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Review Article: Remote Sensing, Surface Residue Cover and Tillage Practice

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ABSTRACT

A growing world population and possible liquid fuel energy shortages are likely to result in worldwide agricultural intensification, and the possible expansion of non-sustainable practices. The adoption of non-sustainable practices could result in the loss of currently productive land, with potential impacts on human welfare and economic viability. One of the easiest techniques to maintain productivity is to maintain surface soil organic matter. However, developing reliable, cost effective and accurate methods for quantifying and monitoring crop residue cover (a major source of soil organic matter) that remains on top of the soil over large spatial extents constitutes a significant challenge. This article reviews potential remote sensing approaches for estimating surface residue cover with a view to mapping tillage practice.

KEYWORDS

Remote Sensing; Residue Cover

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