

# *Sustainable Agriculture*

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## **New water quality research shows impact of flooding in Minnesota River Basin**

There's less soil washed into the river from alfalfa fields than from row crops such as corn, even under extreme flooding conditions this spring. Researchers at the University of Minnesota's West Central Experiment Station at Morris were able to show the impact of severe spring flooding on water quality.

Fields planted to alfalfa were compared with corn planted using good conservation methods. Two fields were planted to alfalfa and two to corn. All fields have slopes ranging from six to 12 percent. At the bottom of each field, natural drainage directs the runoff to a collection area equipped with flumes and "grab samplers." Runoff is measured and samples collected for chemical analysis from the four fields.

In 1996-97 a snow pack of two to five feet accumulated on the fields. The snow held between one and two feet of water. Snow melt in late March and early April was followed by 2.35 inches of rain. It was difficult to retrieve the samples since two of the roads to the site were washed out and a third was under water.

But water samples that were finally collected were far more turbid from the chisel plowed corn fields than from where the alfalfa was growing. Turbidity indicates soil erosion. Total amount of erosion that occurred is not available at this time, but it was substantial, the researchers said.

Alfalfa is being looked at as a renewable energy source by the Minnesota Agri-Power Project and the University of Minnesota. Alfalfa is an "environmentally friendly" crop that's unique compared to other biomass alternatives. In the project, alfalfa leaves are used as a high value feed and the stems provide energy.

Agricultural Experiment Station researchers are looking at three environmental benefits of introducing alfalfa into a corn-soybean rotation: impacts on surface water quality; impacts on ground water and tile effluent; and landscape and wildlife diversity factors.

For more information on the study, contact Bethany Davidson, Center for Alternative Plant & Animal Products, 325 Alderman Hall, St. Paul, MN 55108. Phone (612) 625-4707, fax (612) 625-4237, david025@gold.tc.umn.edu—by Cheryl Fox

## **Extension educator says small livestock farms can compete**

Large-scale livestock producers have some advantages over farmers with fewer animals, but it's still possible to make a decent income without building an immense operation. Pat Kearney, Minnesota Extension Service educator in Kandiyohi County, says size advantages include volume discounts for inputs and possible pricing advantages at selling time.

But imagination is the key and all farmers, regardless of size, have access to the same amount of

imagination. Imagination can take many forms, Kearney says. For example, typical farmers thinking of leaving the dairy business don't improve their facilities. But Kearney knows of at least one couple who built a state-of-the-art barn as a way to attract a buyer for their farm.

Keys to survival for smaller producers include highly accurate financial records to spot areas where savings can be made and a superior ability to market the finished animals. Kearney says the most profitable time is not spent on a tractor, but on the phone calling for lower input costs and better selling prices, or pushing a pencil to break down the costs of each part of the operation. Both day-to-day inputs, such as feed, and long-term investments (such as machinery and structures that cost money whether or not they're being used) must be considered. Other guidelines:

- Keeping a handle on feed costs is extremely important since feed is typically half or more of the total cost of raising an animal. Alternatives to high-priced soybean meal could include high-moisture corn, wet and dry brewer's grain, cottonseed meal and potato waste. Kearney says an idea that's catching on is joining neighbors in buying feed to capture volume discounts.
- You can also use production methods once thought to be old fashioned, such as grazing swine. Studies have shown that grazing hogs in alfalfa over the summer can cut feed and veterinary costs by 50 percent with no manure handling costs.
- Farmers can erect temporary structures as animal shelters. This is not only cheaper, but avoids the problem of expensive buildings becoming technologically obsolete before full depreciation. Using inexpensive and easy-to-construct buildings also allows people to see if they really want to farm without putting up a huge investment first.
- Also consider if expenses, including equipment depreciation, really make it cheaper to grow your own feeds. "Do you need that big tractor, or should you just pay someone to pump out the lagoon for you? The cost of iron these days is outrageous," Kearney says. "Balers start at \$53,000. You're borrowing at 10 percent and you still need the big tractor to pull it."

Not everything is wonderful for the so-called big players, Kearney says. Farmers with smaller operations often have a higher profit margin than large-scale operators since they can pay more attention to individual animals and to inputs. Kearney can be reached at the Kandiyohi County Extension Office, 1900 NE Highway 294, Willmar, MN 56201-9423, (320) 231-7890.—from Agri News, March 11, 1997

### **New sustainable ag roles for Bill Wilcke**

After Don Olson retired last fall, Bill Wilcke assumed the part of Don's job that involved coordinating the University of Minnesota Extension Service programs in sustainable agriculture. He also assumed responsibility for the Minnesota agriculture professional development program for extension and Natural Resource Conservation Service (NRCS) personnel, which is part of the federally-funded Sustainable Agriculture Research and Education (SARE) program. Bill's coordination responsibilities include linking individuals with similar interests in sustainable agriculture, publicizing and reporting on sustainable agriculture learning activities for extension and NRCS personnel, and encouraging professional development opportunities in sustainable agriculture.

Bill also serves on the Board of Directors for the Minnesota Institute for Sustainable Agriculture (MISA). MISA is funded by in part by the University of Minnesota College of Agricultural, Food, and Environmental Sciences. Its primary objective is to stimulate more emphasis on sustainable agriculture at the University of Minnesota in teaching, research, and extension programs. Bill was elected chair of the board at MISA's annual retreat in March. The roles of coordinator of extension sustainable agriculture programs and chair of MISA's Board of Directors are very complementary, he says, and should provide opportunities for increased collaboration between MISA and extension.

For the last year, Bill had been serving as a replacement for Don Olson on the North Central Region SARE Administrative Council. At the April 1997 Council meeting, Bill was elected to represent Minnesota for a four-year term on the council. The council receives about \$2.5 million per year from the federal government and sets priorities for sustainable agriculture research and education programs in the North Central Region, issues calls for proposals, evaluates proposals, and makes funding decisions. SARE programs include the Professional Development Program (PDP or Chapter 3) for extension and NRCS personnel, producer grants, and a research and education program (Chapter 1).

In addition to filling these sustainable agriculture roles, Bill is a faculty member with extension and research appointments in the University of Minnesota Department of Biosystems and Agricultural Engineering. His primary interests are in crop drying and storage, agricultural energy sources, and sustainable agriculture.

If you have ideas for new programs, would like help publicizing an activity, or have questions about SARE, MISA or extension programs in sustainable agriculture, contact Bill at [wwilcke@extension.umn.edu](mailto:wwilcke@extension.umn.edu) or (612)-625-8205.

### **Loni Kemp named co-chair of National Campaign for Sustainable Agriculture**

Loni Kemp, senior policy analyst for the Minnesota Project, has been named co-chair of the National Campaign for Sustainable Agriculture. “In Minnesota, Loni has worked to unite farmers, environmentalists, religious groups and rural residents,” says Amy Little, executive director of the campaign. “She understands that to get the kind of changes we need in agriculture—ones that encourage family farms, strengthen rural communities and protect the environment—we need to reach out to the broader public.”

The National Campaign for Sustainable Agriculture is a network of over 500 groups. It played a major role in the 1995-96 Farm Bill debate and is now working on the Congressional Appropriations process and monitoring the U.S. Department of Agriculture. The Minnesota Project is a non-profit organization that works to strengthen Minnesota’s rural communities.

More information on the campaign is available at P.O. Box 396, Pine Bush, N.Y. 12566, (914) 744-8448, fax (914) 744-8477, e-mail [Campaign@magiccarpet.com](mailto:Campaign@magiccarpet.com)

### **Here’s how you subscribe to the sustainable agriculture listserv**

Here are directions to using the new sustainable agriculture listserv:

- To subscribe to [sustag@coafes.umn.edu](mailto:sustag@coafes.umn.edu), send this one-line e-mail message to [majordomo@coafes.umn.edu](mailto:majordomo@coafes.umn.edu): “subscribe sustag.” Do not enter a subject and turn your signature off. To unsubscribe, the method is exactly the same, only use the message “unsubscribe sustag.”
- To see who is subscribed, send the following one-line e-mail message to [majordomo@coafes.umn.edu](mailto:majordomo@coafes.umn.edu): “who sustag.” Do not enter a subject; turn your signature off.
- To send an e-mail to all subscribers of the listserv, send your e-mail message to [sustag@coafes.umn.edu](mailto:sustag@coafes.umn.edu)

For more information, contact Julie Grossman at (612) 625-0253, [grossman@soils.umn.edu](mailto:grossman@soils.umn.edu).

## **Three named to School of Agriculture Endowed Chair in Agricultural Systems**

Three people have been selected to fill the University Of Minnesota School Of Agriculture Endowed Chair in Agricultural Systems. They will work as a team in a multi-disciplinary approach to issues surrounding livestock production in Minnesota.

Carmen Fernholz is a farmer and hog producer with a history of involvement in sustainable agriculture, on which he has published a book. Pat Henderson is an agribusiness marketing and communication consultant. She represents various agricultural interests including the American Oat Association. Robert von Bernuth is the former head of the Agricultural Engineering Department at Michigan State University, and is spending four months in Minnesota working on the project.

The Minnesota Institute of Sustainable Agriculture (MISA) invites you to interact directly with them as they develop their program. For more information, contact MISA at 1-800-909-6472 or (612)-625-8235.

## **Conservation program hotline now operating**

The Center for Rural Affairs is re-activating its Conservation Options Hotline to help farmers and ranchers wanting to enroll in the Conservation Reserve program (CRP), the new Environmental Quality Incentives Program (EQIP), and the Conservation Farm Option (CFO).

The hotline is a service of the Center for Rural Affairs in cooperation with the Midwest Sustainable Agriculture Working Group, a network of grassroots sustainable agriculture, environmental, church, rural and food organizations. The Conservation Options Hotline telephone number is (402) 994-2021.

## **Coming events...**

May 7, 8 a.m. to 4:20 p.m., "A River Runs Through Us," a regional conference on sustainable communities, Atwood Memorial Center, St. Cloud State University. Contact: Center for Continuing Studies (SCSU) (320) 255-3082, fax (320) 654-5041, or e-mail [conference@tiger.stcloud.msus.edu](mailto:conference@tiger.stcloud.msus.edu).

May 14, 4:30 p.m., Richard Moe, president of the National Trust for Historic Preservation, speaks on the role of grassroots citizen involvement in the preservation movement, Landmark Center, 75 W. 5th St., downtown St. Paul.

May 16, 23 & 30, 3:30 p.m., continuing seminar series on "Perspectives on Sustainability," 445 Blegen Hall, University of Minnesota West Bank. Contact Hilda Kutz at (612) 625-6080.

May 21, 12 noon, Migrant Project Trip Field Report, 408 Hayes Hall, U of M St. Paul Campus. Lisa Sass-Zaragosa and others will discuss the lives of migrant farm workers on the Texas & Mexico border. Contact the MISA office at (612) 625-8235.

July 10-13, 3rd annual Mississippi River Conference, St. Louis, Mo. Cost will be about \$50 for round trip bus transportation. Contact John Lamb, The Minnesota Project, (612) 645-6159.

July 31-Aug. 1, 2nd annual Minnesota River Basin Conference, Gustavus Adolphus College, St. Peter. Contact Ann Ludvik (612) 361-6590.

## **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](mailto:jsperbeck@extension.umn.edu). Other editorial board members: Helene Murray (612) 625-0220, [murra@021.tc.umn.edu](mailto:murra@021.tc.umn.edu); Tom Wegner (612) 374-8400, [twegner@extension.umn.edu](mailto:twegner@extension.umn.edu); and Bill Wilcke (612) 625-8205, [wwilcke@extension.umn.edu](mailto: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.