Dairy Foods Consulting Westminster Artisan Cheesemaking

Peter Dixon, MS Artisan Cheesemaker

Cheddar

For 50 lb. (6 gallons) pasteurized or raw milk.

Heat milk to 88° F

Add 2.5 DCU (1/4 teaspoon) of CHOOZIT MA014, MA016, MA011, or MA019 starter culture or 8 oz. of bulk mesophilic lactic starter culture

Ripen with culture for 1 1/2 hours for CHOOZIT culture and 1 hour for bulk culture

Add 4.5 ml single strength rennet or 2.25 ml double strength rennet

Check for flocculation, which is the first sign of milk gelling into curd (should be 12-15 minutes) and multiply this times 3 to get the time from adding rennet to cutting the curd, e.g. 12 min. x = 36 min. Cut into 3/8" cubes (pea-sized particles) Whey pH 6.45-6.50

Settle curds after cutting for 2-3 minutes to heal the curd surfaces

Stir and heat curds to 95 F in 30 minutes (1° F every 4 minutes) Continue stirring and heating to 102° F in 15 minutes (1° F every 2 minutes)

Cook at 102° F for 45-60 minutes until the curds bounce off your hand and feel like pellets and are springy when squeezed. Whey pH 6.1-6.2

Settle curds under the whey for 15 minutes.

Move curds slowly to the back of the vat to form a pack that is 8 inches deep.

Drain off the whey and form a trench in the middle of the pack to let the whey escape from the curds. When you are finished draining, there should be two packs of curds on either side of the back of the vat with an 8-10 inch wide trench down the middle. The pack should be about 4 inches deep.

Whey pH 5.9-6.0 by the time the pack is formed and most of the whey is drained.

Cheddaring:

Wait ten minutes and cut the pack into slabs that are 6 inches wide.

Turn the slabs over after 15 minutes. Turn again after 15 minutes.

Cut the slabs to half their length and pile them 2 high.

Turn the slabs over and pile 3 high after 15 minutes,

Continue to turn and pile the slabs every 15 minutes up to 7 high if you need to keep moisture in the curds or 4-5 high if you need less moisture.

Maintain the temperature at 95-100° F during the cheddaring process. This can be checked by sticking a thermometer into the slabs of curd.

When the whey is pH 5.3-5.4 (.55-.75 %TA), mill the slabs of curd into pieces 1 inch x 2 inches. Time from adding culture to milling is around 6-6 1/2 hours.

Wait ten minutes and add salt. Use coarse flake salt (like Kosher salt) at a rate of 2.75 lb. per every 100 lb. curd. Add all of the salt at once for less than 50 lb. of curd, in 2 equal portions for 50-100 lb. of curd, and in 3 equal portions for over 100 lb. curd. Wait 5-10 minutes between each addition. The idea is to let enough salt dissolve into the curds before hooping the curds and pressing them into blocks or wheels.

Gather the curds into the forms (blocks or hoops) lined with cheese cloth and move to the press.



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Press with enough pressure to create a smooth rind by the next morning. This is 25 p.s.i. to start. This is hydraulic or pneumatic pressure. After 30 minutes take of the pressure and tighten the cheese cloths around the cheese. Increase the pressure to 40 p.s.i. for the rest of the time. Lever presses can also be used with at least 200 lb. pressure.

Remove from the press and take the cheese out of the forms. The cheeses can be vacuum sealed or waxed. If muslin cheese cloth is used, it can be left on the rind and waxed over.

Medium Cheddar is at least 6 months aged Sharp Cheddar is one year Extra Sharp is 18 months

Vermont, Canadian, and English Cheddars have higher acidity (55-100 degrees). Midwest Cheddar has moderate acidity (45-55 degrees).

Note:

The cheese can also be bandaged in 2 layers of cheese cloth dipped in melted lard. After pasting the cheese cloth onto the cheese, the wheel should be returned to the press for another half day or overnight pressing. The bandaged cheeses are drier after aging than the waxed or vac-sealed counterparts. The molds must be scrubbed off of the bandage, especially during the first month and after that only occasionally. A moderately stiff scrub brush works well if dipped in a 5% salt brine.