

Sustainable Agriculture

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No fooling—manure applications can reduce water pollution

Manure can cause all kinds of water pollution problems. But manure applications can also be a good way to reduce sediment and phosphorus losses, according to University of Minnesota research.

The project was designed to evaluate the interactions between tillage and manure on phosphorus and sediment losses, says John Moncrief, soil scientist with the university's Extension Service. Manure was applied as part of a residue management program at the university's West Central Experiment Station at Morris starting in the spring of 1992.

The manure was a one-time application of 25 tons per acre of solid beef manure. It was either incorporated with moldboard plowing to a depth of 8 inches, or with planting and cultivation in ridge-till plots. Runoff plots were established to collect runoff and measure sediment and phosphorus losses.

The manure applications cut sediment losses about in half with both systems, Moncrief says. As you'd expect, sediment losses were much lower with the ridge-till system.

Residue management systems—often with manure applied—are an important sediment reduction program for the Minnesota River Basin, Moncrief says. And total phosphorus is usually associated with sediment. The manure applications were effective at reducing sediment and total phosphorus losses for three years.

Snow melt was the major source of annual phosphorus losses with the ridge-till system, Moncrief says. Standing corn stalks caught four times more snow. The melting snow leached soluble phosphorus from the stalks and shallowly incorporated manure. But even with these losses, ridge tillage still resulted in less total phosphorus loss.

More information is available in the publication *Tillage Best Management Practices for the Minnesota River Basin*, available from county offices of the University of Minnesota's Extension Service. Moncrief can be reached at (612) 625-2771, e-mail jmoncrief@extension.umn.edu.

Enhancing small-scale agriculture

A task force on small-scale agriculture has been appointed by Michael Martin, dean of the College of Agricultural, Food, and Environmental Sciences and vice-president for agricultural policy at the University of Minnesota.

Martin has charged the task force with:

- Identifying the forces that are driving structural changes in Minnesota agriculture.
- Reporting the extent of the University of Minnesota's involvement with small-scale agriculture.

- Recommending new things that the University could do to enhance small-scale agriculture.
- Finding other organizations that might work with us on small-farm issues.

Task force members include: David Andow, Entomology; Brian Buhr, Applied Economics; David Fredrickson, Minnesota Farmers Union; Dennis Johnson, West Central Experiment Station, Morris; Dario Menantau, Center for Rural Sociology and Community Analysis; Ervin Oelke, Agronomy and Plant Genetics, and Center for Alternative Plant and Animal Products; David Rabas, North Central Experiment Station, Grand Rapids; George Rehm, Soil, Water, and Climate; Warren Sifferath, Dakota County Extension Educator, task force co-chair; Cindy Tong, Horticultural Science; Billie Wahlstrom, Rhetoric; Bill Wilcke, Biosystems and Agricultural Engineering, task force chair.

The task force met in early July and will meet at least once a month through January 1998. If you have questions or input for the task force, contact Bill Wilcke (wwilcke@extension.umn.edu or 612-625-8205) or any other task force member.

St. James producer receives SARE grant to diversify a small crop farm

Nancy Aspelund, St. James, Minn., aims to diversify her family's small crop farm with hogs and poultry on pasture. She's received a SARE producer grant entitled Diversifying a Small Crop Farm with Hogs and Poultry on Pasture, Apple Trees and Plums.

Next spring she plans on purchasing 50 feeder pigs and putting them on an alfalfa-clover rotational grazing system. The hogs will be housed and fed grain in an old steer shed, to be moved from a neighbor's farm. She's planning to have the hogs butchered at a locker and sold locally.

Broiler chickens (20 birds per portable pen) will be part of the system. She's presently raising Cornish Rock broilers and the meat is "all spoken for" through her direct market system. "People are looking for good quality, locally grown chicken," she says.

Apple trees and plums will be planted, with the plums providing more wildlife habitat on the north side of their grove. Produce will eventually be sold at the St. James Farmers' Market. "Apples sell fast at the market, but not many are available," she says. Part of the plan calls for fallen apples to be part of the hogs' diet.

"We'd like to show that you can be small, profitable and get into livestock production without a lot of capital investment," she says, "and reduce chemical use in farming and be a farmer and environmentalist at the same time."

She's getting ideas from the local Natural Resources Conservation Service office and extension educator Gary Wyatt.

New web site on agricultural technology

The Program on Agricultural Technology Studies (PATs) at the University of Wisconsin-Madison has a new web site. Located in the College of Agricultural and Life Sciences, the PATs program of research and outreach focuses on the impacts of new agricultural technologies and public policies on family farming in Wisconsin.

Recent research examines rotational grazing, rBGH, manure and nutrient management, and structural

change in the farm sector. Visit our web site: <http://www.pats.wisc.edu/>. With questions, contact Marcy Ostrom at (608) 265-3463, e-mail mrostrom@facstaff.wisc.edu.

New book on Long Prairie River

After three years of work, the Long Prairie River Stewardship Project's Steering Committee has published their comprehensive plan for the Long Prairie River. The river travels 100 miles from near Alexandria in Douglas County to the Village of Motley in Morrison County. Its watershed contains nearly four percent of the state's lakes.

"The book covers material from the great 1860 earthquake at Long Prairie to microscopic aquatic insects. We even threw in an ax murder and a lynching," says Tim King, editor of **The Long Prairie River: The Citizens' Vision**.

Issues discussed in the book include forestry, agriculture, sewage ponds, history, the effects of sedimentation, wild life ecology, fisheries, recreation, and zoning. And there's original art work from Long Prairie and Browerville High School students.

Recommendations include:

- Planting more trees and grasses along the river.
- Reducing soil erosion from farm fields.
- Encouraging the formation of lakeshore property owners associations on lakes in the 1,000 square mile watershed.
- Encouraging the use of conservation tillage by farmers.
- Studying and monitoring the heavily trapped turtle population on the river.

The book is dedicated to the hundreds of volunteers who helped gather information for it and to all the citizens of the Long Prairie River watershed. A copy can be purchased by sending a check for \$7 to the Long Prairie River Stewardship Project c/o Box 178A- RR #2, Long Prairie, MN 56347.

SARE wants competitive grants applications

The USDA's North Central Region Sustainable Agriculture Research and Education (SARE) program is requesting applications from educators, researchers, nonprofit organizations, and others for competitive grants addressing environmental, economic, and social agricultural improvements, including innovative marketing strategies.

The region has two separate applications available: a special call for full proposals on innovative marketing strategies, and its regular annual call for research or education/demonstration pre-proposals. Approximately \$1.3 million will be available for funding projects in FY 1998, with \$300,000 of that total earmarked for the special marketing call for proposals.

Applications are available now for both calls. Contact the NCR SARE office at 402-472-7081, 402-472-0280 (fax), or sare001@unlvm.unl.edu. The calls are also available at Sustainable Agriculture Research and Education (SARE) Program. Pre-proposals are due Sept. 12, 1997. Innovative marketing proposals are due Jan. 23, 1998.

For ideas or proposals, feel free to contact Bill Wilcke (612) 625-8205; Biosystems & Ag. Engineering, 1390 Eckles Ave., St. Paul MN 55108. Email: wwilcke@extension.umn.edu

Minnesota Department of Agriculture grants

Agricultural market development grants are available from the Minnesota Department of Agriculture to encourage and promote marketing of Minnesota products. Contact Chris Canaday, Minnesota Department of Agriculture, 90 W. Plato Blvd. St. Paul, MN 55107, (612) 297-4648.

Three-state workshop on farming systems analysis

A farming systems analysis workshop and farm tour for farmers, extension educators, NRCS and other farm providers from Iowa, Minnesota and Wisconsin is scheduled Sept. 8-9 in Platteville and Lancaster, Wis. Brochures are available from the Minnesota Institute for Sustainable Agriculture (MISA) office: misamail@tc.umn.edu, phone (612) 625-8235, or toll free 800-909-MISA (6472).

Correction. . .

The grant received by the Sustainable Farming Association of Minnesota to conduct field days for ag professionals (our June issue) is \$41,600 for one year.

Coming events...

Field day sponsors include the Minnesota Department of Agriculture's Sustainable Agriculture Program, Minnesota Institute for Sustainable Agriculture (MISA) and the Sustainable Farming Association (SFA) of Minnesota.

Aug. 7, 10 a.m.-2:30 p.m., "Evaluating Kura Clover's Potential for Long Term Forage-Legume Persistence" and "Kura Clover Establishment Demonstration," Robert Dorovee, Meadowlands, (218) 476-2116.

Aug. 7, 1-5 p.m., "Farming in the Floodplain—Grazing and Stream Corridor Management," Todd Lein farm, Northfield, (507) 645-9036.

Aug. 9, 12-4 p.m., "Sustainable Farming Association—Consumer Tour of Beef and Bison Farms," Jenifer Buckley, Tamarack, (218) 727-1414.

Aug. 9, 12-4 p.m., "Grass and Forage Based Finishing of Beef and Pork," Lake Superior Meats Cooperative, Wrenshall, (218) 727-1414.

Aug. 12-13, 9 a.m.-3 p.m. daily, "1997 Minnesota Alfalfa & Forage Expo," Miller Bros. Farm, Little Falls, (612) 625-8700.

Aug. 15, 4-8 p.m., "Alternative Agriculture for Future Markets," Brett Pearson, Cottage Grove, (612) 768-7875.

Aug. 15, 7-9 p.m., "Sustainable Gardening Bookfair," Barnes & Noble Bookstore, Stone Ridge Shopping Center, Duluth.

Aug. 21, 10 a.m.-2 p.m., "Increased Forage Production via Better Control of Water Runoff and Nutrient Recycling," James Sovell, Ivanhoe, (507) 694-1486

Aug. 21, 10 a.m.-1:30 p.m., "Low Input Systems for Feeding of Beef Cattle or Sheep," Dennis Schentzel,

Canby, (507) 223-7461.

Sept. 4, 1-3 p.m., “Learning Advanced Management Intensive Grazing Through Mentoring.” Paul Weyrens or Bob Stommes, Fergus Falls, (218) 739-5246.

Sept. 6, 10 a.m., “Perch Enterprise Budget,” John Reynolds, Merrifield, (218) 765-3030.

Sept. 6, 11 a.m.-3 p.m., “Buffalo: Animal from the Past: Key to the Future,” Richard & Carolyn Brobjorg, Pipestone, (507) 825-5049.

Sept. 6, 12-4 p.m., “Wine Quality Grapes in Otter Tail County,” Michael & Vicki Burke, Erhard, (218) 739-4549.

Sept. 6, 9 a.m.-4 p.m., “Small Farm Market Development: Harvest Festival,” Jennifer Buckley, Carlton, (218) 727-1414.

Sept. 6, 10 a.m.-3 p.m., Buckwheat Workshop & Field Day, Tom Bilek farm, Aldrich, (218) 445-5475.

Sept. 6, 3-5 p.m., Hog production, including a pasture walk and hoop structure discussion, Jim VanDerPol, Clara City, (320) 847-3432.

Sept. 13, 1-3 p.m., “Sustainable Farming Association—Fall Farm Tour,” Jenifer Buckley, Sturgeon Lake, (218) 727-1414.

About this newsletter...

For the past year we’ve been funded by the Minnesota Extension Service and the Minnesota Institute for Sustainable Agriculture (MISA) with support from the Minnesota Department of Agriculture.

We’re always looking for story ideas. Send them to the editor: Jack Sperbeck, 405 Coffey Hall, University of Minnesota, St. Paul, MN 55108, (612) 625-1794. E-mail: jsperbeck@extension.umn.edu. Other editorial board members: Helene Murray (612) 625-0220, murra@021.tc.umn.edu; Tom Wegner (612) 374-8400, twegner@extension.umn.edu; and Bill Wilcke (612) 625-8205, wwilcke@extension.umn.edu

Our mission statement: To help bring people together to influence the future of agriculture and rural communities to achieve socially, environmentally and economically sustainable farms and communities.