

Hungarian Conference of Soil Science

Szeged, Hungary, September 3–4, 2010

A conference entitled “*Soils under changing physical and social impacts*” was organized jointly by Hungarian Soil Science Society, Committee for Soil Science and Agricultural Chemistry of Hungarian Academy of Sciences and Department of Physical Geography and Geoinformatics at University of Szeged. The meeting was organized by a committee composed of BARTA, K., BIDLÓ, A., FARSANG, A., FUCHS, M., LÁSZLÓ, P., PIRKÓ, B., PUSKÁS, I., SZABÓNÉ KELE, G. The scientific committee included members STEFANOVITS, P., VÁRALLYAY, GY., MÁTÉ, F., MICHÉLI, E., FARSANG, A., MEZŐSI, G. and RAJKAI, K. More than 140 specialists took part at the conference both from research and educational institutions and from agricultural agencies and firms. The plenary session was proceeded by oral and poster presentations on the first day and a whole day field trip followed on the second day.

SZABÓ, G., rector of the University of Szeged opened the conference, then MEZŐSI, G., head of Department of Physical Geography and Geoinformatics welcomed the participants. In the course of the plenary session FARSANG, A. from the host department showed the status of the soil science at the University of Szeged, and talked about education, research and services related to soil science. The second plenary lecture was given by MICHÉLI, E., professor of Szent István University. She talked about the actual tendencies in the international and domestic soil science and in the activities of the organizations. In the afternoon 23 lectures were delivered in 4 oral sessions and 41 poster was shown.

In the session entitled “*Processes and evaluation of soil data*” lectures were given about the Hungarian soil data bases (e.g. the new soil physical data base combined with agrogeological data base, application possibilities of “MARTHA” data base), the potential development of national land evaluation and the connection between the newly developed Hungarian classification and WRB.

The “*Changing soils*” session included various topics. There were lectures about the long-time monitoring systems in Hungary: about “BIOSOIL” program for the observation of soils under Hungarian forests and about changes of brown forest soils in Somogy County based on “TIM” (Soil Information Monitoring) data. Besides, some serious soil degradation processes (water erosion, changes in soil moisture regime, etc.) were shown and changes in individual soil profiles from different parts of the country presented.

Participants heard 6 lectures in session “*Biological activity and soil use under changing climate and agricultural practice*”. There were tackled the new challenges (soil fertility, renewable ability, multifunctionality), problems of sewage sludge disposal, determination the optimum of forest society based on changing soils and improvement of salt affected soils in the Great Hungarian Plain.



The opening ceremony and its public

The last oral session was entitled “*Element traffic in soils*”. There were reports on field experiments with sewage sludge, different composts, energy plants, phosphorus movement by water erosion and lectures about vertical movement of copper and the selenium content in Hungarian soils.

The field excursion on the day after took place under the label “*At the contact of different natural microregions*”. Participants had the opportunity to visit 5 soil profiles typical of neighbouring landscapes (South Tisza Valley and Dorozsma–Majsa Sand Ridge) or transitional ones on their border. The first of them is found in the city of Szeged, it is a typical Technosol in the archeological excavation of the museum garden. The second one is part of the Soil Information Monitoring. This Chernozem is located west of Szeged on an



Participants of the meeting and discussion in the Arenosol profile

arable land. The third one is confined to the landscape border where sandy soil has been formed on the buried Chernozem. This profile is only 3 km away from the second profile and WRB can classify it as Arenosol. The next profile has formed in a flat depression near Zsombó village. This sandy Gleysol has a very high carbonate content (70–85%) and it is quite unique in Hungary because of its petrocalcic horizon. The last profile was that of a thin Gleyic Solonetz near Sándorfalva. Attractive benches completed the salty morphology in this area. The proceedings of the conference would be read in a special issue of journal *Talajvédelem* (Soil Conservation) to be published in spring 2011.

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