

# *Sustainable Agriculture*

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## **New study shows sustainable farms profitable, help the environment**

Profits and environmental performance on sustainable farms match and often exceed that of conventional farms, according to a new four-year study coordinated by the Minnesota Institute for Sustainable Agriculture (MISA).

The study profiled three farms in detail, measuring soil loss, rainfall and field runoff. Production and financial data were also analyzed to evaluate the bottom line.

Two of the farms were dairy farms in the Sand Creek watershed, the biggest contributor of sediment in the Minnesota River Basin. One dairy farm--an organic grazing system--performed exceptionally well. A combination of pasture and contour strips rotated between alfalfa hay, corn, soybeans and small grains held sediment and nutrients on the field.

Normal rainfalls caused almost no soil loss, and a four-inch rain resulted in only 52 pounds of sediment per acre. In contrast, another study on the same soil type with corn and soybean crops on plowed fields had 20,000 pounds (10 tons) of eroded soil per acre. The second dairy grazing farm consisted of gently rolling pasture in continuous grass and legumes for over 10 years. The permanent pasture not only held the soil and nutrients in place, but also absorbed all rainfall most of the time.

The third farm was in the Chippewa River watershed, also part of the Minnesota River basin. It was mostly flat pasture, where beef cows and calves are rotationally grazed. The soil cover prevented runoff from most rainfalls. Three storms caused runoff with sediment, but at rates 20 to 40 percent less than the watershed average.

Despite the unconventional grazing systems, both dairy farms were very healthy from a financial standpoint. One farm consisted of 41 cows and produced organic milk. The other farm had 141 cows and produced regular milk. Net income averaged \$83,000 per year on the larger farm--two to three times the average for similar dairy farms in the region. Input expenses and debt load were kept relatively low.

Income on the smaller dairy farm averaged \$57,000 per year--one and one-half to three times higher than their peers. The beef cow-calf operation on the third farm fared less well. The beginning young farmer faced several problems common to many beginning farmers, including high debt levels. Net income was negative, and both spouses worked full time jobs off the farm.

Start-up costs are partly to blame as the farmer is investing in pasture fertilization that will pay off later in lower feed costs. And bad luck was a factor. A combination of a barn fire that destroyed winter feed and

weather related herd mortality problems resulted in further losses. However, the financial analysis showed there's potential for profitability in the long run.

Cooperators with MISA on the project were the Sustainable Farming Association of Minnesota, Land Stewardship Project and The Minnesota Project. The study is titled "Sustainable Farming Systems: Demonstrating Environmental and Economic Performance." For either the 44-page report or a short summary, contact the MISA office at [misamail@umn.edu](mailto:misamail@umn.edu). Or, call (612) 625-8235 or (800) 909-6472.

## **'Ask MISA' answers the tough questions**

Now that the harvest season is nearly over and farm folks will soon have more time for reading and planning, it's a good time to remember "Ask MISA." The Information Exchange of the Minnesota Institute for Sustainable Agriculture provides the Ask MISA service. There's support from the Minnesota Legislature, the Minnesota Department of Agriculture, and the College of Agricultural, Food and Environmental Sciences.

Ask MISA is a free public service that provides answers to questions about sustainable agriculture and related topics. If you're having trouble finding information that you need, we can help. Difficult, obscure, offbeat questions are our specialty!

Examples: Where do I get a certificate for exporting amaranth from Ukraine? How do I harvest and dry corn silk? Is anyone in Minnesota involved in hydroponic lettuce production? Our hazelnut trees were damaged by herbicide drift; what is the value of a hazelnut tree?

The two most common types of questions are from people who want to start farming and are looking for general beginning farmer information, and from those already farming who want information about alternative crops or becoming certified organic.

Anyone can use the service by going to the MISA website at [misa.umn.edu](http://misa.umn.edu). Then click on Ask MISA on the sidebar, fill out the online form and click on "submit." A MISA staff person will respond to the question within a week, often sooner. You can also reach the MISA office by telephone at (612) 625-8235 or (800) 909-6472. Questions can also be e-mailed directly to: [misamail@umn.edu](mailto:misamail@umn.edu).

## **Here's the latest news from MISA**

The Minnesota Institute for Sustainable Agriculture (MISA) seeks new members to serve on their board of directors, and a committee is currently accepting nominations. The 12- to 15- member board will consist of one-third U of M representatives, one-third sustainable agriculture practitioners (farmers and ranchers), and one-third from other members of the sustainable agriculture community.

The nominations process is in accordance with the new by-laws adopted for MISA in September 2001. The bylaws renew the partnership efforts between the University and the sustainable agriculture community. To restructure the bylaws, Charles C. Muscoplat, vice president for agricultural policy and dean of the College of Agricultural, Food and Environmental Sciences (COAFES) at the University of Minnesota and key members of his staff have worked for the last year with the Sustainers' Coalition (the community side of the partnership that is MISA).

The Sustainers' Coalition members are the Institute for Agriculture & Trade Policy, Land Stewardship Project, Minnesota Food Association, The Minnesota Project, and the Sustainable Farming Association of

Minnesota. MISA was founded in 1992 to bring together the agricultural community and the University community to cooperatively develop and promote sustainable agriculture in Minnesota.

"The operating structures have been improved, made explicit, and give MISA the potential to expand its role" said Diane Jensen, director of The Minnesota Project. This renewal and enrichment of the partnership between COAFES and the Sustainers' Coalition dovetails with the College's new priorities. The new priorities are promoting safe and healthy foods; improving environmental quality; serving urban communities; revitalizing Minnesota's rural communities; and enhancing agricultural systems. The priorities are bound by the overarching theme of emphasizing exemplary education.

"Sustainability is integral in each of the college priorities," said Muscoplat. "MISA will be a key mechanism to reach citizens with contributions that address the issues of the day, from regional food systems to conservation of natural resources, to economic stability for farmers."

The partnership represented by MISA has become a model for other centers both within the University and elsewhere in the country. A committee appointed by Dean Muscoplat is conducting an internal search for a permanent executive director for MISA. It is expected that the executive director will be in place by Jan. 1, 2002. If you are interested in serving on the MISA board of directors, or if you'd like more information about the new bylaws, contact the MISA office at [misamail@umn.edu](mailto:misamail@umn.edu). Or, call (612) 625-8235 or (800) 909-6472.

### **Agriculture diversification/sustainable agriculture job at MDA**

The Energy and Sustainable Agriculture Program (ESAP) of the Minnesota Department of Agriculture is seeking an individual with a strong, broad background in agronomic or related disciplines to assist with the agency's agricultural diversification efforts.

ESAP is a state program that provides education and technical support to Minnesota farmers seeking ecologically, socially and economically sound methods of producing crops and livestock. Program activities include on-farm research and demonstration grants and low-interest loans, producing the annual Greenbook and other publications, workshops, field days and an organic certification cost-share program.

For more information, contact Susan Miller, Human Resources, Department of Agriculture, 90 W. Plato Blvd., St. Paul, MN 55107-2094, (651) 296-2361, or fax to (651) 297-7868. The job notice, selection process and application for Planner Intermediate - Sustainable Agriculture can be found at [www.doer.state.mn.us](http://www.doer.state.mn.us).

### **Agricultural and Food Sciences Academy recruiting Twin Cities urban students**

Minnesota's first urban agricultural high school is the Agricultural and Food Sciences Academy and it's recruiting students for the 2002-2003 school year.

The academy is recruiting students in grades 9-11, says Brian Ingvalson, academy principal. The academy is a small school with a curriculum focused on life sciences and has developed key partnerships with the University of Minnesota, the Minnesota State Fair and Minnesota's agricultural business community. The academy first opened this fall, and intends to grow to a grade 9-12 high school serving 500 to 600 students in several years.

There is no cost to attend the academy, which offers studies in animal, horticultural, plants/agronomy, food processing and environmental sciences. The academy meets all general education curriculum

requirements as provided by Minnesota's graduation standards. The academy is housed at the Capitol View Center located at Hwy. 36 and Rice Street in Little Canada.

The academy will be offering extensive internship and mentorship opportunities at the University of Minnesota's St. Paul campus, and with Minnesota businesses. The academy's central mission is not to train farmers, but to meet the personnel needs of Minnesota's extensive agricultural/natural resources economy and to increase agricultural literacy through a science and math college prep curriculum.

There are 18 high schools of agricultural education located in the U.S. More information about enrollment opportunities at the Agricultural and Food Sciences Academy is available by calling (651) 415-5370, or by e-mail at [bingvals@agacademy.net](mailto:bingvals@agacademy.net).

### **Calendar of events, 2001**

These events are sponsored by numerous organizations. More information is available on MISA's website: [www.misa.umn.edu](http://www.misa.umn.edu).

Nov. 17. **Flour Corn Workshop**, Verndale Community Center, 10 a.m. to 1 p.m. Contact Lynda Converse at (320) 594-2456, [converse@rea-alp.com](mailto:converse@rea-alp.com).

Nov. 17. **Buckwheat Growers Membership Meeting**, 2 p.m. tour of Wadena feed mill, 3:30 p.m. meeting at Aldrich Community Center. Contact Tom Bilek, (218) 445-5475 or [tombilek@wtca.net](mailto:tombilek@wtca.net).

Dec. 6-8. **Annual Acres USA Conference**, Radisson Hotel South, Minneapolis. Call (800) 355-5313, [info@acresusa.com](mailto:info@acresusa.com), or [www.entsoc.org](http://www.entsoc.org).

Dec. 13. **Minnesota Dairy Expo & Forage Conference**, Holiday Inn, St. Cloud, 10 a.m. to 3:30 p.m. Contact Jim Salfer, (320) 255-6169, [salfe001@umn.edu](mailto:salfe001@umn.edu) or [mfgc@umn.edu](mailto:mfgc@umn.edu).

### **What we're about**

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Also check MISA's home page at [www.misa.umn.edu](http://www.misa.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.**

To stimulate thinking and discussion about sustainability, we try to present items that reflect different points of view. This being the case, we aren't promoting and don't necessarily agree with everything we publish.