



Yeast Farming & Washing

Presented by Scott Eckford for the
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What is it?

- Yeast Farming is reclaiming yeast after fermentation has concluded so it can be reused in consequent brews.
- Yeast Washing is separating undesirable substances (e.g., trub, break, hop material, dead yeast, etc) from the healthy yeast.



Why?

- So you have enough yeast available to brew high gravity brews (e.g., barleywines, doppelbocks)
- So that you know your yeast are healthy and viable
- Enables you to keep a range of yeast at your disposal



Sanitation

- It's crucial that you're as sanitary as possible
- Can use autoclaves or pressure cookers
- I use:
 - Phosphoric Acid based no rinse sanitiser
 - Close the room and wash my hands with alcohol cleaner
 - All the water I mention has been boiled for 10 – 15 minutes, chilled, then kept in a sanitised container



Harvesting – Clean Yeastcake

If I have 'clean' yeastcake without much break, trub or hops then I:

- Add 1-2 cups of water
- Swirl to slurry up the yeastcake
- Drain out into sanitised bottles

This should be good to be reused for the next few weeks. Any longer than a month, and I would suggest re-culturing and growing more yeast.



Harvesting – Dirty Yeastcake

If the yeastcake does have a lot of trub, hops and or break, it's necessary to 'wash' the yeast out of the yeastcake.

Normally, I wash just a bit of the yeastcake, but in this example I washed the whole lot.

This particular example was from the Wyeast 1272 (American Ale II) and it was filthy.

Harvesting – Dirty Yeastcake

I split the yeastcake into 2 demijohns to allow plenty of headspace. The more you dilute the yeastcake during the "wash" the more it generally separates easier.



Harvesting – Dirty Yeastcake

I then added 2L of water to each demijohn & shook them up, but in hindsight I probably should have used more as it didn't separate as easily as it normally does





Harvesting – Dirty Yeastcake

After shaking it I let it sit, preferably in a fridge. In a short period of time the heavier particles will settle out on the bottom. This will mainly be trub, hops & break. A bit after that you will see another layer forming near the top; this will be the water/dilute beer content. The centre the layer will look quite pale, nearing white - this is the yeast layer. It will contain some suspended solids & in a dilute beer/water form but the majority of the content will be clean viable yeast.

How long this separation process takes seems to vary depending on volumes, water to yeastcake ratio, temperature & many other varying factors so instead of getting hung up on exactly how long it should take I recommend you get familiar with the process so you can recognise when the yeast layer is ready to decant.

Harvesting – Dirty Yeastcake

Below you can see one of the demijohn starting to separate into the 3 layers, although this also had a head of krausen on top of that again



Harvesting – Dirty Yeastcake

In theory this should separate even more so the yeast layer is less & the water/dilute beer layer is bigger. But after a while it seemed it wasn't going to separate much more so I decanted the middle layer of yeast. You can see its paler than both the trub & beer/water layers. The other demijohn I let settle out completely to reclaim later, for interests sake you can see how it settled below. The yeast layer is clearly visible.



Harvesting – Dirty Yeastcake

- Here is the layer of yeast that was decanted off the 1st demijohn after it has been allowed to settle topped up with some more water



Harvest – Dirty Yeastcake

The top layer of dilute beer/water is then decanted off leaving just enough to allow the yeast to slurry up with a swirl. You may want a bit of water on hand to add if needed then to top up the reclaimed yeast later. Pour the slurried up yeast into PET bottles. I generally store them in the appropriate amounts to pitch into a brew. Store in the fridge in a darker spot.



Harvest – Dirty Yeastcake

After settling





Pitching Yeastcake

Prior to pitching

- Decant fluid/beer off the yeastcake
- Bring up to fermentation temperature
- Add some fresh wort to the container
- Allow to starter to get active/start fermenting
- Pitch into wort to start fermentation



Culturing Yeast

- If you require more yeast, add your yeastcake to a yeast-free starter and culture more!
- A great place to find out about how much yeast you require is at Mr Malty:
<http://www.mrmalty.com/calc/calc.html>



Summary

These practices are a great way to get enough yeast for high gravity brewing as well as ensure you have ample, healthy yeast for normal brews. The most important parts though are:

- Cleanliness & Sanitation
- Practice!