

# *Sustainable Agriculture*

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## **It's a group effort to make integrated weed management work**

Simplified weed management approaches are risky and may result in weed control failure. Weed management is a form of risk management, and integrated weed management must be developed farm-by-farm since each farm has unique biological factors plus time and labor management issues. In addition, weed management is especially tough in organic and sustainable production systems.

To address these challenges, two collaborative learning groups are working to develop methods to diversify weed management for soybean and vegetable production systems. These learning groups include soybean and vegetable growers; University of Minnesota weed scientists Nick Jordan, Jeff Gunsolus, Roger Becker and Susan White; and University of Minnesota Extension Service Extension Educators Dave Schwartz, Dan Martens, Jill MacKenzie and Tom Wegner.

Larry Michaletz, a soybean grower from Lester Prairie, and Greg Reynolds, a vegetable grower from Delano are serving as local coordinators for the two learning groups that include 14 farmers located throughout central Minnesota.

The focus of the learning groups is to develop management methods that will help farmers develop, on a farm-by-farm basis, a better holistic understanding of how to reconcile biological and ecological factors affecting weeds with time and labor constraints in their individual operations. The learning groups have been meeting on a regular basis for about two years. Each producer, with help from others in the group, will develop a plan for diversifying weed management on their farm. After each growing season, group members will formally assess changes in their weed management and the value of the management methods that we are developing. The management methods will then be refined based on evaluations of producers, crop consultants, educators and weed scientists.

The learning groups provide a unique opportunity for weed scientists, extension educators and producers to work together over an extended period of time. The hope is that the resulting weed management methods will help farmers steadily increase their understanding of how a weed infestation is created and sustained in a given place, the range of applicable non-chemical options, and the potential interaction between these options and other important farm operations. University of Minnesota weed scientists and extension educators expect to gain new insights about research priorities from increased interaction with producers, and new learning and teaching approaches appropriate to developing advanced weed management methods.

This work is being supported by Visions for Change, Minnesota Soybean Research and Promotion Council, USDA North Central Region Integrated Pest Management Program and the Sustainable Farming Association of Minnesota. For more information, contact Sue White, at (612) 624-4971, e-mail [white009@tc.umn.edu](mailto:white009@tc.umn.edu).—Sue White

## **Whole Farm Cooperative uses the Internet to help market their produce**

Cooperative marketing by farmers using the Internet has evolved into a promising venture over the last year for a group of Central Minnesota farmers calling themselves the Whole Farm Cooperative.

When the marketing committee of the Central Chapter of the Sustainable Farming Association (SFA) received a group producers grant from USDA's SARE program a little over a year ago they had plans to sell farm products to three Central Minnesota Colleges. The project, dubbed "Feed the Saints," because the three colleges were Saint John's, Saint Benedict's and St. Cloud State, had already been working with the colleges for three months.

They were really enthusiastic and we were ready to start filling orders in September of 1997. Then interest from the universities evaporated. Only a few small orders were placed, and there was little promise of more in the short term. The farmers realized they would have to change the nature of the universities' purchasing practices. Meanwhile, they needed to sell more farm products for better prices. Instead of trying to change the nature of institutions, they decided to work with the people within the institutions.

The experience shows that even if institutions aren't ready to change, many people within those institutions want to buy organic or sustainably produced food from farmers trying to protect the environment and their rural communities.

In November of 1997, using a computer listserv established by MISA as well as e-mail addresses of people throughout the Twin Cities, the farmers began marketing ground beef; stew meat, garlic and organic coffee purchased through fair trade contracts with Central American farmers. In December 1997 the group incorporated as the Whole Farm Cooperative. Over the last year the cooperative has developed marketing relationships with a number of institutions, including the staff of the nonprofit Institute for Agriculture and Trade Policy, the congregation of Judson Baptist Church in south Minneapolis, a number of the staff, faculty and students on the St. Paul campus of the University of Minnesota and Common Harvest CSA.

The farmers sold twice as much as they expected to sell last year—all due to so many wonderful customers who have helped them. Customers place orders via email and the co-op, using its newly purchased delivery vehicle, delivers food every three to four weeks to drop sites in neighborhoods, churches, restaurants or offices that are conveniently located for customers. The co-op now carries over 40 products including grass fed beef and lamb, lean and antibiotic-free pork, eggs, cheese from grass fed cows, organic wheat flour, garlic, and lumber products from sustainably harvested timber such as bluebird houses.

This was the most productive grant project I've been involved in. The SARE producer grants are really wonderful. (See following article)

Whole Farm Cooperative recently received a SARE marketing grant to develop relationships with more churches or synagogues. Interested congregations may contact Tim King at (320) 732-6203, e-mail [timking@tc.umn.edu](mailto:timking@tc.umn.edu).—Tim King (King is former program manager for the SFA, presently marketing manager for the Whole Farm Cooperative)

## **SARE producer grant applications now available**

Producers are invited to apply for competitive grants to research, demonstrate or educate others about profitable, environmentally sound, socially responsible agricultural systems. The grants are through USDA's Sustainable Agriculture Research and Education (SARE) program, now in its eighth year of producer grants.

A total of \$25,000 is available for grants of up to \$5,000 for individual producers and up to \$15,000 for groups of three or more producers investigating any sustainable practice or concept. To apply for a North Central SARE grant, you need to live in the 12-state North Central region. Applications are due April 30, 1999, and are available by calling (402) 472-7081, e-mail: [sare001@nvm.unl.edu](mailto:sare001@nvm.unl.edu), or at [www.sare.org/ncrsare/](http://www.sare.org/ncrsare/).

## **Seeding legumes into grass pastures yields low-cost forage**

Renovating pastures by adding legumes yielded a bounty of low-cost forage in a recent University of Minnesota research project. The three-year study took place at the U of M West Central Experiment Station at Morris.

At the beginning of the study, pastures consisted primarily of smooth brome grass, bluegrass and quackgrass. Renovation began with spraying three-fourths pound per acre of Roundup when pastures were four inches tall in the spring. The next step was to no-till drill either alfalfa, a red clover and birdsfoot trefoil mix or a graziers' mix containing many legumes and grasses. An untreated area served as a control.

"All pasture renovation treatments produced more forage than the control," says Greg Cuomo, U of M forage agronomist who headed the team of scientists conducting the study. "Over the three years of the study, alfalfa produced a total of 7 tons per acre more forage. The clover/trefoil produced 3.8 tons per acre more, and the graziers' mix yielded 5.5 tons per acre more forage."

The study evaluated the cost of the extra forage, taking into account seed, herbicide, machinery and labor expenses. The additional forage cost \$8.07 per acre for the alfalfa, \$12.81 for the clover/trefoil, and \$9.95 for the graziers' mix.

"These costs are about 10-15 percent of the cost of buying that forage as hay," says Cuomo. "And that doesn't include the benefits of increased forage quality and intake, or that these pastures lasted beyond the study." Of the many species planted in the study, Cuomo says alfalfa, orchardgrass and red clover were the most persistent. He can be reached at (320) 589-1711.

## **Can the world feed itself in the 21st century?**

Can the world make the transition to sustainable growth in the 21st century? In other words, will people have enough to eat and be able to live in a relatively healthy environment? The answer, says University of Minnesota Regents Professor Vernon W. Ruttan, depends largely on whether our institutions—governments, universities, research centers and the like—can be creative enough to overcome scientific, technical and resource constraints.

Institutional innovation will be at least as important, Ruttan says, as dealing with resource and environmental problems such as soil erosion, water shortages, pest control and climate change.

“Designing institutions capable of achieving compatibility between individual, organizational and social objectives remains an art rather than a science,” Ruttan says.

Designing institutions is like driving down a four-lane highway looking out of the rear view mirror, he adds. “We’re better at making course corrections when we start to run off the highway than using foresight to navigate the transition to sustainability.”

Recent estimates of global climate change on agricultural production are more optimistic, Ruttan says. They’ve gone from being negative in the late 1980 and early 90s to a range of slightly negative to slightly positive. More information is available in a paper, *The Transition to Agricultural Sustainability*, which Ruttan gave at a recent National Academy of Sciences Colloquium. It’s available from the Department of Applied Economics, 1994 Buford, St. Paul, MN 55108-6040, (612) 625-1705.

### **Last chance to register for the Minnesota Organic Conference**

Time is running short to register for the The Minnesota Organic Conference Feb. 16-17, (Tuesday-Wednesday) in St. Cloud. It will feature Lynne Rosetto Kasper, a chef, author, speaker and one of the country’s most respected authorities on food. She’ll tell you what your customers want.

The conference will emphasize crops that are in demand and how to grow and market organic crops. It’s intended for a wide audience: certified producers, those considering certification, and people wanting to learn how to become better managers and reduce off-farm inputs, regardless of whether they go into organic production. For registration information, contact Jan Gunnink, (507) 237-5162, or e-mail [prescott.bergh@state.mn.us](mailto:prescott.bergh@state.mn.us).

### **Agricultural crisis conferences March 2, 16**

Two all-day conferences on “The Agricultural Crisis: Causes, Consequences...and Cures?” are scheduled March 2 and March 16 at the University of Minnesota’s Humphrey Institute. Registration is \$45 per conference or \$75 for both. Call Leah Johnson at (612) 626-0564 for registration information.

### **1999 calendar of events....**

Tuesday, Feb. 9-Wednesday, Feb. 10, Adding Value on the Farm: Value Added and Marketing Conference, Holiday Inn, Eau Claire, WI. Contact Larry Swain (7615) 425-3083, [swain@wisplan.uwex.edu](mailto:swain@wisplan.uwex.edu).

Wednesday, Feb. 10-Thursday, Feb. 11, 24th Annual Minnesota Forage Conference, Kahler Hotel, Rochester (651) 436-3930.

Friday, Feb. 19-Saturday, Feb. 20, 2nd Annual Minnesota Grazing Conference, Victoria Inn, Hutchinson. Contact Jan Gunnink, (507) 237-5162.

Tuesday, Feb. 23-Thursday, Feb. 25, Advanced Organic-Biodynamic Vegetable Production Workshop for professional growers, Wilder Forest, Marine on St. Croix. Contact the Michael Fields Institute at (414) 642-3303.

Thursday, March 4, Marketing Options for Small to Medium Size Meat Producers, Mankato, Terry Dalbec (651) 215-0368.

Friday, March 5-Saturday, March 6, 10th Annual Upper Midwest Organic Conference, Sinsinawa Mound, WI. Contact Faye Jones (715) 772-6819, e-mail [fjeoc@win.bright.net](mailto:fjeoc@win.bright.net).

Friday, March 12-Saturday, March 13, Sustainable Farming Association of Minnesota annual meeting, Earle Brown Center, University of Minnesota St. Paul Campus. Contact DeEtta Bilek, (218)445-5475, e-mail [deebilek@wcta.net](mailto:deebilek@wcta.net).

### **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.