Re-pitching yeast is an effective method to reduce the cost of yeast per brew. Lallemand Premium Brewing yeast has the high viability and purity required for re-pitching. However, producing a consistent product from each successive fermentation is a significant challenge to the brewer.

**YEAST HARVESTING BEST PRACTICES:**

**KEEP GOOD RECORDS**

Record the original lot number, generation number, fermenter source for harvest, storage vessel number, viability, pitch rate, fermentation time, attenuation and microbiology results.

**ENCOURAGE FLOCCULATION**

Choose a flocculent strain and promote flocculation by addition of calcium (50-150 ppm in the mash).

**STORAGE**

Cool yeast storage vessel rapidly to 4°C for storage up to one week. Avoid air ingress and excessive CO2 pressure during storage.

**TEST YEAST VIABILITY, VITALITY AND PURITY**

Assess yeast viability using a microscope and viability stain (i.e. methylene blue or trypan blue). Perform vitality test, e.g. acidification power. Test for contamination of bacteria and wild yeast according to standard QC protocols.

**PURGE THE BOTTOM OF THE CONE**

(dark brown slurry) every 24-48 hrs to remove early flocculating cells and trub. Harvest yeast from the middle of the cone (creamy, light brown yeast) within 24 hrs of reaching terminal gravity. Avoid harvesting the top of the cone, which contains slow fermenters and mutated cells.

**TRANSFER SLOWLY AND UNDER PRESSURE**

To avoid cone slippage and ensure a uniform yeast population. Monitor yeast harvest using a sight glass.

The amount of slurry required for yeast pitch will depend on the viability and cell density. Volume can be determined based on the volume of the yeast brink or storage vessel or by using a flow-meter designed for dense liquids.

If pitching by weight, the yeast density (% solids) may be assessed using ASBC method Yeast-S.

For more information, you can reach us via email at brewing@lallemand.com
# Repitching Using Dry Yeast

## Best Practices

### Repitching Using Dry Yeast - Summary

<table>
<thead>
<tr>
<th>Dry Yeast Advantage</th>
<th>Challenges</th>
<th>Re-Pitching Solutions</th>
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<tbody>
<tr>
<td><strong>Dosing</strong></td>
<td>Pitch rate depends on viability and cell density</td>
<td>Ensure consistent pitch rate by performing a cell count with a microscope and viability stain.</td>
</tr>
<tr>
<td>- Stable viability</td>
<td>- Follow yeast harvesting best practices.</td>
<td></td>
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<tr>
<td>- Simple pitching by weight without cell count.</td>
<td>- Use Go-Ferm Protect Evolution to maintain vitality or to rescue yeast from sluggish fermentations (Figure 1).</td>
<td></td>
</tr>
<tr>
<td><strong>Consistency</strong></td>
<td>Vitality decreases after several generations.</td>
<td>- Follow yeast storage best practices.</td>
</tr>
<tr>
<td>- Highly stable</td>
<td>- Perform vitality test before pitching, e.g. acidification power; slurry pH (increase indicates autolysis).</td>
<td></td>
</tr>
<tr>
<td>- Fermentation is always consistent for first generation pitch.</td>
<td>Lower vitality for yeast harvested from high gravity, heavily hopped or sour beers.</td>
<td>- Avoid re-pitching from beer &gt;8% ABV, &gt;60 IBU or heavily dry-hopped beers.</td>
</tr>
<tr>
<td><strong>Purity</strong></td>
<td>Bacteria and wild yeast may outcompete the brewing strain after several generations.</td>
<td>- Avoid re-pitching from all sour beers.</td>
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<tr>
<td>High stability facilitates in-depth QC testing to ensure high purity</td>
<td>- Acid wash yeast to inhibit bacteria.</td>
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<tr>
<td><strong>Aeration</strong></td>
<td>Aeration is critical</td>
<td>Ensure proper aeration of wort to 8-10 ppm dissolved oxygen when using re-pitched yeast (&gt;10ppm for higher gravity wort).</td>
</tr>
<tr>
<td>Dry yeast contains all nutrients required for cell division without aeration</td>
<td><strong>Timing</strong></td>
<td>Fresh yeast supply depends on production schedule</td>
</tr>
<tr>
<td><strong>Variety</strong></td>
<td>Dry yeast is always ready to use</td>
<td>- Keep dry yeast on hand for emergency; use if propagated yeast is compromised.</td>
</tr>
<tr>
<td>Can easily use multiple strains to brew a variety of different beer styles</td>
<td>Difficult to manage yeast supply when re-pitching multiple strains</td>
<td>- Limit the number of strains maintained through re-pitching.</td>
</tr>
</tbody>
</table>

### Figure 1

**Recovery of Poor Fermentation Performance**

- Fermentation temp. 12°C
- Pitching rate 5g cream yeast/L
- **control**
- high sterol yeast (inactivated)
- GoFerm Protect
- control + GoFerm (recovery)

![Recovery of Poor Fermentation Performance](image)

Re-pitching yeast without nutrients results in sluggish fermentations after four generations (control, dark blue) compared to similar fermentations re-pitched using inactivated high sterol yeast (green) or Go-Ferm Protect (red). Addition of Go-Ferm Protect is able to recover performance from a sluggish fermentation (light blue). Fermentations were performed using dry lager yeast at 12°C in high adjunct wort (to induce stress).

### References:


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