Heat Treatment of Fresh Unpasteurized Milk

- To kill bacteria in milk...
  - Heat milk to 145°F for 30 minutes
    - Place a cooking thermometer into the milk to measure its temperature.
    - Do not heat milk over 145°F. It may change the texture and flavor of the cheese. Under 145°F will not kill harmful bacteria.

Sanitation

- To help prevent infection...
  1. Boil all cheese-making equipment between uses.
  2. For best-quality cheese, use new cheesecloth each time you make cheese. (Reuse cheesecloth only if it has been washed, then boiled, or soaked 2 minutes in bleach-water.)

Bleach-water
- Make a bleach-water solution by adding one tablespoon of bleach to one gallon of water.
- Make a new bleach-water solution each time you make cheese.
- This recipe for bleach-water can be doubled if necessary.

SAFE Queso Fresco Recipe*

- Place one tablet Junket Rennett into ½ cup cold tap water until dissolved.
- Mix one quart cultured buttermilk with two quarts heat-treated or pasteurized milk.
  a. Add 7 teaspoons white vinegar to the milk mixture.
  b. Mix well.
  c. Heat milk to 90°F. Remove pan from the heat.
  d. Add dissolved Rennet and mix for about 2 minutes.
- Let stand for 30–40 minutes until curd is firm.
- Cut curd into 1-inch cubes and let stand for about 5 minutes.
- Heat curds and whey to 115°F (without stirring), remove pan from the heat, then let stand for 5 minutes.
- Pour mix through cheesecloth and allow to drain for 5 minutes.
- Form curd into a ball and twist the cheesecloth gently to squeeze out the whey.
- Break up curds into a bowl and add 1 ½ teaspoons of salt.
- Mix in salt and let stand for 5 minutes, then squeeze again as before.
- Form the cheese. Remove from form. Refrigerate.**

*This recipe can be doubled or tripled to make more cheese.
**Cheese made from this recipe can be safely stored in a refrigerator for no more than 1 week.
### Introduction

- **Queso fresco** has been made for generations. Traditionally, queso fresco is made using fresh dairy milk that has not been heat-treated or pasteurized. Unfortunately, this method of making queso fresco can cause serious illness.

- Topics of this pamphlet include:
  - Heat treatment of fresh, unpasteurized dairy milk.
  - Sanitation of cheese-making equipment.
  - Hands-on preparation of queso fresco from a recipe using heat-treated or pasteurized milk.

- Remember, even the freshest milk from the cleanest dairy may contain harmful bacteria if it is not pasteurized or heat-treated. To protect others and ourselves from harmful bacteria, we must use pasteurized milk or milk we heat-treat ourselves.

### Sale of Queso Fresco

- This procedure for making queso fresco does not mean a person can sell cheese legally. If you are interested in becoming licensed to sell queso fresco, contact your local health department or state department of agriculture.

### Credits:

- Washington State University
  - Department of Food Science and Human Nutrition
    - Ryan Bell
    - Lloyd Luedecke
    - Mike Schmitt
  - Yakima County Cooperative Extension
    - Theo Thomas
    - Anna Zaragoza
    - Frances Herrera

Special thanks to Julia Herrera for allowing the use and modification of her queso fresco recipe.

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This flyer was originally developed for the Abuela Grandmother project. Grandmothers taught this recipe for safely making fresh cheese to people in eastern Washington.

The result was a rapid decrease in salmonella illnesses in Yakima County and surrounding areas of Washington State.

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