

Making Soft Cheeses at Home

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Soft cheeses can be made in the home more readily than hard and semi-hard types of cheese. The hard or cured cheeses require months of aging to produce a good flavored product. Cheese factories are generally much better equipped to control the moisture content, humidity, and the temperature required to properly manufacture cheddar and other hard-type cheeses.

There are four common types of soft cheese:

Cottage cheese: Made from skim milk and coagulated or "set" with lactic acid. The milk is heated slightly to firm or cook the curd.

Queso Blanco: A Latin American soft white cheese.

Neufchatel: Made from slightly acid whole milk and coagulated with rennet. The milk is not heated.

Cream cheese: Similar to Neufchatel, with enough cream added to the milk to bring the butterfat content to 30 percent or more.

Many soft cheeses are relatively easy to make and can be completed in one day. The product can be consumed soon after it is made.

Directions for the manufacture of cottage cheese are available in a bulletin, USDA G129, "Making Cottage Cheese at Home," available from the U.S. Department of Agriculture, Office of Communication, Washington, D.C. 20250.

Cheesemaking process

Cheese is often called the heart of milk since it is the solids of the milk removed from the liquid. Cheesemaking is nothing more than a concentrating process. The solids are removed from the whey either by adding rennet, an enzyme that causes precipitation of the curd out of the milk, or by allowing certain bacteria to grow in the milk and produce lactic acid that also will promote precipitation of the curd from the whey.

As the cheesemaking process continues, each step removes more moisture from the curd. All types of cheese are made the same way, with variations in cheese type achieved by manipulating these steps.

Cheese should be made from pasteurized milk. Milk is a neutral, highly nutritious food and will allow almost any type of bacteria to grow. Speed and attention to cleanliness are important to pre-

vent unnecessary problems from developing. Raw milk can be pasteurized at 145°F for 30 minutes, or 161°F for 1/2 minute.

Equipment

- Thermometer, preferably stainless steel, dial-type, with temperature range of 25° to 150°F. A good, sturdy thermometer is essential. Glass thermometers are usable, but be careful not to break the thermometer in the cheese.

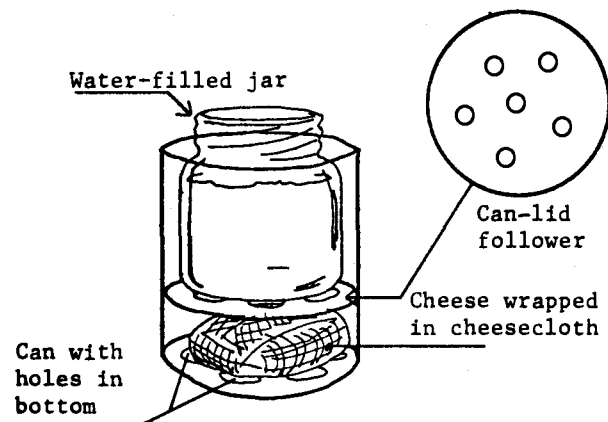
- Large double boiler; the inner pot should have about a 5-quart capacity for 1 gallon of milk. If you do not have a double boiler, use two large pots. The smaller should fit inside the larger.

- Spatula, thin bladed, long enough to reach bottom of pot.

- Long-handled spoon.

- Cheesecloth or muslin.

- Hoops or forms for pressing the cheese. These can be made from one-pound coffee or shortening cans. Punch holes in the bottom of the can with an ice pick. Work from the inside out so the cloth liner does not catch on the holes. Make a perforated follower out of the can lid.



A simple homemade cheese press effectively forms cheese and removes final traces of whey.

Ingredients

- **Pasteurized milk:** 1 gallon of 2 percent low-fat or whole, preferably *not homogenized*, which will give a weaker curd structure.

- **Rennet tablets:** Usually these can be obtained from the drugstore.



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- *Fresh* commercial buttermilk: 1/2 cup, or *fresh* plain yogurt, 1/4 cup. For best results, obtain these from a local dairy processor.

- Salt: 3 teaspoons per gallon of milk.

How to make Queso Blanco (white cheese)

Use the double boiler or two pans. Put water into lower unit and 1 gallon of pasteurized milk in the upper unit. Stir in 1/2 cup fresh buttermilk or 1/4 cup fresh plain yogurt. Stir and warm slowly to 92° to 94°F. Maintain this temperature through the next two steps.

Add rennet, following directions given by manufacturer. Dissolve tablet in *cold* water and stir into milk for 2 or 3 minutes. Leave the milk undisturbed for about 30 minutes until a firm gel forms. Test gel firmness by inserting spatula into curd and pulling it out at an angle. If curd breaks clean, it is ready for cutting.

Cut the gel with the spatula into one-inch cubes as shown. Stir gently for 20 to 30 minutes until the curd "heals" or becomes firmer. Maintain temperature at 92° to 94°F.

Pour off or dip out the whey (yellow liquid). Allow the curd to settle, and dip out whey with a cup. Push curd to one side and tilt pan to drain off remaining whey.

Add salt. Amount of salt added may be varied to suit individual taste. Mix 3 teaspoons of salt into the curd in three portions, 5 minutes apart (1 teaspoon, three times).

Divide the salted curd into two equal portions. Line two hoops (the prepared, clean cans) with clean, wet cheesecloth or muslin. Place each salted curd into a lined can. Fold cloth over the top and add can-lid follower.

Apply pressure by adding weight to the top of the follower in the can. Continue pressing until cheese surface is smooth, usually 2 to 4 hours. Do this in the sink since a great deal of liquid will drain out.

When pressed, remove cheese from cans. Remove cloth and wrap cheese in waxed paper or plastic wrap.

Cheese can be used immediately. Under proper refrigeration (40° to 45°F) cheese will keep for 7 to 10 days. It can be eaten alone, with fruit, or as cottage cheese might be used.

How to make Neufchatel cheese

Heat or cool 1 gallon pasteurized milk to 85°F.

Add 1/2 cup buttermilk and 1/4 to 1/2 cup cold water.

Stir gently for about 10 minutes, but stop stirring the moment you notice a slight thickening or setting. Stirring beyond this point will produce a mushy product instead of a firm curd.

Keep mixture warm—80° to 85°F. Hold this temperature by setting the kettle in a large pan of warm water. Add more warm water from time to time as it cools.

Let contents stand until whey covers the surface and the curd breaks clean from the side when the container is tipped. Cut the curd with a spatula into one-inch cubes as shown.

Turn the mixture out into a muslin bag or a colander lined with cheesecloth.

Press out the rest of the whey when nearly drained. Use your cheese press if you have one; otherwise, cover with a small dish and weight it down with a jar of water.

Save the whey and keep it in the refrigerator until the cream rises and becomes firm enough to skim, about 8 hours. The collected cream will be of butterlike consistency. Mix it back into the cheese.

When the cheese seems dry and firm, mix in 1 1/2 teaspoons of salt. Add more cream or other seasonings as desired.

How to make cream cheese

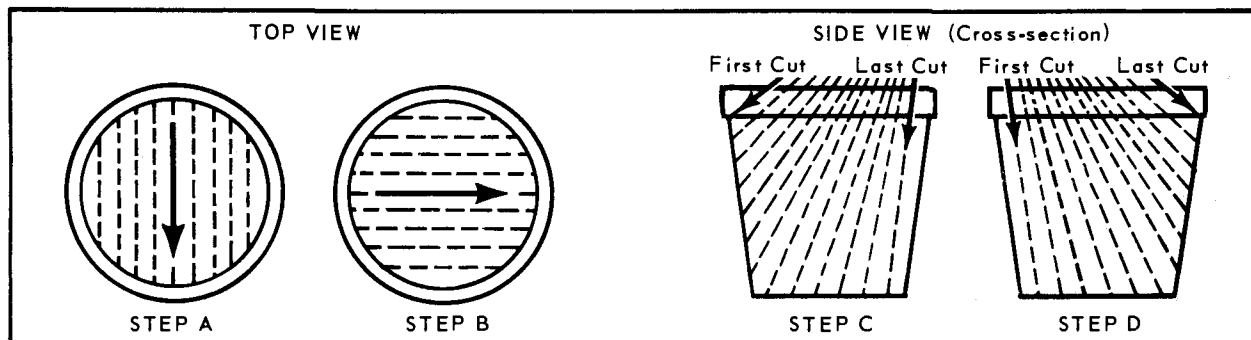
3 1/2 quarts fresh *pasteurized* whole milk

1 pint whipping cream (more may be used)

1/2 cup *fresh* commercial buttermilk

1/4 to 1/2 rennet tablet dissolved in 1/4 cup cold water

Add the cream to the milk and continue exactly as you did for Neufchatel. Be careful to save all the whey since a great deal of cream will have drained out with it.



Cut the curd with a knife. Top view: make perpendicular cuts 1 inch apart, from (step A) back to front and (step B) left to right. Side view, steps C and D: follow cuts of step A as closely as possible, holding knife at angles shown.