



Explore Long-Term Research at the Annual Meeting

June 22, 2023



Soil sampling at Sanborn Field at the University of Missouri in 1916 (left) and 2020.

Long-term research sites are worldwide treasures of information that show the interaction of crop management and climate on soil health indicators, crop production, environmental indicators, and the interaction of crop genetics. Often these records span more than 100 years and give a unique insight into these changes and interactions. The plant and soil samples taken and stored over the decades are a resource that can help answer questions today and tomorrow. It is impossible to consider what questions might be asked in 25, 50, or even 100 years that these stored

samples might help answer.

The ASA Community Agricultural Experiment Station Management has taken on an additional focus of long-term research management and those issues that are associated with this type of management including funding, record storage, publication, and management. At the 2023 Annual Meetings in St. Louis, this community and the Land Management and Conservation Section are hosting two symposia and a tour that focus on long-term research.

The first symposium titled, "Long Term Research Centers: Opportunity and Challenges: Those Established Pre-1900," will be led by the directors of the four oldest continuous research sites in the world: Rothamsted in the UK, Morrow Plots at the University of Illinois, Sanborn Field at the University of Missouri, and Old Rotation at Auburn. The second symposium: "Long Term Research Centers: Opportunity and Challenges: Those Established in the Twentieth and Twenty-First Century," will focus on four that were developed to examine specific management questions of more recent times: Blevins No-Till Plots at the University of Kentucky, Triplett-Van Horn No-Tillage Experiment at The Ohio State University, Sydney Plots at The University of Nebraska, and The Century Experiment at the University of California–Davis. A roundtable discussion with speakers and the audience will follow each symposium.

On Thursday, November 2, a tour is scheduled in conjunction with the Soil Health Community that will take participants to the University of Missouri at Columbia to visit Sanborn Field where participants will be shown how 135 years of continuous management has affected soil properties. Participants will then travel just a few miles to the MU South Farm where they will tour the Soil Health Assessment Center (SHAC) and the USDA-ARS SPARC plots, which examine how topsoil depth and crop rotation affect soil health properties. After a family style lunch, the group will travel back to St.

Louis with a stop at the MU Baskett Forest, near the frontier of the Missouri Ozarks, where participants can experience an entirely different landscape, examine soil pits, and get a first-hand look at the soils of this ancient mountain range. On the way to Columbia and back to St. Louis, descriptions of the topography of Missouri along the route will be presented.

In addition, a topical session, “How the Past Informs the Future Through Long-Term Research,” will showcase research from long term-research plots.

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