



Pushing and pulling tillage erosion into the future

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Over the past two decades tillage erosion has gained worldwide recognition as a form of soil erosion and a major cause of soil degradation on cultivated land. Considerable advances have been made in the understanding of soil movement by tillage and its variability, in its measurement, and in its modeling; however, major challenges remain. This presentation focuses on the most significant of these challenges.

With respect to the science. There is a need for better understanding of the relationships between the scales at which soil properties are measured and soil erosion is observed and the scales at which soil movement by tillage operates and is measured. As well, there is a need for a better understanding of the interactions between tillage erosion and wind and water erosion.

With respect to the application of the science. Although there is awareness of tillage erosion, its acceptance is very limited. With few exceptions, acknowledgement of tillage erosion, of the practices that cause it and of the appropriate conservation practices to control it is not evident in education and extension materials nor is it evident in government policy and programs. This is probably the greatest challenge.