



Sand Creek Watershed Update

Volume 2

A Publication of the Jennings County Soil and Water Conservation District

Issue 3

No-Till and Economic Outlook Topics for December 12th Meeting

Jennings County farmers will have the opportunity to get a breakfast, learn more about no-till farming, and look at the economic side of farming at a meeting sponsored by the Jennings County SWCD and Purdue Cooperative Extension Service on December 12th. The meeting will be held at the Community Building at the Jennings County fairgrounds and will start with breakfast being served around 7:30 AM.

After breakfast, a discussion will be held about no-till farming. Presenters will include Don Biehle, Superintendent of the Southeast Purdue Agriculture Center at Butlerville. Don has been superintendent of the farm since it was acquired by Purdue in 1977 and implemented no-till farming early on as a means of controlling erosion, improving drainage, and improving soil quality at the farm.

Barry Fisher, State Agronomist for USDA's Natural Resources Conservation Service, will also be on hand to discuss no-till techniques that have proven to be successful. His presentation will describe a prescription for maximum soil quality using no-till, cover crops and nutrient management. Barry has a long history of promoting as well as practicing no-till and has been featured in several articles in *Prairie Farmer* magazine.

Local farmers will have an opportunity to share their experiences regarding nutrient management and other aspects of no-till farming.

The morning will conclude with a discussion of the economic outlook for farmers led by Dr. Chris Hurt, Purdue Economist. Dr. Hurt was in Jennings County last year and led a similar discussion which was well received by the farmers who attended. Some of the items discussed included the outlook for farm crops, livestock, and the effects of biofuels.

There is no charge for the meeting but reservations would be appreciated so we can plan for the breakfast and handout materials. Reservations should be made by December 10 by calling the SWCD office at 812-346-3411 X3.

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Grazing Management Guide Offers a Lot to Chew On

There's more to grazing livestock than just turning animals loose on acres of grass. Successful producers carefully plan where, when and how long their livestock feed themselves, and a Purdue University Extension publication shows the way.

"Management-Intensive Grazing in Indiana" (Purdue Extension publication AY-328) covers the decision-making processes and physical components of grazing systems, as well as providing firsthand experiences from livestock producers.

The publication is \$7.50 plus tax and shipping, and can be ordered by calling (888) EXT-INFO (398-4636) or visiting the Purdue Extension Education Store at <http://www.ces.purdue.edu/new>. A downloadable PDF version is available at <http://www.ces.purdue.edu/extmedia/AY/AY-328.pdf>.

Although the term implies more attention to details, there are many benefits to management-intensive grazing, said Keith Johnson, Purdue Extension forage specialist and one of the publication's authors.

"Management-intensive grazing is taking a pasture and subdividing it into smaller units that we call paddocks," Johnson said. "What it offers is an opportunity to provide rest for the forages in the pasture. Just like livestock and people, rest is important for forage to be healthy. So if we can graze these plants for a few days and provide several weeks of rest to allow them to regrow, we have healthier, more vigorous plants.

"If we rotate livestock through properly stocked paddocks, plants are going to be vegetative, which means they have the potential to be of higher quality. It also allows us, then, to graze later into the season compared to what we might in a continuous grazing program, where the plants, frankly, are worn out."

The 60-page publication addresses a wide variety of grazing issues, ranging from planning paddocks to identifying grazing-related animal disorders to streamside grazing.

"The publication looks at how to lay out paddocks, how to use modern fencing and how to utilize the great improvements in providing water to animals," Johnson said.

"It also gets into what types of forage should be sown and, if we're starting from the beginning and have fertility issues, how much fertilizer should be applied. Then there's a section on multispecies grazing. Animals graze in different ways because of how their mouths are configured, so we can combine different species of livestock and make better utilization of the forage."

The publication's final five chapters are devoted to the experiences of Indiana graziers. One producer's story focuses on providing forage for goats on one acre of pasture. Another explains how low inputs helped a sheep farm do more than survive. Still another recounts a dairy producer's perspective.

"This publication is great for both novices looking to learn about pasture systems and individuals who've been grazing in a continuous fashion for 20 or 30 years," Johnson said. Other publication contributors include Ed Heckman, retired Purdue Extension educator; and Susannah Hinds, Jerry Perkins, Victor Shelton and Robert Zupancic, Indiana grazing land specialists with the USDA-Natural Resources Conservation Service.

The publication was produced with support from the USDA NRCS Grazing Lands Conservation Initiative, which is a nationwide collaboration of organizations and individuals working together to maintain and improve the management, productivity and health of the nation's privately owned grazing land.

For additional information on grazing and forage, visit the Purdue Forage Information Web site at <http://www.agry.purdue.edu/ext/forages/index.html> or contact your local Purdue Extension office or the local Soil and Water Conservation District.

Various Cost-Share Programs Are Still Available

Cost-share funds are still available through the Sand Creek Watershed water quality improvement program. Conservation practices that contribute to erosion control and water quality improvement may be eligible for up to 80% cost-share assistance. Some common practices include various livestock and pasture/hayland management systems, nutrient and pest management, cover crops, filter strips, tree planting, and no-till planting. Sources of funding include a grant for the Sand Creek watershed, Lake and River Enhancement (LARE) funds from the state, and federal programs such as the Conservation Reserve Program (CRP) and the Environmental Quality Improvement Program (EQIP).

At this time, the watershed grant funds have mostly been spent, but the state of Indiana is willing to provide continued funding through the LARE program. LARE has been available for the Sand Creek Watershed in Decatur and Jennings Counties since 2002 and the state has committed to more funding as long as there is a demand for funds.

For assistance on determining what practices may be needed on your farm, contact the Soil and Water Conservation District office at 346-3411 X3. Bob Steiner, Watershed Coordinator, is available to visit your farm and help plan for needed practices and assist with selection of a possible cost-share program that may fit your needs.

LIME REGULARLY TO PROTECT NO-TILL FIELDS

It is important to lime no-till fields regularly so the soil pH does not drop too low, says Doug Beegle, a soil fertility specialist at Penn State University. Maintaining the soil pH close to the optimum and not letting it drop under the 6.0 to 6.5 range for most crops allows for surface liming without tillage, he says.

Beegle cautions that if the soil pH falls too low, subsequent limestone applications will move very slowly down through the soil, and thus without tillage the lime will take a long time to neutralize the acidity. It took 9 years to raise the pH at a depth of 6 inches from 5.1 to 6.5 in a long-term study at Penn State on a no-till field that had been left to become acidic. The study found no advantage to applying limestone more frequently to the acidic soil.

Beegle advises that a grower transitioning to no-tilling in very low pH soils apply limestone and till the field one more time to mix the lime and neutralize the acidity before starting to no-till. That should be followed by liming on a regular basis, he adds.

Established no-tillers who have neglected liming and have low-pH soils should apply limestone and live with the problem while the lime moves through the soil, or they might have to till to mix the limestone for more immediate reaction. Liming the surface is likely to provide an immediate benefit, though the full benefit might take years. The initial benefit will be more likely in a well-developed no-till field with good residue management, he says. Beegle says liming on a regular basis, usually every 3 years, maintains the soil pH near optimum and avoids the need for remedial management.

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Check out our new web site at www.jenningsswcd.org. Also, let us know what kind of information you would like to see on the site and we will do our best to keep improving the content of the site.

Jennings County SWCD

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Return Service Requested

<p>Jennings County Soil and Water Conservation District <i>Office Hours</i> Monday– Friday 8:00 AM until 4:00 PM Phone: 812-346-3411 Extension 3 www.jenningswcd.org</p>

Water Facts of Life

Ride the Water Cycle With These Fun Facts

- There is the same amount of water on Earth as there was when the Earth was formed. The water from your faucet could contain molecules that dinosaurs drank.
- Water is composed of two elements, Hydrogen and Oxygen. $2 \text{ Hydrogen} + 1 \text{ Oxygen} = \text{H}_2\text{O}$.
- Nearly 97% of the world's water is salty or otherwise undrinkable. Another 2% is locked in ice caps and glaciers. That leaves just 1% for all of humanity's needs — all its agricultural, residential, manufacturing, community, and personal needs.
- Water regulates the Earth's temperature. It also regulates the temperature of the human body, carries nutrients and oxygen to cells, cushions joints, protects organs and tissues, and removes wastes.
- 75% of the human brain is water and 75% of a living tree is water.
- A person can live about a month without food, but only about a week without water.
- Water is part of a deeply interconnected system. What we pour on the ground ends up in our water, and what we spew into the sky ends up in our water.
- The average total home water use for each person in the U.S. is about 50 gallons a day.
- The average cost for water supplied to a home in the U.S. is about \$2.00 for 1,000 gallons, which equals about 5 gallons for a penny.
- Water expands by 9% when it freezes. Frozen water (ice) is lighter than water, which is why ice floats in water.

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