

# THIRD CROP OPPORTUNITIES

In the Blue Earth River Basin

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Conference proceedings



February 7<sup>th</sup> and 27<sup>th</sup> 2003

Fairmont, MN

# About the Organizations

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## Blue Earth River Basin Initiative

BERBI was officially formed in 1993 as a Joint Powers Organization of Soil and Water Conservation Districts (SWCD). SWCDs members include Blue Earth, Cottonwood, Jackson, Martin, Steele, Waseca, and Watonwan counties. The major focus of BERBI is implementation and getting conservation practices on the land. BERBI has a unique relationship with its member Districts and acts as a vehicle to develop projects in cooperation with the Districts and others, an approach that has proven very effective in realizing projects in the basin.

## Institute for Agriculture and Trade Policy

The Institute for Agriculture and Trade Policy (IATP) was founded in 1986 by environmental and farm leaders who saw the need for an independent research organization dedicated to addressing the links between natural resource conservation and agriculture policies. IATP's mission is to foster economically, socially and environmentally sustainable communities and regions, and one of its strengths has been its ability to get different constituencies together to address environmental and socioeconomic issues.



# The Blue Earth River Basin

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The Blue Earth River Basin, covering 2.3 million acres in south central Minnesota, is the largest sub-basin within the Minnesota River Basin. It is intensively farmed, with more than 90 percent of the land used for corn, soybean and hog production. Commodity prices remain well below the cost of production, and farmers have little choice but to grow the crops for which markets exist and government programs provide support. This agricultural system has not provided clean water, sufficient wildlife habitat, or viable rural economies. The Blue Earth River Basin is also a large contributor of nitrogen to the Gulf of Mexico, reducing marine aquatic habitat.

Third Crops would also help address the great economic stress in the Blue Earth River Basin. Nearly 9% of the population falls below the poverty line, with some counties as high as 12.9% below poverty. Farms in Minnesota received over \$318 million in government payments in 1997; 51,228 farms in Minnesota are in debt and the total debt for Minnesota farms in 1997 was almost \$7.5 billion. This is not an economically sustainable system. Additionally, the average size of the farms in the basin increased 9% from 1992 to 1997, leaving small farms out of business and decreasing diversity of the agricultural landscape.

About 1070 farmers farm in the Blue Earth River Basin; the average farmer is 48.7 years old. In addition, the total number of full-time farmers in the basin has declined by 15.3% in just five years from 1992 to 1997, facts that testify that there is a considerable need for young farmers in order to prevent the farm community from completely disappearing and to renew agricultural practices in the basin. Out of approximately 305,000 persons living in the basin, 18% are above 65 years of age, while only about 25% are under the age of 18. The rate of renewal of farms with young farmers in the basin is very low, in part due to the high debt of many of these farms.

Yet, while working with farmers in the basin, IATP and BERBI have found incredible examples of innovative farming practices and enthusiasm for the third crop concept. A transition away from unsustainable practices and an increase in crop diversity is desperately needed, but in order to make the large-scale conversion of cropland to perennial crops economically sustainable, farmers need markets for these crops. This was the driver behind the Third Crop workshops. Much focus was placed on connecting producers with markets for third crops and the meetings emphasized networking and opportunities to make real connections with industry, organizations, and other third croppers.

*These data are from the Agriculture Census of 1997, and the U.S. Census of 2000.*

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### Discussion on Obstacles and Opportunities for Specific Third Crops:

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## FOREWORD

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On February 7<sup>th</sup>, 2003, over 30 participants gathered in Fairmont, a small town in rural Minnesota for the first meeting of a workshop series entitled “Third Crop Opportunities in the Blue Earth River Basin”. At the meeting, hosted by the Institute for Agriculture and Trade Policy (IATP) in cooperation with the Blue Earth River Basin Initiative (BERBI), participants explored some of the new opportunities for agriculture to provide diversification and other environmental benefits, while ensuring adequate returns for the farmers.

The second meeting was held February 27<sup>th</sup>, 2003 and had close to 50 attendees. On this day, new market developments were discussed and farmers had the opportunity to network with businesses interested in sourcing locally, as well as with other farmers and organizations working to magnify the strength of individual farmers’ marketing capacity by creating cooperatives and marketing groups.

The third crop concept emerged from the growing understanding of the problems with the current dominance of corn and soybean production. The corn-soybean rotation in the Blue Earth River Basin has resulted in increased soil erosion, decreased water quality, and commodity prices falling well below the cost of production. It has been recognized that agriculture is a preferred use of the landscape, as other types of production and urbanization have more detrimental effects on the environment. But the farming community is slowly dying out because of the lack of profitability in small-scale farming and being replaced by large agribusiness, the least preferred form of agriculture because of its monotonous fields, high-intensity production, and vast use of chemicals in the form of pesticides and fertilizer. Both IATP and BERBI, as well as many other organizations and farmers recognize this, and are working to diversify crops grown in the Blue Earth River Basin and to provide opportunities for additional incomes to family farmers in the region to revitalize the farming community.

In essence, third crops are alternatives to the traditional corn-soybean rotation that can help improve farm incomes and diversify farm landscapes while providing environmental benefits. Third crops could be new, specialty crops such as herbs, nutraceuticals, and specialty vegetables. The concept can also be related to the way these crops are produced and processed and thus include organic or sustainably produced crops, or even be traditional crops used for new purposes. Third crops also include other less traditional forms of farm income such as energy production and agri-tourism, and a host of other practices that help diversify farms and landscapes, and produce environmental benefits otherwise difficult or costly to achieve. These practices can include recreational opportunities, such as eco-tourism, hunting or fishing, as well as environmental benefits, such as wildlife habitat, water storage, carbon sequestration, nitrogen mitigation, and a wide range of other opportunities. Most importantly, third crops can help diversify farms, break pest cycles, and bring additional incomes to farm families, as well as many other positive outcomes.

At the workshops, landowners met with companies, organizations, and other landowners working with Third Crops to talk about opportunities for value-added agriculture that increase environmental sustainability as well as profitability. Most people involved in third crops express a concern for the markets for these crops and the lack of marketing expertise that would present an obstacle for many farmers working with third crops. Because of this concern, focus was placed on marketing, new market development, and networking opportunities.

Workshop speakers included such distinguished guests as Dennis Keeney, Emeritus Professor at Iowa State University and Senior Fellow with IATP, who spoke about some less traditional strategies that can diversify farms, such as carbon sequestration, water storage, and alternative ways to farm such as farming for wildlife and biodiversity. Faculty and representatives from University of Minnesota, Minnesota Department of Agriculture, and Minnesota Department of Transportation presented topics ranging from working landscapes and sustainable agriculture systems to how to transition to third crops. Speakers from the private sector interested in sourcing locally included AVEDA Corporation. Most importantly, a significant portion of the participants were local farmers hoping to gain or share insight and ideas to bring the third crop concept fully into the Blue Earth River Basin.

## ACKNOWLEDGEMENTS

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The Third Crop Workshop was made possible thanks to a generous contribution from the National Fish and Wildlife Foundation (NFWF). This grant extended to the Institute for Agriculture and Trade Policy's (IATP) Third Crop work in the Blue Earth River Basin, as well as regional and national outreach efforts to further the concept of Third Crops.

Thank you to the Blue Earth River Basin Initiative (BERBI) and their commitment to helping citizens in the Greater Blue Earth River watershed system address environmental issues, and for all their efforts to make the workshop series a great event to inspire farmers in the basin to become stewards of their land.

Thank you also to all the presenters that provided useful knowledge and new ideas, and to the participants who inspired the discussions and shared experiences, concerns, and passion for farming. We would also like to extend our gratitude to the many individuals whose dedication of time, energy, and resources made the Third Crop Workshops successful.

# CONFERENCE AGENDA

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## **FEBRUARY 7<sup>TH</sup>, 2003**

8.30 Registration and Morning Coffee

9.00 Welcome and Introduction

Linda Meschke, Blue Earth River Basin Initiative

Morning Address: Jerry Voyles, Martin County Commissioner

### SESSION 1- THIRD CROPS AND WORKING LANDSCAPES

9.15 Working Landscapes and Third Crops - A Changing Agricultural System

Don Wyse, Ph.D. University of Minnesota

9.45 Diversification Opportunities for Third Croppers

Meg Moynihan, Minnesota Department of Agriculture

10.15 Break

### SESSION 2- NON-CROP THIRD CROPS

10.30 Alternative Energy as a Third Crop

Lisa Daniels, Windustry

11.15 Marketing Your Landscape through ecosystem services

Dennis Keeney, Ph.D., Iowa State University,

and the Institute for Agriculture and Trade Policy

12.00 Lunch

### SESSION 3- THIRD CROP MARKETS

1.00 New Market Opportunities for Third Crops

Mike Demchik, University of Minnesota Extension Service

2.00 Panel of All Speakers with Q&As from the Audience

3.00 Evaluation and Adjourn

## **FEBRUARY 27<sup>TH</sup>**

8.30 Registration and Morning Coffee

9.00 Welcome and Introduction

Linda Meschke, Blue Earth River Basin Initiative

SESSION 1 – THIRD CROPS

9.15 Making the Transition to a Third Crop System

Paul Porter, Ph.D., University of Minnesota

10.00 Break

SESSION 2 – SUCCESS STORIES

10.15 Panel of local producers

SESSION 3 – THIRD CROP MARKETING

11.00 AVEDA and Third Crops

Mary Tkach, AVEDA

11.30 Starting A Sustainable Crop Program

Jim Kleinschmit, Institute for Agriculture and Trade Policy

12.00 Questions for AVEDA, Institute for Agriculture and Trade Policy

12.15 Lunch

1.00 Marketing of Organic Herbs as Third Crops

Renne Soberg, Organic Herb Producer Coop

1.30 Department of Transportation and Third Crops

Bob Jacobson, Department of Transportation

SESSION 4 – THIRD CROP OPPORTUNITIES

2.00 Discussion on Obstacles and Opportunities for Specific Third Crops:

Sustainably Grown Crops,  
Bringing Another Crop Into the Rotation and Cover Crops, and  
Perennials and Specialty Crops [collapsed]  
moderator: Paul Porter, Ph.D. University of Minnesota, and  
Jim Kleinschmit, Institute for Agriculture and Trade Policy

Alternative Energy and Other Non-crop Third Crops  
moderator: Sarah Johnson, Windustry

Organic Agriculture  
moderator: Amy Shogren, Three Rivers RC&D, Mankato

3.00 Share Outcomes from Discussion with the Group

3.30 Evaluation and Adjourn

# Opening address

**Linda Meschke**  
**Blue Earth River Basin Initiative**  
**February 7<sup>th</sup>, 2003**

Linda Meschke opened the workshop by explaining that this workshop is for promoting third crops as an alternative to corn and soybeans. The goal is to have attendees leave the workshop excited about third crops. This is the first day of a two-day conference. The second day will be February 27, 2003. The focus for today is on background information; the 27<sup>th</sup> will focus on marketing opportunities.



Linda Meschke told how she is at the workshop as a representative of the Blue Earth River Basin Initiative (BERBI). Why is a watershed group interested in third crops? The Blue Earth River contributes over half of the pollution in the Mississippi River at Mankato, but only makes up 20 percent of the basin, so a disproportionate amount of the pollution in the system comes from the Blue Earth River and its basin.

To clean up the river, we must look at the treatment of the land. The vast majority of the land in the basin is in annual row crops. Crop diversity would help reduce the pollutants coming from the land. BERBI has spent \$3 million over 10 years to encourage change, which has resulted in an eight percent reduction in pollutants.

The third crop idea takes it to the next level: cropping system change. Farmers are looking for change, and the current farm bill creates a helpful environment. This is the time for action.

The key issue for success of third crops is markets. There are markets—but how do we bring them to the Blue Earth River Basin area? For one thing, BERBI is going to promote a tax-free zone for bio-based production to provide a market for local third crops.

**Jerry Voyles**  
**Martin County Commissioner**  
**February 7<sup>th</sup>, 2003**

Jerry Voyles welcomed everyone to Fairmont County. He told how area farmers have tried to make a living with corn and soybeans. Some areas, especially near water, are not as suitable for some crops. People can find niches with third crops. We are lucky to have people working to make money available for third crop promotion and development.



# Session 1: Third Crops and Working Landscapes

Don Wyse, Ph.D., University of Minnesota

Working Landscapes and Third Crops - A Changing Agricultural System

February 7<sup>th</sup>, 2003



Don Wyse started his talk by describing some of his early work with native grasses and legumes in Northwestern Minnesota. Third crops, such as these native grasses and legumes, have been an important part of the northern Minnesota economy. Many of these native crops survived last summer's torrential rains, and at the same time protected the cropland on which they grew. Don pointed out that we *want* to plant crops with such landscape and ecosystem services.

But how do you bring in third crops? How do you link people who are doing work with third crops? You need to network third crop practitioners to capture outside attention, which will require policy changes, including federal money. Additionally, problems are often created somewhat unthinkingly; we must move to a higher level to solve them, while balancing quality of life, economics, and environment.

Currently, we have a meat-centered production system based on corn and soybeans, and produce a lot of high-fructose corn syrup. In the landscape, annuals have increased and perennials have decreased. Much has changed from what was here originally, which has changed the ecosystem services of the land. The row cropping system contributes to problems like hypoxia in the Gulf of Mexico. To get change, we must play off prominent issues, such as hypoxia.

In the spring, there is not a lot of vegetative cover; there are few root systems, and water moves more directly into tile lines and rivers. There is vegetative cover by June, but it is gone again by October. Thus, we have only three months of active roots to recycle nutrients. Without roots (plants), the nutrients go to the gulf and contribute to hypoxia. If we are going to make a real change in regard to hypoxia, we need to develop third crops with additional ecosystem services, like nutrient cycling and water management.

For example, one way to increase perennality (and root cover) is beef and dairy operations that are grass-based (rotational grazing). But how do you make it possible for more of these operations to become part of the landscape? You must get good products into the market at a premium. There must be a focus on market development to allow products that create landscape change.

There is work going on in Minnesota, including a study being done by the University of Minnesota and Land Stewardship Project (LSP) of the impact of adding perennials to the landscape in the Chippewa River and Wells Creek watersheds. The project models four scenarios, from the current trends to complete managed year-round vegetative cover, and has shown that adding perennality reduces sediment load, nitrogen and phosphorous.



One concept would be to take a systems perspective, and look at how many areas of interest ties together (such as water quality, agricultural land use, wildlife, etc.). To affect change in this way, we could do this by organizing at a watershed/basin level, building an environment around an idea, spreading ideas across a region, and build stability in the marketplace. It is important to work as a team, not individually.

**Meg Moynihan, Minnesota Department of Agriculture**  
**Diversification Opportunities for Third Croppers**  
**February 7<sup>th</sup>, 2003**

Meg Moynihan works at the Department of Agriculture on diversification. According to Meg, the Department of Agriculture can serve farmers who want to diversify. A lot of work within the Department is focused on organics because of the popular focus, but is receptive to all sorts of things. Meg says she is good at finding information for you.

Some of the benefits of diversification include spreading of risk, nutrient cycling, breaking pest cycles, adding value to crops, and increasing quality of life. There are many possible ways to diversify (including livestock integration, organics, agroforestry, perennial crops, managed grazing systems, and on-farm processing), and likewise a number of marketing opportunities and strategies (including direct marketing, contracts and brokers, CSAs, and farmer-owned coops) associated with diversification. A third cropper needs to keep the big picture in mind. Many larger-scale forces (including an aging population, ethnic shifts and increased health information) are affecting buying and consumption patterns.

There are important considerations for someone hoping to start a third crop enterprise. It is vital that such a person think through these issues of logistics, cost, risk, skills, equipment needs, personal likes and dislikes, and community support prior to starting an enterprise.

There are a number of resources for crop diversification.

- Minnesota Grown Opportunities – [www.mda.state.mn.us/mgo](http://www.mda.state.mn.us/mgo)
- Sustainable Agriculture Demonstration Grants
- Value-Added Agricultural Cooperative Grant Program
- Sustainable Agriculture Loans
- Agricultural BMP Loans
- Organic Certification Cost Share
- Minnesota Institute for Sustainable Agriculture’s business planning guide (call Beth at 615-625-8217)

There are, of course, rewards of diversification, but to realize them a producer must plan, do the homework, and not bite off more than can be chewed.



## Session 2: Non-crop third Crops

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**Lisa Daniels, Windustry**  
**Alternative Energy as a Third Crop**  
**February 7<sup>th</sup>, 2003**



Windustry is a non-profit partnered with IATP. It is an information project that works to introduce a distributed model of wind development to rural landowners and communities by providing basic tools to evaluate how to develop wind rights. Information is available through the Windustry web site, [www.windustry.org](http://www.windustry.org).

There are two main sources of alternative energy, biomass and wind. Most alternative energy projects provide distributed generation, are farmer or rural community owned, produce power that is used locally, use a renewable or recycled fuel, provide environmental benefits, and possess green attributes. Agricultural based energy can be viewed as a significant new crop, as a clean energy source, and as a new industry for the rural economy. The major markets for alternative energy are driven by policy, through mandates and emissions or portfolio standards. The markets can also be consumer driven, through green pricing programs.

Biomass can come from many sources, including crops (like switchgrass) or processing byproducts and animal manure. One example of a biomass project is the Haubenschild Farm, which features a methane biomass recovery system, or methane digester. The farm uses about half of the energy produced, and sells the other half. The benefits of the project include odor control, generation of electricity, pathogen reduction, green house gas reduction, and increased value of manure as fertilizer. Another example of a biomass project is the Switchgrass Biomass Project in Centerville, Iowa, [www.cvrcc.org](http://www.cvrcc.org). The project involves 6000 acres of switchgrass grown by 70 growers, and is currently in the research phase.

Wind power can be pursued in three ways: lease your land to a wind developer; form an ownership entity for a commercial-sized project; or install a turbine on your land to produce your own electricity (this would be a smaller size turbine).

When you lease your land to a wind developer, there are no set standards, so contracts range from good to bad to ugly. However, you can get involved with no outlay of cash. In making an agreement, it is important to be careful, as the agreements are long term, ranging from 20 years to perpetuity.

Some other landowner/farmer options include organizing with other landowners to negotiate collectively for a large area, partnering with a wind developer, owning and operating your own wind turbine, forming a value added wind business, or partnering with an electric coop or municipality in your region.

One recent advance for wind power is the January 3, 2003 MN PUC decision, which sets a schedule for the SW MN power line. This is an upgrade, to move energy off the Buffalo Ridge to population centers, and moves up the deadline for Xcel to build or purchase a mandated 425 MW (60 MW of this are set aside for locally-owned projects) of wind-generated electricity by 2006.

Challenges for agricultural electricity include access to capital, access to the grid, access to markets, access to information, public policy, and grassroots support.

**Dennis Keeney, Ph.D., Iowa State University, and  
the Institute for Agriculture and Trade Policy  
Marketing Your Landscape through Ecosystem Services - Eco-tourism, Carbon  
Sequestration, Recreational Leases, Water Storage, Nitrogen Mitigation, etc.  
February 7<sup>th</sup>, 2003**

Dennis Keeney spoke about other, non-energy non-crop third crop opportunities for farmers. Options include agrotourism, nutrient trading, carbon credits, watershed protection, conservation easements, recreational activities and sale of hunting and fishing rights.

Agrotourism, which allows people to visit a working farm for enjoyment, education or active involvement in the farm operation, can include activities such as a bed and breakfast, farm stays, farm tours, picnics, hayrides, pick-your-won operations, direct marketing, festivals and petting zoos. For success, agrotourism enterprises require a location close to an urban center or other attraction, dedicated family cooperation, a strong business plan, and willingness to work hard. Unfortunately, these type of activities do have a high burnout rate. There are many examples of succesful agro-tourism programs, from New England to California, as well as Europe, Australia and New Zealand. You can read about some Minnesota agrotourism enterprises at the Country Heritage Adventures web site, <http://www.mnfarmtours.com/>.



Nutrient trading is a scheme in which someone, usually an industry or waste treatment facility to meet their regulatory obligations by buying nutrient credits (usually nitrogen or phosphorus) from another entity, such as agriculture, that is less polluting. This works because it is less expensive for the polluter to buy the credits than to reduce their own emissions. Simmilarly, carbon credits (or carbon sequestration) are the removal and storage of atmospheric carbon dioxide. (Forests and agriculture can be both sources and sinks of carbon dioxide.)

Unfortunately, nutrient trading and carbon credits are probably not yet ready for prime time, for several reasons. It's hard to estimate non point source reductions, and often major nutrient sources to waters are non point now, so no offset available. Nutrient trading does, however, allow targeting to farms doing a good job of controlling nutrient losses. An online trading resource, NutrientNet, [www.nutrientnet.org](http://www.nutrientnet.org), has been established to assist in developing trading programs.

Another opportunity is farming for wildlife. There are firms now organized to assist (for a fee) in developing a business plan to create wildlife habitat and make money. This kind of enterprise can include raising native grass seed, creating a hunting preserve, or involvement in federal and state conservation programs like CREP, CRP, WRP, or RIM.

There are some opportunities for policy to promote non-crop agricultural opportunities, such as legislation to promote urban forestry, increase management of private woodlands, promote conservation practices such as CRP, or support for development of new cropping systems and new markets.

Many of these enterprises take larger-scale cooperation (on a watershed, state, regional or even global level) to be successful.

# Session 3: Third Crop Markets

Mike Demchik, University of Minnesota Extension Service

New Market Opportunities for Third Crops

February 7<sup>th</sup>, 2003

Mike Demchick spoke about  
He started by pointing out that the  
your product for more than you

Markets are scale dependent, based  
either by providing customers with  
customers that they want what you

The scale of markets ranges from  
commodity market features goods  
consistent supplies, and provide  
low cost per unit. (An example of  
to an elevator) On the other end, a  
are “non-flowable”, inconsistent, and appealing to small or disparate markets. (An example of this might be direct marketing black currant jam to a consumer.) Markets occur along a spectrum between these two extremes.



markets for alternative crop products.  
key to a successful business is selling  
have in it.

on appeal, and can be approached  
what they want or by convincing  
have to offer.

“commodity” to “specialty”. A  
that are “flowable”, available in large,  
economies of scale, thin margins, and a  
this might be selling soybeans directly  
specialty market is one for goods that

While specialty markets can offer a potentially greater profit, they have some problems, including greater risk, higher likelihood of failure, higher costs, greater knowledge needs, and the fact that many farmers aren't comfortable with marketing.

There are three things you must asses in selling any product: your market (marketing), how you will sell it (merchandising), and how people will know you have it (advertising). With a commodity, you grow what everyone else grows, and sell to the same people – you have a fairly sure market. With a specialty product, you don't have that sure market – you have to know your market well.

To know a market, you should asses its size, who the buyers are (who are the people? Retail? Wholesale?), who the other sellers are, buyer behavior (when and how do they want the product?), and what comparative advantage you have (what do you do better than anyone else?).

Agroforestry is the incorporation of woody crops into a farming system. The crops can include decorative florals, wood (wood-energy, pulp, saw timber), food, native seeds, crafts, and other things like hunting lisceneces. Decorative florals are things like willow, forsythia, red birch, bittersweet, and the local market arises because local products are much fresher than products shipped in from elsewhere, and there is value in freshness. They do produce these elsewhere, but shipping time gives local growers an advantage.

Small ventures, such as with agroforestry crops, fail for a number of reasons, including inconsistent and often small supplies, variable quality, non-flowable products, frequently poor economies of scale, the difficulty of working with untrained suppliers, lack of knowledge about the product, or a product that is unsuited to the growing or marketing area.

# Discussion with Panel of All Speakers

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Q: Why are there discrepancies in the amount you get for selling electricity?

A: The price you receive for selling electricity depends on the size of the electric system, and the size of your production (usually the size of your turbine). Turbines under 40 kW qualify for net billing. Commercial scale projects have to negotiate a rate. In the Haubenschild's example, the rate was relatively high because the electric coop was very supportive.

Q: The issue is not removing corn and soybeans, its adding perennialization, adding cover to the landscape. We need systems to preserve highly productive land. How much cover is needed to receive environmental benefits?

A: It is important to have cover in the spring, and some cover in the fall also. We need to keep the nutrient flow down from September to June. This doesn't take a whole heck of a lot of roots – just some active root cover. The problem is there hasn't been much development of crops specifically for cover crops – we need specialized development of cover crops.

Q: With recreational activities on farms, what are the liability needs and issues?

A: This is one of the biggest issues. There is a group that appraises agricultural land working on the issue. A contact point would be Clay Wallinga out of Windom.

Q: Would it be a start to do cover crops on a priority basis? Should we target sloped areas first?

A: Each landscape environment has its own considerations. We need to think strategically about each landscape regardless of slope. The key is in research and development – we need to find a way to make cover crops profitable.

Q: What about no-till farming?

A: Even in no-till farming, there is movement of nutrients. You will have less surface movement of nutrients. For a real effect, you need active roots. Also, there hasn't been enough research into genuine no-till cropping.

Q: What about increased fall application of nitrogen? Is that a significant factor?

A: Yes, but there is the issue of huge operations—applying all the nitrogen in the spring might take too much time. This might be another good area for research. The practice could be banned, in which case it would become a policy issue.

Comment: We've been trying to do conservation, but the improvement has been marginal. Maybe the improvement has been marginal because conservation is only a first step—maybe to see real results we need to take it to the next level.

Q: Can bittersweet be harvested in the winter?

A: Yes, but the quality may decline. Bittersweet is usually harvested in late September (it is sold for the Christmas market).

Q: Is there a book about decorative florals available?

A: There are publications, and there is a website in development between the University of Minnesota and the University of Nebraska.

Q: How would you get into decorative florals?

A: Contact the Mickan Brothers or Evergreen Industries.

Q: Farmers are an aging group. They want immediate profits. There is interest from small producers, but small producers are pressed for time. The solution can't come from one place, so we must work together. Who should the target audience of farmers be? Younger ones? Older ones?

A: One ideal might be an older farmer who wants to pass on the family farm – someone with a definite successor. We need to have young, high-quality minds returning to farming communities. We need to act voluntarily so we aren't forced to act. We need to bring the public in on these issues, and need to convince bankers to invest in long-term projects.

## Opening address

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**Linda Meschke**

**Blue Earth River Basin Initiative**

**February 27<sup>th</sup>, 2003**



Linda welcomed everyone to the second day of the 3<sup>rd</sup> crop workshop. She hoped everyone would find the day interesting, and get excited about 3<sup>rd</sup> crop opportunities, and hopefully learn something new, and have an opportunity to network with others.

IATP and BERBI are planning a third meeting on third crops and health, details to be announced.

New things are happening with third crops every day. The issue is growing rapidly. Here is a little background.

BERBI is a joint powers organization of 7 SWCDs, founded in 1993, and is implementation focused. Linda recapped the pollution issues in the Blue Earth River Basin.

If we are serious about cleaning the river, we must 1) Become more sustainable, 2) Have a cropping systems change; 3) Build a stewardship ethic; and 4) recognize that BMPs alone won't get us there.

Third Crops are any crop other than corn or soybeans; non-row crops; working lands (not land retirement); perennials; smaller acreages; sensitive areas; or non-crops (energy production, hunting rights, etc.). Non-crop third crops are other ways to generate revenue.

Benefits of 3<sup>rd</sup> crops are environmental, economic, and social; the triple bottom line!

## Session 1: Third Crops

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**Paul Porter, Ph.D., University of Minnesota**

**Making the Transition to a Third Crop System**

**February 27<sup>th</sup>, 2003**

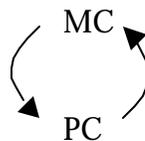
Paul was really trying to get across the point of a mindset change; he started by saying that “I can guarantee you that this is not what Linda was expecting!”, and passed around a little survey to engage the audience in his talk.

He asked the audience what they grew on their land last year, and got a wealth of responses from corn and soybeans to peas, oats and alfalfa, apples, chestnuts, grass, pumpkins and squash, raspberries and strawberries, to microbial activity, pheasants, and Native wildflowers. Then he asked “memories?”

That was just last year – what about over the history of the land? What’s changed over the years? Paul asked the oldest person in the room who said loss of small diverse farm, and increased use of technology. There has been a progression to where we are: bigger towns and smaller farms and the rate of change has increased. We have transitioned to where we are; we will transition to where we’re going. How do we feel about where we’re going?

Why don’t you grow more “things” on your land? On the vast majority of land, its corn and soybeans, maybe we should grow more of other things? To transition, and to be willing or wanting to change, it takes a change of mindset. One has to believe that change is necessary and good; one has to want change, and one has to know how to make the change. “Half the battle is just wanting to change” – Linda Meschke

A policy change may be necessary, and requires 1) A good idea; 2) A driver – someone to champion the cause: and 3) A mindset change. Making the transition to a third crop system requires both a mindset change and a policy change, and they feed off each other:



## Session 2: Success Stories

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### Panel of Local Farmers and Third Croppers

Dan and Teresa Hall, Arlyn Valvick, and Jeanne Quan

February 27<sup>th</sup>, 2003

Dan and Teresa Hall converted their farm from conventional corn/soybeans to all grass with rotational grazing. They own 30 acres and rent an 80 acre pasture, yet can still not make a full living from grass, so they also operate a fence building business. Grazing is the “retirement plan”. Grass is for long-term farming, if you don’t own the land, you need at least a six-year lease, and it is very much a learning experience. The profit potential is very good; there are farmers that make about \$1000/acre on grass. The Halls buy bottle calves, sell about 30 through direct marketing, and sell the rest as feeders. They also have chickens, ducks, sheep, and goats. Ducks are used as fly control, and are very efficient.

Dan and Teresa have learned that people drive by and think they know what you do, but if you don’t bring them in and tell them, they won’t really know. One key to rotational grazing is high livestock density for a short time, and then let the grass recover. But most importantly, it’s not about the money you make, its that you enjoy what you do. That’s why they direct market in southwest Minnesota - their neighbors eat too.

Arlyn Velvick is the president of the Sioux City Farm Bureau and also a corn, soybean, and small grain farmer who 5 years ago put 50 CRP acres into organic farming. Since then, he has transitioned 50 more acres into certified organic and is constantly learning more about farming. He enjoys organic farming and has also realized that it is economically profitable and is going to stay with it. The lessons from organic farming have helped him with his conventional farming as well.

Jean Kwan has been in the food industry for 30 years and said she particularly loves working with high quality raw materials, and the connection between grower and food user. She is interested in the phenomenon of small farmers who have to sell their high quality products as commodity and works with marketing of the St. Paul Farmers’ Market. She also works with Pastureland, a small dairy, and some local clients. She believes that marketing local products is all about creating a brand and developing a long-term relationship.

## Session 3: Third Crop Marketing

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**Mary Tkach, AVEDA Corporation**

**AVEDA and Third Crops**

**February 27<sup>th</sup>, 2003**

Aveda Corporation produces personal care products. It is a 25-year-old company, since 5 years ago owned by Estee Lauder. They create healthy products for salons and spas, that are environmentally responsible, and plant-based. As a company, they want to reduce the negative impacts of human activity and try to give as much as possible back to society. Aveda's focus is on unique and traceable ingredient sourcing with indigenous, traditional, and community suppliers. They strive to reduce the number of middlemen by cooperative supplier relationships and using community-owned brokerships and establish long-term relationships.

Aveda is hoping to source locally in the future and purchases large quantities of for example, wheat, flaxseed, sunflower oil, soy oil, peppermint oil, meadowfoam seed oil, and canola oil.



**Jim Kleinschmit, Institute for Agriculture and Trade Policy**

**Starting A Sustainable Crop Program**

**February 27<sup>th</sup>, 2003**

Jim's talk was focused on how IATP and its partners are creating incentives for sustainable production through a new sustainable crop production program.



Jim spoke about IATP, explaining that IATP is a non-profit organization based in Minneapolis that strives to create resilient family farms and rural communities, while protecting natural resources.

The goal of the Sustainable Crop Program is to develop a certifiable system that is beneficial to farmers, industry, and consumers. This will be accomplished by 1) establishing a market and mechanism for farmers to receive higher prices and/or incentives for sustainable production of traditional and third crops; 2) producing a set of sustainability standards for crop production that takes into account the interests and concerns of all stakeholders; and 3) creating a transparent verification and evaluation process that will guarantee the credibility of the sustainable production while helping to illustrate and quantify the progress made in meeting identified ecological, social, and economic criteria. A non-profit organization, the Third Crop Network, has been established to access non-traditional markets. The potential markets for crops certified under the Sustainable Crop

Production Program include: energy production, food and beverage, landscape management, such as tourism, wildlife, and open space, as well as bioindustrial products, such as plastics, fiber, and cosmetics.

While this program initially produces corn for biobased plastics, in the long term, certification will be applicable to other crops and growers.

**Renne Soberg, Organic Herb Producer Coop**  
**Marketing of Organic Herbs as Third Crops**  
**February 27<sup>th</sup>, 2003**

The Organic Herb Producers Coop was established in 1999 and is a cooperative of 13 herb producers and growing, centered in Lakeville, MN. Renne spoke about different products produced in the coop such as Mullein seed extract, grape seed oil, Echinacea, and essential oils, including catnip, lemon balm, and pine.

Renne also spoke about wild crafting and how this form of herb production requires a long-term vision, and a caretaker attitude, and much attention not to overharvest so as to consider the needs of other human as well as animals.

The market for herbs is very large and a variety of things can be used in the medicinal industry. However, it can take 3-4 years to test and develop an herb crop and it involves both growing plants and cultivating relationships.



**Bob Jacobson, Minnesota Department of Transportation (Mn/DOT)**  
**Department of Transportation and Third Crops**  
**February 27<sup>th</sup>, 2003**

Bob Jacobson talked about the Minnesota Department of Transportations use of native species. Completion of the interstate system significantly increased the budget for mowing and maintenance when 40-50% was added to the number of acres under Mn/DOT's care. The reason why they use native seeds has a lot to do with the fact that turf/lawn grass is expensive to maintain, forage grasses need to be hayed or mowed twice a year, and that natives are much lower maintenance.

Through his work, Bob has become familiar with the native seed industry and growers in the state. He has been working with the native seed industry for about 15 years. The trends he sees in the marketplace are that native species are more frequently being used in CRP, RIM, and CREP, and are required for wetland restoration as mitigation of development impacts in both governmental and private sector. Mn/DOT also uses native species for roadside seeding in areas they don't want to mow and in their living snow fence program. They are also being used as natural area buffers, in wildlife habitat enhancement programs, and in greenways projects. A number of government agencies require the use of natives for particular projects and programs. Species that are in high in demand are mostly wetland and prairie species; however, demand for coniferous and deciduous hardwood forest

species is also increasing.

Not all native species are the same however. Varieties and cultivars have been bred to exhibit certain traits, such as aggressive establishment, and forage and seed production. They should not be used in restoration work where high species diversity is desired. Cultivars may work in set-aside programs where just a few species of grasses are desired. Ecovars are minimally selected and improved. Wild ecotypes of regional or local origin have high genetic variability and are most desirable for restoration. Then there is the origin certified (yellow tag) wild ecotypes. The demand for cultivars is decreasing, whereas the demand for local wild ecotypes is increasing. There is also an increase in stricter origin requirements (50 to 100 miles from a project location is common). There is a huge explosion in demand for wetland species.

The benefits of growing native plants for seeds are many. They are perennials that demand relatively high prices. You can harvest the seed and the mulch and they can fit into a pasture/ grazing rotation. You can grow them in locations where corn and soybeans might not produce well, and the future demand appears to be stable due to the regulatory nature of the demand.

## Session 4: Third Crop Opportunities

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### Discussion on Obstacles and Opportunities for Specific Third Crops

*The following notes are the outcomes of the discussions at the February 27th workshop and do not necessarily reflect the views of IATP or BERBI.*

Sustainably Grown Crops

Bringing Another Crop Into the Rotation and Cover Crops

and

Perennials and Specialty Crops

Moderators: Paul Porter, Ph.D., University of Minnesota; Jim Kleinschmit, IATP

February 27<sup>th</sup>, 2003

Some of the obstacles for changing over to perennials and cover crops include financial issues such as market prices as well as price and availability of seeds for these crops. There is a higher perceived risk involved with these crops, particularly pending market development and consolidation. Different specialized skills and knowledge may be needed, as issues such as an increase or change in weed populations and varieties or the potential side effects of previous chemical use can present new challenges for transitioning farmers. A real barrier for time-strapped farmers could be the predicted increase in time and labor required for making such a change in cropping practices.

However, conversion can also bring a wealth of new opportunities. The financial benefits include not only getting a higher price for potential niche crops, but also the fact that multiple uses and products can be derived from these new crops. While overall labor may be higher, the fact that this labor can be spread out over the year is an advantage to many. Other possible benefits include the potential for higher yields in traditional crops that can result from broadening crop rotations and the reduced need for mechanization and specialization. The ecological benefits are

the most profound, including lowered use of energy, improved water quality and quantity (flooding) conditions, reduced threat for soil erosion and an increase in overall diversity, which means an increase in wildlife habitat.

### Alternative Energy and Other Non-crop Third Crops

Moderator: Sarah Johnson, Windustry

February 27<sup>th</sup>, 2003

Wind turbines are not crops, but they fit nicely into the Third Crop idea in their ability to provide new and diversified revenue for rural landowners. Options for farmers range from leasing out land to wind development companies to building and owning their own wind turbines. There are three main challenges for farmers interested in developing their wind resource:

- 1) Access to information; start with the Windustry project at IATP: [www.windustry.org](http://www.windustry.org) or (800) 946-3640.
- 2) Access to capital; wind projects are capital intensive, requiring significant financial resources in the early stages. Some options include: working with neighbors to share the costs, using state and Federal incentives for wind energy, Federal Farm bill programs, and working with local banks and lenders who have experience with wind energy projects.
- 3) Access to markets; Minnesota has good public policy to support wind energy, but we need more to create a stable market. Transmission lines in windy areas are filling up fast. We need to add transmission capacity in order to bring more wind power to population centers, which would allow more landowners to benefit from their wind resource.

### Organic Agriculture

Moderator: Amy Shogren, Three Rivers RC&D

February 27<sup>th</sup>, 2003

Organic production presents many opportunities to access new markets for farmers such as coops, supermarkets, CSAs (Community Supported Agriculture), and through the Internet with e-mail orders for small businesses. These new opportunities are the result of a changing social view of organic production, people's concern with health and environment, and increased education of the public that has resulted in a growing organic food market. Some means to get connected with this expanding market is through organizations such as MOSA (Midwest Organic Services Association), which is based in Wisconsin and provides information, contacts, and networking opportunities for organic producers and processors, in addition to its third party labeling services. Additionally, meetings such as the MOSES (The Midwest Organic and Sustainable Education Service) conference, and other initiatives like IATP's marketing survey of the Blue Earth River Basin market for local and sustainable products opens up new possibilities for farmers to make real connections with end users and consumers and to create their own markets. Finally, the new organic program through the United States Department of Agriculture will allow farmers to enter larger markets where such labeling is required.

Challenges for organic production include the costs and time of the certification process, and learning new growing practices. Markets are another large concern for new organic producers. Where do you find these markets, how do you connect with them, and how do you cope with the fluctuations in price? Connecting with the right organization or agency to find help with the transition is key to a successful transition into organic production. Other concerns include the extra time needed, sensitivity to weather changes, additional education, initial financing, where to find organic materials such as fertilizer and feed, and how to connect with a certifier. The main question for many new organic farmers is how to overcome the classic chicken and egg problem. Do you need a market before you start production, or a product before you find the market?

# Appendix I:

## Conference Participants

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### Presenter contact information

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# Appendix III:

## Third Crop Resources

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### ORGANIZATIONS, ACADEMIC INSTITUTIONS, GOVERNMENT

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University of Minnesota  
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St. Paul, MN 55108-6074  
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<http://www.coafes.umn.edu/>

For an extensive list of Third Crop Resources,  
please visit <http://www.thirdcrop.org/>

University of Minnesota Extension Service  
Office of the Director  
240 Coffey Hall  
1420 Eckles Ave.  
St. Paul, MN 55108-6068  
Phone: (612) 624-1222  
<http://www.extension.umn.edu/>  
For county offices:  
<http://www.extension.umn.edu/offices/>

### NEWSLETTERS

Third Crop Newsletter (from IATP)  
Contact Person: Marin Byrne  
Environment & Agriculture Program Assistant  
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To subscribe, in the body of a message addressed to  
listserv@iatp.org type subscribe the\_third\_crop  
E-mail: mbyrne@iatp.org  
<http://www.iatp.org>

Market Power Newsletter (from IATP)  
Contact Person: Lina Gordy  
Green Marketing Associate  
Institute for Agriculture and Trade Policy  
To subscribe, in the body of a message addressed to  
listserv@iatp.org type subscribe labels  
E-mail: lgordy@iatp.org  
<http://www.iatp.org>