Excursion of the Belgian Soil Science Society

Theme: Proximal Soil Sensing

Date: Wednesday 27 May 2009

Place: East-Flanders, Belgium

Organizer: Prof. M. Van Meirvenne, Department of Soil Management, UGent

The IUSS recently established a new Working Group on Proximal Soil Sensing. The Belgian Soil Science Society joins this evolution with an excursion dedicated to this topic.

Provisional program

Morning: test site at Lovendegem.
The aim of this morning session will be to introduce and demonstrate the operational use of different types of proximal soil sensors. The sensors which are planned to be present are: several electromagnetic induction sensors (EM38, EM38DD EM38-MK2 and the DualEM S21, Department of Soil Management, UGent), a ground penetrating radar, a magnetometer (Department of Archaeology, UGent) and a VIS-NIR on-the-go sensor (developed by the Division Soil and Water Management & BIOSYST-MeBioS of the KULeuven). Demonstrations of these sensors to prospect natural soil variability, predict soil properties or to locate traces of human activities in the subsoil will be given.

Afternoon: Moervaart depression near Moerbeke (in collaboration with the Department of Archaeology, UGent)
The Moervaart depression was a large lake at the beginning of the Holocene and human traces indicate that its shore was a favorite living area during the stone age. Therefore archeologists want to reconstruct this former environment, and understand its evolution. Proximal soil sensors are currently employed to help reconstruct the geomorphology of this depression. These results will be presented during a visit of the area, with the opportunity to visit soil profiles containing horizons of peat and fresh-water marl.