Impact of different oganic manure fertilization strategies on soil water retention characteristics. (S11-sanchez070034-Oral)

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Abstract:

Many models used to evaluate the environmental effect of agricultural practices, requires information about the water movement properties in the soil profile. However, this information frequently is difficult to obtain in the routinary work. This information is less common for sandy soils than for common soils with medium and high levels of clay. Water retention curves, hydraulic conductivity, bulk density and texture analysis were performed in two Paleudult soils of Northern Florida, under different organic amendments strategies. Retentivity values at each matric potential were related with the sand and clay content and bulk density and porosity using multivariate techniques. Results suggest than in these types of soils, the organic fertilization schemes have an important role in the water movement through the soil profile and also in the water retentivity characteristics. However, the spatial variability have also a important effect in these characteristics, suggesting that the generalizations even in small areas can not describe properly the behavior of soil water movement.

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