

Before you start, please make sure you have already installed the app on your mobile device and you are already logged in. Please note: these instructions will take you through the most common dilution as an example. Based on the density of your yeast sample, a weaker or stronger dilution may be required.



microscope



cables



measuring cylinder



pasteur pipette



reaction tube



methylene violet



sample chamber



syringe



cleaning bellows



cleaning swab

1. DILUTION

What you will need: measuring cylinder, water, pasteur pipette, a yeast sample from your fermenter or propagator

Step 1: fill your measuring cylinder with 99ml of water

Step 2: fill your pasteur pipette with 1ml of yeast and empty it into the measuring cylinder

Step 3: run the solution in and out of the pipette three times to make sure it is completely empty

Step 4: take the pasteur pipette and stir vigorously – now it's diluted!

2. STAINING (only required when measuring viability)

What you will need: diluted yeast sample, pasteur pipette, reaction tube, methylene violet

Step 1: fill the pasteur pipette with 0.5ml of your diluted yeast sample

Step 2: take the 0.5ml of the diluted yeast sample and put it into the reaction tube

Step 3: take 0.5ml of the methylene violet solution and put it into the reaction tube

Step 4: run the mixture through the pipette a few times

QUICK GUIDE

3. LOADING THE CHAMBER

What you will need: diluted (and stained) yeast sample, pasteur pipette, sample chamber

Step 1: fill the pasteur pipette with a small amount of your diluted (and stained) sample

Step 2: pipette the sample into either one of the chamber openings

Step 3: let the capillary forces pull the sample through the chamber

Step 4: leave it for approx. 5 minutes to let the yeast cells settle and the staining react

4. MEASURING

What you will need: microscope, mobile device, chamber loaded with diluted (and stained) yeast sample

Taking the images

Step 1: connect the microscope via cable to your mobile device and open the BetterBrewing app

Step 2: put the chamber into the microscope and slide it up to its first marking

Step 3: choose in the app whether you want to conduct a measurement with or without viability

Step 4: now adjust the focus wheel of the microscope until you see a sharp image on your mobile device

Step 5: take the picture and click "keep" to add the image to the analysis

Step 6: release the focus wheel a bit to move the chamber to the next marking to take the next image

Step 7: repeat the steps above to take 5 images

Performing the analysis

Step 1: after you took 5 images, enter a name for your sample (date & time are filled automatically)

Step 2: enter the ratio for dilution and staining (in this example this would be 1:99 and 1:1)

Step 3: add a comment if you like, i.e. sample origin, yeast type, generation of yeast, etc.

Step 4: click "next" to perform the analysis and to review your results

5. CLEANING THE CHAMBER (should be done shortly after the analysis)

What you will need: dirty chamber, distilled water, syringe, bellows, paper tissue

Step 1: fill the syringe with distilled water and rinse the chamber with it

Step 2: use the cleaning bellows to gently blow air through the chamber

Step 3: use the paper tissue to collect the remaining water from the chamber openings

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