

## Understanding and preventing soil erosion

Edited by Dr Manuel Seeger, University of Trier, Germany



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## New title information

# Understanding and preventing soil erosion

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### Description:

It's been suggested that around 12 million hectares of agricultural land are affected by soil erosion each year. If the degradation of the world's soil reservoir continues, many have estimated that this could lead to a 30% reduction in global food production by 2040.

*Understanding and preventing soil erosion* provides a comprehensive overview of recent research on understanding the mechanisms of soil erosion, as well as the best practices for measuring, mapping and modelling soil erosion risk in agricultural soils. The book also considers the range of agronomic practices and techniques available to mitigate future soil erosion, including the use of crop residues, cover crops, buffer strips, soil stabilisers and zero/no-tillage.

In its detailed assessment of soil erosion, the book succeeds in highlighting the potential future impact of degraded soils on the quality, security and longevity of our global food system if the problem of soil erosion isn't effectively managed.

### Key features:

- Reviews current understanding of the mechanisms of soil erosion, focussing on water-based and wind-based erosion processes
- Considers the effectiveness of mitigation measures to reduce soil erosion, including buffer strips, zero/no-tillage and cover crops
- Addresses recent advances in techniques used to measure, predict, track and model soil erosion, including digital soil mapping and proximal instrumental techniques

### Audience:

Researchers in soil and crop science, agricultural engineers, farmers, as well as government and other agencies monitoring the health of agricultural soils

### Editor details:

**Dr Manuel Seeger** is Senior Lecturer in the Department of Physical Geography in the School of Regional and Environmental Sciences at the University of Trier, Germany. He was formerly Associate Professor at the University of Zaragoza, Spain, and Assistant Professor at Wageningen University, The Netherlands. Dr Seeger is internationally known for his research on measuring, understanding and mitigating soil erosion, particularly for European soils. He has chaired sessions related to soil erosion, its measurement and modelling at a number of conferences, including those organised by the European Geosciences Union. Dr Seeger is also on the editorial boards of a number of journals and has participated in a number of EU research projects such as DiverFarming and FireLinks.

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