Managing wild yeast proactively at your brewery

Sample to results in under 4 hours
THE CHALLENGE
Wild yeast can be a friend or an enemy in brewing
Naturally-occurring wild yeast is innately challenging to manage in the process of making beer. Some strains of wild yeast from the Brettanomyces/Dekkera species are purposefully pitched in selected beer styles to achieve distinctive flavor profiles. However, wild yeast is never desirable when it appears unexpectedly. Wild yeasts can produce a wide variety of undesired flavors and inconsistent quality - resulting in a final product that fails to meet your standards or intended flavor profile.

THE TECHNOLOGY
Proven rapid detection tools puts quality assurance into the hands of the brewer
brewDEK and brewBRUX are powered by Veriflow - a game-changing platform technology that combines proven diagnostic principles for microbial detection and innovative, first-in-class scientific approaches.

Veriflow DNA Signature Capturing Technology
DNA Amplification: Proprietary reagents eliminate need for sample purification
DNA Identification: Proprietary DNA signature detection specifically targeting beer spoilers
Sample Preparation: No enrichment or purification steps required
Visualization of Results: Proprietary vertical flow mediated visualization of results for easy interpretation

THE SYSTEM
Simple and cost efficient deployment at your brewery
The Veriflow system is comprised of a small customized thermocycler, pre-aliquoted PCR reagent tubes, and proprietary buffers. Semi-quantitative results are obtained in less than 4 hours via hand-held disposable cassettes.

THE BENEFITS
Knowledge of the presence of wild yeast is critical to ensure consistency and quality
Whether you’re using Brettanomyces/Dekkera species in your intentionally inoculated brands or protecting your “clean” ones – early detection provides brewers the opportunity to manage and produce a consistent, quality, flavorful brew every time.

WILD YEAST MANAGEMENT TOOLS

<table>
<thead>
<tr>
<th>brewDEK</th>
<th>brewBRUX</th>
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</thead>
<tbody>
<tr>
<td>Description</td>
<td>Accurate and sensitive to species in the Dekker (also known as Brettanomyces) genus that are naturally-occurring in brewing and barrel vessels</td>
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<tr>
<td>Key benefits</td>
<td>• Early detection allows for proactive monitoring of wild yeast in the facility • Minimize potentially negative impacts on beer flavor and quality • Manage consistency in intentionally-inoculated brews • Reduce the risk of cross-contamination</td>
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<tr>
<td>Matrix compatibility</td>
<td>Beer, colony PCR, environmental</td>
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<tr>
<td>Specificity</td>
<td>Brettanomyces/Dekkera species: B. bruxellensis, B. anomala, B. naardenensis, B. custersiana</td>
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<tr>
<td>Assay configuration</td>
<td>Qualitative</td>
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On-site testing for wild yeast species to protect the quality of your brews

"We use Invisible Sentinel’s tests in our yeast management system as a critical process control point. Since we have wild and sour beers on site, along with multiple yeast strains, the speed of the assay allows us to quickly and efficiently monitor our production flow so we can detect any potential cross-contamination as early as possible."
- Eli Kaledny, QA/QC Manager
Odell Brewing Company

"We really enjoy how fast and accurate the brewBRUX test helps us determine the presence of Brettanomyces in our spirit barrel-aged brands and barrel-aged blends. It gives us confidence in our ability to manage wild yeast before blending and packaging these carefully-crafted beers."
- Rick Blankemeier, Director of Brewing Operations
Modern Times Beer
Benefits of implementing proactive wild yeast quality management

- Sample to results in under 4 hours
- Early detection minimizes negative impacts on beer flavor and quality
- Simple and cost-efficient deployment
- Leverages the brewPAL Veriflow equipment and process

Why brewDEK?

- Accurate and sensitive to the spectrum of wild yeast species that naturally occur in the brewing environment

Why brewBRUX?

- Targeted monitoring of Brettanomyces Bruxellensis for consistent levels when desired in select brews
- Detects cross-contamination if present

ITEM # | DESCRIPTION | SIZE
--- | --- | ---
IS1028 | brewDEK Complete Test System | 1 Kit, 24 tests
IS1022 | brewBRUX Complete Test System | 1 Kit, 24 tests
IS1020 | brewPAL Complete Test System | 1 Kit, 24 tests
IS0904 | Veriflow Loading Tray | 1 Unit
ISTC002 | Veriflow Thermocycler | 1 Unit
ISRD001 | Veriflow Reader – optional, for quantified results | 1 Unit

For more information or to place an order, please contact Invisible Sentinel at 215.966.6118 or www.invisiblesentinel.com

Invisible Sentinel, a global molecular solutions company, is dedicated to providing first-in-class microbial detection tools. The company’s core technology, Veriflow, is a patented, game-changing platform that integrates molecular diagnostics, antibody design, and immunoassays. Veriflow has been applied across multiple industries including food safety and beverage quality.

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