

The Influence of AMF Inoculation on Soil Aggregation, Carbon Sequestration, and Soil Health

Amid the growing challenges of climate change, our research funded by Valent BioSciences explores the role of arbuscular mycorrhizal fungi (AMF) inoculation in enhancing soil aggregation, carbon sequestration, and overall soil health at sites in Manhattan and Scandia, Kansas. This project focuses on assessing how AMF inoculation influences soil properties under various phosphorus levels in irrigated and dryland corn fields.

Our primary objective is to understand how interactions between soil structure and the below-ground biotic community affect carbon dynamics, particularly soil organic carbon (SOC) sequestration. Findings from this study aim to provide insights that support sustainable practices in managed ecosystems.

For more information on the project's progress, please contact Endy at endy@ksu.edu or Dr. Chuck Rice.

Images: IMG_2620 and IMG_4009 show the Scandia corn field with clean buffers separating inoculated and uninoculated plots to prevent cross-contamination. Image IMG_9002 shows an AMF-colonized corn root fragment.

