

Epicurean

cheese making solutions

Premium Cheese Kit

INSTRUCTION MANUAL

Congratulations on your decision to become a cheese maker! The whole family can enjoy this great hobby! Within this starter kit you will find all the basic equipment to enable you to make your Cheddar, Swiss, Mozzarella, Parmesan, Gouda, Feta and many more.

This kit contains:

- Cheese Basket**
- Wooden Cheese Press**
- Butter Muslin**
- Milk Thermometer**
- 250ml Liquid Sanitiser**
- 500g Cheese Salt**
- Thermophilic Cultures**

- Mesophilic Cultures**
- Proprietary Bacteria**
- Lipase Powder**
- 50ml Calcium Chloride**
- 50g Citric Acid**
- 50ml Rennet**
- 500g Cheese Wax**

You will also need:

- 10L Pot / Double Boiler (or equivalent), Slotted Serving Spoon**
- Cutting Board, Long Bladed Knife**

RECIPES

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For more cheese making recipes, we recommend the "Home Cheese Making" book by Ricki Carroll.

- 1 ½ Level teaspoons Citric Acid dissolved in ½ cup cool water
- 4 litres of Full Cream Milk
- ¼ teaspoon Lipase Powder dissolved in ¼ cup cool water
- ¼ teaspoon Rennet dissolved in ¼ cup cooled boiled water
- 1 teaspoon Salt

30 Minute Mozzarella

(Makes approx. 500g)

1. Heat the milk to 12°C and, while stirring, add the Citric Acid solution, then add the Lipase solution and mix thoroughly.
2. Heat the milk mixture to 32°C over medium to low heat. (The milk will start to curdle.)
3. Gently stir in the diluted Rennet with an up and down motion while heating to 38-41°C. When the curds are pulling away from the pot they are ready to scoop out (3 to 5 minutes).
4. The curds will look like thick yogurt and have a bit of a shine to them, and the whey will be clear. If whey is still milky white, wait a few more mins.



5. Scoop out the curds with a slotted spoon into a microwaveable bowl. Press the curds gently with your hands, pouring off as much of the whey as possible.
6. Microwave the curds on HIGH for 1 minute. Drain off the excess whey, then gently fold the cheese over and over (like kneading bread) with your hands or a spoon. This distributes the heat evenly throughout the cheese, which will not stretch until it is too hot to touch (60-65°C).
7. Microwave twice more for 35 seconds each time, adding salt to taste after the second time. After each heating, knead again to distribute the heat.
8. Knead quickly until it is smooth and elastic. When the cheese stretches like taffy, it is ready. If the curds break instead, they are too cool and need reheating.
9. When the cheese is smooth and shiny, roll it into small balls and eat while warm. Alternatively, place the cheese balls in a bowl of ice water for half an hour to rapidly cool the inside, then cover and store in the fridge.

- 7 ½ Litres Full Cream Milk.
- 2 ml Calcium Chloride dissolved in ¼ cup cool water
- ½ teaspoon of MA11 Mesophilic Culture
- 2 ml Rennet dissolved in ¼ cup cooled boiled water
- 2 teaspoons Salt
- Cheese Wax

Traditional English Cheddar

(Makes approx. 900g)

1. The day before cheese making, prepare a Mesophilic starter as described in the "Cheese Making Basics" information sheet.
2. Heat the milk to 30°C. Add the Calcium Chloride and then the prepared starter. Cover and let ripen for 45 mins.
3. Gently stir in the diluted Rennet with an up and down motion for at least 1 minute. Cover and allow setting for 45 minutes.
4. Cut the curds into 6mm cubes. Allow to stand for 5 minutes to set.
5. Heat the curds to 38°C, increasing the temp no more than 2°C every 5 mins. This should take about 30 mins. Stir gently to keep the curds from matting.



6. Once the curds are at 38°C, maintain the temperature for 30 mins, stirring occasionally
7. Pour the curds and whey into a colander then place the colander full of curds back in the pot and let set covered for 15 minutes.
8. Remove the colander from the pot and place the curd mass on a cutting board. Cut into 75mm slices. Place the slices back into the pot, cover, and maintain 38°C for 2 hours, turning the slices every 15 mins.
9. Break the slices into 13mm cubes, and then return to the pot, maintaining 38°C for 30 minutes. Stir them gently every 10 mins.
10. Add the Salt and stir gently.
11. Line the cheese basket with cheesecloth. Place the curds into the basket & press with 5kg for 15 mins.
12. Remove the cheese from the basket, carefully peel away the cheesecloth, turn the cheese over, re-dress it and press with 20kg for 12 hours. Repeat the process then press with 25 kg for 24 hours.
13. Remove the cheese from the basket, peel away the cheesecloth and air dry at room temperature for 2 to 5 days until it is dry to touch.
14. Melt the cheese wax provided and coat the cheese thoroughly, using the waxing brush.
15. Age for 3-12 months at 10-12°C. This cheese will develop a sharper flavour as it ages.

- 7 ½ Litres of Full Cream Milk
- 2 ml Calcium Chloride dissolved in ¼ cup of cool water
- ½ teaspoon of TA61 Thermophilic Culture
- ½ teaspoon Proprioni Bacteria
- 2 ml Rennet dissolved in ¼ cup of cooled boiled water
- 300g Salt for brine

Traditional Swiss

(Makes approx. 900g)



1. The day before cheese making: Prepare a Mesophilic starter as described in the “Cheese Making Basics” information sheet.
2. Heat the milk to 32°C. Add the Calcium Chloride solution and then the prepared starter. Remove ¼ cup of milk from the pot and add the Proprioni Bacteria, mix thoroughly and add back to the milk. Cover and allow ripening for 10 mins.
3. Gently stir in the diluted Rennet with an up and down motion for at least 1 minute. Cover and allow 30 minutes to set.
4. Cut the curds into 6mm cubes then allow to stand for 5 minutes.
5. Maintaining 32°C, periodically stir the curds over the next 40 minutes. This helps expel whey from the curds before heating.
6. Heat the curds 1°C per min until they reach 48°C. Maintain this temperature for 30 minutes, stirring often. The curds must be cooked until they reach the proper break. To

test for this, wad together a handful of curds and gently rub between your palms. If it breaks into individual particles, they are sufficiently cooked. Pour off the whey.

7. Line the 1kg cheese basket with cheesecloth. Place the curds into the basket and press with 5kg for 15 minutes, making sure the curds do not cool down at this point.
8. Remove the cheese from the basket, carefully peel away the cheesecloth, turn the cheese over, re-dress it and press with 6kg for 30 mins.
9. Repeat the process and press for a further 2 hrs at the same pressure.
10. Repeat the process pressing with 7kg for 12 hours.
11. Make a brine solution using 300g of Salt to 800ml of water. Remove the cheese from the basket, peel away the cheesecloth and soak in the brine for 12 hours in the fridge.
12. Remove the cheese from the brine and pat dry. Place on a clean cheese board and store at 10-12°C and 85% humidity. Turn daily for one week wiping each day with a cloth dampened with salt water. DON'T wet the cheese.
13. Place the cheese in a warm humid room with temps between 20-25°C. Turn daily & wipe with a cloth dampened in salt water. Let the cheese set for 2-3 weeks until eye formation is noticeable. (Slight swelling)
14. Age the cheese at 8°C and 80% humidity for at least 3 months. Turn the cheese several times a week, removing any surface mould with a cloth dampened in salt water. A reddish colouration on the surface is normal and should not be removed.

- 7 ½ Litres Full Cream Milk
- 2 ml Calcium Chloride dissolved in ¼ cup cool water
- ½ teaspoon MM100 Mesophilic Culture
- 2 ml Rennet dissolved in ¼ cup cooled boiled water
- 300g Salt for brine
- Water for brine
- Cheese Wax

Dutch Gouda

(Makes approx. 900g)



1. The day before cheese making, prepare a Mesophilic starter as described in the “Cheese Making Basics” information sheet.
2. Heat the milk to 32°C. Add the Calcium Chloride solution and then the prepared starter. Cover & allow ripening for 10 mins.
3. Gently stir in the diluted Rennet with an up and down motion for at least 1 minute. Cover and allow setting for 60 minutes.
4. Cut the curds into 13mm cubes, then allow to stand for 10 minutes to set.
5. Drain off 1/3 of the whey. Stirring continuously, add just enough 80°C water to raise the temperature of the curds to 34°C. Let the curd settle again for 10 minutes.
6. Drain of the whey to the level of the curds and while continuously stirring, add just enough 80°C water to raise the temperature to 38°C. Maintain this temperature for 15

minutes, stirring often.

7. Allow the curds to set for 30 minutes then pour off the remaining whey.
8. Quickly place the warm curds into a lined cheese basket, breaking them as little as possible. Press at 9kg for 20 mins.
9. Remove the cheese from the basket, carefully peel away the cheesecloth, turn the cheese over, re-dress it and press with 18kg for 20 minutes.
10. Repeat the process, pressing with 22kg for 12-16 hours.
11. Make a brine solution using 300g of Salt to 800ml of water. Remove the cheese from the basket, peel away the cheesecloth and soak in the brine for 12 hours in the fridge.
12. Remove the cheese from the brine and pat dry. Air dry the cheese for 3 weeks at 10°C.
13. Melt the cheese wax provided and using the waxing brush, coat the cheese thoroughly.
14. Age at 10°C for 3-4 months, turning 3-4 times a week.

- 7 ½ Litres fresh Whey, no more than 3 hours old
- 1 ½ Ltrs Full Cream for increased yield
- ¼ Cup Cider Vinegar
- ½ teaspoon Cheese Salt (*optional*)
- ½ teaspoon Herbs (*optional*)

Whey Ricotta

(Makes 1-2 cups)

1. Pour the whey into a large pot. Add the cream if desired. Heat the mixture to 93°C
2. While stirring, turn off the heat and add the vinegar. You will notice tiny white particles of precipitated albuminous protein.
3. Carefully ladle the curds into a colander lined with cheesecloth. Allow to drain.
4. When the cloth is cool enough to handle, tie the corners into a knot and hang over the sink to drain for several hours.
5. When the cheese has stopped draining, untie the cloth and place the cheese into a bowl. Add the salt to taste or even some herbs (Optional).



6. Cover the bowl and refrigerate for up to a week.

- 3½ Litres Full Cream Milk
- 1 teaspoon Citric Acid dissolved in ¼ cup of water
- ½ teaspoon Cheese Salt (*optional*)
- 1-2 tablespoons heavy cream (*optional*)

Whole Milk Ricotta

(Makes approx. 900g)

1. Add the citric acid solution and Salt (*optional*) into the milk and mix thoroughly.
2. In a large pot, directly heat the milk to 85-90°C. (Do not boil). Stir often to prevent scorching.
3. As soon as the curds and whey separate, (make sure there is no milky whey), turn off the heat and let it set, undisturbed, for 10 minutes.
4. Line a colander with cheesecloth and carefully ladle the curds in to drain. Tie the corners of the cloth into a knot and hang the bag to drain for



20-30 minutes or until the cheese has reached the desired consistency.

5. The cheese is ready to eat immediately. For a creamier consistency, add the cream at the end and mix thoroughly.
6. Store in a covered container in the fridge for 1-2 weeks.

- 7 ½ Litres Low Fat Milk. (2% fat)
- 2 ml Calcium Chloride dissolved in ¼ cup cool water
- ½ teaspoon TA61 Thermophilic Culture
- ½ teaspoon LH100 Helvetic Culture
- ¼ teaspoon Lipase Powder dissolved in ¼ cup cool water.
- 2 ml Rennet dissolved in ¼ cup cooled boiled water
- 300g Salt for brine
- Cheese Wax

Italian Parmesan

(Makes approx. 700g)

1. The day before cheese making, prepare a Thermophilic starter, as described in the “Cheese Making Basics” information sheet, using both the TA61 & LH100 cultures.
2. Heat the milk to 32°C. Add the Calcium Chloride solution, then the prepared starter and the Lipase solution. Cover and allow to ripen for 30 minutes.
3. Gently stir in the diluted Rennet with an up and down motion for at least 2 mins. Cover & allow 30 mins to set or until you get a *clean break*.
4. Cut the curds into 6mm cubes, then heat at a rate of 2°C every 5 minutes until you reach 38°C, stirring often.
5. Raise the temperature by 3°C every 5 minutes until the temperature reaches 50°C, stirring often. The curds should now be the size of a grain of rice, and they will squeak when chewed. Allow the curds to set for 5 minutes.
6. Carefully pour off the whey without losing any of the curd particles. Line the 1kg cheese casket with cheesecloth. Place the curds into the basket and press lightly with



2.5kg for 15 minutes.

7. Remove the cheese from the basket, carefully peel away the cheesecloth, turn the cheese over, re-dress it and press with 4kg for 30 minutes.
8. Repeat the process but press with 7kg for 2 hours.
9. Remove the cheese from the basket, line it with fresh cloth. Replace the cheese and press with 10kg for 12 hours.
10. Make a brine solution using 300g of Salt to 800ml of water. Remove the cheese from the basket, peel away the cheesecloth and soak in the brine for 24 hours at room temperature.

11. Remove the cheese from the brine and pat dry. Place on a clean cheese board and store at 10-12°C and 85% humidity for at least 10 months. Turn daily for the first two weeks and then weekly after that. Remove any mould with a cloth dampened in vinegar or salt water.
12. After the cheese has aged for 2 months, rub the surface with olive oil to keep the rind on the cheese from drying.

- 4 Litres Full Cream Milk
- 1 ml Calcium Chloride dissolved in ¼ cup cool water
- ½ teaspoon MA11 Mesophilic culture
- ¼ teaspoon Lipase Powder dissolved in ¼ cup cool water. (optional if using goat's milk)
- 2 ml Rennet dissolved in ¼ cup cooled boiled water
- 2 - 4 teaspoons Salt
- 1/3 cup Salt for brine (optional)

Greek Feta

(Makes approx. 500g)

1. The day before cheese making, prepare a Mesophilic starter as described in the "Cheese Making Basics" information sheet.
2. Heat the milk to 30°C. Add the Calcium Chloride solution, then the prepared starter and the Lipase solution and mix thoroughly. Cover and let ripen for 60 minutes.
3. Gently stir in the diluted Rennet with an up and down motion for at least 1 minute. Cover and allow to set for 60 minutes.
4. Cut the curds into 13mm cubes then allow to stand for 10 minutes.
5. Gently stir the curds every 5 minutes for 20 mins
6. Pour the curds into a colander lined with cheesecloth. Tie the corners of the cloth into a knot and hang the bag to drain for 4 hours.
7. Untie the bag and cut the curds into 25mm slices, then cut into 25mm cubes.
8. Sprinkle the cubes with Salt to taste. Place in a covered bowl and allow to age for 4-5 days in the fridge.



FOR A STRONGER FLAVOUR:

9. Make a brine solution by combining 1/3 cup of Salt to 1.5 litres of water. Place the cheese in the brine and store in the fridge for 30 days. (Do not use this method if using store bought goat's milk as it tends to disintegrate in brine.)

- 7.5 Litres Full Cream Milk
- 2 ml Calcium Chloride dissolved in ¼ cup cool water
- ½ teaspoon MA11 Mesophilic culture
- 2 ml Rennet dissolved in ¼ cup cooled boiled water
- 2 tablespoons Salt
- 4 drops Orange Food Colouring
- Cheese Wax

American Colby

(Makes approx. 900g)

1. The day before cheese making, prepare a Mesophilic starter as described in the "Cheese Making Basics" information sheet.
2. Heat the milk to 30°C. Add the Calcium Chloride solution, then the prepared starter and mix thoroughly. Cover and let ripen for 60 minutes
3. Add the cheese colouring solution. (Optional)
4. Gently stir in the diluted Rennet with an up and down motion for at least 1 minute. Cover and allow to set for 30 minutes or until you get a *clean break*.
5. Cut the curds into 10mm cubes then allow to stand for 10 minutes.
6. Heat the curds 1°C every 5 minutes until they reach 39°C. Maintain this temperature for 30 minutes, stirring often.



7. Drain off the whey to the level of the curds and while continuously stirring, add just enough 15°C water for the temperature to drop to 27°C. Maintain this temperature for 15 minutes, stirring often. (The temperature of the added water controls the moisture content of the cheese. If a drier cheese is desired, keep the curds a few degrees above 27°C; for a moist cheese, keep a few degree below)
8. Pour the curds into a colander and leave to drain for 20 minutes.
9. Break the curds into thumbnail-sized pieces, add salt, and mix thoroughly.
10. Line the cheese basket with cheesecloth. Place the curds in the basket and press lightly with 8kg for 20 minutes.
11. Remove the cheese from the basket, carefully peel away the cheesecloth, turn the cheese over, re-dress it and press with 14kg for 20 minutes.
12. Repeat the process but press with 18kg for 1 hour. Repeat again, but press with 22kg for 12 hours.
13. Remove the cheese from the basket, peel away the cheesecloth and air dry at room temperature for 2 to 5 days until it is dry to touch.
14. Melt the cheese wax provided and coat the cheese thoroughly, using the waxing brush.
15. Age at 10°C for 2-3 months, turning 3-4 times a week.

EXPERIMENTATION

Now that you have mastered some of these cheeses, why not try a few experiments of your own? The addition of black pepper corns to traditional cheddar ... your favourite herbs in a fresh ricotta ... maybe even smoking some Gouda ... there is no end to the possibilities!



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Cheese making Basics

CHEESE MAKING BASICS

Fundamentally, cheese making is the process of removing water from milk. The volume of water removed will dictate the essential characteristic of the cheese: hard cheese like cheddar retains far less water than a soft cheese like feta. Achieving these different characteristics might only require slight variations from one style to the next. Following are some cheese making basics needed to make the recipes in the Country Cheese kits.

STERILISING - The most important step by far. When making cheese, ensure that all your equipment is sterilised thoroughly to eliminate contamination of your milk, which will result in off flavours.

MILK – Cheese can be made from any animal milk, with the most common being cow, goat & sheep. Not many have access to a cow for fresh raw milk, but store bought milk still makes excellent cheese. Being pasteurised and homogenised, we recommend the addition of calcium chloride to assist in curd formation.

To pasteurise RAW milk, heat to 63°C and maintain for 30 minutes. Cool quickly by placing the pot into a sink full of cold water.

CALCIUM CHLORIDE – This is a salt solution used to restore the calcium balance of heat treated homogenised milk. It is highly recommended for goat's milk as it is naturally homogenised directly from the animal. Always dilute the Calcium Chloride in 10 times its volume of cooled boiled water. Recommended dose of 2.5 ml per 10 litres of milk.

STARTER CULTURE

Added to the milk, these bacteria convert the lactose already present in the milk into lactic acid. The acid assists the rennet to coagulate the milk, aids in expelling the whey, inhibits the growth of pathogens and helps preserve the final cheese. Starters also contribute to the body, flavour, and aroma of cheese.

The cultures supplied are as follows:

STARTER CULTURE - Continued

- Mesophilic MA11 – Used for Cheddar, Colby, Monterey Jack, Fetta, Chevre, etc
- Mesophilic MM100 – Used for Brie, Camembert, Havarti, Gouda, Edam, Fetta, Blue, Chevre, etc.
- Thermophilic TA61 – Used for Parmesan, Romano, Provolone, Mozzarella, Emmental/Swiss
- Helvetic LH100 – Used in conjunction with thermophilic cultures to make Italian cheeses.
- Proprietary Bacteria – Used for the eye formation, aroma, and flavour production in Swiss type cheese.
- Camembert Blend – Used for Camembert and Brie, this blend contains a combination of Flora Danicum providing the creamy consistency and internal flavour and Penicillium Candidum that provides the white skin and earthy flavour of the outer layer.

Average Composition of Milk

	Cow	Goat
Proteins	3.7%	3.4%
Lactose	4.8%	4.7%
Fat	3.8%	4.1%
Salts	0.7%	0.8%
Water	87%	87%



PREPARING A STARTER (the day before)

Preparing a starter ensures that your cultures are active. The starter will thicken to the consistency of yoghurt ... if this does not happen, get some fresh culture.

- Boil, then cool 200ml of fresh milk
- Add ½ tea spoon of Culture and stir well
- Store at 25-30°C covered until it thickens (approx 12-24 hrs.)
- Will store in the fridge for a couple of days until needed.

LIPASE – An enzyme added to the milk to give a strong flavour and aroma to Italian style cheeses, such as Parmesan and Feta.

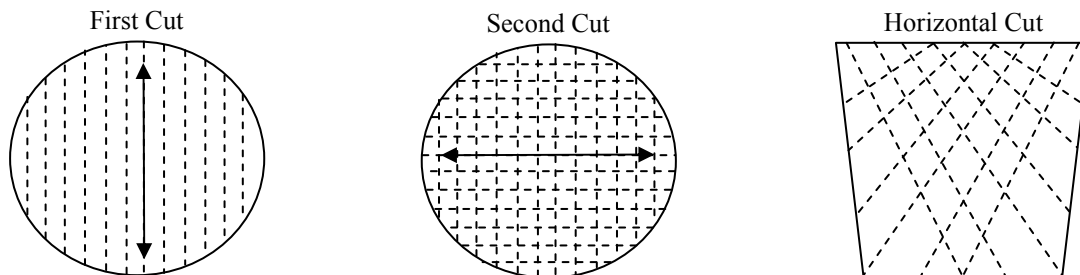
RENNET – Rennet is used to coagulate or set milk. It contains enzymes that react with milk protein (casein), which separates the milk into curds (solids) and whey (liquid). When using rennet, always dilute it in 10 times its volume of cooled boiled water before adding to your milk

TESTING FOR A CLEAN BREAK

- The curds are ready to cut when it shows a clean break.
- Slide your knife into the curd at an angle and lift some on the side of the blade.
- If the curd breaks cleanly around the knife and whey runs into the crack that is made, you have a “clean break.”

CUTTING THE CURD

- Using a long knife, cut vertically across the curd one way, then again perpendicular to the first cuts. (See diagrams)
- Insert your knife at an angle to make horizontal cuts.
- The width between cuts will depend on the style of cheese you are making.



COOKING THE CURD

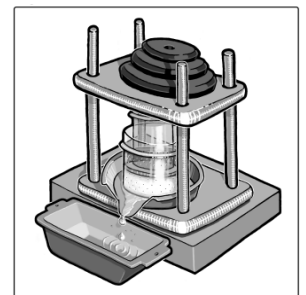
- After the curds are cut, the temperature is increased, causing more whey to be expelled.
- Heating should be gradual and no greater than 2°C every 5 minutes.
- Target temperature will depend on the specific recipe.

SALTING

Salting enhances the flavour of the cheese, assists in drawing whey from the curd and helps preserve the final cheese. We recommend using a coarse salt free of any additives like Iodine.

PRESSING

- Line your cheese basket with cheesecloth.
- Place the basket on a drip tray, which will allow the whey to drain into a sink or other container.
- Ladle the curds into the basket with a slotted spoon, cover with a layer of cheesecloth, and insert the follower.
- Once the follower is in, pull on the cheesecloth to eliminate any bunching.
- Place the top board onto the prepared basket and add the appropriate weights.



****For more in depth cheese making information, we recommend the “Home Cheese Making” book by Ricki Carroll**

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Cheese Press Instructions

Components

- 1 x Plywood base
- 2 x Wooden Press Bars
- 1 x Wooden Follower Block
- 2 x Threaded Post Rods
- 2 x Compression Springs
- 2 x Wing Nuts
- 4 x Hex Nuts
- 6 x Washers

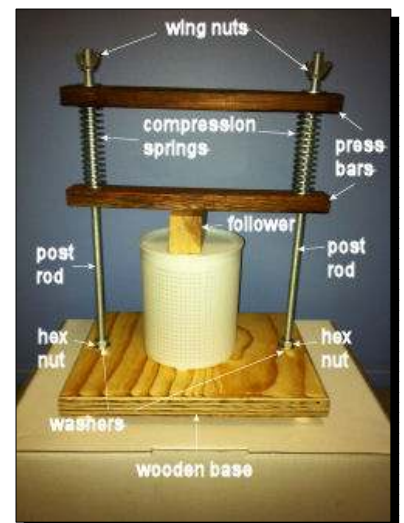
Assembling the Press

1. Check the supplied parts against the component list on the left.
2. Thread a hex nut and washer onto one end of each post, winding the nut approx. 4cm down the length of the rod.
3. Insert the shorter end post rods through the two holes on the base. Do this from the top of the base by screwing them in in a clockwise direction.
4. Wind a washer followed by a hex nut onto the bottom of each post rod from the underside of the base.
5. Tighten all the hex nuts to ensure that the rods firmly fix into the base.
6. Install the first wooden press bar by feeding the post rods through the holes on each end of the bar.
7. Place a compression spring onto each post.
8. Now install the second press bar onto the post rods just as you did with the first one in step 6.
9. Finally put a washer on each post, on top of the second press bar and thread the wing nuts onto the posts.

Using Your Press

All hard cheeses require pressing to extract various amounts of residual whey. To do this you will need a suitable hard cheese mould with drainage holes, a fitted pressing plate and some cheese cloth for lining the mould.

1. Line the mould with cheesecloth ensuring that there are as few creases as possible.
2. Ladle the curds into the mould. *do not overfill the mould.*
3. Place the pressing plate on top of the curds.
4. Unscrew the wing nuts on the post rods to allow raising of the press bars. You will need enough clearance for the combined height of the mould and wooden follower.
5. Place the filled mould on the base plate of the press.
6. Put the wooden follower in the centre of the pressing plate.
7. Lower the press bars and springs onto the follower and wind down the wing nuts on the posts until there is slight pressure on the follower. Make sure that the press bars are level.
8. To apply the required weight, simply turn the wing nuts clockwise. Each turn will apply 1.5kg (3.3 lbs).
9. Place the press on the drainage board of a sink to allow the expressed whey to drain.



Care & Maintenance

Follow these simple rules and your press will give you many years of faithful service. After each use:

- Hand wash all components in warm soapy water.
- Allow to dry naturally and then liberally apply macadamia or olive oil to the wooden parts.

** The manufacture of this press used no old growth or heritage timbers. Instead, we have used a combination of soft and hardwoods harvested through environmentally friendly, sustainable methods.