

Watershed News

November 2006

South Branch of the Root River Watershed Project

AERIAL SEEDING OF WINTER RYE SHOWS PROMISE



A good stand of winter rye is seen here on a corn silage field northeast of Ostrander. The field was aerial seeded at 75 lbs. per acre on September 8th. The photo was taken October 19th.

The watershed project, in cooperation with the Fillmore SWCD, provided an incentive for the aerial seeding of winter rye as a cover crop on corn silage and soybean acres. The incentive was paid on 128 acres out of a total of 277 acres seeded in the watershed and 435 acres seeded countywide. Cost of the helicopter (\$10-11.25/acre depending on seeding rate) was paid from the watershed grant on up to 40 acres. The farmers provided the seed and paid for any acres over 40 acres seeded.

Seeding rates varied from 50 lbs. to 75 lbs. per acre. Results were mixed with the lower seeding rates showing spotty growth while the higher rates showed good, even growth. The initial conclusion is that there was a malfunction of the seeder on the helicopter at the lower rates, but this is being discussed with the helicopter service to determine the exact cause. Similar problems were seen in Olmsted County this year even though the lower rates had been used successfully in the past.

Because this is a new and somewhat experimental practice, these are the kind of “wrinkles” that need to be ironed out. Other areas of concern are timing of the seeding and getting a uniform seeding. This year’s seeding was done on September 8th, which was later than what was planned. An earlier seeding gives the plants more time to germinate and develop before harvest equipment is driven over the plants. Wheel traffic can be very damaging to the young plants, so headland areas need an especially good stand. Ensuring uniform seeding should be achievable with more overlap of the seeding passes. The mechanical problems experienced this year should also be fixable.



This soybean field southeast of Ostrander shows the problems encountered with the 50 lb. per acre seeding rates. Growth is patchy and in uneven strips. Mechanical problems with the helicopter’s seeder are suspected as the cause of the poor seed dispersal. Seeding was done September 8th. The photo was taken October 19th.

Although not fully successful this year, with the proposed changes following this year’s results, this method of seeding shows a great deal of promise for reducing erosion and compaction, increasing water infiltration, providing additional forage, and holding nutrients. If there is interest, an incentive could be offered next year. Anyone interested should contact the Fillmore SWCD office at (507) 765-3878 ext. 3.

CONSERVATION TILLAGE IS ON THE INCREASE IN THE WATERSHED

Over the past three years, 264 fields have been surveyed in the South Branch Root River Watershed project area to record the types of tillage used and the amount of crop residue on the fields. Each stop is approximately one mile apart. In 2004, about 66% of the fields met the residue target of at least 30%. In 2006, that had increased to 73%. Over the entire watershed, that 7% increase equals over 4,100 acres of cropland that went from less than 30% residue in 2004 to more than 30% in 2006.

Another promising trend is the adoption of no-till. The percentage of fields in no-till (including strip till and ridge till) went from 17% in 2004 to 19% in 2006. That 2% increase represents an additional 1,200 acres in the watershed in no-till. More no-till corn was observed this year also.

On the flip side, there are still 6% of the fields surveyed that are being conventionally tilled (less than 15% residue), although that is down from 10% of the fields in 2004. Another 13% of the fields are in reduced tillage (15 to 30% residue remaining), down from 16% of the fields in 2004.

*Want to try a different practice, such as no-till or lower nitrogen rates? With the American Farmland Trust BMP Challenge, you can try the practice **RISK-FREE!** Contact Regina Hirsch at 608-873-8393 or regina.hirsch@sbcglobal.net for more information. Combine the BMP Challenge with watershed incentives for conservation tillage or nutrient management for even more savings!*

Fields with less than 30% residue are more susceptible to erosion, especially if tillage is occurring in the fall or if slope or soil type make the soil more erodible. Residue helps water soak into the ground when soils are most vulnerable to erosion. More water in the ground provides moisture to crops during dry periods, recharges ground water, and maintains base flow in springs and streams. Conservation tillage also saves farmers labor, fuel, and machinery.

HAY SET-ASIDE PROGRAM OFFERS BEST OF BOTH WORLDS

Conservation buffers are a proven conservation practice known to improve water quality by filtering and capturing runoff. A well established and maintained buffer can reduce contaminants in runoff by anywhere from 40 to 80 percent. In addition, the permanent vegetation increases infiltration of water, which recharges ground water and reduces peak flows during floods.

There are several federal and state programs that offer incentives for conservation buffers. One of the most popular has been the Continuous Conservation Reserve Program. However, one drawback some farmers find with this and other programs are limitations on haying and grazing.

That is why the Hay Set-Aside Program is being piloted in the South Branch Root River Watershed Project. The program allows buffer areas to be hayed until September 15th. Grazing is also allowed as long as the buffer is maintained. Payments are \$50 per acre per year for 3 years for up to 20 acres of buffer.

In 2006, 84 acres were signed up for the program in the watershed. Those buffers were enrolled into field borders, headlands, around sinkholes, and in highly erodible areas. Buffers along streams and in other sensitive areas are also eligible. If the buffers are enrolled in the Continuous Conservation Reserve Program (CRP), the payment becomes an upfront CRP signing bonus.

Contact the Fillmore SWCD at (507) 765-3878, ext. 3 or the Mower SWCD at (507) 434-2603, if you want to know more about the program.

The World of Nitrogen

Monday, December 11, 2006

9:30 a.m. to 12:30 p.m.

Room HB117, Heinz Center, Rochester

George Rehm,

U of M Department of Soil, Water, and Climate

What's new in the nitrogen management picture?

Recommended rates, BMPs, prices, technologies...

Save This Date!!

Thursday, February 8, 2007
for

**CONSIDERING CONSERVATION
IN YOUR ESTATE PLANNING**

A Workshop for Landowners

7:00 PM

Room 108, Fillmore County Office Building

902 Houston St. NW, Preston
(across from the Sheriff's office)

Presentation topics include:

- How to include land conservation options in your estate plans
- What those land management options are
- Who can help you implement the options you choose

HOW'S THE WATER QUALITY DOING?

by Lee Ganske, MN Pollution Control Agency

I was asked to answer this question at the November 9th watershed project meeting. More specifically, I was asked to address whether water quality in the South Branch Root River is getting better, getting worse, or staying about the same; or are there any trends? We have been monitoring various aspects of water quality for nearly 10 years, and given that the project has been promoting water quality improvement activities, these are reasonable questions.

So, how did I answer? I essentially had to tell those assembled that we really don't know. Here are some of the reasons for that unsatisfying answer:

- Year-to-year "natural" variability in various measures of water quality appears to be at least in the 50-100% range. That means that even with no changes whatsoever to land use or pollution sources, overall water quality measures may vary by a factor of 2 or more. The primary cause of this is climate and weather; more specifically timing, amount, and intensity of precipitation.
- The magnitude of pollutant reductions we are hoping to see over several years of work in the South Branch project are in the 10-20% range. These may be easily masked by the 50-100% figure mentioned above.

- We're just getting started on the water quality improvement activities. We see some positive trends, such as crop residue, but we still have a ways to go to attain the 10-20% pollutant reductions.
- Studies indicate that there is often a time lag between pollution reduction practices and response in a water body. This is particularly true for practices that change land use or land cover, such as the conversion of an annually tilled and cropped field to a well-managed pasture.
- The watershed project is not in control of all activities that impact water quality. Even as the project successfully promotes water quality improvement activities in one part of the watershed, things may happen in other parts of the watershed that have a negative impact on water quality. High corn prices, for example, might lead to previously idled erosion-prone land to be brought into production.

With all of these challenges, why keep monitoring and looking for water quality improvements?

- We're spending lots of taxpayer dollars on programs and practices to improve water quality – we must determine if the money is well spent.
- The longer we keep at it, the more likely we'll be able to filter out the natural year-to-year variability mentioned above.
- We need to be in the right place at the right time. Beyond the activities of the South Branch Root River project, a significant change in the economy, the federal Farm Bill, or the environment could occur at any time with wide-reaching impacts on land use and pollution sources. Monitoring systems need to be in place if/when such change happens.

FOREST MANAGEMENT IN OUR REGION

The MN Forest Resources Council's Southeast Landscape Committee is sponsoring a forestry workshop at St. Mary's University in Winona March 30th & 31st. Get answers to questions like: Do I need a management plan? What's that shrub overtaking my woods? Who do I call for help? How do I arrange a timber sale? How can I protect my land from development? How do I improve habitat?

Contact Ann Pierce with the MN Department of Natural Resources at (507)280-5076 for more information.

Fillmore SWCD
900 Washington St. NW
Preston, MN 55965

The second round of the Conservation Reserve Enhancement Program (CREP) is here!

Southeast Minnesota has 51,000 acres that can be enrolled in CREP. Highly erodible land, wetland restorations, riparian (streamside), flood reduction, and ground water protection areas are all eligible if they meet the program criteria.

CREP combines the federal Conservation Reserve Program (CRP) with the state Reinvest in Minnesota (RIM) easement program to provide long-term easements to set aside marginal cropland. The easements are either permanent or 45 years (15-year CRP contract that is concurrent with a 45-year RIM easement).



New, higher payment rates were adopted this summer increasing total payments to **\$3000 and \$3900 per acre**. Cost share of 100% is available for construction and seeding. The South Branch Root River Watershed Project is also offering a \$150/acre sign-up bonus on up to 20 acres of buffer acres enrolled in CREP (or CRP).

Sign up for CREP is continuous and extends through the current federal farm bill which ends in December 2007. For more information, contact Mower SWCD at (507) 434-2603 or Fillmore SWCD at (507) 765-3878.

FREE
Water Testing Clinics for Nitrate
Coming this winter to Ostrander, Spring
valley, and Wykoff.
Watch local newspapers for dates and times.