



4. Making butter

Reviewer:

Team Romania - Limitless

Opponent:

Team Iran - Valeh

Reporter:

Team Croatia

Task of the problem

Investigate the methods to produce homemade butter from milk or cream. Investigate how properties of the butter depend on relevant parameters

Chemical and Physical composition of Butter

Percentage of milk fat & Time of cream mixing

Reporter summary



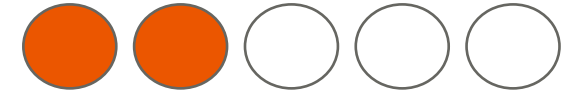
Strong points

- Physical composition of butter well presented (specific percentages)
- Emulsion transition from oil-in-water to water-in-oil emulsion was correctly explained
- Good explanation of the grading method (tried to make a fair study)
- Relevant parameters were well analyzed (Percentage of milk fat & Time of cream mixing)
- Relevant properties were analyzed (mass, butter fat percentage)
- Reporter drew clear conclusions and drew clear hypothesis-result ties.

Weak points

- Chemical composition of butter wasn't well presented (mixture of triglycerides is missing)
- For the experiments he used just cream, not milk
- Could also present a simpler production method
- Some other physical properties of butter could have been studied (density, resistance to stress etc.)

Opponent summary



Strong points

- Good observation of the fact that they used just cream, lack of milk
- Remarkd the fact that the reporter could use simpler methods to produce butter (methods used throughout the whole history)

Weak points

- Didn't observe the fact that the chemical composition of butter wasn't presented (very important)
- Asked about other types of butter and mentioned margarine **(FALSE)** - Margarine is not a type of butter
- Asked questions about facts that we believe were sufficiently explained by the reporter
- Insisted on the fact that the reporter used butter to produce butter **(FALSE)**

Clashes during the fight

- O: Could you make butter without freezer?

R: It would be easier

We: We think that it is possible to produce butter without freezer, agree with the reporter.

- O: Does the kind of fat (percentage of fat) in the butter affects the time?

R: Yes, it does

We: Agree with the reporter (mentioned in the beginning of the presentation) ⇒ Opponent shows lack of attention

- O: Do you think you have the best method to make butter?

R: This is the general method to produce butter

We: Agree with the opponent, a simpler method for producing butter could be studied

- O: You used butter for making butter

R: Disagree with the statement, they didn't do that

We: Agree with the reporter