

Microbiology testing services for breweries



Introduction

While most microorganisms are unable to grow in beer, the small number that can should not be ignored. Beer spoilage microbes such as *Brettanomyces*, wild yeasts and bacteria, particularly those belonging to the lactic acid bacteria (LAB) family, can impart unwanted characters to beer that can turn an award-winning brew into one that is undesirable and may damage a brewery's reputation.

To avoid microbial spoilage of beer, an effective cleaning and quality assurance program should be in place, including regular microbiological screening of ferments, beers, yeast slurries and water.

What services are available?

AWRI Commercial Services offers several microbiology services for the brewing industry. These include use of membrane filtration and traditional plating techniques, as well as rapid DNA-based tests with short turnaround times.

What are the costs?

The table over the page outlines AWRI Commercial Services' beer microbiology services and their prices.

For customers requiring regular testing, tailored discounted service packages can be arranged. Send enquiries to commercialservices@awri.com.au for more information.



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Fact Sheet

MICROBIOLOGY

Service	Description	Price per sample (excl. GST)	Estimated turnaround time	Minimum volume required
Beer spoilage panel (unclarified)*	Screen for typical beer spoilage microorganisms including <i>Brettanomyces</i> , wild yeast and LAB. Number of colony-forming units (CFUs) with basic morphologies reported. 200 µL of sample spread-plated onto agar plates and grown under various conditions.	\$78.75	10 days	10 mL
Beer spoilage panel (clarified)*	Screen for typical beer spoilage microorganisms including <i>Brettanomyces</i> , wild yeast and LAB. Number of CFUs with basic morphologies reported. 100 mL of sample is filtered onto a membrane, placed onto agar plates and grown under various conditions.	\$78.75	10 days	330 mL
Beer sterility (clarified only)*	Screen for general yeast, mould and bacteria in clarified beer and water samples to test for sterility. Number of CFUs with basic morphologies reported. 100 mL of sample is filtered onto a membrane, placed onto agar plates and grown under various conditions.	\$68.25	10 days	250 mL
Rapid DNA test for lactic acid bacteria	A rapid PCR-based DNA test using Veriflow® BrewPAL technology that detects <i>Pediococcus</i> and <i>Lactobacillus</i> in beer, ferments and yeast slurries.	\$84	48 hours	100 mL
Microbial identification	Species identification of microbial colonies through DNA testing	\$210	5-10 days	Plate with colonies, or 100 mL
Yeast count	Microscopic counting of yeast cells in a sample	\$26.25	24 hours	10 mL

*unclarified samples include those that are expected to contain live yeast (e.g. ferment samples, bottle-conditioned beer). Clarified samples include those that are expected to be sterile (e.g. filtered beer, wort post-boil or water).

For further information, please contact:

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