

Runoff Risk Advisory Forecast

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Non-point source nutrient runoff is a significant factor contributing to the harmful algal blooms (HAB) in Lake Erie and other inland lakes, as well as the hypoxic dead zone of the Gulf of Mexico. Nutrient runoff is caused by a combination of atmospheric and terrestrial factors, coupled with a recent surface application of manure or chemical fertilizer. Sometimes these factors are very evident, such as a highly certain forecast of heavy rain. Many times, the factors are subtle, such as snowmelt due to advection of a moist airmass over a snow pack. The Runoff Risk Advisory Forecast combines all these factors together allowing for categorization of the risk. This tool aims to provide decision support for agricultural nutrient applicators in avoiding surface application of nutrients to fields when a runoff event is forecast, resulting in cost savings to the farmer and less nutrients washing into waterways.