

Sustainable Agriculture

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Nitrate-nitrogen losses can be 30 to 50 times higher from row crops

Nitrate losses to the landscape are highly related to cropping systems, according to long-term University of Minnesota studies at Waseca and Lamberton, Minn. Research on subsurface, tile drainage plots has been ongoing since 1973. Corn and soybean row crops yield much higher drainage volumes and nitrate-N concentrations in the drainage water compared to perennial crops such as alfalfa and CRP grass-legume mixes. Gyles Randall, U of M soil scientist at the Southern Research and Outreach Center, Waseca, says nitrate-N losses can be 30 to 50 times higher from row crops compared to perennial crops.

About 65 percent of southern Minnesota's annual subsurface drainage volume and 70 percent of the annual nitrate-N losses in drainage occur in April, May and June, Randall says. Drainage volume is greatest in April and nitrate-N losses are highest in May. "This puts fall application of nitrogen at a greater risk for spring loss," Randall says. Nitrate-N concentrations and losses are greatly affected by dry and wet climatic cycles. The greatest losses have been in wet years following abnormally dry years.

Use of best management practices (BMPs) for nitrogen by farmers will reduce nitrate losses to subsurface drainage, Randall says. "But the question is whether these practices will be sufficient to reduce nitrate losses to meet the environmental goals of society."

Randall may be reached at (507) 835-3620, randa012@umn.edu.

Applications now being accepted for sustainable agriculture grants

The Minnesota Department of Agriculture (MDA) is accepting applications for grants from Minnesota farmers, researchers, educators and non-profit organizations. Projects must reflect innovative ideas for sustainable farming systems.

MDA's Sustainable Agriculture program has \$210,000 available during this fiscal year for projects on Minnesota farms. Individual grants of up to \$25,000 are available for projects designed to benefit the environment, increase farm net profits and improve farm family life. Joint applications from farmer groups or watershed projects are encouraged.

Examples of successful grant projects from the past include rotational grazing systems, deep litter bedding hog systems, weed control, cropping systems, processing and marketing strategies, tillage comparisons, cover crops and composting. Applications are due Dec. 15, 2000. For more information, contact Linda Bougie at (651) 296-7673, e-mail Linda.Bougie@state.mn.us.

Research brief looks at labor requirements for Minnesota dairy graziers

How much labor is required to operate a grazing system dairy? Researchers Gigi DiGiacomo and Margot Rudstrom looked at this question and compiled their findings in a newly available Sustainable Farming Systems (SFS) Project research brief titled, “Labor: How Does It Stack Up on Minnesota Dairy Grazing Operations?”

The research brief explores labor requirements on two dairy grazing operations from the SFS Project and compares them with the labor requirements of 22 other Minnesota grazing operations and 546 non-grazing dairy operations from the 1998 Minnesota State College and University (MnSCU) data set.

DiGiacomo and Rudstrom found that Minnesota graziers appear to use fewer total labor hours on a whole farm basis when compared with non-grazing dairy operators. Moreover, the graziers rely on family members to supply the majority of farm labor.

However, the researchers caution that the differences in total labor requirements are likely the result of differences in farm size between the graziers and the more traditional dairies. In Minnesota, grazing dairies are smaller than the traditional dairies reported in the MnSCU data set. As a result, gross income and operator returns tend to be lower for Minnesota dairy graziers than their non-grazing counterparts.

The SFS Project is a farm-centered, team-driven partnership of farmers, scientists, extension educators and others that promotes whole farm stewardship and rural community health through on-farm research, public outreach and individual activities. Funding for the project is provided by the Minnesota Future Resources Fund as recommended by the Legislative Commission on Minnesota Resources.

For a copy of the research brief, contact the SFS project manager Helene Murray, Minnesota Institute for Sustainable Agriculture, (612) 625-8235, or murra021@umn.edu.

Rebecca Sargent will be sustainable swine scientist at Morris

Rebecca Sargent has accepted the position of Sustainable Swine Scientist at the West Central Research and Outreach Center at Morris, Minn. Rebecca is from Walla Walla, New South Wales, Australia.

Her Ph.D. thesis is entitled, “The performance, behavior, and welfare of growing pigs in a deep-litter, group housing system.” Since 1998, she has been employed by Bunge Meats, where she has conducted research on their deep-bedded systems.

The company has a herd of 110,000 sows, and finishes some of the pigs in the 350 hoop structures they have constructed. Rebecca looks forward to her arrival at Morris sometime after March 1, 2001. For more information, contact Wayne Martin, coordinator of Alternative Swine Production Systems, (612) 625-6224.

Check this newsletter out if you live on a few acres

Now that you own that perfect 20-acre spot in the countryside, what’s next? There are questions about controlling weeds, planting a prairie, maintaining a pasture for four horses and how that hidden, underground septic system works.

In addition, there are many possibilities for improving the looks of your property and choosing the right practices to protect the environment. A University of Minnesota Extension Service newsletter, "Living on a Few Acres," is designed with just the small landowner in mind. The quarterly newsletter addresses a wide array of topics for the hobbyist, small farmer and rural resident.

"In the seven-county Twin Cities area there are about 25,000 property owners with five to 40 acres of land," says Bob Olson, U of M Extension educator. Olson says there are probably at least another 20,000 throughout the state.

The newsletter originated in the fringes of the Twin Cities, but it's now available to landowners everywhere. There are several ways you can read it. To receive the 16-page quarterly newsletter via mail, the cost is \$12 for four issues.

If you'd like to subscribe to the electronic version of the newsletter, you can do so at no cost by contacting the editor at washington@extension.umn.edu. Persons with Internet access may view the newsletter, including several past issues, at www.extension.umn.edu/county/Washington. The electronic versions are read-only files that may be viewed, but are not formatted for printing. Address questions or comments about the newsletter to Bob Olson at (651) 430-6808, or email olson160@umn.edu.

Ag educators can apply for SARE grants to teach sustainable agriculture

USDA's North Central Region (NCR) Sustainable Agriculture Research and Education (SARE) program is requesting proposals for professional development activities in sustainable agriculture. Funds will be available for projects that address professional development targeted to educators within the Cooperative Extension Service (CES), Natural Resources Conservation Service (NRCS), other governmental agencies and educators and service personnel in the non-profit and for-profit sectors of the food and fiber system.

One- to two-year grants will be funded. Individual grants have ranged from \$10,000 to \$80,000. To help potential project coordinators complete outcome-based funding applications, two optional workshops will be held: Dec. 5 in Chicago and Dec. 12 in Minneapolis.

Past projects funded have included a program for educators and bankers on the benefits of management-intensive grazing, training in soil quality and whole-farm planning, sustainable agriculture distance learning, video training with decision case studies, and a legal guide for farm marketers.

Proposals are due Feb. 1, 2001. Applicants must reside in the North Central region. For applications, contact the NCR SARE office at the University of Nebraska, 13A Activities Bldg., P.O. Box 830840, Lincoln, NE 68583-0840, (402) 472-7081, or ncrsare@unl.edu. Or, check the NCR SARE web site: www.sare.org/ncrsare.

SARE is a federal program supporting sustainable agriculture through competitive grants and educational endeavors.

Wisconsin school for beginning dairy farmers

Do you want to manage your dairy herd in a way that can:

- Cut costs and increase profits?
- Provide you with a better quality of life while enhancing the environment?

The Wisconsin School for Beginning Dairy Farmers is a one-year certificate program in grass-based dairying. The course provides opportunities for internships, mentoring, farm tours, and networking with experienced grass-based dairy farmers. You can also learn about grazing sheep, goats, and other species. Specialized scholarship support and a distance education option are available for this course.

The Wisconsin School for Beginning Dairy Farmers is part of the UW-Madison Farm and Industry Short Course, with support from the Center for Integrated Agricultural Systems. You can check the center's website at <http://www.wisc.edu/cias/>.

For an application or brochure, contact Kathy Martin-Taylor at (608) 262-5200, kmartint@facstaff.wisc.edu

New bulletins on building soils, small dairy processing and pest management

You can order the two books below from Sustainable Agriculture Publications. Box 65, Hills Bldg., University of Vermont, Burlington, VT 05405-0082. Telephone (800) 656-0484, e-mail lhendric@zoo.uvm.edu.

“Building Soils for Better Crops,” by Fred Magdoff and Harold van Es, is a 240-page book with practical information on soil quality concepts. The cost is \$19.95 plus \$3.95 shipping and handling.

“The Small Dairy Resource Book,” by Vicki Dunaway, is an annotated bibliography of books, periodicals, videos and other materials on dairy processing for family farmers and agricultural educators. Topics include cheese making, ice cream, butter, processing, dairy animals, business management and food safety. The cost is \$8.

“Naturalize your Farming System: A Whole-Farm approach to Managing Pests,” is a 20-page bulletin that defines ecologically based systems, outlines pest management principles and suggests how to apply those principles to farm situations. Free copies are available from the NCR SARE program at (402) 472-7081, e-mail ncrsare@unl.edu. This and other bulletins are also available online at www.sare.org/san/htdocs/pubs/.

Calendar of events, 2000-2001

These events are sponsored by numerous organizations. More information is available on MISA's website: www.misa.umn.edu.

Nov. 17-18 Small Farm Conference and Trade Show, Noblesville, Indiana. Contact Sustainable Earth at (765) 463-9366, sbonney@iquest.net

January 31-February 1 Minnesota Grazing Conference, Jackpot Junction, Morton. Call Doug or Janet Gunnink, (507) 237-5162, dgunnink@prairie.lakes.com

February 8-9 Minnesota Organic Conference, St. Cloud Civic Center. Call Doug or Janet Gunnink, (507) 237-5162, dgunnink@prairie.lakes.com

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.