



ses

school of environmental sciences

The Research Seminar Presentation by

Kate Jackson

will be held on

Tuesday February 20th, 2018

At 2:00 pm

ALEXANDER HALL 265

Impact of Nitrification Inhibitors on Nitrogen Uptake in Corn from Hog Manure Applied at Various Fall Timings

Abstract

Animal manure is often applied as a fertilizer to agricultural areas in the fall in the upper Midwest US due to increased availability of time and equipment, and to allow for earlier spring planting. However, these fall applications are highly susceptible to nitrogen loss. Temperatures in early fall are warmer which increases nitrification, but waiting until late fall to apply manure has the risk of waterlogged, frozen, or snow-covered soils. Nitrogen loss can be minimized by incorporating nitrification inhibitors into manure prior to application. Using a nitrification inhibitor will limit environmental concerns associated with nitrogen loss from leaching and denitrification, as well as decreasing the quantity of fertilizer required when used with a nitrification inhibitor to obtain the same plant yield. In this study, one application rate of nitrpyrin will be incorporated into liquid hog manure and applied at various fall timings. Plots will have spring planting of corn (*Zea mays*). This study will span three harvests over three years. This study will be investigating the impact of using a nitrification inhibitor when applying manure in the fall to determine if manure can be applied earlier in the season without impacting yield. This research could be used to develop best practice management strategies regarding fall manure application timing.

Everyone is welcome to attend

(This is a Research Proposal presentation by students in ENVS*6900)