

Food and Agriculture Organization of the United Nations

International Network of Salt-Affected Soils



eHALOPH

and the economic uses of salt-tolerant plants

13 February 2024 16:00 - 17:30 CET







Salt-affected soils are widespread across the globe and salinity has affected agriculture since Sumerian times. As our climate changes, world agricultural systems face the increasing challenge of providing food and fibre for our ever-growing population. We predict that coping with this challenge will require the use of crops able to produce on salt-affected land.

Of the approximately 351,000 species of higher plants, less than 600, tolerate seawater concentrations of salt. Most of these 'euhalophytes' are in just one fifth of the families of flowering plants.

The potential of using halophytes in agriculture was recognised by Peta Mudie in the 1970s and a database of species was compiled by James Aronson during the 1980s. This database, called HALOPH, was digitised by Tim and Sam Flowers by 2005 and released on Kew's website in 2010. Coding by Joaquim Santos during a COST Action (FA0901 – Putting Halophytes to Work – From Genes to Ecosystems) led to the release of Version 3 of eHALOPH which has since been recoded (Stephen Cook. V4) with funding from the Gatsby Foundation. Moh'd Al-Azzawi, Pedro Garcia and Tim Flowers have reviewed the data.

In this Webinar we will explore the complex interplay between human activities and the natural salt cycle, describe eHALOPH (https://ehaloph.uc.pt) and the data it stores, provide a live demonstration of its use and describe how it can be used to list the economic uses of salt-tolerant plants. Finally, we will provide a case study of farming of *Salicornia bigelovii*.

Panellists (in order of appearance):

- Jorge Batlle-Sales, Spain, International Network of Salt-Affected Soils, Chair, moderator of the round table
- Helena Freitas, Portugal, Coordinator of the Centre for Functional Ecology, Department of Life Sciences University of Coimbra
- **Tim Flowers**, United Kingdom, Emeritus Professor in Plant Physiology, University of Sussex
- Joaquim Santos, Portugal, Collection Manager / Researcher, University of Coimbra
- **Pedro García-Caparrós**, Spain, Department of Agronomy of the University of Almeria
- **Dionysia Angeliki Lyra**, International Center for Biosaline Agriculture, Halophyte Agronomist
- **Maria Konyushkova**, Food and Agriculture Organization of the United Nations, rapporteur of the round table

Registration link : https://fao.zoom.us/webinar/register/ WN_9h_YqZZpSGyYLkai20HDYA



The Global Soil Partnership (GSP) is a globally recognized mechanism established in 2012. Our mission is to position soils in the Global Agenda through collective action. Our key objectives are to promote Sustainable Soil Management (SSM) and improve soil governance to guarantee healthy and productive soils, and support the provision of essential ecosystem services towards food security and improved nutrition, climate change adaptation and mitigation, and sustainable development.



The International Network of Salt-Affected Soils (INSAS), launched in 2019 during the International Center for Biosaline Agriculture's (ICBA) first Global Forum on Innovations for Marginal Environments, is a Technical Network of the Global Soil Partnership (GSP) and follows its Rules of procedure. The Network aims to facilitate the sustainable and productive use of salt-affected soils for current and future generations.

INSAS's mission is to support and facilitate joint efforts towards the sustainable management of SAS for food security, agricultural sustainability and climate change mitigation.

