



Yeast Harvesting & Repitching

White Labs Resource Guides

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Yeast Harvesting & Repitching

Purpose

Yeast collection and reuse is long-established practice in brewing. With proper yeast handling and repitching practices, brewers can effectively reduce yeast expenses by maintaining yeast health and reusing a single strain for multiple generations and many batches of beer.

Brewing schedules are crucial to help maximize efficiency and ensure the yeast is not left in storage too long. Harvesting yeast is relatively easy to implement. All that is needed is a sterile storage vessel, cold storage space, and a solid SOP with good practice.

Basic Principles:

- Collecting and harvesting yeast at the optimal point of fermentation will avoid prolonged exposure to yeast stressors in the fermentor, ensuring healthy yeast harvests
- Proper cold storage with minimal exposure to oxygen can extend the viability and shelf life of yeast from batch to batch.
- Differences in pitching rate can affect flavor production, fermentation speed, yeast health, and flocculation, leading to yeast harvesting problems. Pitching the right amount of yeast is key to reliable fermentations and great-tasting beer every time.

These methods can reduce yeast price points from \$50/bbl (single use) to \$2/bbl (multiple generations) with minimal investment, labor, or supplies.

Simply tracking the culture lineage and fermentation kinetics will provide outstanding results in beer quality and your bottom line.

Yeast Harvesting Method

Method

- 01** Schedule harvest during mid-to-end fermentation.
.....
- 02** Apply 3-5 psi of head pressure to fermentor.
.....
- 03** Attach tri clamp, tri clamp gasket, and tri clamp hose adapter to valve on conical fermentor. Attach sanitized tubing to tri clamp hose barb adapter.
.....
- 04** Slowly open valve to discard trub until healthy yeast slurry is visible. Close the valve and connect sanitized tubing to yeast brink or storage vessel.
.....
- 05** Slowly open the valve until the healthy yeast slurry is seen flowing into the storage vessel. Be sure to monitor harvest speed to avoid potential tunneling of yeast in the conical fermentor. Harvest yeast until the entire slurry is collected or target volume is achieved.

Method

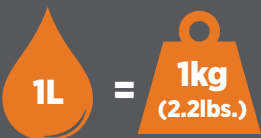
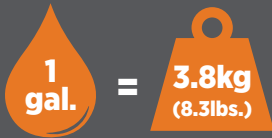
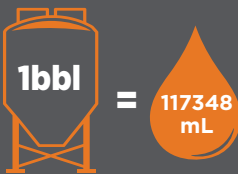
- 01** Transfer the brink to a cold environment, ideally between 36-39°F (2-4°C)
.....
- 02** Vent the storage vessel daily in order to maintain good yeast viability and vitality.
.....
- 03** Minimize oxygen exposure and storage time sto preserve yeast health for subsequent repitches, ideally only store for 1-3 days.
If storing longer periods (7-14 days or more) verify yeast viability before repitching.

Yeast Storage Method

Yeast Repitching Method

Method

Conversion Tips

			
U.S. ½ bbl kegs weigh 29.7lbs. or 13.5kg empty	1L water = 1kg or 2.2lbs.	1 gal. water = 3.8kg or 8.3lbs.	Batch Size = 1bbl or 117348mL (Make sure units are in mL)

**Yeast slurry adds about an additional 10-15% of water weight.*

Water weight is 1:1; Weight to Volume (1L=1kg) Weight of Yeast Cell is ~ 4.6 x 10⁻¹¹ grams

- 01

Remove yeast vessel from cold storage and place on scale.
- 02

Measure weight of slurry, excluding keg weight.
- 03

Calculate the required slurry volume if the cell concentration of stored yeast slurry is known. **(See formula example on the next page.)**

Pitch Rate Calculation



Viability under 75% are not recommended for repitching as dye counts are inaccurate

Recommended Pitch Rates:

Ale: 0.75-1 million cells/mL/P

Lager: 1.5-2 million cells/mL/P

Calculate amount of cells needed for brew.

3a

1E⁶ Cells

mL * P

Recommended Pitch Rate

x

12° P

Starting Plato

x

117348 mL

Fermentor vol. in mL
ex. 1bbl = 117348mL

=

1.41 Trillion Cells (1E¹²)

Calculate needed volume from amount needed & slurry concentration.

3b

1.41 Trillion Cells (1E¹²)

Cells needed for brew

1.5 Billion Cells(1E⁹)/mL

Slurry Concentration

=

940mL or 0.9L

Convert yeast volume needed into weight.

3c

940mL

x

1.15g

mL

Cell Density

=

1081g or 1.1kg

Yeast Repitching Method

Yeast Repitching Method

Method

- 04** Place yeast brink on scale.
.....
- 05** Apply 3-5 psi of head pressure to storage vessel.
.....
- 06** Attach tri clamp, tri clamp gasket, and hose from valve on conical fermentor or hard line to storage vessel.
.....
- 06** Slowly open valve to push yeast slurry into fermentor.
.....
- 07** Allow yeast to fill vessel until calculated weight/volume has emptied from the storage vessel.

**Make your brew day
even easier with:**

White Labs FlexBrink®
and
White Labs FlexPump™

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