

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES

## **GRADUATE EXIT SEMINAR**

## FRANCIS CLARKE

## Effects of Biofuel Crops on Soil Physical and Hydrological Properties in Ohio



With growing concern over the impacts of climate change, the need for renewable alternative energy sources has never been higher. Biofuel crops have gained popularity to displace a portion of our global dependency on fossil fuels. Research on dedicated biofuel crops has typically focused on increasing yields and soil carbon sequestration. What is more seldom studied is how biofuel crops affect the soil they are grown on. Three biofuel crops, no-till corn, switchgrass, and miscanthus were selected to analyze their influence on soil physical and hydrological properties at three different depths (0-10, 10-20, & 20-40 cm). Soil physical and hydrological properties greatly influence ecosystem services such as carbon sequestration, moisture retention, and erosion control. The overall goal of our study was to determine whether biofuel crops could produce higher yields while improving soil properties.

WEDNESDAY, MARCH 25, 2020 2:10 P.M.

Advisor: Dr. Rattan Lal

Join the seminar via Zoom: https://osu.zoom.us/j/254063880

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