

USDA Agricultural Research Service (ARS) Culture Collection: A Valuable Resource



Key Facts

- The ARS Culture Collection contains about 100,000 bacteria and fungi strains.
- The collection safeguards important microbial resources from around the world.
- ARS scientists manage, distribute, and conduct research on the strains.
- The collection has led to new products, improved food safety.

Curator David Labeda holds a specimen from the ARS Culture Collection

In 1904, Charles Thom from the U.S. Department of Agriculture (USDA) discovered *Penicillium roqueforti* and *P. camemberti*, the molds responsible for the tangy Roquefort and Camembert cheeses. Thom collected thousands of *Penicillium* strains in his career, and these became the beginnings of the Agricultural Research Service (ARS) Culture Collection.

Now one of the world's largest collection of publicly accessible fungi and bacteria, the Agricultural Research Service (ARS) Culture Collection was established in 1940 at the National Center for Agricultural Utilization Research in Peoria, Illinois. One year later, in 1941, the collection's vast array of *Penicillium* fungi proved critical to the hunt for a strain more effective at making penicillin than Alexander Fleming's original mold. The discovery of such a strain helped scale up the antibiotic's mass production in time to save many Allied soldiers wounded in World War II.

Today, the ARS Culture Collection, with its 100,000 strains of bacteria and fungi, is a significant biological resource for ARS scientists from which has come a long list of accomplishments. The collection also serves as a major national and international reference and resource for agriculture, industry, food safety, biotechnology, bioterrorism, and medicine. Over the last year alone, the ARS Culture Collection has sent out 5,500 strains and added 500 new ones.

See Also:

"ARS Culture Collection: A Valuable Resource":

<https://agresearchmag.ars.usda.gov/2018/feb/culture>

"A Culture of Innovation":

<https://agresearchmag.ars.usda.gov/2016/apr/culture>