


**Wisconsin Manure Management
Advisory System
(MMAS)**

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Why a Manure Advisory System?


- Winter of 2005-06
- WI Legislature: “establish and operate an online manure management and advisory system to assist farmers and manure applicators in identifying the least risky fields and times to apply manure.”
- MMAS Team began in 2008





WI's Manure Advisory System
www.manureadvisorysystem.wi.gov

MMAS Home | 590 Nutrient Appl. Restriction Maps | Runoff Risk Advisory Forecast Map | Interactive/Online 590 Maps | DATCP Web Svc | Contact Us

The Manure Management Advisory System is a set of maps to help farmers and others who apply nutrients to identify suitable cropland areas for spreading. The maps are in two categories: Short-term runoff risk assessment, for daily application planning, and WI 590 nutrient management, for long-term application planning.

For Daily Application Planning:
 [Runoff Risk Advisory Forecast](#) ← For acute runoff risk due to soil and weather conditions

For chronic risk due to landscape features and field characteristics

For WI 590 Nutrient Management Planning:
 [590 Nutrient Application Restriction Maps](#)  [Interactive/Online 590 Restriction Maps](#) [DATCP Web Services for 590 Restriction Map Data](#)

Department of Agriculture, Trade and Consumer Protection
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Goals of WI's Runoff Risk Forecast Tool

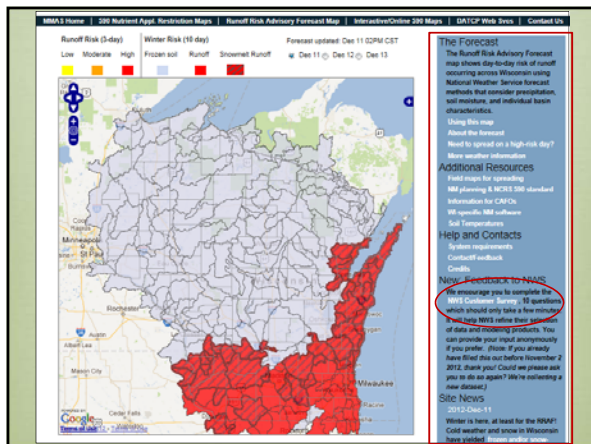
- Increase information available to producers to make decisions about when and where to spread on a given day
- Identify and alert nutrient applicators of days in which the risk of runoff is high
- Use **existing** weather/rainfall/snowfall models from NOAA to determine level of risk
- Use **actual on-farm/research data** to calibrate model data



WI's Runoff Risk Advisory Forecast

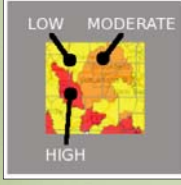
- Predicting the potential for runoff based on:
 - Predicted precipitation and temperature
 - Precipitation out 72 hours
 - Temperature out 10 days
 - *Manure spread today could still runoff 4 - 11 days from now.
 - Modeled soil moisture content
 - Extent of snow cover
 - Modeled snow melt

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WI's Runoff Risk Advisory Forecast

Interpreting the Map



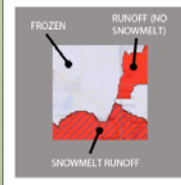
Runoff risk for the next 3 days:

- Low - no runoff predicted within the basin.
- Moderate - low volumes of runoff predicted for some areas within the basin
- High - runoff predicted for most of the basin

****There is always risk associated with spreading manure. Liquid manure applications increase soil moisture so runoff risk for liquid manure will be higher than what is shown on the risk map.**

Winter Conditions

Interpreting in the Winter

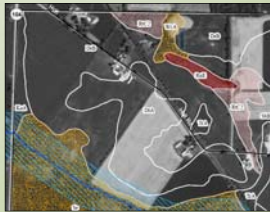


Runoff risk for the next 10 days:

- Winter risk - soils in the basin are frozen or snow-covered, runoff is not yet in the forecast but applications should be made with caution due to limited soil contact and infiltration.
- High risk - runoff is forecast within the next 10 days (most likely because of rain), with no snowmelt alert.
- High risk - snowmelt is predicted within 10 days leading to runoff within the basin. Rain may also be in the forecast; examine the pop-up box for the basin for more details.

Need to spread when it's **red**??

- Identify low risk fields using the WI 590 Restriction Maps
 - Low erosion
 - Driest
 - High surface roughness
 - Low delivery potential (low Phosphorus Index)
 - Flatter
 - Farthest from surface water and areas of concentrated flow
 - Not draining to Outstanding, Exceptional, or Impaired waters



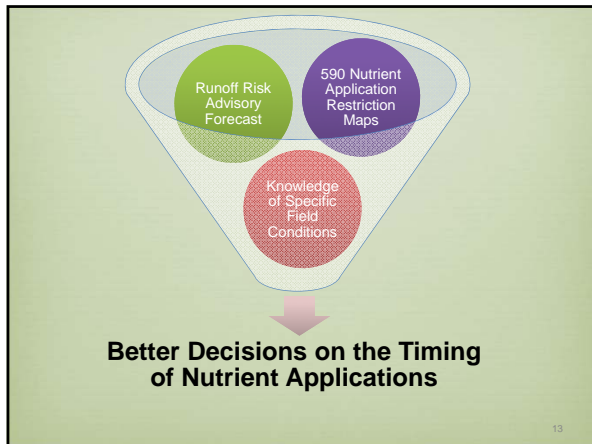
WI 590 GeoPDFs

Guidance available on what colors mean and management options available

WI Interactive 590 Maps

WI's Runoff Risk Advisory Forecast

- Still under development
- NOT a regulatory tool
- Field specific conditions must still be evaluated
- It is not predicting if *manure* is going to runoff anytime after you spread on your specific field, it is predicting the potential for any runoff to occur in your basin within 3 (non-winter) or 10 days (winter)



Questions?

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