

Butter Churning

Ingredients

Room Temperature Heavy Whipping Cream
Salt, Herbs (optional)

Tools

Butter Muslin or Cheese Cloth (Fine mesh strainer can also work, but may lead to more loss of butter during washing)
Food Processor (Or hand mixer, or a clean jar with a tight fitting lid and a clean marble in)
Cold Running Water
Large Bowl (2 bowls if using a hand mixer)
Rubber Scraper
Plastic tub or baggie to store the butter

Instructions

If using Food Processor: Pour heavy whipping cream into main compartment of food processor, and tightly secure the lid.

Run food processor until the cream separates into yellow solid mass and clear, milky liquid.

If using hand mixer: Pour heavy whipping cream into a large, high sided bowl. Whip the cream on high until it separates into yellow solid mass and clear, milky liquid.

If using a jar with a marble: Pour heavy whipping cream into a jar. Add the clean marble, and tightly screw on the lid. Shake the jar until the cream separates into solid yellow mass and clear, milky liquid.

Place butter muslin or cheese cloth over bowl. Scrape all butter from the food processor into the cloth. Squeeze the butter until all the buttermilk has come out into the bowl. Under cold running water, squeeze the butter until the water runs clear.

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The Science Behind Butter

Why does shaking cream make butter?

Heavy whipping cream contains both milk fats and water, as well as some sugars and other nutrients. Fat and water don't like to mix together! When it is in the form of cream, it is an emulsification – a mixture that contains both fat and water, but stays mixed together. When you shake it up (or beat it or mix it) the fat molecules separate from the water molecules. The fat molecules all clump up together, leaving the water molecules behind! The clumped up fat molecules are the butter, and the water makes the base of the buttermilk!

Why is butter yellow if the cream is white?

When cows eat fresh plants high in beta carotene, their bodies store this in their fat. Beta carotene is yellowish in color. When the fats are emulsified with water to form milk or cream, the shape of the molecules hides the color! The fat globules are surrounded by thin membranes that reflect away all light, causing it to look white to our eyes. When the fat globules have broken away and glob together, they reflect back different wavelengths of light, so it looks yellow!

Why do I need to rinse the butter?

Bacteria think that buttermilk is delicious! If you don't rinse out the buttermilk, bacteria will happily find their way into your butter and make homes in the buttermilk. The better you rinse your butter, the less buttermilk there is left, the longer you can keep it before it spoils!

Pure butter fat is not attractive to bacteria. Oxygen can't get in, and there are no tasty sugars to eat!

Frequently Asked Questions (FAQs)

Can you turn half and half into butter?

Unfortunately, half and half won't work as a substitute since it contains very less content of fat to whip.

How much cream does it take to make a pound of butter?

You will get about half as much butter as the amount of cream used (when shaking). For example: One quart (32 ounces) of Heavy Cream will yield 1 pound (16 ounces) butter plus about 2 cups buttermilk.

How long can I store my homemade butter?

Your butter will keep 2-3 days out of refrigeration, or 7-10 days refrigerated.