Processed Liquid Swine Manure for Corn and Soybean Production. (C03-smiciklas558138-poster)

Authors:
- K. Smiciklas * - Illinois State Univ.
- P. Walker - Illinois State Univ.
- T. Kelley - Illinois State Univ.

Abstract:
The purpose of this study is to conduct an applied field study investigating the feasibility of utilizing processed swine waste in corn and soybean production. The field site is located at the Illinois State University Farm in Normal, IL. For 1998, 2000, and 2001 growing seasons, corn was grown; soybean was grown in the 1999 and 2002 growing seasons. The field site has uniform soil (Catlin silt loam; fine-silty, mixed, superactive, mesic Oxyaquic Argiudoll), with 2 to 3% slope and good fertility. Each plot consisted of twelve 76 cm crop rows by 410 m in length. Four replicates were used in a randomized complete block design. A 3 m grass buffer strip separated each plot within a replicate. Four treatments were evaluated; processed swine effluent, unprocessed liquid swine manure, inorganic fertilizer nitrogen, and zero rate control. All treatments except the control were applied to supply 200 kg N/ha to the crop. In general, the zero rate control plot was the lowest yielding treatment for corn, in contrast to the equivalent response of the other three treatments. For soybean, all four treatments responded in a similar fashion. After five years of annual soil application, the processed swine effluent and unprocessed liquid swine manure treatments were similar for most soil parameters. These results need to be verified over a number of years to assess seasonal variability patterns.

Speaker Information: Ken Smiciklas, Illinois State Univ., 5020 AgricultureIllinois State University, Normal, IL 61790-5020; Phone: 309-438-5654; E-mail: kdsmici@ilstu.edu

Session Information: Monday, November 3, 2003, 4:00 PM-6:00 PM
Presentation Start: 4:00 PM (Poster Board Number: 835)

Keywords: corn; manure; crop yield; soil quality