



## **Spatial and temporal variability of ozone deposition**

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In the last few years, many researches pointed out the differences between concentration- and flux-based indices that can be applied for the characterization of ozone load. New indices had been introduced which can effectively describe the actual destructive effects of ozone. These indices can be estimated by more or less sophisticated deposition models. In such models, the ozone flux is controlled by ozone concentration and by deposition velocity via parameterization of the canopy and stomatal conductance. The main goal of this study is to point out the temporal and spatial variability of ozone deposition velocity under continental climatic conditions. Simulations have been carried out with a sophisticated deposition module of TREX Transport&#211;Exchange model with a newly improved scheme for soil moisture calculations. With the model, the temporal variation of the deposition velocity has been estimated for three summer periods (1998, 1999 and 2007) on a regular grid over Hungary, and several tests have been achieved. Spatial variations of ozone deposition velocity were simulated on the grid, and the differences of deposition over nine surface types have been analysed in this study.