Southwest Minnesota faces many of the same problems as other rural, agricultural areas. Point and nonpoint source pollution, intensive tillage, non-compliant septic systems, and feedlots must be addressed to reduce sediment and nutrient loading in local water bodies. These water bodies face severe algae blooms, loss of rooted aquatic vegetation, fewer migratory waterfowl, rough fish impacts, reduced water clarity, and flooding.

In an effort to protect southwest Minnesota’s essential water resources the Heron Lake Watershed District, in partnership with Extended Ag Services and Jerry and Nancy Ackermann, applied for a grant from the Minnesota Nutrient Efficiency Grant Program Minnesota Agriculture Water Resources Coalition. Through this program, a 40-acre cover crop demonstration site and control field was established. The farm used for the demonstration is a 1,050 acre crop rotation of corn, soybeans, and alfalfa. For the past nine years, the landowners have incorporated 350 acres of no-till soybeans and 350 acres of strip-till corn in the crop rotation. The alfalfa crop is a cash crop and is used in nutrient management for alfalfa-corn rotations.

Extended Ag Services was awarded $3,168.00 to establish the demonstration site and seed a cover crop of tillage radish, purple top turnip, and forage rape for the 2011 growing season. The plot was aerially seeded into a standing soybean crop using a helicopter on September 2, 2011.

The cover crop demonstration plot will address water quality problems by increasing nutrient uptake, reducing erosion, and minimizing nutrient leaching. The cover crop will directly benefit the community and watershed by slowing water before it enters the waterway and reducing sediment and nutrient runoff.

The deep root system of the purple top turnip and tillage radish will break up compaction to allow for better water infiltration and be used to draw nitrogen from deep below the surface back to the root zone for next year’s crop. The fast growth rate of the forage rape will provide cover for the field. This seed mix will bring nitrogen to increase soil fertility, add additional organic matter to improve soil composition, infiltration, and help reduce weed competition. Cover crops have been shown to reduce nitrogen application by 45 pounds of nitrogen per acre by reclaiming nitrogen that has leached below accessible root depth of corn and soybeans. All of these are ways to naturally improve the overall yield of the following year’s crop while reducing nitrogen application costs.

The Cover Crop Demonstration Project will compare field residue amounts and nitrogen levels in the cover crop field and the control field. Farm profitability will be measured by calculating the cost of seeding and establishing the cover crop versus the reduction in nitrogen application costs. The results of the soil samples, infiltration measurements, plant tissue tests, and tillage transects will show how beneficial cover crops are to the environment. Nitrogen application rates compared to aerial seeding costs will show how this project affects farm profitability.

FIELD DAY

A field day will be hosted by the Heron Lake Watershed District to provide an opportunity for interested farmers and agricultural professionals to learn about this cover crop technique.

When: Thursday, November 10
Jerry and Nancy Ackermann Farm Site
SE 1/4 of West Heron Lake Township
Section 33
Five miles west of Lakefield on Co Rd 14
1/2 mile north on 400th Avenue
Time: 1:00 p.m.

If you are interested in attending, please register with the HLWD office by Wednesday, November 9 at 507-793-2462 or contact Jan Voit at hlwd@roundlk.net.

Field Day Guest Speaker

Jill Sackett is a Local Extension Educator, Conservation Agronomist for University of Minnesota Extension – Rural Advantage. This position is grant funded by the non-profit Rural Advantage and the watershed organization the Greater Blue Earth River Basin Alliance (GERBA). Sackett has been working on a cover crop grant funded by North Central Region – Sustainable Agriculture Research and Education (NCR-SARE) since 2009. This three year grant was received by Practical Farmers of Iowa and Rural Advantage in the fall of that year and will run through fall 2012. Sackett’s programming is driven by water quality and the conservation agronomy mindset. Programming includes third crops, cover crops, and bioenergy feedstocks. Major program events include the Third Crop Producer Meetings, the Third Crop Walk-n-Talks, and cover crop workshops and field days.
What’s Happening?

Heron Lake Watershed District
Board Meeting
November 15, 2011 at 7 p.m.

Note that the HLWD board meeting dates and times are tentative. Please contact the HLWD office for the exact date and time.

Please contact us with your questions or concerns! Telephone 507-793-2462; Email: hlwd@roundlk.net