

WORKSHEET: MILK FERMENTATION- HOMEMADE CURD

Curd is a dairy product, which belongs to fresh unripening cheese. It is made from cow's milk. The curd forms because of the chemical reaction between the lactic acid bacteria and casein. When these microorganisms utilize the sugar, they produce acids as a byproduct, which leads to coagulation. This coagulation is elaborate until we don't get out the whey.

Tools: cow's milk, thermometer, gauze, table cooker, saucepot, spoon, glass for sour cream, pot for whey, pot for curd, string.



Obr. 1 Curd

Task 1: Prepare the curd by following these advances

Working process:

Leave the fresh milk in a saucepot for naturally souring in a room temperature for 2-3 days. Spontaneously milk fermentation will be done by acting bacterial *Streptococcus lactis*. Use a spoon for taking off the sour cream from the top. Take this sour milk and heat it up very slowly and blend it all along. The temperature should be between **28 - 32°C**. The curd will slowly come up to the top of the whey by 30 minutes. Separate curd from a whey by using a gauze. Clamp the gauze to a pot. Pour curd and whey very carefully through gauze. Follow the process how the liquid mixture and solid substance divide from each other. Leave it cooled down. Take the curd with gauze and strongly squeeze until you don't get all the whey out.

Task 2: Answer the questions:

- a) Why the curd stays in gauze?

- b) What will happen, if we remove curd from whey just in a simply pouring off whey from the pot?

- c) Propose a tool, which you would use for separation these two substance (curd and whey), when we can't use gauze.

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- d) Propose other mixture at home/in household, where you can use gauze for separation different ingredients.
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Working and using internet:

Task 3: *Find out some more information about the structure and utilization of curd:*

Task 4: *Find out some more information about the structure and utilization of whey:*

