

# **ADAPTATION STRATEGIES FOR SOIL AND WATER CONSERVATION IN A CHANGING WORLD**

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Bořivoj Šarapatka, Marek Bednář and Patrik Netopil  
(Eds.)



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## **Migration of organic carbon and Ca in soddy-podzolic soil limed by chalk: laboratory trial**

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Reclamation of acid soils are often faces various problems related to the losses of organic matter and calcium via downward migration in humid regions. In a model experiment on columns, a study of the conjugate migration of water-soluble organic substances (WSOM) and calcium in soddy-podzolic soil was studied. The soil was limed by two doses of chalk calculated by hydrolytical acidity (Hy) of the soil: the dose of 0.9 Hy is scientifically calculated dose and the dose of 2.5 Hy is deliberately over-estimated dose. In total, 16 washing were conducted and the leachates were analysed for leached organic C and Ca. Optical density of the lichates were also determined. From the soil limed with a 0.9 Hy dose of chalk, 133 mg of Ca and 469 mg of organic C were removed. From the soil reclaimed with a 2.5 Hy dose of chalk – 637 mg of Ca and 510 mg of organic C were removed. An increase in the dose of chalk by 2.7 times led to an increase in calcium migration by 4.8, and organic carbon by 1.2 times. The