

Invitation for the Summerschool „Soil organic matter management“

*Thünen Institute for Climate-Smart Agriculture, Braunschweig, Germany
September 2-6, 2024*

Soil organic matter (SOM) is the organic carbon pool of soils, consisting of plant and animal detritus at various stages of transformation, cells and tissues of soil microbes, and substances that soil microbes synthesize. Soil carbon, its built up and accrual can be managed in agricultural and forest systems through an enhanced input of biomass (quantity) and through supply of biomass more suitable for stabilisation, such as roots biomass (quality). The management of SOM is crucial to maintain or even increase soil health as many processes in the soil depend on it. In addition, increases in SOM and thus carbon, can contribute to mitigate climate change effects leading in the best case to carbon sequestration in soils which is a negative emission technology. Which management options enhance SOM? What are the micro-scale mechanisms of SOM stabilisation? How can C accrual in soil be measured?

In this summer school you will learn through lectures what processes influence SOM build up and loss as well as how to manage and monitor SOM. In hands-on workshops you learn how to sample SOM in the field, measure it in the lab and how to correctly calculate SOM stocks using equivalent soil mass as well as how to determine SOM quality using mid-infrared reflectance. On a field trip to different sites around Braunschweig you will see how past and recent SOM management affected soil health and SOM on short term and on long-term.

There has never been a time where the topic of soil health and SOM management has been more relevant than now both, in research and in politics. We are now at a cross roads where we need to ensure how to sustainably manage our soils and its SOM. This summer school will give insights into recent scientific discussions and management options around SOM management and provide a platform for discussions and networking.

The summer school will take place at the Thünen campus in Braunschweig, Germany from Monday 02.09 till Friday 06.09.2024. We welcome all PhD students and young Postdocs to apply for it and join this EJP SOIL event. Please send the application form, a short CV and a motivation letter (max. 300 words) including the topic of your research to Katharina Meurer (katharina.meurer@slu.se) **until 30th March 2024**. Travel and accommodation will be covered for EJP SOIL partners and there are no attendance fees.

Feel free to contact Katrin (katrin.schulz@thuenen.de) if you have questions.

We look forward to seeing you in Braunschweig!

Axel Don
Felix Seidel
Katrin Schulz

