



[Re-]Introducing Dr. Cedar Hesse of the HCRU

Dr. Cedar Hesse & Jayden Christman



Our very own, Dr. Cedar Hesse!



Diverse nematode community from soil - working to untangle the complexity of soil biota.

I recently started as a Category 3 scientist providing bioinformatic support to small fruit researchers within the Horticultural Crops Research Unit. My research career has allowed me to work extensively in nematode, fungal, and bacterial systems, often in a plant-centric framework of symbiosis or pathogenicity. The overarching theme of my research has been the utilization of high-throughput sequencing tools and in-depth bioinformatic analyses to investigate complex biological systems. I hope to contribute my expertise to existing research programs within the Unit to further ongoing and future projects.

I am an Oregon State alum, having obtained my BS and PhD from the Department of Botany and Plant Pathology. After finishing my dissertation work on forest soil fungal and bacterial community dynamics, I spent three years at Los Alamos National Laboratory (LANL) in New Mexico as a post-doctoral research associate.

My research at LANL focused on using multi-omic approaches to understand the bi-directional interaction of natural soil microbial communities and climate change. This work included the development of a meta-transcriptomic analysis workflow, paired fungal genome and proteome analyses, and the microbiome-led discovery and description of a novel fungal genus.

After joining the USDA as a postdoc in 2015, I worked briefly with Joyce Loper before joining Inga Zasada's nematology lab. During my time at the USDA, I have contributed to numerous agriculture microbiome studies, genome sequencing and annotation efforts, and comparative genomic studies. My most recent work focuses on characterizing genome variation in the potato cyst nematode *Globodera ellingtonae*, and developing sequence databases to enable high-throughput nematode community analysis.

You can contact Dr. Cedar Hesse via email at cedar.hesse@usda.gov or by phone at 541-738-4085. Thank you for your hard work, Cedar, and congratulations on the new position!

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