EMS Annual Meeting Abstracts,
Vol. 6, EMS2009-208, 2009
9th EMS / 9th ECAM

9th EMS Annual Meeting
9th European Conference on Applications of Meteorology
High resolution meteorology
- applications and services

Soil Moisture and Temperature Changes in the Czech Republic: In Situ Data.

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The soil has unrepresentable role in ecosystems stability and influence balance of energy and substances. The development of the soil is strongly affected by moisture and temperature of its ambience. In past fifty years there is increase of the soil temperature and conversely significant decrease of soil moisture in the Czech Republic. This trend is obvious close to the soil surface and becoming less significant with increasing depth of the soil. However, precipitation total's series and numbers of precipitation days doesn't show any long-term tendencies. Nevertheless, increase of temperature with the actual precipitation amount influences increase of evaporation and evapotranspiration. Also biological and chemical processes in the soil are faster. Significant changes are happening also during the winter period, where freezing and unfreezing of the soil surface layer processes are exchanging more often. Therefore, it causes changes in the soil water move direction. Complex study of temperature and humidity regimes in the soil is becoming more significant in connection to current global climatic change warnings in the hydrological cycles.