



Thank the Romans for hard cheese

by Kobus Mulder, manager: Dairy, Agri-Expo

Cheese makers know that cheese-making started some 6 000 years ago somewhere in the Middle East from where it spread to the rest of the Western world. We also know that during those early days of cheese-making, cheese was mostly made to consume within a day or two, in other words, it was fresh cheese.

The main reason for this was the lack of cheese-making technology and refrigeration. Even when cheese-making spread to Greece, who were great cheese technologists, it stayed a fresh food, mostly preserved with salt to last a few days longer. Eventually, when cheese-making spread across the Ionian Sea to Italy, hard cheese became a reality. The Romans turned out to be even more clever cheese makers than the Greeks because they developed the art of making cheeses that could last longer. They discovered that if you drive more whey out of the curds during the cheese making process, the cheese lasted longer and developed more flavour. Cheeses such as the well-known Pecorino and Parmigiano-Reggiano are good examples of this discovery.

Today, hard cheeses are a firm favourite all over the world because of their versatility as eating and ingredient cheeses. Consumers discovered that hard cheeses had a longer shelf life, a more complex flavour and as an

ingredient, added new textures and flavours to food. Although cheese makers of the world cannot agree on the number and type of cheese categories, they all do admit that hard cheese is a definite category and that it is the second-most important category after semi-hard cheeses.

Appearance

Hard cheese is made from cow's, goat's and sheep's milk. Well-known examples are Cheddar, Parmigiano-Reggiano, Comté and Emmentaler. Mostly they are large wheels or barrel-shaped with smooth or rough natural rinds weighing between 10 and 80 kg. Exceptions such as traditional Cheddar, which is cloth bound and Spanish Manchego, with its imprints of plaited reeds, are found.

Colour

Its natural creamy colour varies depending on the feed available in the different seasons. Only some Scottish and South African Cheddars and the French Mimolette are coloured with natural annatto to a deeper yellow.

Texture

More whey is driven from the curds during the manufacturing process than softer cheeses in order to obtain a drier and therefore harder texture. Cheese with this type of texture

needs a longer maturation period before the final complex flavour develops. Textures vary between firm to almost brittle in the case of Parmigiano Reggiano. The moisture content can vary between 32 to 38%, which obviously results in a lower yield and together with the longer maturation period, makes this a more expensive type of cheese to make than softer cheeses.



Fat content

Hard cheeses require a fat content of 29 to 34% to produce the typical flavours for which they are known. These complex flavours are the result of enzymatic actions degrading the fat into free fatty acids and volatile compounds.

Flavour

Young, hard cheeses are buttery sweet to slightly sharp, while well-matured cheeses have complex and tangy flavours. The type of milk, bacteria in the culture and manufacturing method all play a role in the flavour but the defining flavour of hard cheeses is the result of biochemical and microbiological changes, which takes place during maturation. Compounds formed during these changes from protein, carbohydrates and milk fat is essential for cheese flavour. Before, but mainly during maturation, free fatty acids, lactones, ketones, esters, alcohols and aldehydes are formed from milk fat, which all contribute to the final cheese flavour.

“The Romans made culinary history in 300 BC when they developed hard cheeses. Today, we can enjoy cheeses from this versatile cheese category as table and ingredient cheeses”

Manufacturing method

The manufacturing methods of the different hard cheeses have a profound influence on the final cheese and more specifically its flavour, texture and finally its culinary uses. As cheese makers, we make a distinction between uncooked pressed and cooked pressed hard cheeses, which means that in the case of uncooked cheeses the curds and whey are heated to a temperature around 40°C and for cooked cheeses, it could be taken as high as 55°C. Cheddar is an example of uncooked pressed and Emmentaler of cooked pressed cheeses. The higher cooking temperature has the eventual effect that these cheeses melt very well when heated, for instance in fondues.

Maturation

A temperature of 8 to 12°C and relative humidity of 85 to 90% for two to 24 months are the norms to achieve the desirable flavours and textures of hard cheeses. Much work is also required during this period to turn the cheeses on a weekly basis and to rub or brush the rinds.

Gastronomic value

There are only two ways to use and enjoy cheese. First, as a table cheese, which means it is eaten from a cheese board and secondly, as an ingredient in food to give flavour and texture.

Whether it is the humble Cheddar or more sophisticated cheeses such as Morbier, Beaufort, Etorki or Cantal, hard cheeses are sure to contribute immensely to your gastronomic enjoyment of cheese. Not only are they excellent table cheeses that can be eaten at breakfast, lunch or dinner but they are also hugely valuable as an ingredient in food. As a recipe component, it lends that extra flavour and texture to a dish. In general, hard cheeses are enjoyed more as a table cheese in the United Kingdom and United States of America, whereas the opposite is true in countries such as Italy, France and Greece.

Whoever you are and wherever you live, be sure to have a new look at hard cheeses as they can bring new meaning and pleasure to your cheese enjoyment. **M&J**

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