

MANURE MANAGEMENT ADVISORY SYSTEM- RISK ASSESSMENT MODEL

Sara Z. Walling¹

On-farm nutrient management begins with a good understanding of field-specific soils and their ability to accept nutrients and manure for optimal crop production while protecting water quality. DATCP is partnering with several federal and state agencies to develop two new tools to help farmers protect water resources when land spreading manure.

The first is online WI "590" Nutrient and Manure Application Restriction Maps which all of the mappable "590" spreading restrictions including slope and nitrogen restricted soils, and surface water quality management areas. These maps are currently available at <http://www.datcp.state.wi.us/arm/agriculture/land-water/conservation/manure-mngmt/index.jsp>.

The goal of the second tool, currently under development is a Manure Management Risk Assessment Model and website that will help alert farmers to the likelihood of runoff events occurring based on weather, landscape and soil conditions. While this tool is still in its initial development phase, it will include consideration of soil moisture, rainfall, snow, and snow melt forecasts. When completed, we expect this model will provide farmers with the ability to predict the risk of runoff for any particular day and will greatly assist farmers when making decisions about when to land apply manure or other nutrients. DATCP, NRCS, USGS, NOAA, NWS, UW (Soil Science, Ag Engineering, Discovery Farms, Pioneer Farm, Extension, and NPM), and others are collaborating to provide the surface runoff event data, models, and weather forecasting necessary to build and maintain this comprehensive assessment model that will identify when the likelihood for surface runoff may be greatest and therefore, when the spreading of nutrients on agricultural fields should be avoided.

¹ Wis. Department of Agriculture, Trade, and Consumer Protection, Div. of Agricultural Resource Management, Bureau of Land and Water Resources.