

# MAWRC Monthly

## - September 2016



### **Mega-Rains Make for Mega-Harvest Challenges**

Farmers across much of Minnesota are bracing for a difficult time getting crops out of the fields due to a much wetter than normal August-September. Minnesota also experienced two mega-rains in one year for the first time since such records have been kept.

A mega-rain is defined by the state office of climatology as a rainfall event in which at least 6 inches of rain covers more than 1000 square miles, with a core area receiving at least 8 inches of rainfall. An area in east central Minnesota met these criteria on July 11-12, while Central and Southeastern Minnesota endured a major storm on August 11-12 of this year.

These mega-storms are indicative of a generally wet pattern persisting across a large portion of the state, with many areas approaching 150% of their 30-year average annual rainfall.

The DNR climate office maintains a list of mega-rains, based on a network of daily rainfall reports from weather observers across the state. This weather observer network began in the 1970s. The climate office has also used newspaper and other accounts to identify mega-storms dating back to the early years of statehood. One of the first recorded mega-rains occurred in August, 1866 in southeastern Minnesota, killing 16 people.



The photo shows a road and farm field near Waseca after heavy rains hit the area on September 21-22, a storm that did not meet the area criteria for a mega-rain, as it covered only about 500 square miles with 6 inches of rain. Regardless, much damage is evident throughout the area. Thanks to Vicky Singlestad for sending the picture.

Read more about mega-storms at:

[http://www.dnr.state.mn.us/climate/summaries\\_and\\_publications/mega\\_rain\\_events.html](http://www.dnr.state.mn.us/climate/summaries_and_publications/mega_rain_events.html).

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### **MPCA Responds to Flood-related Manure Management Concerns**

The Minnesota Pollution Control Agency asks farmers to be proactive in reporting manure storage issues due to recent heavy rains. The MPCA also reminds farmers of requirements to call the State Duty Officer at 800-422-0798 to report the release of manure from liquid storage areas, freeboard encroachment or imminent release, and emergency land applications.

The Agency also encourages farmers to work with their County Feedlot Officer, who can provide advice on best management practices to minimize potential environmental impacts.

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## Interest in Cover Crops Continues to Grow

The National Corn Growers Association-led Soil Health Partnership hosted a field day in Murray County earlier this month highlighting cover crop practices. A crowd of about 75 farmers gathered at the Bryan and Lauren Biegler farm near Lake Wilson for a firsthand look at cover crops in a corn-soybean rotation using strip till. The Biegler's have been experimenting with cover crop types, seeding dates and other management considerations, and are glad to share their experience with other farmers.

In addition to cover crops, the group heard from University of Minnesota Extension Educator Jodi DeJong-Hughes, who reminded the crowd of the importance of addressing wind and water erosion to preserve soil and minimize environmental concerns. Paul Meints, Minnesota Corn Growers Association Research Director gave an overview of the innovation grant program funded through the corn check-off program to help farmers try new practices likely to increase sustainability.

Learn more about the Soil Health Partnership at <http://soilhealthpartnership.org/>. For more information about the MCGA's Innovation Grant Program, go to <http://mncorn.org/research/request-proposal>.

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## Discovery Farms to Receive NRCS Innovation Grant

The Minnesota and Wisconsin Discovery Farms Programs were recently awarded a Conservation Innovation Grant (CIG) from United States Department of Agriculture – Natural Resources Conservation Service for “Developing Diagnostics to Improve Water Quality and Soil Health on Tile Drained Lands in Minnesota and Wisconsin.” This grant will allow Discovery Farms Programs in both states to continue efforts to identify the timing and mechanisms of soil and nutrient loss through tile drainage systems.

CIG are competitive grants that stimulate the development and adoption of innovative approaches and technologies for conservation on agricultural lands

The Discovery Farms Program conducts water quality research on privately-owned farms in Wisconsin and Minnesota. The edge-of-field research conducted by these programs now exists as a database of over 150 site years. With data on surface and tile runoff, Discovery Farms has conducted extensive educational outreach on the importance of management and maintenance of tile drainage systems to promote water quality improvement. Results from on-farm monitoring show benefits from management that includes practices like appropriate rate and timing of nutrients, cover crops and careful attention to the condition of tile drainage structures.

The project is based on a tiered water monitoring network approach with intensively monitored tile drainage outlets surrounded by satellite locations with more simplistic monitoring. Look for more information on the project this winter as the locations are identified and installed.



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The MAWRC is a non-profit research and education corporation comprised of 24 agricultural organizations working together to address water issues. For more information, go to [www.mawrc.org](http://www.mawrc.org).

