Soil Properties in Varying Crop and Non-Crop Areas of Calloway County, Kentucky

*Zack Eells, Clay Smotherman, Canaan Wring, Connor Moore, Iin Handayani, and Brian Parr*

 *Murray State University, Hutson School of Agriculture, Kentucky, USA*

Abstract

Cropping practices leading to loss of soil organic matter thus can alter other soil properties. The purpose of this study was to determine the impact of crop and non-crop areas on soils. Disturbed and undisturbed soil samples were collected from different fields of corn, soybeans, tobacco, pasture, and wooded areas in the Southwest portion of Calloway County, Kentucky on September 8, 2017. The properties observed include soil water holding capacity, soil water content at field capacity, bulk density, soil porosity, soil organic matter, and soil pH. All the data will be analyzed for means and standard error to observe the significant difference among the fields. The detail results will be explained on the poster. The data from this study can be used to quantify the physical and chemical changes of soils after cultivating the wooded areas for grain crops and tobacco.

***Keywords: Acidity, Calloway County Kentucky, Soils, Corn-Soybeans-Tobacco, Wooded areas***