

Soft cheeses

From Ricki Carrol's book we make

Lemon cheese (pg 71)

Ricotta (pg 82)

Paneer (pg 87)

Queso Blanco (pg 88)



The following recipes are adapted from

Home Cheese Making

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Soft cheeses

- These are easy beginner cheeses
- Amaze your family & friends
- Require very little equipment
- Quick, easy
- Eaten fresh – they contain high moisture
- They form a curd but have no bacterial cultures added
- They are not pressed like hard cheeses

A partial listing of kinds of soft cheese:

- Fromage blanc, Queso blanco,
- Marscapone
- Buttermilk cheese
- Cream cheese, neufchatel
- Ricotta
- Panir (paneer)
- Queso fresco

Soft cheeses

- These cheeses will all have very similar color, texture and flavor
- But, small differences do make different end product cheeses.
- Soft cheeses are an intermediate step between a) yogurt, kefir & sour cream clabbers and b) real cultured curd cheeses .
- They are relatively quick.
- They are a great practice cheese

General Steps of cheesemaking & soft cheeses

- Heat milk
- Curdle the milk
- Strain & drain the curd
- Add herbs or flavors if desired
- Eat fresh or refrigerate for up to 10 days (or 2 weeks)

Soft cheese = no bacterial starter cultures

- Unlike yogurts, kefir or hard cheeses, soft cheeses do not use bacterial starter cultures. Why?
- Bacteria produce lactic acid which is partly how the milk is coagulated.
- With soft cheeses, we coagulate milk using high heat and acids instead.
- These weak acids are either a) lemon juice, b) citric acid, c) vinegar

Soft cheeses differ from hard cheeses

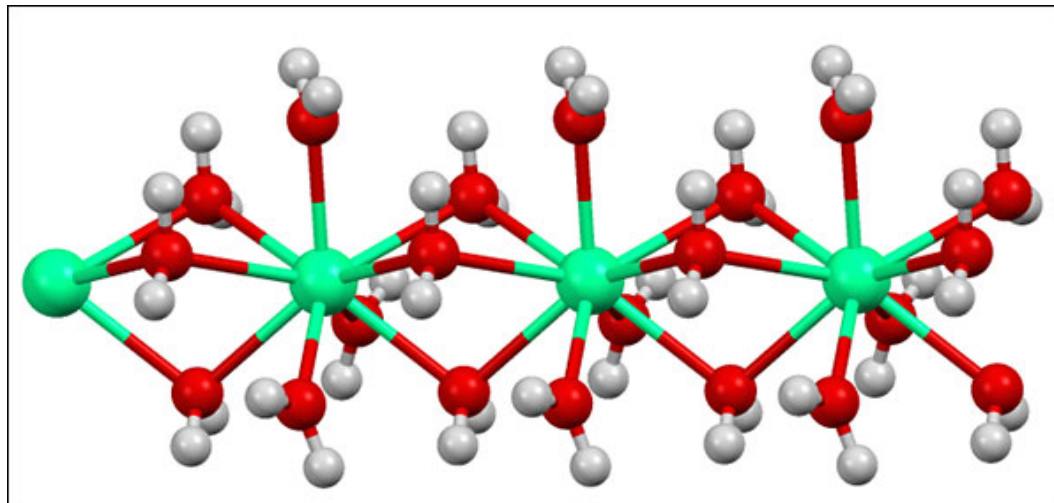
- No ripening of milk
- No addition of starter cultures
- Few additives
- Use **high heat** and a **curdling agent** rather than ripening and rennet to coagulate the milk

Types of soft cheese you can make in this lab

	Lemon cheese	ricotta	paneer	Queso blanco
milk	½ g	½ g	½ g	½ g
Calcium chloride	¼ t in ¼ c distilled water, cooled	none	½ t diluted in ½ cup distilled water	none
Curdling agent	¾ - 1 cup lemon juice	½ t citric acid in ½ c. distilled water	¼ cup lemon juice or ½ t citric acid dissolved in 1 cup hot water	1/8 c. vinegar (5%)
Other additives	A little salt	½ t Salt	a little salt	a little salt
temp	175	185-195	195 hold for 25 min, cool to 170	185-190 as high as 200
Type of heat	direct	direct	direct	direct
Time to wait for Curdling to finish	15 min	10 min	15 min	0
			Takes longest	fastest
Page in book	71	82	86	88

Calcium chloride (pg 38)

- Rather than sodium chloride (NaCl) table salt (which is added to give flavor to cheese and stop the bacterial cultures)
- We add CaCl to milk to make cheese.
- Why?
- Calcium bonds with protein to get good curd formed.



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Other additives	A little salt	½ t Salt dissolved in ¼ c distilled water	a little salt	a little salt
temp	175	185-195	195 hold for 25 min, cool to 170	185-190 as high as 200
Type of heat	direct	direct	direct	direct
Time to wait for Curdling to finish	15 min	10 min	15 min Takes longest	Fast & immediate
Page in book	71	82	86	88

Tips and tricks

In general, whenever following a recipe in cheesemaking:

- Non-stick pans using ice cubes
- Drizzling
- Use distilled or de-chlorinated water
- Use salt with NO iodine
- Room temperature milk

Icing the pan (pg 70)

- Do this to prevent milk from scorching
- Use an ice cube or two
- Place inside the pan and let it melt until the pan is cold
- Now add the milk
- Never touch a stirring spoon all the way to the bottom of the pan!
- This works for heat up to 180 degrees
- If you must stir in additives do not touch the bottom
- Stirring and curd formation are at odds with each other
- Don't use a cheap (thin)pan
- The ice cube forms a thin protective coating on the pan that prevents milk from readily attaching to its surface.

Drizzling the curdling agent

- Always pour your curdling agent through the ladle to get a drizzle effect.
- We practice this with soft cheeses so that we do it right when we rennet the hard cheeses later.
- If you do not have a fancy cheese ladle like this, try drizzling the weak acid curdling agent off a wooden or slotted spoon.



The point is that you are trying to disperse the weak acid throughout the milk so it doesn't react in one small area.

Preparing the CaCl and citric acid

- Always dissolve by stirring completely into cool, distilled water.
- You can dechlorinate water at home by leaving it out in an open pan for 24 hours
- Note that for Paneer, the citric acid is dissolved in hot (170 degree) water, and this can be chlorinated water.
- We do this because the Cl⁻ ions in water may react with our reagents and render them less effective.

Salt

- In general, we always use fine grained salt that does not have iodine added.
- The iodine will kill our good bacterial cultures and be counter-productive.
- Of course these particular cheeses do not use a starter culture so it is not that big of an issue here.
- Sometimes, iodine in salt can leave a black residue in the product



Although it is interesting to use boutique salts like Himalayan pink salt, these usually have a coarse grind that is not ideal for cheesemaking.

Room temperature milk

- Its best to let your milk come to room temperature before you start your recipe. This just helps you get to the correct temperature faster.
- Milk left out of the refrigerator in a sealed carton will be just fine if it is left in your locker or backpack all day.
- Don't leave the milk in your car for more than an hour or two because that will often be too much heat for it and spoilage can start.
- Write your name on your carton and drop it off in the classroom early in the day and don't worry about getting it in a refrigerator, it will be fine for cheesemaking.

Lemon cheese recipe

pg 71

- Ice cube the pan
- Add room temperature milk
- Add the prepared CaCl solution & stir well (w/o touching bottom)
- Heat to 175
- Add the lemon juice, stir well
- Cover and don't stir for 15 minutes – hold at 175
- If it's curdled well, then ladle into a cheesecloth and drain, etc.
- As you ladle, sprinkle a dash of salt between scoops
- Add any herbs like dill or chives at this time as well

Ricotta cheese recipe

pg 82

- Ice cube the pan
- Prepare citric acid by dissolving $\frac{1}{2}$ teaspoon in $\frac{1}{2}$ cup of cool, distilled water.
- Prepare the salt solution ($\frac{1}{2}$ t in $\frac{1}{4}$ c cool, distilled water)
- Mix the prepared citric acid & salt solutions into a $\frac{1}{2}$ gal of milk.
- Using direct heat – heat milk to 185-195°, stir top rarely to prevent skim, don't disturb the curd formation
- As soon as curds and whey separate (no milky whey) turn off the heat.

Ricotta part 2

- Allow to set, undisturbed for 10 minutes
- Line a colander with muslin, ladle curds into the colander.
- Tie the corners of the muslin.
- Hang the cheese to drain for 20-30 minutes.
- Eat
- Stores for 1-2 weeks in the fridge
- Yields about $\frac{3}{4}$ of a pound

Paneer – Indian cheese

pg 86

- Ice cube the pan
- Add $\frac{1}{2}$ g milk & prepared CaCl solution ($\frac{1}{2}$ t in $\frac{1}{2}$ cup)
- Heat to 195 and hold it there 20-30 minutes. Needs to evaporate some of the liquid, so do not cover it.
- Reduce heat to 170
- Drizzle in $\frac{1}{4}$ cup of lemon juice or diluted citric acid ($\frac{1}{2}$ t in 1 c hot water)
- Stir with a gentle up n down motion for a minute or two
- Remove from heat and let it set 10-15 minutes.
- When curds have settled below the whey, ladle them into the muslin lined colander.

Paneer – part 2

- Tie the corners of the bag
- Run under gentle stream of lukewarm water for 5 -10 seconds (removes lemon juice).
- Gently twist the top of the muslin to squeeze out extra whey.
- Hang bag to drain 2-3 hours or
- Return bag to colander and press with a 5 lb weight for 2 hours.

Queso blanco

- Ice cube the pan
- Direct heat ½ gallon milk to 185-190°
- Drizzle - add 1/8 cup of vinegar to milk until curds and whey separate.
- (You may increase heat to 200° but then decrease vinegar a bit)
- Ladle curds into a muslin-lined colander.
- Salt the cheese curd in between ladles,
- Add any herbs like chives or basil
- Tie the corners of the muslin to make a bag
- Drain for several hours.
- Store in fridge for up to 2 weeks

Conclusion

- Soft cheeses are easy
- In general, they all taste alike
- Hopefully, they've given you a taste of first steps in cheesemaking