Found at togethersciencebus.eu. Information about yogurt making can be
included on this page, along with instructions about the materials and
methodology. The project has been funded by the European Union’s Horizon
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Introduction

Yogurt originates from Turkey. Now it is
worldwide a popular product and made in
many variations. In Greece yogurt is
thicker than in Bulgaria. But what exactly
makes the difference between a thin or
thick yogurt? And what is the role of our
“tiny friends,” bacteria, in this process?

Yogurt is made through fermentation. This
is a natural process in which micro-
organisms eat the sugars and “poo” them out
as acid, gas or alcohol. Yogurt is made by
adding bacteria to the milk (at a certain
temperature). These bacteria will then
convert the sugars into acid. Acid makes
the proteins in the milk clot and will
form a gel-like substance; yogurt!

The yogurt you buy at the supermarket
contains (unnecessary) ingredients to
extend the shelf life of the product.
Making yogurt yourself is much more
fun and tastes better! Just follow the
instructions on the inside of this leaflet.

Research the process

Greek style; thick yogurt

can make both a thin and a thick yogurt of a
mixture of ingredients that you like. You
will get another taste of texture. Adding
various temperaturés to the milk, your
yogurt will get another taste of texture.
Adding (specific) yogurt bacteria at
various temperatures will then
change the texture.

Taste is preserved, but the
texture and temperature are destroyed. But the
bacteria and yoghurt are destroyed, but the
yogurt is not. At this temperature, the milk
will not clot. At this temperature, the milk
can be stored longer. By adding bacteria, you
will get a yogurt with a different taste. Instead of pasteurised milk from the
supermarket, you can use fresh milk from a farmer.

Variate the yogurt recipe:

Instead of pasteurised milk, you can try to get some
fresh milk directly from the farmer and
pasteurise it yourself by heating it up
to 72°C. At this temperature, harmful
bacteria and fungi are destroyed, but the
taste is preserved.

Adding (specific) yoghurt bacteria at
various temperatures will then
change the texture. With the instructions on the inside, you
can make both a thin and a thick yogurt.

Collecting folk remedies

This is what you need to
make your own yogurt:

• 1 litre pasturised, unskimmed milk
  (tip: even better, get some fresh
  milk from a Farmer!)
• 4 tbsp (60 ml) biologic yogurt
  (start culture)
• A glass jar with lid
• Heat source (cooker or stove)
• Large pan
• Spatula
• Something to keep the jar warm
  (with a blanket or with hay)
• (Cooking) thermometer

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Make your own yogurt

Making yogurt yourself is easy, healthy and delicious. Discover below how to transform ordinary milk into yogurt with the help of some friendly bacteria:

1. Make sure that the jar in which you are going to keep the yogurt is clean. Place the jar in a big pan with boiling water for at least 15 min or put it in the dish washer first and let it dry.

2. Heat the milk in a large pan. For a thick yogurt until 44°C. For a thin yogurt until 34°C. Are you using fresh, unpasturised milk from the farm? Then initially heat the milk until 72°C for pasteurisation (see also inside).

3. When the milk reaches the correct temperature, add the organic yogurt (your starter culture). To avoid clotting, stir well.

4. Pour the mixture quickly (to prevent heat loss) in the clean jar and close this with the lid.

5. Wrap the jar in a large blanket, sleeping bag or (like back in the old days) in a wooden chest filled with hay. Keep your jar warm for 12-24 hours. For thick yogurt 4-24 hours.

6. Subsequently, put the jar in the refrigerator to incubate for 12 hours. The thickness of the yogurt will increase by cooling it. Of course chilled yogurt is much more delicious to eat.

7. After 12 hours in the fridge you can eat your homemade yogurt. It will stay fresh for about 2-3 weeks if kept cool and in the fridge. Tip: Experiment with the time and temperature. Which yogurt do you like most?

Tip: keep your bacteria
Is your yogurt the way you love it? You can keep the bacteria for a long time, by freezing them. Pour the yogurt in an ice cube mold and use 4 cubes (per litre) the next time you are making yogurt.

Share your recipe!
Do you have a much better recipe to make your own yogurt or special insider’s tips? Let us know via the website: togethersciencebus.eu or by using #sciencebus on twitter or instagram.