

The Central Plains Water Science  
Center Presents:

Science Seminar Series

**July 22nd, 2026**  
**12:00pm CDT**

## ***Pesticides in Streams and Other Environmental Matrices in Areas Impacted by Pesticide Coated Seeds***

***Michelle Hladik, Research Chemist***

Pesticide seed coatings have become increasingly prevalent in conventional agriculture in the last several decades with many treated corn seeds containing both insecticides and fungicides. For a six-year time span (2015 – 2021), the AltEn bioenergy plant (Mead, Nebraska USA) generated ethanol from almost 100% unused/expired treated corn seeds. The use of treated corn seeds for ethanol production resulted in accumulation of large amounts of contaminated wastewater and solid residue at the plant, a portion of which was applied to surrounding farmland. To better understand the potential long-term environmental effects from the processing of treated seeds at the AltEn plant, nearby stream sites were sampled for water, bed sediment, algae, and fish. Additional environmental samples such as insects, tadpoles, songbird eggs, and drinking water have been collected to further evaluate pesticide exposure and accumulation in the area.

Michelle has been with the USGS California Water Science Center since 2005. She has a B.A. in Chemistry from Vassar College and a Ph.D. in Environmental Engineering from Johns Hopkins University. Her research focuses on the fate, transport, and effects of current-use pesticides and other organic contaminants in aquatic and terrestrial environments. She directs a laboratory that focuses on the analysis of organic contaminants at trace concentrations in a wide variety of matrices.



Access the Microsoft Teams Presentation Here:

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Questions About our Science?

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