
The USDA-ARS Culture Collection as a strategic resource for plant health research

Kirk Broders, USDA/ARS/NRRL, Peoria, IL, USA

The USDA-ARS Culture Collection (NRRL) is one of the largest publicly accessible microbial collections in the world, housing over 95,000 microbial isolates. The ARS Culture Collection includes many plant-associated bacteria, fungi and oomycetes, including one of the largest and most diverse collections of mycotoxigenic fungi (*Fusarium*, *Aspergillus* and *Penicillium*), microbes used in biocontrol research (*Bacillus* and *Trichoderma*) and discovery of novel antimicrobial compounds (*Streptomyces*). The goal of this presentation is to provide the plant health community with an overview of microbial resources available at the NRRL and the past, present and future research for which these microbes are used. We introduce the concept of the “Virtuous Cycle” of collection management that highlights the importance of the user community actively engaging with the collection by demonstrating how users can access and search the NRRL online database for microbes of interest, how to order and deposit strains through the NRRL website, and how to request and deposit strains in the patent collection. The open access nature of this public good has the potential to play an important role in the broader plant health community.