



Applying knowledge to improve water quality

**Great Lakes**  
Regional Water Program  
A Partnership of USDA CSREES  
& Land Grant Colleges and Universities

## *Great Lakes Manure Handling Expo: Keep it in the Rootzone*

GREAT LAKES  
REGION



*National Themes:  
Animal Waste Management*

### **Project Description**

Land application of manure continues to be the primary method of recycling manure nutrients on livestock farms. All-time high fertilizer prices have increased the interest in manure nutrients by both livestock and crop producers. Land applying manure can recycle valuable nutrients for crop production while protecting the environment.

Providing a forum to discuss the nutrient, conservation, and odor management practices for applying manure to the root zone and keeping the manure in the root zone for crop uptake provides producers with practical and innovative ways to land-apply manure. The 2006 Great Lakes Manure Handling Expo: *Keep it in the Root Zone* was such a forum. The concept of *Keep it in the Root Zone* succinctly encompasses many principles for land application of manure and reminds producers of the need for odor control and retention of nitrogen whether by timing, tillage, rates, etc. Keeping it in the root zone and readily available for crop use reminds them of tillage and timing, but also concerns for runoff, leaching, and or tile line discharges.

These concepts are all the more important when manure is applied during the fall and winter months. These concerns are similar across the Great Lakes Region.



## PROJECT CONTACTS

### Dann Bolinger

Clinton County Bldg.  
100 E. State Street, Ste. G100  
Saint Johns, Michigan 48879  
Phone: (989) 224-5240  
Email: bolinger@msu.edu

### Natalie Rector

Calhoun County Bldg.  
315 W. Green Street  
Marshall, MI 49068  
Phone: (269) 781-0908  
Email: rector@msu.edu

### Marilyn Thelen

Clinton County Bldg.  
100 E. State Street, Ste. G100  
Saint Johns, Michigan 48879  
Phone: (989) 224-5240  
Email: thelen22@msu.edu

## PROJECT PARTNERS

Dale Armbrustmacher (Farmer)

Pat Felpasuch (Farmer)

Dr. Dale Rozeboom, Pork Specialist, MSU

Dr. David Beede, Meadows Chair Professor,  
Dairy Nutrition, Nutrient & Environmental  
Management, MSU

Jerry May, Pork Educator, MSU

Custom Manure Applicators:

Kip Edelman (Indiana)

Dan Vannette (Michigan)

Eric Dresbach (Ohio)

Roger Dennings (Private consultant)

Charles Gould (MSU)

Brad Joern (Purdue)

Jon Rausch (OSU)

Volunteers:

68 volunteers, representing Clinton  
County farmers, FFA youth and local agribusiness  
professionals

For more information about manure management:

<http://www.rootzone.msu.edu>

For more information about the Great Lakes Regional  
Water Program, please contact:

Rebecca Power

University of Wisconsin

Regional Water Liaison

Phone: (608) 263-3425

[rebecca.power@uwex.edu](mailto:rebecca.power@uwex.edu)

The Manure Expo provided producers with practical and innovative ideas for land application of manure. By showcasing a systems approach to manure applications, producers learned about the dollar value of manure nutrients, the cost associated with transporting them to the most appropriate fields, conservation practices that will impact retaining these nutrients, and odor control concerns. Since *Keeping Manure in the Root Zone* is highly variable and dependant on soil types, slopes, crop rotations, tile, surface waters, tillage, timing, manure type, bedding, etc., each producer will need to find the components that will achieve their goals on their land base. Farmers will be better equipped to consider all facets of manure applications and make informed decisions for their particular farms.

## Specific Outcomes

The Expo was a multi-state/international event with over 1300 participants from fourteen states and three Canadian providences. Farmers representing all sizes and types of farms attended the Expo. Farm size ranged from 80 acres to 20,000 acres; types included poultry, dairy, beef, swine and crop-only farms.

The event also provided a forum for "The Environmental Leaders Program" (ELP). A specially invited group comprised of township, county and state leaders in land use, local government and agriculture. One hundred twenty Expo attendees participated in the ELP, including farmers from around the state who personally hosted the official/guests for a portion of the day, interacting in a one-on-one basis explaining the nuisances of manure management to the officials. The main message conveyed by the farmer-hosts was that livestock producers are environmental stewards and events such as the Great Lakes Manure Handling Expo are organized to help improve farmers' stewardship ability.



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