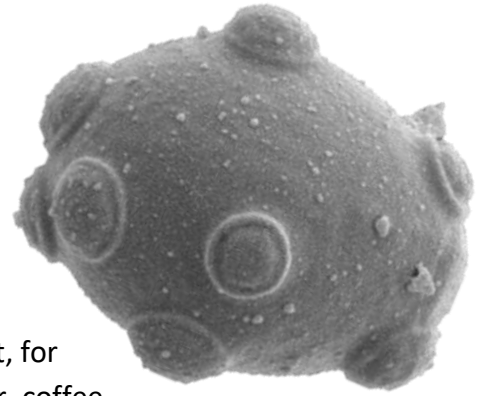


ARTIS MICROPIA

Yeast

Airy fungi



If there were no microbes, your breakfast would look very different. Then there would be no bread, cheese or yoghurt, for instance. A lot of other foods and drinks, such as wine, beer, coffee, olives and chocolate would not exist without microbes, either. One of the key microbes used for making foods and drinks is yeast. It is a tiny fungus you can simply buy at the supermarket. If you want to bake bread at home yourself, for example. But why do we actually use yeast for baking bread?

How does yeast work? To find out, you are going to do an experiment with bottles and balloons. And: yeast.

What do you need?

- a sachet of yeast (Dr. Oetker, 7gr.)
- sugar
- two transparent half-litre plastic bottles
- a teaspoon
- a funnel (or roll up a piece of paper in the shape of a funnel)
- lukewarm water (approximately 25 degrees C)
- two balloons
- a waterproof marker

Getting started!

1. Pour half a sachet of yeast into each bottle. Use the funnel for this to prevent spillage.
2. Put eight teaspoons of sugar in one of the two bottles and use the waterproof marker to write a large cross on the bottle. That way, you won't forget which bottle you put the sugar in.
3. Pour eight centimetres of lukewarm water in each bottle.
4. Screw the cap on both bottles, shake, and remove the cap.
5. Stretch the balloons a bit, blow them up and let the air out again. This will make them a bit more flexible. You can also use latex gloves and a rubber band.
6. Place the balloon over the neck of the bottles.

Questions

Question 1: What do you expect to happen to the balloons?

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7. Let the bottles sit for fifteen minutes and then check them.

Question 2: What happened to the balloons? And do you see any difference between the two bottles?

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Question 3: Where do you think this difference comes from?

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Question 4: Is what happened what you expected, or not?

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Question 5: Why do bakers use yeast for making bread?

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Would you like to know more about the action of yeast? Or would you like to do additional experiments? Then go to micropia.nl.