

Master Food Preserver Mozzarella Lab: based on Ricki's 30 Minute Mozzarella

(<http://www.cheesemaking.com/howtomakemozzarellacheese.html>)

Reference: Cooperative Extension document: Making fresh mozzarella, University of Alaska Fairbanks, FNH-00063.

Equipment

1. Stove
2. Microwave oven
3. 8 qt. stainless steel pot with lid
4. Slotted spoon/ladle
5. 2 qt microwave-safe bowl (Pyrex)
6. Measuring devices: ½ t, 1 t, ¼ C, 1 C, 2 C
7. Colander to drain whey
8. 4 qt. pot to collect whey
9. Thermometer
10. Long knife
11. Timer
12. Extra spoon
13. Extra bowl
14. Pot holders

Materials

1. 1 gal whole milk (not UHT)
2. 1 ½ t Citric acid
3. ¼ t liquid rennet
4. 2 - 500 mL bottled water (Non-chlorinated water)
5. Salt (1/2 to 1 t non-iodized salt)
6. Ice
7. Plastic wrap
8. Heat-insulating gloves
9. Plastic bags (to take samples away from lab)

Preparation

1. Clean and sanitize work surface.
2. Clean and sanitize utensils, either in the **dishwasher** or by steaming utensils in a pot with 1" boiling water for 5 min .
3. **Recommendation:** Work on paper towel to minimize cross contamination.

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Procedure

1. Combine ¼ t liquid rennet and ¼ C cool non-chlorinated water, set aside (1/4 t is about 20 drops).
2. Mix 1 ½ t citric acid in 1 cup cool water. Ensure that the citric acid is fully dissolved.
3. Pour the citric acid solution into the large pot.
4. Pour 1 gal milk into the large 8 qt. pot quickly, to mix with citric acid solution.
5. Heat milk slowly to 90° F. Do not stir. Use thermometer to check temperature.
6. Take pot off the burner, add rennet solution slowly while stirring slowly top to bottom for approx. 30 s.
7. Cover pot with lid and leave undisturbed for 5-10 minutes.
8. Check the curd, it will look like custard, with a clear separation between the curds and whey. If the curd is too soft or the whey is milky, allow to set a few more minutes.
9. Cut the curds in a 1" checkerboard pattern with the long knife.
10. Place pot back on the stove and heat to 105° F while stirring slowly and gently. Use thermometer to check temperature.
11. Take the pot off the burner and continue stirring slowly for 2-5 minutes (More time will make a firmer cheese).
12. Place the colander over the 4 qt. pot that will catch the whey. Scoop the curds from the large pot with a slotted spoon into the colander. Very gently press the curds to drain more whey.
13. Put the curd into a microwave safe bowl (pyrex glass). Microwave the curd on **HIGH for one minute**. Drain the free whey into the whey pot. Knead the cheese with a spoon or hands (use gloves safe for food contact).
14. Repeat #13 using 30 s, until the curd is 135°F, almost too hot to handle.
15. The cheese should be soft and pliable enough to stretch like taffy. **Stop heating at that point.**
16. The cheese should become smooth and shiny. Add salt. Form into a ball or several balls (to share).
17. Drop cheese balls into ice water in a bowl to cool. Get ice from the ice machine in the 2 C measuring cup (use the ice scoop to keep the ice sanitary).
18. When cold the cheese will last several days refrigerated. Divide the cheese among group members. Put the cheese in a zip lock bag with ice water. Eat or refrigerate within 2 hours.
19. Clean up following SSOPs (Sanitary Standard Operating Procedures).