Applied and Environmental Soil Science

Special Issue on

Infiltration Measurements on Agricultural Soils

CALL FOR PAPERS

Knowledge of hydrodynamic soil properties is important for several reasons, including the simulation of the soil-plant-atmosphere continuum, the optimization of water use efficiency of crops, the study of the dynamics of water and solutes in porous medium (nutrients and pollutants), and the partitioning of rainfall into infiltration and excess runoff, which may result in soil erosion.

Optimization of water resources in agriculture will be a main issue in the coming years, in particular due to climate change impacts. Agricultural practices such as soil tillage, soil use and management, cover crops, crop rotation, intercropping, and more on-farm activities, may impact on soil hydraulic properties as well as soil water dynamics and conservation. Therefore, specific investigations aimed at evaluating the impact of agronomic practices on soil hydrology are necessary.

To improve our knowledge in this specific field of research, the current special issue aims to attract research papers focused on the impacts of agricultural options on hydrodynamic soil properties. Investigations applying standard and novel methodologies to measure saturated and unsaturated soil hydraulic conductivity, as well as soil sorptivity, are welcome. Articles established on marginal or degraded agricultural areas or on forest environments are also welcome.

Potential topics include but are not limited to the following:

- Novel or standard methods to measure hydrodynamic properties on agricultural soils
- Application of infiltrometric techniques to measure saturated and unsaturated soil hydraulic conductivity in the field
- Impact of agricultural options (e.g., soil amendment) on preferential flow
- Spatialization of hydrodynamic soil properties as a support to precision agriculture
- Soil use and management effects on hydrodynamic soil properties
- Soil conditioners effects on hydrodynamic soil properties
- Impact of irrigation on hydrodynamic soils properties
- Climate changes impact on soil hydrology

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/aess/imas/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

Lead Guest Editor
Mirko Castellini, Council for Agricultural Research and Economics-Agriculture and Environment Research Center (CREA-AA), Bari, Italy
mirko.castellini@crea.gov.it

Guest Editors
Simone Di Prima, University of Sassari, Sassari, Italy
simoedg@gmail.com

Laurent Lassabatère, Ecole Nationale des Travaux Publics de l'Etat, Vaulx-en-Velin, France
laurent.lassabatere@entpe.fr

David Moret-Fernández, Estación Experimental de Aula Dei (CSIC), Zaragoza, Spain
david@eead.csic.es

Submission Deadline
Friday, 14 December 2018

Publication Date
May 2019