# Butter Cheese

## Make notes by Danbo February 11 2015

| | |
|---|---|
| 24 liters | Pasteurized organic milk (3,5%) |
| 3 liters | Cold boiled water |
| 1 g | Lysozyme powder<br>Optional - can prevent late blowing |
| 1,5 g (3,75 ml) | Thermophilic culture:<br>1,3 g Choozit TA60<br>0,2 g Choozit LH100 |
| 5 ml | Calcium Chloride 30% |
| 6 ml-9ml | Bioren Classic liquid calf rennet<br>Amount depending on milk, rennet age etc. |
| 5 liters | 20% brine |
| 1 | 20 cm mould |
| | Cheese wax or vacuum bag |

**09:00 (PH 6,70)**
Start heating milk slowly to 39°C.
Add dilluted Lysozyme (optional). Meassure culture.

**10:20 (PH 6,69)**
Milk is now 39°C - maintain this temperature.
Springle culture over milk.
Let it rehydrate for 5 minutes.
Mix in the culture for 2 minutes using a skimmer.

**10:27**
Let the milk ripen for 45 minutes.

**11:05**
Meassure calcium chloride and mix with a glass of water.
Meassure Rennet and mix with another glass of water.

**11:12 (PH 6,64)**
Mix calcium chloride with milk for 2 minutes.
Mix rennet with milk for 1 minute.

**11:15**
Start the flocculation test by placing a bowl on the milk surface and start the timer.
Note the floc. time when the bowl doesn't move freely anymore (and keep the timer running).

Calculate the time to cut:
Floc. time: 10,5 mins
Floc. factor: 3,5
Time to cut: 37 mins (goal coagulation time is 45 minutes)

**11:52**
Cut the curds in 1-1,5 cm cubes (if there is a clean break).
Rest for 10 mins.

**11:55**
Prepare 4 liters of 65°C water by mixing some boiling water with some cool boiled water.

**12:05**
Stir slowly for 10 mins.

**12:15 (PH 6,49)**
Rest for 5 mins.

**12:20**
Remove 4 liters of whey.
Pour in the 4 liters of 65°C water (over 2 mins.). Whey temperature will be 40-41°C.
Stir at medium speed for 10 mins.

**12:32 (PH 6,52)**
Rest for 10 mins.

**12:42**
Pour 2 liters of whey over mould, follower and cheese cloth to warm, lubricate and remove any chemical cleaner residues.

**12:44**
Drain the whey and put the curd in the mould. Press with hands to make it fit.

**12:50**
First press 30 mins. at 1 psi (50 kg for a 20 cm diameter mould)*.

**13:30 (PH 5,97)**
Second press 30 mins. at 2 psi (100 kg for a 20 cm diameter mould)*.

**14:10 (PH 5,55)**
Third press 1 hour at 4 psi (200 kg for a 20 cm diameter mould) *.

**15:15**
Fourth press 3,5 hours at 7 psi (350 kg for a 20 cm diameter mould)*. Cheese cloth can be omitted the last 30 minutes of this press to remove cheese cloth marks.

**18:50 (PH 5,35)**
Place cheese in 20% brine for 9 hours for this size of cheese (springle some salt over the cheese).

**04:00**
Flip cheese in brine and leave it there for another 9 hours for this size of cheese (springle some salt over the cheese).

**13:00**
Remove the cheese from the brine.
Let the cheese dry for 2-4 days in cave or at room temperature until surface is dry.
Wax the cheese or vacuum pack.

**Age the cheese at 13°C for 1 month. If sign of water under vacuum plastic take the cheese out to dry a day or two and repack.**

*** IMPORTANT!**
**Next time I will use less pressing force – perhaps 1/3 the weights above:**

| Pressing schedule | Force | 8" / 20 cm mould | 4" / 10 cm mould |
|---|---|---|---|
| First press | 0,3 psi | 15 kg | 4 kg |
| Second press | 0,7 psi | 35 kg | 9 kg |
| Third press | 1,3 psi | 65 kg | 16 kg |
| Fourth press | 2,3 psi | 115 kg | 29 kg |

*Kitchen cleaned and ready for action*

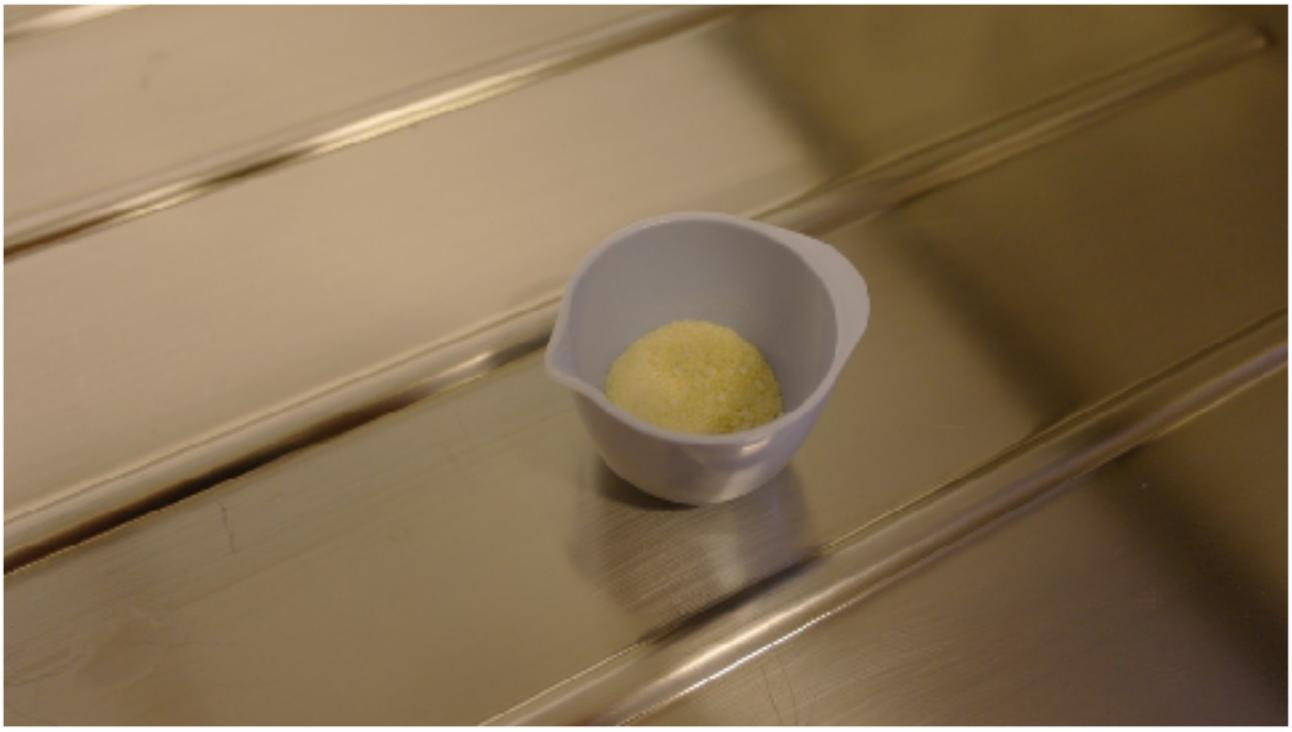
*The vat was cleaned in the dishwasher at 70°C, sanitized using StarSan and finally flushed using boiling water*

*24 liters of milk*

*The water bath is being prepared*

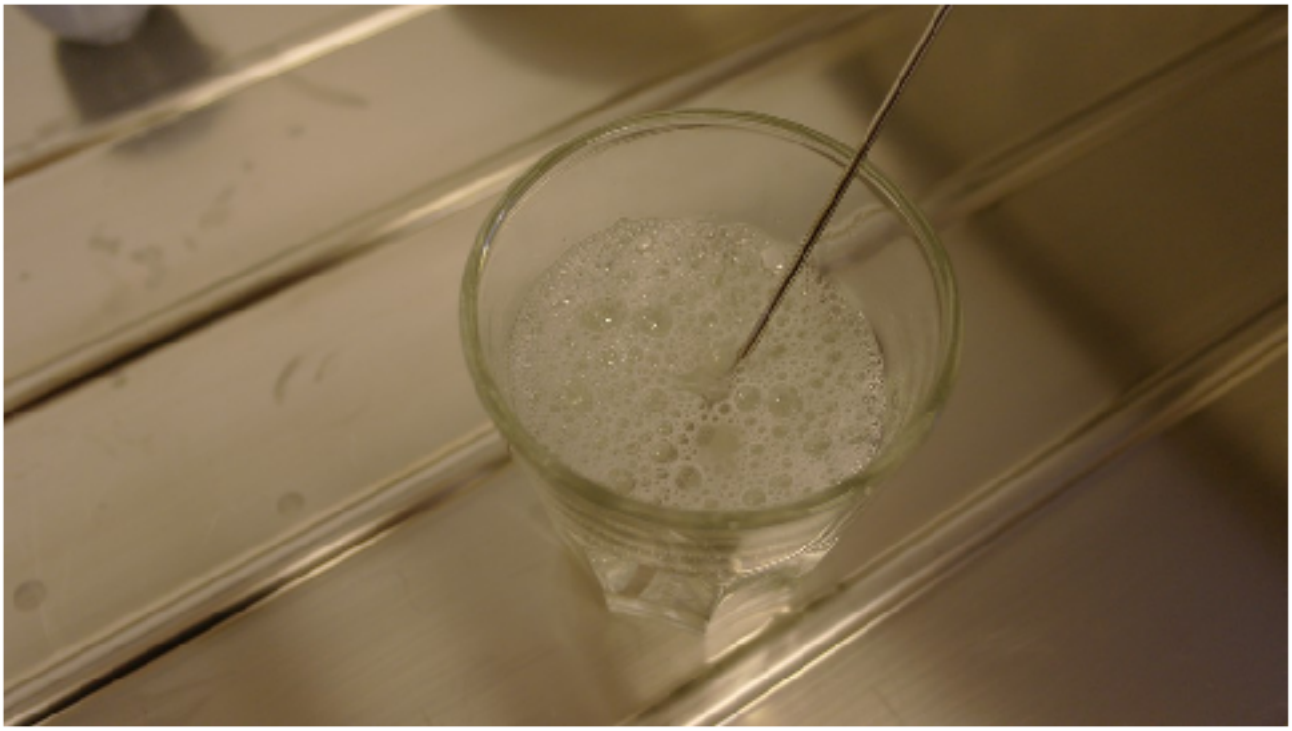
*The PH-meter is being calibrated*

*Milk start PH*



*Culture is ready*

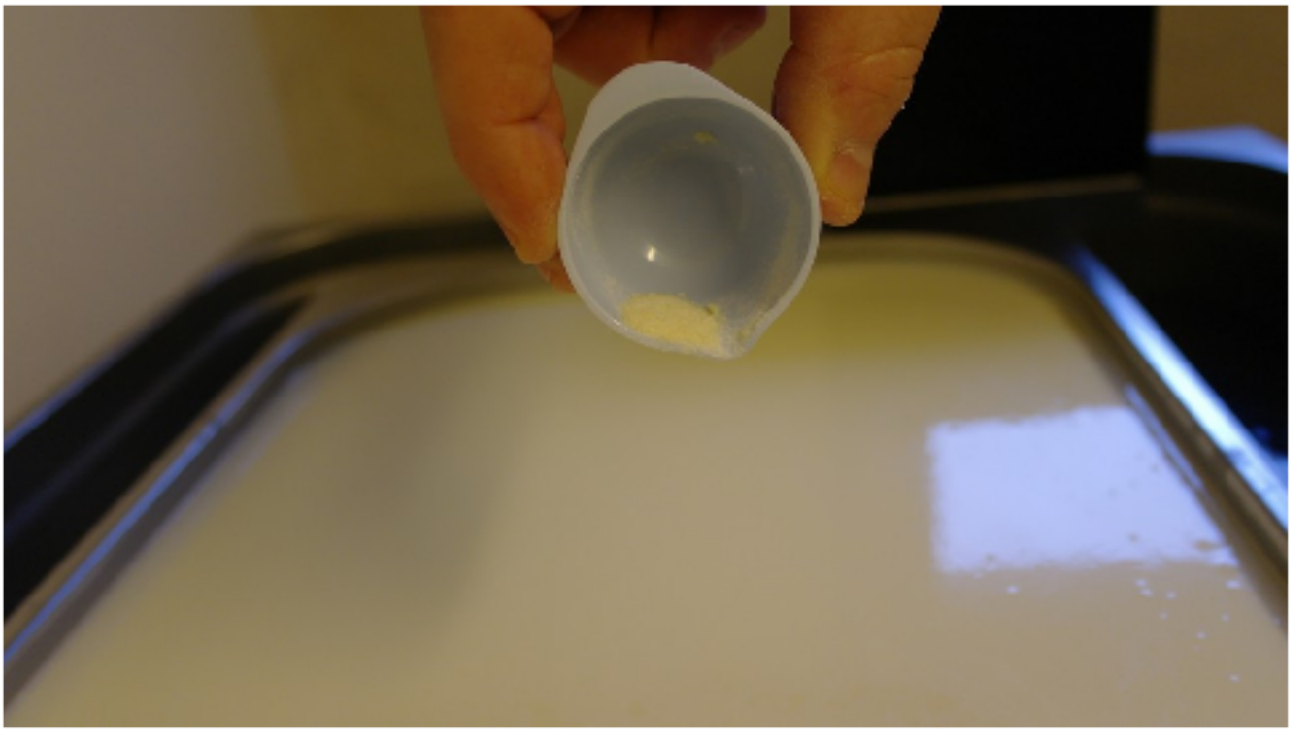
*Lysozyme is being meassured*



*Lysozyme mixture*

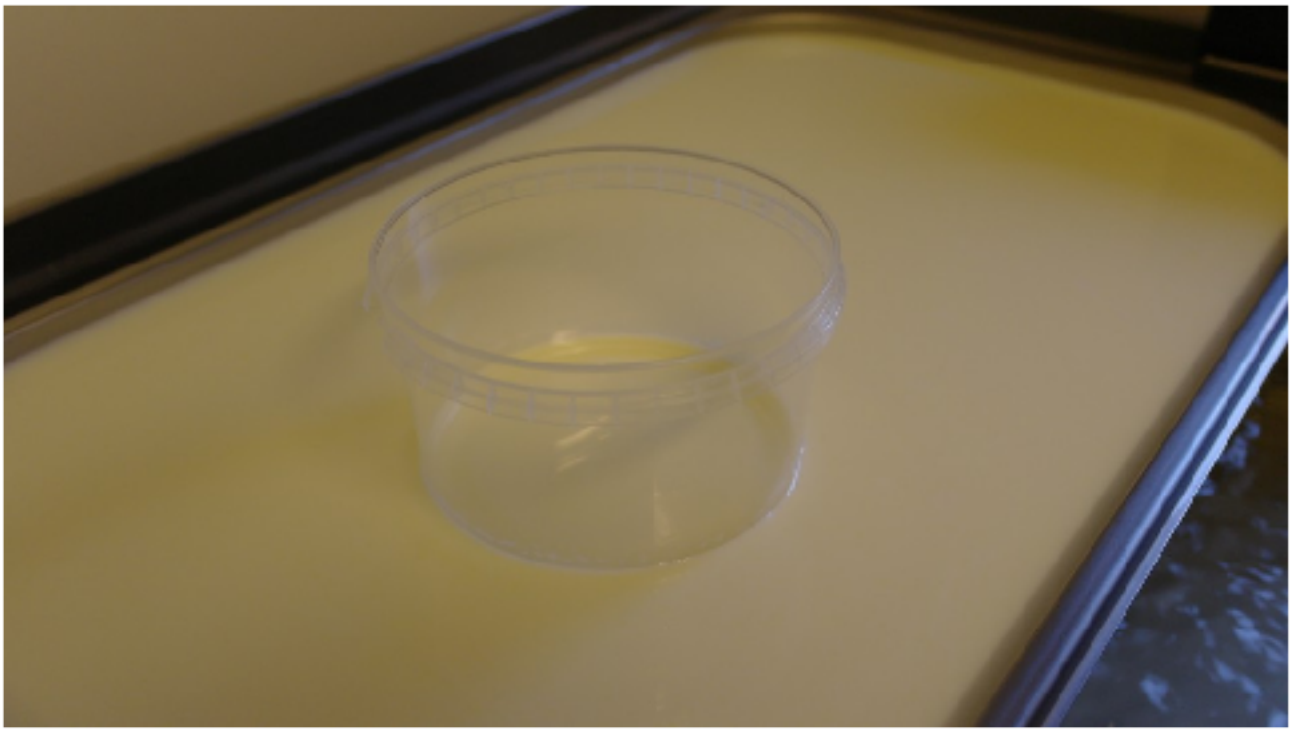
*Pouring the Lysozyme over the milk using the skimmer to spread it*

*Boiling water*



*Springling culture over milk*

*Mixing in the culture using the skimmer*



*Spinning bowl test (flocculation test)*

*Checking for a clean break*

*Stirring*

*Ready to drain whey*

*Flushing the Mould, follower and cheesecloth with whey*

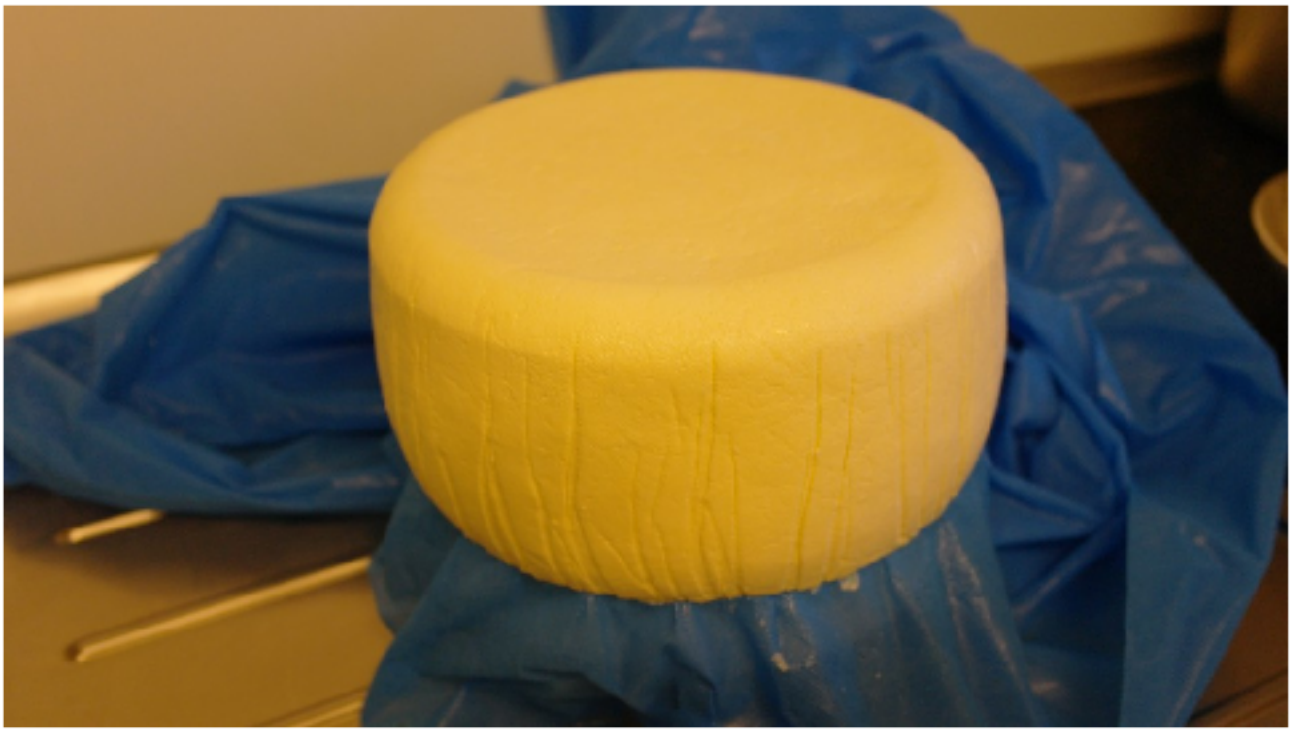
*Pouring off the whey*

*Curds ready for mould*

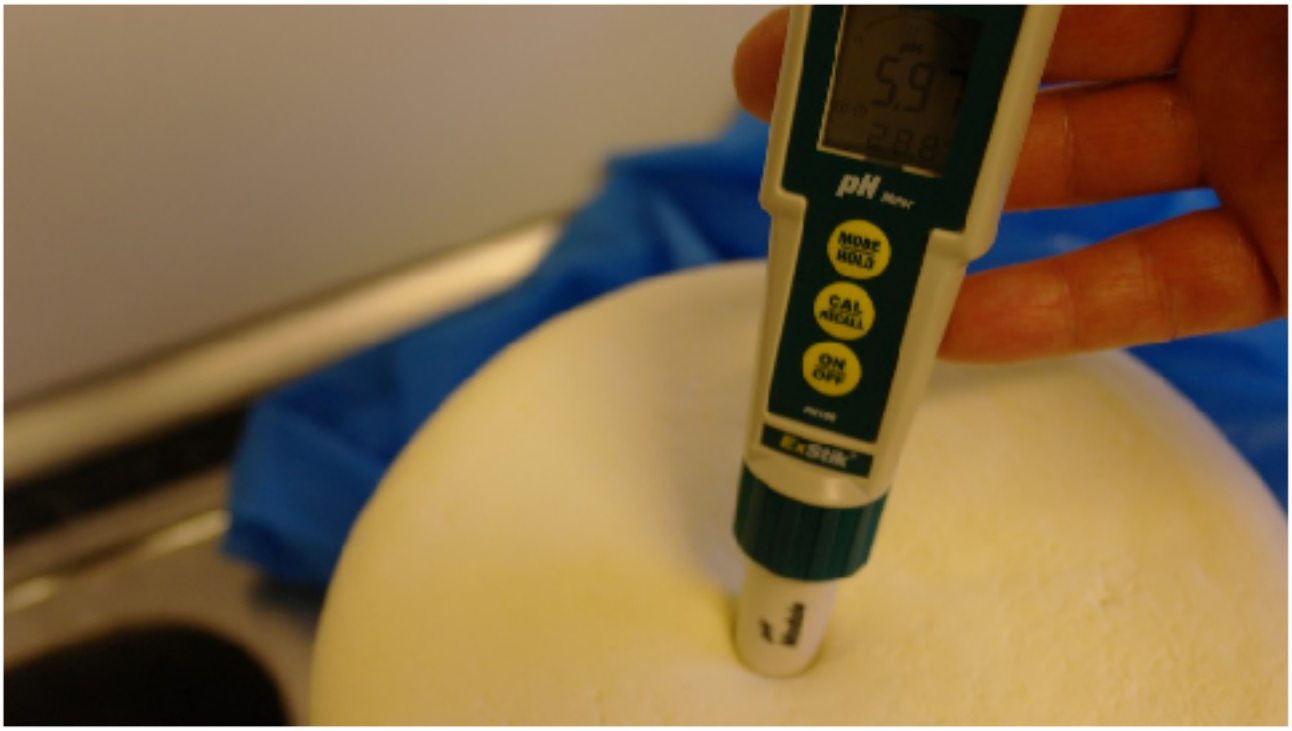
*Mould packed with curds*

*Mould ready for press*

*In press*

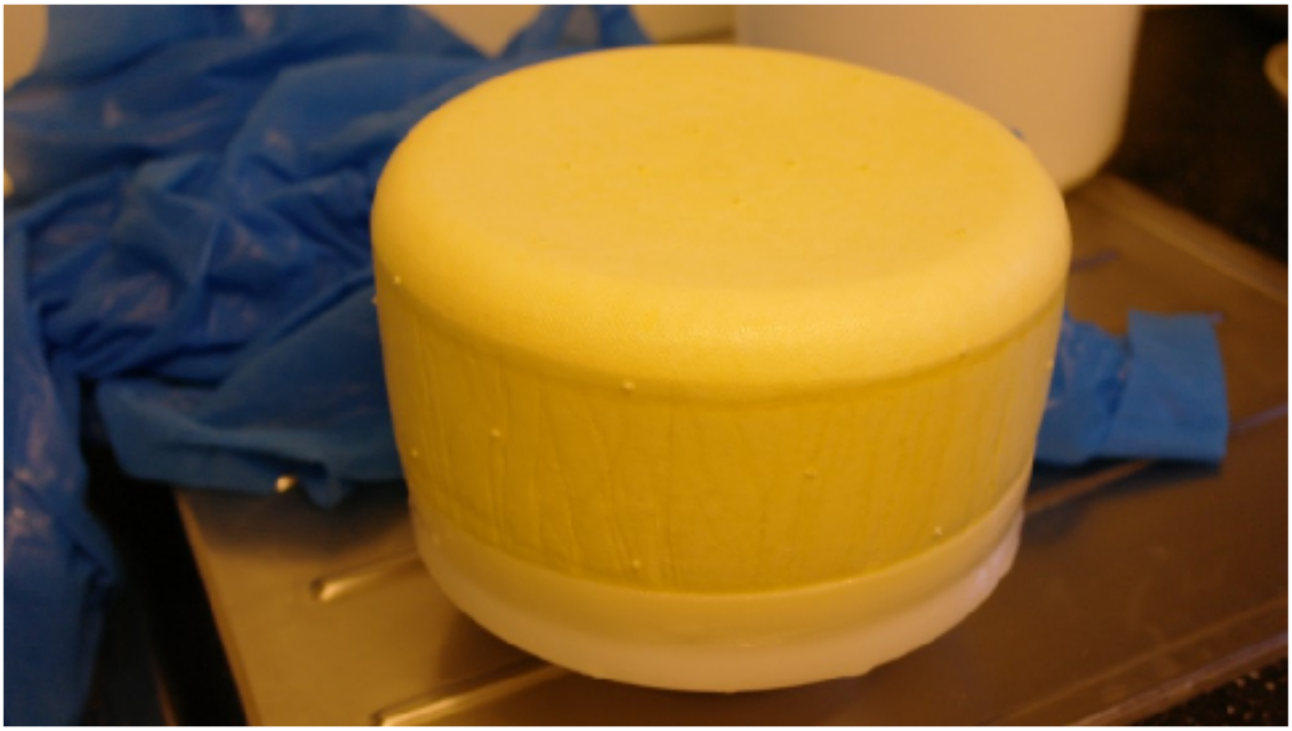


*After first press*

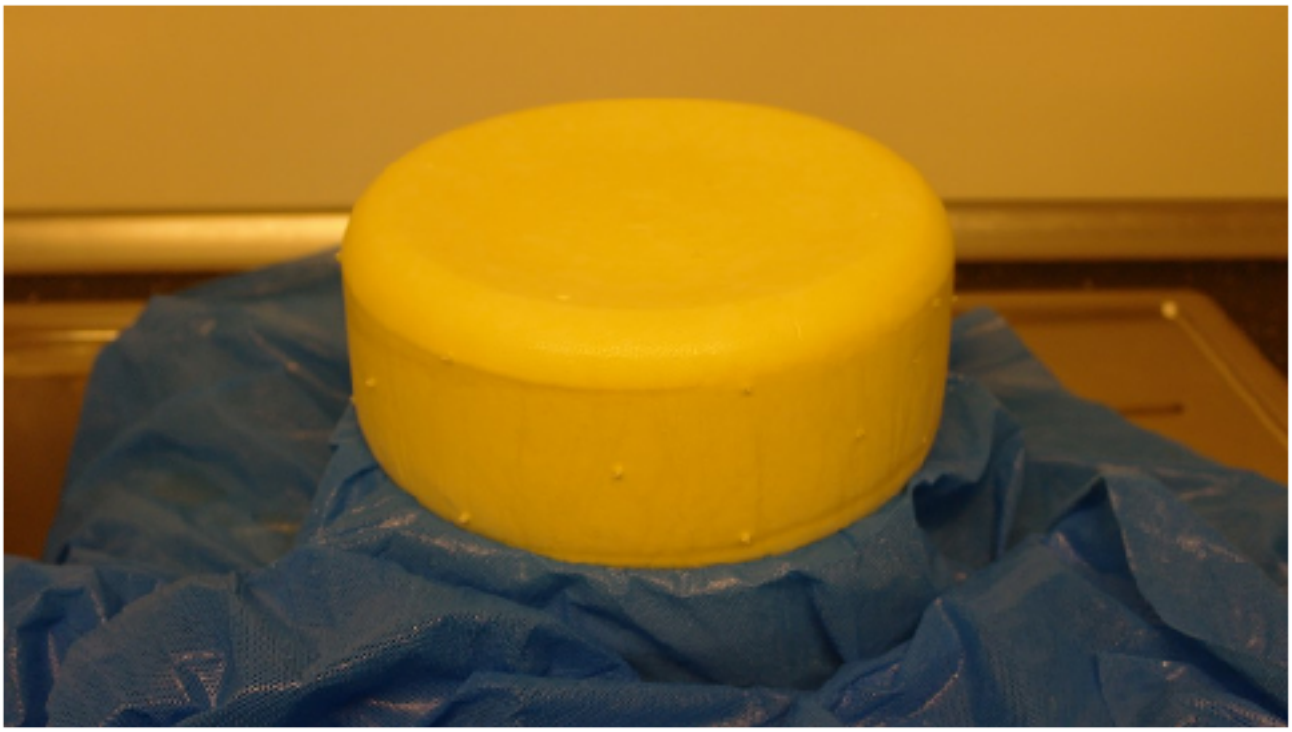



*Measuring the cheese/curd PH*

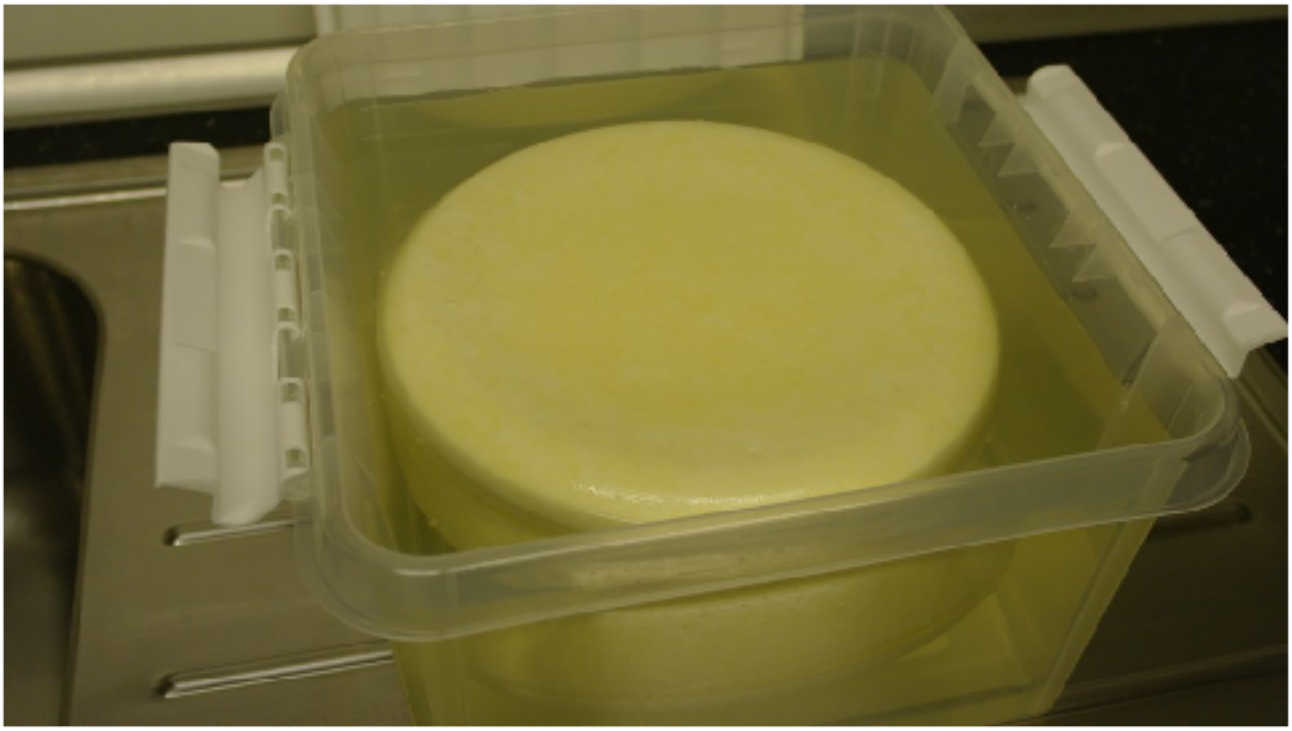
*After second press*



*After third press*



*After fourth press*



*In brine*