

Teaching Ideas

How much milk is needed to make Ricotta?

Let's do an experiment!

Doing a quick experiment in class can be a great way to explore the production of dairy products, like ricotta.

Use the recipe provided (next page) to make ricotta using 4 or more different varieties of milk. Make sure you select one of the acid suggestions (eg. Lemon or vinegar) so the only variant in this experiment is the variety of milk.

- Eg.
- Full Cream
 - UHT
 - Unhomogenised
 - Extra Creamy



Prior to starting:

Ask students to predict how much ricotta might be produced from 1L of milk and what factors might influence the yield result.

Materials need:

- Ricotta ingredients and equipment as per recipe sheet
- Kitchen scales
- Serving bowls (number to match the number of batches of ricotta you make)
- Tasting spoons (one per student per batch)
- Post-it Notes or labels for each batch so students can easily record the results
- Copies of the record sheet for students to write down results

Recording Results:

Once the ricotta has been prepared, place it into pre-weighed bowls and record the weight. Calculate the weight of the ricotta.

Set each batch up on a bench with the milk cartons as pictured for students to photograph and record.

Students can then sample the ricotta and record their finding on the sheet attached.

Extension:

Why not try different types of milk, eg goat, camel or sheep milk?

Test the variable of the different types of acid, for example vinegar or lemon juice and the quantities needed to split the milk?

Compare different brands of milk and research where the milk is produced? Do environmental influences such as climate, season and food source of the cattle impact the yield?



Fresh Ricotta

Traditionally ricotta is an Italian cheese made as a by-product of the production of other cheeses. It is made by coagulating the proteins in the milk using an acid (eg lemon juice or vinegar). It can very easily be made from scratch using basic kitchen equipment and is a great way to teach children the process of making dairy products from milk.

Basic Ricotta Recipe

<p><u>Ingredients</u></p> <p>1 L milk 50ml lemon juice or white vinegar</p>	<p><u>Equipment</u></p> <p>1 medium/large pot 1 large bowl 1 strainer 1 muslin cloth/milk bag Thermometer (not essential)</p>
<p><u>Method</u></p> <ol style="list-style-type: none"> 1. Pre-measure lemon juice/vinegar into a small bowl/dish. 2. Set muslin cloth/milk bag into strainer (double layer of paper towel or a chux type cloth is also suitable). Place strainer into the large bowl and set aside. 3. Heat 1 litre of milk over a medium/high heat. 4. Heat to 90 C or to a simmer (little consistent bubbles forming). 5. Gently stir milk to form a whirl pool and pour acid into the milk. 6. Turn heat off and let the milk sit. You should see solid white clumps forming and the yellow whey separating. 7. Slowly pour the liquid, in batches, into the prepared strainer. 8. Leave the ricotta to strain for up to 30 min depending how firm you want your ricotta. 9. Don't throw away the yellow liquid (whey) it is high in protein and can be used in making, bread, smoothies, soups, and pancakes. It can even be used to ferment cabbage to make sauerkraut. 	

Storing Ricotta:

Fresh ricotta can be stored in the fridge for up to 5 days.

Whey can be stored in the fridge for 2 days or frozen and used in cooking later.

Using Ricotta:

Ricotta can be enjoyed on its own on crackers or toast or as a dip with vegetable sticks.

Here are some great recipes you can prepare using ricotta.

Raisin Toast with Fruity Ricotta Topping

<https://livelighter.com.au/Recipe/240/raisin-toast-with-a-fruity-ricotta-topping>

Ricotta Pancakes

<https://www.taste.com.au/recipes/ricotta-pancakes-yoghurt-banana-honey/f23fc8c1-1187-4462-93f3-bbcc9943b452>

Baked Ricotta

<https://www.taste.com.au/recipes/baked-ricotta/20585be6-0e4f-4012-b6a8-41f2141ca512>

Record Sheet for Ricotta Yield Experiment

Sensory Evaluation

Milk Variety	Acid	Yield/Quantity of Ricotta Produced	Appearance	Texture	Taste

Additional Resource Links

Cooking Without a Kitchen

<https://www.refreshedschools.health.wa.gov.au/wp-content/uploads/2019/03/Cooking-Without-a-Kitchen.pdf>

Food Hygiene

<https://www.refreshedschools.health.wa.gov.au/wp-content/uploads/2019/03/Food-Hygiene-Safety-Practices.pdf>

Types of Cheese

<https://science.howstuffworks.com/innovation/edible-innovations/cheese1.htm>



PARTNER

