

PERTEMUAN KE - 3

JENIS KEJU DAN PENYAJIAN

CHEESE



Keju

Produk susu hasil penggumpalan kasein (protein susu) oleh enzim rennin (atau pengganti rennin) atau oleh asam

*** Kultur bakteri asam laktat berbagai jenis keju**



PROD



What kind of cheese are you making?

Select the milk first!

The origin of the milk is the first step in determining the flavor and consistency of the cheese. Although most cheese is made from cow's milk, sheep and goat's milk are also used.



The 2 parts of milk...



We already learned that milk has two main parts...the water and the solids. There are other names for these two parts:



As milk separates into the two parts, we call it "curdling" or "clabbering".

WHEY is the correct name for the liquid.

CURDS is the correct name for the solids.

Curdling happens naturally as the milk sours, but it is done intentionally as the first step in making cheese.

The art of making natural cheeses...



1. The enzyme rennin is obtained from the stomach of young calves. Added to raw, whole milk in liquid or tablet form, it causes the milk protein casein to clabber.



2. The clabbered milk is cut with a knife into cubes.



The art of making natural cheeses...



3. The liquid whey is drained off from the curds, which are then crumbled into pieces. If you make cheese at home, you might use 'cheesecloth' to drain the curds.



4. The soft, moist curds are ready for finishing steps. Some are left as large curds; some are crumbled into small curds.

What was that stuff Miss Muffet was eating?

Curds & whey?



5. In all actuality, it was probably cottage cheese! After the curd is drained and crumbled, the whey is replaced by cream or milk.



Finishing steps in cheese making...

5. While some of the soft curds are reconstituted with cream and made into cottage cheese, most curd is salted (as a preservative) and pressed under weights. This pressure forms the cheese into a variety of shapes.



The chunks of cheese are now wrapped in cloth OR sealed in clear or colored wax to keep out air and prevent the cheese from drying out.



The familiar gouda cheese... always coated in a bright, red wax.



Finishing steps in cheese making...



6. Before being sold and eaten, the cheese must age, from 60 days to several years. During this curing process, the tough, rubbery texture of 'green' cheese develops into the tender, waxy body of the fully-ripened cheese. As it ages, the cheese develops an edible 'rind'.

Cheese aged for a short period of time has a 'mild' flavor. Longer aging periods produce an increasingly strong or 'sharp' flavor. Sharp cheeses are drier and more crumbly than mild cheeses.

Hard cheese...

These cheeses are firm.



They keep their shape when cut.

Examples are: American, Cheddar, and Parmesan.

Soft cheese...



Unlike the hard cheeses, soft cheeses are “spreadable”. You usually can’t and don’t pick them up with your fingers.



Some are spread with a knife, such as Brie (bree) or in the popular combination... cream cheese on bagels.

Some can be eaten with a spoon, such as cottage cheese.

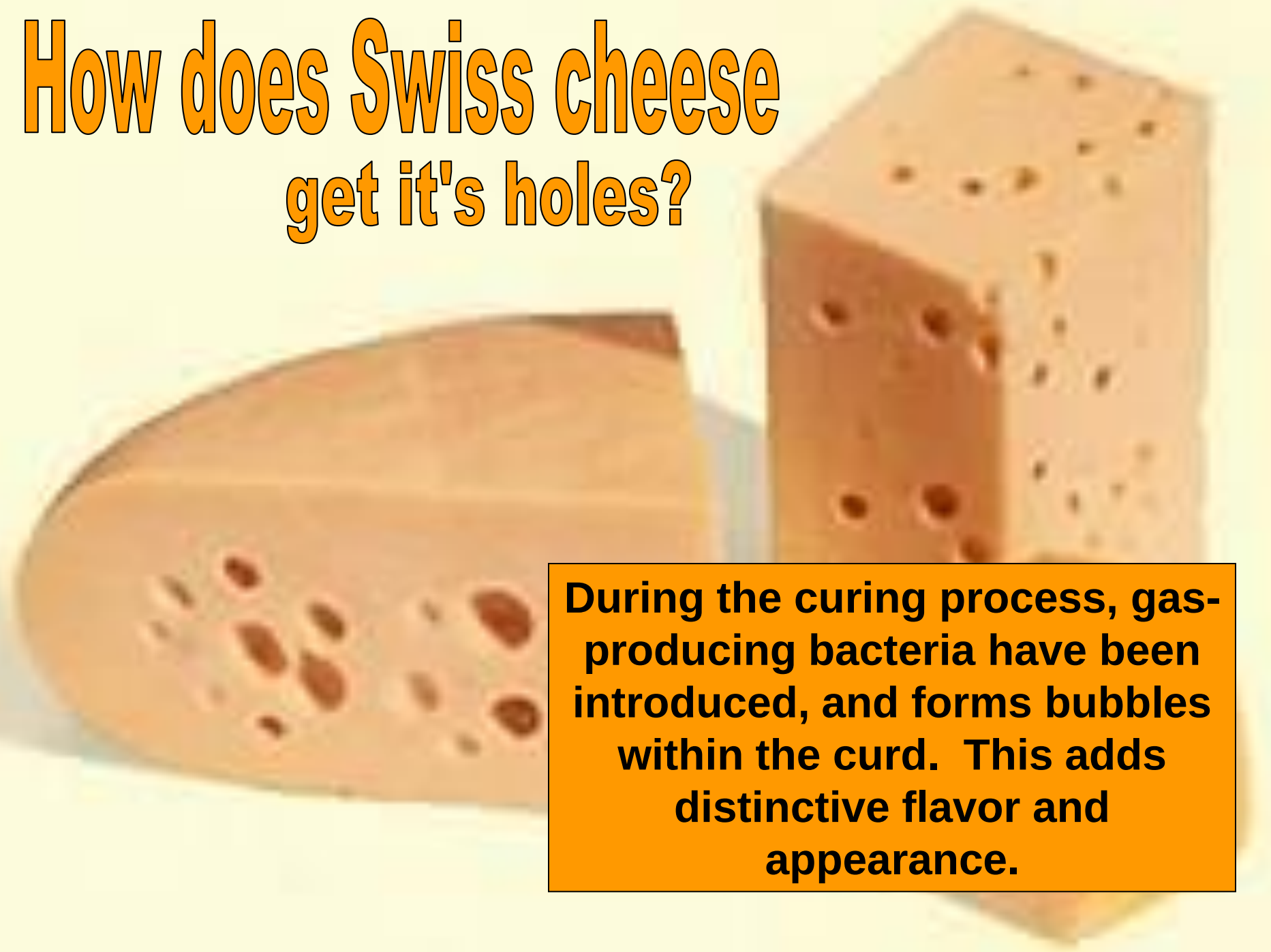
Blue, Roquefort, stilton, and gorgonzola are cheeses that get their distinctive flavor from *mold*.

In fact, unless you have an allergy to mold, you don't have to throw all moldy hard cheeses away. Mold will change the flavor of the cheese, but can be trimmed away. This is not true of molds on soft or sliced cheeses.



How does "blue cheese" get it's flavor?

How does Swiss cheese get it's holes?



During the curing process, gas-producing bacteria have been introduced, and forms bubbles within the curd. This adds distinctive flavor and appearance.

NATURAL VS. PROCESSED CHEESE

...know what you're buying.



Natural
vs.
Processed
Swiss



Natural cheeses are made by the traditional methods. *Processed* cheese is natural cheese that has been ground, mixed, and pasteurized. The heat applied during this process halts the “aging” of the cheese, extending the shelf life and stabilizing flavor changes. Emulsifiers

have been added to prevent the separation of fat, producing desirable slicing and melting qualities in the final product. The processed cheese has a slightly different taste and appearance than the natural cheese. For example, natural Swiss cheese has holes in it... processed Swiss cheese doesn't.

Natural cheese is usually more expensive than processed cheese.

NATURAL VS. PROCESSED CHEESE

...know what you're buying.



The popular Velveeta brand cheese we use in macaroni and cheese is actually a “*cheese food*” by true FDA definition. Cheese food has a higher moisture and lower fat content. It has better melting qualities than natural cheese.

A “*cheese spread*” has an even higher moisture and lower fat content. Serve it with a knife and crackers.

Cheese is expensive!

10 pounds of milk (1 ¼ gal) yields just one pound of cheese, and the process of making cheese is labor intensive. No wonder it costs so much!



Cheese is not only expensive, it's high in calories. It's a good thing it's so loaded in nutrients! Due to it's calcium and protein amounts, it can be counted in both the dairy and the meat groups of the food pyramid.

It is common practice in a delicatessen (deli) to offer the customers a small, free sample. You can make sure you like a cheese before you buy it! Just ask.



Types and storage of cheese...

There are hundreds of types of cheeses, natural and processed.

<http://www.cheese.com/all.asp>



Click on the picture for a listing of cheeses.



Let cold cheese warm up for about half an hour before eating to allow the flavor and aroma to develop. Do not store cheese with other strong-smelling foods. As a cheese breathes it will absorb other aromas and may spoil. Natural cheeses contain living organisms that must not be cut off from air, yet it is important not to let a cheese dry out. Keep the cheese wrapped in the waxed or parchment paper and place it in a loose-fitting food-bag not to lose humidity and maintain the circulation of air.

Two cooking rules to remember...

- 1. Avoid prolonged cooking time**
- 2. Avoid excessive temperatures**

**Breaking these rules
can cause cheese to
become tough
(rubbery), stringy, and
greasy.**

Stop! Did you say you cooked your pizza in a very hot oven...like 450°? Doesn't that break the cooking rules? Won't the cheese get rubbery, stringy and greasy?



Oh yeah...

I like it like that!

In some foods, the undesirable qualities caused by cooking cheese incorrectly actually become desirable qualities. Pizza is the perfect example! The stringy, rubbery, greasy mozzarella cheese is exactly what you want in a good pizza!



Macaroni & Cheese

Begin by filling a 2 qt. saucepan $\frac{3}{4}$ full of hot water. Place on burner over high heat. Add 1 tsp. salt to the water. When full boil is reached, add 1 cup raw, small elbow macaroni. Cook, stirring occasionally, to “al dente” stage.

While macaroni is cooking, prepare a traditional cheese sauce. Melt 2 T. butter in a small skillet. Add 2 T. flour. Cook and stir. This mixture is called a “roux”. Add 1 cup milk all at once, stirring constantly. Season to taste. (1/4 tsp. salt; pepper optional) Continue stirring until mixture begins to thicken. Add 1 cup Velveeta brand cheese food, cut into small pieces. Stir ‘til cheese is melted and sauce is of desired consistency. Pour over cooked and drained macaroni.



“al dente”

“roux”



THE END

...just say "cheese please"!

