



THE STEWARD

Bartholomew County Soil & Water Conservation District

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Special points of interest:

- Historical Trends in Conservation Tillage
- Conservation Farmer of the Year Award
- Cover Crops
- Clifty Creek Watershed Project
- 2007 Census of Agriculture
- SWCD annual meeting

Historical Trends in Conservation Tillage

By Barry Fisher, State Agronomist, NRCS

In all of agriculture, few processes carry the emotional bond between the farmer and the earth, or possess the faith of a bountiful crop from the placement of a small seed into the soil. It's no wonder that breaking from a tradition of working the land or tilling the soil has required great resolve by the most committed conservation farmers to master the no-till system. Yet this seeding process holds the potential to not only produce this bountiful crop, but build health and restore life to our precious soil resource, while offering cleaner air and water to the neighbors and communities throughout the 'farmscape.'

Travel back to 1943 and trace some historical moments in the development of no-till cropping systems.

In 1943, Edward Faulkner released findings in his book *Plowman's Folly*, which states: by not plowing under the crop residue and leaving more crop residues at the soil surface, farmers could improve soil quality and reduce soil erosion. At that time few researchers or agencies took the book seriously.

- In 1962, the agriculture experiment station in Wooster, OH planted their first no-till plots on erosive soils. These have been in continuous no-till since 1962. Throughout this study, soil organic carbon has continually risen, and water runoff and erosion have become practically nonexistent. Some pioneering farmers in Indiana quietly

began some of their own trials about this time.

In the 1970's, the Universal Soil Loss Equation (USLE) gave us a quantitative estimate of the soil erosion reduction potential for various conservation tillage practices. This, along with the Clean Water Act, helped to make conservation tillage a priority for the Soil Conservation Service (SCS); later renamed the Natural Resources Conservation Service (NRC). Purdue University began their tillage system studies in the mid 70's.

- The 1985 Farm Bill, for the first time, tied farm program payments to Highly Erodible Land Conservation, and reauthorization occurred with each subsequent farm bill. As a result of the thousands of conservation plans developed by SCS/NRCS under these farm bills, the most widespread implementation of conservation tillage on Indiana's cropland was launched.

- In 1989, Indiana's "T by 2000" program launched the Indiana Tillage Transect to track changes in conservation tillage adoption across the state. This model was soon adopted by most states across the Corn Belt.

Nothing has had a greater effect on no-till soybean production than "Round-Up Ready" Soybeans, which first became commercially available in 1996. The benefits to the soil and water resources from this biotechnology development were of historic proportion. Over the span of just one decade, Indiana's

no-till soybean acres increased from under 20% to over 60%.

“BT Corn” was registered by the Environmental Protection Agency in 1997 and made the production of corn possible in many cropping systems without the use of expensive and sometimes dangerous broad spectrum insecticides. “BT Corn” has an introduced gene that produces a compound that is toxic to target pests, such as corn borer and rootworm.

By 2000, even with advanced technology, no-till corn in Indiana was still only 21% of total production. **An increase of no-till corn to just 30% of production would reduce soil loss by 2,688,000 tons in Indiana.**

In 2002, Indiana NRCS founded the Indiana Conservation Tillage Initiative to expand the adoption of no-till and other high residue farming systems.

In 2004, the Tillage Transect showed that 19% of the corn acres and 61% of the soybean acres were planted using no-till technology.

In 2006, 26 of Indiana’s 92 counties participated in the annual Tillage Transect, supported by Indiana State Department of Agriculture, Division of Soil Conservation. Of the 26 counties, 22 had increases in no-till corn and 24 had increases in no-till soybeans from their 2004 results. No-till corn increased by more than 25% in 14 of the 26

counties, and four counties had over a 100% increase.

In 2007, the Indiana Conservation Partnership once again committed resources to complete the Tillage Transect. Results are still being analyzed, but early indications suggest large-scale adoption of no-till systems.

In 2007, the National Agricultural Air Quality Task Force met in Indiana. Some top conservation farmers from Indiana presented concepts and discussion on how the use of conservation systems, along with no-till crop production, is yielding major advances in air quality and greenhouse gas reductions for them and others across the American Heartland. These farmers publicly introduced terms like the following.

“2 X 4 No-Till,” from Ray McCormick of Vincennes: Ray suggests we use conservation innovation to answer the nation’s call to reduce the harmful emissions of greenhouse gasses and address the on-going concerns of global warming. McCormick stated, “Unlike previous generations, we have the technology, chemistry, and machinery of the 21st century to make no-till possible.”

“Bio-Till System,” from Dan DeSutter of Attica: Dan blends no-till, cover crops, manure application, and nutrient balancing to maximize the soil organisms that incorporate crop resi-

dues, nutrients, air, and water far more efficiently than any piece of iron could. With this biological approach, he has been able to improve soil, water, and air quality while achieving high yields and reduced soil erosion.

Is it possible that this is what Edward Faulkner had in mind in 1943?

The time is now to “capture the potential.”

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Conservation Farmer of the Year

Is your neighbor doing a good job of conserving the natural resources on his or her farm? The Bartholomew County SWCD is accepting nominations for the Conservation Farmer of the year award. The SWCD uses these nominations to recognize farmers who utilize conservation practices to protect their soil and water. If you know someone who has been a good steward in the last year please stop by the office to fill out a short nomination form so that they can be recognized for their good stewardship.



Reminder that the Soil And Water Conservation District monthly meeting is held on the fourth Thursday of every month at the district office located at 1040 Second street in Columbus Indiana

New District Coordinator

Melissa Sporleder has been hired as the new district educator/coordinator Melissa is from Jennings County ,and brings with her a knowledge of the districts services and the ag community.

Cover Crops

Cover crops have recently become a surge as an important conservation practice in Bartholomew County in the last two years. The list below is a few of the benefits you can achieve from cover crops:



- Protect soil from eroding in any tillage system
- Add organic matter to the soil
- Suppress weeds during the growing season if properly managed
- Keep soil nutrients in the upper profile of the soil
- Certain varieties, like ryegrass, can break up compaction layers
- Can serve as a source of forage for livestock in the winter months

That's quite an impressive list. But maybe best of all there are

financial incentives to incorporate cover crops into your cropping system. Just stop in to the local SWCD office to find out how we can help you plant a cover crop in 2008.

Keep in mind that planting a cover crop takes some planning to ensure an adequate stand will be established as well as that you will be prepared to kill the crop before planting. The Natural Resources Conservation Service can provide assistance in planning cover crops for your farming operation.

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Annual Report

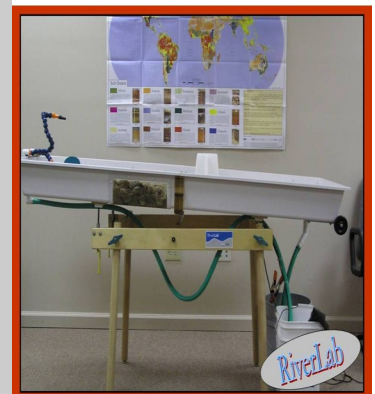
The SWCD annual report will be published and circulated in February through the cooperative efforts of The Republic newspaper

2007 Census of Agriculture

As farm families gather throughout the United States this holiday season to count their many blessings and give thanks for another successful harvest, the U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) urges them to ensure their farm or ranch is counted in the 2007 Census of Agriculture. The Census is a crucial tool that provides farmers with a voice in the future of their community and all of agriculture. Conducted every five years by the USDA, the Census is a complete count of the nation's farms and ranches and the people who operate them. The Census looks at the land use and ownership, operator characteristics, production practices, income and expenditures and other topics. It provides the only source of uniform, comprehensive agriculture data for every country in. NASS will mail out Census forms on December 28, 2007 to collect data for the 2007 calendar year. Completed forms are due by February 4, 2008. Producers can return their forms by mail or, for the first time, they have the convenient option of filling out the Census online. For more information about the Census, visit www.agcensus.usda.gov or call toll free (888) 4AG-STAT.

Clifty Creek Watershed Project Highlight

Highlighting the RiverLab Exhibit...the RiverLab interactive watershed table is a lightweight and portable stream demonstrator that combines a specially formulated mixture of natural sand with re-circulating water for the purpose of showing real life river and watershed dynamics. The RiverLab is designed to represent a variety of geologic, topographic, and hydrologic features of Earth. Flowing water and sand realistically demonstrate the formation of rivers, deposition of sediments (delta/alluvial fan formation), movement of surface and underground water, the impact of man in a watershed area, movement of non-point and point source pollution through a watershed area, and many more features found in and around a moving body of water. Our custom RiverLab was constructed by Mr. Mike Strohm of Strohm Designs, Inc. of Independence, KY for use by the CCWP and SWCD staff as well as kidscommons educational program staff during elementary school programs.





**Bartholomew County
Soil & Water
Conservation District**

We are committed to providing our customers with quality service through effective communication, professional integrity, and mutual respect.

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www.nrcs.usda.gov
www.fsa.usda.gov

**Bartholomew County
Soil and Water
Conservation District And Extension
Services**

ANNUAL MEETING

**FEBRUARY 7, 2008 AT 6:30
PM**

**4-H FAIRGROUNDS
- COMMUNITY BLDG**

**MEAL TICKETS ARE AVAILABLE
THROUGH THE
COUNTY EXTENSION
OFFICE AND THE SWCD
OFFICE**

E-mail: Cynthia.farnsley@in.nacdnet.net

Fax: (812) 378-1213

Phone: (812) 378-1280 ext. 3

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Bartholomew County SWCD

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