



Conservation Quarterly

Spring 2016

CLARK COUNTY SOIL AND WATER CONSERVATION DISTRICT

Dates to Note

- 3/23/16—Spring tree sale order deadline
- 3/25/16—Good Friday, SWCD office closed
- 4/1/16—Qualified Professional Inspector Training, Clarksville
- 4/7/16—Monthly Board meeting, 7:30 p.m.
- 4/6-8/16—Tree order delivery, 8-4 p.m.
- 4/22/16—Earth Day
- 4/29/16—Arbor Day
- 4/24-5/1/16—Stewardship Week

What Does It Take To Be A District Supporter?

District Supporters are Very Important People to the SWCD. They are conservation-minded folks that support our mission and the activities we do. Their support sometimes comes in a monetary format, but more often it is in the form of a good word about a project we're working on, or the sweat that makes it happen.



Anyone—individual or business—can become a Supporter by making an annual donation of \$60.00 to be used towards our conservation efforts. Thereafter, Supporters are recognized in our quarterly newsletter (that is mailed to approximately 1000 Clark County landusers), in our Annual Report (published in January with ad opportunities available), and on our District web site, www.clarkswcd.org (with a link to their site if desired).

We hope that you will consider becoming a Supporter of our District! If you'd like to do so, please contact our office staff at (812) 256-2330, ext. 3, and they would be happy to assist you, or they can answer any questions you have if you are unsure.

Rent our Equipment

No-Till Drill - \$8 per acre

Outback S2 Guidance Systems

- \$10 per day

Call 812-256-2330, ext. 3 for scheduling

Stop by our office and sign an Equipment Rental Agreement

“If You Don't Soil Test, You'll Be Forced to Guess”

- Jennifer Johnson

Many experiments have been conducted to determine the levels of plant nutrients needed to maintain a competitive, productive, and economically advantageous forage stand. Of the seventeen elements essential for plant growth, the macronutrients nitrogen, phosphorus and potassium are most likely to be needed in substantial quantities. However, other nutrients, especially the secondary nutrients calcium, sulfur and magnesium, and occasionally trace minerals (need assessed by plant tissue testing) may need to be added as well. The only way to know what amounts of various nutrients should be added is to take soil samples, and have them analyzed by a reputable soil testing laboratory. Applying less fertilizer than is needed will hurt plant performance. Applying more fertilizer than needed is costly, wasteful, and may negatively affect plant growth and the environment. The above quote reinforces the idea that application of fertilizer without a soil test is guesswork.



The Clark County SWCD offers soil testing for **homeowners** seeking fertilizer recommendations for their lawn and gardens. Bring your samples to the SWCD office at 9608 Highway 62, Charlestown. Free soil sample bags are available. Cost of a basic test is \$22; a more extensive test is \$32. Both tests provide suggested fertilizer recommendations for up to three crops (i.e. lawn, flowers, trees). Recommendations are normally returned within 5 working days. We currently do not offer testing services for **agricultural fields**, however, if this would be of interest to you, please let us know, and we may be able to add this service in the future.

TREES!

It's not too late to order them from our Spring Tree Sale! Find the order form and brochure at www.clarkswcd.org, or contact our office at (812) 256-2330, ext. 3, to have one mailed to you. Deadline is 3/23/16.

The Cost of Soil Loss

Soil erosion is the loss of soil from the land, either by wind or water. The energy of a falling raindrop or blowing wind dislodges soil particles and then carries them away downslope, downstream or downwind. Erosion results in damage to the soil resource, but often also to water, air, land and other resources.

Erosion is a major worldwide problem to agriculture and the environment. It is estimated that over 80 billion tons of soil are eroded globally each year. This is comparable to 6-inches of topsoil lost from 40 million acres – roughly the area of the entire state of Wisconsin! In the U.S., erosion has contributed to the loss of productivity and subsequent abandonment of 30% of our farmland during the past 200 years. Today 90% of our farm fields continue to lose soil at a rate greater than the rate of soil formation. How much greater? Soil scientists estimate that the rate of soil erosion in the U.S. averages about seven tons per acre per year, whereas soil formation ranges from 0.15 to 0.8 tons per year. In other words, soil loss occurs 9 to 50 times faster than soil is being formed. In other words, during a farmer's career, erosion may have removed ONE THOUSAND years' worth of soil from the farm!



Besides physical depth, what is lost when soil erodes? First, erosion reduces the soil's ability to infiltrate and hold water. When soil particles are dislodged, they first move into and clog pores. This first stage of erosion prevents water from infiltrating, and causes runoff from the surface. Runoff of rainwater results in an estimated loss of 12 inches of potentially crop-available water which should have been absorbed by the soil and stored for future use by plants. Runoff carries soil particles with it, beginning with organic matter and fine soil particles. The loss of organic matter reduces the soil's ability to store water. For every percentage point loss in soil organic matter content, one inch of water storage capacity is lost.



Secondly, erosion—whether by wind or water—selectively removes the most productive portion of the soil. Organic matter and fine mineral particles are the first soil components to be removed by erosion. They are also the most nutrient-rich particles. In fact, eroded soil material typically contains three times more nutrient than contained in the soil which is left behind. The value of nitrogen (N), phosphorus (P) and potassium (K) removed by erosion is estimated to average \$130 per acre per year.



Thirdly, soil loss carries an energy price tag. When we lose soil, water, and nutrients from our land, it requires an estimated 10% more energy expended to compensate for the loss. In today's world this energy comes at an ever-increasing price.

Considering the various short- and long-term costs of soil erosion, our goal should be to eliminate erosion, not tolerate or manage it.. Soil conservation technologies including no-till cultivation, cover cropping, contour planting, grass waterways, and windbreaks, are a few of the tools that can be employed to save soil. It is not too late to save this most precious resource—but it is not too early either. Now is the time to heed President F.D. Roosevelt's warning that "A nation that destroys its soils, destroys itself."

LOST

What is lost when soil erodes?

600 yrs

One inch of soil takes about 600 years to form – this amount is lost every 22 years.

LOST SOIL

12 inches

Twelve inches of rainfall runs off eroded soil due to poor infiltration.

LOST WATER

\$130

An average of \$130 in nutrients are removed by erosion per acre per year.

LOST NUTRIENTS

10%

Ten percent of energy invested in agriculture is spent to offset erosion loss.

LOST ENERGY



Invasive Species Spotlight

Asian Bush Honeysuckle

Lonicera maackii, *L. tatarica*, *L. morrowii*, *L. X bella*
aka Amur, Tartarian, Morrow's, Belle's honeysuckle



Indiana's Invasive Species Task Force discussing Asian bush honeysuckle control

Currently more prevalent in northern and central Indiana, but is found in every Indiana county. When this shrub invades forests, it can decrease tree growth by more than 50% by growing so densely that it shades out everything else on the forest floor inhibiting tree regeneration, and essentially eliminating the next generation. Some bush honeysuckles actually release chemicals into the soil to inhibit other plant growth, effectively poisoning the soil. For woodlot owners in Indiana, this can significantly decrease in the revenue they can expect from managing their forest. If you think you have seen an invasive species, report it, and if possible, get a picture. Call 1-866 NO EXOTIC (1-866-663-9684) or email to depp@dnr.IN.gov

Landscaping—Invasive Plants vs. Native Plants

With the weather getting warmer (finally!), local nurseries will be rolling out their new plant selections for spring planting. Before grabbing up the latest bargain, it's a good idea to consider how that plant will affect surrounding natural areas. Look for the designation of "native" on the plant tag. Native, of course, means the plant is native to the area, is well-adapted to the surroundings, and fits right in with the natural scheme of things. An "invasive" designation won't be listed on a plant tag, mostly because it is just the opposite—it's an introduced plant, it is starting to spread, and it is causing damage to the natural environment.

Even if your home is 10-15 miles from the nearest "natural area", such as a park, open space, or rural area, birds and wind can carry berries and seeds great distances. So, even if you can "control" that non-native invasive species you just purchased half-price at the nursery from spreading in your yard, it doesn't mean that it hasn't spread elsewhere.

Some of the most popular plants sold at nurseries are some of the worst "offenders". They include Bradford pear, burning bush, Japanese barberry, periwinkle/vinca, honeysuckle, privet, winter creeper, and Chinese silver grasses. All of these were brought in from other countries, and now natural resource managers spend a lot of tax dollars controlling them in natural areas. Why are these plants sold? Some were used as standard landscape plants before we discovered how invasive they were (think Kudzu here—though not a nursery plant, it is invasive, and it's consumed many a Kentuckiana fence row/hillside). And, as long as there is a demand, nurseries will continue to sell them.

Therefore, it is up to us as consumers to demand non-invasive alternatives from our nurseries, and to consider alternatives for the invasive species listed above. A few alternatives are listed below, but an excellent resource can be found at the Midwest Invasive Plant Network (<http://mipn.org/publications/>). Follow the link for their Landscape Alternative brochure or download the free app.

Suggestions for alternatives include:

- Replace Bradford pear with Yellowwood (*Cladrastilutea*) a native tree with white, fragrant, pendulous flowers, and yellow fall leaf color.
- Plant red or black chokeberry (*Aronia arbutifolia*, *A. mealocarpa*) or Virginia sweetspire (*Itea virginica*) instead of burning bush. These have brilliant red fall colors along with white flowers and fall berries.
- Instead of Japanese honeysuckle, plant native scarlet honeysuckle (*Lonicera sempervirens*) that has colorful trumpet-shaped flowers for hummingbirds to enjoy.
- For privet and Asian bush honeysuckle hedges, consider a variety of native shrubs and small trees that provide habitat for native birds and pollinators. Ideas include: Serviceberry (*Amelanchier spp.*) with white spring flowers, edible fruit for wildlife and fall color; Viburnum with small cluster of white flower and berries that persist into winter; Carolina allspice (*Calycanthus floridus*) has red, fragrant flowers that smell like strawberries; Elderberry (*Sambucus Canadensis*) provides white flowers and berry clusters for butterflies and birds; or American hazelnut (*Corylus Americana*) provides early season pollen for our bees and edible nuts.
- Instead of Japanese barberry, plant Fothergilla (*Fothergilla spp.*) with white flower clusters and red to orange fall color, or native Strawberry bush (*Euonymus americanus*) with brilliant red pods with orange-pink fruits.
- To replace winter creeper and periwinkle groundcovers, plant native evergreen, Bearberry (*Arctostaphyloc uvaursi*), or deciduous Wild Ginger (*Asarum Canadensis*) that fairs well in shady areas and spreads into a luscious green cover.
- Instead of invasive Chinese silvergrass, try native warm season grass; such as, Indian grass (*Sorghastrum nutans*) or big bluestem (*Andropogon gerardii*).

9608 Highway 62
Charlestown, IN 47111
812-256-2330, ext. 3
Fax: 855-391-1921 (toll free)

Bulk Rate
U.S. Postage PAID
Charlestown, IN
Permit No. 6



**CLARK COUNTY
SOIL AND WATER
CONSERVATION
DISTRICT**

SWCD Supporters....we thank you!

*Clark County Farm Bureau
Dan Cristiani Excavating
Farm Credit Mid-America
Jim O'Neal Ford*

*Memphis Meat Processing
New Washington State Bank
Wright Brothers Implement Sales
Sanders Farm Service LLC*

Habitat Seed Available from QUGA

The Quail and Upland Game Alliance (QUGA) recently gave the Clark County SWCD the opportunity to pass along cost savings to cooperators who are establishing CRP and other habitat projects.

QUGA maintains chapters throughout the Midwest, and promotes the establishment, restoration, and maintenance of quail and upland game habitat. With the help of members, landowners, and government grants, QUGA makes full use of manpower, funds, materials, equipment, and natural resources for optimal results.

Seed mixes available through this program are tailored to Indiana, and:

- are NRCS approved
- are Qualifying Pure Live Seed (PLS) mixtures for USDA programs
- consist of dog friendly species
- custom mixes are available
- shipping is free!



Contact the SWCD office for an order form. For more information on QUGA, visit <http://quga.org>.

Stewardship Week Celebrated

The National Association of Conservation Districts (NACD) has proclaimed April 24 – May 14, 2016, as Stewardship Week, marking the 61st year of this national event.

Stewardship Week reminds us of our individual responsibilities to care for the natural resources upon which we all depend. The theme for this year's celebration is "We All Need Trees."

Trees are alive and working 24 hours a day, seven days a week, producing something vital to our existence—oxygen. Did you know that one large tree can make enough oxygen for 4 people in one day? We can return the favor by caring for and maintaining the trees we have, replacing ones we lose (either by natural or human causes), and educating our youth as to their importance.

The SWCD challenges you to "Plant A Tree for You and Me", and record your planting on the district web site—www.clarkswcd.org/PAT/PAT_home.htm. Help us reach our goal of 100,000 trees planted in Clark County!



District activities and programs will be made available to all citizens, regardless of race, color, religion, gender, national origin, marital status or disability.