Applying knowledge to improve water quality

Great Lakes Regional Water Program

A Partnership of USDA CSREES & Land Grant Colleges and Universities

Fall 2007

The Great Lakes Regional Water Program: Regional Impacts

GREAT LAKES REGION

About the Great Lakes Water Quality Program

The Great Lakes Regional Water Program (GLRWP) supports water quality research, campus-based education, and Extension programs in Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. Our purpose is to enhance the delivery and sharing of successful programs across our region and the nation. We encourage multi-state and multi-region efforts to protect and restore water resources. We make every effort to take advantage of the diverse knowledge bases available in each state, as well as the economies of scale available when states share water research, classroom curricula, and outreach programs and publications. Our program goals are to:

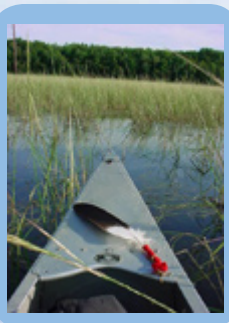
- Provide regional coordination of research, education, and extension/outreach efforts addressing water issues within Extension's North Central Region and USEPA Region 5.
- Work cooperatively to share responsibilities and resources in the interest of resolving water-related problems that are complex in nature and regional in scope.
- Build continuing education and professional development programs based on the best available water-related research.
- Offer an entry point for state and federal agencies, commodity organizations, and other non-governmental organizations to access resources within the Land Grant universities and collectively address waterrelated problems of mutual interest.

A Regional Water Leadership Team has guided the Program for the past seven years, encouraging researchers and Extension educators, already doing excellent work in their own states, to grow rich and productive working relationships with their colleagues in neighboring states. Research and education efforts in the Program revolve around six regional themes: Animal Waste Management, Drinking Water and Human Health, Nutrient and Pesticide Management, Environmental Restoration, Water Policy and Economics and Watershed Management.

Featured Projects

Joining Forces to Protect Manoomin (Wild Rice)

The Great Lakes Regional Water Program, in partnership with Ferris State University in Michigan and the Lac Vieux Desert Band of Lake Superior Chippewa, led a diverse coalition that convened the Wild Rice Restoration and Preservation Conference in August, 2006. The conference brought together Native American communities, universities, tribal colleges, nonprofit groups, tribal and local governments, and federal and state agencies to share information and experiences. It developed new partnerships among Land Grant colleges and universities and tribal communities across the Great Lakes Region, and built a solid foundation for future initiatives. Participants learned about wild rice identification, management and restoration, ecological importance, harvesting, processing, nutrition and recipes, culture and the role wild rice plays in the spirituality of Great Lakes tribal communities, and communication and networking.



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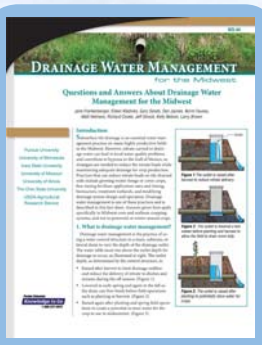
Promoting New Partnerships & Cover Crop Choices in the Great Lakes Region

Michigan State University's Kellogg Biological Station hosted Innovations in Cover Crops and Perenniality, a multi-state cover crop summit. The summit provided an opportunity for researchers, educators and farmers from the Great Lakes States and Iowa to share their experiences and data and to explore more efficient mechanisms to deliver new information to farmers and stakeholders, learn about new technologies and promote partnerships in research, education, and resource sharing. This event helped a new community of practice form, which has enhanced participants' ability to receive future support and develop research projects and called attention to this critical issue throughout the region. The long-term goal of the project is to create significant changes in farming practices that improve soils, and reduce leaching and nutrient runoff into water systems.

A cover crop of winter wheat. Photo by Michael Thompson, courtesy of USDA-ARS.

Drainage Water Management for the Midwest

Subsurface drainage from cropland is very common in the Great Lakes states, creating water quality concerns, particularly regarding nitrate-N. Purdue University has published the *Drainage Water Management for the Midwest* bulletin, which synthesizes current research on drainage water management technologies that reduce nitrate loss and presents the information in an accessible form. The publication responds to a clearly expressed need of many agencies including USDA NRCS, universities, EPA and state Nutrients & Water Quality - 15 environmental agencies. It was funded by the Great Lakes Regional Water Program, and is a product of the multi-state Agricultural Drainage Management Systems (ADMS) Task Force, a partnership of ARS, NRCS, CSREES and Land Grant University researchers that focuses attention on new management practices that can mitigate the negative impact of drainage. Eight thousand copies were printed and have been distributed regionally and nationally. The bulletin is available online at http://www.ces.purdue.edu/extmedia/WQ/WQ-44.pdf.



Measuring Social Outcomes of Nonpoint Source Management Programs

USEPA Region 5, state water quality agencies, university researchers and educators, and local water managers have produced pilot methods and guidance for measuring social information and outcomes from nonpoint source (NPS) programs in the Great Lakes Region. This project will increase the ability of EPA Region 5 and state agencies to measure meaningful outcomes (such as increases in knowledge, or behavior change) that may precede water quality improvement. A regional approach has allowed states to develop a single shared evaluation system for less cost than individual systems. As a result, states will be able to share data to increase their understanding of the social dynamics of NPS management in the Region. CSREES has awarded additional funding to this group to test the validity of the indicators developed through this project.

Visit us on the Web, at http://www.uwex.edu/ces/regionalwaterquality

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