

Please download the Oculyze Fermentation Wine app to your compatible mobile device before you begin.



These instructions will take you through a 1:100 dilution example. Based on the density of your yeast sample, a weaker or stronger dilution may be required. Make sure your yeast is well mixed.

1. Dilution

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

Normally dilution is not needed if you are measuring during fermentation. It is necessary when pitching yeast.

Step 1: fill your Pasteur pipette with 1ml of yeast

Step 2: fill your measuring cylinder with 99ml of water

Step 3: empty the Pasteur pipette into the measuring cylinder

Step 4: run the solution in and out of the pipette 3 times to make sure it is completely empty and no undiluted yeast remains in the pipette

Step 5: take the Pasteur pipette and stir a few times

Step 6: now fill the Pasteur pipette to 1ml again – now it's diluted!

2. Staining

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

In order to determine the viability of the yeast, it must be stained with methylene violet. Here is what you will need for staining.

Step 1: take the 1ml of the diluted yeast sample and put it into the reaction tube

Step 2: take 1ml of the methylene violet solution and put it into the reaction tube

Step 3: run the mixture through the pipette a few times – then allow 5 minutes for the sample to stain

3. Loading the chamber

Now let's load the chamber. If you're only measuring concentration, use only the diluted yeast sample.

If you're measuring concentration and viability or just viability, use the stained sample.

Step 1: use new Pasteur pipette to load a small sample

Step 2: pipette this into either one of the chamber openings, capillary forces will pull the sample

through the chamber – allow the filled chamber to rest for 1 minute so the yeast sediments / settles

4. Measuring

Now that the chamber is ready let's start measuring!

Step 1: connect the microscope with the cable to the mobile phone

Step 2: insert the chamber to the microscope and **lightly** screw it into place

Step 3: slide the sample chamber up to its first marking

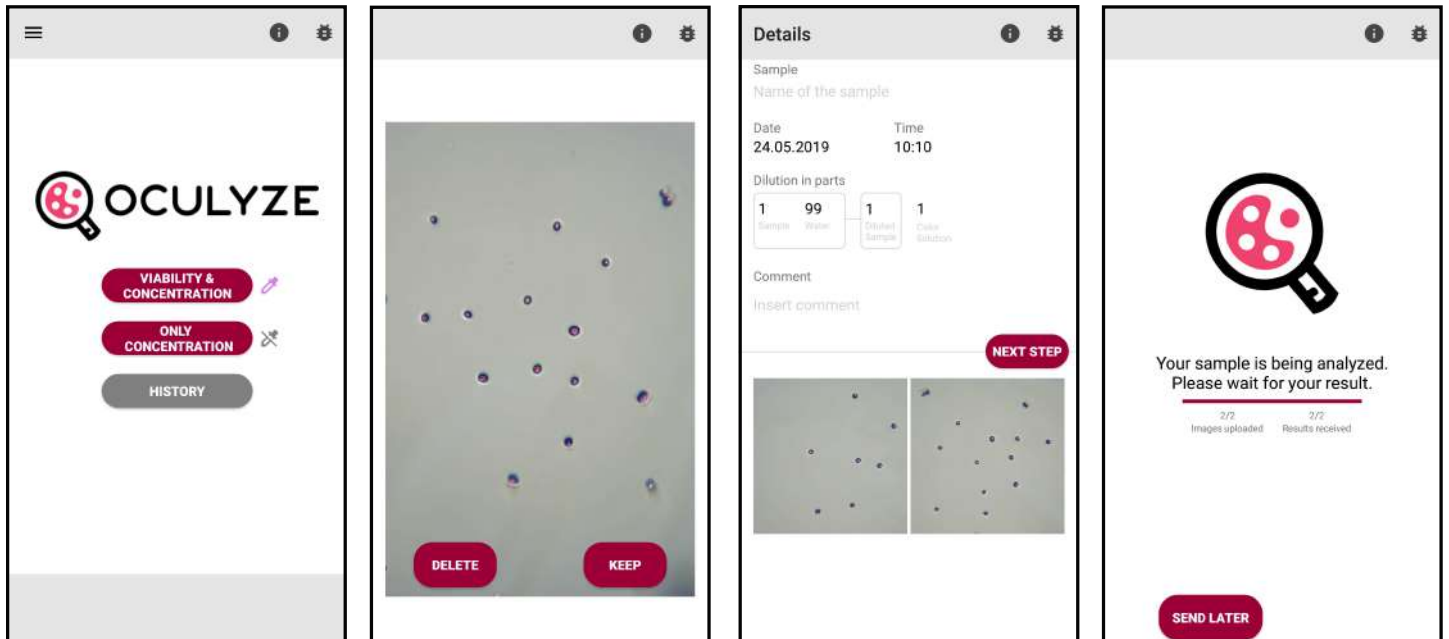
Step 4: choose which measurement you would like to conduct

Step 5: now you need to focus the images by adjusting the knob

Step 6: take the picture, the app will automatically tell you if your images are in focus

Step 7: click "keep"

Step 8: you must conduct this step five times, each time moving the position of the chamber to the respective markings



5. Entering the sample data

Step 1: enter a name for your sample, date and time are automatically entered

Step 2: if you followed these instructions you can enter 1 part sample and 99 parts water for the dilution for concentration and 1:1 for the sample's mix ratio of coloring agent

Step 3: (optional) include whatever you would like in the comment section, we recommend where the sample was taken from, the type of yeast and the generation of the yeast

Step 4: click "next" to view your results

You can view previous results in the history tab from the home screen of the Oculyze app.

Cleaning the chamber

What you will need: syringe, distilled water, dirty chamber, bellow, cleaning wipes

In order to guarantee optimal analysis, the chamber must be cleaned and dried after each use.

Step 1: fill the syringe with distilled water

Step 2: Rinse the chamber with distilled water from the syringe

Step 3: Use the bellow to dry the chamber – pump the bellow to blow air through the chamber, use a small piece of tissue at the end to collect the water

Cleaning the device

What you will need: the microscope, cleaning tip swabs, lint-free cloth (optional)

In order to guarantee ideal image quality, the device should be regularly cleaned

Step 1: clean the optics from the top

Step 2: clean the optics from the bottom