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Rapid Microbiology for Breweries

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There is now a faster and less expensive way to conduct pathogen testing for your brewery. The **MicroSNAP** test is validated by the AOAC and is processed in **only 6 to 8 hours eliminating the need to wait several days or weeks for lab results**. This includes tests for Total Plate Count (TPC), Coliform, E.coli and Yeast.

Microsnap is a two-step test:

Step 1: Transferring sample to the enrichment device and incubating in the incubator
Step 2: Enumeration using detection device and EnSURE Luminometer.

Microsnap Total Plate Count (TPC/APC):
Step 1: MicroSNAP TOTAL Enrichment Device

Step2: MicroSNAP TOTAL End Point Detection Device

Hygiena Small Format Incubator

We can adapt this for yeast tests and may also be able to do so for other organisms. The **MicroSNAP** test is less expensive and less time-consuming than using other methods (as you may need to do several dilutions before you obtain the proper CFU count).

Aside from the testing of raw water sources for spoilage bacteria the most critical part of brewing is the actual fermentation. In this stage all the other steps come together and the formation begins and the final brew is produced. Yet in this very critical step the wrong yeast or bacteria will lead to spoiled batches. To prevent this, the cleaning steps of all equipment must be complete or residual bacteria from previous lots may still reside. Using rapid ATP testing and microbial testing here is critical. Otherwise Ale yeast might contaminate Lagers or vice versa or worse yet spoilage bacteria and yeasts will contaminate batches.
After filtration beers are bottled. The bottling lines and equipment are using sealed lines and CIP (Clean In Place) methods are usually used. Even small residues can then support cultures which can in turn contaminate the filled bottles. Even "Good Yeast" at this point can lead to secondary fermentation that will result in further change to the flavors of the beer leading to batch to batch variances. This is even more so if shipping and storage are variable (hot summers and cold winters make this a strong potential)

https://www.craftbeer.com/craft-beer-muses/defining-gravity

also see

Microbiological Media for Bacteria and Wild Yeast Detection in the Brewery.

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