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KNOW AMERICAN TYPE CHEESES

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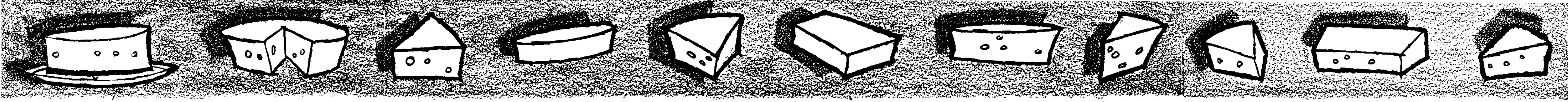

Cheese has been used as a food for more than 4,000 years. The pilgrims included cheese in the ship's supplies of the Mayflower in 1620. In 1851, the first cheese factory in the United States was built in Rome, New York. The factory system of making cheese had its beginning in Minnesota in 1869 when two cheesemakers from New York state started cheese plants in Cannon Falls and Owatonna. From this small beginning cheese production in Minnesota has increased so that Minnesota ranked fourth in the nation in 1957 in the manufacture of American-type cheese.

U. S. PRODUCTION AND CONSUMPTION

There were 1,411,000,000 pounds of cheese manufactured in the United States in 1957 of which over 1 billion pounds was American-type cheese. Cheese production required about 11 percent of the total milk produced.

The consumption of all cheese (except Cottage and Bakers) was 4 pounds per capita in 1920 and 8.1 pounds in 1957. The consumption of American-type cheese doubled in the same period from 2.8 pounds per capita to 5.6 pounds. A large supermarket may sell about 2,000 pounds of cheese in a week.

CLASSIFICATION BY TYPES[1]

Classification by type is based upon differences in methods of manufacture.

American and American-type cheese are descriptive terms used to identify the four groups which include: (1) American or Cheddar or American-Cheddar, (2) Granular or Stirred-curd, (3) Colby, and (4) Washed or Soaked-curd. Some cheese classifiers also include Monterey or Jack cheese in this group.

(1) **American or American-Cheddar cheese** must not contain more than 39 percent moisture and at least half of the solids must be milkfat. This cheese is made by coagulating or curdling milk; cutting, stirring, and heating the curds; draining off the whey; cheddaring and milling; collecting and pressing the curds; followed by aging for flavor development. Its flavor may range from mild to very sharp, depending upon the age and degree of curing.

[1] USDA Handbook No. 54.

The other types (2,3,4) are manufactured with only slight modifications from this process.

(2) **Granular or Stirred-curd cheese,** sometimes called Christmas Cheese, is more open textured or has more holes than American as the cheddaring and milling step is omitted. Its flavor range and chemical composition are essentially the same as American.

(3) **Colby** is sometimes prepared in a longhorn style. Its manufacture differs in that the cheddaring and milling step is omitted and cool water is used to cool the curd. Its composition is a little different from American as the moisture may go up to 40 percent. It is more open textured than American, more moist, and usually of a milder flavor. Because of its high moisture, it does not keep as well as American, so this high flavor cannot be developed.

(4) **Washed or Soaked Curd** commonly found as "Kay" brand is a very moist American-type. Its manufacture differs from American in that the milled curds are washed or soaked in water for as long as one-half hour. Thus, its moisture content may be as high as 42 percent, as noted in table 1, while the fat may be reduced to 29 percent. Because of its high moisture, its storage qualities are limited. It possesses a very mild flavor, is soft, and open textured.

Note in table 1 the differences in the moisture and fat content of the natural cheeses. Even though these differences may be small, they are sufficient to influence flavor development and storage quality.

Table 1. Composition and Flavor of Natural American-type Cheeses

	Percent moisture (legal maximum)	Percent fat (half of the solids)	Flavor
1. American or cheddar	39	30.5	Mild to sharp
2. Granular or stirred-curd	39	30.5	Mild to sharp
3. Colby	40	30.0	Mild
4. Washed or soaked-curd	42	29.0	Very mild

CLASSIFICATION BY DEGREES OF CURING[2]

The mild to sharp flavors in American-type cheese depends on the age and degree of curing. Colby and washed or soaked curd types do not develop high or sharp flavors because of limited aging qualities. The information on degree of flavor is normally included on the consumer package label.

Fresh or Current—Sometimes termed fresh, young, or green, the age of this cheese is usually less than 3 months and may be even less than one month. It has little or no flavor development and the body is distinctly curdy. This cheese is usually labeled as "mild" and is easy to slice or to cut into squares. It is often used for sandwiches.

Medium Cured—The body of this cheese is essentially free of curdiness and the characteristic nutty flavor of cheddar cheese is only slightly apparent. Its age is usually 3 to 6 months and is usually labeled "medium sharp." Many prefer this over the very mild for sandwiches.

Cured or Aged—A fully aged cheese possesses a distinct nutty flavor, its character depending upon the nature of the cheese. The actual age, usually more than 6 months, depends upon rate and method of curing and the flavor desired. It is usually labeled "sharp" or "very sharp." Since the body may be slightly crumbly from normal loss of moisture the cheese grates easily. Its flavor makes it especially good for cooking. Because of its sharp distinctive flavor, many prefer it as a dessert.

GRADES

U. S. grades, established by the U. S. Department of Agriculture for American-type cheese are used only on the wholesale level. Grades are based on flavor, body, texture, color, finish, and appearance and vary according to the age of the cheese. The grade of cheese is not included on the consumer package label.

COLOR

The natural color of American-type cheese varies from a creamy ivory to a light amber. In most cases a harmless vegetable color is added to make it a golden yellow.

[2] USDA Standards for Grades of Cheddar Cheese.

CLASSIFICATION BY STYLE OR SHAPE

Any of the American-type cheeses may be packed at the factory in a variety of styles or shapes and weights. These are termed Cheddar, Twin, Daisy, Young American, Longhorn, Junior Twin, Blocks, and Mammoths. These wholesale packages are rarely seen by the consumer. The cheese is cut and wrapped at the factory or by the retailer in small consumer size packages. Occasionally a term denoting the style or shape may be on the consumer label, however, these terms tell nothing about the flavor of the cheese.

Other Names

Other names that one may encounter on the market for American-type cheeses are New York, Wisconsin, Cream, Canadian, and even the terms Coon Cured and Rat Cheese. The use of so many terms in the market place may simply confuse the customer.

A variety of terms and descriptions have been discussed but it should be noted that the American-type cheeses do not include such cheeses as Swiss, Brick, Blue, Gouda, Skim, Cottage, etc.

CONSUMER PACKAGING

Convenience is all important in today's market. American-type cheeses are usually packaged in an airtight wrap and are cubed, shredded, sliced, cut into squares or wedges, shaped into pineapples, in sticks or rolls to fit the shape of crackers. It is also dried and packaged in shakers. The special shapes are more expensive. Price advances with degree of curing. The weight is indicated on the package. It will be noted by the shopper that the label of natural cheese does not include the word processed.

PROCESS AMERICAN CHEESE

Any of the American-type cheeses, Cheddar, Colby, Granular, or Washed Curd Cheese, may be used in the manufacture of American Process cheese or cheese products.

Process cheese is prepared by blending several lots of cheese of various flavor intensities through grinding, mixing, stirring, and heating. Emulsifying agents, which are harmless salts such as sodium citrate, are generally used to produce desirable melting, cooking, and slicing properties in the finished product. Natural cheeses may be blended and processed so as to give a very uniform mild, medium aged, or sharp aged flavor in the finished product. Much of the original character of the natural cheese is changed in processing. Vegetables, meats, or fruits may be added by the processor to provide additional variety in flavor.

Processing makes it possible to market cheese in small, convenient packages without danger of mold growth or significant flavor changes while in market channels or in the home refrigerator. Process cheese is widely distributed in convenient, well wrapped consumer packages. The packages run from seven ounces to as much as five pounds. Buying the large package is the most economical. Process cheese made from sharp flavored or aged natural cheese is more expensive than that made from milder cheeses. The label on the package must carry the term "Process Cheese" and must have the ingredients listed on it.

PROCESS CHEESE FOODS

Cheese foods are prepared the same as process cheese except that the natural cheese ingredients may constitute not less than 51 percent of the finished food product. Cream, milk, or whey either as liquids or solids are usually added.

Pasteurized Process Cheese Foods contain less milk solids and more moisture than regular process cheese. They are usually lower in fat and may contain an emulsifier to give the desired firmness.

There seems to be a shift in the use of cheese foods to cheese spreads because many markets no longer carry cheese foods.

The label on the package must carry the term "Process Cheese Food" and must have the ingredients listed on it.

PROCESS CHEESE SPREADS

The moisture content in cheese spreads may be as high as 60 percent to provide for spreadability at 70°F. The term "spreadable" covers a wide range because some of the spreads slice well at this temperature.

The firmer spreads primarily orginate from American cheese and the softer, more spreadable usually have Cream or Neufchatel cheese as a base. The spreads may be packed in various sizes in cardboard boxes, cellophane packages, foil, glass jars, and small crocks with a variety of added ingredients for flavor.

The popular "dips" come in ready to serve foil and plastic cups weighing 4, 5½, and 6 ounces. Ingredients added include clams, bacon, horseradish, chives, and

Table 2. Composition—Processed Cheese, Cheese Food, and Cheese Spread

	Percent moisture (legal maximum)	Percent fat (half of the solids)	If vegetables, etc. are added: Percent moisture (legal maximum)	If vegetables, etc. are added: Percent fat (legal minimum)
Processed American cheese	40	30.0	41	29
Cheese food	44	23	44	22
Cheese spread	60	20	60	20

onions. This information as well as the term "Process Cheese Spread" must be indicated on the label. Extenders such as cream or Cream cheese may be added to cheese spreads in the home.

Cold Pack Cheese (Club Cheese) is similar in composition to process cheese except it is usually mixed cold. It is flavored with garlic, bacon, hickory smoke, onion, and chives. This cheese is usually packaged in links weighing 6 ounces or in small crocks.

Cold Pack Cheese Food is similar in composition to processed cheese food except it is usually mixed cold.

NUTRITIVE VALUE

A comparison is given in figure 1 between the nutrients supplied in 2 oz. of natural American cheese, which is equivalent to two 1-inch cubes, and 16 oz., or 2 cups of milk. The 2 cups of milk represent two servings or the minimum daily quantity specified for adults. Two oz. of cheese also represent two average portions. It will be noted in the chart that American cheese compares very favorably with milk except for thiamine and niacin.

Milk is accepted as a good food buy as two cups (16 oz.) can be purchased for about 9¢ (18¢ per quart). Two oz. of cheese can be purchased for about 7½¢ (60¢ lb.) thus cheese, because of its excellent nutritive value and low cost, is also a good food buy.

CHEESE STORAGE

To prevent cheese from molding, store it in airtight wraps such as aluminum foil, plastic wrap, or a double thickness of waxed paper, and refrigerate it.

The mold which may develop on cheese is harmless. It can easily be cut or scraped off before serving.

If American-type cheese is purchased in large quantities it may be frozen (a) if the freezer is 0°F. or

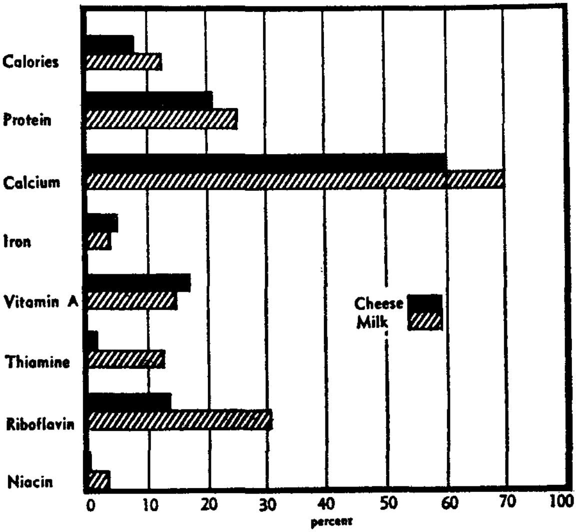

Fig. 1. American cheese and whole milk nutrients—percent of recommended daily allowance for adults contributed by 2 ounces of cheese and 2 cups of milk. Source: USDA Bulletin ARS 62-4.

lower and (b) if the pieces of cheese that are larger than one pound are cut into smaller pieces and wrapped tightly in foil.

HINTS ON COOKING AMERICAN CHEESE

Cheese should be grated or cut into small pieces to melt quickly. The cooking temperatures for natural cheese should not exceed a simmer. Processed cheese, cheese foods, and cheese spreads generally have superior melting and cooking qualities, and cooking temperatures are not as critical. However, the processed products lack the flavor of natural cheese. Crumbs should be sprinkled over cheese dishes for baking to prevent surface drying of the cheese.

SERVING TEMPERATURE

Although cheese should be stored under refrigeration, the "clever hostess" serves American cheese at room temperature. This brings out the full flavor and aroma that is desired by all who like cheese.

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