

## **Minnesota Blue Cheese**

For 100 lb. (12 gallons) raw or pasteurized milk

Milk at 85-86 °F.

Add starter and ripening cultures:

10-15 DCU CHOOZIT MM100, MM101 or BT002 + 2-2.5 DCU CHOOZIT LM057

(LM057 is particularly useful if milk is high in fat and cheese texture is too compact)

0.1 Dose PRB18 blue mold liquid (1/4 teaspoon)

0.1 Dose KL71 yeast (for stronger flavor)

0.15-0.18% TA or pH 6.60-6.80

Ripen milk for 1.5-2 hours to show increase of 0.03-0.05 %TA or decrease to pH 6.50-6.60.

Add 9 ml single strength rennet for cow and goat milk and 7ml for sheep milk.

Check flocculation, which is the first sign of milk gelling into curd (should be 12-15 minutes), and multiply this time by 4 to get the time from adding rennet to cutting the curd, e.g. 15 min. x 4 = 60 min.

Cut the curd into pea-sized to hazelnut-sized particles depending on the desire to make moister or harder cheese.

Whey 0.12-0.15% TA or pH 6.40-6.50. Settle curds for 10 min.

Stir for 30-40 min. and maintain temp. at 85-86 °F. Settle curds under whey until whey has increased by 0.02-0.03 %TA or a decrease to pH 6.20-6.30.

Drain whey completely from curds. The more the curds are the drained the more open the cheese texture will be. A drain rack lined with a heavy cheesecloth can be used for the best separation of curds and whey. Work the curds gently on the cloth until the whey is removed.

Hoop curds immediately after draining to prevent cooling. Use open-ended, perforated hoops set on a drain matting or heavy cheesecloth. Keep the room temp. at 68-70 °F.

Turn the cheeses every 15 min. during the first hour and then every 30 min. for the next three hours. Maintain 68-70 °F overnight.

Next day or within the next 3 days the cheeses are turned 2 times per day until the cheese is pH 4.70-4.80. The draining room humidity and temp. must be maintained at greater than 80 %RH and 68-70 F.

Move to the ripening room at pH 4.70-4.80 for salting. The room should have 50 °F, 95-98 %RH, and moderate ventilation.

Salting is done by hand with medium coarse flake salt as follows:

- Day 1. Rub cheeses with salt equal to 3.5% of the cheese weight. Stack two high.
- Day 2. Turn the wheels over and reverse the stack.
- Day 3. Rub cheeses with salt equal to 2.5% of the cheese weight. Turn the wheels over and reverse the stack.
- Day 4. Turn the wheels over and reverse the stack.
- Day 5. Rub cheeses with salt equal to 1.25% of the cheese weight. Turn the wheels over and reverse the stack.

Day 6-14. Turn the wheels over and reverse the stack.



## Dairy Foods Consulting Westminster Artisan Cheesemaking

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Alternatively the cheeses can be brined in a saturated (20-24% salt) brine for 4-5 hours per lb. After removing from the brine the cheeses should be kept in a room that is 50 °F and 95-98 %RH with moderate ventilation.

Day 14

Needle the cheeses with a 1/16-1/8 inch needle to make holes spaced 1 inch apart.

Ripen for 90 days at 50 °F and 95-98 %RH. Blue mold growth inside the cheeses should be complete after 30 days. Test a wheel and if there isn't enough blueing the cheeses can be needled again. Scrape the cheeses periodically to remove mold and slime. Usually 3 scrapings are needed during this time.

After 90 days of ripening the cheeses are scraped clean and wrapped in aluminum foil or foil/wax 2-ply wrapping papers. Store at 40-45 °F for sale and distribution.