

## 10.3

# Cheese

### READING PREVIEW

#### Key Concepts

- Understanding types of cheese
- Buying, handling, and storing cheese
- Serving cheese
- Cooking with cheese

#### Vocabulary

- blue-vein cheeses
- cheese board
- cheese cart
- flight of cheeses
- fresh cheeses
- grating cheeses
- hard cheeses
- processed cheese
- rind
- semi-soft cheeses
- soft, rind-ripened cheeses

“**A** great cheese course is one of the ways that you can set your restaurant apart from the crowd.”

— John Fischer  
The Culinary Institute of America

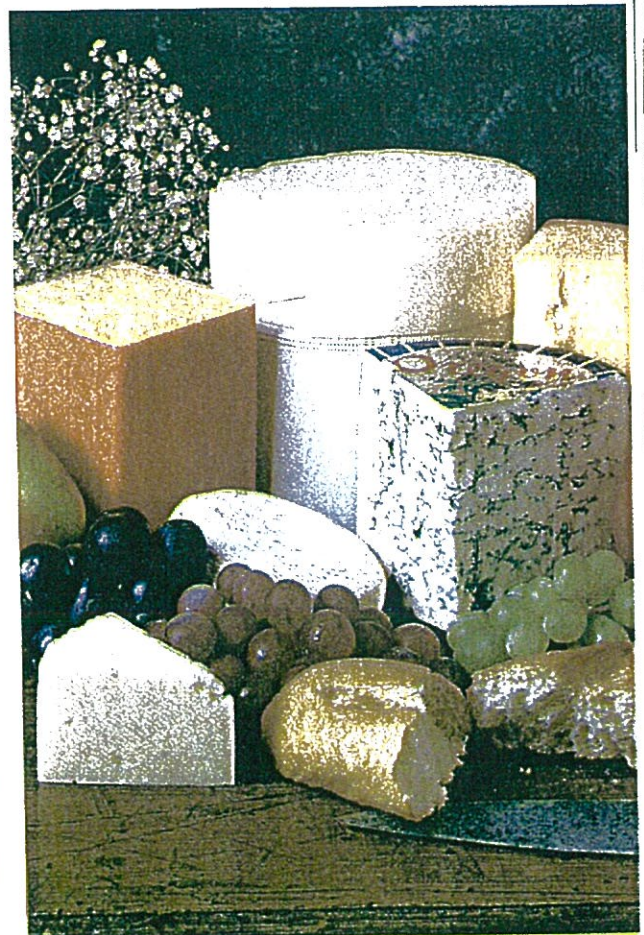
### Types of Cheese

Cheese is an important part of the garde manger tradition. With thousands of types of cheeses, a garde manger has a broad spectrum of cheeses from which to choose.

Although cheese can be made from milk from cows, sheep, goats, or water buffalo, there are seven basic types of cheese, based on texture, taste, appearance, and aging:

- Fresh cheeses
- Soft, rind-ripened cheeses
- Semi-soft cheeses
- Hard cheeses
- Blue-vein cheeses
- Grating cheeses
- Processed cheeses

**Fresh Cheeses** Fresh cheeses are moist, soft cheeses that typically have not ripened or significantly aged. These cheeses are used as spreads, eaten with fruits, or used in cooking and baking.



## FOCUS ON NUTRITION

### Nutritional Value

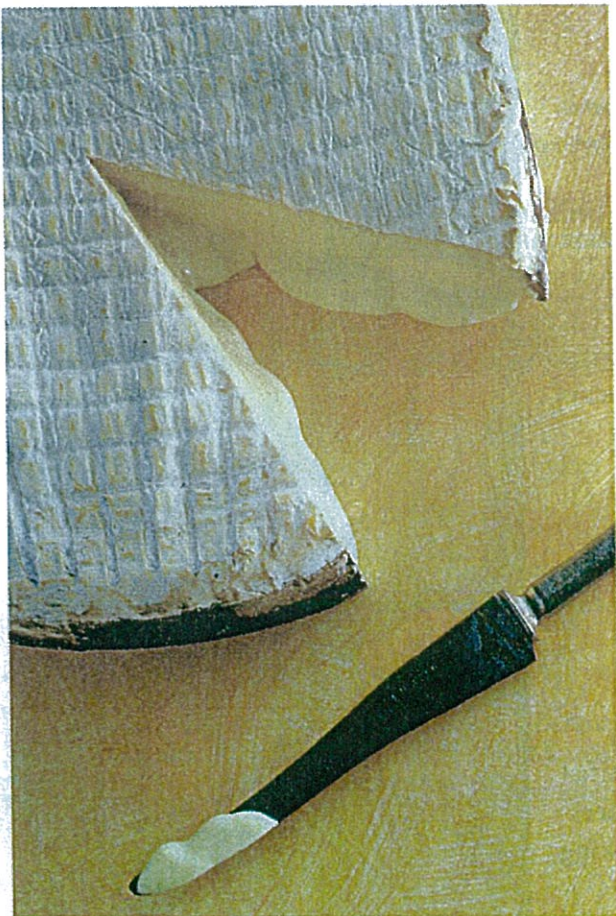
Most cheeses contain an average of 60 percent water. They contain fat but are also high in protein and calcium.

FIGURE 10-14

#### Soft, Rind-Ripened Cheese

When fully ripe, a soft, rind-ripened cheese should be nearly runny.

**Predicting** How would you eat a soft cheese that has become runny?



Examples of fresh, unripened cheeses include cottage cheese, cream cheese, farmer cheese, fresh goat cheese (called *chevre*, SHEHV-ruh), mascarpone (mas-cahr-POHN-ay), fresh mozzarella (moh-tza-RELLah), feta (FEH-tah), and fresh ricotta (rih-COH-tah).

Because they are fresh, soft cheeses are highly perishable. They should be used as soon as possible after they are purchased.

**Soft, Rind-Ripened Cheeses** Soft, rind-ripened cheeses are soft cheeses that have been ripened by being exposed to a spray or dusting of “friendly” mold. These cheeses are aged until the **rind** (RYND), the surface, develops a soft, downy consistency. The rind, which is edible, provides a delightful contrast in texture and flavor to the interior of the cheese. When fully ripe, a soft cheese should be nearly runny.

Examples of soft, rind-ripened cheeses are Brie (BREE), Camembert (cam-en-BEHR), and Pont l’Évêque (PONT leh-VECK). Many soft ripened cheeses are named after the city or region making the cheese. However, because the names Camembert and Brie are not protected by French law, they are widely used for cheeses produced elsewhere. As a result, the flavor and quality varies of “brie” or “camembert” varies widely.

**Semi-Soft Cheeses** Semi-soft cheeses are more solid than soft cheeses and retain their shape. They may be mild or strongly flavored as a result of the particular process used to make them. There are three types of semi-soft cheeses:

- **Rind-Ripened.** These are semi-soft cheeses whose rinds are washed with a liquid such as grape juice, beer, brandy, wine, cider, or olive oil. The washing produces beneficial bacteria that penetrates and flavors the cheese from the rind to the inside. Examples of rind-ripened, semi-soft cheeses are Muenster (MUHN-stuhr) and Port-Salut (port sahl-OOT).
- **Dry-Rind.** These are cheeses in which the rind is permitted to harden naturally through exposure to air. The rind becomes firm, but the interior of the cheese remains tender. Examples of dry-rind semi-soft cheeses are *bel paese* (bel pahAYZ-eh), Monterey Jack (MONT-ter-ay JACK), Morbier (MOR-bee-ay), and Havarti (hah-VAHR-tee).
- **Waxed-Rind.** In these cheeses, wax is applied to form a solid shell around the cheese as it

ripens. The interior of the cheese remains consistently soft. Examples of waxed-rind semi-soft cheeses are the Dutch cheese Edam (EE-duhm) and the Italian cheese Fontina (fon-TEEN-nah).

**Blue-Vein Cheeses** To make blue-vein cheeses, needles are injected into the cheese to form holes in which mold spores multiply. The cheese is salted and ripened in a cave. Roquefort (ROWK-fort) is often called the king of cheeses. It has been made since the Roman times and was the favorite of Charlemagne. Other blue-vein cheeses include Gorgonzola (gore-gon-ZO-la), an Italian cheese, Stilton of England, and Maytag Blue of America. Young blue-vein cheeses are mild in comparison to the aged versions.



**Hard Cheeses** Hard cheeses have a drier texture than semi-soft cheeses and a firmer consistency. They slice and grate easily. The best-known hard cheeses are probably cheddar cheese and Swiss-style cheeses such as Emmentaler (EM-en-tah-ler) and Gruyère (gree-YAIR), which have many uses in cooking. Other popular hard cheeses include Colby, Jarlsberg (YAHRLZ-behrg), Provolone (pro-vah-LONE), and Manchego (man-CHE-go).

## CHEF'S TIP

### RAW MILK CHEESES

*Cheeses made from nonpasteurized milk are called raw milk cheeses and often have distinctive flavors. Typically made by small cheese producers who follow traditional methods, they are rare in the United States.*

**FIGURE 10-15**  
**Blue-Vein Cheese**

The blue veins in a blue cheese are actually types of a beneficial mold.

**Analyzing Information** *Does the idea of eating a moldy cheese cause you concern?*

## CHEF'S TIP

### AGING CHEESE

The longer cheese is aged, the stronger its flavor will be.

**Grating Cheeses** Grating cheeses are solid, dry cheeses that have a grainy consistency, making them ideal for grating. They are often grated or shaved onto food rather than cut into slices because of their crumbly texture. However, chunks are also broken off the larger cheese to create bite-size chunks for cheese platters. Grating cheeses are often produced in 75- to 80-pound wheels. Some examples of grating cheeses are Parmigiano-Reggiano (parm-muh-ZHAH-noh reh-zhee-AH-noh), Pecorino-Romano (peh-kuh-REE-noh ro-MON-oh), and the greenish Sapsago (sap-SAY-go) from Switzerland.

## Cheeses

### Fresh Cheeses



▲ Fresh Chevre  
(Goat Cheese)



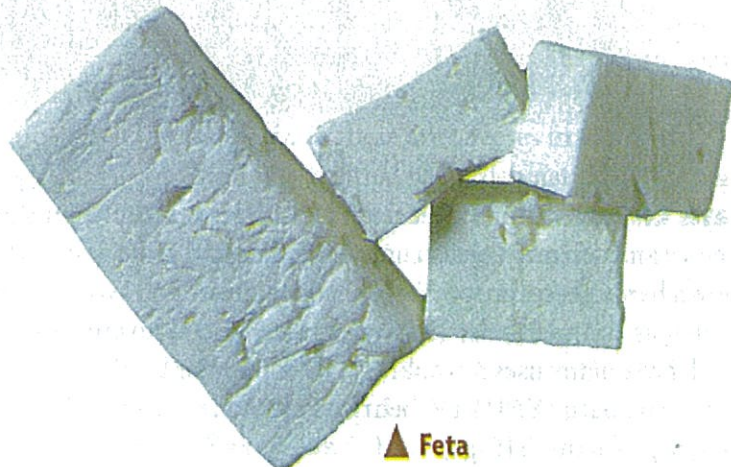
▲ Mozzarella



▲ Mascarpone



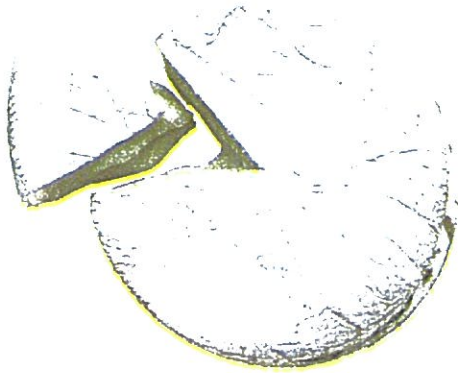
▲ Ricotta



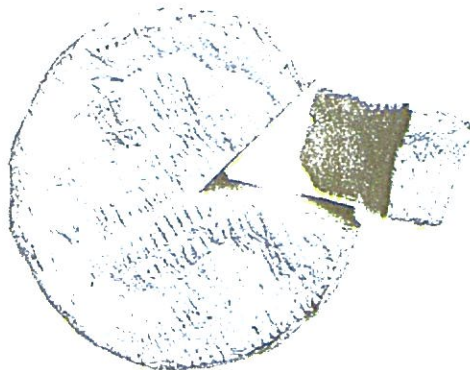
▲ Feta

# Cheeses

## Soft, Rind- Ripened Cheeses



▲ Brie

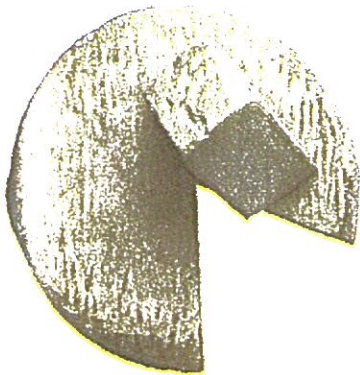


▲ Camembert



▲ Pont l'Évêque

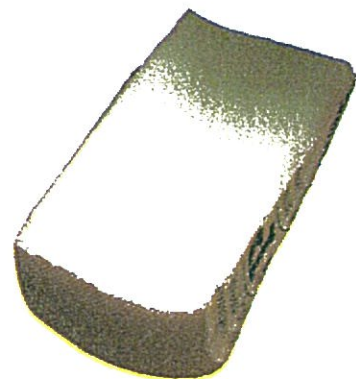
## Semi-Soft Cheeses



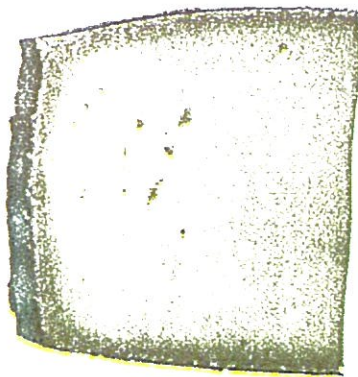
▲ Muenster



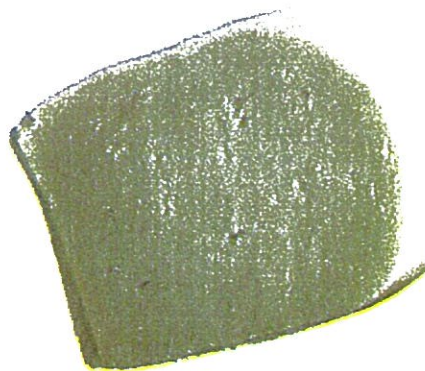
▲ Edam



▲ Port Salut



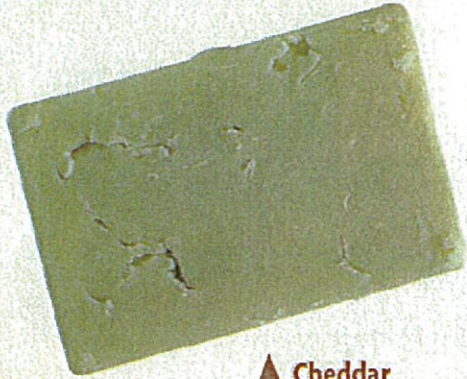
▲ Fontina



▲ Monterey Jack

# Cheeses

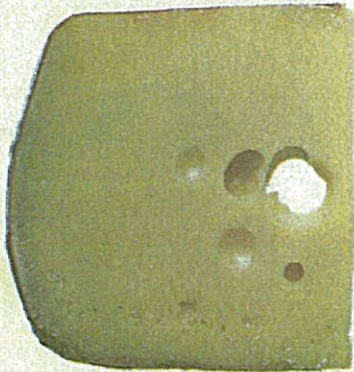
## Hard Cheeses



▲ Cheddar



▲ Gruyere



▲ Jarlsberg



▲ Manchego



▲ Provolone

## Blue Cheeses



▲ Roquefort



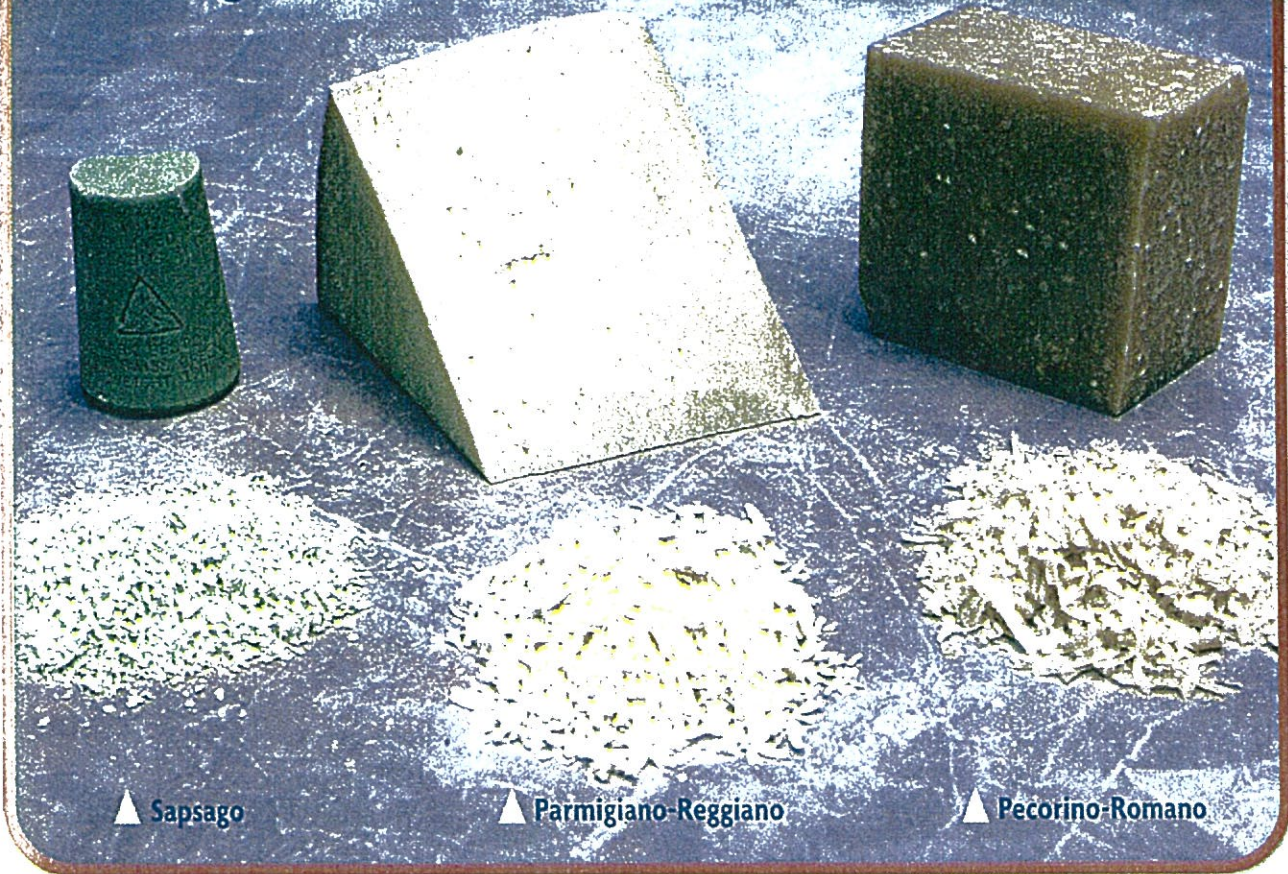
▲ Stilton



▲ Gorgonzola

## Grating Cheeses

## Cheeses



▲ Sapsago

▲ Parmigiano-Reggiano

▲ Pecorino-Romano

**Processed Cheeses** Processed cheese is made from one or more cheeses that have been finely ground, mixed together with other non-dairy ingredients, heated, and poured into a mold. Processed cheese food is like processed cheese except that it also includes other dairy products. At least 51% of the material in processed cheese food must be cheese. Additional moisture can be added to processed cheese food to make it spreadable.



What are the seven basic types of cheese?

## Buying, Handling, and Storing Cheeses

**Buying Cheeses** A good way to learn about cheeses is from the experts: knowledgeable vendors and the cheese producers themselves. Buy only as much as you need. Once they are cut, cheeses begin to lose quality and should be eaten quickly. This ensures freshness when the cheese is used.

### CHEF'S TIP

#### GRATING CHEESES

Use salty Pecorino with rustic-style dishes; use complex Parmigiano for more refined dishes and sauces.



**FIGURE 10-16**  
**Buying Cheeses**

The best way to learn about cheese is to ask your supplier.

**Inferring** *Why would your supplier be interested in educating you about their products?*

## FOCUS ON SANITATION

### Cheese Work Habits

Knives and other utensils that come into contact with cheese should be washed with hot soapy water between uses throughout the day.

When buying cheeses you should:

- **Examine the Label.** Labels provide information about the type of cheese and its origin, authenticity, ingredients, and date of production.
- **Examine the Rind.** The color of the rind should be natural. Often, the more artificial the color and the more perfect the appearance, the less authentic the cheese may be.
- **Examine the Interior.** The interior should not show any holes or coloring that is not meant to be there. For grating cheeses, be certain they are a healthy straw color and not dried out or powdery.
- **Taste.** You should taste the cheese before buying it, if possible. Make sure it is what you expected.

**Handling Cheeses** Cut off only as much cheese as you need at a time if you have a large chunk. Store the remainder properly in the refrigerator.

The mold on cheese, unlike mold on most foods, does not contaminate the entire cheese. You can remove any unwanted mold that forms on cheese by trimming it away from the contaminated area. To prevent mold spores from spreading to other parts of the cheese during handling, take care not to bring the moldy area into contact with the rest of the cheese.

Grate cheese only when you need it. Pre-grating cheese causes it to dry out and to lose a great deal of its distinct flavor. You can use box graters or a food processor fitted with a metal blade to grate cheeses.

You can cut fresh and soft cheeses with a cleaned and sanitized wire. Semi-soft, blue, and hard cheeses can be cut with a chef's knife. Traditionally, grating cheeses are not sliced with a knife. Once you cut into a grating cheese, you can use a special cheese chipper with a wooden handle and triangular blade to chip or flake the cheese.

Cheeses must be handled hygienically to prevent potential hazards. Follow these sanitation guidelines when handling cheese:

- Use clean food-service gloves or clean utensils to avoid transferring bacteria from your hands.
- Clean and sanitize work surfaces and other food-contact areas at the end of the day.
- Clean and sanitize equipment used to slice, cut, or otherwise work with cheeses at the end of the day.

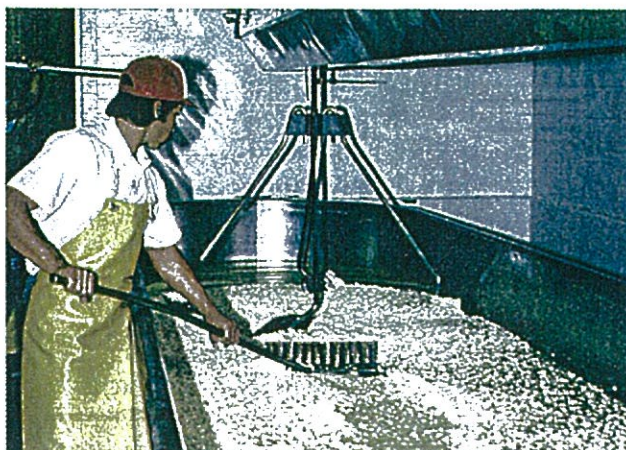


## CULINARY SCIENCE

### Steps in Making Cheese

Cheese making relies on science. Making pasteurized cheese involves the following basic steps:

- **Heating Milk.** Milk is heated to destroy all bacteria (both pathogens and “friendly” bacteria).
- **Adding Starter (Acidification).** A starter is added to the milk, causing it to sour. The starter contains either an acid (such as lemon juice or vinegar) or rennet, an acid-producing substance produced from animal or vegetable sources.
- **Forming Curds.** As the milk sours, the solid matter in the milk forms into solid clumps, or curds. This is called coagulation (co-AG-yew-la-shun).
- **Separating the Curds and Whey.** When the milk has coagulated, it has separated into curds and whey, the remaining liquid from the milk. The whey is drained off, leaving only the curds.
- **Draining and Shaping Curds.** Curds may be placed in bags, baskets, or molds before being placed on racks or hung to drain and dry. Soft cheese is drained and shaped at the same time. Hard cheeses, such as cheddar, are



▲ Separating curds and whey.

shaped, drained, and then dried and shaped by pressing.

- **Aging.** Fresh cheeses are not aged. For other cheeses, aging can run from a few days up to several years. Cheeses undergo changes in flavor, texture, and color during ripening. Cheeses may be aged in wax rind, ashes, or leaves. They may be rubbed, washed, or soaked. They may be injected with friendly molds.

### Research

Research how a particular type of raw milk cheese is made. Focus on the sanitation issues involved in using nonpasteurized milk.

**Storing Cheeses** Proper storage ensures freshness for the life of the cheese. Whole cheeses continue to age as long as they are uncut and stored properly. Cut cheeses begin to deteriorate as soon as the inside is exposed to air. Fresh cheeses spoil rapidly, while hard cheeses keep longer because of their low moisture content.

Plastic wrap does not allow cheese to breathe. It is best to wrap cheese in waxed paper or butcher paper and store it in a cool place. Be sure there are no tears or openings in the wrap. Alternatively, the cheese can be placed in a container with a tight-fitting lid. Don't reuse storage wrappings; they have been handled and exposed to the air and counter surfaces. Discard and use fresh wrap.



Reading  
Checkpoint

What is the best way to store cheeses?



### CHEF'S TIP

#### REFRIGERATING CHEESES

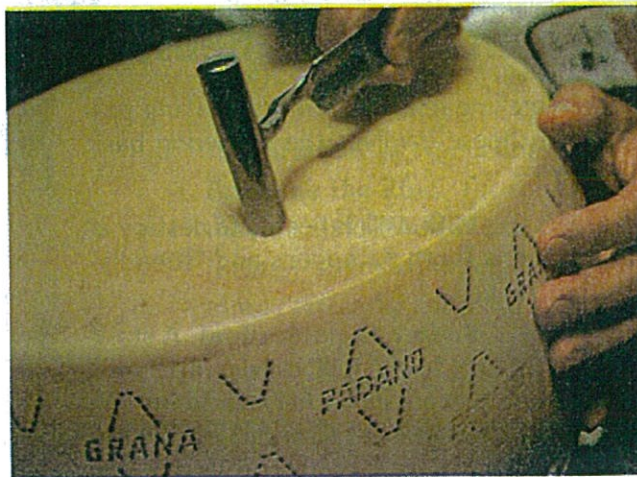
Soft cheeses last about two weeks in the refrigerator. Semi-soft cheeses last several weeks. Hard cheeses last about a month. Granular cheeses can last for several months.

### Grana Padano

Local cheese makers in northeastern Italy will tell you that their ancestors were making Grana Padano (GRA-nah pa-DAH-n-oh), a grating cheese similar to Parmigiano-Reggiano, since before Roman times. These early versions of Grana Padano, called “Grana” for short, were probably made from a mixture of goat’s, sheep’s, and cow’s milk. Cow’s milk, which has a high butterfat content and makes a richer cheese, eventually became used almost exclusively to make Grana.

The Romans had a gift for recognizing a good thing when they saw it. They did nothing to stop the tradition of making Grana. But after the Roman civilization fell to successive waves of barbarians, the cheese makers went to the mountains while the barbarians laid waste to the countryside. Eventually, the green valleys grew wild and marshy, and malaria and famine was rampant.

The monks of the Po Valley, specifically Bernardo di Chiaravalle, are given credit for reviving Grana Padano in 1135 A.D. Under Bernardo’s direction, the monks redirected water flow, using oxen to both recultivate the land and provide milk for cheese. They perfected and standardized their cheese-making method. Surplus milk was transformed into Grana Padano, a delicious and nutritious food that could be stored for relatively long periods of time without spoiling. The monks called it “caseus vetus,” old cheese.



▲ *Sampling a wheel of Grana Padano cheese*

Today, Grana Padano is made in the same areas of Italy, using the same recipe the monks used. Some of the dairy barns have given way to factories where Grana Padano is produced in huge rooms by workers wearing white lab coats and where technicians examine the finished cheeses for unwanted holes by using x-ray machines. But still, Grana Padano looks, and probably tastes, the same as it did way back when the monks were making it in the twelfth century.

### Research

Research the history of a particular type of traditional cheese, such as cheddar, Gruyère, or Parmigiano-Reggiano. Describe where it originated, what milk is used, how it is made, how production has changed over time, and how it tastes.

### Serving Cheese

Fresh cheeses such as mozzarella should be eaten as soon after they are made as possible because they lose their flavor and creaminess as their moisture evaporates. It is best to purchase them on the same day they are to be used.

Cheeses typically should be served at room temperature. If cheeses have been stored in the refrigerator, they should be left for an hour at room temperature before serving. Set out only as much as you will use. If left out longer than several hours, hard cheeses become oily. Soft cheeses may dry out. Once cheeses are brought to the proper temperature for eating, they should be served immediately and not left out to

sit. Individual cheeses are typically served as a separate course in either of two locations within a formal meal:

- **Appetizer Course.** Offering fine cheeses for the appetizer course, or as part of a composed appetizer salad before the meal, provides an opportunity to make a good first impression on a guest.
- **Following a Meal.** In the European tradition, cheeses often follow a meal and are served alongside fruit before a dessert course.

There are three basic ways to serve cheese as a separate course:

- **Individual Cheese.** The advantage of serving a single cheese is that the guest can focus on the appearance, flavor, and texture of a single cheese without being distracted by other offerings on the plate.
- **Multiple Cheeses.** Often, a number of different cheeses are offered at the same time (this is sometimes referred to as a **flight of cheeses**). Sometimes a flight of cheeses includes cheeses of the same variety, thus offering guests the opportunity to sample a range of cheeses from the same base ingredient (for example, goat cheeses). However, an assortment of different types of cheeses is more typical for a flight of cheeses.
- **Cheese Cart.** Some restaurants offer an assortment of cheeses on a **cheese cart**, a cart that is wheeled to the guests' table to give them an opportunity to choose cheeses of different kinds. They can then see them as they make their choice. Typically, a guest orders cheeses and the server arranges them on a plate from the tableside. Bread, crackers, and fruit often accompany the cheeses.

Cheeses are often served on flat marble, china, or wooden platters, sometimes covered with nontoxic leaves (such as grape leaves). No matter which material is used in its construction, the flat platter is typically called a **cheese board**. When serving several cheeses at once, you can place each on separate cheese boards or you can serve them on a single cheese board, leaving plenty of room around each cheese to prevent soft cheeses from running into other cheeses. Provide a separate knife for each different kind of cheese.

**FIGURE 10-17**  
**Cheese Board**

This cheese board features eight types of cheese, with red and green grapes.

**Comparing/Contrasting** What are the advantages and disadvantages of serving so many cheeses at one time?



## CHEF'S TIP

### STRINGY CHEESE

Test Parmigiano-Reggiano before using it in cooking. If it becomes stringy when heated, it is too young for cooking.

Bread or crackers and fruit are often served with cheeses. Other foods that pair well with cheeses include cured meats (such as salami or prosciutto), roasted peppers, and cut-up raw vegetables.



At what temperature should cheeses typically be served?

## Cooking with Cheeses

Although cheese is often used in cooking, heat alters its unique flavor. High heat causes cheeses to become tough and rubbery. As a general rule, use low heat when cooking cheeses. Here are three ways cheeses can be used in cooking:

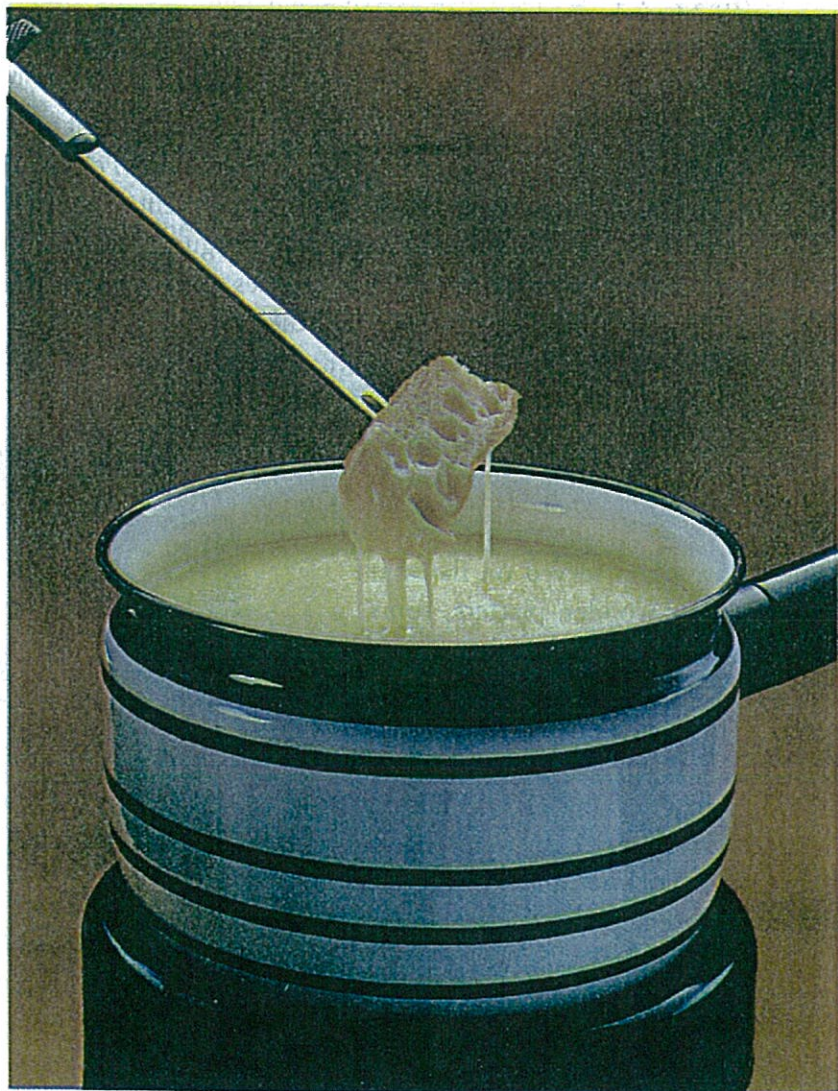
- **In a Dish.** Semi-soft cheeses are ideal for integrating in a dish because they don't leach excess water the way fresh cheeses can. They should be shredded rather than sliced for easier and

FIGURE 10-18

### Fondue

Vegetables and bread are dipped in cheese fondue.

**Predicating** Why would the texture of melted cheese be an important consideration for this dish?



more even melting. Some cheeses that are particularly suitable for melting include cheddar, Gruyère, and Fontina. Fondue (fon-DUE) is one of the best-known cheese dishes. Made with Emmenthaler or Gruyère cheese, it has a thick, creamy texture and is typically used for dipping cooked or raw vegetables and bread.

- **In a Sauce.** Cheeses can add both body and flavor to sauces. In sauces that call for using aged, complex cheeses such as Parmigiano-Reggiano, use as little heat as possible. Cheese should be stirred into sauces at the last minute.
- **As a Topping or Garnish.** Cheese makes an excellent topping or garnish that complements or offsets the flavors and textures of other ingredients. You can use soft or hard cheeses, or a combination, for topping baked dishes. The properties of soft cheeses such as mozzarella make them excellent for melting. Grating cheeses, such as Parmigiano-Reggiano, provide a flavor boost. They can also be shaved for topping or garnish on salads and meat or vegetable appetizers.



**Reading  
Checkpoint**

*What are three ways cheese is used in cooking?*



## CHEF'S TIP

### SAVE RINDS

Save rinds from Parmigiano-Reggiano and Pecorino-Romano. Add small portions to soups and cooked tomato sauces for added flavor and texture.

## 10.3 ASSESSMENT

### Reviewing Concepts

1. What are the seven basic types of cheese?
2. What is the best way to store cheese?
3. At what temperature should cheese typically be served?
4. What are the three ways cheese is used in cooking?

### Critical Thinking

5. **Classifying** Of the seven types of cheeses, which type are you most familiar with?
6. **Comparing/Contrasting** What is the difference between a fresh cheese and a soft, rind-ripened cheese?
7. **Applying Concepts** Describe three ways of serving cheese during the course of a meal.

### TEST KITCHEN

Assemble a collection of as many cheeses as you can, making sure you have a representative of each of the seven types of cheeses. Sample each type of cheese (accompanied by bread, if you wish). Write down your notes about the taste of the various cheeses. Did you have a favorite? Compare your results with classmates.

### SOCIAL STUDIES

#### History of Cheese

Research the history of cheese. What role has it played in history? Who is credited with inventing cheese?