## Movement and Characterization of Soluble Organic Phosphorus in Manure Amended Soils. (S03-anderson101630-Oral)

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## Abstract:

Even though organic phosphorus contributes between one third and two thirds of the total phosphorus in a soil, little is known about its characteristics and movement. Recent advances using phosphatase enzymes, specific to certain types of organic P bonds, have greatly improved our ability to quantify the types of soluble organic P in soil, runoff, or leachate samples. We wanted to determine the extent of leaching of soluble organic-P (SOP) compounds. Manure applications were incorporated the top 10 cm of a 25 cm column (inner diameter 5.1 cm) containing sandy soil or mixed with the entire 25 cm column of sand. Distilled water was applied to the column so that water moved by unsaturated low with leachate collected in 50 ml portions. Our results indicate that SOP can move easily through a sandy soil. There was no evidence of preferential movement of individual types of SOP compounds.

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