Leach-M performance in sandy soils of North Florida. (S08-sanchez070628-Poster)

Authors:

- J.F.Sanchez - *University of Florida*
- R.S.Mylavarapu - *University of Florida*

Abstract:

The use of models to evaluate the impact of agricultural practices in the contamination of water and soils are now a generalized practice. Leachm is a model that uses the Richards equation to describe the water movement through the profile. The basic input to the model was obtained from water retention studies carry out in different farms, under specific fertilization programs, obtaining the Campbells parameters as well as bulk density, hydraulic conductivity and particle size distribution. In specific profiles, we compare the nitrate and phosphorous contents observed in the field with the levels calculated by the model. Leachm had the tendency to underestimate the nitrate content through the profile. The probable reasons are the manner Leachm is calculating the movement of water in the soil profile. The parameters a and b of the Campbells retention function do not yield good results. However a best estimates of this parameter can be obtained using multivariate analysis that permit evaluate all the variables at the same time.

Corresponding Author Information:

Jaime Sanchez
University of Florida
5500 SW Archer Rd. Apt. D-202
Gainesville, FL 32608

phone: 352-375-8215
e-mail: jfso@ufl.edu

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