How to make your own Specialty Cheese



Available online at www.madmillie.com



Let's make some cheese!

TO GET STARTED YOU WILL NEED

- Milk
- A good quality pot to hold 4 L (1 US Gal) of milk
- Draining spoon or serving spoon
- Colander
- Long blade knife
- Measuring spoons

BEFORE YOU START

Clean your bench

Spray your bench with antibacterial cleaning spray and wipe down with paper towels.

Clean your equipment

Clean your equipment thoroughly with hot, soapy water. Scrubbing hard will remove unwanted additional bacteria. Dry your equipment with paper towels.

Sanitise your equipment See page 2.

SANITISING YOUR EQUIPMENT

For cheese with maturing times it is particularly important that you sanitise all equipment once you have cleaned it. It seems like a hassle but trust us, it's better than waiting 3 weeks and finding your cheese is contaminated/inedible!

Boiling

- Fill the pot you are using for cheese making about half full of clean water and put in all metal utensils.
- Heat to boiling point with the lid on to allow the steam to build up. Keep it at a rolling boil for 3 minutes.
- Remove from the heat and put your non-metal implements into the pot with the lid on. Leave for 2 minutes before air drying or using a paper towel to dry the equipment.

Tablets or Solution

If you find chemicals easier, we recommend baby bottle sterilising tablets (found at the supermarket) or Food Grade Sanitisers found online, follow the instructions on the pack.



If you find that your cheese moulds have warped during the sterilisation process, immerse them in hot water for 30 seconds and then gently reshape them. The moulds are food grade so there is no risk with this process.

TIPS FOR RIPENING SPECIALTY CHEESE

High humidity and temperature are critical for mould development.

Maturing box and humidity

If you only have one cheese in the maturing box or you live in a dry climate there is less moisture in the air for mould development. To increase the humidity, dip a paper towel into some cooled, boiled water and put the paper towel under the cheese mat in the maturing box.

Temperature

A warmer temperature of between 10°C and 15°C (50°F and 59°F) is critical for mould growth. The warmer the temperature, the quicker the mould will grow.

For health and safety reasons we do not recommend you store the cheese at temperatures higher than 15°C (59°F). Always make sure the cheese is stored in a sterile Mad Millie maturing box.

Testing for Ripeness

Gently push the surface of the cheese with a finger to see how firm or soft it is:

- Firm Your cheese is 'young', it will have a firm, dry texture and mild creamy flavours.
- Soft Your cheese is 'mature', its texture is soft and gooey, and the cheese flavour is strong.

Mould Growth

Keep your cheese out of sunlight. Mould will not grow in the light.

TYPES OF MILK

Good quality milk is where all cheese making starts...

Unhomogenised - This is the best milk for cheese making as it is the least processed. The fat globules haven't been broken up and may form a layer of cream at the top of the bottle. This milk is always found in the refrigerator and is common in gourmet or organic supermarkets. If the recipe requires unhomogenised milk, it will only work with unhomogenised milk.

Homogenised - This milk is great for most cheese but not those that specify unhomogenised milk. The fat globules in the milk are broken up and evenly distributed so there is no separation. This milk is readily available in supermarkets and found in the refrigerator. It will have a relatively short shelf life, a maximum of 2 weeks due to the minimal pasteurisation treatment that keeps it 'fresh'. Make sure you go for the full fat version for best results.

UHT - Ultra High Temperature (UHT) milk has been heated very quickly to high temperatures, for a short period of time. Due to the high temperatures during processing this milk is not very good for cheese making as all the proteins have been denatured (broken up). This is usually found at room temperature in the supermarket and has a shelf life of greater than 1 month. Be careful when choosing your milk, sometimes they store UHT milk in the refrigerator. Double check the shelf life to ensure you have the right one. If a recipe requires UHT milk it will be specified.

For more info on milk go to **www.madmillie.com**

CAMEMBERT

Prep time: 2 hours Ready in: 3 weeks Makes approx. 2 x 175 g (6 oz)

INGREDIENTS

2 L (2 US qt) of full fat, unhomogenised milk

1 mL calcium chloride

½ sachet of Mad Millie White Mould Culture Blend

½ tablet of rennet diluted in 1 Tbsp of cold, non-chlorinated water NOTE: Rennet will not dissolve. Stir just before adding to the milk.

1 tsp cheese salt

METHOD

- Pour milk into a pot and heat to 32°C (90°F) before stirring in calcium chloride and starter culture. Cover and maintain at 32°C (90°F) in a water bath to ripen for 1.5 hours.
- Stir in diluted rennet. Cover and leave to set for 1 hour at 32°C (90°F) in the water bath.
- 3. Cut the curd into 2 cm (1 in) cubes. Gently stir the curds occasionally over 15 minutes to remove some of the excess whey.
- 4. Spoon curds gently into moulds, distributing the curds evenly.
- Sit moulds on a cheese mat in a sterile place where the whey can drain away from the curds. Leave to drain for 1 hour at room temperature (approx. 20°C/68°F).
- After 1 hour, carefully flip the cheese over. This ensures even draining. Flip the cheese over every hour for 5 hours (or the rest of the day).
- Leave to drain overnight at room temperature (approx. 20°C/68°F).

- 8. The next morning, remove the cheese from the moulds and sprinkle cheese salt over the entire surface area of each cheese.
- Let air dry for 1-2 days until cheese no longer looks shiny and wet. Turn cheese over each day.
- 10. Place each camembert onto the cheese mat in the maturing box and leave it in a cool, dark place that is approx. 10°C (50°F), or in your own humid cheese fridge (95% humidity).
- Every day, with clean, sterile hands, open the maturing box and turn the cheese over so that it does not stick to the cheese mat and the mould growth is even.
- 12. After the cheese is covered in a thick, even layer of white mould (approx. 10 14 days of ageing), wrap the cheese in a white cheese wrap and age in a refrigerator for a further 2-3 weeks at approx. 5 10°C (41 50°F). The lower the temperature you store the cheese, the slower it will take to fully ripen.





Camembert is ready to eat as soon as it is covered in white mould, however, it is best eaten more mature so that the interior becomes soft and slightly runny. We recommend regularly checking this during the 2-3 weeks so your camembert is to your liking.

DOUBLE CREAM BRIE

Prep time: 2 hours

Ready in: 3 weeks

Makes approx. 2 x 175 g (6 oz)

INGREDIENTS

2 L (2 US qt) of full fat, unhomogenised milk

300 mL (10 US fl oz) of liquid, whipping cream

1 mL calcium chloride

½ sachet of Mad Millie White Mould Culture Blend

½ tablet of rennet diluted in 1 Tbsp of cold, non-chlorinated water NOTE: Rennet will not dissolve. Stir just before adding to the milk.

1 tsp cheese salt

METHOD

- Pour milk and cream into a pot and heat to 30°C (86°F) before stirring in calcium chloride and starter culture. Cover and leave at 30°C (86°F) on a turned off stove to ripen for 15 minutes.
- Stir in diluted rennet. Cover and leave to set for 1.5 hours at 30°C (86°F) in a water bath.
- Once set cut the curd with a long blade knife into 1 cm (½ in) cubes and gently spoon the curds into the moulds.
- 4. Sit moulds on the cheese mat where the whey can drain away from the curds. Leave to drain for 2 hours.
- After 2 hours, carefully flip the cheese over, this ensures even draining. Flip the cheese like this every hour for the rest of the day and then leave to drain overnight at room temperature (approx. 20°C/68°F).

- 6. The next day remove the cheese from the moulds and sprinkle the entire surface of the cheese with salt.
- 7. Let air dry for 1-2 days until cheese no longer looks shiny and wet. Turn cheese over every day.
- To age your brie, place the brie into the maturing box and leave it in a cool, dark place that is approx. 10 - 12°C (50 - 54°F), or in your own humid cheese fridge (95% humidity). White mould should begin to develop within 1 week.
- 9. Open the maturing box every day to allow air to circulate around the cheese.
- 10. Turn the cheese over every couple of days while the mould develops. Once there is a profuse layer of white mould all over the cheese, wrap in a white cheese wrap and age for a further 2-3 weeks. Test for ripeness during this period to make sure your cheese is to your liking.



Once you move your cheese to the refrigerator the ageing process will slow down but not stop. Be careful you don't let it go too long and end up with liquid cheese!

BRIE VS. CAMEMBERT: WHAT'S THE DIFFERENCE?

Both brie and camembert are cow's milk cheeses, soft-ripening, and have a white, flowery rind, but the two aren't interchangeable. During the cheese-making process, cream is added to brie which gives it a higher fat content and slightly fuller, creamier texture.

PREFER A STRONGER CHEESE?

Wrap the cheese in the cheese wrap and age for a further 3 weeks (check for ripeness every week) before eating. The longer you age the cheese, the runnier the centre of the cheese will become.

FRENCH NEUFCHÂTEL

Prep time: 2 hours

Ready in: 3 - 4 weeks

Makes approx. 300 g (10.5 oz)

INGREDIENTS

2 L (2 US qt) of full fat, unhomogenised milk

1 mL calcium chloride

 $\frac{1}{2}$ sachet of Mad Millie White Mould Culture Blend

½ tablet of rennet diluted in 1 Tbsp of cold, non-chlorinated water NOTE: Rennet will not dissolve. Stir just before adding to the milk.

1/2 tsp of cheese salt

METHOD

- Pour milk into a pot and heat to 27°C (81°F) before stirring in calcium chloride and starter culture.
- Stir in diluted rennet. Cover and keep at room temperature (approx. 20°C/68°F) overnight (i.e. 15 - 20 hours).
- 3. Cut the curd, using your long blade knife into 2 cm (1 in) cubes and scoop the curds into a cheese cloth lined colander.
- 4. Tie the corners of the cheese cloth together and hang over the sink or a bowl for 5 6 hours.
- Return the cheese cloth bag full of curds back to the colander. Cover the curds with the cheese cloth and place a bowl full of water on the curds. Press overnight in the refrigerator.

- Remove the curds from the cheese cloth (the curds will have a cream cheese texture). Mix in the ½ tsp of salt and mould the cheese curds into a heart shape with clean, sterile hands.
- Place the moulded cheese into the maturing box and leave it in the fridge at approx. 7°C (45°F), or in your own humid cheese fridge (95% humidity).
- 8. Open the maturing box daily and turn the cheese over to prevent it from sticking to the cheese mat and to give the mould air.
- 9. After 7-10 days the cheese should be covered in a white mould and it is ready to be eaten.

Store for up to **2 weeks** in the **refrigerator**.



GORGONZOLA

Prep time: 5 hours

Ready in: 4 – 12 weeks Makes approx. 2 x 300 g (10.5 oz)

INGREDIENTS

4 L (1 US Gal) of full fat, unhomogenised milk

1 sachet of Mad Millie Blue Mould Culture Blend

1 tablet of rennet diluted in 1 Tbsp of cold. non-chlorinated water NOTE: Rennet will not dissolve. Stir just before adding to the milk.

4 tsp of cheese salt

METHOD

- 1. Pour milk into a pot and heat milk to 32°C (90°F), sprinkle in the culture and allow to rehydrate for 5 minutes, then stir well.
- 2. Cover and maintain at 32°C (90°F) for 1 hour in a water bath.
- 3. Add in diluted rennet, stir for 1 minute, cover and maintain at 32°C (90°F) for 2 hours, or until you get a clean curd break.
- 4. Cut the curds into 2.5 cm (1 in) cubes. Stir the curds gently for 5 minutes, then rest for 15 minutes, stirring every 5 minutes to stop the curds sticking together.
- 5. Remove some whey until it is the same level as the curd.
- 6. Gently stir for 5 minutes, and then rest again for 15 minutes, stirring from time to time to keep the curds separated.
- 7. Transfer the curds to a colander lined with a cheese cloth and let drain for 5 minutes.



- 8. Transfer the curds into the moulds. pack the curds tightly around the edges, and leave the centre guite loose. This leaves openings for mould arowth inside the cheese.
- 9. Place the moulds on the cheese mat in the maturing box, so the whey can drain out. Place the maturing box in a warm place (hot water cupboard or a warm turned off oven) and maintain at 32°C (90°F).



- 10. Gently flip the cheese 5 minutes after filling, so that the weight of the cheese forms a smooth surface. Turn the cheese several more times during the next hour, and then once every hour for 4-6 hours. Leave in your warm place overnight.
- 11. Take the cheese out of the mould and sprinkle 1 tsp of salt on the top cheese surface and rub gently over the surface and the sides.
- 12. Place back in the mould, then put on the cheese mat in the maturing box. We recommend leaving the lid off and covering your maturing box with a cheese cloth, as your cheese will need airflow to dry off.
- 13. Leave at room temperature until the salt is absorbed (several hours or overnight).
- 14. The next day, or once the salt is absorbed, take the cheese out of the mould, and sprinkle 1 tsp of salt on the other side. Rub gently, and place back in the mould for a few hours, until the salt is absorbed.
- 15. Repeat so each side has 2 doses of salt over 1 2 days.



- 16. Once the cheese surface has dried off, remove from the mould and place your cheese on the cheese mat in the maturing box, at 12°C (54°F), 93-95% humidity, for 7 - 10 days. After 10 days, your cheese should be covered with blue mould, if not, it might be too cold or too dry.
- 17. Pierce the cheese right through with a sterilised thermometer probe every 2 cm (1 in).
- 18. Continue to mature at 12°C (54°F), 93-95% humidity on the cheese mat in your maturing box. Age for 4 weeks for a mild blue flavour and up to 12 weeks for a stronger flavour. Turn your cheese every week and ensure it doesn't get too dry or too wet. A natural rind will develop, with blue and/or white mould, these shouldn't be scraped off while maturing. Only scrape off the rind when serving for better presentation.

BRITISH STYLE BLUE

Prep time: 5 hours Ready in: 2 months

Makes approx. 300 g (10.5 oz)

INGREDIENTS

2 L (2 US gt) of full fat, unhomogenised milk

 $\frac{1}{2}$ cup (125 mL) of liquid, whipping cream

1 mL calcium chloride

¹/₂ sachet of Mad Millie Blue Mould Culture Blend

¹/₂ tablet of rennet diluted in 1 Tbsp of of cold. non-chlorinated water NOTE: Rennet will not dissolve. Stir just before adding to the milk.

 $1\frac{1}{2}$ tsp cheese salt

Brine solution (2 Tbsp of cheese salt in 2 L (2 US gt) of water)

METHOD

- 1. Pour milk and cream into a pot and heat to 30°C (86°F) before stirring in calcium chloride and starter culture. Cover and leave at 30°C (86°F) on a turned off stove to ripen for 30 minutes.
- 2. Stir in diluted rennet. Cover and leave to set for 1.5 hours at 30°C (86°F) in a water bath.
- 3. Line a colander with the cheese cloth and rest the colander in a deep bowl. Scoop curds into the cloth and let it drain for 1.5 hours.

- 4. Tie the corners of the cloth together to form a bag and hang the bag for 30 minutes so the whey can drain freely.
- 5. Once curds have drained, place the curd mix. still inside the cheese cloth on a cheese board. Cover with a second cheese board and weigh it down with two 1.5 L (0.4 US Gal) bottles filled with water (approx. 3 kg (2.2 lb)). Press overnight at approx. 21°C (70°F).







For British Style Blue Cheese inspired recipes like this one, go to **www.madmillie.com**

- 6. The next day, remove the curds from the cheese cloth and break them into 2.5 cm (1 in) pieces.
- Transfer the curds to a bowl and blend the salt through the dry curds using clean, sterile hands.
- Scoop the curds into the cheese mould. Place the filled mould on a sterilised cheese mat and pack curds in gently with a spoon. Leave to drain where the whey can be collected, and cheese can be covered (i.e. inside a large pot).
- Flip the mould every 15 minutes for the next 2 hours, then leave to drain for 4 days at ambient temperatures (approx. 21°C or 70°F).
- 10. During the 4 days, flip the cheese in the moulds twice daily.
- After 4 days, remove from the mould and using the end of your sterilised thermometer probe, poke 20 holes from top to bottom.
- 12. Place the cheese on the cheese mat in the maturing box and leave it in a cool, dark place that is approx. 10 - 12°C (50 - 54°F) with 90-95% humidity.

- 13. Open the maturing box daily to allow the air to circulate. Once a week, wipe the cheese with a sterilised cheese cloth dipped into a salt brine solution. Turn the cheese three times a week.
- 14. After 60 days if you are happy with the degree of maturity and want to slow down the ripening, wrap in the silver paper. Once wrapped, the cheese won't mature much and should be kept at 4°C (39°F) in the fridge, waiting to be eaten!
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Store for up to **4 weeks** in the **refrigerator.**



BLUE VEIN

INGREDIENTS

2 L (2 US qt) of full fat, unhomogenised milk

1/2 tablet of rennet diluted in 1 Tbsp of cold, non-chlorinated water NOTE: Rennet will not dissolve. Stir just before adding to the milk.

¹/₂ sachet of Mad Millie Blue Mould Culture Blend

1 mL calcium chloride

1 tsp of cheese salt, and another pinch for sprinkling

For recipes using your blue vein cheese go to www.madmillie.com

METHOD

- Pour milk into a pot and heat to 32°C (90°F) before stirring in calcium chloride and starter culture.
- Cover and leave to ripen at 32°C (90°F) for 1 hour in a water bath.
- 3. Stir in diluted rennet. Cover and leave the milk to set at 32°C (90°F) for 45 minutes or until the curd is in a firm set.
- 4. Cut the curd with a long blade knife into 1 cm ($\frac{1}{2}$ in) cubes.
- 5. Leave to rest for 5 minutes.
- Gently stir the curds every 5 minutes for 1 hour to keep them from matting.
- 7. Pour off the whey to the level of the curds.
- Using a draining spoon, scoop the curds into a cheese cloth lined colander and leave to drain for 5 minutes.
- Place the curds into the pot or cheese vat and add the salt. Using clean, sterile hands, mix the curds so that they are not matted, and salt is evenly distributed.
- 10. Fill each cheese mould with curds.
- Place the filled moulds onto a cheese mat or drying rack in a place where they can drain (i.e. in a large sterile container).
- 12. After 1 hour flip the cheese so it drains evenly.

- 13. Leave to drain overnight at room temperature (approx. 20°C/68°F).
- 14. The next morning, remove the cheese from the moulds and lightly sprinkle salt over the entire surface of the cheese.
- 15. Place the cheese into your maturing box and leave in a cool 12 - 15°C (54 - 59°F) dark place at 85% humidity or in a humid cheese fridge. Turn the cheese over and salt it each day for 3 days, while shaking off the excess salt each time.
- 16. After 3 days, using the end of your sterilised thermometer probe poke10 holes through top to bottom.
- 17. Continue to age the cheese in the maturing box or cheese fridge at 10°C (50°F) and 85% humidity. Open the maturing box regularly to give the mould some air.
- 18. Mould will appear within 10 days.
- 19. Leave to ripen for a further 4 to 12 weeks, until the strength is to your liking, then wrap in silver wrap and place it in the fridge. You can scrape off the outer mould before serving for better presentation.

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Store for up to **4 weeks** in the **refrigerator.**





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www.madmillie.com

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