



THE STEWARD

Bartholomew County Soil and Water Conservation District

Volume 9, Issue 2

October 2015

SWCD Supervisors:

Dennis Brooks—Chairman
Daniel Lienhoop—Vice
Chair
Chris McKinney
Evan Clouse
Nate West

District Coordinator:

Heather Shireman

Watershed Coordinator:

Jenny Whiteside

District Conservationist:

Clint Harrison

ISDA Resource Specialist:

Kevin Kreuzman

Points of Interest:

- ♦ Ray Weil
- ♦ Driftwood LARE Project
- ♦ Newsletter Sponsors
- ♦ Garden Cover Crops/welcome Kevin Kreuzman
- ♦ Kids Word Search



Scan this code to be
taken to our Facebook

Ray Weil Field Day

On August 20th over 90 producers, NRCS, ISDA, and SWCD staff came together in Southeastern Bartholomew County. Dan, Susan, and Clint Arnholt of Sudan Farms were the hosts for this successful event. Ray Weil, a professor of Soil Science at the University of Maryland, was touring through Indiana speaking about cover crops and their importance in today's farm management practices. Ray Weil is best known for his ecological approach to soil science. He is a leader in researching and promoting the adoption of more sustainable agricultural systems in both industrial and developing countries. His research focuses on soil organic matter management for enhanced soil ecosystem functions and nutrient cycling for water quality and agricultural sustainability. Mr. Weil spoke at three different Field Days spreading his message of soil health and sustainability. He was well received by all 90 plus attendees.

The day also including a soil pit used for showing the depths of cover crops spread just weeks before. Clint Arnholt displayed his Hi-Boy cover crop seeder that is used to seed over 1,000 acres on his own farm. The seeder is also available and used on custom work for many other producers in the area.

Local SWCDs and NRCS employees work daily to spread the word on the benefits of planting cover crops and soil health. We help you find the answers to: How valuable is your soil? What are you doing to improve it?



Bartholomew County
Soil & Water
Conservation District
1040 2nd Street
Columbus, IN



Thank you to our newsletter sponsors!

Hackman's Farm Market

6040 E State Street, Columbus, IN (812)-376-6345

Homegrown Vegetables & Fruits

- | | |
|----------------|------------------------|
| * Sweet Corn | * Pumpkins |
| * Tomatoes | * And much, much more! |
| * Watermelon | |
| * Cantaloupe | Including: Flowers, |
| * Blackberries | Herbs, Vegetable |
| * Peaches | Plants, and Mulch |
| * Apples | www.hackmansmarket.com |



Sudan Farms, Inc.

Ag Lime, Gypsum, GPS, and Cover Cropping Services

5541 S 900 E • Columbus, IN 47203

Office: 812-579-5091 Cell: 812-343-0551

sudanfarms@bcremc.net



Susan Arnholt General Manager

Clint Arnholt Operations Manager



E.R. GRAY & ASSOCIATES
Land Surveying

E.R. Gray, PLS
President

er.gray@ergray.com

1428 Lafayette Ave. • PO Box 1357 • Columbus, IN 47202
812.372.7398 • F: 812.372.2175 • ergray.com



"Customer Focused Success"

Glen Shireman
Hope, IN
(812) 546-4994

- *Soil Testing*
- *Fertilizer & Herbicide Sales & Application*
- *Seed Sales*



TRAX™ is the perfect fit for producers who are interested in a powerful-yet affordable-crop management system that increases efficiencies, conserves resources, cuts costs, and increases yield.

www.premierag.com



RTS

Romine Tile Service

Farm Drainage Installation
Waterway Construction
Surface Drainage
Water Management Practices
RTK Equipped

Daryn Romine
Owner

Office: 812.546.5952
Cell: 812.350.4527

NO TILL SUPPLY

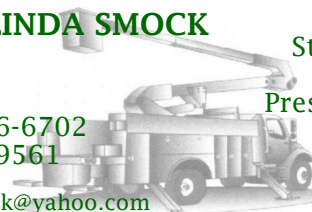
12705 N 200 W. Edinburgh, IN 46124-9595

STANLEY & LINDA SMOCK

Owners

Home (812) 526-6702
Cell (812) 390-9561

Email: stanleysmock@yahoo.com



Tree Trimming
Tree Removal
Stump Removal
Painting
Pressure Washing
Barn Repair
Roof Repair
Landscaping



Dan McGuckin, CF, CWB
12875 W Sawmill Rd
Columbus, IN 47201

Phone: 812-320-3678
danmcguckin@yahoo.com

Timber Sales/Appraisals
Timber Stand Improvement
Tree Planting
Native Grass/Wildflower Planting
Forest & Wildlife Management Plans
Invasive Plant Management
Prescribed Burning



By Wick Building Systems, Inc.

Post Frame Buildings
Excavation Work

Larry Mohr Construction Inc.

1092 W Flat Rock Rd., Flat Rock, IN 47234

Cell: 812-350-5216

Fax: 812-587-5551

E-mail: larry@larrymohrconstruction.com

Larry Mohr

812-587-5216

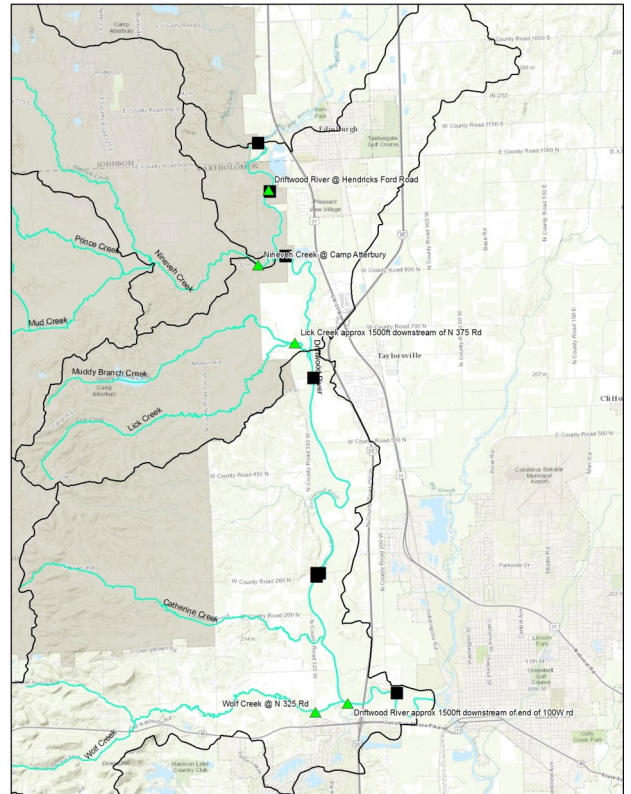
1-800-340-5216

LARE Grant Water Quality Sampling

Work for the Driftwood River Lake and River Enhancement (LARE) continues to make progress in Bartholomew County. The Bartholomew County SWCD finished its final water sampling for the LARE Grant on September 1. Data was collected on September 1 on five different sites within the watershed. The same parameters as those monitored on June 1st were measured. Those included pH, temperature, dissolved oxygen, conductivity, turbidity, total nitrogen, organic nitrogen, ammonia nitrogen, total phosphorus, dissolved phosphorus, total suspended solids, and E.coli. Macroinvertebrates were also collected and analyzed.

On September 2 a canoe trip took place on the Driftwood. SWCD staff and members of the Northwater Consulting Firm embarked on a six hour adventure. Visual data was collected on the Driftwood River regarding erosion, drainage pipes, vegetation, and streambank conditions. This data along with the water sample data will provide enough information to make recommendations as to where efforts for improving the watershed should be focused.

Jeff Boeckler, of Northwater Consulting, will be finishing up his diagnostic analysis after reviewing the water sampling data, macro data, and streambank data. He will then present the Bartholomew County SWCD a Watershed Management Plan. The Watershed Management Plan will enable the Bartholomew County SWCD to apply for grant monies from IDEM and IDNR for cost-share programs. If the Bartholomew Co. SWCD is awarded a cost-share grant, producers and landowners will be able to apply for financial assistance in establishing and implementing best management practices. Some examples of best management practices are: cover crops, no-till, livestock watering facilities, livestock fencing, etc.



Fall Garden Cover Crops

Growing a fall cover crop is one of those good garden tasks that we all know we should do, but often don't find the time for. Cover crops control erosion, attract pollinating insects, break up heavy soils, improve soil fertility and structure, and reduce weeds. Plus, some, such as red clover, have edible flowers. (Even though this story is about cover crops for your soil, you know there has to be something good to eat in it!)

In September, most gardeners can plant overwintering cover crops. If you live where winters are mild, such as USDA Hardiness Zones 8 and warmer, you have time to plant and till under a green manure crop before planting a winter cover crop. Green manure crops are plants that are tilled under in summer, while cover crops are meant to cover the soil all winter and are tilled under in late winter or spring.

BENEFITS OF COVER CROPS

Most gardeners know about the benefits of adding organic matter to the soil. Many of us build the soil with annual applications of compost, manure, leaves, and grass clippings. However, in some areas, these forms of organic matter may be difficult to find or transport, making cover crops an especially good way to add organic matter. Plus, cover crops allow you to avoid importing soil amendments. By growing your own organic matter, you eliminate the fossil fuels needed to transport imported amendments, helping to make your yard a closed loop of energy inputs.

Cover crops provide many benefits:

They add organic matter. A primary reason to grow a cover crop is to increase the amount of organic matter in the soil. Adding organic matter improves the soil's structure, increases its water retention and drainage, and improves aeration. It also provides necessary food for earthworms and microorganisms that increase biological activity in the soil. Increased biological activity in turn helps keep the soil healthy by enhancing decomposition; well-nourished beneficial microorganisms also compete better against disease-causing organisms.

They control erosion. Traditionally, cover crops were used to "cover" the soil during the winter. Hardy crops, such as winter rye, are particularly good at preventing erosion and topsoil loss, especially in areas with high winds and inconsistent snow cover.

They loosen compacted soil. Certain cover crops, such as bell beans and oilseed radishes, have aggressive taproots, sometimes reaching 3 feet deep, that help break up compacted soils. The taproots also "mine" nutrients such as calcium from deeper soil, and when the plant dies, the nutrients are released in the root zone for the next crop.

They balance nutrients. Legume cover crops, such as hairy vetch and crimson clover, through a symbiotic relationship with the rhizobia bacteria on their roots, convert atmospheric nitrogen into a form plants can use to grow. When the cover crop is tilled under, the nitrogen is released for the next crop. In contrast, cover crops such as phacelia absorb and accumulate excess nitrogen already in the soil that may otherwise leach out and pollute ground water or nearby streams.

They help control weeds. Some cover crops are good weed blockers. Broad-leaved cover crops, such as buckwheat and sunn hemp, shade and smother weeds with their vigorous growth, and others, like winter rye, release chemicals that prevent weed seeds from germinating.

They attract beneficial insects. When cover crops, such as crimson clover and mustard, are allowed to flower, they attract bees and beneficial insects that help with pollination and insect control in the garden.

GETTING STARTED

For most home gardeners, annual cover crops are the best choices. Sow annuals in fall, and they either die from the winter cold or naturally complete their life cycle by the next spring. Perennial cover crops, such as alfalfa (*Medicago sativa*) and red clover (*Trifolium pretense*), require more maintenance and are best used as ground covers in orchards and vineyards.

You can plant cover crops two ways, depending on your other plantings: Sow seeds after you harvest crops (lettuce, beans, or tomatoes, for example), or plant low-growing cover crops between rows of any fall-planted crop, such as broccoli or spinach.

Prepare the soil. Don't skimp on soil preparation; prepare the soil as you would for any other annual crop. Till the area and make sure the pH is between 6 and 7. Broadcast seed at the recommended rates. On drier, sandy soil, plant seeds three times as deep as the seed's width; on heavier soil, plant twice as deep as the width.

Plant. Sow seeds at least 30 days before your first expected fall frost date. For cover crops that are only marginally hardy in your area, push back the sowing date to 60 days before the first frost. The more established a cover crop is before winter, the more likely it will overwinter. Water garden beds, if necessary, to help get the crop established. Prior to planting, inoculate the seeds of legume cover crops with nitrogen-fixing bacteria (available from cover crop seed suppliers).

CHOOSING A COVER CROP

To decide which cover crop to grow, consider your region, the soil's needs, and your tools. To help novice gardeners, some seed companies sell mixes of grasses and legumes.

Publication from garden.org

Welcome Kevin Kreuzman!

We welcomed Kevin Kreuzman to our office in June. Kevin is an Indiana State Department of Agriculture (ISDA) Resource Specialist. He works to promote all the programs that are sponsored by the ISDA. Kevin will also help support the programs through the Natural Resources Conservation Service (NRCS) and SWCD. He serves the counties of Bartholomew, Decatur, Rush, and Shelby.

Kevin lives on a cattle and grain farm in Batesville, IN. He graduated from Batesville High School where he played football, wrestled, and ran track. In 2015 he graduated from Franklin College where he majored in Biology/Ecology and Conservation. He is member of the Lambda Chi Alpha Fraternity and Habitat for Humanity.

Kevin most recently worked for Premier Ag as a crop scout. He also worked for Gordon Ag Group as an intern soil technician.

We are happy to welcome Kevin to our Columbus office!





Bartholomew County Soil and Water Conservation District

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

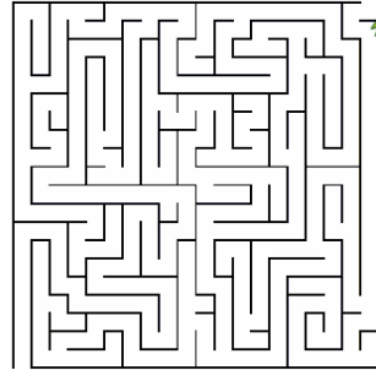
Contact Us!

Bartholomew County Soil and Water
Conservation District
Heather Shireman & Jennifer Whiteside
812-378-1280 ext. 3
heather.shireman@in.nacdnet.net
jennifer.whiteside@in.nacdnet.net

The district holds its monthly meeting on the second Wednesday of each month at 5pm at the district office located at 1040 2nd Street in Columbus, Indiana. The meeting is open to the public.

Hungry Scarecrow!

Can you help the scarecrow find his way to the pumpkin patch?



Marking Flags: 20¢ per flag 30" staff
(Pink, Green, Orange)
Bundle of 100 flags = \$20
Rain Barrels: \$65



Don't Trash Me, Pass Me!



PRSRT STD
U.S. POSTAGE
PAID
COLUMBUS, IN
PERMIT NO. 139

Bartholomew County SWCD
1040 Second Street
Columbus IN 47201
Phone: (812) 378-1280 ext. 3
Fax: (812) 378-1213
Website: www.bartholomewswcd.org

