**Session Proposal**

# **Session Title**

Soil Management and Food Sovereignty through Collective Strategies

# Session Organizer

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# Session Description

This session explores innovative pedagogical and scientific approaches to the sustainable management of soils, grounded in participatory processes and rooted in local community knowledge. It invites soil scientists, educators, and practitioners to reflect on the integration of traditional and technical knowledge systems to address soil degradation and enhance agroecological resilience. We will examine soil diagnostic methods, local narratives, and territorial strategies that recognize soil as a living, non-renewable resource intimately tied to food sovereignty. Through the lens of transformative education and participatory action research, this session presents methodologies to assess soil health, evaluate management practices, and co-design context-sensitive strategies for soil restoration, conservation, and collective governance. This session proposes a vision of soil science that is territorially situated, socially engaged, and politically meaningful. It welcomes contributions that demonstrate how collaborative work with soils can shape just and sustainable food systems, and how scientific inquiry can serve as a tool for autonomy and environmental justice. The session aims to foster dialogue on strengthening territorial sovereignty and building interdisciplinary bridges between soil science, agroecology, and community engagement. It welcomes research with local perspectives on soil description and management, as well as educational models and case studies that align with these principles and advance collective soil and the shared future for mankind.

# Format

Oral presentations.

# Proposed Speakers

**5. 1. Dr. Jacynthe Dessureault-Rompré, Laval University, Quebec, Canada.**
Dr. Jacynthe Dessureault-Rompré, a professor at Université Laval, specializes in soil conservation and health, focusing on cultivated organic soils (Histosols). Her research emphasizes co-creation and partnerships with farmers to develop sustainable soil management practices. She integrates scientific methodologies with local knowledge to address soil degradation and enhance agroecological resilience. Her work includes innovative approaches such as using plant-based amendments to restore soil functions and mitigate greenhouse gas emissions. In this session, she will share insights from collaborative research projects that bridge scientific inquiry and practical applications, contributing to the discourse on soil management and food sovereignty.

**5. 2. Dr. Eetela Sathyanarayana, College of Agriculture, Palem, India.**

Dr. Eetela Sathyanarayana, Assistant Professor at the Agricultural College, Palem (PJTSAU), specializes in soil fertility and nutrient management. His research emphasizes sustainable agricultural practices, including the use of organic manures and biochar, to enhance soil health and crop productivity. Dr. Sathyanarayana's work integrates scientific research with practical applications, aiming to improve soil management strategies that support food sovereignty. In this session, he will present findings from his studies on soil nutrient dynamics and discuss collaborative approaches to soil conservation that align with the goals of sustainable agriculture and community engagement.

**5.3. Dr. Effabiel Teofilo Miranda Carrasco, Secretary of Science, Humanities, Technology and Innovation of Mexico.**

In this session, Dr. Effabiel Miranda will present insights from his experience in designing and implementing national programs for soil management and conservation in Mexico. His work with the former CONACYT, now SECIHTI (National Secretariat of Science, Technology, and Humanities), demonstrates how science-based strategies, developed collaboratively with rural communities, can promote rational soil use and sustainability. He will share methodological tools for participatory diagnosis, planning, and monitoring that have guided territorial transformation across diverse agroecosystems. His contribution highlights the integration of traditional knowledge, scientific research, and public policy to strengthen food sovereignty through sustainable soil management.

**5.4. Dr. Lisa Lobry de Bruyn, University of New England, Australia.**
In this session, Dr. Lobry de Bruyn will present her research on integrating farmers' local knowledge and perceptions of soil health into participatory monitoring frameworks. Drawing from her work in Australia and internationally, she will discuss how understanding farmers' 'soil sense' and utilizing bioindicators like soil macrofauna can inform sustainable land management practices. Her contribution emphasizes the co-creation of soil knowledge between scientists and land managers, aiming to enhance soil health, resilience, and food sovereignty through collaborative approaches.

*These four researchers from different parts of the world will share their experiences in soil care through collaboration with farmers. We will gain insights into the extension systems in India, explore how precision agriculture supports soil stewardship on large-scale farms when guided by responsible land use, university support, and farmer participation. We will also learn about a national-scale program led by Mexico’s Secretariat of Science and Technology that promotes the rational use of soil resources, along with the methodology that has enabled its success.*

*Among our speakers are two women researchers who work with communities in Australia and Canada to co-create resilient plots with traditional landholders, fostering spaces for food and nutritional sovereignty.*

*In addition to these four confirmed researchers, we have a list of potential speakers: Dr. Axel Schmidt (Peru), Dr. Undrakh-Od Baatar (Mongolia), Dr. Francesca Bampa (The Netherlands), Dr. Trinsoutrot Gattin (France), Dr. Abbey Wick (USA), Dr. Leigh Winowiecki (Kenya), and Dr. Zeljka Zgorelec (Croatia). We are currently awaiting confirmation of their availability to attend the congress in person.*