Observations of Lamellae in Sandy Soils, Green River Basin, Illinois. (S05-wald081644-Poster)

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Abstract:

It is important to use all available information when updating soil surveys in order to produce a more accurate soil map. Recent fieldwork along the Mississippi River and the Green River in northwestern Illinois revealed lamellae in soils that had been correlated as deep sand units without lamellae. Therefore, to address this problem a special study was undertaken to determine if lamellae are present in nearby Green River Lowland sand units. Transects comprising 46 total borings were made across the study area. The field study revealed that 89% of the terrace units have lamellae as compared to 65% of the dune units and that the lamellae are dominantly Fe bands in dunes, but textural in terraces. The decision was made to retain the dunal sand units as Oakville (Typic Udipsamment) fine sand, 7 to 15 % slopes, and to correlate the terrace units to Coloma (Lamellic Udipsamment) sand, 1 to 7 % slopes. Future research may include a SSURGO data query using GIS to obtain sample points for particle size analysis, and the use of ground-penetrating radar (GPR) to determine lamellic properties such as thickness and quantity.

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