



Dairy Foods Consulting
Westminster Artisan Cheesemaking Peter Dixon, MS
Artisan Cheesemaker

Lactic Type Goat and Cow Cheeses of France

Aged soft-ripened lactic goat cheeses comprise a very large and diverse group of cheeses that originate in France. They can be served after only ten days of ripening or aged to the extent where they turn into hard grating cheeses. They vary widely in appearance and shape but are all relatively small, weighing from 2 to 12 ounces. There are a few lactic type cow cheeses as well.

St. Maure

log-shape,
5-6 cm diameter x 10-20 cm long
4.5 lb. milk per 8-10 oz. log
external molds: penicillium white and blue, geotrichum candidum
often impaled on a straw to make it easier to handle

Valençay

pyramid shape,
3 inches square on the bottom x 3 inches high
4.5 lb. milk per 9-11 oz. cheese
forms filled 2-3 times with curds to make correct weight
rolled in ashes (cendres) after salting
ashed crust with mixed naturally-occurring mold overgrowth

Chabichou

small truncated cone
2.5 inch bottom diameter x 2 inch top diameter x 2.5 inch high
2.3 lb. milk per 3.5 oz cheese
dry, naturally-occurring growth crust

Crottin de Chavignol

small puck shape
made from pre-drained curds
4-5 cm diameter x 3-4 cm high
1.7 lb. milk per 2-2.5 oz. cheese
dry, naturally-occurring growth crust

All cheeses are made from the same curd and aged under approximately the same conditions.

CURD PREPARATION FOR LACTIC COW and GOAT CHEESES

The curd is characterized by having both rennet and lactic qualities because small amounts of rennet are used and a high level of acidity is developed before the curd can be ladled into the forms to begin the draining of whey. The curd is formed in the vat during a period of 15 to 48 hours depending on the cheesemaker's schedule. Because of their short aging period, these cheeses are made from pasteurized milk. The curd is made in the following manner:

Pasteurized milk at 68-72° F.

Add starter culture: CHOOZIT MA series (011, 014, 016) or MM series (100, 101) cultures are used. The CHOOZIT MA series makes a tangy lactic curd and the MM series provides additional flavor from the *Lactococcus diacetylactis* added to the



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mix.

The cultures are added to 50 lb. (6 gallons) of milk in the following amounts based on the time to wait before ladling curds. The temperature is also adjusted.

15-20 hours: 2.5 DCU (1/4 tsp.) 75° F

20-28 hours: 1.25 DCU 72° F

28-36 hours: 0.625 DCU 70° F

36-48 hours: 0.31 DCU 68° F

Mix the culture in for 5 minutes. Wait 25 more minutes.
Add 2 ml single-strength rennet to 50 lb. milk.

Ripen the milk for 15-48 hours until titratable acidity is at least .47% TA (pH 4.60 or less) and not more than .65%TA and less than pH 4.40. Signs that the curd is ready to ladle are that it has separated from the sides of the vat and there is a half inch layer of whey on top and there are cracks in the curd body.

The curd can be ladled and predrained in cheesecloth for 10-15 hours and then packed into forms (as for making Crottin) or ladled directly into the forms. The extent of draining determines how much whey is removed from the curd. The draining period regulates the body characteristics and determines the final quality of the cheese. This period can be from 15-36 hours at a temperature of 68-72 F. Higher temperatures promote gas formation and excessive moisture loss; lower temperatures inhibit whey drainage. The forms can be turned several times to promote even drainage.

After draining is finished, the cheeses are removed from the forms and dry salted with a fine layer rolled or sifted onto the cheeses with flake salt, such as Kosher Salt. Penicillium mold and other mixtures may be sprayed onto the cheese at this point.

Affinage: Follow the steps for aging Brie and Camembert in that recipe.

There are two books that are very helpful in learning to make these cheeses.
French Cheeses by Masui and Yamada is great for visual images and some make procedures.
[The Fabrication of Farmstead Goat Cheese](#) by La Jaouen is the essential text.

Two others excellent for references and cheese lore.

French Cheese by Patrick Rance

French Cheese by Pierre Androuet

Lactic Cow Milk Cheeses

Chaource is a lactic type cheese made from cow milk. Since the curd takes 15-24 hours to form during the overnight period more rennet is used to prevent the cream from rising. In the goat cheeses this is not a concern because the cream is naturally homogenized in the milk and the curd will form before any significant amount of cream can rise to the top. For making Chaource 15-20 ml of single strength rennet is used per 100 liters milk or 7-9 ml of single strength rennet per 100 lb. milk. Since the cheese is higher in fat (50% minimum fat-in-dry-matter) milk with 5% fat is used to make Chaource. It is made in 8.8 oz. and 1 lb. versions.

Saint-Marcellin is a lactic cow milk cheese that is made in the same way as the goat cheeses. Originally it was a goat cheese and is a thin disc shape weighing approx. 3 oz. Because a smaller amount of rennet (4 ml per 100 lb. milk) is used than in



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Chaource, some of the cream rises to the top during the acidification period. After acidification to pH 4.5 the cream is ladled off the top of the curd and is used as sour cream or churned into cultured butter. Le Pitchou is a young St. Marcellin cheese marinated in grapeseed oil with ample amounts of herbes de Provence.

Neufchâtel is made in six different versions: Bonde, a 3.5 oz. cylinder; Double bonde, a 7.1 oz. cylinder; Carré, a 3.5 oz. square; Briquette, a 3.5 oz. brick; Coeur, a 3.5 oz. heart; and Grande Coeur, a 1.3 lb. heart. The cheese is made in similar fashion to the lactic goat cheeses and St, Marcellin.
