

Sustainable Agriculture

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Trees may become more profitable than corn and soybeans in parts of Minnesota

New advances in breeding fast growing trees mean we can now grow wood fiber like traditional crops such as corn, soybeans and small grains. And if rising timber prices continue, fast growing trees will be more profitable than corn and soybeans in parts of Minnesota, says Erik Streed, Center for Integrated Natural Resources and Agricultural Management (CINRAM) at the University of Minnesota.

Short Rotation Woody Crops (SRWCs) means growing hybrid willow, hybrid poplar, cottonwood and other trees under conditions similar to producing an agricultural crop. And it can bring an array of environmental as well as economic benefits, Streed says.

Growing SRWCs on agricultural land could provide economic benefit to struggling farmers and help alleviate the shortage of harvestable age aspen. Other tangible benefits include improving the condition of Minnesota's watersheds and increasing the diversity of agricultural landscapes. In addition, SRWCs can be used for "biomass energy" to produce clean-burning electrical power (an example is the proposed hybrid poplar biomass power plant in St. Peter).

Advantages of growing trees as SRWCs on agricultural land include:

- Assuming the trend in rising timber prices continues, profits from SRWCs will exceed returns from corn and soybeans in certain parts of the state.
- Crop diversification can reduce overall farming risk.
- Potential cooperative efforts to harvest and/or process the wood could provide value added opportunities for farmers.
- Less overall chemical use and soil disturbance when compared with traditional corn and soybeans.
- Improved filtering of agricultural runoff from fields and increased uptake of excess nutrient contamination to groundwater.
- Reduced pressure to harvest timber from native forests.
- Off-site environmental benefits such as reduced downstream flooding, stabilized stream channels, and improved water quality for downstream residents.

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The "middle man" role in the food system isn't all fun and games

It's not particularly easy for farmers to move into the "middle" area of food processing. Without support, these direct marketers may burn out from the work it takes to build the infrastructure to market their products, say Karen Lehman and Julie Ristau, senior fellows in the Endowed Chair in Agricultural Systems at the University of Minnesota.

They're working in southeast Minnesota, in partnership with the Experiment in Rural Cooperation, one of three University-sponsored Regional Sustainable Development Partnerships. They found that challenges for small processors are often related to scale and bureaucracy.

"This sort of processing often requires more individualized work, more attention to detail, less automation, and more personal relationships. These are elements that are not supported by typical economy of scale production," Lehman and Ristau wrote in a report for the Experiment in Rural Cooperation.

"This may often result in extra costs that can't be sustained by either side," they say. They interviewed Dave Ledebuhr, who runs a federally inspected meat plant in Winona, about the rigors of adhering to newly created federal inspection standards. Ledebuhr works with producers of ostrich, buffalo, unique cattle and hog operations "Much of his management time—which he'd rather direct to his diverse producers—needs to be spent on bureaucratic mandates."

Lehman and Ristau started exploring the "middle" issue after seeing a "tremendous commitment to quality" by southeast Minnesota producers. But the focus on quality was mainly directed to the producers' on-farm operations and less at the market place. "We met one hog producer who was importing French genetics for herd improvement and housing and feeding his animals outside in a labor intensive way that suited his woodlot. But then he was shipping all of this quality into the commodity market food chain."

"Most of his hogs were sold to IBP in Iowa to join the carcasses of factory-raised hogs. This story was repeated in other venues and on other farms, which led us to explore the middle sector of the food chain."

"Perhaps we need to re-define the middle. What would it take to put in place the processing sector to support the unique quality of the region's potential products?"

"As a land grant institution, the University of Minnesota is in a remarkable position to provide services to stakeholders in our food system—farmers, business people, the general public—and help them build relationships resulting in further innovations," Ristau says.

"What we see in southeast Minnesota is a tremendous commitment to quality," adds Lehman. "We believe that this region could be a leader in the state in demonstrating how coordinated action promoting a regional food identity can result in increased economic activity, enhanced quality of life and a better environment."

The School of Agriculture Endowed Chair in Agricultural Systems was created in 1995 with funding from the School of Agriculture at the University of Minnesota (SAUM) Alumni Association, the Minnesota Legislature, and the University of Minnesota. The Minnesota Institute for Sustainable Agriculture (MISA) manages the Chair, with support from board members of the School of Agriculture Alumni Association.

For more information, call MISA at (800) 909-6472, or Karen Lehman and Julie Ristau directly at (612) 625-8132.

Civic agriculture was topic of Community Food Expo at Morris

Students enrolled in rural sociology at UM-Morris spring semester studied the relationship between food and community well being. They capped-off their learning experience by hosting a Community Food Expo on campus May 3, according to Wynne Wright, sociologist at the West Central Research and

Outreach Center. Producers representing 11 farms and seven organizations showcased exciting examples of local food and taught on-lookers how we can eat responsibly and rebuild our rural communities at the same time.

The theme for the day was civic agriculture. Civic agriculture is an alternative to conventional agricultural built on the biological and neo-classical economics approach to productivity, efficiency, and profitability. This new approach rests on the development of civil society and community, Wright says. Civic agriculture is most often pursued to buffer farm families from the harsh realities of the global food system. This new approach emphasizes local production, quality products, labor over capital intensity, small scale, local knowledge over “expert knowledge,” and direct links between producers and consumers.

The students had also developed and administered a questionnaire to the student body to assess their knowledge of food. Findings of the study were also presented at the Expo. “Study results indicated a good deal of interest among Morris students for eating responsibly and locally,” Wright says.

Nearly 200 students, faculty and staff had the opportunity to meet innovative farmers and taste delicious samples of their products. The class was taught by Wright and is the first in a new partnership initiative between West Central Research and Outreach Center and the UM-Morris campus. Wright may be reached at (320) 589-1711, e-mail wrightw@mrs.umn.edu.

Calendar of events, 2000

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

June 10-11 **Working Prairie - Roots of the Past Sustaining the Future.** Field Day. John and Leila Arndt (J & L Bison Ranch) 5650 - 41st Avenue Northwest, Willmar, MN 56201, 320-235-8465. Time: Saturday 10:00 a.m. -5:00 p.m., Sunday, noon to 4:00 p.m.

June 16 **Pasture Renovation and Aeration with its Effects on Productivity and Quality Using a Variety of Treatments.** Field Day. Carlton County Extension, Troy Salzer, 218-384-3511. Time: 11:00 a.m. - 4:00 p.m.

June 22 **Applying Manure to Corn at Agronomic Rates to Achieve Desired Yield and Reduce or Eliminate the Need for Commercial Fertilizer Use.** Field Day. Square Deal Dairy, 4100 - 220th Street West, Farmington, MN 55024. Call: 651-480-7704 Jeremy Geske (Extension) or 651-480-7781, Tim Becket (SWCD) for details and directions.

June 24 **Big Woods Dairy Demonstration Farm.** Field day. Phil and Dawn Brossard farm. Grass-based dairy operation demonstration of sustainable agriculture and additional demonstrations on wildlife, soil quality, vegetation and grazing facts. Time: 10:00 a.m. and 1:30 p.m., two tours. Call: Please register by calling Nerstrand Big Woods State Park at 507-334-8848.

June 27 **Adding Value by Processing Excess Fruit and Vegetable Production.** Field Day. Jeffrey Adelman, 24149 Chippendale Avenue West, Farmington, MN 55024. Time: 5:00 p.m. to 7:00 p.m. Call Jeffrey at 651-463-3543 (h) or 651-462-2504 (day).

June 29 **Flour Corn as an Alternative Crop—The Benefits of Growing and Using Corn Flour.** Field Day. Buckwheat Growers' Association/Lynda Converse, RR 3, Box 54, Browerville, MN 56438. Time: 1:00 p.m. - 3:00 p.m. Call: 320-594-2456.

July 6 **Low Input Conversion of CRP Land to High Profitability Management Intensive Grazing-Haying System.** Field Day. Dan & Cara Miller, Route 1, Box 241, Spring Valley, MN Time: 6:00 p.m. to 9:00 p.m. Call: 507-346-2261.

July 6 **Evaluation of Rock Fines as a Sustainable Soil Amendment.** Field Day. Carl Rosen, University of Minnesota/Phillip Arnold, Route 2, Box 36, Long Prairie, MN 56347. Time: 10:30 a.m. - Noon. Call: 612-625-8114 (Carl Rosen) or 320-732-4398 (Phillip Arnold)

July 13 **Land Application of Mortality Compost to Improve Soil and Water Quality.** Field Day. Neil Hansen/West Central Research and Outreach Center, State Highway 329, Morris, MN 56267. Time: 7:00 registration, 7:30 wagon leaves farm shop at WCROC.

July 20 **Reducing Chemical Usage by Using Soy Oil on Corn and Soybeans.** Field Day. Donald Wheeler, 1875 - 140th Street, Balaton, MN 56115. Time: 10:00 a.m. - noon. Call: 607-734-5433.

July 27 **Bio-Based Weed Control in Strawberry Using Sheep Wool Mulch, Canola Mulch and Canola Green Manure.** Field Day. Emily Hoover/West Central Research and Outreach Center. Time: 5:00 p.m. - 9:00 p.m. Call: 320-589-1711.

July 29 **Three Projects Combined into one Field Day:**

1. Living Snow Fences for Improved Pasture Production. Mike and Mary Hansen farm, Route 2, Box 173, Hendricks, MN 56136. Time, 10:00 a.m. - 3:00 p.m. Call 507-694-1825.
2. Increased Forage Production Through Control of Water Runoff. Karen Sovell Farm, Route 1, Box 133, Ivanhoe, MN 56142. Time, see starting time above. Free lunch at Mary Sovell's farm at noon. Call: 507-694-1486.
3. Using Black Medic (*Medicago lupulina*) as a Protein Source in Grazing Corn, Joseph Rolling farm. Time: See starting time above. Call: 507-487-5742.

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.