

# Discovery Farms Minnesota Update



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Discovery Farms**

# Why Discovery Farms Minnesota?



“Farming practices are changing. We are improving as we learn what is better. The change comes through education and economics...”

- Charles Radatz

April 1, 1990



# Why Discovery Farms Minnesota?



- Achieve economic and environmental goals
- Increase knowledge of regulations to farm community & help create a science base for rules
- Proactive approach to environmental protection
- Understand impacts of management practices on natural resources
- Opportunity for producers to find solutions that work in their farming system --

***One size doesn't fit all!***

# Discovery Farms Minnesota



- On-farm systems research/evaluation/demonstration program
- Information collected from operating, commercial Minnesota farms
- Partnership between agricultural organizations, individual growers, and state government



# Discovery Farms Minnesota Partners



- **Minnesota Agricultural Water Resources Coalition**
  - Organizing and leading the Discovery Farms effort



- **Minnesota Department of Agriculture**
  - Technical assistance and expertise in water monitoring
  - Assistance with outreach activities
  - Staff
  - Dollars for monitoring equipment
  - Clean Water Fund Dollars



# Discovery Farms Minnesota Partners



- **University of Minnesota-Extension**
  - Special projects
  - Education and outreach
- **Local Partners: SWCDs, Watershed Districts, Local Organizations**
  - Operation and maintenance of monitoring stations



# Organization of Discovery Farms Minnesota



## Discovery Farm Minnesota Steering Committee

- **Role**
  - Provide input on research needs
  - Identify project possibilities
  - Select projects and cooperators
- **Members**
  - Farm organizations
  - Environmental organizations
  - State agency



# Organization of Discovery Farms Minnesota



## Discovery Farm Minnesota Sub-Committees

- **Multi-State Committee**
  - Supply coordination and direction for current and future research activities between Discovery Farms in other states
  - Facilitate continuity of research
- **Research and Data Advisory Committee**
  - Review of data, reports, operating procedures, and site selection



# Information Collected



- **Environmental Data**

- Weather Data – precipitation, temperature, and moisture
- Water Quantity – runoff volume
- Water Quality – nutrients and sediment



# Information Collected



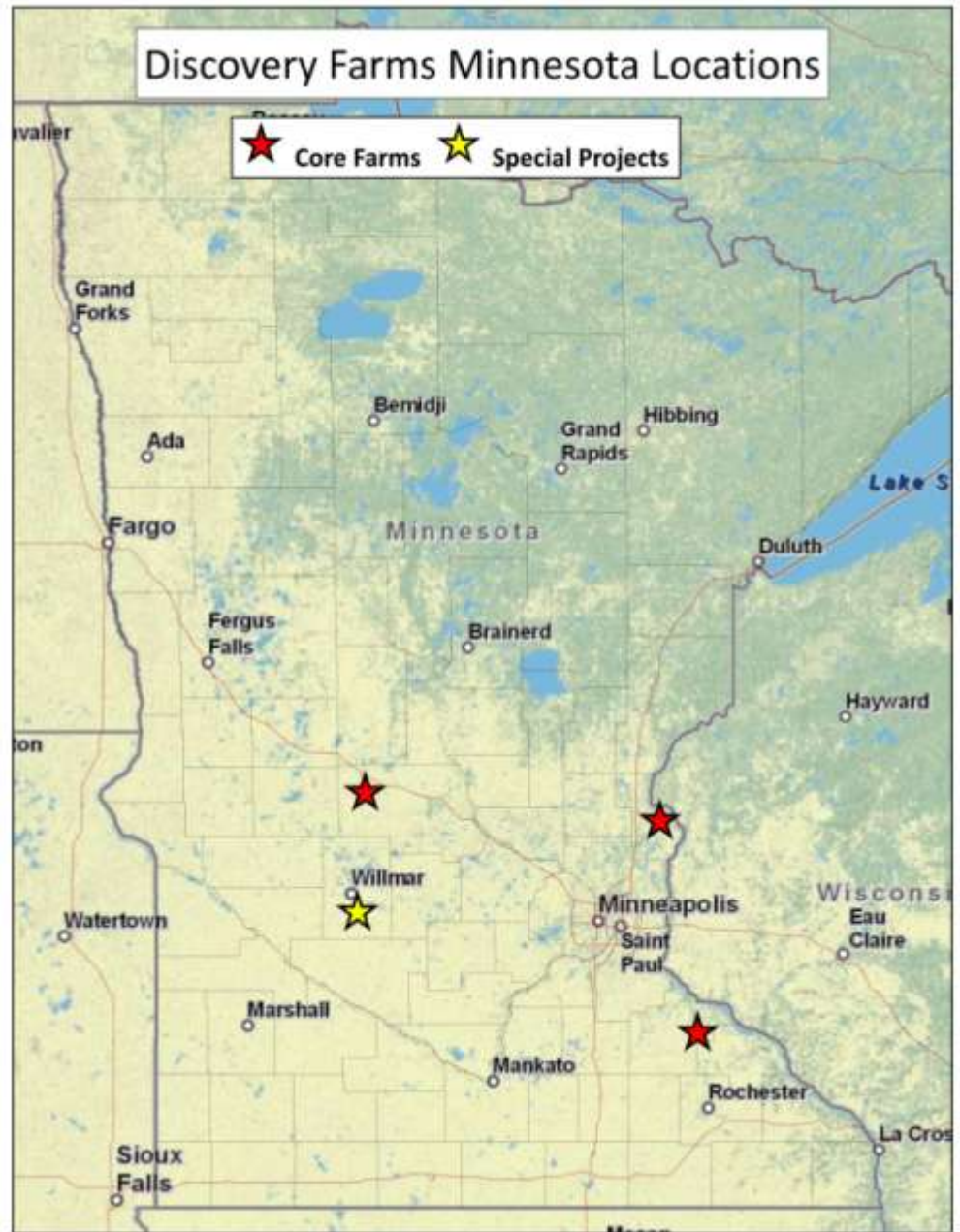
- **Farm Management Data**

- Crop – type, variety, planting and harvest date, and yield
- Fertilization – type, application rate, and date
- Tillage – type, residue remaining, and date
- Pest management – methods and date
- Soil and manure testing – value and date



# Locations

- Special Projects
  - Kandiyohi County
- Core Farms
  - Goodhue County
  - Stearns County
  - Chisago County
- Adding more Core Farms in 2011



# Kandiyohi County

- Special Project
- Farming operation
  - Turkey farm
  - Corn/soybean rotation
  - Manure application
  - Chisel plow and moldboard plow tillage
- Monitoring Setup
  - Surface water runoff and subsurface drainage from three agricultural fields
  - Collecting data since 2008





# Goodhue County

- Core Farm
- Farming Operation
  - Swine and cow-calf operation
  - Corn-silage/alfalfa rotation
  - Injected manure application
  - Well drained silt loam soils
- Monitoring Setup
  - Surface water runoff
  - ~6 acre watershed
  - Up and running - September 2010





# Stearns County



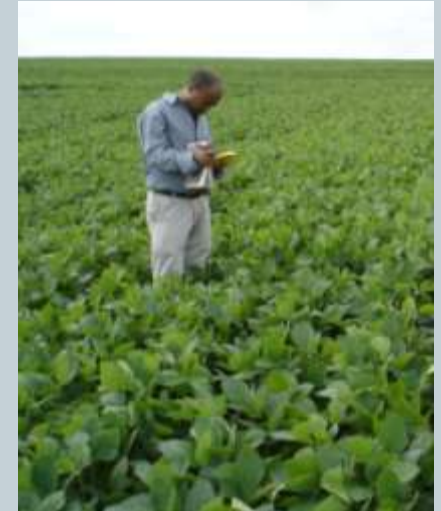
- Core Farm
- Farming Operation
  - Small/midsize dairy
  - Corn-silage/alfalfa rotation
  - Chisel-plow tillage
  - Manure application
  - Poorly drained loam soils
- Monitoring Setup
  - Surface water runoff and subsurface drainage
  - 28 acre watershed
  - Ready for snowmelt 2011



# Chisago County



- Core Farm
- Farming Operation
  - Corn/soybean rotation
  - No-till
  - Commercial fertilizer application
  - Well drained loam soils
- Monitoring Setup
  - Surface water runoff
  - ~ 5 ac watershed
  - Ready for snowmelt 2011





# Future Locations

- Minnesota River Watershed
  - Blue Earth County
  - Brown County
  - Cottonwood County
  - Nicollet County
  - Redwood County
  - Renville County
  - Sibley County
  - Watonwan County
- Cedar River Watershed
  - Freeborn County
  - Mower County
- Eventually moving up to the Red River Valley



# Funding for Discovery Farms Minnesota



- **Primary Support From:**
  - MN Corn Research and Promotion Council
  - MN Soybean Research and Promotion Council
  - MN Turkey Research and Promotion Council
  - MDA – Clean Water Fund
- **Additional Support From:**
  - NRCS through MRBI program



THANK  
YOU!

Questions?

