The AWRI Wine Microorganism Culture Collection: securing the future of Australian wine microorganisms

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The collection
The AWRI Wine Microorganism Culture Collection contains over 10,000 strains of yeast and bacteria (Figure 1). These include reference strains, winery isolates, research strains and experimental strains. Strains are supplied on request to Australian wineries, teaching institutes and worldwide to research facilities.

Services for wineries
Advantages of storing strains at the AWRI include:
• Minimising costs of preservation and storage
• Identification of strains
• Strain fidelity maintained by expert staff under optimal long-term storage conditions
• Access restricted to the depositor, their nominees and AWRI researchers.

Services for researchers
• Reference strains
• Research strains
• Wine yeast gene-deletion strains
• A source of microbial genetic diversity for wine projects
• Storage of strains cited in peer-reviewed publications
• PC2-compliant storage.

Case study: long-term security for irreplaceable resources
• AWRI 81 (J7): A flor yeast first isolated in 1940 and deposited with the AWRI in 1955
  • Characterised using molecular techniques and stored at minus 80°C
  • Distributed to researchers and Australian wineries for over 60 years.
  • Still being used by Australian wineries in 2019!

Distribution - cost per strain
Costs vary depending on whether you are:
• Australian grape and wine levy payers*
• Non-levy payers
• Australian teaching institutions
• Outside of Australia
*Levy payers receive up to two free retrievals per year of strains they have deposited.

For details contact:
culture@awri.com.au

Figure 1. Yeast and bacteria genera in the AWRI Wine Microorganism Culture Collection

Deposit your strains
1. Send in your strain on agar or other media.
2. The strain will be identified using ITS/16S DNA sequencing.
3. The strain is preserved at minus 80°C in two locations for added security.
4. Information collected on all strains is collated in a database.

Request strains
1. The strain is retrieved from -80°C storage and propagated on appropriate media.
2. An agar slope of the strain is prepared and provided.
3. Strain-specific propagation information is available if required.