

The European Soil Bureau Network and the Hungarian Soil Science Society, under the auspices of the 2011 Hungarian Presidency of the European Union, is proud to present

## THE SOILS OF HUNGARY



Soils are amongst the most precious natural resources of Hungary. The favourable landscape, climate and soil conditions allowed the original Hungarians to settle in the Carpathian Basin. When looking at the soil map of Hungary, the various colours reflect how differences in environmental factors have determined the development of the soil cover.

















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## The main soils of Hungary (see map above)

In hillier or mountainous areas, higher precipitation and lower temperatures lead to the development of soils under forest vegetation. These fertile soils, known as Luvisols, were heavily influenced by percolating water which led to the accumulation of clay in the subsoil. In the area between the mountains and the Hungarian Great Plain, young soils without distinct profile development are found (Cambisols). In lowland areas, one can find dark Chernozems, the most fertile soil of Hungary that supports the country's agricultural production (see adjacent poster for more details). Soils in river valleys that have developed on stratified sediments are called Fluvisols. Arenosols, soils that have developed on windblown sands deposited after the end of the last ice age, are extensive in certain parts of the country. In certain situations, ground water containing soluble salts can be found close to the surface. If evaporation is higher than precipitation, then salt-affected soils such as Solonchaks and Solonetzs can be found.

Soil performs many vital functions that are worthy of protection because of their socio-economic as well as environmental importance. For this reason, the European Commission has adopted a Soil Thematic Strategy with the objective to protect soils across the EU. For more information, please visit

http://ec.europa.eu/environment/soil/index\_en.htm

## Use

The soils of Hungary have been used very intensively throughout history for the cultivation of crops, for animal grazing and supporting woodlands for construction material. Currently, 48% of land is used for crops (mostly wheat and corn), 21% are forests, 8% are grasslands and 20% is uncultivated.

## Issues

The major limitation to agriculture in Hungary is precipitation. Climate change models predict that Hungary will experience extreme precipitation events in the future. The greatest challenge is to store the rainfall within the soil through effective soil management practices. Such techniques will control erosion, minimise the loss of topsoil and maintain or even enhance organic carbon and the bio-diversity levels of the soils.



The Hungarian Soil Science Society (Magyar Talajtani Társaság) serves as common forum for Hungarian soil scientists in academia, research and practice.

http://www.soil.hu/



Located in Ispra (Italy), the SOIL Action of the JRC's Institute for Environment and Sustainability undertakes research to support European Union strategies and policies that are relevant to soil resources in the EU and beyond. For more information on the IES or specifically soil related activities please visit either:

http://eusoils.jrc.ec.europa.eu/ or http://ies.jrc.ec.europa.eu