

## Cheese Making with Powdered Milk

---

Several People have asked for my recipe so I will post it for everybody who is interested...have more questions just ask! I will separate the posts so they don't get too long,. It is easier than it looks and after once or twice you will feel much better about it. Shauna  
(Step by step instructions)

-----  
MOZZERELLA

1. Fill a large stainless steel pot with 1 gallon water and let it sit out overnight -(aluminum and teflon ruined by acid--must have non chlorinated water easist to achieve by letting it evaporate out overnight)
2. In the morning save out 1/4 cup water then reconstitute with powdered milk. (If using non-instant milk powder like the church's from cannery it will take 3 cups, instant milk takes 5 1/2 cups). Easier to do if pour out half of the water into a bowl and whisk vigorously or use hand blender in the pot then add water back in.
3. Let the milk sit on the stovetop at room temperature for at least 2 hours but less than 12.
4. Whisk or hand blender in 1/2 cup olive or canola oil and 2 tsp. citric acid powder ( Available at the Good Earth)
5. Dissolve 3/4 Rennet tablet in the 1/4 cup water you saved at the beginning ( available at Maceys)
6. Heat the milk slowly stirring gently with a stainless steel metal spoon to 88 degrees F using a good thermometer-I use a meat thermomter with an extra long probe
7. Add the dissolved rennet to the millk and heat to 105 degrees F. Turn off the heat and remove from burner if your stove is electric.
8. Curds will develop over the next half hour. Scoop out larger pieces and place in a large microwaveable bowl. Pour the rest through a cheescloth lined strainer sitting over another larger bowl to catch the whey. Let the whey drain out -gather up cloth and squeeze gently to help remove whey. After you have seperated out all the curds place into the microwaveable bowl and pour all the whey back into your pot to make ricotta.
9. Put on some rubber gloves ( like yellow dishwashing ones) and press the curds against the bowl side to drain off the whey into your pot. Remove as much as you can then Microwave for 1 minute on high.
10. Press and drain the curds again until removed more of the whey. (They will be very hot) microwave for 35 seconds and work the cheese in your hands to remove rest of the whey ( can repeat 35 seconds if need to do it again)

11. Add 1 tsp. NON-Iodized salt and knead it into the cheese. It should become very stretchy, smooth, and shiny. You can also knead in other ingredients here--jalapenos, onion etc.

12. Stop kneading the cheese before it cools off to the point where it doesn't stick to itself( if it does heat it up again 35 seconds). Press into a plastic bag or ziploc container and allow to cool in the fridge. Makes about 1 lb.

---

## RICOTTA

1. Place all the whey from making mozerella back into your large stainless steel soup pot. Place a lid on it and let it sit overnight on the stovetop to develop sufficient acidity (12-24 hours at room temp.) May smell strange the next day--that is a good sign that you are acidic enough

2. Turn the heat on medium to medium high and bring it to nearly boiling (For me at my altitude this is 210 Degrees F) stirring constantly with your S Steel spoon to keep it from sticking to the bottom of the pan. Takes a while--like candy making. Do not let it boil over.

3. Turn off heat, put lid back on again and let it sit for a few hours to cool down.

4. Remove lid and DO NOT STIR. Pour slowly into cheesecloth lined bowl over another bowl to catch whey coming through. It drains rather slow and steady for 1-2 hours. Squeeze out any remaining whey then put in refrigerator in airtight container. Use fairly soon after making or freeze.

5. I use the leftover whey--greenish yellow looking liquid--instead of water in my wheat bread recipe. It adds protein and makes the bread softer and less crumbly. You will need to add a little more flour than your recipe calls for if you choose to do this. Store the liquid in a pitcher in the fridge--everybody learns right away that it is not juice!

---

By the Way--

if you ever run out of cheesecloth or don't want to use it in the first place--a cloth diaper works really well. I have also used a square of "imitation fleece type fabric"-fuzzy on one side and very porous on the other.

---

### **What to do with \*OLD\* powdered milk\***

\*Do you have OLD , OLD milk, slightly yellowed, and so strong that no one will drink it? When you are making the cheese recipes, a hot water rinse takes away the old flavor and the yellow color. A second rinse, using cool water, firms the curds. Using this method, the resulting cheese tastes just as good as that made from fresh milk powder.

## **Queso Blanco**

4 c. warm water 3 c. dry milk powder  
1/2 c. white vinegar

Blend all ingredients. Spray a heavy saucepan with a non stick spray. Heat the pan to form a coating, then add the milk mixture. Cook over medium heat, stirring until curds form and remaining liquid is a clear yellow. If still milky looking, add more vinegar, 1 teaspoon at a time. This sounds like you should stir all the time, but if you do, the curds will be crumbly and tiny. This is OK if you are making the cheeseburger and sausage and want the crumbled meat texture but if you want it notto be crumbly, don't stir too much and let the curds sit undisturbed for awhile to set up.

**This is the recipe to use to make the “Cheeseburger”,and sausage recipes that follow.**

The “Cheeseburger” can be made in larger quantities (double or tripled, according to the size of your pot and how much you want to make. It will store for a week in the refrigerator so you can make a large amount to use all week. It can be frozen for up to 3 months.

**“Cheeseburger”**

Place well drained Queso Blanco curds (press out excess liquid) in a bowl and add the following:

2-4 tsp. beef flavored bouillon  
1 Tbsp. Soy sauce  
A few drops of liquid smoke (to taste)  
a few drops Kitchen bouquet (for color-optional)

I put ½ c boiling water in a cup and added the bouillon and flavorings then added that to the “cheeseburger” Then taste it and add a little more of flavorings to taste. Then it is ready to use! Add to casseroles, loaves, patties, or mixed with cooked hamburger to stretch the meat in your recipe.

**Sweet and sour Cheeseburger Balls**

1 recipe Queso Blanco made into “cheeseburger” Sauteed onions to taste

1 egg beaten  
breadcrumbs

Sauce:

1-2 cans of tomato sauce for each can : ¼ cup vinegar

Salt and pepper to taste ¼ cup brown sugar

1 Tbsp. brown mustard

Mix sauce together in a bowl.

Add the sautéed onions to the cheeseburger and then add the egg and breadcrumbs and ¼ cup Sauce until it reaches a consistency to hold together in meatballs. Then lightly brown the meat balls in a little oil and put in an oven proof dish. Pour the remaining sauce over the cheeseburger balls and bake on the oven at 350 degrees for 20 – 30 minutes.

**“Cheeseburger Sausage”**

2 cups crumbled Queso Blanco curds 1 tsp. soy sauce  
2 eggs or 4 egg whites 2-4 Tbsp. white bean or wheat flour  
2 Tbsp. oil 1-2 Tbsp. sausage seasoning\*

Mix all ingredients well, adding only enough flour to make a stiff dough. Shape into patties or sausage shapes. Put into oiled skillet and brown on all sides. OR, add only 1 egg and stir fry as small chunks, like hamburger. Makes about 2 ½ cups. Use for pizzas, salads, with scrambled eggs, or in casseroles.

\*Pork sausage seasoning can be purchased or ordered in many store, OR use the following recipe to make your own seasoning mix.

### **Sausage Seasoning**

1 ½ Tbsp. ground rosemary 5 Tbsp. ground sage  
3 ½ Tbsp. Salt 5 tsp. ground marjoram  
5 tsp. ground basil 4 tsp. garlic powder  
1 Tbsp. cayenne pepper (or to taste) ½ tsp. black pepper

Mix ingredients well. Store in jar. Label. Shake before using. Makes ½ cup.  
( Seasoning from the Amazing Wheat Book, by Le Arta Moulton.)

To make "**Eagle Brand**" **Sweetened Condensed milk**: This makes the equivalent of 3 cans.

1 cup hot water, 2 cups sugar, 4 cups powdered milk, 1/4 cup butter.  
Blend in blender very well. Can be stored in refrigerator or frozen.

I used 10 year old milk for this and it was indistinguishable from the store bought once it sat for a little while after blending.

By Smootian

---

## **Homemade Cheese**

by Mary Ann Sorenson

I know that this one sounds like a stretch but really it's not. I think the hardest product to rotate in any storage plan is powdered milk. I have found however, a few easy and efficient ways to do so. This Cheese is one of them.

### **To Make an Easy Cheese Press**

Take one inexpensive plastic container. This can be anything from a Cool Whip container to one of those new disposable/reusable ones in the foil and plastic section of your grocery store.

Drill small holes in the bottom of the container every couple of inches so that the liquid can drain from your cheese. Cut the tin from the lid so that it can fit snugly down into the container and can be used to keep the cheese even. You will need to place some heavy cans on top to weigh it down in the process. There, you're finished with your press!

## To Make Cheese

Thermometer

Cheese cloth

1 gallon of water

4 rounded cups of powdered milk

Either 1 cup of heavy cream or 2 cups of half-and-half

1 cup of vinegar

1 Tablespoon salt

## Flavor Options

½ cup fresh, chopped basil and ½ cup chopped sun dried tomatoes (not in oil)

½ cup pesto, drained slightly to remove the oil and ½ cup sun dried tomatoes (not in oil)

½ cup fresh, chopped basil and ½ cup finely chopped roasted red and yellow pepper

Put one gallon of water in a heavy, clean pot. Bring it to a boil. Remove from the stove and add four rounded cups of powdered milk. Using a hand blender, blend until incorporated. Put back on the stove at a medium heat. From this point you will need to be very careful to stir the mixture continually scraping the bottom of the pan to ensure that it does not scorch. Slowly add heavy cream or half-and-half.

Mix continually until the mixture reaches 195 degrees on a thermometer. (There will be a slight shimmer and the top will be very foamy.) Remove from heat and slowly stir in the vinegar. Put a colander that has been lined with cheese cloth into the sink. Pour the hot milk/vinegar mixture into the colander. When most of the liquid has passed through add salt and flavorings. (See options above.) Gently incorporate. Gather up the ends of the cheesecloth and transfer to the plastic container. Fold the cheesecloth over the top of the cheese. Set that container on a cooling rack placed on a sheet pan to catch the whey. Put the lid down, inside on top of the cheesecloth and press gently. Weigh it down with a couple of heavy cans. (Large cans of pumpkin are a good size.) This will squeeze out the excess liquid. Let it rest one hour and then carefully remove the cheesecloth. Return the cheese to the plastic container with the lid and the weights. Put it into the refrigerator overnight. The next morning take it from the refrigerator and wrap carefully in a paper towel and put into a Ziploc bag. Use within a few days.

This product is a cross between feta and fresh mozzarella, although the flavor is not as salty as feta. It is mild in flavor and texture. It melts better when made with heavy cream, although it does not melt the same as cheddar. It has no preservatives and it will only

keep a few days. (This is never a problem because everyone gobbles it right up.) This recipe makes approximately 1½ pounds of cheese. Because I use powdered milk the cooking time is greatly reduced. You don't have to bring it up to heat so slowly when you bring the water to a boil first. I love not having to tend it while the heat rises, a real plus! It is delicious on salads and sandwiches. A real treat.

---

## **I made cheese too**

---

I have been experiencing making cheese from powdered milk for about 3 weeks now. It is really pretty good. My six year old loves the cheese curds.

Adding Whipping cream bothered me because if you could not go to the store you would be in a bind. So I got a sample of powdered heavy cream. It worked but it had a more noticeable taste that I did not care for. As it aged it got better.

This past week I search online and found a Cheesemaking site that said you could use butter and lecithin so I decided to try it worked!

I used country cream dry instant milk that already has a much better flavor. I melted the 1/2 cup of butter added a 1/4 tsp of liquid lecithin and mixed well together then I added the dry milk powder and water alternating and whipping by hand until smooth and that reconstituted my milk.

My dry instant country cream milk requires 2 2/3 cup powder to 4 quarts which makes a gallon I think I added 1 tsp of vanilla too

I added citric acid, enzymes, rennet and salt according to recipe. It really is pretty good. I was happy with the end product

Next I am going to try to reconstitute the milk with oil since that is in my food storage it should work.

I also learned you can reuse the whey instead of water to make your milk. It is suppose to make your cheese sweeter. I tried that and I did not even have to add the citric acid, enzymes, rennet for it to curd! I guess it was still in the whey. The site said you could use the whey three times maybe it get bitter after that I do not know since it will be my third time using it next time.

By Michelle

---

In fact one of the best uses of powdered milk that has gone rancid is to make cheese with it. It is like using soured milk. I had trouble in the beginning keeping my milk powder fresh (20+ years ago) and was also so poor that it just killed my soul to have to throw it out or use it as fertilizer. In desperation I started experimenting with it to see if there was any way to rescue powdered milk gone bad. I use extra vinegar in the processing and it eliminates the smell and taste of

rancidity. Rancid powdered milk also makes good yogurt or sour cream. I have found so many uses for vinegar that I keep gallons of it in my storage. It counteracts the rancidity in rice as well as powdered milk. .... I just wish it would soften old beans.... those I grind into flour and put in my bread.

By tyiz

---

I use vinegar most often to make cheese... especially cottage cheese or queso blanco, which is a mexican cheese and very good dipped in batter and fried. If the recipe does not already use vinegar, I would pour out the what ever medium was used to make the cheese (lemon juice, rennet, etc) and make a light "syrup" of water and vinegar... 1 part vinegar to 10 parts hot water and let it sit for 3-5 minutes before continuing the rinsing. It works well. I would still not use the cheese for just eating, It is a stronger flavored cheese, but still good in many recipes where a stronger cheese is desired. Powdered milk cheeses do not melt and so do not work for all recipes but there is ususally a way to adapt the recipes.

For instance instead of making pizza, make calzone, where the cheese is inside the pizza and whether or not it melts is a little less obvious.

For rinsing rice that is going rancid, it takes about 1/2 cup of vinegar to 2 cups of dry rice. Pour in the vinegar and a couple cups of water and let it sit about 5 minutes, rinse and prepare as usual. It really works!

xxxxxxxxxx

According to my memory it takes equal parts of powdered milk and water. 1 Cup of powder will make about 2 ounces of cheese. Spray the pan with Pam (I always forget... doesn't seem to matter) and heat to just about boiling, turn off and add vinegar until the milk curdles and separates into curds and yellow colored, clear whey. It usually takes 1/4 cup to start with and keep adding vinegar, by tablespoons full, until it is completely separated.

If the milk is rancid, I just let it sit in the vinegar solution for a couple of minutes longer and then rinse and drain 2-3 times. My favorite "cheese cloth" is an old clean T shirt. Salt to taste, add herbs if desired, and press between 2 plates for a hard cheese to grate or fry. Rancid milk is not really suitable for cottage cheese, since cottage cheese is the blandest of all cheeses. It's pretty easy. I do the same thing with fresh milk that has gone sour. I used to be able to get past date milk from the stores at drastically marked down prices, but I haven't been able to get that for years now. Too, bad. It was wonderful cheese and at a fraction of the price.

Bad powdered milk is also very good for making into yogurt. I have perfected making yogurt quickly. I mix 1 1/2 cup powder and up to the 4 cup mark of water and heat for 11 minutes on high in the microwave, let it cool to under 100 degree and pour into the yogurt maker, add 1/2 cup of old yogurt, 1/4 t acidopholus and let sit for 8 hours or more. It has a stronger taste but is excellent in smoothies, of which there are some in my family who practically live on smoothies for breakfast. We go through about 1/2 gallon of yogurt a week... with only 4 people!

By Tyiz

---