Beneficial Use of Steel Slag and DWTR in Reducing P Leaching from Histosol. (S11-chen100703-Oral)

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Abstract:

Excessive phosphorus (P) leached from Histosols in the Everglades Agricultural Area (EAA)in south Florida is a serious environmental concern. Land application of steel slag and drinking water treatment residuals (DWTR) is an alternative to disposal, as well as one method for immobilizing P in soils containing excessive P from subsidence and agricultural activities. Laboratory studies were conducted on three typical Histosols of the EAA to determine 1) effects of steel slag and DWTR on reducing P leaching from organic soils; 2) optimum application rate of these two soil amendments; and 3) possible chemical mechanisms involved in the reduction of P in drainage water from organic soils. The results may be helpful to growers in the EAA to further reduce their P loads into the Everglades Protection Area.

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