Can Increasing Soil Organic Carbon Boost Crop Productivity?

In this webinar, we delve into the role of soil organic carbon sequestration in combating climate change and enhancing crop production.

As we face climate change and food security challenges, understanding the interplay between soil health and crop productivity is highly relevant. Dominic Woolf from Cornell University will share his latest findings from an analysis of more than 10,000 controlled field trials extrapolated to the global scale. He will discuss the effectiveness of soil organic carbon sequestration compared to nitrogen fertilization in improving crop yields, especially under optimized soil management. Mauricio Cherubin from University of Sao Paulo will draw from studies in tropical regions on the implementation of soil carbon management techniques which resulted in improvements in crop productivity and livelihood. We will discuss the potential increase in global crop production by optimising soil carbon levels and opportunities of using technologies and practices to achieve multiple benefits.

Join us as we unpack these findings and discuss their implications for farmers, policymakers, and the global community.

2nd May 5 PM EST (GST -5), 6 PM Brasilia, 10 PM Germany, 7 AM Sydney (3rd May)

Speakers

Dominic Woolf is a Senior Research Associate in the School of Integrative Plant Science Soil and Crop Sciences Section, Cornell University. His research focuses on addressing the challenge of removing atmospheric carbon dioxide. Utilizing quantitative modeling, he evaluates the efficacy of strategies such as soil carbon sequestration, land restoration, and sustainable management practices. His work informs policy decisions by assessing economic and environmental trade-offs.

Maurício Roberto Cherubin, a professor at University of São Paulo (USP) in Brazil, is an agronomist with extensive research experience at leading institutions, including USDA and CENA/USP, specializing in soil science, plant nutrition, and environmental biogeochemistry. He established and leads the Soil Health & Management Research Group (SOHMA) at ESALQ/USP, concentrating on land use, soil management, soil health, carbon sequestration, nature-based solutions, and ecosystem services. He is the deputy general coordinator and research director of the newly established Center for Carbon Research in Tropical Agriculture.

Discussant

Beverley Henry is an Adjunct Associate Professor in the School of Biology and Environmental Science, Queensland University of Technology, Australia. Her research focusses on climate change and the land sector, including managing emissions from vegetation, soils and livestock production, and MRV systems for carbon offsets in agriculture and forestry.