Agroecology/Sustainable Agriculture Program

Farmers market

ASAP tour participants

Students on research plot at UIUC

Organic crops are grown by student interns at the Diversified Farm at Robert Allerton Park in Monticello, Illinois

The Agroecology/Sustainable Agriculture Program is hosted within the Department of Natural Resources and Environmental Sciences in the College of Agricultural, Consumer and Environmental Sciences (ACES) at the University of Illinois. ASAP is a clearinghouse for information and resources on sustainable agriculture that supports networking and educational opportunities. For more information on campus activities, agronomy, horticulture, fertility management, animal sciences, including rotational grazing, weed control, cover crops, marketing, land management, or nutrition, contact ASAP at ASAP@uiuc.edu. Some ASAP programs include:

SARE The Sustainable Agriculture Research and Education (SARE) Program is part of USDA's Cooperative State Research, Education, and Extension Service (CSREES) and administers a competitive grants program. ASAP hosts the North Central Region's sustainable agriculture coordinator, who is charged with actively promoting, educating, facilitating, and networking with audiences interested in receiving SARE grants (there are four grant programs: research and eduation, professional development, farmer/rancher, and graduate student). Information about each of the grant programs is distributed electronically and in print to Extension personnel, NGO's, and various state and federal agencies. For more information visit the website at www.sare.org/ncrsare.

Sustainable Agriculture/Small Farm Tours Every year the ASAP program organizes visits to farms and agriculture enterprises exploring alternatives that include organic production. The Summer 2005 tours were well-attended and generated much enthusiasm from attendees throughout the state. Site visits included a sustainable ag community, on-farm composting operation, freshwater prawns, job-readiness agriculture training program for the homeless, and marketing for ag entreprenuers. If you didn't get a chance to participate this year, check our website for the Summer 2006 line up, which will be coming soon at www.asap.uiuc.edu/asap/.

Farm Beginnings™ is a hands-on program that trains new and transitioning farmers in innovative, low-cost farming practices that sustain both farm families and the land. The 10-month course, taught by established farmers, experienced extension personnel, and other professisonals, includes classroom sessions (held October through February); a field-based component where you will be able to visit and learn from unique and diverse farming operations; and a farmer-to-farmer mentorship. Farm Beginnings™ training addresses sustainable production, family goal setting, business planning and management, marketing practices, and creates an opportunity for particpants to network with established, sustainable farmers. To find out more, visit our website at www.farmbeginnings.uiuc.edu.

Educational Opportunities The University of Illinois offers on-and off-campus classes and degree programs related to sustainable and organic agriculture, agriculture production, horticulture, health, food systems and human nutrition.

Contact us at: ASAP@uiuc.edu Web address: www.aces.uiuc.edu/asap/

Department of Natural Resources and Environmental Sciences, University of Illinois at Urbana-Champaign | University of Illinois Extension, College of Agricultural, Consumer and Environmental Sciences | North Central Region SARE | College of Agricultural, Consumer and Environmental Sciences, University of Illinois at Urbana-Champaign

The New Illinois Agriculture

Fall 2005

Helping Farmers and Consumers Harvest the Greater Good

Illinois agriculture affects our health, the environment and the well-being of local communities. UIUC is working to help family farms and consumers benefit from strengthened regional and local food systems, farm and product diversification, increased use of best management practices including organic methods, the enhancement of environmental land stewardship, and increased consumption of fresh and healthy foods. Here's a taste of some of the things we're doing to help farmers and consumers harvest the greater good from Illinois agriculture:

Organic Agriculture

Organic agriculture serves the fastest growing segment of food sales in North America, with an average annual growth rate of 20 percent. Non-food and fiber products are also an important outlet for organic products. Larger farm acreages are increasingly serving organic markets for specialty grains and are reintegrating livestock into their systems. Smaller farms, which constitute the greatest number of organic operations in Illinois, are typically producing higher value items for fresh/direct market sales. At present there are about 200 certified organic producers in Illinois and estimates suggest they only supply 3 percent of our local organic market, which is worth over $300 million.

NRES graduate student working with UIUC and USDA-ARS scientists in an on-farm study of cover crop control of summer weeds. This project is an outgrowth of the New Agriculture Network.

New Agriculture Network

UIUC and USDA scientists are conducting research on the use of summer covers to control weeds. This project is an outgrowth of the New Agriculture Network, which is a collaborative project between the University of Illinois, Michigan State University, Purdue University, Iowa State University and organic growers in these states. It was initiated in 2004 to facilitate information exchange between researchers and organic growers or growers interested in transitioning to organic practices. To find out more visit www.ipm.msu.edu/new-ag.htm.

Windsor Organic Research Trial (WORT)

An interdisciplinary team from the Illinois Natural History Survey and the University of Illinois implemented a project in 2003 to evaluate three strategies for transitioning to organic vegetable production. The team is measuring management practice effects on weeds, insects, diseases, crops, soil organic matter and biological activity, and their interrelationships in WORT. An advisory group of experienced organic farmers helped design the study.

2nd Annual Illinois Organic Production Conference

The Illinois Organic Production Conference was developed in response to the Illinois Organic Task Force, a group comprised mainly of Extension personnel who recognized the need to respond to the demand for useful information on organic production and marketing. The 2nd Annual Organic Conference will be held on January 11-12, 2006 at the Interstate Center in Bloomington, Illinois. For more information visit our website at www.aces.uiuc.edu/asap/orgconf.

Food Systems

There is growing interest in building regional or local food systems in both large urban areas like Chicago and smaller rural communities in Illinois. Growth in this sector could help reverse a multi-decade trend which shows that farms are getting larger, farmers are getting older and there are fewer and less diverse farms. Growth in the local food system can enhance the economic vitality in the small cities and towns that historically serviced the agricultural economy and could also provide health benefits.

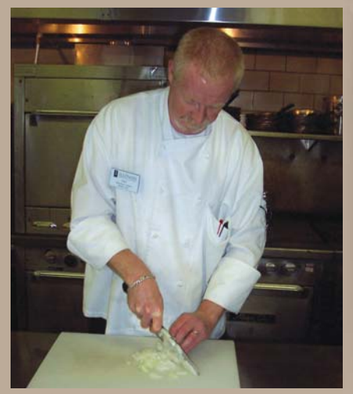
Farm Direct UIUC partnered with community interest groups to develop Farm Direct, which can be found at www.illinoisfarmdirect.org. This resource provides a means to connect consumers with fresh foods grown by local farmers in central Illinois. It now serves the entire state and includes listings for over 800 farms, processors, farmers' markets, and community supported agriculture operations.

Market Maker™ is an interactive mapping system that locates businesses and markets of agricultural products in Illinois, providing an important link between producers and consumers. Created as part of the Initiative for the Development of Entrepreneurs in Agriculture (IDEA), this service is designed to provide educational support and technical assistance to farmers and others in, or dependent on, the agriculture sector. Market Maker™ is a collaboration between the University of Illinois Extension, the Illinois Department of Agriculture, and the Illinois Council for Food and Agricultural Research (C-FAR). For more information go to www.marketmaker.uiuc.edu/.

Laboratory for Community and Economic Development (LCED) The Local Food Systems Project, housed within the Department of Human and Community Development, develops extension programs and provides outreach on topics related to community and economic development. LCED staff have teamed up with county-based extension educators and The Land Connection to explore, measure, and describe the economic consequences of local food systems in rural Illinois.

Bevier Cafeteria Course instructors for the Hospitality Management students in the Department of Food Science and Human Nutrition have built in a module on using locally available foods. The course is designed to teach students how to work with farmers and create delicious, nutritious, seasonal, and economically appropriate meals using local fresh foods.

An assortment of fresh local foods



Chef Jean Louie prepares local food for Bevier Cafeteria at UIUC

Agriculture and the Environment

Agriculture dominates our Illinois landscape, occupying 76 percent of our land area. In addition to the food and fiber agriculture provides, our agricultural landscape provides critical ecosystem services depending on how land is used and how crops and livestock are produced.

Tile Drainage Studies Maintaining diverse, perennial cover protects soil from erosion, moderates flood peaks, protects water quality and provides a diversity of habitat for wildlife. Artificial drainage allows for more productive cropland, but contributes nitrate to the surface waters, especially where continuous row crops are grown with nitrogen fertilizer. Research at UIUC shows that the use of underground filters made from readily available natural products, such as corn cobs or wood chips mixed with gravel, can dramatically reduce nitrates entering waterways through drain tiles; additionally, the use of crop rotations that include hay or green manures—as organic grain production typically does—tends to have much less nitrate in drainage waters.

Tile Drainage

Cover Crops As we look for better ways to conserve resources, winter cover crops are emerging as a great tool. They can be easily adapted to a variety of Illinois' production systems. UIUC researchers have found that winter cover crops pick up residual nitrogen and hold it in the system resulting in cleaner water and reduced soil erosion. Additionally, cover crops suppress weeds and contribute to soil productivity by increasing organic matter levels.

Cover crops–Vetch

Mud to Parks Project As part of the Illinois River 2020 project UIUC researchers are contributing to the Mud to Parks Project, determining how to remove sediment from the Illinois River in a cost effective and safe manner. The recovered sediment may be used to restore habitats or reclaim severely damaged landscapes like strip mines and abandoned industrial sites. Additional information about this project is available at www.wmrc.uiuc.edu under "Illinois River Project."

Nitrogen Testing The Illinois soil N test (ISNT), developed within the Department of Natural Resources and Environmental Sciences to estimate potentially mineralizable organic nitrogen, will bring about a shift from yield- to soil-based management of N fertilization. The result will be higher N use efficiency, with major economic and environmental benefits.

Growth on left from sedimiment-treated plots

Diversification of Agriculture

Illinois is experiencing growth in livestock, specialty grain, green industry, and organic sectors as a result of economic opportunities and an increase in public support for programs that reward conservation or encourage diversification. Interest in alternative energy, locally-grown products, and enhancing water and habitat quality are all contributing to diversification of Illinois agriculture.

N testing–Ag Day presentation at UIUC

Miscanthus The first side-by-side trials of miscanthus and switchgrass in the U.S. were established on the new South Farms at the University of Illinois in June, 2002. Yields achieved so far indicate that if miscanthus were grown on 10 percent of Illinois farmland, it would provide 50 percent of the state's electricity, and at current energy prices would be highly profitable to Illinois farmers. Research on other environmental impacts is underway.

Miscanthus

The Green Industry The green industry earned over $4 billion in sales and service receipts in 2003 and is one of the fastest growing segments of U.S. agriculture. It is a diverse industry and includes nurseries, garden centers, parks, playing fields, golf courses, and residential properites.

Dudley Smith Researchers at the Dudley Smith Farm in Christian County are investigating extended pasture rotations with beef cattle integrated into conservation-based row crop production. Cattle graze three types of pasture during the growing season. The goal of this system is to produce forage for cattle year round without reliance on external feed sources. Cash crops provide additional income. Details of the study and initiative can be found at www.aces.uiuc.edu/DSI/.