

# *Sustainable Agriculture*

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## **Following Tillage Guidelines Can Reduce Sediment in Minnesota River**

Farmers can have it both ways--maintaining yields and profits and helping reduce pollution of the Minnesota River. Following tillage and residue management guidelines can help cleanse the Minnesota River of sediment, nutrients and excessive algae growth.

Tillage has a large effect on sediment and phosphorus loss; say John Moncrief and Gyles Randall, soil scientists with the University of Minnesota. Widespread adoption of conservation tillage practices within the Minnesota River basin could reduce sediment in the river by about 45 percent, according to the Natural Resources Conservation Service (formerly the Soil Conservation Service).

Farmers who switch from moldboard plowing to a chisel-plow system can leave 30 percent residue cover on the surface after planting. And, soil erosion will be reduced from 50 to 65 percent in corn-soybean rotations without sacrificing yield potential. Moncrief says the reduction in sediment delivered to the river may be from 5 to 20 percent of the reduction in eroded soil.

In fact, reduced tillage often leads to higher net profits if producers choose the right tillage system for their crop rotation, soil type and climate, and make the changes in weed control, fertility management and machinery operation that high-residue farming systems require.

The Minnesota River can be restored to health. Measures already underway promise to result in reductions of the major pollutants spoiling the river--bacteria, solids, phosphorus and nitrogen. Farmers are upgrading feedlots and leaving more residues on their fields. Towns and cities are reducing storm water runoff and industrial discharges while upgrading wastewater treatment plants and septic systems.

Moncrief says pollution from farm and nonfarm depend largely on yearly rainfall. In low rainfall years, such as the 1988 drought, most phosphorus entering the river came from sewage plants in the Twin Cities. But in high flow years, the opposite is true. In the 1993 flood year, most sediment and phosphorus came from farmland throughout the Minnesota River basin.

Tillage guidelines for specific soils, climate zones and crop rotations within the Minnesota River basin are available from county offices of the Minnesota Extension Service. The Minnesota Alliance for Crop Residue Management is working with local land resource agencies and organizations to support local plans for sediment reduction. For more information, contact Moncrief at 162 Borlaug Hall, University of Minnesota, St. Paul, MN 55108, (612) 625-2771 or [jmoncrief@extension.umn.edu](mailto:jmoncrief@extension.umn.edu)

The University of Minnesota's Extension Service, Minnesota Association of Soil and Water Conservation Districts and the Natural Resources Conservation Service are the lead agencies in the alliance.

## **Pesticide Reduction Supported by Two-Thirds of Voters**

A national poll has found almost two thirds (64%) of all voters support reductions in pesticide use by farmers. They agreed that "the government should use existing financial subsidies to reward those farmers who take steps to keep chemical pesticides from polluting food and water, because these chemicals can be harmful to people, especially children." The poll, conducted by Peter D. Hart Research Associates, Inc., included 1,201 registered voters who said they voted in November.

"Support for pesticide reduction is broad-based, even among people who describe their area as a rural or farming community (57%), and among those who live in the agricultural Midwest (59%)," the report said. "Three in five Republican candidate voters (58%) support the argument for pesticide reduction." (Condensed from *Alternative Agriculture News*, Henry A. Wallace Institute, 9200 Edmonston Road, Suite 117, Greenbelt, Maryland 20770)

## **Organic Sales Increasing in Stores, by Mail Order**

Growth of organic products has exceeded 20 percent for five years in a row and annual sales have topped \$2 billion. "Organics has become one of the fastest-growing segments of the natural products industry," according to *Natural Foods Merchandiser* (Jan. 1995) "This phenomenal development has compelled an ever-increasing number of manufacturers to 'go organic' by using high-quality organic ingredients in their products."

## **In Terms of Tonnage**

The best-selling organic products are wheat and soybeans, used in hundreds of products including cereal, bread, and cookies, baking mixes, meat substitutes, salad dressings and frozen dinners. Hot new products include ice cream bars made from organic milk; all-organic, instant soup-in-a-cup; salsas and dips; low-fat baked organic corn chips; and a new cereal bar. And, direct mail selling of organic foods increased sharply during the holiday season. (Condensed from *Alternative Agriculture News*)

## **Business Retention, Enhancement Programs Work for Agriculture**

It would be nice if new industries offering good jobs would magically appear in rural areas that have been losing people. In real life, that's a challenge in rural areas like Murray County in southwestern Minnesota, which lost over 16 percent of its population from 1980 to 1990 and is located far from major trade centers.

Due to the county's location, agriculture is likely to be a key to its economic well-being. And to help agriculture--specifically the swine industry--a Business Retention and Enhancement Program (BR & E) was suggested by Murray County extension educator Bob Koehler.

BR & E strategy programs were introduced to Minnesota by George Morse, extension economist with the University of Minnesota's Extension Service. Morse developed the program to help manufacturing, retail trade and tourism in small communities when he was working in Ohio. In the last year, he's modified the program for agriculture.

When Morse made the BR & E program available for agriculture, Koehler became interested in using it to involve local people in a swine industry project. Murray County's swine industry currently provides 409 jobs, which means that pork producers employ between 8 and 10 percent of those working in the county.

But the county's swine industry hasn't grown much in the last 20 years and Koehler says that probably means it's contributing less to farm family income than in the past. Murray County farmers presently have the lowest livestock income per crop acre in a 12 county area of Southwest Minnesota .

The BR & E program was made possible by 75 local community volunteers, who interviewed 84 pork producers in spring, 1994. The data were reviewed by Morse and other specialists with the University of Minnesota. The local task force then developed final recommendations to help pork producers find financing to fund capital investments in facilities and technologies, earn higher incomes by learning new production and management techniques, build a community consensus for a strong swine industry and a county plan on environmental issues, and earn higher incomes through working together, or "networking."

Koehler says a local steering committee will now guide the attempted implementation of these and other recommendations adopted by the task force.

State sponsors of this BR & E project are the Minnesota Department of Trade and Economic Development, Minnesota Extension Service of the University of Minnesota and Minnesota Pork Producers. Local sponsors were the Murray County Pork Producers, Minnesota Extension Service--Murray County, and the Murray County Economic Development Office.

For more information, contact Morse at 130 COB, University of Minnesota, St. Paul, MN 55108, (612) 625-9769 or [gmorse@extension.umn.edu](mailto:gmorse@extension.umn.edu).

### **U of M Plans Alternative Livestock Conference**

If the idea of raising buffalo, llamas, ostriches, or elk intrigues you, an event the University of Minnesota is planning this summer is for you. It's the Alternative Livestock Conference, scheduled for July 27-29 on the university's St. Paul campus.

The conference will be designed for people considering an alternative livestock enterprise, as well as those who have already established such an enterprise. It will provide networking opportunities with other producers. There will be live animals on hand for show and demonstration, and also displays on production and support services.

The conference will include educational presentations on alternative livestock production, health and nutrition, and housing. There will also be information on the economics and marketing of alternative livestock and value-added products. To obtain a preliminary brochure for the conference, call Judy Sunvold at 1-800-367-5363 or (612) 625- 2636.

Other sponsors include the Agricultural Utilization Research Institute and the Minnesota Department of Agriculture.

### **New Feedlot, Manure Management Advisory Committee Formed**

Representing the University of Minnesota on the newly formed Feedlot and Manure Management Advisory Committee are agricultural engineer Larry Jacobson, animal scientist Sally Noll, soil scientist Gyles Randall and extension educator Chuck Schwartau (Wabasha County). The advisory committee was authorized during the 1994 legislative session to "identify needs, goals, and suggest policies for research, monitoring, and regulatory activities regarding feedlots and manure management."

The committee consists of 18 voting members: eight livestock producers; representatives from three environmental organizations; four experts in soil and water science, nutrient management, and animal husbandry; one member from an organization representing local government units; and one member each from the house and senate. For more information, contact David Schmidt, Agricultural Engineering, University of Minnesota, St. Paul, MN 55108, (612) 625-4262.

## **You Can Be Part of Visions for Change**

Will there be enough wholesome, safe food to feed the population of the future?

What new knowledge and skills will be needed in the 21st century to meet the food demand?

Will universities be ready to prepare professionals to respond to future community needs?

Visions for Change (VFC) is a project supported by a grant from the W.K. Kellogg Foundation to the College of Agriculture, Food, and Environmental Sciences at the University of Minnesota. It provides an opportunity to answer these questions. The project is designed to contact citizen groups in Minnesota, North Dakota, and South Dakota to create a vision for food systems education at our land grant universities for the 21st century.

The food system broadly describes all factors relating to food — from the field to the table. It includes the more traditional issues of production, processing, and distribution as well as current issues of energy and land use, nutrition, food safety, and food access. Food systems education refers to the process of preparing individuals to address food systems issues.

Why is this visioning effort important? Land grant universities, including the University of Minnesota and North and South Dakota State Universities, were originally established in the 1860s to teach practical skills to the average citizen. These citizens, typically farmers, usually did not have access to higher education. Land grant universities provided an educational opportunity to better their lives and improve their farming practices.

Some citizens' groups and other organizations have expressed concern that land grant institutions have drifted away from their original mission, becoming too focused on research at the expense of teaching and service to the people. This project is committed to renewing that mission and inviting your active involvement in shaping the ideal university. The visioning effort will address these questions:

- How can land grant universities address the food issues of the citizens of Minnesota and the Dakotas?
- How can these same universities prepare students for the challenges of the 21st century?
- What would the ideal university be like?

Citizens from Minnesota, North Dakota, and South Dakota are participating in focus groups around basic issues affecting the future of higher education, with specific emphasis on food systems education. There are many ways you can become involved. You may participate in a focus group, contributing ideas and expertise. You may suggest others that should be involved. You can just stay informed. To learn more about the project, contact:

Phil Larsen, Project Director, 201 Haecker Hall, University of Minnesota, St. Paul, MN 55108. Tel. (612) 625-7062, fax (612) 624- 3617, E-mail [taack002@gold.tc.umn.edu](mailto:taack002@gold.tc.umn.edu)

New Book Available from Iowa State University Press

Planting the Future: Developing an Agriculture that Sustains Land and Community is a new book that provides information for public dialogue on future directions for agriculture and public policy. It covers research-based analyses of the socioeconomic impacts of "sustainable" and "conventional" agriculture, agricultural research alternatives, and policy analysis. The cost is \$14.95 plus shipping and handling. Call 1-800-862-6657 for more information.

### **Alternative Swine Production Publication Available**

Dwight and Becky Ault, Austin area farmers, have compiled a booklet featuring the hog production systems of seven Minnesota and Iowa farmers. The booklet, *A Gentler Way--Sows on Pasture*, also includes an article on deep bedding and guidelines for pasture farrowing systems (from Mark Honeyman, Iowa State University).

The booklet was produced with support from Practical Farmers of Iowa, the Sustainable Farming Association of Minnesota, the Land Stewardship Project and the Sustainable Agriculture Program at the Minnesota Department of Agriculture. It's available for \$2, which covers printing and postage, from Dwight Ault, Rt. 1, Box 230, Austin MN 55912, (507) 437-3085. There's a slight discount for multiple copies.

### **We can use your Story Ideas**

Keep the story ideas coming. Send them to the editor: Jack Sperbeck, 405 Coffey Hall, University of Minnesota, St. Paul, MN 55108, Tel. (612) 625-1794. E-mail: [jsperbeck@extension.umn.edu](mailto:jsperbeck@extension.umn.edu). Other editorial board members are Phil Larsen (612) 624-7451, Don Olson (612) 625-9292 and Helene Murray (612) 625-0220.

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.

Thank you...

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