



# *Sand Creek Watershed Update*

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## **Sand Creek Grant Ends, Conservation Work Goes On**

In late 2005, the Jennings County Soil and Water Conservation District received a Section 319 grant from the Indiana Department of Environmental Management to address water quality issues in the Sand Creek Watershed. The grant helped fund a combination of educational activities, technical assistance and cost-share assistance for getting conservation on the land in the watershed.

All of the grant funds have now been expended. \$80,000 in cost-share funds were utilized on 25 separate contracts. One of the most used practices has been no-till farming, with 2780 acres cost-shared. 2822 acres of nutrient management was applied where farmers did detailed soil testing and applied nutrients according to those tests. Cover crops were used on 481 acres of erodible cropland. 2.2 acres of heavily eroded areas were seeded to permanent cover to control erosion.

Several livestock farmers took advantage of the program. Cost-share funds were used to seed and fertilize over 101 acres of pastureland. 13,727 feet of fence was installed to keep cattle out of streams or to allow rotation and better management of pastures. 14 heavy use areas were built to control erosion where cattle were being fed or where cattle had access to springs and streams.

Several educational activities were carried out including field days and pasture walks. Topics included no-till farming, pasture and hayland management, and disease detection and prevention. A workshop on septic system maintenance was held for homeowners.

Although the grant has ended, some special cost-share assistance is still available for the watershed through the state's Lake and River Enhancement program. Fourteen contracts have been written in Sand Creek Watershed and more may be available in the future. In addition, several federal programs are available to provide assistance for dealing with problems related to soil erosion, nutrient management, pasture and hayland production, as well as wildlife habitat development.

Farmers may contact the Soil and Water Conservation District for technical assistance or to get more information on possible cost-share programs by calling 812-346-3411 X3.

## Soil Testing May Help Minimize Potassium, Phosphorus Costs

With fertilizer prices the highest they've ever been, the most important thing row crop growers can do is take a soil sample and have it analyzed, said Purdue University agronomists. "A soil test is critical to making sure soil pH is good for crop production and managing fertilizer nutrients like potassium and phosphorus," said Jim Camberato, Purdue Extension soil fertility and plant nutrition specialist. "This soil test should analyze potassium and phosphorus levels, which will help a grower determine whether or not those nutrients need to be added."

Purdue agricultural economists expect to see prices for potash at or more than \$900 per ton, anhydrous ammonia around \$1,000 per ton and monoammonium phosphate and diammonium phosphate at \$1,100 or more. "Because of these prices, soil testing is critical," Camberato said. "You can't just look at your soils and know the nutrient level. The only way to know what your nutrient levels are is to take a soil sample and have it analyzed by a laboratory."

If the results show high levels of potassium and phosphorus, the grower then has the opportunity to withdraw those nutrients this year and delay the purchase and application of fertilizer to another year, Camberato said. "By knowing a field's nutrient levels, you can calculate how long those nutrients can be taken from the soil," he said. "It's kind of like banking, you put nutrients in and after a while you have enough built up that you can take some out." To learn more about banking in potassium and phosphorus, go to <http://www.agry.purdue.edu/ext/corn/news/articles.08/PKFert-0915.html>.

If a particular field is at or below the critical level, or the level when there is still a good chance of getting a yield response to nutrient additions, a producer should not skip fertilizer application, Camberato said. But if a field is above the maintenance limit or the level where there is very little chance of getting a yield response from additional potassium and phosphorus, a grower may be able to avoid paying high prices for fertilizer by using the nutrients already in the soil, he added.

Brad Joern, Purdue Extension nutrient management planning specialist, said phosphorus levels will decrease each year on average by about 1 part per million (2 pounds per acre) for every 20 pounds of phosphorus oxide per acre removed by the crop. "If soil test results display levels greater than 45 to 50 parts per million, this means you don't need to apply fertilizer for a pretty long time," Joern said. "Once phosphorus levels reach 40 parts per million for corn and soybeans and 50 parts per million for wheat and alfalfa, we don't recommend applying." The same thing can be done with potassium, but growers need to realize that potassium fertilizer levels will change much more quickly than phosphorus levels, he said.

Joern said it would not be unusual to expect potassium levels to change as much as 10 parts per million to 15 parts per million in a given year, and even quicker in sandier soils and a little slower in heavier textured soils. Once potassium levels reach 138, 150, 175 and 200 parts per million for soils with a cation exchange capacity (CEC) of 5, 10, 20 and 30 meq/100g, respectively, we don't recommend applying, he said. The CEC is the amount of positive ions like potassium, calcium and magnesium that a soil can hold.

"The bottom line is fields with high potassium and phosphorus soil test levels can go without fertilizer additions for at least a couple of years to offset high fertilizer prices," Joern said. "When soil test potassium and phosphorus levels fall below the maintenance limit, regular fertilizer additions are recommended to help maintain optimum yield."

More information about potassium and phosphorus recommendations for corn silage, wheat grain, wheat straw and alfalfa, as well as corn and soybeans is available at <http://www.agry.purdue.edu/ext/corn/news/articles.08/PKFert-0915.html>. For more information, contact Camberato at 765-496-9338, [jcambera@purdue.edu](mailto:jcambera@purdue.edu) or Joern at 765-494-9767, [bjjoern@purdue.edu](mailto:bjjoern@purdue.edu).

## **An Opportunity to Learn More About No-Till Farming**

The 2009 National No-Till Conference will be held in Indianapolis on January 14 to 17, 2009. The Jennings County Soil and Water Conservation District (SWCD) is offering to pay the registration fee for up to twelve Jennings county farmers who would like to attend. This conference features farmers from all over the country sharing no-till experiences and has been described by past attendees as one of the best learning experiences available for no-tillers. Shane Meier attended last year's conference in Cincinnati and said, "It is definitely worth attending. It is an opportunity to compare what I am doing with other farmers and exchange ideas on what works in no-till."

Anyone wanting to attend the conference can go to the No-Till Farmer web site, [www.notillfarmer.com](http://www.notillfarmer.com), to get information and learn more about the conference.

The SWCD has arranged for a \$30 discount to anyone who signs up before the end of October. The SWCD will reimburse attendees who present proof of attendance after attending the conference. This offer is limited to one reimbursement per farm operation and we would appreciate knowing of your interest in advance. For more information, contact the SWCD office at 346-3411 X3.

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## **Cost-Share Available for Soil Testing**

Many farmers say that soil erosion during the past summer was the worst they had ever seen due to the heavy rains and flood damage. One of the first steps to rebuilding soil is to do soil testing to see if soil nutrients need replenishing. The Soil and Water Conservation District (SWCD) has cost-share assistance available to offset the cost of soil testing. Funds are available through a Clean Water Indiana grant and can be used for whole field samples or for grid sampling on cropland or pasture\hayland.

Single samples are eligible for cost-share at \$4.00 per sample. Grid sampling is eligible for \$1.00 per acre cost-share with a maximum of \$250 per producer. Grid sampling is encouraged in order to get a better representation of what is needed. With the results from grid sampling, your fertilizer dealer may be able to apply lime and fertilizer using variable rate spreading which can save money by cutting back on the amount of nutrients where they may not be needed.

Single samples may be brought to the SWCD office for submitting to A&L Great Lakes lab. The cost of a single sample is \$8.75, with cost-share of \$4.00 available for cropland or pasture\hayland. The cost-share is also available if you have had soil testing done at a fertilizer dealer. Just bring in receipts to show proof of your expenses.

Expenses for grid sampling can be verified by bringing receipts for the service from local fertilizer dealers. Fall weather provides a good time for getting soil samples while the soil is dry. For more information, call the SWCD office at 812-346-3411 X3.

**Check out our new web site at [www.jenningsswcd.org](http://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.**

## Help Available for Restoring Flood-Damaged Land

The Jennings County Soil and Water Conservation District (SWCD) has received a grant from the Indiana State Department of Agriculture to help local farmers repair damage from heavy rains and flooding during the past summer. The SWCD will use this money to help with land reconstruction on farmland in the county. Since there is a limited amount of money, cost-share will be limited to 75% of actual costs, with a maximum of \$5,000 per producer.

Eligible expenses could include those related to hiring earthmoving equipment or the farmer's use of owned equipment for repairing flood-related damages. Other expenses may include soil testing and planting of cover crops. Cost-share is available for work still needing to be done, or it may be provided for work that has already been done.

To submit expenses already incurred, farmers should bring in bills and, if available, pictures showing the damage that occurred. For work still needing to be done, an appointment should be made to look at the damage with personnel from the SWCD.

For information, call the SWCD office at 812-346-3411, X3.