

## Eco Ed Day



On August 31, Foster County SCD held the annual Eco Ed Day tour for sixth graders from the Carrington and Midkota Schools. Fifty-six students attended six learning sessions. This year's event was notable for the perfect weather, which made a day out of the classroom even more welcome.

Foster County SCD Supervisors Curtiss Klein and Marie Pozarnsky and Foster County Extension Agent Joel Lemer and Agent-in-Training Emily Goff taught the agronomy session on North Dakota crops, including helping the kids make seed bottles. Jim Collins from ND Dept. of Health used a model to talk about water quality and show the kids how watersheds work, while Gerri Makay from the ND Forest Service led the session on trees and woodlands. Paul DuBourt, NRCS District Conservationist, helped the students learn about soils and erosion. Ezra Aberle, a Research Specialist from Carrington Research Extension Center, took the kids on a pasture walk to learn about rangelands and range plants. Marie Jamison from Arrowwood National Wildlife Refuge and Matthew Parvey from the USFWS office in Valley City used a model and specimens to talk to the students about wetlands and wildlife.



There was also a special presentation by Tom Gibson from Project TREES (The Regional Environmental Education Series). As "Sam Ting," he talked to the group about the animals in the weasel family and the effects of pollution on wetlands and the animals and people that depend on them.



As always, the goal was to provide students with an outdoor educational experience with opportunities for fun and hands-on learning.



## Data Supports No-Till Regarding Phosphorus Runoff

By Laura Barrera posted on October 4, 2016 | Posted in Soil Health, Water Management

Blake Vince doesn't believe farmers are facing a nutrient runoff problem, but something else.

"We have a soil water infiltration problem," he told a group of people attending the Lower Thames Valley Conservation Authority (LTVCA) Farm to Coast tour.

As reported by the Chatham Daily News, the 30-year no-till veteran and cover crop user from Merlin, Ontario, explained that tillage creates loose soil with less organic matter. So instead of making its way through the soil profile, water just runs off the surface, taking soil and algae bloom-causing phosphorus (P) with it.

Recent data supports his statements. At a news conference last week, Ohio State University research scientist Elizabeth Dayton shared that nearly  $\frac{3}{4}$  of P in surface runoff is attached to, and travels with, eroded soil sediment.

A progress report from the Ohio Corn & Wheat Growers Assn., Ohio Soybean Council and Ohio Soybean Assn. emphasized that this makes "erosion control a key to P runoff control."

But I found it interesting that while the report cites conservation practices as key to reducing erosion, it doesn't specifically mention no-till or cover crops as methods to implement — even though erosion control is one of the main benefits and often a primary motivator — for those who adopt those practices.

I also found it interesting that the report encouraged tile drainage as a means for preventing the loss of nutrients, crediting it for reducing erosion. While that may be true, USDA research ag engineer Kevin King has shared that research conducted by the USDA-ARS found that when comparing surface runoff and tile runoff, tile was the major contributor in annual dissolved reactive P loading. You can read more about this research — and what no-tillers can do to prevent runoff via tile drainage — in the upcoming November edition of Conservation Tillage Guide.

Ohio State and the USDA-ARS both agree that soil testing and injecting or banding fertilizer are best practices all growers can adopt to help keep nutrients on their farm and out of local waterways. Ohio State data indicates that banding or injecting fertilizer has the potential to reduce the concentration risk of P in runoff up to 90% under certain conditions.

As we continue to learn more about the runoff problem and what growers can do to be part of the solution, I think no-tillers like Blake Vince are on the right track. We'll continue to see less runoff and cleaner water the more growers focus on practices that improve the soil.

## Tree Planning and Orders



A list of conservation grade trees that should be available for 2017 plantings is included with this newsletter. While we can order trees at any time, the nurseries have limited supplies. The sooner we get your order in to the nursery, the more likely you are to be able to get the kinds of trees that you want. Also keep in mind that planning and preparation of planting sites should begin this fall. Proper site preparation is critical to have a successful tree planting. Technical assistance is always available free of charge, whether the district is planting the trees or you choose to do it yourself. For assistance with tree orders, tree plans, and tree planting programs, please contact Dionn at the Foster County Soil Conservation District at 652-2551 ext. 3.

An option to consider for improving the survival of your trees is using **tree tubes**. Besides offering physical protection from damage by rodents, rabbits and, to some extent, deer, the tubes appear to help provide the trees with a better growing environment. They protect the seedlings from the wind, provide a miniature greenhouse environment, and can help protect them from damage by sprays and mowers. Local tests have found that trees have significantly faster growth and much better survival



2016 Field crew installing tree tubes.