

Making Fresh Mozzarella using Citric Acid and Mild Lipase Powder(*optional*)

Fresh Mozzarella by way of using citric acid to acidify the milk compared to using a lactic starter culture is faster and also produces nice results. Though, one must use quality milk, milk that hasn't been processed to damage it or overheat it through over pasteurization. Your results may vary based on the milk you are using. Check out realmilk.com for local suppliers of milk. Or try your local store bought milk. Try to use NON homogenized milk. Or, use a combination of one part heavy cream to 10 parts skim, 1 or 2% milk. Test a gallon or less of milk before moving on to larger batches. Use calcium chloride when using milk which is not fresh from the farm and has not been homogenized. The acidity of the milk once the citric acid is introduced into the milk should create a pH of 5.2-5.6. You will want to test this pH right before rennet is added to set the milk. Use either plastic pH strips or a good pH meter (*I like the Hanna pHep 4 available on my site*). But don't fret if you don't have one. Following this recipe and using milk that has not been overly processed or high temperature pasteurization, you'll do fine. If the acidity is too low, the curds will not stretch later on in the process. If the acidity is too high, the curds will become grainy and fall apart when attempting to stretch them into mozzarella. If you do not have a pH meter, you can still make great soft or firm mozzarella if you follow the steps carefully.

The following recipe is for one gallon (3.78 liters) of milk. Follow the usage rates for any ingredient you place into the milk listed on the ingredient, not in any recipe.

Procedure: Dissolve 1.5 tsp(7.3ml) of citric acid into a ¼ cup(59ml) of clean warmed water. Pour this mixture into the milk and slowly warm the milk to a temperature not lower or higher than 86-88f (30-31c). *You will want to maintain this temperature until the curds are cut.* You may want to add a little Mild Lipase Powder to add extra flavor to the Mozz. Add the Lipase(*dissolved in a small amount of warm water*) at the time you add the citric acid. Allowing the dissolved Lipase to sit for 15 minutes will help activate it, thus producing more flavor in your cheese. Add the calcium chloride if using pasteurized and/or homogenized milk. Add the rennet(*liquid or tablet should be first diluted into a small amount of cool water*). Stir for only 3 gentle strokes across your pot or pan. Cover and leave to rest for 30-60 minutes or until the milk is set and you have a clean break(when a knife or spoon is placed into the gel(*curd mass*), a clean wall is produced, much like what a soft Tofu would look like when cut.

Cut curds into approximately ½ inch or 1.45cm. Allow to rest(*healing the curds*) for 5-10 minutes. Maintain the above temperature range using a water bath method or even heating method.

The following step is only used to make firmer, dryer Mozzarella. **Slowly heat curds and whey while stirring gently to 102f-106f(38.8c-41.1c). This should take about 20-25 minutes. Turn off heat and allow to rest another 20-25 minutes for additional healing of the curds. **This step can be eliminated if you want the mozzarella to be very soft.

Once the curds are well drained and massed together and firmer, you can either make Mozzarella right away or refrigerate the curd mass and make it the following day. Or freeze the curds in a tightly sealed plastic container or vacuum bag and use them another day. Once frozen, curds will last many months and can still be used later to make Mozzarella. *This method is especially nice for making pizza style Mozzarella.* Once the curds are firmed up well, take them out of the draining bag or colander and cut them into 1 inch pieces. Place some curds into the bowl and sprinkle 1 tsp. per ½ lb. of salt over the curds. Pour some of the hot water over the curds, just enough to cover them slightly. Allow the curds to heat up and using a squared off wooden spoon pull up on the middle of the curds mass. You can always reheat the curds in the hot water to re-soften them.

Using thin gloves, form the curds into a mass and allow them to stretch under their own weight. Once they are stretching under their own weight, form them into small balls, or one ball. The surface should be shiny, not grainy. When you have formed your Mozzarella balls, place them in a container of clean cold water and either into the refrigerator or serve. You can also place them into 70% olive oil/30% Safflower or Canola oil with or without some herbs, then into the fridge. This mixture of oil will keep the oil liquid as pure olive oil will partially solidify when cooled. Fresh Mozzarella will last about a week in the fridge.

Enjoy-Steve Shapson www.thecheesemaker.com