



Environmental Science Graduate Program Student Seminar Series

Nutrient management in the Maumee watershed: Understanding farmer perceptions and “accuracy”

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Smith 3150 | 11/1/19 | 2:00 - 3:00 pm



Abstract:

Globally, agricultural nutrient loss contributes to a number of environmental consequences, including lake eutrophication and coastal hypoxia. Use of agricultural best management practices is encouraged to minimize nutrient loss, but these practices are not universally adopted. While previous studies have examined factors contributing to farmers' adoption of agricultural best management practices, less is known about farmer perceptions of the impact of their farm's agricultural nutrient loss on water quality. This study uses survey data collected in the Maumee watershed, which spans parts of Ohio, Michigan, and Indiana and is a major contributor to the formation of harmful algal blooms in western Lake Erie. The survey provides information about farmer perceptions of nutrient management as well as about specific farm field management, which are used to address the two goals of this project: to assess factors that may influence farmer perceptions of their nutrient management (specifically, the extent to which it is likely that on-farm nutrient loss will result in decreased water quality), and, using field-scale nutrient outputs from a watershed model, to understand the extent to which these perceptions are “accurate”. With a better understanding of farmers' beliefs about the impacts of nutrient management and nutrient loss, as well as the accuracy of these beliefs, we can be more prepared to appropriately target funds for conservation practices and encourage adoption among groups that need the most support.

