

UNITED STATES: RUNOFF RISK ADVISORY FORECASTS FOR FARMERS

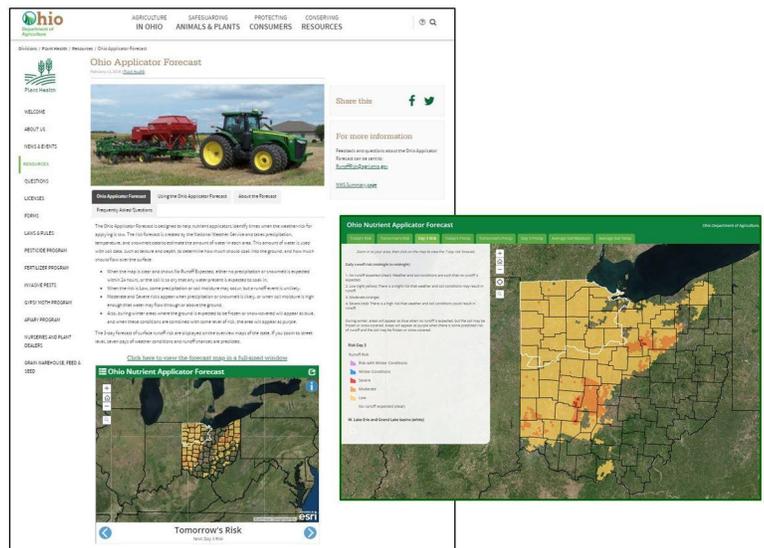
[Runoff Risk Decision Support](#) is a real-time forecasting tool that gives farmers guidance about when to apply fertilizers to their fields. The tools provide farmers and producers actionable recommendations about when to avoid short-term nutrient applications due to unfavorable environmental conditions. Runoff Risk tools are based on real-time National Weather Service (NWS) weather and hydrologic models and have been collaboratively developed with many state agencies, universities, and other ag-centric partners in the Great Lakes region.

Fertilizer application generally occurs during the winter and spring, which are the riskiest times of year for runoff from rain and snowmelt. In fact, a significant percentage of annual nutrient losses can occur from only a few large runoff events per year. The information provided by Runoff Risk Decision Support helps farmers ensure that fertilizer and manure stay on the fields, instead of washing off into waterways. Relying on National Weather Service modeling, on-farm research data, and multi-partner collaboration, this tool offers a science-based approach to nutrient application timing.

Runoff Risk is currently available in four states in the Great Lakes region: MI, MN, OH, and WI. Models are available in IL, IN, and NY and therefore tools could be produced in these states if working groups request to collaborate with the National Weather Service. Individual states do need to provide some funding to support their websites and producer training and outreach activities in their areas.

A final round of model enhancement for this version of the Runoff Risk models is currently ongoing with expected implementation in summer 2019.

Continued GLRI support is helping to support the development and transition of Runoff Risk to the newest National Weather Service national-scale modeling framework, the [National Water Model](#). This new framework will provide finer spatial scale guidance more often and enable continuous hydrologic model improvements by universities and agencies that will lead to improved Runoff Risk guidance for farmers and producers. The two-year development project begins in 2019 with a 2-year phase in following that.



<div class="text-formatted field field--name-field-media-tooltip field--type-text-long field--label-hidden field__item"><p>Ohio Runoff tool screen shot by Dustin Goering</p></div>

Screenshot from the [Ohio Applicator Forecast](#) on the Ohio Department of Agriculture website.

TYPE

[Investment](#)

ISSUE

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GEOGRAPHY

