

## B. Non-Regulatory Tools, Guidance, and Support Programs

### Oregon



### Manure Spreading Advisory Tool

Oregon Department of Agriculture's (ODA) [Manure Spreading Advisory](#) (MSA) advises farmers as to whether predicted weather conditions are suitable for manure application or if manure application should be delayed. While farmers are encouraged to consult the MSA prior to land application events, use of the tool is not required.

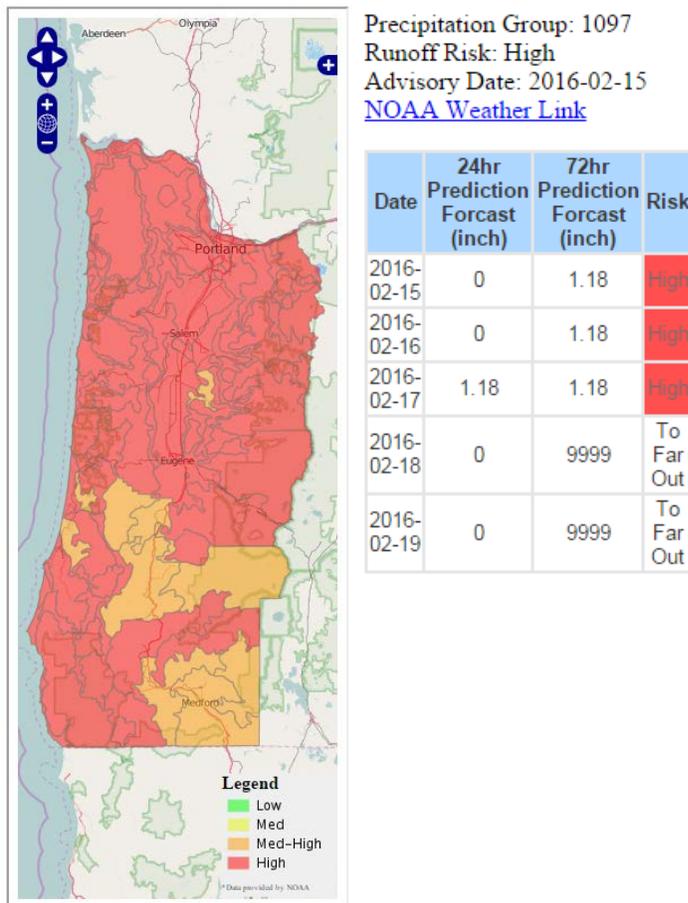


Figure 1. Example of MSA Clickable Map and Risk Ratings

Based on the precipitation forecast, the MSA identifies manure spreading risks on a specific date as low, medium, medium-high, or high risk and provides spreading guidelines for low and high risk:

- Low Risk: An agronomic manure application has a low chance for a precipitation-caused runoff or leaching event to occur
- High Risk: An agronomic manure application has a high chance for a precipitation-caused runoff or leaching event to occur and/or impact an adjacent waterbody.

Although the tool does not, as of winter 2016, integrate factors other than forecast precipitation when evaluating manure spreading risk, the MSA web page describes additional factors that can modify ODA's risk rating including observed soil moisture conditions, vegetative cover, ponded areas, high water table, and frozen soil. These risk modifiers must be evaluated in the field by the operator.

### **Programmatic Framework and Resources**

ODA developed MSA (originally Manure Spreading Index, MSI) to provide farmers with real-time weather data to guide land application decisions which are complicated by the variability in precipitation patterns across Oregon. The U.S. Environmental Protection Agency (EPA) provided initial funding to develop MSA through a grant of \$44,000 to ODA's Natural Resources Division in 2000. This grant was awarded for the demonstration of a real-time weather forecast-based Manure Spreading Index. The EPA grant funded installation of weather stations in 2003 and 2004 in the Willamette Valley and the northern and central coast of Oregon based on the presence of a large concentration of CAFOs and high rainfall amounts in this area. In 2013 ODA contracted with the Whatcom Conservation District, Lynden WA to modernize the MSA to its current state. As of January 2016, a United States Department of Agriculture – Natural Resources Conservation Service Conservation Innovation Grant is funding improvements to the MSA that include soil moisture data and longer, more accurate forecast periods. MSA is currently calibrated for areas west of the Cascade Mountain range but could potentially be calibrated for any geographic area.

### **Implementation**

The MSA includes a disclaimer to farmers, stating that

...even if this map says your risk is low, it cannot account for every variable or condition present on your field. It is your responsibility to use your best judgment, adhere to all application guidelines outlined in your ODA approved AWMP and CAFO Permit conditions. If unsure, do not apply manure to prevent unwanted discharges. Manure application practices that cause a discharge can lead to enforcement action.

The Oregon Department of Agriculture assumes no responsibility for inappropriate manure application. Proper application is ultimately the responsibility of the operator ([ODA n.d.](#)).

ODA does not track the number of facilities that use the MSA.

### **References**

ODA (Oregon Department of Agriculture). n.d. *Manure Spreading Advisory*.

<http://www.oregon.gov/ODA/programs/NaturalResources/Pages/MSA.aspx>. Accessed February 15, 2016.

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