-Chair

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Practical Farmers of Iowa

Brooks Coetzee

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Corteva Agriscience

Katie Flahive

ENVIRONMENTAL SCIENTISTU.S. Environmental Protection Agency

Adam Herges

SUSTAINABILITY AGRONOMIST
The Mosaic Company

Shannon Kooima

STRATEGIC INITIATIVES ASSISTANT

Practical Farmers of Iowa

Laura McConnell

ENVIRONMENTAL FATE SCIENTIST

Bayer CropScience

Sean McMahon

EXECUTIVE DIRECTORIowa Agriculture Water Alliance

Shawn Richmond

ENVIRONMENTAL SERVICES DIRECTOR
Agribusiness Association of Iowa

ITINERARY

August 20, 2019

3:00 - 5:00 P.M.

Hotel Check-In

EMBASSY SUITES DES MOINES DOWNTOWN

101 East Locust Street, Des Moines

5:30 - 7:30 P.M.

Opening Social

WORLD FOOD PRIZE HALL OF LAUREATES

100 Locust Street, Des Moines



SPEAKER: **Mike Naig**SECRETARY OF AGRICULTURE
Iowa Department of Agriculture and Land Stewardship
(IDALS)

Iowa Secretary of Agriculture Mike Naig is focused on expanding our markets, promoting careers in agriculture, and improving water quality and land stewardship. Mike is committed to leading efforts to expand economic opportunities for Iowans and is an advocate on behalf of the hard-working men and women who keep us fed and fueled.

Mike is a graduate of Buena Vista University in Storm Lake with degrees in biology and political science. He and his wife Jaime have three boys.

SPONSORED BY





CHIEF, USDA Natural Resources Conservation Service

A fifth-generation farmer, Matt was raised on a century family farm in Virginia's Shenandoah Valley, where he has farmed full-time since 2017. Matt served as Virginia's Commissioner of Agriculture and Consumer Services and in the Virginia House of Delegates (2006 to 2010). He has also worked for Farm Credit of the Virginias and

managed his own motivational speaking business, Lohr Leadership.

Matt proudly served as both Virginia state FFA president and national FFA vice president before graduating from Virginia Tech in 1995. He and his wife Beth have six children.

AUGUST 21, 2019

7:00 A.M.

TOUR CHECK-IN AND BREAKFAST

Embassy Suites Des Moines Downtown

8:15 A.M.

BUSES DEPART EMBASSY SUITES

9:00 A.M.

COUSER CATTLE COMPANY, NEVADA, IA

11:45 A.M.

NEW CENTURY FS, MELBOURNE, IA (Lunch provided at facility)

2:25 P.M.

LICA FARM, MELBOURNE, IA

4:40 P.M.

TESDELL CENTURY FARM, SLATER, IA

6:40 P.M.

DINNER

Jester Park Lodge, Granger, IA

9:00 P.M.

RETURN TO EMBASSY SUITES

IOWA AGRICULTURE



Few states are as closely tied to agriculture in the public consciousness as Iowa—after all, 85% of the state's land is used for agriculture, and its receipts for agriculture products—\$26.5 billion

in 2016—make it the #2 ag earner in the country. And while most people understandably think of corn when they hear about the Hawkeye State, there's much more to Iowa's agriculture, including meat, dairy and poultry. Here's a quick look at Iowa agriculture, thanks to Ag In The Classroom and the USDA National Agricultural Statistics Service (NASS).

- Iowa is home to more than 11,000 soil types and 30.6 million acres in ag production.
- Average annual precipitation in Iowa is 35.7 inches.
- The 2017 Ag Census counted 86,000 lowa farm operations, averaging 356 acres per operation.
- lowa ranked #1 in corn production (with 2.6 billion bushels, worth more than \$8 billion) and #2 in soybeans (with 561.6 million bushels) in 2017.

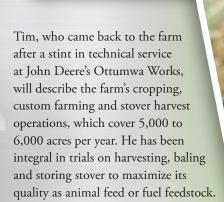
- Average Iowa corn yield reported in the 2018 USDA-NASS Iowa State Overview was 196 bushels per acre, and the state's soybean yields averaged 57 bushels per acre.
- Nearly one-third of America's hogs live in Iowa—22.8 million in 2017—making the state tops in the nation for hog production.
- Iowa hens laid 16 billion eggs in 2017, putting Iowa first in yet another national ag production category.
- Iowa is #2 in the nation for red meat production. Iowa operations produced more than 7.2 billion pounds of red meat in 2017.
- lowa is also a dairy production powerhouse, producing more than 257 million pounds of cheese each year. Its 220,000 cows yield an average of 23,945 pounds of milk per head, according to the 2018 Ag Census.
- lowa's livestock consume 461 million bushels of lowa corn every year.
- Iowa produces more than 30% of America's ethanol. Together, the state's 43 ethanol plants can produce up to 4.1 billion gallons of ethanol each year.
- Iowa is also #2 in the U.S. for ag exports, sending more than \$11 billion worth of its ag products—about 42% by value—overseas.



TOUR STOP

COUSER CATTLE COMPANY
NEVADA, IOWA

Bill and Nancy Couser and their son Tim have been at the leading edge of conservation agriculture, making names for themselves in the beef industry as well as the crop side of their business. Their stature is not just due to industry recognition they have received, including a spot in *Time* magazine's 2006 "People Who Matter" issue, the 2011 National Cattlemen's Beef Association's National Environmental Stewardship Award or the 2015 National Beef Quality Assurance Feedlot Award. It's also because of their willingness to engage other stakeholders in deep discussions about effective, practical solutions to conservation challenges. Bill frequently travels to Des Moines and D.C. to talk with policymakers, and he sits on the board of directors of the Environmental Defense Fund.



Meanwhile, Bill will describe the 220-acre AGvocacy Learning Farm the Cousers are developing as a site for research and demonstration trials—six fields that each reflect common farming landscapes in Iowa.

SPEAKERS



Bill Couser COUSER CATTLE COMPANY

Couser Cattle Co. and the AGvocacy Learning Farm
Bill Couser and his family operate a large beef cattle and

cropping operation near Nevada, Iowa. They are hosting CTIC's Conservation in Action program.



Tim Couser

GREENFIELD FARMS, INC

Crops, Conservation and Stover

Tim Couser is a fifth-generation farmer, producing crops and biomass on his family's operation and operating a custom farming business. A graduate of Iowa State University with a degree in

agriculture and agriculture operations, Tim was a technical service representative at John Deere's Ottumwa Works prior to returning to the family farm in 2011.



Sean McMahon

EXECUTIVE DIRECTOR, IOWA AGRICULTURE WATER ALLIANCE (IAWA)

Conservation Partnerships

Sean McMahon works with key partners to champion farmer engagement and adoption of conservation practices that

improve water quality. Sean has more than 20 years of experience in conservation and agriculture, including leading diverse coalitions dedicated to improving water quality.

He formerly directed The Nature Conservancy's (TNC) North America Agriculture Program, and served in a variety of senior staff positions at the U.S. Department of the Interior. He is also the chair of the Conservation Reserve Program Subcommittee of the Iowa NRCS State Technical Committee, serves on an advisory board for the U.S. Soybean Export Council and the Iowa Farm Environmental Leader Award review committee.



& Nathan Stevenson

VISUAL OUTREACH SPECIALIST AND EDUCATOR IOWA LEARNING FARMS

Conservation Station on the Edge Trailer



Established in 2004, Iowa Learning Farms is building a culture of conservation by encouraging adoption of conservation practices. Farmers, researchers and ILF team members are working together to identify and implement the best management practices that improve water quality and soil health while remaining profitable. Partners of Iowa Learning Farms include the Iowa Department of Agriculture and Land Stewardship, Iowa State University Extension and Outreach, Leopold Center for Sustainable Agriculture, Iowa Natural Resources Conservation Service, Iowa Department of Natural Resources (USEPA section 319) and GROWMARK, Inc.



Keegan Kult

EXECUTIVE DIRECTOR, AG DRAINAGE
MANAGEMENT COALITION

Bioreactor and Saturated Buffer Installation

The Agricultural Drainage Management Coalition hired Keegan as the Executive Director in the fall of 2018. ADMC is

an industry-led organization that looks to speed the implementation of conservation drainage practices to improve water quality while maintaining the production benefits of drainage. Prior to joining ADMC Keegan spent 10 years with the Iowa Soybean Association as an Environmental Scientist where he contributed to the design, evaluation, and installation of conservation drainage practices.

NOTES



TOUR STOP

NEW CENTURY FSMELBOURNE, IOWA

New Century FS represents cutting-edge ag retail. Starting with a fertilizer facility built by Monsanto in the 1950s and 1960s, New Century FS has upgraded and expanded to serve its growing market in Marshall County and parts of the surrounding counties.

The state-of-the-art facility design and dedicated staff of New Century FS were recognized with Responsible Ag Certified status, a coveted award granted after an in-depth certification and inspection process.

We will be touring—and enjoying lunch—in the buildings completed in 2016 to house and manage liquid and dry fertilizers as well as anhydrous ammonia. Every aspect of the facility, from its catchment ponds to heated floors that prevent condensation, is optimized to minimize off-target movement and nutrient loss.

Location manager Dan Hart, CCA, and his team will share details on their fertilizer blending, soil sampling, custom application and nutrient management processes. They will also illustrate how the 4Rs of Nutrient Management—Right Source, Right Rate, Right Time, Right Place—guide fertilizer handling at the retail level as well as the farm level.



"We want to highlight what ag retail is doing to help farmers achieve conservation practices," says Hart.

For instance, Hart notes, farmers now pick up pre-mixed fertilizer loads at the plant rather than mixing nutrients on their operations, ensuring accuracy and minimizing the chance of spills in the field. New Century FS advisors also help growers select winter cover crops to achieve their conservation and agronomic objectives, he adds.

We will also see a demonstration of the latest variable rate spreading system from New Leader, which adjusts application rates on the go based on soil test levels.



SPEAKERS

SE No

Craig Fenstermaker

SENIOR PRODUCT SPECIALIST, NEW LEADER

New Leader Spreader Demo

Craig Fenstermaker has worked for Highway Equipment Company since 1999 as a Product Support Manager, New Leader Product Manager and currently as a New Leader Product

Manager/Specialist. Prior to joining Highway Equipment Company, Craig worked for Massey Ferguson/AGCO for 25 years in various corporate positions.

Craig's hands on experience and knowledge of practices and applications around the world have helped bring support to the North American market. He developed the SGN-Crush test kit, which is used by retailers, manufacturers, custom applicators and growers to test and understand the variability of fertilizer products.

Craig has worked with world leading fertilizer manufacturers such as Honeywell, Koch, Charah, Mosaic and others to help bring enhancements and consistency to fertilizer products.



Brandon Wilson

OPERATIONS MANAGER, NEW CENTURY FS

Growmark Sprayer Simulator

Brandon grew up on a farm in Story County Iowa. Following school, he farmed for a couple years prior to going to work for an application equipment dealer for 15 years, starting as

a mechanic and advancing his way up to an equipment salesman. In the fall of 2016, Brandon took the position of Operations Manager at New Century FS.

Brandon is presenting one of the Growmark Spray Simulators. New Century FS has used this as a training tool for existing and new applicators. This has better helped the company in the process of creating good habits in the seat of the sprayer. They have seen much better comfort with the operators in the field as well as helping them do a better job of application.

LUNCH

Lunch at New Century FS will provide several exciting opportunities, including time to network with other tour participants and the chance to drive Growmark's sprayer simulator, the powerful training tool the co-operative uses to build the expertise of its custom applicator team.



Finally, we will hear from Kurt Simon, state conservationist for lowa at the Natural Resources
Conservation Service (NRCS)



Kurt Simon IOWA STATE CONSERVATIONIST USDA Natural Resources Conservation Service

Kurt Simon is State Conservationist for Iowa with the USDA Natural Resources Conservation Service (NRCS). Previously, he served as State Conservationist in Arkansas.

Simon began his career as a conservation district technician and was hired by NRCS as a Soil Conservationist. He has held roles as District Conservationist and Resource Conservation & Development (RC&D) Coordinator in Ohio and West Virginia.

After these career moves, he then transitioned into a role with NRCS' National Ecological Sciences Division. During this time, Simon worked on multiple teams and projects in more than 40 states. Before becoming an Assistant State Conservationist for Field Operations in Tennessee, Simon served as liaison to the National Wild Turkey Federation and The Nature Conservancy.

He holds degrees in wildlife management and agronomy from Hocking College and Ohio State University, respectively. Simon has been married to his wife Stephanie for 25 years and they have two daughters, Kari and Stacy.

SPEAKERS

Dan Hart, CCA
LOCATION MANAGER, NEW CENTURY FS

Clint Hillerman
FACILITY OPERATIONS, NEW CENTURY FS

Chad Greene, CCA

SEED TREATMENT, NEW CENTURY FS

As local cooperatives, FS Companies believe it is their responsibility to ensure that our earth, our communities, and businesses perform together, sustainably. FS Companies are committed to ensuring the continued profitability for the company, their owners, and their customers, while enacting to help the environment and greater good.







Co-led by the Iowa Agriculture Water Alliance and the Iowa Department of Agriculture and Land Stewardship, the Conservation Infrastructure initiative seeks to increase the investment and engagement from both public and private sectors in implementing the Iowa Nutrient Reduction Strategy.





To learn more about recommendations, projects, and leadership, visit: www.lowaCi.org

TOUR STOP

IOWA LICA FARM MELBOURNE, IOWA

The 80-acre farm purchased by the lowa Land Improvement Contractors Association (LICA) in 2003 has served as what former lowa LICA chair Tim Recker calls the group's "sandbox." It's also become a powerful demonstration of the wide range of constructed conservation systems that can help farmers trap nutrients from flowing off-site.

Recker says the LICA Farm contains every constructed conservation practice listed in Iowa's Nutrient Reduction Strategy, and adds that many of them are being monitored by Iowa State University researchers to determine the volume of nutrients they prevent from flowing into drainage ditches and waterways.

Continuent Treff



The field itself may be small, Recker notes, but it serves as a landbased water treatment site for runoff water from thousands of acres of nearby cropland.

For our visit, Recker and several of his colleagues will be positioned around the farm to discuss each of the practices in the field, from terraces to waterways, sediment control basins and others.



SPEAKERS



Tim is a corn, soybean and seed corn farmer from Fayette County. He incorporates cover crops and no till on his acres. Recker has also been active with the Iowa Land Improvement Contractors

Association (LICA). Tim helps with the LICA Farm in Melbourne and gives tours to several groups explaining permanent conservation practices.



Kyle Rorah

REGIONAL POLICY DIRECTOR,

DUCKS UNLIMITED

Off-Farm Benefits of Conservation

Kyle Rorah is the Regional Director of Public Policy for Ducks Unlimited's Great Lakes/Atlantic Region. Kyle has served on

DU's public policy team since 2015 and before that was a state coordinate for the Congressional Sportsmen's Foundation. He worked with members of Congress on the 2018 Farm Bill and works with members of the conservation community on state-level issues across the country that help advance voluntary conservation programs on private lands.



Mike Shannon

REGIONAL BIOLOGIST, DUCKS UNLIMITED Off-Farm Benefits of Conservation

Mike has over 30 years of experience in wetland management and waterfowl ecology in such diverse locations as Louisiana, Oregon, Colorado and Missouri. He has worked for a variety of

state and federal agencies and private conservation organizations to help improve our understanding of waterfowl and wetland ecology.

Mike has worked for Ducks Unlimited for over 20 years, protecting and restoring habitat on both public and private lands. For the last seven years, he has led DU's conservation efforts in Iowa, working with a multitude of partners and landowners to enhance Iowa's wetlands.



Shawn Richmond

DIRECTOR OF ENVIRONMENTAL
SERVICES, IOWA NUTRIENT RESEARCH
AND EDUCATION COUNCIL

Shawn Richmond is the Director of Environmental Technology at the Agribusiness Association of Iowa (AAI). Shawn also

serves as the Director of Environmental Technology for the Iowa Nutrient Research & Education Council (INREC) on projects including environmental progress measurement, technology development, and associated outreach and education efforts.

Prior to joining AAI in 2015, Shawn was a senior environmental specialist at IDALS, working on the Nutrient Reduction Strategy, Gulf of Mexico Hypoxia Task Force and the Iowa Conservation Reserve Enhancement Program.

Shawn has a Bachelor's degree in Environmental Science and Master's degree in Water Resources, both from Iowa State University.



Brandon Dittman

CREP FIELD COORDINATOR, IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

Brandon has been involved with restored wetland research and the installation of wetlands since he was in graduate school in the

early 2000s. Most recently, he's been facilitating the construction of CREP wetlands (a partnership wetland approach between the Iowa Department of Agriculture and Land Stewardship and the United States Department of Agriculture Farm Service Agency) as the CREP Field Coordinator.



Bruce Barnhart

OWNER, BARNHART'S CUSTOM SERVICES

Bruce Barnhart is an excavating contractor who has been in business for over thirty-five years. Earthwork has been the mainstay although in the last several years demolition has become an important part of his business. He has also been involved in the

recycling of concrete and asphalt.

Bruce has been a member of the Land Improvement Contractors Association (LICA) for over thirty years and has served as an officer on the state and national level. Bruce has installed and promoted many types of conservation practices including ponds, waterways, terraces, saturated buffers, bio reactors, and water retention structures.

NOTES





We are accelerating innovation to address farmers' increasing challenges, meet environmental needs and respond to society's changing views.

To learn more, visit www.syngenta.com/what-we-do/accelerating-innovation

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TOUR STOP

TESDELL CENTURY FARM SLATER, IOWA

Our last tour stop will be to the 80-acre farm that Lee Tesdell's family has owned since 1884, when his great-grandfather purchased the property. Tesdell raises cross-bred sheep and layer hens.

He participates in the Conservation Reserve Program, Environmental Quality Incentives Program and the Regional Conservation Partnership, and has worked with the web-based People in Ecosystems/Watershed Integration Tool developed by Iowa State University.

It's practices like those that earned Tesdell the 2019 Farmland Owner Legacy Award from Practical Farmers of lowa—and that keep Tesdell on the leading edge of conservation.

Tesdell and Mike Helland, one of the two farm operators who produce row crops on 60 acres of the farm, will walk us through their rotation and use of winter cover crops.

Tesdell's farm has also been the site of a prairie strip planting, which has been carefully monitored by Iowa State University researcher Lisa Schulte-Moore and her team. A member of her team, Tim Youngquist, will discuss the many benefits of prairie strips to fauna that range from soil microbes to migrating birds.

We will watch a demonstration of interseeding cover crops into standing corn with a novel Hagie/Montag seeder, and observe a rainfall simulator illustrating the importance of soil structure and residue cover in protecting fields from erosion.



Lee Tesdell

OWNER, TESDELL CENTURY FARM

Lee Tesdell raises sheep, chickens, garden vegetables, garlic and tree fruit on the farm his family settled in 1884. He is a professor at Minnesota State University, Mankato, teaching English and Technical Communications, and a long-time soccer referee. Last month, the Practical Farmers of Iowa honored him with its 2019 Farmland Owner Legacy Award for his commitment to sustainability of farm businesses, environmental quality and rural communities.



Mike Helland OPERATOR, TESDELL CENTURY FARM

Farm Management and Philosophy

Mike Helland and his brother Charles farm Lee Tesdell's acreage as well as their own Century Farm in Story County, settled by their Norwegian forebears in 1861. Mike also serves as vice

president of Heartland Co-op in Huxley, Iowa.



Doug Peterson

REGIONAL SOIL HEALTH SPECIALIST, USDA NATURAL RESOURCES CONSERVATION SERVICE

Rainfall Simulator

Peterson is the former Missouri NRCS state soil health conservationist, and now serves farmers in both Missouri and Iowa. A graduate of Missouri Western State University, he began his career with NRCS in 1987.



Mark Seipel TERRITORY MANAGER, MONTAG MANUFACTURING

Interseeding Cover Crops

Seipel's passion has been representing, for various manufacturers, solutions for farmers that help improve their soil's

health and our water quality for decades. He is excited to join Montag's team with solutions such as variable-rate technology (VRT) nutrients for strip till and planters, and to deliver cover crops for Hagie's high clearance applicators, vertical tillage and many other post-harvest tillage tools.

Kenneth Baker PRODUCT SPECIALIST, HAGIE MANUFACTURING

Interseeding Cover Crops

Kenneth has been with Hagie Manufacturing for six years. In his current role, he provides sales training for John Deere dealerships. Kenneth also organizes promotion of the Montag Fortifier 2212 unit for Hagie machines.

Tim Youngquist AGRICULTURE SPECIALIST/FARMER LIAISON, IOWA STATE UNIVERSITY Prairie Strips

Tim Youngquist received a BS & MCRP from Iowa State University. An Agriculture Specialist with the STRIPS (Science-

based Trials of Rowcrops Integrated with Prairie Strips) program at Iowa State University, he helps farmers throughout the Midwest design and implement in-field buffer strips using native perennial prairie species.

Tim grew up on a century farm in northwest Iowa, near Kiron, which has been continuously farmed by his family since 1871. He assists his father with all aspects of their corn and soybean operation, and has been overseeing a project to create buffer strips using native prairie in fields and riparian zones on their land.

DINNER

Perched on the bank of Saylorville Lake, Jester Park Lodge has long been a favorite spot for dinner, drinks and special occasions. Just minutes from Des Moines—but seemingly light years away from the pavement and bustle—the log cabin lodge is a perfect spot to continue our conversations about conservation farming as we enjoy a delicious dinner and watch the sun sink over some of the world's greatest farmland.



SPEAKER: Katie Flahive
U.S. ENVIRONMENTAL PROTECTION AGENCY

Katie Flahive is an agricultural engineer with the Nonpoint Source Control Program at EPA headquarters. She works with federal, state, nonprofit and industry partners that research, develop, implement, track and measure the results of voluntary and/or incentive based controls to improve water quality in agricultural and rural areas.

Committed to 4R Nutrient Stewardship

Respect for the natural environment is essential to the sustainability of our business. Together, with our partners, we are committed to advancing 4R Nutrient Stewardship.

We proudly support CTIC.





NOTES





NOMINATE A 4R ADVOCATE

4R Advocates are farmers and retailers who are doing excellent work implementing the principles of 4R Nutrient Stewardship on the farm.

Help us tell the 4R story in the field!

Advocates win a complimentary trip to the Commodity Classic and are able to meet others in the industry using 4R practices.



RIGHT SOURCE



RIGHT RATE







RIGHT PLACE

Apply online by October 31st at nutrientstewardship.org.







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Mid America CropLife Association

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National Corn Growers Association

No-Till Farmer

Oregon Ryegrass Growers Seed Commission

Sand County Foundation

INDIVIDIIAI

Michael Adsit Larry Heatherly

Our members are the lifeblood of CTIC. They are more than just our supporters, providing funding and in-kind support that is vital to helping us achieve our mission.

They also provide insight, information and perspective.

CTIC prides itself on its hands-on board and active, engaged membership.

To all our members, thank you for more than 35 years of connecting, informing and championing conservation agriculture.

And if you're not yet a CTIC member, join us and become part of the conversation.

CTIC MISSION

CTIC champions, promotes and provides information on technologies and sustainable, productive and profitable agricultural systems that conserve and enhance soil, water, air and wildlife.

CTIC STAFF

Mike Komp

Mike joined CTIC as executive director in April, 2019, bringing his experience in geospatial science and his expertise in program development and agricultural technology. An active outdoorsman

and community volunteer, Mike holds master's degrees in geographic information science and business administration.

PROJECT DIRECTOR Dave Gustafson, Ph.D., CCA

Dave Gustafson is an independent scientist overseeing the OpTIS program for CTIC, drawing upon his experience in predictive modeling and data analysis. The former chairman of the board and

interim executive director of CTIC, Dave brings his agribusiness experience with Monsanto, Rhone-Poulenc and Shell and work on the ILSI Research Foundation and National Climate Assessment Development and Advisory Committee to the challenge. Educated as a chemical engineer, Dave holds a BS from Stanford and a Ph.D. from the University of Washington.

PROJECT DIRECTOR Hans Kok, Ph.D., CCA

Dr. Hans Kok is an independent agricultural conservation consultant based out of Indianapolis. Hans was one of the founding members of the Indiana Conservation Cropping Systems

Initiative, and helped launch the Soil Health Partnership. Dr. Kok received Bachelors in Environmental Science and Masters in Agricultural Engineering degrees from the Agricultural University in The Netherlands, and a Ph.D. in Agricultural Engineering from the University of Idaho. He has written numerous soil and water conservation extension publications, educational materials, and refereed journal articles.



Mike coordinates CTIC's work on the ground—including the Conservation in Action Tour. He was raised on a family farm in northern Indiana and witnessed the kind of challenges

that have seen so many landowners transition from farmer to landlord. Before joining CTIC in 2015, he worked for Indiana's Dubois Co. SWCD, where he managed a soil health demonstration farm and first recognized conservation ag as a practical and enormous opportunity. Today, he focuses on CTIC's efforts to put every acre of land to its best use.

Crystal Hatfield

Crystal is responsible for the overall administration, accounting, payroll, and human resource functions.

Crystal also handles memberships, sponsorships, and tour registrations. Crystal assists the executive director with all other day to day operations. Crystal joined CTIC in the fall of 2014.

Sue Tull

Sue joined CTIC in 2013. She works with multiple projects—including pivotal work on the Conservation in Action Tour—and partners and also assists CTIC staff with events,

communications and administration. Sue spent most of her career in Plant Breeding Research, as a soybean technician and plant pathology lab manager. She has also worked with two Soil and Water Conservation Districts in Indiana, as a district technician and urban conservationist.

Steve Werblow

Steve Werblow has worked with CTIC since the early '90s, helping promote conservation practices across the country. A graduate of Cornell University's College of Agriculture and

Life Sciences, Steve is a two-time American Agricultural Editors Association Writer of the Year, award-winning photographer, and self-described "soil hugger." He is based in Ashland, Oregon, and has covered agricultural stories on six continents for a wide range of farm magazines.

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CTIC'S CURRENT PROJECTS

In keeping with our mission—to connect, inform and champion—CTIC engages in a wide variety of projects that advance economically sustainable conservation farming systems. Here are a few highlights among our current programs.

OPERATIONAL TILLAGE INFORMATION SYSTEM (Optis)

The Operational Tillage Information System (OpTIS) analyzes remotely sensed images of the landscape from *Landsat* and *Sentinel 2* satellites, automatically identifying and quantifying the amount of cropland that is managed with various types of conservation tillage practices and



winter cover crops each year. OpTIS provides a highly accurate and efficient way for CTIC to resume its long-time role as a provider of information on the adoption of conservation systems.

OpTIS data can be used to track trends in the adoption of conservation tillage and cover crops over time. Online queries of OpTIS data—available free at http://www.ctic.org/OpTIS—can be customized by timeframe, units, crops and geographic area.

OpTIS was developed by Applied GeoSolutions (AGS), which worked closely with CTIC and The Nature Conservancy (TNC) to spearhead its testing and application.

SUPPORTING SUPPLY CHAIN SUSTAINABILITY

In cooperation with Practical Farmers of Iowa and The Nature Conservancy, CTIC is leading the development of a program that will train and incentivize retail agronomists to become advocates for conservation systems built around cover cropping. Project areas have been selected to leverage ongoing, privately funded supply chain sustainability initiatives. The effort is funded by the Iowa Department of Agriculture and Land Stewardship (IDALS).

BIG PINE WATERSHED WATER QUALITY METRIC TRIAL

CTIC recently assisted Field to Market with a small-scale pilot of an improved water quality metric for Field to Market's FieldPrint Calculator. This effort leveraged relationships developed through the Big Pine Watershed project to collect farm management data and farmer feedback on the new metric.

NATIONAL AQUATIC RESOURCE SURVEYS (NARS)

The National Aquatic Resource Surveys (NARS) are collaborative programs between the U.S. Environmental Protection Agency (EPA), states and tribes that assess the quality of the nation's inland and coastal waters, providing vital data that can help guide conservation efforts on the landscape.

CTIC works with EPA and its partners on technical training to carry out NARS assessments, and to promote conservation systems that help protect and improve water quality.

Through articles, videos and other media, we also inform farmers and landowners about water quality issues, inspire them to adopt practices that help address those challenges, and show their neighbors the steps that these dedicated stewards are taking to protect and improve our nation's water resources.



BEE INTEGRATED DEMONSTRATION PROJECT

CTIC has partnered with the Honey Bee Health Coalition to bring together beekeepers and farmers to demonstrate how a suite of best practices can be implemented on agricultural landscapes to support honey bee health. Piloted in North Dakota, this innovative strategy provides a blueprint for supporting pollinator health across North America.

WATERSHED SUCCESS FORUMS

Working with the USDA Natural Resources Conservation Service (NRCS) through the National Water Quality Initiative (NWQI), CTIC is identifying successful watershed management activities that engage landowners, farmers, and the broader public to protect water quality.

Forums in five states are yielding a guide for NRCS, partners and stakeholders on organizing local watershed groups and creating successful watershed products. The guide, being prepared by Dr. Linda Prokopy of Purdue University in collaboration with CTIC, will be released this fall.

JOIN CTIC TODAY!

For more than 35 years, the Conservation Technology Information Center has brought together people, information, and insight to move agricultural sustainability ahead. We provide the safe space where farmers, regulators, researchers, agribusiness, conservation group staffers and other stakeholders can explore conservation systems that improve soil health, water and air quality, and the producer's bottom line.

In short, we Connect, Inform and Champion.

To do all that, we need your involvement. Please renew your membership in CTIC, or join us today. Encourage your colleagues to join, too. It's easy to do by filling out this membership application form, joining online at ctic.org or calling Crystal Hatfield in our office at *(765) 494-9555*.



CONSERVATION TECHNOLOGY INFORMATION CENTER 3495 Kent Avenue, Suite L100, West Lafayette, Ind. 47906

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| 2019 MEMBERSHIP APPLICATION | | | | | |
|----------------------------------------------------------------------|------------------------------|----------------------------------|----------------------------------------------------------------|-------------------|--|
| Company Name: Company Contact or Individual Name: | | | If applicable, please enter special billing instructions here: | | |
| | | instructions here. | | | |
| Address: | | | | | |
| Phone:() | | | | | |
| Email: | | | | | |
| | | | | | |
| Basic Level – check one | Additiona Gold \$8,500 | I Medal Lev Silver \$3,500 | rel (optional- <i>ch</i> Bronze \$1,000 | heck one) | |
| □ Basic 1 : \$6,500 – Gross revenue> \$500M | ₽8,500 □ | \$3,500 | \$ 1,000 | \$ | |
| □ Basic 2 : \$2,000 – Gross revenue \$100- \$500M | | | | \$ | |
| □ Basic 3 : \$1,000 – Gross revenue \$50- \$100M | | | | \$ | |
| ■ Basic 4: \$500 – Gross revenue < \$50M | | | | \$ | |
| INSTITUTIONAL MEMBERSHIP | | | | | |
| Basic Level – check one | Additiona Gold \$1,000 | l Medal Lev Silver \$750 | rel (optional – <i>cl</i> Bronze \$500 | heck one) TOTAL | |
| ■ Basic 1: \$1,000 – National organizations | | | | \$ | |
| ■ Basic 2 : \$250 – Regional, state or local | | | | \$ | |
| INDIVIDUAL MEMBERSHIP | | | | | |
| □ Gold Individual Member \$500 | | | | \$ | |
| Silver Individual Member \$250 | | | | \$ | |
| □ Bronze Individual Member \$100 | | | | \$ | |
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| Card #: | | | | | |
| Expiration date: CVC: Signature: | | | | | |
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Please remitpayments to

Conservation Technology Information Center Attn: Crystal Haifield 3495 Kent Ave., Suite L100 West Lafayette, In 47906

QUESTIONS ABOUT MEMBERSHIP? Contact Crystal Hatfield **765-494-9555** or **hatfield@ctic.org**

THANK YOU!

CTIC thanks all of the sponsors of the 2019 Conservation in Action Tour.

We appreciate your support and value your contributions to make this event a valuable and enjoyable experience.

EVENING SOCIAL

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DIAMOND

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- The Conservation Infrastructure Initiative co-led by the Iowa Agriculture Water Alliance (IAWA) and the Iowa Department of Agriculture and Land Stewardship (IDALS)

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TOUR EVALUATION

2019 CTIC CONSERVATION IN ACTION TOUR CONSERVATION TECHNOLOGY INFORMATION CENTER

Please take a minute to respond to this evaluation of today's tour. Your feedback will help us improve future events.

https://www.surveymonkey.com/r/CIATour2019



Editorial photos by CTIC except page 15, Iowa Learning Farms; page 21, Growmark; page 31 (top) Omar de Kok-Mercado, (middle) Montag Equipment (bottom) Lynn Betts



...and a special thank you to Steve Werblow Communications and Slingshot Designs for their work on the tour notebook.



