WASHINGTON STATE UNIVERSITY

WSU PLANT PATHOLOGY SEMINAR

September 22, 2025, 4:10 PM

How do Plants Resist Soft Rot?

Dr. Amy Charkowski
Associate Dean for Research and Graduate Studies
Colorado State University, Fort Collins

Attend in Person
9/22/25 @ 4:10 pm (Pacific)
Clark 149, Pullman, WA

Attend on Zoom

> **Join Zoom Meeting from PC, Mac, Linux, iOS, or Android:** https://wsu.zoom.us/j/95376827690?pwd=eHZ8VAU74O44bzDcjokV0oVoUKo7Q6.1
> **Meeting ID:** 953 7682 7690
> **Passcode:** 4886

ABOUT THE PRESENTER

Amy Charkowski serves as the Associate Dean for Research and Graduate Studies in the College of Agricultural Sciences at Colorado State University. She earned her B.S. from the University of Wisconsin-Madison and Ph.D. from Cornell University. She worked for nearly 3 years as an ARS scientist in a food safety research group and then joined UW-Madison, where she was a faculty member in the Department of Plant Pathology and where she led the Wisconsin Seed Potato Certification Program from 2001-2016. From 2016 through 2023, she served as department head for Agricultural Biology at Colorado State University. Charkowski's research is mainly on plant pathogens that affect seed potato production or trade, including potato viruses, *Spongospora*, and soft rot bacterial pathogens of potato and it has resulted in over 85 publications and multiple patents. She teaches graduate and undergraduate classes in integrated pest management. Charkowski led her department in the development of a new undergraduate major in Agricultural Biology, an online master's degree in Pest Management, and a minor in Agricultural Data Science.

ABSTRACT

Applied agricultural scientists sometimes must work on diverse topics and almost always have to work on multidisciplinary teams to help improve agricultural sustainability. Our research has focused on multiple potato pathogens, ranging from viruses to protozoans. In this seminar, I will share our work on bacterial soft rot and my rationale for working on this pathogen. Even though soft rot pathogens are common in the environment and can be devastating in vegetable production, we rarely see this disease in natural settings. We used 'omics tools with diploid potato and found that protease inhibitors and quorum-sensing inhibitors may account for resistance of plants to soft rot. I have also served in multiple administrative roles, ranging from running a seed potato program to my current role as associate dean. I will also share a bit about the nature of each of these roles and what I have learned about starting, maintaining, and ending programs in agricultural colleges.