



Agriculture HOW TO MAKE CHEESE AND COTTAGE CHEESE



Ingredients: 1/2 gallon whole milk, 1/4 cup lemon juice or vinegar, 1/4 to 1/2 teaspoon salt

Equipment: 4-quart saucepan, strainer or colander, mixing bowl, large coffee filters

Total time: 60 minutes, Prep time: 10 minutes • Makes about 10 ounces or 2 cups of cheese cubes

For Making Cheese	
Step 1	Pour the milk into a saucepan and bring to a bare simmer—just below a boil, around 200 degrees Fahrenheit.
Step 2	Remove the milk from heat and stir in the lemon juice or vinegar. The milk should begin to curdle immediately.
Step 3	Cover the milk and let stand for 10 minutes. This gives time to allow the acid to totally separate the curds and whey.
Step 4	Strain the curds using a colander lined with a coffee filter.
Step 5	Squeeze the curds with the coffee filter in your hand and press gently to remove excess liquid. Shape into a rectangular package by pressing the curds together.

For Cottage Cheese	
Step 1	Follow the first 3 steps.
Step 2	Strain the curds from the whey.
Step 3	After strained, do not squeeze (just spoon) into a container and refrigerate.

SCIENCE BREAK: Liquid to solid

- 1. As the milk is heating up, what is happening to the milk?
 - a. The milk is thickening
 - b. The milk is bubbling
- 2. What is the main ingredient in making cheese?
 - a. Milk
 - b. Vinegar
- 3. After milk is heated and vinegar is added, what does the milk separate into?
 - a. White Solid Curds
 - b. White Stringy Cheese

- 4. What state of matter were the curds?
 - a. Liquid
 - b. Solid
- 5. What was the state of matter for the main ingredient?
 - a. Liquid
 - b. Solid
- 6. List as many dairy products as you can!