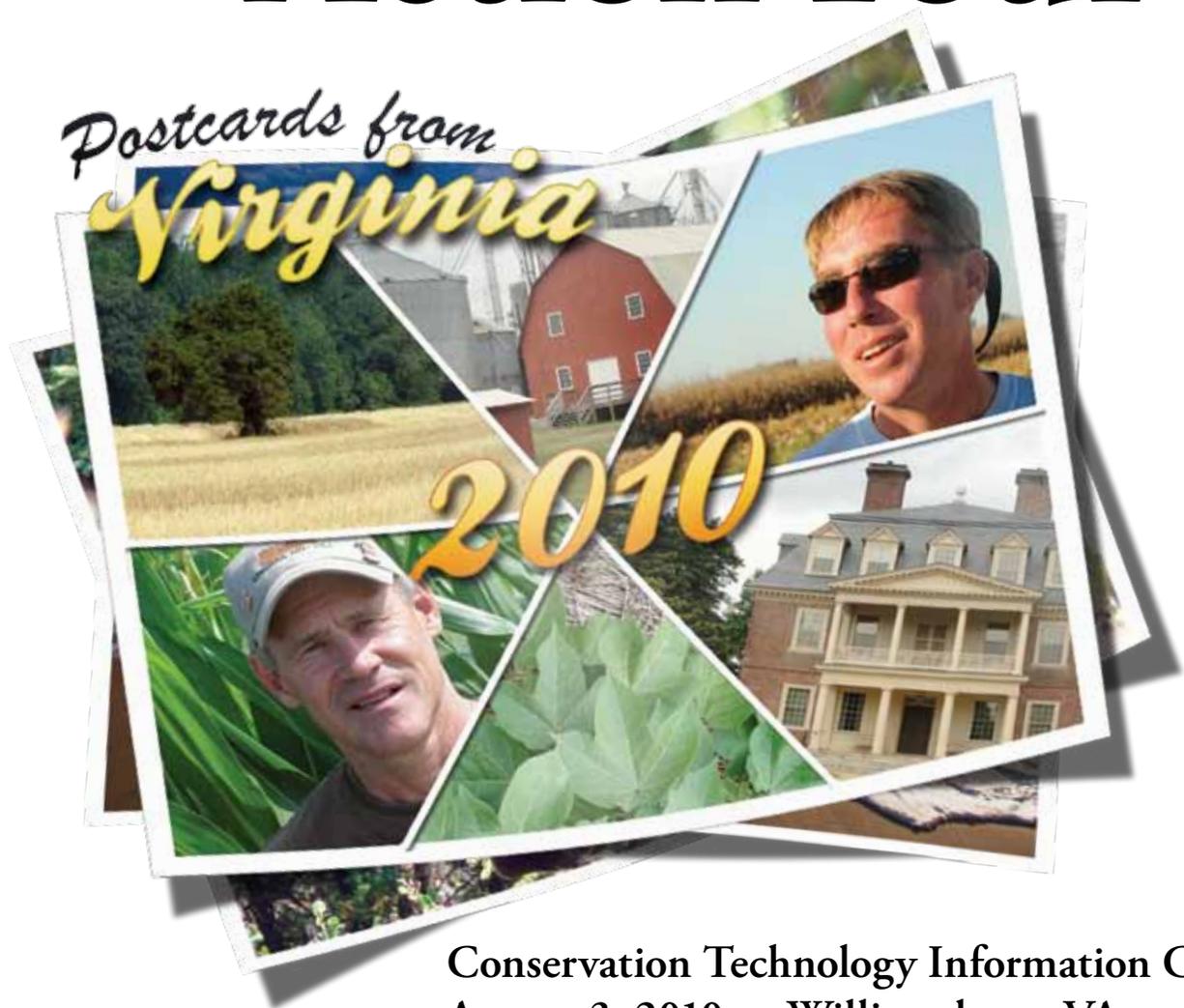


# Conservation In Action Tour



Conservation Technology Information Center  
August 3, 2010 ■ Williamsburg, VA

**syngenta**



The Fertilizer Institute  
Nourish, Replenish, Grow



Conservation Technology Information Center  
3495 Kent Avenue, Suite J100, West Lafayette, Indiana 47906  
Telephone: 765-494-9555 Facsimile: 765-463-4106  
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# 2-Tour Itinerary

## August 2

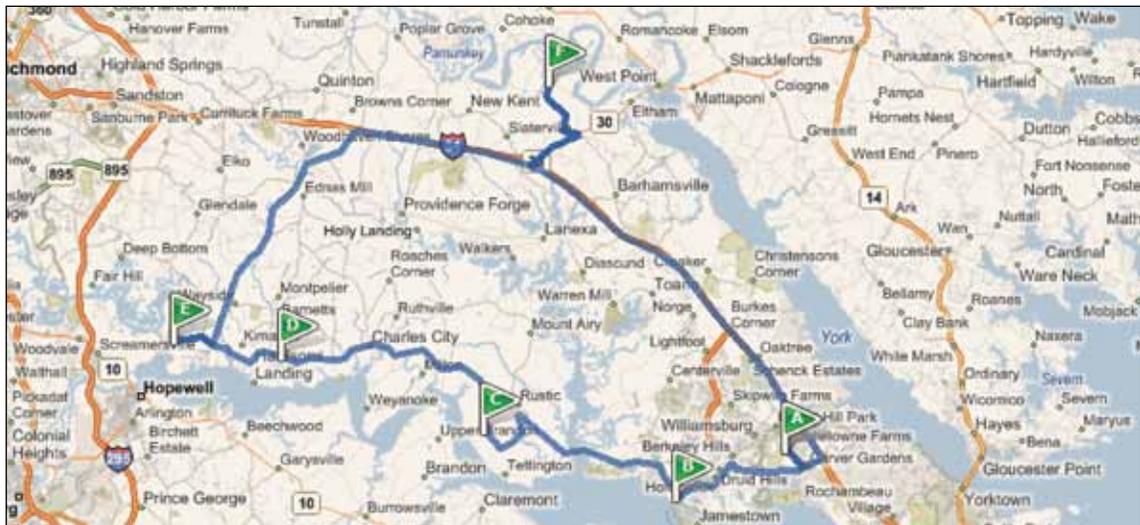
- 4:15 p.m. Load buses at Crowne Plaza Williamsburg
- 4:30 p.m. Bus departs hotel for Watermen's Museum, Yorktown, Va.
- 5 - 7:30 p.m. Cocktail Social courtesy of John Deere
- 7:30 p.m. Bus returns to hotel

## August 3

- 7:30 a.m. Load buses at Crowne Plaza Williamsburg
- 8 a.m. Depart Crowne Plaza Williamsburg
- 8:15 a.m. Mainland Farm, James City County
- 9:15 a.m. Renwood Farms, Charles City County
- 11 a.m. Evelynton Farm, Charles City County
- 12:30 p.m. Lunch at Shirley Plantation, Charles City County
- 1:45 p.m. Carter Farm, Charles City County
- 3:05 p.m. Davis Family Farm, New Kent County
- 5:15 p.m. Nutrient Use Efficiency Expo
- 6 p.m. Dinner at Davis Family Farm courtesy of Pioneer Hi-Bred
- 6:45 p.m. Return to Crowne Plaza Williamsburg

## August 4

- 8:30 a.m. - 1:30 p.m. CTIC Board of Directors meeting, Crowne Plaza Williamsburg





### **Katie Kyger Frazier, Virginia Agribusiness Council**



Katie Kyger Frazier is the vice president of public affairs for the Virginia Agribusiness Council in Richmond, Va. Since joining the Council in 2004, Frazier has represented the agribusiness industry on a variety of state and federal legislative and regulatory issues, focusing on environmental, water quality, water supply, livestock and poultry and farmland preservation issues. Katie represents the Council on the Virginia Total Maximum Daily Load Stakeholder Advisory Group and has devoted much of her time to coordinating a coalition of 28 agriculture and forestry organizations addressing Chesapeake Bay issues. Frazier is a 2004 graduate of Virginia Tech, where she majored in agricultural and applied economics and political science, and was recently elected to the Board of Directors of the Virginia Tech Alumni Association.

The **Virginia Agribusiness Council**, a non-profit member organization founded in 1971, represents the agriculture and forest industries in the Commonwealth through effective government relations and industry promotion efforts. Just blocks from the Virginia state capital in Richmond, the Council strives to represent Virginia agribusiness with a unified voice. The Council's membership of more than 40,000 includes farmers, foresters and other agricultural producers, product and equipment suppliers, ag service providers, processors and marketers of farm and forest products, agriculture commodity associations and related general industry organizations.

### **L. Wayne Kirby**



Wayne Kirby, of Mechanicsville, Va., is the immediate past president of Virginia Grain Producers Association. His operation, Creamfield Farm, produces corn, wheat and soybeans. He is active in the Ruritans, serves on the Colonial Farm Credit Board of Directors and as chairman of the VA Corn Checkoff Board.

The **Virginia Grain Producers Association** (VGPA) is a non-profit, farmer-run state commodity association representing the corn and small grain producers of Virginia. VGPA provides representation for growers on a variety of issues, advocacy for Virginia grains, producer education, end-user relations and public outreach. VGPA strives to bring value to the surrounding industry as an information source and producer advocate. Statewide, nationwide and globally, VGPA forms partnerships to better promote and protect grain producers and production agriculture. The overall vision of VGPA is to brand the Association as the representative on issues pertaining to corn and small grains and, as such, provide value to agriculture and to all Virginia.

### **W. Lee Daniels**



W. Lee Daniels, professor of Environmental Soil Science at Virginia Tech in Blacksburg, Va., received his doctorate in soil geomorphology from VPI & SU in 1985.

Dr. Daniels specializes in stabilization and restoration of disturbed lands, including areas disturbed by mining, road building, waste disposal, urbanization and erosion. In particular, his research and consulting experience focuses on mine reclamation and mitigation of wetland loss and degradation. His teaching programs include soil geomorphology and landscape analysis with particular emphasis on the relationships among surficial geology, hydrology, soil patterns and long-term landscape evolution processes. His awards include the Reclamation Researcher of the Year designation of the American Society for Surface Mining and Reclamation (1993), and the US EPA's National Biosolids Utilization Research Award in 2000.

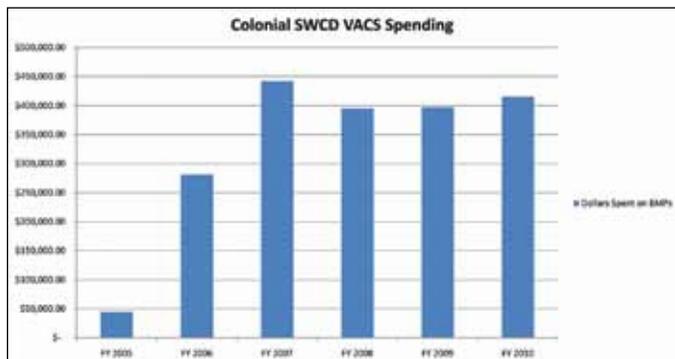
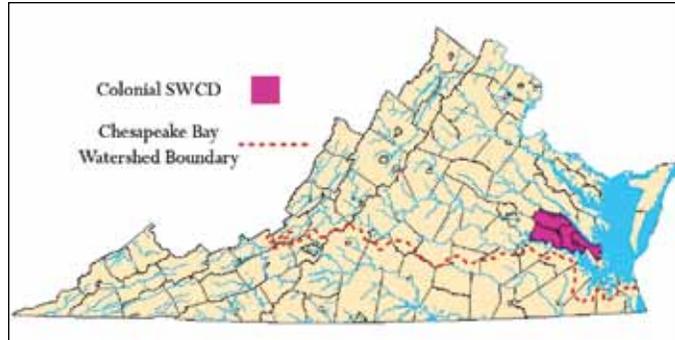


## COLONIAL SOIL and WATER CONSERVATION DISTRICT

The Colonial SWCD, a political subdivision of the Commonwealth of Virginia, includes the “colonial” localities of York, James City, Charles City and New Kent Counties, as well as the City of Williamsburg.

The Colonial SWCD encompasses about 36,000 acres of cropland, most located along the tributaries feeding the Chesapeake Bay.

Typical crops include corn, small grains and soybeans. Other crops raised in the area include vegetables, cotton, turf and hay. Across the state, conservation districts administer the Virginia Agricultural Cost Share Program (VACS), which offers financial incentives to agricultural producers to implement conservation practices. While the program offers more than 40 practices, producers here gravitate to a suite of practices that complement their cropping systems. These include continuous no-till and winter cover crops.



In addition to administering the VACS, the Colonial Soil and Water Conservation District aggressively pursues grant funding. These awards quantify the environmental benefits of agricultural conservation practices, as well as demonstrate new agricultural technologies and techniques, especially those likely to improve local water quality. A 2004 USDA Conservation Innovation Grant provided the funds to demonstrate the optical sensor-based variable rate application system GreenSeeker™, as well as establish the water quality benefit of the Innovative Cropping System rotation.

Soil and Water Conservation District efforts showcase the potential of crop production to provide environmental services in the form of nutrient offsets, carbon sequestration and flood/storm water mitigation.

The Colonial Soil and Water Conservation District welcomes you to this part of the world and appreciates your participation in this event.

Colonial SWCD  
P.O. Box 695  
Norge, VA 23127  
757-645-4895  
[www.colonialswcd.vaswcd.org](http://www.colonialswcd.vaswcd.org)



## MAINLAND FARM

### James City County

Mainland Farm lies just over a mile to the southeast of the first permanent English settlement at Jamestown. Historians believe that this area sustained the colony when settlers ventured from Jamestown Island in the years after the 1607 landing. Evidence indicates colonists established a farmstead here, financed by the lucrative tobacco trade, and occupied it from about 1618–1625. Mainland Farm may be the oldest continuously cultivated farm in British North America. In 1999, James City County purchased 214 acres of Mainland Farm and protected it from urban development with an easement.



For the last 13 years, the Hula family of Renwood Farms has cropped the productive soils of Mainland Farm and earned several national and state yield contest awards. Some of the high yielding parts of the farm, however, are now dedicated to residential land use. Mainland Farm, and the efforts to preserve it amidst surrounding growth and development pressure, exemplify the plight of agriculture in the region.

A microcosm of the Chesapeake Bay watershed, Mainland Farm demonstrates the contrast and conflict between the cultural effects of urban and agriculture land use. To the greater Jamestown area, the value of Mainland Farm lies not in its ability to produce food, fiber or forage, but rather its ability to provide ecosystem services such as flood mitigation, carbon sequestration and nutrient offsets. Floods plague the immediate area around Mainland Farm because the land is fairly flat and impervious cover is on the rise. However, Mainland Farm, with its thick layer of crop residue mulch, intensive crop rotation and improved soil structure, infiltrates thousands of gallons of storm water annually and reduces storm water pressures in the area. Similarly, the continuous no-till and intensive crop rotation, coupled with precision nutrient application render Mainland Farm a potential carbon sink and/or nutrient bank if regulatory drivers materialize.

### Mary K. Jones



Mary Jones serves as vice chairman for the James City County Board of Supervisors. Mary is an advocate of natural resource conservation and county services that offer efficient and effective alternatives in storm water management. Mary has worked to address long-term flooding within the county that affects the health, safety and welfare of her constituents.

### Brian Noyes



Brian Noyes is the district manager for the Colonial Soil and Water Conservation District (CSWCD), where he has served the Virginia localities of Charles City, New Kent, James City and York counties and the City of Williamsburg for 19 years. Brian earned a Bachelor's degree in agriculture from the University of Delaware. He has approximately 12 years experience in farm management, as well as six years experience as a field research technician. As district manager, Brian administers numerous initiatives designed to improve water quality in the Chesapeake Bay watershed.

### James Wallace



A graduate of James Madison University with bachelor's degree in business management, Jim Wallace has nine years of experience in land management, fertilizer sales and custom application. As the Colonial Soil and Water Conservation District (CSWCD) agricultural water quality specialist since 2000, Jim advanced numerous initiatives, including GreenSeeker and nitrogen injection technologies, and cooperative research projects that measure nitrogen leachability and soil carbon in no-till systems. Jim administers the CSWCD state agricultural cost-share program, which is considered one of the leading programs among soil and water conservation districts in Virginia.



## RENWOOD FARMS

### Charles City County

Renwood Farms lies on the James River in Charles City County. The farm operation covers approximately 5,000 acres across four counties and grows oats, barley, wheat and soybeans for seed production, as well as cash grain corn. Renwood Farms, Inc. is owned and operated by Stanley, David and John Hula, who represent the third and fourth generations on the farm. Renwood Farms has earned multiple National CornYield Contest awards as well as other state and local yield titles. The Hulas are considered some of the most progressive crop producers in Virginia. They have been featured in numerous agricultural journals and recognized for their environmental stewardship. The Hulas are living proof that profitability and conservation of natural resources can go hand in hand.



As pioneers of the continuous no-till system, the Hulas accepted the risk of planting no-till small grains. This allowed the traditional crop rotation to become an uninterrupted no-till cropping system. Beginning with just 85 acres in 1987, the continuous no-till cropping system in Virginia includes nearly 500,000 acres today.



The Hulas believe in the concept of soil management and its relationship to water quality. Virginia Tech and the Colonial SWCD demonstrated this connection through a rainfall simulator at the 2000 Virginia Ag Expo, held at Renwood Farms. The study evaluated two cropping systems: 10 years of continuous no-till versus simulated conventional tillage. Results indicated a minimum 90 percent reduction in pollutants discharged from the continuous no-till system relative to the conventional system.

Through advanced nutrient use efficiency technologies and continuous improvement of their conservation system, the Hulas improve their soil quality, protect water quality, keep labor costs down and grow a profitable business.

### David & Stanley Hula

David Hula will share his more than a decade of experience with continuous no-till and award-winning yields. The equipment and state-of-the-art technologies used at Renwood Farms will be on display, and David will explain his philosophy on how integrating conservation into agriculture is the best economic decision.

Stanley Hula offers a guided tour of his impressive collection of antique farm equipment that is displayed on the family farm.



## EVELYNTON FARM

*Charles City County*

The National Register of Historic Places includes Evelynton Plantation, home to the Ruffin family since 1847. Evelynton was the site of Civil War skirmishes in 1862, when Union General George McClellan fought his Peninsula Campaign. J.E.B. Stuart, Stonewall Jackson and John Pelham led the Confederate offensive in the Battle of Evelynton Heights. Today, Archer and Tim Ruffin manage 1,600 acres of corn, wheat and soybeans at Evelynton Farm.



Archer and Tim descended from Edmund Ruffin, a historical figure from the early 1800s, who advanced new technologies to increase yields on Virginia farms. In a test on this plantation, he dramatically increased crop yields by adding marl (a mixture of clays, calcium and magnesium carbonates, and shell remnants, used as fertilizer for lime-deficient soils). He advocated the use of marl, crop rotations and better plowing techniques to reduce soil runoff. To rehabilitate the depleted soil of tobacco farms in southeastern Virginia, he helped introduce guano, lime and bone as soil amendments. Edmund Ruffin earned the title “Father of American Agronomy” from the *The Farmer’s Register*, the publication that stated that he “rescued 19th-century Virginia from a declining agricultural economy.”

### Archer Ruffin



Archer Ruffin honors his heritage by hosting research and demonstration initiatives on the farm. Archer has served on the Colonial SWCD Board of Directors for the last 13 years. Many of the accomplishments of the Colonial Soil and Water Conservation District’s Innovative Cropping Systems Incentive Program developed under his tenure as the chairman of the District’s Agriculture Committee.

Archer will share his perspective on the Chesapeake Bay watershed and the potential for market opportunities such as carbon and water quality trading.



## FARMER PANEL

### Westover Parish Church Charles City County

Westover Parish was established in 1625, and the original church was located on Westover Plantation. A new church was built at this location in 1731 and is on the National Register of Historic Places. The church was restored to service after the civil war in 1867. Many notable figures, including Washington, Jefferson, Harrison, Tyler, and Theodore Roosevelt, have worshipped in the church.



### Eric Randolph



Photo courtesy of Colonial SWCD

Eric Randolph farms approximately 1,750 acres in New Kent and Hanover counties with his brother, Reed. The operation includes corn, wheat, soybeans and sod. Eric is a past president of the Virginia Small Grains Association, a past Director for the Colonial Soil and Water Conservation District and has been very active in many agricultural organizations. Eric has hosted many field demonstrations and field day events over the years on Shimokin, the family farm.

### J.N. Mills



Photo courtesy of JN Mills

J.N. Mills owns and operates a family farm, John N. Mills & Sons, located in King William and Hanover counties. A portion of the land was a grant from the king of England in the 1600s. To keep soil and nutrients in place, J.N. installed waterways, stream buffers, stream fencing and wetlands on this 3,600-acre operation – most of that without aid from government programs. He raises corn, wheat, barley, soybeans and hay in a no-till system and with nutrient management planning for all acres.

The Mills farm also employs cover crops, rotational grazing and split applications of nitrogen fertilizer. The farm includes a 165-unit cow-calf operation. J.N., along with his brother, brother-in-law, sons and nephews, values precision equipment and technology to increase the farm's efficiency and profitability.



## SHIRLEY PLANTATION

### Charles City County

When established in 1613, Shirley Plantation was the first plantation in Virginia. In 1638, Edward Hill I began the farm, making Shirley Plantation the oldest family-owned business in North America and one of the first economic engines of the new world. A long list of great Americans were guests at Shirley, including Washington, Jefferson and other prominent Virginians. During the Revolution, Shirley was a supply center for the Continental Army. A century later, during the War Between the States, Shirley survived the Peninsula Campaign and the struggle for nearby Richmond, the Confederate capital. Anne Hill Carter, the mother of Gen. Robert E. Lee, was born at Shirley. The famous Confederate General received part of his schooling in the converted laundry house. Lee's Cousin, Hill Carter, kept extensive records of agricultural improvements and experiments at Shirley and was considered an ardent and progressive agriculturalist in his time.



Tourism and education play a significant role in the family business today. Shirley Plantation continues to be a working plantation, a private family home, a growing business, a National Historic Landmark and a direct link between the past, the present and the future.

### Charles Carter, Host

Charles Carter owns and serves as executive director of Shirley Plantation. He earned a bachelor's degree from Virginia Tech and



currently holds the position of director of the Colonial Soil and Water Conservation District. As managing partner of Weanack Land,

LLP, Charles works with Lee Daniels, of Virginia Tech's Department of Crop and Soil Environmental Sciences, on many research and demonstration projects to advance the reclamation of mined land and utilize dredged spoil to improve crop yields.

**Weanack Land and Virginia Tech's Department of Crop and Soil Environmental Sciences cooperate on a range of conservation-related research programs.**

Early work focused on the effects of deep tillage and biosolids application on reclaimed prime farmland disturbed by sand and gravel mining. Researchers using groundwater and zero-tension lysimeter monitoring found that biosolids could be safely applied to this land at higher than agronomic rates, with minimal N losses to groundwater. Researchers also discovered that adding sawdust, to adjust the biosolids' applied carbon to nitrogen ratio, significantly decreased shallow percolate nitrate levels.

Since 2000, partners have conducted detailed studies on the conversion of fresh- and salt water dredge sediments to agricultural production. Freshwater dredge sediments from the Potomac River, rapidly cured into highly productive pH 7 agricultural soils, produced over 200 bu/ac corn yields two years after placement. Conversion of saline dredge materials requires longer periods of time for salts to leach from the surface soil layers and the materials to aggregate. However, studies established winter wheat production is possible within two years of placement and dewatering. Related dredge sediment studies include field mesocosm and greenhouse research on bioremediation of organic contaminants (PAH's), and mitigation of sulfide oxidation and associated potential acidity. Finally, Weanack and Virginia Tech have cooperated on the planning, construction, amendment and monitoring of a 7-acre freshwater tidal wetland, unique to the region.



## LUNCH SPEAKERS

**Shirley Plantation**

**Charles City County**

### **Kelly Shenk, U.S. Environmental Protection Agency Chesapeake Bay Program**



For over 15 years, Kelly Shenk has served as the agricultural policy coordinator for USEPA's Chesapeake Bay Program Office. Kelly earned a bachelor's from Duke University and a master's from the University of Vermont in water resource management. Before coming to the Chesapeake Bay Watershed, Kelly worked on urban and agricultural phosphorus pollution issues in the Lake Champlain Basin and the Lake Geneva watershed in France.

### **Ann Mills, U.S. Department of Agriculture**



As deputy undersecretary for Natural Resources and Environment, Ann Mills oversees the Natural Resources Conservation Service (NRCS), the federal agency with primary responsibility for working with private landowners to conserve, maintain and improve their natural resources. America's farms, ranches and forests drain and filter 87 percent of our surface water drinking supply. USDA programs play a significant role in protecting the nation's supply of clean abundant water.

Mills brings to this position 20 years of policy and management experience in government and nonprofit conservation advocacy. As a senior executive at American Rivers, Mills led the implementation of programs to develop sustainable solutions for flood and drought mitigation, as well as water quality improvement in urban and rural watersheds. Priority areas included Northern California's Sierras and Bay Delta; the Columbia, Missouri and Mississippi river basins; the Great Lakes; and the Chesapeake Bay. Mills also served as a senior staff person for Senate Democratic Leader Tom Daschle, chief of staff to California Lt. Governor Leo McCarthy and legislative assistant to then-Congressman Richard Durbin and Congressman James McClure Clarke. She holds a master's from the Lyndon B. Johnson School of Public Affairs at The University of Texas at Austin, and a bachelor's in political science from Tufts University.

## **CARTER FARM**

**Charles City County**

Cool soil temperatures make no-till a challenge in Charles City County, Va., which lies at the northern limits of cotton production. Persistence and support generated the right tools and information that made no-till cotton work in this area. Farmers keep working until they find the right combination that makes conservation a practical reality. J.W. Black and Sons operate the Carter Farm on Shirley Plantation.

### **Jon Black**

J.W. Black and Sons crops approximately 2,400 acres in Charles City, Henrico and New Kent counties. Jon, along with his brother Keith and father, John, grows corn, wheat, soybeans and cotton. Each of these producers has served as an officer for various groups, including the Virginia Cotton Growers Association, the Colonial Soil and Water Conservation District and the USDA Farm Services Agency County Committee.





## DAVIS FAMILY FARM

### New Kent County

The Davis Family Farm consist of approximately 500 acres situated along the Pamunkey and York Rivers. The principle owners and operators, Paul, Boogie, Ray, Vin, Preston and Wayne Davis, represent three distinct farming operations. Known for their innovative production and pioneering spirit, the Davis family raises wheat, corn, soybeans and pumpkins. Conservation practices they employ include long-term continuous no-till, cover crops, split applications of nitrogen and nutrient management planning. Ray Davis serves as a New Kent County supervisor, and Paul is a long-time director of the Colonial Soil and Water Conservation District. Both Paul and Boogie are retired from the Virginia Cooperative Extension Service.

This farm boasts a long history of research and demonstration projects. The Davis family often extends its hospitality to fellow producers, state and federal agencies, the public and groups of school children. Paul, working to advance the “Never-Till” system, recently implemented an “evergreen rotation,” and has used GreenSeeker technology and nitrogen injection in his cropping practices. In addition, Paul solicits a great deal of assistance from Virginia Tech and lends expertise to numerous research and demonstration initiatives.

Paul, with Brian Noyes of Colonial SWCD, started the Innovative Cropping Systems Incentive Program. In the last four years of the program, Paul, Mark Alley, Wade Thomason, Ron Follett, John Spargo, Brian Noyes and Jim Wallace have reached an estimated 6,000 individuals through formal presentations and cooperative events.

#### Presenters:

##### Paul Davis, Farm Host



A “Never-till” bumper sticker adorns Paul Davis’ truck and describes a way of life for this New Kent, Va. farmer and former Virginia Tech Extension employee.

During his years with Extension, Paul preached the virtues of soil improvement through no-till. “We have been in continuous no-till on our family farm since 1999. We know we are improving soil quality and using less nitrogen, but it’s a slow process. We want to jump start the process and reduce the number of years it takes to see input costs go down and yields stay high,” he says.

##### Mark Alley: Soil Carbon, Nitrogen Leaching and Lysimeters



Mark Alley is a soil fertility specialist and professor in the Crop and Soil Environmental Sciences Department at Virginia Tech in Blacksburg, Va. Mark has worked to improve the efficiency and profitability of Virginia farmers for more than 25 years. His focus has been on practical efforts to implement no-till systems and improve nutrient use efficiency in crops.

##### Wade Thomason, Systems Management



Wade Thomason is an associate professor and Extension grain crops specialist. In this role, he provides state wide leadership for extension and research programs in production and management of corn and small grains. He holds a master’s in agronomy and doctorate in soil science from Oklahoma State University.



12-Expo

## NUTRIENT USE EFFICIENCY EXPO

### Exhibitors

#### Agrotain International

Tim Healey, Vice President Regulatory Affairs

Daryl Clay, Jimmy Johnson

524 Bermuda Hundred, Chester, VA 23836

[www.agrotain.com](http://www.agrotain.com)

[dclay@agrotain.com](mailto:dclay@agrotain.com)

804-350-5708



AGROTAIN stabilizes nitrogen so farmers can be more productive while helping protect the environment. As much as 30 percent of nitrogen can be lost within days of application unless urea is stabilized. AGROTAIN, the only urease inhibitor approved by the Association of American Plant Food Control Officials (APFCO), allows the crop to access the nitrogen it needs immediately, but losses are controlled for the first critical weeks after application. Also, AGROTAIN protects water quality by preventing leaching of nitrogen into local water bodies. The result is more productive plants, better yields and improved water quality.

#### GEOSYS, Inc. - FarmSat™

Don Lamker, Norm Davy

14577 Quentin Ave., Savage, MN 55378

[www.geosys.com](http://www.geosys.com)

[dlamker@geosys.com](mailto:dlamker@geosys.com)

952-447-1698



FarmSat™ helps agronomists and farmers all over the world to make sound and profitable decisions for crops management. FarmSat™ online services platform is designed to strengthen and support ag professional expertise by delivering valuable geographic information and adapted decision support systems. FarmSat™ Web GIS platform main services are:

- Field operations record keeping
- SaMZ (management zones maps creation using satellite imagery)
- Soil and leaves optimized sampling support
- Fertilizer decision support systems
  - Using yield potential maps
  - Using satellite imagery delivered at key growth stages
- Chemicals decisions support systems
- Precision ag equipment compliance



13-Expo

## Optimizing Nitrogen Use Efficiency John Deere

Pauley Bradley, Project Manager, Nutrient Application Initiative  
11145 Thompson Ave., Lenexa, KS 66219  
www.JohnDeere.com/apply  
bradleypauley@johndeere.com  
913-310-8515



John Deere offers a full portfolio of nutrient application products. The 2510H and PitStop Pro is an innovation that enables timely injection of nitrogen fertilizer in corn production by overcoming many of the obstacles that prevented the adoption of Nitrogen Best Management Practices (BMPs). Obstacles like horsepower requirement and fuel use, soil disturbance, crop damage, time spent tendering and the hassle of changing out nurse tanks are overcome with the 2510H and PitStop Pro.

The benefits to this 4-R approach of nitrogen management are higher yields and profits for producers, a value-added service offering for the commercial applicator and a cleaner and healthier environment.

## MicroEssentials The Mosaic Company

Ron Olson, Research and Development Manager  
13830 Circa Crossing Drive, Lithia, Florida 33547  
Ph: 813.500.6470  
Fax: 813.571.6906  
ron.olson@mosaicco.com



Mosaic's breakthrough approach to crop nutrition – MicroEssentials advanced crop nutrition technology – ensures a uniform distribution of nutrients in each and every granule.

Blended fertilizer, no matter how well applied, can separate, making some nutrients more readily available for one plant and less for another. MicroEssentials solves this problem with a patented process that packs all four essential nutrients into a single granule. When applied correctly, it provides even, balanced nutrition across the field. MicroEssentials products provide more efficient, uniform distribution of nutrients in a ratio best suited to plant health and productivity.

With MicroEssentials, producers will see improved phosphorus uptake, balance in soil pH, longer availability of sulfur, young plants growing faster with available nitrogen and readily available zinc. This is especially beneficial because sulfur and zinc, nutrients essential for efficient plant metabolism, are not very mobile in soil. When sulfur and zinc are applied as minor components of a bulk blend, much of their benefits are lost because plants must seek out the sparse granules across a large area.

Nutrients actively used by plants are less likely to leave the field through run-off or erosion. Producers using MicroEssentials will not only maximize nutrient efficiency but also protect nearby water quality.



## CTIC: A PUBLIC/PRIVATE PARTNERSHIP

### Mission

*CTIC champions, promotes and provides information about comprehensive conservation and sustainable agricultural systems that are beneficial for soil, water, air and wildlife resources and are productive and profitable for agriculture.*

The Conservation Technology Information Center (CTIC) is a not-for-profit, membership organization that provides technical, educational and practical support to America's agricultural and conservation communities.

We were formed in 1982 by a group of representatives from agribusiness, government and associations. We thrive today with guidance and support from partners and members from the public, private and academic sectors.

America's producers today face complex decisions about how to integrate and maintain conservation systems within their farming operations. Add to that myriad pressing questions about how to minimize fuel costs and maximize energy usage, design better nutrient management and integrate precision farming all while looking for other ways to add value to their farming operation.

Producers today need answers about how to make conservation work. We trust that, given the best information, producers will make good decisions for their land. And, we believe that producers deserve to get trustworthy information, in a timely manner, from a dependable source.

CTIC works with the people and groups across the country that provide advice and guidance for producers' production and conservation decisions. Through research, information exchange, partnership building, training and more, CTIC offers practical and affordable solutions that make sense for the producer and the environment.

CTIC provides reliable information to support environmentally responsible and economically viable decision making in agriculture. And, by accessing our network of agribusiness, associations, researchers, scientists, media, educators and ag advisors, we will distribute that information where it needs to be quickly and reliably.

Our work takes root in the partnerships we form, coordinate, lead and support. These are local, regional and statewide alignments of public and private organizations who share a common desire to create new models of conservation that serve the needs of producers while preserving the environment.

The CTIC organization is, in itself, a model of an effective public/private partnership. A Board of Directors, which oversees activities, includes producers and representatives from seed, fertilizer, equipment, life science, media, conservation organizations and agriculture organizations. The board is advised by representatives of universities and state and federal agencies. A staff, based in West Lafayette, Indiana, implements the initiatives and activities of CTIC.



## CTIC BOARD OF DIRECTORS

Tim Healey - Chair	Agrotain International
Harold Reetz - First Vice Chair	Foundation for Agronomic Research
Charlie Schafer - Second Vice Chair	Agri Drain Corporation
Rex Martin - Treasurer	Syngenta America, Inc.
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Bill Herz	The Fertilizer Institute
Bill Kuckuck	CropLife America
Ron Olson	The Mosaic Company
John Redding	National Association of Conservation Districts
Jerry Snodgrass	National Association of Conservation Districts
Rod Snyder	National Corn Growers Association
Stephen Timmons	Case IH
Dick Foell	Board Member Emeritus
Ex-Officio Members	
Jeff Eisenberg	National Association of Conservation Districts
Karen A. Scanlon	Conservation Technology Information Center





**Amber Gritter, Administrative Assistant**

gritter@ctic.org

Amber is responsible for assisting the office manager with many of the organizational accounting functions. She is also responsible for processing product orders, maintaining the membership database as well as other administrative duties. Amber also assists the entire CTIC staff with project work and event preparation.

**Christa Martin-Jones, Project Director**

jones@ctic.org

Christa Martin-Jones leads several grant-funded projects for CTIC. She works with project partners to plan, execute and meet project goals and fulfills all associated reporting requirements.

Prior to CTIC, Christa served as executive director for the National Association of State Conservation Agencies (NASCA). From 2002 - 2007, she worked for the National Association of Conservation Districts, where she served NACD's eight-state north central region as leadership services director, and the 208 conservation districts of the Great Lakes Basin as Great Lakes committee coordinator.

Christa holds a bachelor's in public affairs, with a concentration in environmental science, from Indiana University. She completed master's level course work in alternative agriculture at Slippery Rock University (PA).

**Karen A. Scanlon, Executive Director**

scanlon@ctic.org

Karen manages the overall operation of this national, not-for-profit organization. She directs and supervises staff and consultants; develops policies, procedures and budgets for CTIC programs and operations; works with CTIC Board of Directors; builds and maintains relationships with members; works cooperatively with members and partners at national, state and local levels to accomplish CTIC's mission and evaluates the programs and services of CTIC.

Prior to her appointment as executive director in the fall of 2005, Karen served as the CTIC Communications Director. She also has worked as a project coordinator for the Oklahoma Conservation Commission and as a project coordinator for The Conservation Fund in Arlington, Va.

She holds a master's degree in natural resources management from The Ohio State University and a bachelor's degree in journalism from the University of Florida.





## **Tammy Taylor, Office Manager**

taylor@ctic.org

Tammy is responsible for assisting the executive director in overseeing the financial and human resource functions of CTIC. She is responsible for all accounts receivable and accounts payable, administrative operations and maintaining and updating the CTIC web site. In addition, Tammy assists the executive director with membership development and assists staff with project work.

## **Lindley Vollmer, Intern**

intern@ctic.org

Lindley provides general assistance to the staff of CTIC. She is responsible for aiding in maintenance and upkeep the CTIC web site. Lindley manages CTIC's Twitter and Facebook accounts. In addition, Lindley assists the office manager and executive director when needed and is responsible for other administrative duties. She is currently a student at Purdue University.

## **Angie M. Williams, Project Director**

williams@ctic.org

Angie is the technical lead on projects undertaken by the Center and oversees the grant-related reporting. She assures fulfillment of technical responsibilities on projects and is responsible for meeting programmatic requirements on projects. In addition, Angie provides important in-house technical expertise and helps to answer questions from members and partners.

Prior to working for CTIC, Angie worked as a resource conservationist for a Soil and Water Conservation District. At the SWCD, she met with private landowners to address their resource concerns and help implement farm bill programs. Angie also has worked for the Indiana Department of Natural Resources in the Division of State Parks and Reservoirs. She has a bachelor's degree in biology from Purdue University.

## **Office Location**

CTIC is located in the Purdue University Research Park in West Lafayette, Ind. Since moving to West Lafayette in 1986, CTIC has appreciated a close working relationship with the Purdue University Agronomy Department.

3495 Kent Avenue, Suite J100  
West Lafayette, IN 47906  
Telephone: 765-494-9555  
Facsimile: 765-463-4106  
Web site: [www.ctic.org](http://www.ctic.org)





## CTIC OUTREACH

CTIC is a national not-for-profit organization adept at conveying technical subject matter to broad audiences and communicating the importance of conservation practices to those same audiences. In its 28 years, CTIC has built a solid reputation as a reliable source for information about environmentally sound, economically beneficial decision making in agriculture. Public and private partners seek out CTIC for information on the latest technology and research for improving conservation in agriculture. CTIC provides that information through its web site, its quarterly magazine, regular publication of educational materials, regional, national and international conferences and tailored presentations and workshops. In addition, CTIC receives frequent inquiries, for conservation-related information and responds to each request in a timely manner.

### CTIC web site

At [www.ctic.org](http://www.ctic.org), visitors access CTIC resources, update membership, register for events, learn about CTIC projects, download free publications and subscribe to CTIC's *Partner's* magazine, Member Mail and more. With a few clicks, visitors find details on all CTIC projects, search our database of resources or take a poll on the latest conservation issues. CTIC's web site also houses the National Crop Residue Management Survey, the CTIC strategic plan and more details about the history and mission of CTIC.



### Partners magazine

CTIC's online magazine *Partners* reaches more than 5,000 readers every quarter. Each issue features success stories, news coverage and updates on technology and research important for conservation agriculture. Each issue's member column highlights a contributed article.



### Member Mail

All CTIC members and partners receive *Member Mail*, an electronic newsletter containing news briefs pertinent to our membership, in those months when *Partners* isn't published.



## Aquatic Resource Monitoring Technical Training Workshops

**Partner:** U.S. Environmental Protection Agency (EPA)

**Project Description:** In 2010, CTIC received a grant from the U.S. Environmental Protection Agency to fund the “Aquatic Resource Monitoring Technical Training Workshops for States, Tribes and Other Stakeholders” project. Over the next three years, CTIC will provide the leadership and technical support to conduct seven aquatic resource-specific workshops and two national conferences covering all aquatic resource types. These workshops and conferences will enhance the collaboration, communication, coordination and technology transfer among over 800 professional attendees. Using a national network of conservation and agricultural leaders, CTIC will assist EPA, states and tribes in strengthening partnerships with agricultural communities to address nonpoint source pollution.



**Activities:** CTIC is forming an advisory committee consisting of National Aquatic Resource Survey experts and individuals from university, research, nonprofit organizations and EPA headquarters and regional offices. The advisory committee will assist in developing a survey requesting targeted audiences to rank technical and programmatic issues in order of greatest training needs. CTIC will use this information to develop topics for the national conference. CTIC is also working with EPA specialists to conduct a wetlands training workshop in October 2010 and a lakes workshop for the first week of November.

**For More Information:** Contact Tammy Taylor at Tel: 765-494-1814 or Email: [taylor@ctic.org](mailto:taylor@ctic.org)

**Get Involved:** Host a meeting for leaders of state and tribal programs for wetlands, lakes, coastal, rivers and streams at a research center or other facility in your area.



## Building Innovative Industry-Producer Partnerships to Reduce Hypoxia in the Gulf of Mexico

**Partners:** U.S. Environmental Protection Agency (EPA) Gulf of Mexico Program, plus public and private partners in Indiana, Minnesota, Missouri and Ohio

**Project Description:** In 2006, CTIC received a grant from the U.S. Environmental Protection Agency Gulf of Mexico Program to fund a project called “Building Innovative Industry-Producer Partnerships to Reduce Hypoxia in the Gulf of Mexico.” In this collaborative effort, CTIC and partners strive to bring innovative, effective approaches for addressing complex nutrient management challenges directly to the local level. CTIC and partners aim to help ag communities improve nutrient use efficiency and increase nutrient management at the farm level, with the ultimate goal of helping to decrease nutrient loads to the lower Mississippi River and reduce the size of the Gulf of Mexico hypoxic zone.



**Activities:** CTIC and a broad coalition of ag interests in the Missouri Bootheel bring workshops and field days on the latest nutrient management tools to ag producers. Programs include a corn stalk testing program free to producers.

Partners in Minnesota reached consensus that the best approach would be to form a broad coalition of interested groups. The diverse coalition pools resources and information to work together on: developing consistent messages about nutrient management needs and practices in southeastern Minnesota, identifying and bringing the tools/practices necessary for improving nutrient management, and obtaining funding to support direct technical assistance to help farmers understand, adopt and maintain nutrient management practices.

Working in 14 counties within the Wabash Watershed (two in western Ohio and 12 in eastern Indiana), CTIC has facilitated the formation of a watershed stakeholder group to identify needs for nutrient management within the watershed, identify existing programs and assistance for meeting nutrient management needs, determine what additional tools are needed for success, and search for potential funding sources. The project’s web site, [http://www.ctic.org/Upstream Heroes](http://www.ctic.org/Upstream_Heroes), includes information on all three initiatives, as well as CTIC’s Upstream Heroes campaign, sponsored by The Nature Conservancy, The Mosaic Company and Terra Industries.

**For More Information:** Contact Christa Martin-Jones, CTIC project director, at Tel: 317-508-2450 or Email: [jones@ctic.org](mailto:jones@ctic.org)

**Get Involved:** Each local effort is seeking stakeholders from the agricultural community to participate and contribute to the project’s success. If you can participate in any of the three local-level projects, contact CTIC for more information.



## Cover Crops and Conservation Tillage Reduce Nonpoint Source Pollution

**Partners:** U.S. Environmental Protection Agency (EPA), Midwest Cover Crops Council, Ohio No-Till Council, The Ohio State University, Purdue University, Michigan State University, Indiana Conservation Cropping Systems Initiative.

**Project Description:** This project, funded by EPA's Great Lakes Restoration Initiative, will demonstrate the effectiveness of cover crops and conservation tillage systems to decrease agricultural nonpoint source pollution and inform producers about the economic benefits of these systems. CTIC and partners will assist agricultural producers in the Lake Michigan, Lake Erie and Lake Huron watersheds with implementation of cover crops and conservation tillage systems on 15,000 acres by April 2013. Producers will receive technical, educational and social support to fully understand the benefits of cover crops and conservation tillage, to correctly incorporate



the practices into their operation, to evaluate the changes and adapt management to optimize yield and resource protection. By providing this three-tiered support, this project builds producer capacity to effectively manage, adapt and commit to the long-term implementation of these conservation practices.

**Activities:** The project includes the following activities:

- CTIC will host 18 workshops promoting the use of cover crops with continuous no-till. The first workshops will be in January 2011.
- Three crop consultants will contact producers who attended workshops to help them write a plan and successfully incorporate these practices into their operations.
- CTIC will facilitate social support networks through an email list serve. Regular posts will address cover crop and conservation tillage topics, provide seasonal tips, answer questions and facilitate dialogue.
- Fifteen participating producers will attend the National No-Till Conference in 2013 to network with and learn from other producers who use cover crops.
- Producer experiences with cover crops and conservation tillage shared through the web site and published articles will offer support and information for producers contemplating adoption of the practices.

**For More Information:** Contact Angie Williams, CTIC project director, at Tel: 765-376-4504 or Email: [williams@ctic.org](mailto:williams@ctic.org).

**Get Involved:** Promote the project to generate participation among farmers and recognition of the benefits of cover crops and conservation tillage. Provide financial support for the workshops to demonstrate commitment to conservation.



## Conservation Agriculture Systems Alliance (CASA)

**Project Description:** CASA is a North American alliance of producer organizations united with a common goal to advance conservation agriculture systems. CASA strengthens the individual efforts of each member organization and also helps the collective group move toward the shared purpose of increasing conservation in agriculture in North America. CTIC hosts monthly conference calls, a web site and a discussion forum for CASA. CASA primary purposes are to:

- Facilitate communication among CASA members and partners
- Promote consistent messages about conservation agriculture
- Share information about conservation agriculture
- Endorse adoption of “the ideal” conservation agriculture system
- Facilitate removal of barriers and support member organizations
- Influence policy on a broad level

### Current CASA Members

Conservation Tillage Workgroup (California)  
Georgia Conservation Tillage Alliance  
Innovative Cropping Systems (Virginia)  
Manitoba-North Dakota Zero Tillage Farmers Association  
Mexican Conservation Tillage Association  
No-Till on the Plains  
Ohio No-Till Council  
Pacific Northwest Direct Seed Association  
Pennsylvania No-Till Alliance  
Saskatchewan Soil Conservation Association  
Soil Conservation Council of Canada  
Southern Plains Agricultural Resources Coalition (Oklahoma)  
Vantage



**Activities:** This year, CTIC has facilitated monthly teleconferences for CASA, maintained the CASA web page and discussion forum, and distributed information to the network partners.

**For More Information:** Visit the CASA web page at [www.ctic.org/Conservation Agriculture Systems Alliance](http://www.ctic.org/ConservationAgricultureSystemsAlliance), or contact Karen Scanlon, CTIC executive director, at Tel: 765-494-2238 or Email: [scanlon@ctic.org](mailto:scanlon@ctic.org).

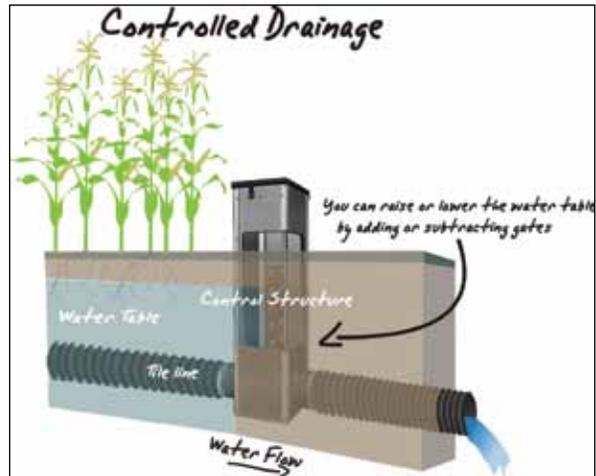
**Get Involved:** Sponsor the development of this nationwide farmer-to-farmer network. You may also become a CASA member.



## Drainage Water Management in Conservation Agriculture Systems

**Partner:** Agricultural Drainage Management Coalition

**Project Description:** ADMC received a Conservation Innovation Grant in 2006 to promote and characterize the unique technology of drainage water management (DWM) – the practice of managing water table depths to reduce nutrient transport from tiles during the fallow season or to reduce water deficit stress during the growing season. Considering that no such guidance currently exists, this innovative multi-state project is developing a set of regional recommendations that are necessary to facilitate and encourage the widespread adoption of DWM. Pilot farms are using the latest technologies, including satellite-controlled water control structures, to manage the water table under their fields. Through implementation of the project, significant data is obtained to document nutrient savings from DWM, a necessary step in nutrient trading.



CTIC is working closely with ADMC to provide the outreach component of this project. We will transfer information about the benefits of drainage water management through a variety of mechanisms so that agencies and producers are both more aware of and can make informed decisions about drainage water management. CTIC will be developing, maintaining and capitalizing on relationships with ag media to raise awareness, inform and educate about drainage water management and to highlight progress and successes in the demonstration projects.

**Activities:** CTIC issued exclusive feature stories about the project, DWM and ADMC to increase coverage of and awareness of this important management tool.

**For more information:** Visit the ADMC web site at [www.admcoalition.org](http://www.admcoalition.org) or contact Karen Scanlon, CTIC executive director, at Tel: 765-494-2238 or Email: [scanlon@ctic.org](mailto:scanlon@ctic.org).

**Get Involved:** Learn more about drainage water management at [www.admcoalition.org](http://www.admcoalition.org).



## **Facilitating Conservation Farming Practices and Enhancing Environmental Sustainability with Agricultural Biotechnology**

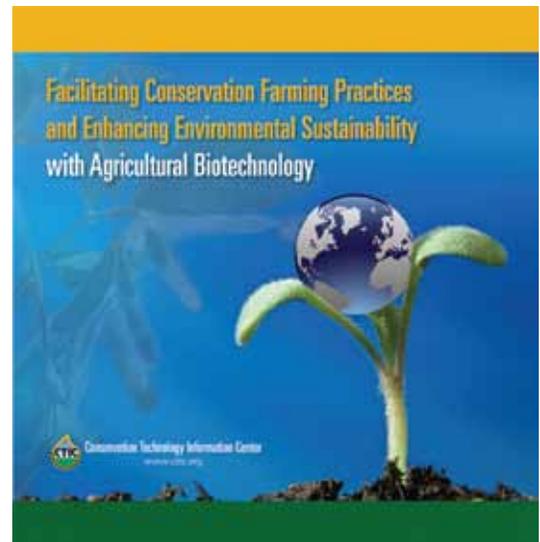
**Partner:** United Soybean Board

**Project Description:** CTIC, with funding provided by the United Soybean Board, updated its 2003 publication on conservation tillage and biotechnology. CTIC's new publication, *Facilitating Conservation Farming Practices and Enhancing Environmental Sustainability with Agricultural Biotechnology*, explores the environmental benefits of conservation tillage practices, which are facilitated significantly by biotechnology crops. The publication, reviewed by a panel of experts, shows the dramatic improvements in environmental sustainability and productivity over the past several years. Among many important statistics, the document describes:

- The projected growth of the global population to 9 billion by 2040;
- The 69-percent increase in no-till farming since the 1996 introduction of herbicide-resistant crops;
- A drop in herbicide usage of 47.4 million pounds of active ingredient where herbicide-tolerant soybeans or cotton were planted in the U.S. in 2007;
- The replacement of 8.67 million pounds of insecticide active ingredient in 2007 where U.S. growers planted insect-resistant cotton and corn varieties;
- Reductions in soil loss of 90 percent or more, and reduced movement of phosphorus by more than 70 percent where no-till is used;
- The capture of billions of pounds of greenhouse gases from the atmosphere in conservation-tilled soils across the U.S.

Through this endeavor, CTIC produced a comprehensive resource on the links between biotechnology and conservation agriculture and successfully distributed the paper's findings and statistics to media, opinion leaders and representatives of agriculture.

**Activities:** The new publication was announced March 2010 at the Commodity Classic, where the authors were interviewed by numerous ag media – Corn & Soybean Digest, Successful Farming, Progressive Farmer, Farm Journal, DTN, Farm Progress, AgriMarketing and a host of others. CTIC created a dedicated web site for the publication and other agricultural biotech resources – [www.ctic.org/BiotechSustainability](http://www.ctic.org/BiotechSustainability). The web site also includes audio interviews, an executive summary highlighting the information in the publication and the ability to download the full publication.



**For More Information:** For more information, contact Tammy Taylor at 765-494-1814 or [taylor@ctic.org](mailto:taylor@ctic.org).

**Get Involved:** Distribute copies of the free publication and executive summary to your colleagues and constituents. Contact CTIC for printed copies or download from the [www.ctic.org/BiotechSustainability](http://www.ctic.org/BiotechSustainability).



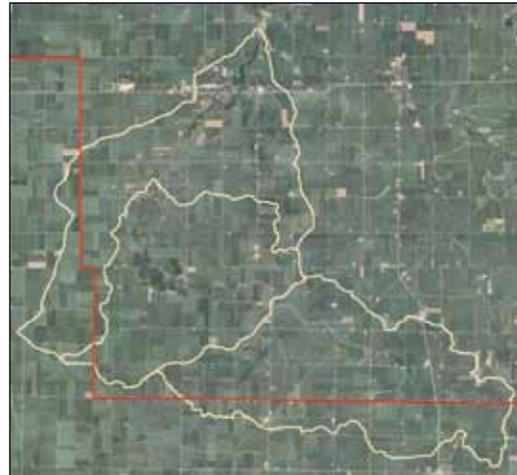
## Indian Creek Watershed Project

**Partners:** Illinois Environmental Protection Agency, Livingston County Soil and Water Conservation District, USDA Natural Resources Conservation Service (NRCS), agribusiness

**Project Description:** CTIC, with partners, will demonstrate and implement water quality conservation practices in the Indian Creek watershed. Illinois EPA and the USDA Natural Resources Conservation Service will provide the bulk of the funding for this project.

Project partners plan to determine water quality improvement results when 50-75 percent of the watershed's agricultural producers adopt comprehensive agricultural conservation systems. Progress will be measured over a 6-year period.

The Indian Creek Watershed Project will provide educational, technical, financial and social support for producers to develop, implement and maintain comprehensive conservation systems on their operations. Illinois EPA will conduct water quality monitoring in the watershed to document and determine if conservation practices are making a difference. Partners will conduct field days and producer meetings throughout the life of the project, funded through June 2013. After this date, Livingston SWCD and CTIC will need to reapply to Illinois EPA for continued funding.



**For More Information:** Contact Christa Martin-Jones, CTIC project director, at Tel: 317-508-2450 or Email: [jones@ctic.org](mailto:jones@ctic.org).

**Get Involved:** Get involved as a project sponsor. Contact Christa Jones at 317-508-2450 or [jones@ctic.org](mailto:jones@ctic.org).



## Upstream Heroes: Nutrient Management Success Stories from America's Farms

**Partners:** Terra Industries, The Mosaic Company, The Nature Conservancy

**Project Description:** The efficient use of nutrients within farming operations is receiving a great deal of attention for several reasons. Today, producers look more carefully at what, when and how they apply fertilizer, primarily because of the increased cost of fertilizer and other inputs as well as the general economic downturn. Additionally, agriculture is the focus of much attention – nationally as well as locally – because farming activities have been linked to the Gulf of Mexico Hypoxic Zone. Not many people understand the complex problem of the hypoxic zone, and individual farmers, especially those in the upper Midwest, feel little connection to the distant Gulf of Mexico.



Solutions to both of these challenges can be realized through proper nutrient management on farming operations. With sound management practices, producers use the right fertilizer product, apply it at the right rate, at the right time and in the right place. CTIC, a trusted source of information for agriculture for more than 28 years, is uniquely qualified to launch an information campaign about nutrient management targeted to agricultural producers. A secondary audience is the general public, including members of environmental groups involved in water quality issues. CTIC's networks reach into the non-farm conservation community, allowing us to show members of the public the steps farmers are taking to protect water quality upstream.

The campaign will explain the hypoxia issue and need for nutrient management in terms and messages that appeal to agricultural audiences and deliver those messages at the right time and place to capture the attention and interest of producers and their advisors. CTIC's campaign will reach our national network of members and public and private partners, as well as readers of ag media and general/consumer media.

**Activities:** The Upstream Heroes web site, [www.ctic.org/Upstream Heroes/](http://www.ctic.org/UpstreamHeroes/) provides information about nutrient management and the hypoxic zone, offers a form for nominating producers for Upstream Heroes and posts stories about two Upstream Heroes. Farm Journal, the exclusive media partner of Upstream Heroes, published the first Upstream Heroes profile in March 2010.

**For More Information:** Contact Karen Scanlon, CTIC executive director, at Tel: 765-494-2238 or Email: [scanlon@ctic.org](mailto:scanlon@ctic.org)

**Get Involved:** Become a partner in the Upstream Heroes campaign. Nominate a producer as an Upstream Hero. Help spread the word about our Heroes in agriculture.



## Using Cover Crops to Facilitate the Transition to Continuous No-Till

**Partners:** USDA Natural Resources Conservation Service, Midwest Cover Crops Council, Ohio No-Till Council, Owen County SWCD, The Ohio State University, Purdue University, Michigan State University

**Project Description:** This project, funded by a 2008 Conservation Innovation Grant, promotes the use of cover crops to ease farmers' transition to use of continuous no-till. Continuous no-till (CNT) has been around long enough that there is little doubt among experts of its many advantages. Despite the proven economic and environmental benefits of CNT, some farmers remain hesitant to fully adopt the system. In 2004, the National Crop Residue Management survey indicated that only 22.6 percent of farmers were no-tilling. Attempting CNT without proper technical knowledge may cause a disastrous first year and taint opinions toward the practice. Potential economic risks and yield losses during the first five years also can cause farmers to resist CNT. However, if farmers can maintain a CNT system for three consecutive years, the risks begin to fade. Incorporating cover crops into a CNT rotation can multiply the environmental and economic benefits. Cover crops provide the same benefits of a CNT system, but by pairing the two practices, the benefits are seen more quickly and the transition years are more productive and less stressful for the transitioning farmer.

**Activities:** The project includes the following activities:

- Host two workshops using the experiences of the transitioning farmers to promote the use of cover crops with continuous no-till.
- Assist eight farmers in Indiana and Ohio to transition to continuous no-till with the personalized technical support provided by a certified crop consultant
- Integrate cover crops into the transitioning farmer's continuous no-till system
- Form social support networks in Indiana and Ohio for farmers who are transitioning to continuous no-till
- Develop an online and printed cover crop matrix for the Midwest which aids farmers in choosing the correct cover crop for their location and operation
- Extensive soil quality testing to show the benefits of cover crops paired with no-till

**For More Information:** Contact Angie Williams, CTIC project director, at Tel: 765-376-4504 or Email: [williams@ctic.org](mailto:williams@ctic.org).

**Get Involved:** Assist with promotion of the project to generate participation among farmers and recognition of the benefits of cover crops and continuous no-till. Provide financial support for the workshops to demonstrate commitment to conservation and support of cover crops and no-till.





## Wabash River Basin Water Quality Trading Feasibility Study

**Partners:** U.,S. Environmental Protection Agency, Agri Drain, Duke Energy, Indiana Association of Soil and Water Conservation Districts, Indiana Farm Bureau, Indiana Soybean Alliance

**Project Description:** In 2009, CTIC received federal funding to study the feasibility of a water quality credit trading program in the Wabash River basin.

Water quality credit trading may prove to be a useful, innovative, market-based approach to bolstering farm income while improving water quality. This voluntary tool connects industrial and municipal facilities with agricultural producers to economically achieve water quality improvements.

This concept is beginning to take hold in areas across the country. How does it work?

Generally, farmers implement conservation practices and sell the amount of nutrients or sediment reduced. Facilities, like wastewater treatment plants, buy the reductions to help meet their regulatory requirements. Often, these facilities find that it is less expensive to pay producers to implement conservation practices than it is to expand the facility or install new treatment technologies. Through water quality trading, producers, regulated facilities and local water quality all benefit.

CTIC's market feasibility analysis will determine if the necessary conditions exist in the Wabash River watershed to support the development and implementation of a viable, sustainable water quality trading program.

To request a free water quality trading handbook for agricultural producers, contact CTIC at [ctic@ctic.org](mailto:ctic@ctic.org) or call 765-494-9555.

**For More Information:** Contact Christa Martin-Jones, CTIC project director, at Tel: 317-508-2450 or Email: [jones@ctic.org](mailto:jones@ctic.org).





## National Crop Residue Management Survey

**Partners:** State offices of the Natural Resources Conservation Service, local NRCS field offices, Conservation Districts and Extension offices

**Project Description:** The National Crop Residue Management Survey is a valuable tool that can be used to measure adoption of important soil-saving practices, demonstrate energy cost savings and monitor efforts to improve the environment. CTIC has tracked and compiled survey results since 1982. This is the only survey in the U.S. to measure and track the type of tillage used by crop at the county level. Tillage methods tracked include no-till, ridge-till, mulch-till, reduced-till and intensive/conventional tillage, according to NRCS definitions.

The nationwide survey of conservation tillage practices started as a partnership effort between CTIC and the USDA Natural Resources Conservation Service (NRCS), conservation districts and Extension. After the 2004 collection cycle, NRCS no longer required field staff to collect the data. Since then, CTIC has encouraged local partners to collect the data on a voluntary basis.



For more than two decades, the Survey has been used by government agencies, academic researchers, policy makers, industry, journalists, agriculture groups, conservation groups and many others to track trends in conservation tillage adoption. It is because we have this trend of data that we know no-till in 2004 was used on 45.5 million acres more than in 1990, a 269 percent increase. Some of the valuable ways Survey results are used include:

- Assess successes of Farm Bill programs, state and local-level initiatives
- Document what farmers save in fuel usage at the county, state and national levels
- Track the progress of, and measure trends in, conservation tillage adoption
- Prioritize areas for program focus, such as Conservation Stewardship Program
- Provide assessment data as a core component of local watershed management plans.

**Activities:** CTIC is working to develop new software that will simplify the collection process, allow data to upload to CTIC's web site with a click of a button and tie collection points to GPS coordinates. With Purdue University, CTIC is exploring the use of remote sensing technology to estimate residue cover and, ideally, increase efficiency and accuracy of data collection.

**For More Information:** Visit the CRM Survey web page at [www.ctic.org/CRM/](http://www.ctic.org/CRM/), or contact Angie Williams, CTIC project director at Tel: 765-376-4504 or Email: [williams@ctic.org](mailto:williams@ctic.org).

**Get Involved:** Support CTIC's efforts to enhance the Survey by contributing funds to develop software, collect data and explore the use of innovative technology. Endorse and support collection of data at the county level. Recruit volunteers to collect data in your area and ensure that CTIC keeps this valuable database current.

## 2007 Summary for Charles City County, Virginia

— Annual Crop —	Total Acres	Conservation Tillage (greater than 30% residue)			= Total Conservation Tillage	Other Tillage Practices	
		No-Till	Ridge-Till	Mulch-Till		(15-30% residue) Reduced-Till <sup>1</sup>	(0-15% residue) Intensive-Till <sup>2</sup>
Corn <sup>3</sup>	6,448	6,448	0	0	6,448	0	0
Small Grain (Spring-Seeded)	349	349	0	0	349	0	0
Small Grain (Fall Seeded)	5,097	5,097	0	0	5,097	0	0
Soybeans (Full Season)	1,147	1,147	0	0	1,147	0	0
Soybeans (Double-Cropped)	5,097	5,097	0	0	5,097	0	0
Cotton	595	595	0	0	595	0	0
Grain Sorghum <sup>3</sup>	0	0	0	0	0	0	0
Forage Crops <sup>4</sup>	0	0	n/a	0	0	0	0
Other Crops <sup>5</sup>	378	139	0	0	139	100	139
<b>Total Planted Acres</b>	<b>19,111</b>	<b>18,872</b>	<b>0</b>	<b>0</b>	<b>18,872</b>	<b>100</b>	<b>139</b>
Newly Established Permanent Pasture	0	0	n/a	0	0	0	0
Fallow	0	0	n/a	0	0	0	0
Conservation Reserve Program	69						
Highly Erodible Land	0						
Treated Highly Erodible Land	0						

— Annual Crop —	Total Acres	Conservation Tillage (greater than 30% residue)			= Total Conservation Tillage	Other Tillage Practices	
		No-Till	Ridge-Till	Mulch-Till		(15-30% residue) Reduced-Till <sup>1</sup>	(0-15% residue) Intensive-Till <sup>2</sup>
Corn <sup>3</sup>	6,448	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Small Grain (Spring-Seeded)	349	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Small Grain (Fall Seeded)	5,097	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Soybeans (Full Season)	1,147	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Soybeans (Double-Cropped)	5,097	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Cotton	595	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Grain Sorghum <sup>3</sup>	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Forage Crops <sup>4</sup>	0	0.0%	n/a	0.0%	0.0%	0.0%	0.0%
Other Crops <sup>5</sup>	378	36.8%	0.0%	0.0%	36.8%	26.5%	36.8%
<b>Total Planted Acres</b>	<b>19,111</b>	<b>98.7%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>98.7%</b>	<b>0.5%</b>	<b>0.7%</b>
Newly Established Permanent Pasture	0	0.0%	n/a	0.0%	0.0%	0.0%	0.0%
Fallow	0	0.0%	n/a	0.0%	0.0%	0.0%	0.0%

<sup>1</sup> Reduced-Till = 500-1000 lbs. Small Grain Equivalent (SGE)

<sup>2</sup> Intensive-Till < 500 lbs. Small Grain Equivalent (SGE)

<sup>3</sup> Includes Full Season and Double Cropped.

<sup>4</sup> Forage Crops reported in seeding year only.

<sup>5</sup> Other Crops include other vegetable crops, truck crops, peanuts, tobacco, sugar beets, etc.

n/a means Not Applicable

## 2007 Summary for James City County, Virginia

— Annual Crop —	Total Acres	Conservation Tillage (greater than 30% residue)			= Total Conservation Tillage	Other Tillage Practices	
		No-Till	Ridge-Till	Mulch-Till		(15-30% residue) Reduced-Till <sup>1</sup>	(0-15% residue) Intensive-Till <sup>2</sup>
Corn <sup>3</sup>	1,156	1,156	0	0	1,156	0	0
Small Grain (Spring-Seeded)	0	0	0	0	0	0	0
Small Grain (Fall Seeded)	986	986	0	0	986	0	0
Soybeans (Full Season)	595	595	0	0	595	0	0
Soybeans (Double-Cropped)	986	986	0	0	986	0	0
Cotton	0	0	0	0	0	0	0
Grain Sorghum <sup>3</sup>	0	0	0	0	0	0	0
Forage Crops <sup>4</sup>	13	0	n/a	0	0	13	0
Other Crops <sup>5</sup>	20	0	0	0	0	0	20
<b>Total Planted Acres</b>	<b>3,756</b>	<b>3,723</b>	<b>0</b>	<b>0</b>	<b>3,723</b>	<b>13</b>	<b>20</b>
Newly Established Permanent Pasture	0	0	n/a	0	0	0	0
Fallow	34	0	n/a	0	0	34	0
Conservation Reserve Program	69						
Highly Erodible Land	0						
Treated Highly Erodible Land	0						

— Annual Crop —	Total Acres	Conservation Tillage (greater than 30% residue)			= Total Conservation Tillage	Other Tillage Practices	
		No-Till	Ridge-Till	Mulch-Till		(15-30% residue) Reduced-Till <sup>1</sup>	(0-15% residue) Intensive-Till <sup>2</sup>
Corn <sup>3</sup>	1,156	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Small Grain (Spring-Seeded)	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Small Grain (Fall Seeded)	986	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Soybeans (Full Season)	595	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Soybeans (Double-Cropped)	986	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Cotton	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grain Sorghum <sup>3</sup>	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Forage Crops <sup>4</sup>	13	0.0%	n/a	0.0%	0.0%	100.0%	0.0%
Other Crops <sup>5</sup>	20	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
<b>Total Planted Acres</b>	<b>3,756</b>	<b>99.1%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>99.1%</b>	<b>0.3%</b>	<b>0.5%</b>
Newly Established Permanent Pasture	0	0.0%	n/a	0.0%	0.0%	0.0%	0.0%
Fallow	34	0.0%	n/a	0.0%	0.0%	100.0%	0.0%

<sup>1</sup> Reduced-Till = 500-1000 lbs. Small Grain Equivalent (SGE)

<sup>2</sup> Intensive-Till < 500 lbs. Small Grain Equivalent (SGE)

<sup>3</sup> Includes Full Season and Double Cropped.

<sup>4</sup> Forage Crops reported in seeding year only.

<sup>5</sup> Other Crops include other vegetable crops, truck crops, peanuts, tobacco, sugar beets, etc.

n/a means Not Applicable

## 2007 Summary for New Kent County, Virginia

— Annual Crop —	Total Acres	Conservation Tillage (greater than 30% residue)			= Total Conservation Tillage	Other Tillage Practices	
		No-Till	Ridge-Till	Mulch-Till		(15-30% residue) Reduced-Till <sup>1</sup>	(0-15% residue) Intensive-Till <sup>2</sup>
Corn <sup>3</sup>	4,928	4,528	0	0	4,528	0	400
Small Grain (Spring-Seeded)	437	437	0	0	437	0	0
Small Grain (Fall Seeded)	2,363	2,363	0	0	2,363	0	0
Soybeans (Full Season)	2,575	2,575	0	0	2,575	0	0
Soybeans (Double-Cropped)	2,320	2,320	0	0	2,320	0	0
Cotton	0	0	0	0	0	0	0
Grain Sorghum <sup>3</sup>	0	0	0	0	0	0	0
Forage Crops <sup>4</sup>	26	0	n/a	0	0	26	0
Other Crops <sup>5</sup>	57	17	0	0	17	0	40
<b>Total Planted Acres</b>	<b>12,706</b>	<b>12,240</b>	<b>0</b>	<b>0</b>	<b>12,240</b>	<b>26</b>	<b>440</b>
Newly Established Permanent Pasture	0	0	n/a	0	0	0	0
Fallow	323	0	n/a	323	323	0	0
Conservation Reserve Program	30						
Highly Erodible Land	0						
Treated Highly Erodible Land	0						

— Annual Crop —	Total Acres	Conservation Tillage (greater than 30% residue)			= Total Conservation Tillage	Other Tillage Practices	
		No-Till	Ridge-Till	Mulch-Till		(15-30% residue) Reduced-Till <sup>1</sup>	(0-15% residue) Intensive-Till <sup>2</sup>
Corn <sup>3</sup>	4,928	91.9%	0.0%	0.0%	91.9%	0.0%	8.1%
Small Grain (Spring-Seeded)	437	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Small Grain (Fall Seeded)	2,363	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Soybeans (Full Season)	2,575	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Soybeans (Double-Cropped)	2,320	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Cotton	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grain Sorghum <sup>3</sup>	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Forage Crops <sup>4</sup>	26	0.0%	n/a	0.0%	0.0%	100.0%	0.0%
Other Crops <sup>5</sup>	57	29.8%	0.0%	0.0%	29.8%	0.0%	70.2%
<b>Total Planted Acres</b>	<b>12,706</b>	<b>96.3%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>96.3%</b>	<b>0.2%</b>	<b>3.5%</b>
Newly Established Permanent Pasture	0	0.0%	n/a	0.0%	0.0%	0.0%	0.0%
Fallow	323	0.0%	n/a	100.0%	100.0%	0.0%	0.0%

<sup>1</sup> Reduced-Till = 500-1000 lbs. Small Grain Equivalent (SGE)

<sup>2</sup> Intensive-Till < 500 lbs. Small Grain Equivalent (SGE)

<sup>3</sup> Includes Full Season and Double Cropped.

<sup>4</sup> Forage Crops reported in seeding year only.

<sup>5</sup> Other Crops include other vegetable crops, truck crops, peanuts, tobacco, sugar beets, etc.

n/a means Not Applicable

*join*

*Be a member.  
Make a difference.*

Conservation  
Technology  
Information  
Center

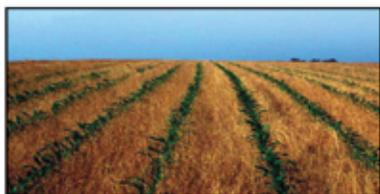


## *options*

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CTIC Members have options. Join our national public/private partnership at the basic membership level that fits you best – **Individual, Institutional or Corporate**. For additional benefits and recognition, increase your contribution to support the important work of CTIC. Each membership category includes additional giving levels of Gold, Silver and Bronze.



## *benefits*

All CTIC members benefit from

- **access** to research and information on conservation agriculture,
- national **recognition** for support of agricultural conservation,
- **networking** opportunities with agricultural and conservation advocates,
- **customized** projects and materials promoting conservation agriculture,
- **interaction** with technical experts and policy makers at state and national levels.

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## *individual membership*

**Gold**      \$500 +

You get the basic benefits below, plus:

- Recognition in two issues of *Partners* magazine
- Free conservation agriculture book or other product from CTIC's online store

**Silver**      \$250 - \$499

You get the basic benefits below, plus:

- Recognition in two issues of *Partners* magazine

**Bronze**      \$100 - \$249

You get the basic benefits below, plus:

- Recognition in one special issue of *Partners* magazine

**Basic**      \$50

- Recognition on CTIC's Web site
- One-year subscription to *Partners* magazine and Member Mail e-newsletter



## *our mission*

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CTIC champions, promotes and provides information about comprehensive conservation agricultural systems that are beneficial for soil, water, air and wildlife resources and are productive and profitable for agriculture.



## *what we do*

- Collect, compile, interpret and disseminate information about agricultural conservation
- Distribute national messages
- Facilitate workshops, conferences and trainings
- Lead local, regional and national projects to advance conservation in agriculture

## *institutional membership*

**Gold**      \$1,000 +

You get the basic benefits below, plus:

- Recognition in two issues of *Partners* magazine
- 10% discount on CTIC products during your annual membership term
- Special recognition at a CTIC Board of Directors meeting
- Ad space in one issue of *Partners* magazine valued at \$300

**Silver**      \$750 - \$999

You get the basic benefits below, plus:

- Recognition in two issues of *Partners* magazine
- 10% discount on CTIC products during your annual membership term

**Bronze**      \$500 - \$749

You get the basic benefits below, plus:

- Recognition in two issues of *Partners* magazine
- Free conservation agriculture book or other CTIC product

**Basic**      \$250

- Recognition on CTIC's Web site
- One-year subscription to *Partners* magazine and Member Mail e-newsletter
- Access to Crop Residue Management Survey data from 1989 to 2004 through CTIC Web site

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# corporate membership



## **Gold** Basic Corporate Membership plus \$8,500+

You get the basic benefits below, plus:

- Recognition in three issues of *Partners* magazine
- 10% discount on CTIC products during your annual membership term
- Special recognition at a CTIC Board of Directors meeting
- Two gift memberships at the Individual Silver level
- Ad space in two issues of *Partners* magazine ( \$600 value)
- Recognition at two CTIC events during your annual membership term
- Two complimentary registrations to CTIC's Conservation In Action Tour

## **Silver** Basic Corporate Membership plus \$3,500 - \$8,499

You get the basic benefits below, plus:

- Recognition in two issues of *Partners* magazine
- 10% discount on CTIC products during your annual membership term
- Special recognition at a CTIC Board of Directors meeting
- Two gift memberships at the Individual Silver level
- Ad space in one issue of *Partners* magazine (\$300 value)
- Recognition at one CTIC event during your annual membership term

## **Bronze** Basic Corporate Membership plus \$1,000 - \$3,499

You get the basic benefits below, plus:

- Recognition in two issues of *Partners* magazine
- 10% discount on CTIC products during your annual membership term
- Special recognition at a CTIC Board of Directors meeting
- Two gift memberships at the Individual Silver level
- Ad space in one issue of *Partners* magazine (\$300 value)

## **Basic**

*gross income greater than \$500 million* \$6,500

*gross income greater than \$100 million and less than \$500 million* \$2,000

*gross income less than \$100 million* \$500

- Recognition on CTIC's Web site
- One-year subscription to *Partners* magazine and Member Mail e-newsletter
- Access to Crop Residue Management Survey data from 1989 to 2004 through CTIC Web site



## Conservation Technology Information Center

### Membership Application Form

NAME: \_\_\_\_\_  
CORPORATION: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
CITY: \_\_\_\_\_  
STATE: \_\_\_\_\_  
ZIP: \_\_\_\_\_

<input type="checkbox"/> Gold Corporate Member	Basic plus \$8,500+
<input type="checkbox"/> Silver Corporate Member	Basic plus \$3,500 - \$8,499
<input type="checkbox"/> Bronze Corporate Member	Basic plus \$1,000 - \$3,499
<input type="checkbox"/> Basic Corporate Member	\$6,500 (gross income greater than \$500 mil)
<input type="checkbox"/> Basic Corporate Member	\$2,000 (gross income greater than \$100 mil and less than \$500 mil)
<input type="checkbox"/> Basic Corporate Member	\$ 500 (gross income less than \$100 mil)

#### Method of Payment

Please check one of the following:

A check is enclosed, payable to CTIC  
 Please bill  
 Credit Card  Visa  MC  American Express

Card # \_\_\_\_\_ Exp. date \_\_\_\_\_

Signature \_\_\_\_\_

Please mail to:  
Conservation Technology Information Center  
3495 Kent Avenue, Suite J100  
West Lafayette, Indiana 47906  
T: (765)494-9555 F: (765)463-4106 E-mail: [ctic@ctic.org](mailto:ctic@ctic.org)  
[www.ctic.org](http://www.ctic.org)



# Conservation Technology Information Center

## Membership Application Form

NAME: \_\_\_\_\_  
ORGANIZATION: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
CITY: \_\_\_\_\_  
STATE: \_\_\_\_\_  
ZIP: \_\_\_\_\_

- |                                                      |               |
|------------------------------------------------------|---------------|
| <input type="checkbox"/> Gold Institutional Member   | \$1,000+      |
| <input type="checkbox"/> Silver Institutional Member | \$750 - \$999 |
| <input type="checkbox"/> Bronze Institutional Member | \$500 - \$749 |
| <input type="checkbox"/> Basic Institutional Member  | \$250         |

### Method of Payment

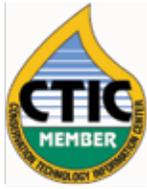
Please check one of the following:

- A check is enclosed, payable to CTIC  
 Please bill  
 Credit Card    Visa    MC    American Express

Card # \_\_\_\_\_ Exp. date \_\_\_\_\_

Signature \_\_\_\_\_

Please mail to:  
Conservation Technology Information Center  
3495 Kent Avenue, Suite J100  
West Lafayette, Indiana 47906  
T: (765)494-9555 F: (765)463-4106 E-mail: [ctic@ctic.org](mailto:ctic@ctic.org)  
[www.ctic.org](http://www.ctic.org)



# Conservation Technology Information Center

## Membership Application Form

NAME: \_\_\_\_\_

AFFILIATION/OCCUPATION: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_

STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

- |                                                   |               |
|---------------------------------------------------|---------------|
| <input type="checkbox"/> Gold Individual Member   | \$500+        |
| <input type="checkbox"/> Silver Individual Member | \$250 - \$499 |
| <input type="checkbox"/> Bronze Individual Member | \$100 - \$249 |
| <input type="checkbox"/> Basic Individual Member  | \$50          |

### Method of Payment

Please check one of the following:

- Check enclosed, payable to CTIC  
 Please bill  
 Credit Card     Visa     MC     AmEx

Card # \_\_\_\_\_ Exp. Date \_\_\_\_\_

Signature \_\_\_\_\_

Please mail to:  
Conservation Technology Information Center  
3495 Kent Avenue, Suite J100  
West Lafayette, Indiana 47906  
T: (765)494-9555 F: (765)463-4106 E-mail: [ctic@ctic.org](mailto:ctic@ctic.org)  
[www.ctic.org](http://www.ctic.org)



# 40-Tour Sponsorship

## **THANK YOU**

*CTIC thanks all sponsors of the Conservation In Action Tour. We appreciate your support and value your contributions to make this event a valuable and enjoyable experience.*

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