



1. Title

Steps made toward a Universal Soil Classification

2. Type

Working Groups Symposium

3. Organizer(s) & Convener

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4. Rationale

Professional soil scientists have been coordinating internationally for many decades to structure systems for soil classification. Ideas have been shared in the development of national systems across the world and have made great progress from before 1900 to the present time. Recently, there has been a renewed interest within the soil science community for the development of a system of soil classification that can be applied universally across the world. At the World Congress of Soil Science in Brisbane, Australia, the Working Group for Universal Soil Classification was officially established by an IUSS Council decision in August of 2010. The charge for the working group includes development of common standards for methods and terminology in soil observations and investigations and the development of a USC system.

5. Objectives

The primary objective of this symposium will be to report on the progress and development of the steps towards a universally accepted system of common standards for methods and terminology in soil observations and investigations and the development of a Universal Soil Classification system.

The symposium will focus on progress of the framework that has been developed to understand priorities for moving forward with the effort to provide harmonized criteria





for describing, sampling, and analyzing soil and work needed to understand gaps in existing soil classification systems.

6. Description

The symposium will offer an opportunity for critical and valuable discussion and to report progress about the work of the task groups that have been developed in following areas to facilitate the development of universally accepted soil classification system

• Soil classification issues.

- o Acid-Sulfate Soils.
- o Hydromorphic Soils.
- o Anthropogenic Soils (long-term land use).
- o Cold Soil Group.
- o Tropical Soils.
- o Salt Affected Soils.
- o Explore data and knowledge acquisition for soils (pedons)
 - o at depths greater than 2 m (e.g., Anthropogenic, Urban,
 - o Subaqueous, Paleosols).
- o Determination of the appropriate categorical level at which to start classification.

• Diagnostic and soil profile information harmonization.

- o Evaluation of diagnostic criteria from existing soil classification systems
- o Compare guidelines for field profile descriptions (e.g., redox, structure, color, consistency, texture).
- o Compare and compile horizon nomenclature, designations, definitions
- o Development of a horizon classification system.

• Important information relating to soil classification

- o Moisture and Temperature Regimes.
- o Define potential user groups interested in soil classification wider than the traditional users
- o Recommend laboratory methods and correlation rules.
- o Explore other diagnostics that could have significance to soil classification (e.g., soil biology).
- o Explore other observation methods (e.g., spectroscopy, gamma radiometrics), ask IUSS committee on different techniques.
- o Dual (parallel) nomenclature that includes and accommodates both a scientific and non-technical language (i.e., lay terminology such as gumbotil or sugar sand).
- o Extra-terrestrial (other planets).

