Project Title: Cheese and Wine and Tourism will shine!

Support to young cheese and wine sommeliers from EU-

Key Action: Cooperation for innovation and the exchange of good practices

Field: Strategic Partnerships for vocational education and training

Main Objective: Development of Innovation

IO3 Training Materials for Future Wine and Cheese Sommeliers – Cheese edition
Applicant Country Background:

Macedonia has a long and famous tradition of culinary specialties. The country's richness and fertility make it a cradle of agriculture in the Balkans. The ecological and warm climate offer an opportunity for wealth of species of plant products, moderate, specific for Europe and the Mediterranean. Therefore, for such a small country, Macedonia has variability in products ranging from citrus fruits, grapevine, walnuts, tobaccco rice and traditional quality beans. In addition to plant wealth, this country is rich in veal, pork and chicken, reared first-class lambs, and forests are full of game. As a producer of dairy products, Macedonia is especially known for the production of dairy products, especially for high quality cheeses and cheese, yogurt and milk. Types of cheeses have almost as many villages in Macedonia. The wines are of worldwide quality, with authentic vines like Vranec, but also with the quality of the traditional Cabernet Sauvignon, Merlot and others.

SHORT DESCRIPTION ABOUT PROJECT:

The main goal of the project Wine and Cheese is to promote the importance of rural tourism (and appropriate education models) with main focus on authenticity of the wine and cheese culture on each level of the society in the participating countries. Focus will be given to cheese and wine as tourism products with huge potential for the tourism industry and its benefits (more satisfied tourists, more overnights, more local business, more employment opportunities for the local population etc.)
1. INTRODUCTION

1.1 A story about cheese
Cheese is a milk product that is a concentrated source of protein with high biological values. It occupies a crucial place in the diet of both healthy and sick people. Cheese has been used since prehistoric times, since when, in fact, comes the knowledge of the beginning of its production. Archaeological discoveries are the basis, in the knowledge of the beginning of this process.

The oldest pictorial letter for the beginning of the production of cheese, found in Mesopotamia, dates from the period between 3500-2800 BC. Namely, the relief of Ubaid, shows the milking of the cows of Sumer and the further procedure with the milk. In Egypt, in the tomb of Horusaha, testimonies of the first incursions that refer to the processing of milk in cheese were found, and for this, there are also entries in the hieroglyphic texts.

Cave drawings from LibiaSaliare (5500-2000 BC) reveal knowledge about milk processing and are very similar to those of Spain and France. It is still open to the question of whether people really lived on that ground in prehistoric times?

It is known that cheese in Asia was done a few thousand years ago, but it is not determined whether Asia is the first homeland of dairy. Namely, in Asia, the goods were kept in the valley of the Indus River, but there are no records (records) of its milking. For the goods of the drawings of that time, it is characteristic that she had a small whim.

Later, the goods were transported to the valley of the Ganges River, and the milk was used only by Indo-European settlers. According to older records, that part of Asia was never a dairy region, and milk and dairy products were never daily food because of the tradition of Brahmanistic and Buddhist religion.

For the African continent it was assumed that it was the only place where people came with their flocks, carrying their knowledge of dairy. Most likely, Sahara, at that time, was not a real desert.

According to some writings, it is possible that Indo-Europeans transferred their knowledge of cheese to Europe in 4000 BC, although Basque, the Indo-European continent, had the main word for cheese and whey. Even dedicated containers for the production of cheese were found. Thus perforated vessels dating back to the Bronze Age (3000-1000 BC), it is surely claimed to have been used for the processing of cheese.

At the time of the rise and development of Greece and the Roman Empire, cheese was well-known daily food, in the whole territory that was under Roman rule. The ancient Greeks as far back as 2000 BC they used milk and cheese not only for food, but also offered them in honor of the gods. In ancient Rome, various types of soft, hard, salty and fresh (sweet) cheeses were known. From the importance of cheese at the time, the fact that Emperor Diocletian was about 300 BC. even passed a Rulebook regulating the quality and price of different types of cheeses. In addition, the Romans in their conquered provinces met people with cheese-making technology.

In some parts of the world, milk was not used for religious reasons, because it was considered a sin to take away the milk from the offspring (cubs). Many people did not accept the taste and smell of milk. Over time, the boundaries between the areas where milk was used in the diet, and those where the milk was left for the offspring of the livestock, was lost.

The migration of people and the interaction between peoples, paved the way for the expansion of production and processing of milk.
How and why cheese appeared, archaeological researches can not accurately confirm, but it can be confirmed that the processing of milk in cheese appeared very quickly where the goods were milked. Most likely, initially, they were fresh (fresh, young) cheeses, which were obtained by direct acidification of the milk. The siege was discovered much later.

Namely, with the removal of moisture, durable hard cheeses were produced, especially if they were dried and salted. It is assumed that this kind of processing comes from nomads and cheese traders. These findings were transferred from one to the other and improved. Already on the markets of Rome, various types of cheeses could be found: soft, hard, fresh (fresh) from sheep, goats or cow’s milk.

With the penetration of Christianity, monasteries became centers of culture, people who lived in them, cultivated the fields, kept goods and produced cheeses. Today, the known cheeses, such as the trapist, originate from that period. Since then, the syrenarchy (the production of cheese) has developed very rapidly, especially at the time of the development of large cities.

The discoveries in the field of bacteriology, chemistry and technique enabled the rapid modernization of this branch. Justus von Liebig, in 1836. stated that fermentation of cheese can be explained scientifically. Louis Pasteur applied his discovery of enzymes in the fermentation of milk sugar and l'ijaMetchnikov studied: lactic acid bacteria, fermentation and pasteurization of milk. There follows a period of major discoveries in the field of biochemistry, and cultures of microorganisms and the ceiling are beginning to produce in the laboratory.

It is interesting that modern industrial syrenery did not suppress the production of cheeses in rural households. Such cheeses for quality, uniqueness and individuality are especially appreciated and recognizable for gourmets around the world, and also occupy a special place in the cheese range in many countries.

The production of cheeses, in many parts of our country, has a centuries-old tradition, especially in rural households. The processing of milk in cheese is the oldest way, all the ingredients of milk important in human nutrition, to be permanently preserved.

The mass distribution of cheese production in our households can be explained by favorable geographical and climatic conditions, traffic opportunities as well as the economic status of the producer. The quality and characteristics of these cheeses are not equal. Depending on the area (autochthonous production), climatic conditions, the quality of the soil, the vegetation, the feeding of the cattle, the altitude, the economic development, the type of milk from which it is produced, and even the tastes and tradition of the people. The cheeses of the rural households were formerly produced exclusively for use in their own household, and over time, they became a merchandise that is presented in nearby markets. For such products there is a particularly high interest of consumers from the urban (urban) markets as well as the tourism industry. In this way, the dairy industry is pursuing its own interest and profit, which is aimed at expanding the assortment of dairy products.
Today, cheese is prepared all over the world by all types of milk, even from non-conventional, such as reindeer, buffalo milk, donkey, etc. Although the taste of milk is practically the same throughout the world, the cheeses still differ in texture, taste and aromas. The size and shape of the cheese depends on the type of cheese that for centuries has been exposed to external influences of different kind as historical events, centuries-old experiments, religious influences, etc. The color, texture and taste depend on the raw material - the species and race of the animal, the soil, the climate, the microclimate and, of course, the skill of the worker who makes the cheese.

Historically, the size of the cheese was determined by the amount of milk that remained as a surplus and from the distance of the nearest market.

Mountain cheese was produced in large pies in order to make fermentation slower and sell them at the end of the summer when cows returned to the valley.

The shape of the cheese is due to the sophistication of the manufacturer and the opportunity that gives the raw material a specific mold, for example, in the form of woven grass, red clay or wood. Today, European traditional cheeses are mainly produced only in certain areas of various craft producers that limit the production of cheese to be available anywhere in the world. A classic example is Camembert de Normandie, which is made only by five producers and Parmigiano-Reggiano, made by 830 small producers. Craft cheeses have been developing over the past 30 years, but they tend to be invented by an individual cheese maker and often can not be found outside the region or the country in which they are produced even when they are produced in large quantities.

Craft cheeses are made from real masters in small quantities following the tradition of production. Usually in these cheeses, local additives are added, making these cheeses the most beautiful and most specific in the world.

These cheeses are an expression of pride, passion and tradition that is respected and nurtured for years. By combining tradition, talent and science, the most beautiful specialty cheeses are made.

1.2 Materials for production of cheese

The individual identity and character of cheese are defined by numerous stakeholders in nature. These are the climate and the area, including the mineral salts in the soil that affect how plants grow and animals graze. Plants that feed animals affect the subtle taste of the milk they produce. There is a big difference in the taste of milk when animals graze wild clover, fresh grass or meadow flowers when compared to feeding with compact food, silage or beet. Minerals also affect the maturity, texture and taste of cheese.

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Animals and their habits give another dimension to cheese. The cow that wants comfort can be found on rich equals in fertile valleys and sunny pastures. The goats, unlike cows and sheep, want to explore and taste aromatic herbs from less accessible surfaces, live fences, rocky valleys, and so on. The milk obtained is flavored with the herbs that graze it, much like the white wine mixed with herbs and almonds becomes marzipan.

The sweet, almost caramel flavor of sheep's milk has long been valued in Europe and the Middle East for hundreds of years. Numerous races have adapted to any climate and have become durable to survive with very little food, and produce several liters of milk per day that contains the aromas of wild aromatic herbs, fresh grass and flora from their diet.

Race of the animal can be a factor as well. For example, the Jersey cows produce milk from which a smooth gentle coin is made, while the milk from Montbeliar cows is known throughout the Savoie region of France.

The microclimate and the space in which cheese ripens has the final step in creating the sensory characteristics of cheese. Small breeze molds and yeast treat each new series rich in protein like canvas where they can create their daily masterpiece, while most naturally occurring bacteria prefer isolation and warmth of the interior while creating magic. Milk - acid bacteria convert milk into the so - called. lactose in lactic acid and so begins the fermentation process. The natural milk that comes with milking contains lactic acid bacteria that have an important role in the production and ripening of cheese, as well as in determining the complexity of flavors and aromas. Normally, the origin of the milk, whether it is cow, sheep, goat or buffalo milk, is affected. The sensory profile is then completed with the inference of aromas that originate directly from the territory, that is, from the substances of the grass and shrubs from which the animal was fed.
This microflora, together with the influence that the milk’s ingredients make in the milk, is lost when the milk is pasteurized and must be re-introduced as a bacterial cocktail known as a starter culture.

1.3. How to make cheese

Equipment and methods for making cheese vary from the type of cheese itself, but the basic principles of making have remained unchanged since the appearance of cheese.

The production of traditional cheeses with milk should be manipulated as little as possible. In ancient times, when cheese was made exceptionally on site, it was done immediately after the screaming, near the mountain cottage, the barn, the fence. Even today, this is the practice of mountain pastures or near pastures in the case of making cheese with a Protected Designation of Origin (COG). According to the old knowledge of cheese makers, milk is maintained completely and healthy in the first hours. These cheeses are classified as raw milk cheeses because the milk is warmed up as needed for the production of cheese: essentially, the whole process takes place from 15 to 36 °C. Acting thus, the bacterial flora does not change and can do its utmost to accomplish its task. The result is cheese with a rich and typical taste, with varied and complex aromas.

But very often, cheese is produced far from pastures, which is why milk is transferred and stored before it is processed. At this stage, good and bad bacteria multiply very quickly and the milk can be contaminated with various harmful agents. It therefore approaches pasteurization, which destroys pathogenic bacteria, but also a large part of those useful bacteria for proper cheese processing, as well as for its organoleptic profile. Milk depletes and adds supplements, or active crops selected from certain microbial groups. In fact, those microorganisms that are eliminated by pasteurization are reintroduced into the milk. However, industrial additives do not have the richness and diversity of natural enzymes and do not allow cheese to reach a taste that is equal to that obtained through the bacterial flora of raw milk. In some cheeses with washed or moldy crust, the difference, although notable, is not exaggerated, in others, for example, in goat cheese, irreversible loss of typical taste is obvious. Hence the importance of placing on the label "raw milk" or "pasteurized milk" inscriptions, although generally the law does not foresee it, it can be done for a greater transparency and information of the consumer.

In France, many cheeses, especially those manufactured in small factories (called exactly fromagesfermiers) carry the inscription "aulaitcru"; those who do not have it are often products with pasteurized milk in medium and large dairies (fromageslaitiers). In addition, it is considered that certain cheeses with a protected designation of origin AOC (Appellation d’originecontrôlée) must necessarily originate from raw milk, no matter where they are produced.

In Italy, there is some sort of fear of declaring raw milk, as if it is a symbol of milk that is not very hygienic, or milk "for the poor". Consumer protection campaign also contributes to this, which emphasizes that pasteurized milk is a kind of protection against any disease and cheese defects. However, one thing is certain: to make cheeses from pasteurized or thermised milk (which is mild pasteurization) is easier, there are fewer dangers, especially when fresh cheeses are made, after being exposed to danger. To make cheese from raw milk, especially when the cheese mass is not warmed, imposes greater caution and attention. These are cheeses that require great attention.

Technological processing of milk in cheese includes the following operations:

Suspension or coagulation
Handicraft processing
Bungee bun
Push the cheese
Solar emission

Maturing the young cheese and

Cheese care during ripening

1.3.1. Milking or clotting of milk

Removal or coagulation of milk is done by adding a special cocktail to lactic acid bacteria or starter culture. This culture turns lactose (milk sugar) into lactic acid and contributes to the taste, aroma and texture of cheese (excessive or too little acidity results in unfinished cheese). Most cheeses are made with whey (a syrupy enzyme that is obtained from the stomach of the milk-giving animals) or some other coagulant. Coagulation is the basic step in making cheese and the level of coagulation determines the final moisture content which in turn affects the speed of the fermentation process. At the moment when the rump sticks out from the wall of the boiler and leaves no traces on it, it remains compact, there are sharp edges that do not crumble, the potting is complete. The resulting rooster is named as the cheese.

Prior to treatment, the rump is an organic gel, which is composed of a water continuous phase, which forms the whey and an elastic substance (bone) composed of the paracassene-Ca-P complex. In a series of mutually intertwined micelles, this complex forms the skeleton of the gel, in which the milk leaf is mechanically fitted, while the other milk ingredients are distributed intermittently.

As an organic gel, with aging, the rump forms a whey. This phenomenon characteristic of brewing-shaped gels is known under the name synereys. For the cheese or the like, boresynereosis is a very important moment for obtaining cheeses, because it conditions the properties of the cheese table. The mechanism of synergy is that, as a result of the action of their own forces, the paraxasein particles approach each other, thereby reducing the capillary surfaces, releasing the whey into which the soluble ingredients of the milk are included.

The processing of the cheese is essential for the cheese technology. From the way this will be done depends not only on the loss of milk fat and milk proteins, but also on the consistency of the cheeses, but also on the direction and speed of ripening, physico-chemical and organoleptic characteristics and the durability of cheese. Therefore, for each type of cheeses, the practice has established a specific technological processing of the fresh cheese, which allows different cheeses to be obtained from one cheese.

Separation of whey from the cheese begins in the boiler during its processing, then it can continue in the process of forming and pressing the cheese, which depends on the type of cheese that is produced. For example, in the production of hard cheeses, most of the whey is separated during processing, while the cheese is still in the boiler, and significantly to a lesser extent in the future operations of forming and pressing the cheese. Conversely, in the case of soft cheeses, the separation of whey occurs in the later operations, in the formation of the mass and its self-purging. Thus, in both cases, the separation of whey and the dehydration of the cheese is influenced by the action of the same factors, with the difference that in the hard cheeses the activity of some of them (intensification of the cheese grains, high temperature, etc.) is intensified soft cheeses are intensified by others (high acidity, hardness of the cheese, etc.). Therefore, during the processing of the cheese, care must be taken to properly regulate the moisture in it, as this creates optimum conditions for microbiological and physico-chemical changes characteristic for the formation of a particular type of cheese.
1.3.2. Handicraft processing
To obtain an oven of a certain quality, that is, it has a certain hardness, which is essential for the making of the cheeses, it should be processed. In such a case, the processing consists of technological operations, which form a whole, follow one another. It consists of:

overturning the surface layer,
cutting the cheese,
crushing of the cheese and
warming the cheese,
drying of cereal grains

During subsampling, much of the milk fat climbs to the surface layer, because it is always smaller but cooler compared to the inner mass. Therefore, it always remains softer. This is particularly evident in a feeder derived from lumped milk. In order to heat the top layer again, achieve the required hardness, and the oil evenly distributed to the cheese, in order to prevent its larger losses, the surface layer is overturned. To this end, a portion of the upper layer of the cheese thick about 2-3 cm is carefully taken with the cheese spade and turns over. The inverted pieces are rowed one over the other like shingles along the peripheral part of the oven in the boiler.

The cutting of the cheese is considered the first operation with which the processing of the cheese in the boiler begins. Cutting the cheese increases its surface, creating opportunities for faster and more separation of whey, and the cheese grains to solidify.

As a tool for cutting the cheese, the following are used: cheese metal or wooden blades, syrenian sabers or lyres with horizontal or vertically strung wires at different interchanges. When selecting the tool for cutting the cheese, care must be taken for the required grain size. To obtain dull grains, the cheese is cut into smaller pieces, that for the soft ones are significantly larger. When cutting the cheese, care must be taken of the same length and width of the bathtub or boiler. As soon as this operation is done, the trimmer is left to rest for about 5-10 minutes, so that the pieces become firm. During this time the separation of yellowish whey in the boiler begins.

The crushing of the cheese is one of the most essential operations in the making of cheeses. From this operation, which is called "Creation of a grain of grain," depends not only on moisture in cheese, but also on its structural properties, which provide the normal microflora in fresh cheese. Practically, this operation depends on the biochemical processes in the ripening of cheeses.

The size of the grains to which the grapefruit is fraught is different, mostly depends on the type of cheese and the quality of the milk - the raw material. In the case of soft cheeses, the crushing is almost absent, because the cuts produce pieces like a hen egg, while for half-hard cheeses the pieces are crushed to the grain from the corn, while for the hard to the size of the coarse seed.

The crushing of the cheese begins with smooth elliptical circular movements, which are first performed with a cheese harp. It should start carefully, for the grains to become equal in size, moisture and fat content. In rough and unprocessed crushing, always uneven grains are always obtained, which badly affects the quality of the cheeses. In such a case, the larger grains are soft, have more moisture, while the smallest ones are drier and firmer. If the grain after the crushing is left of a variety of grain sizes, the processes for salting and ripening can not be carried out evenly.
Leaves to the required grain size are left for a few minutes to rest (5-7), then go to the next operation, warming the cheese grains.

In the production of hard and semi-hard cheeses, the crushed cheese is warmed up. This operation starts the moment when you get a raw grain of a certain size and firmness.

The warming temperature is always considerably higher than that for subsistence. It should be achieved slowly and gradually. Thus, for every 2-3 minutes, it should be increased by 10C. If the temperature rises rapidly, a crust will form on the surface of the grain, which may impede the proper dehydration, and cause fast grains of the grains. Rejuvenation is an operation that is extremely applicable to hard and semi-hard cheeses. In such a case, the temperature for heating can be high (45-600C) for hard and low (35-450C) for semi-hard cheeses. In some hard cheeses (grill, etc.), the temperature of the warming is achieved twofold.

The temperature of warming affects the life-ability of microorganisms. While tall kill the mesophilic streptococci and stimulate the development of Str. thermophiles and lactic acid bacteria with rod shape, the low activates the lactic acid batteries from the group Str. Lactis.

Drying of the cheese grains starts when the maximum temperature of the heat required for the cheese that is being made is reached in the boiler. Blending the grains continues. The task of drying is to remove excess whey, as well as to strengthen the process of lactic acid development, which strengthens the grains. Usually drying takes 50-60 minutes.

The dried grain should be rolling and have a certain stickiness. For this purpose, in practice, there is an organoleptic assessment carried out in the following manner: a certain quantity of the grain beans is taken in the palm, and they are squeezed. If after the opening of the palm, the grains are clogged, but so that after their tearing is immediately separated from one another, they are considered to have been dried. Conversely, drying should continue. Between the teeth the beans should crack. Because such methods are considered to be subjective, the best way is to evaluate the acidity of whey. It is thought that at the beginning of the warming, the whey should have 4.4-5.2 0SH (11-130T), while at the end of the drying period 5.6-6.8 0SH (14-170T).

The dried grains are left to stand still for 5 minutes, then they are removed in order to start their molding, or dressing.

### 1.3.3. Battering and salting the cheese

When the cheese grains reach a certain size, the hardness and moisture of the cheese dough is formed, the cheeses to be combined and given shape and size according to the type of cheese, the cheese is molding. The molds can be made of wood, galvanized sheet, aluminum or plastic. The shape of the mold affects the ripening and calibration of cheese during lager. Soft cheeses ripen from the outside to the inner side, which makes them smaller form molds, which practically have a larger total surface area. Since hard cheeses ripen from the center to the periphery, larger molds are used for their molding, making the general surface of the cheese grease considerably smaller. In order for the cheeses to get a smooth, beautiful surface, usually the molds or shaped table are covered with canvas.

The molds have openings through which the whey expands. To remove as much as possible, the raw whey and the cheeses can be combined into a compact mass with a certain hardness and a smooth crust, after pressing, pressing. During the pressing, only the whey that is located on the capillaries or on the surface of the cheeses is separated. The one that is included inside the cheeses is separated into a limited amount, which always contains a certain amount of milk fat in it. Separation of whey depends on its amount in the cheese grains and the hydrophilicity of the proteins, while the strain depends on the type of cheese. In practice, there are generally two ways of pressing the cheese: self-pressing and pressing...
with a load. Self-preservation is applied in the production of all soft, and partly in a small number of semi-hard cheeses. In this way, the cheeses are pressed under the influence of their own weight, resulting in a softer dough, with more water and air voids. Because in this way only the lowest layers are exposed to pressing, the cheese pieces should be more often turned over, to allow both sides to be evenly exposed to self-purging. Therefore, in the beginning their overturn is more common (every 5-10-20 minutes), then less often (1-1.5 hours).

Pressure applying with a load is applied to semi-hard and hard cheeses, because with them self-preservation is not enough to get a compact, raw dough. This method of pressing allows to accelerate the separation of the unbound whey, which makes the cheese become compact, shaped and formed crust. The pressing process should be carried out very carefully and gradually. First, start with a lower pressure, then it gradually increases, until the one that is needed is reached. This creates a crust from the very beginning of the operation, which is undesirable because it makes it difficult or completely disrupts the separation of whey.

The tempo and degree of pressing depend on the temperature, properties and porosity of the cheese, its size and surface, as well as the thermal treatment of the raw material.

The pressing temperature is an important regulator for separating the whey. If it is necessary to separate larger quantities, the pressing temperature should be greater than 200°C, which is characteristic for soft cheeses, which are most often self-pressing. Hard cheeses that have significantly less moisture, are pressed at a lower temperature (15-160°C). High pressing temperatures activate the microbiological processes, making the degree of acidity rising, and the separation of whey increases. Accordingly, when cheese is made from bacteriologically unclean milk, pressing should be at a lower temperature and otherwise, if it is quality, it is pressed to a higher temperature.

In addition to the necessary separation of whey, pressing has the consequence and the formation of a crust, whose formation should always be at the end of the operation. The cheese crust is a necessary salt dispersion regulator and one of the means for the proper targeting of the cheese ripening process.

In the load process it is important to determine the relationship between the amount of the cheese and the maximum weight that should be reached during the pressing. This process is different and depends to a large extent on the type and type of cheese.

According to the numerous attempts, norms have been established according to which the load on certain types of cheese is as follows:

Elemental cheese ....................... 15-24 kg in 20 hours
Gauda ................................................. 8-10 kg in 6 hours
Eden cheese ..................................... 8-10 kg in 2-5 hours
Cedar ................................................. 50-60 kg in 12 hours
White soft cheeses ......................... 0.8 to 1.0 kg in 5-6 hours

That is, according to the attempts and practice, it can be concluded that for soft cheeses the load is 1: 1, for half-hard 1: 10-15 kg and hard max 1: 60 kg. In our practice of the sheep and goats where sheep milk is processed in cheese, pressing is performed still primitively. This is done by placing the plank on the cheese, and through it are quenching gums in which water is added from time to time.

It is considered that the pressing is completed after the whey stops leaking from the cheese.
Salting is considered one of the most complex processes in cheese making, which affects the physical state of the cheese and microflora in cheese. Therefore, it is necessary to take into account not only how, but also how salty. It has been established that properly performed salting activates the development of the sour-milk microflora, which is crucial for ripening. Over-salınization not only contributes to making the cheese hard and dry, it forms a thick crust that often cracked, but also aggravates and slows down the microbiological processes and ripening. Insufficient salty cheese most commonly sinks, which means ripening does not take place properly.

In practice, four methods of salting are applied:

salting with dry salt,
salting in a bar,
salting in the grain and
salting in the dough.

1.3.4. Solar emission

In the salt-drying technique, the surface of the cheeses is irrigated with an average of large salt crystals. Once the salt is absorbed, the cheese is turned over and salt is on the other side. In order not to immediately form a crust, the first salt should always be weaker. In this way of salting, the percentage of moisture in the cheese and the room in which salting is carried out is of special importance for the dissolution of salt. To dissolve, the salt absorbs partially moisture from the air, and partly from the cheese. Therefore, always the relative moisture in the salt room where salt is made with dry salt should be 85-95%. Usually 24 hours is enough to dissolve the entire salt on the surface, then the salty surface is wiped, the cheese is turned over and the salt is on the other side.

Slaughtering is considered to be the best and most affordable way for most cheeses. The technique of this method of salting consists in the fact that immediately after the formation of the cheese is placed in a trough or in pools filled with a presol, whose concentration is different. Presol is usually prepared from water, and can be made from whey. If an aqueous solution is made, the water should be pre-heated, then cooled. In such a case, the concentration should not be below 12% because cheese will become mucus.

The whey preserve is prepared so that it first develops to separate albumin and globulin, and then is used for making a presol. Such a prepared presol may also be with a slightly lower concentration. When using whey powder, the cheeses remain soft, dehydration is not great and do not contain a large amount of salt. This presal is commonly used in cheeses that ripen in brine. During salt processing, part of the lactose and lactic acid from the cheese are separated, increasing the acidity of the preserves, which temporarily prolongs the salting.

Grain salting is a method of salting applied to the cheese that has not yet been formed. To saline it is placed salted solution (presol) or crystals dry salt.

This method of salting is applied only to certain types of cheeses, or that while the cheese is still in the boiler, from which it is a separate piece of whey, or to the cheese mass, after the cheese will shift from the boiler. It can also be done before filling in the molds, where most of the salt is lost, goes to the whey.

Drying in a dough is a way of salting very similar to salting in the grain, with the difference that it is done after the cheddarization of the cheese mass, ie after it is grinded and in such a position are salts. This method of salting significantly slows down the microbiological processes, and salinity savings are considerable. This method of salting is exclusively used in the boat.
If there is a risk that the cheese may boil, it should be done more quickly. In such a case, the most common combination is salt, which can be performed in several combinations. Thus, first, salting can be done with dry salt, then be supplemented by salting in a presol; it can also be as dry salting complemented by grain salting or grain processing combined with water salting, etc.

Whatever the way to apply, the cheese is salted in layers. First, the surface layer, then the middle, then the inner layer. Such regularity is also observed in soft cheeses.

Fast and excessive salting are undesirable. It slows microbiological processes, cheese becomes inelastic, crumbly, confirmed and gets a bright color. Moderate salting in turn gives good consistency, good taste, protein degradation is correct, as well as the course of microbiological processes.

1.3.5. Maturing and care of cheeses
The process of ripening is perhaps the most important part of the process, artistic cheese making when the magic is obtained, that is, the character of the milk and the unique aroma derived from the pasha. The maturation of the cheese varies from day to day, depending on the pasha, the season, the conditions in the room where the cheese is kept, the skill of the worker who makes the cheese, so that, unlike wine, cheese has harvest every day that makes it so exceptional and beautiful. The natural indigenous microflora in cheese actually builds the uniqueness and specificity of the taste and smell of individual cheeses where the nuances of flavors that reflect the territory where they are produced are defined. Most masters in the production of traditional cheeses use raw milk in order to produce unique products that reflect the territory in which they are produced, the climate, the race, the soil and the specific technology.
Ripening is done in special rooms with strictly controlled temperature (12°C-14°C) and humidity (80-90%). During ripening, there are changes caused by enzymes of microorganisms, milk enzymes, and lab men. These changes take place by decomposing lactose, proteins and fats, creating compounds that give cheese a typical smell, taste and appearance. In Granada Padano cheese, the minimum ripening of 12 months is determined by law, while in other cheeses only a few days. At that moment, cheese is ready to be put on the market and consumed.

While ripening is mandatory because it enters the production techniques set out in the Cheetah Rulebooks with a designation of protected origin, care is not mandatory.

During ripening at the same time, care begins and these two processes are mixed and become one whole. But care is an art, a technique commonly practiced by other people who are not producers and which takes place elsewhere, though quite close to the production territory.

The person making it chooses a place suitable for good cheese storage. It’s about caves or chambers where humidity, temperature, air, silence and darkness should be in perfect balance. In this setting, the pies slowly breathe and ripen. At this stage, the mold and plant scents at the place of maturation, as well as the resin and other fragrances of the tree above which the pies are placed, contribute to the development of the aromatic palette. The microflora at the site is spontaneous, clean and multiplies in contact with the crust and the cheese mass of cheese, rounding the flavor, creating stains in white, gray, reddish on the face and back and on the side of the pies. When we smell the crust of the cheese, it should offer clean, vegetable scents. Inside the pies, the task of the flies and almonds is to decompose and transform proteins and break down fat molecules by creating new compounds, whether fixed or volatile, which are responsible for taste and aroma. Trees that are used for shelves are from pine, fir, apple, pear, cherry, beech, maple, clear, oak: their fresh and fruits are absorbed by fats. But the tree also has another very important task: it is a natural and lively vessel that becomes the substrate of the culture of spores of mold and algae. The trees and molds breathe together. But beware: the woods should be cleaned occasionally to avoid the appearance of less noble, harmful molds and to form deposits of fat and protein substances that will eventually decompose, polluting the outer ambient. In this ripening phase, the bulk mass slows the evaporation of the water until a common balance with the external environment is reached. An important element for ripening is the high degree of moisture in those places in order to keep the weir mass gentle, elastic and firm. However ripening takes place differently according to the type of cheese. In hard cheeses, this ripening process takes place from the inside to the outer surface, which is why it is necessary to occasionally wash the pies with salt water. The soft cheeses, on the contrary, ripen from the outer to the inner side, since they have a very active flora in the crust. In the moldy crust, the process is apparent and the white mold gets compact like a felt. For cheeses with
washed crust, the surface is colored red or orange. For blue cheeses, for example Gorgonzola, ripening goes from the inside to the outside, as penicillin spores are added to the milk in the coagulation phase.

The man who is responsible for ripening knows when the pie has reached the maximum level of ripening and good taste and when it is finally ready to reach the consumer. Otherwise, an overly mature cheese will spread incompatible odors and aromas and will not have good sensory characteristics.

2.CHEESE CLASSIFICATION

There is no universal cheese identification system. Every cheese produced in a country has its own system of used rules such as: semi-hard, semi-cooked, fresh unwashed, matured or sprinkled-pickled.

We will use a gastronomic simple system to identify cheese types based on the thickness of the cheese crust and its texture. The amount of moisture or whey remaining in the cheese determines not only the texture of the interior or paste as it is commonly referred to, but also the type of crust and the shape of the cheese. According to gastronomic norms, seven different types of cheese are identified: Fresh cheese, Old cheese, Soft white cheese, Semi-soft cheese, Hard cheese, Blue cheese and Aromatic cheese.

By using this system with only one glance and a mild pressure on the cheese with fingers can be characterized by 99% of the cheeses we meet, either from the French market, New York or anywhere in the world. With little experience, the basic character of cheese, the power of taste, how it will behave in the process of heat treatment, even its maturity and quality, can be evaluated.
2.1. Denomination and designation of origin of cheeses

Certain cheeses have names that are protected by law and are related to their origin. The Cheese Origin Certificate indicates that cheese is made in a particular terroir (French) or tipicità (Italian) and has a unique character resulting from the complex salt interaction, the flora in the environment where the animals graze and the climate combined with traditional production methods and raw materials. It is a unique combination that can not be received or obtained elsewhere. There are national systems such as France AOC, Italy DOC, in the European Community PDO (labeled controlled geographical origin) for traditional wine and food regions where raw materials and production must be in the same region. The Rokfor cheese was first protected cheese in 1666. according to the AOC system in France.

The cheese declaration that stands on the packaging explains the identity of the cheese:

**Name:** The cheese name is always given in the language from which the cheese originated, and then the designation of origin, eg. Pecorino Siciliano PDO (Protected Designation of Origin)

**Instructions:** They explain cheese in terms of its identity, giving useful information on the characteristics and origins. Ex. Pecorino Siciliano cheese is documented in 900 BC. in Homer's Odyssey. Learn how cheese is done manually using lamb's cheese in ancient times.

**Tasting** - this designation describes the smell, aroma, texture and the end of cheese. Ex. crust yellow sometimes filled with whole grains black pepper, taste sharp, salty, aroma full and long lasting.

**How to combine** - Suggestions that make food cheese best fused, including a way of preparing or cooking and combining with wine

**Origin** - a map of the country from where the red cheese is pointing to the general place or region where the cheese is made. Where there is no red spot, cheese is made in the whole country.

**Photo** - For easier recognition, it shows the cheese that is being sold. In general, it shows the exterior and interior of the cheese.

**Scope** - This symbol is a visual guide to the approximate size of the cheese in relation to the average size of the human hand. When cheese has its own size, this mark indicates its image size in relation to the hand. If the symbol is missing or the information was not available or the cheese is soft and sold in bathtubs or stalls.

**Region:** Some cheeses are made throughout the country, while other cheeses are produced only in certain regions. In that case, the region or city that is dictated by the conditions and the specificity of the cheese is obligatory on the declaration. For example. The cheese Pecorino Siciliano PDO mandatory stands, Italy, Sicily.
**Year:** It shows the age of cheese or the length of time in which cheese is best. Ex. 4-12 years.

**Weight and shape:** Some cheeses are made exclusively in one weight and shape, while most cheeses are made in many sizes, e.g. 4-12 kg.

**Size:** It gives the dimensions of the pie such as diameter (D), height (H), length (L) or width (S) depending on the shape.

**Milk:** This information about the type of animal whose milk is used to make cheese. In some cases cheese can be made from a mixture of milk from different animals depending on the season and availability.

**Classification:** Each cheese is classified as one of the seven types described above. For example, Pecorino Siciliano is classified as hard cheese.

**YOUNG CHEESE**

**Features:** without crust, high humidity, mild, young, flavored lemon

Young cheeses are ready to eat only a few days or hours of preparation. Young cheeses are so mature enough that the flavor of milk-acid boil is hardly felt, so the taste is usually described as milky, sweet, resembling lemon, refreshing, citrus or acid. This does not mean that they are mild, but on the contrary, the masters who make the cheese manage to extract the finest flavors of milk, sweet notes and grassy taste of cow's milk, the aromatic taste of goat's milk with aroma of white wine and broken almonds, the rich texture of sheep's milk with the addition of Brazilian nuts, caramelized onion and lamb roast and leathery earthen under the buffalo milk tone.

**Characteristics that define young cheeses**

- **Young cheeses** are easily recognized by their expressive whiteness, shine and in that they have no crust. Although whiteness is the most striking feature, there is a great variety of them, especially when it comes to texture.

- **Flavor:** milky, slightly acidic and lemonade fresh to slightly sharp as yogurt or sour cream.

- **Fat:** These cheeses have the lowest fat content of all categories of cheeses 19-21%.

- **Humidity:** The high humidity of young cheeses seems to look gentle and soft on a plate.

- **Textures:** Species range from soft, spongy, stretchy as mousse, creamy, as endemic to Mozzarella or smooth and easy to cut as Halloumi.

- **Age:** From one to seven days or up to 12 months marinated in solo or oil.

- **Humidity:** These cheeses have the highest percentage of humidity compared to all other categories of cheese, therefore they have the shortest shelf life.

- **Color:** High-gloss white.
How young cheeses are made

The most common young cheeses like French fresh cheese or homemade cheese are made by heating the milk, and then certain cultures of bacteria that cause fermentation or boiling are added. Excess whey is poured, and the residual oven is placed in a cloth or may be allowed to stand for several hours before turning over the ambassadors. Similar is the procedure for the production of young cheese from a surrub such as Ricotta.

At the beginning, the crust that remains in the production of hard cheese is heated by adding a little acid to increase the acidity that makes the denaturation of proteins and their coagulation.

When the clotted balls are softened, they are collected in molds with holes in the form of crochets. The whey is left to drain slowly. The yield is very small, only 100 grams of cheese of 4 liters of milk.

The turkey whey turns over as long as it is still in the modula, and when it is pulled out, traces will remain from the basket of cheeses.

How They Consume: Syrovo. The small globulin fats found in the young cheese absorb and concentrate the flavors of the ingredients, transforming even the simplest dishes into something special (for example, Feta cheese in the Greek salad, cream cheese with smoked salmon or mascarpone cheese in a tiramisu cake). Sometimes young cheeses are added more to improve the structure than to add flavor.
Young cheeses can be found on cheeseburger or cheeseboard and are usually rolled, sprinkled with herbal spices in order to emphasize their taste and appearance.

**Cooking:** Young cheeses are best melted or baked in classic dishes like Rican cheese in ravioli, Mozzarella in pizza, Feta in spinakopita (Greek pie with spinach and feta cheese) and the like. However, high humidity and soft texture make these cheeses disperse in their neighbors, and when cooked they become solid for a long time.

**Combination with drinks:** Given their high acidity, young cheeses are best combined with white wine, and soft drinks with apple juice. However, when young cheeses are combined with other ingredients, wine with dominant taste should be selected.

**Most famous young cheeses:**

- **Halloumi** - a harder thicker texture than the other young cheeses because the whey is "mixed". Salt maintains the salinity of cheese.

- **Ricotta** - soft wet, sloppy whey cheese. Ricotta means cooked twice. This means that the milk is first boiled to make the cheese, and then the crucible is boiled to collect solids that float on the surface and put in a mold.

- **Feta** - dense, creamy and crumbly structure, stored in a salt that gives it a salty flavor and texture.

- **Mozzarella** - high elasticity cheese, because fresh whey is put in hot water, and after that it becomes extensible and can be shaped in different ways.

  Mozzarella is fresh cheese, which is an inseparable part of any good pizza. Traditionally it is produced in Campana, Italy from buffalo milk. The quality mozzarella has a mild and fresh taste, with high water content in the composition. How much cheese is fresher, the more reliable and the more elastic, while the ripening becomes softer and more acidic. Originally, mozzarella is produced in small balls with a diameter of 6 cm.

- **Mascarpone** - sweet-tasting cheese, is made by heating the sour cream, and not from milk. It dates back to the 12th century and was the favorite cheese of Napoleon Bonaparte.
OLD CHEESE
Thin, colored crust, granular and creamy texture, white, gray and blue mold

As the name suggests, it is about cheeses that stood for a while and dried at a special temperature in conditions of controlled humidity in dark spaces like basements where there are many yeasts and molds that grow on the cheese crust. The best samples are made in the Loire Valley in France in various shapes: small rubies, pyramids, bell-shaped or cone-shaped ones that can be seen in small boxes placed on markets across France as well as in the world. These aromatic and cream cheeses are commonly made from goat's milk and are covered with ash, herbs, spices or wrapped with leaf vines or walnuts through which mold is grown. When made from cow or sheep's milk, they have a smoother structure, the mold is less intense, and the taste is smoother and smoother.
Characteristics
Irregular, punctured, the tiny crust is covered with a combination of mold and yeasts (among which are dominated by waves of steel gray or blue, the name of which is Penicillium Glaucum) and sprinkled with a thin layer of Penicillium candidum or Geometricium candidum. In the thinner cheeses a softened crust with less mold developing under the crust develops. As it ages, cheese forms a texture that some call it "claggy" that is on the palate.

Humidity: They lose importance and gather during aging. After four weeks on average, they lose up to 50% of the original weight.

Fat Content: It ranges on average 22-23%.

Skewness: As the ripeness rises, the interior becomes looser.

Peel: Thin-cut crust is covered with white mold and gray and white spots.

Texture: As cheese grows older, the inner texture gradually changes from wet to crack or smooth, compact or sharp.

Color: because they are usually made from goat milk, have a very bright, almost white interior.

Flavor: when young, the taste is creamy, and the elderly get a nutshell flavored with crushed almonds and turns into an intense and sharp taste of goat's milk.

HOW TO DEVELOP THE OLD CHEESE
When they are left to grow naturally, usually in cold basements, the protein-rich surface of young cheese attracts the diverse microflora, which contributes to the maturation process. In the hands of doing masters, they will slowly aging and be able to sell in different stage maturity, depending on the client’s taste. Every cheese develops its own character created by the milkman, the animal from the milk, the pastures on which they feed, the season and the microclimate during the ripening process. The basic stages of the ripening process through which each cheese changes are the following:

1. The delicate pure white whey is carefully pushed into the mold until it begins to pour. The weight of the whey is gradually pushing the excess liquid.
2. When the whey level drops, the base is sprinkled with salt to accelerate the elimination of the residual liquid of the whey.
3. After several hours, the cheeses are soft enough to maintain their shape and are placed on drying trays. At this stage it is a young cheese.

4. Gradually, in the orders for several days, the cheese develops a soft, thin, ready-made opaque crust, which over time collects and receives sets.

**For 9-12 days, a layer of mold** Penicillium candidum is created, which is recognized by the light blue color of the mold that darkens and covers the cheese.

![Image of mold on cheese](image)

**How it is consumed**

**Cruel:** The texture and crust of young cheeses at different stages of maturity can not serve for sauces and dressings, but no cheeseboard is complete without even one of these cheeses and their rustic appearance.

**Ready:** Cherve salad is very much present throughout France but not so easy to make as the classic goat cheese salad. It is done with mature young cheese, usually Crottin de Chavingol chopped pieces, sprinkled with olive oil and baked on a baguette. It is meaningless to use other types of goat cheese because it can not get that wonderful noodle, aromatic taste that is characteristic of these cheeses when toasted or sealed in an oven.

**Combining drinks:** white Suvinjon, Viognier or Rose are perfect, especially if they come from the same region as the cheese.
Best examples:

Valençay

This pyramidal shaped cheese is overgrown with powdery gray-gray mold. Goat milk gives the interior its incredible white color.

Clochette

The bell-shaped specimen comes from France. Corate is covered with fine white mold.

Vicky’s Spring Splendor

This Canadian cheese-shaped cheese has a creamy texture that is softer and more elastic under the crust.
Ketem

Ketem is an Israeli cheese made after the French recipe for old cheeses and is becoming more and more popular in the world.

![Ketem](image)

St. Tola

This Irish cheese is produced in the form of a huge stump and has a silky creamy texture.

![St. Tola](image)

**YOUNG WHITE CHEESE**

Young white cheeses are characterized by velvet white crust, creamy interior and mushroom taste.

Camembert de and Brie de Meaux are the best examples and inspirations behind numerous examples around the world that are variations of these cheeses. The soft young cheeses usually have a white crust, a texture that turns out to be rotten and a wonderful aroma of mushrooms. The sweetest cheese has a taste of hay and mushrooms, the strongest taste of creamy mushroom soup with a bubble finish of dandelion, and has earthy aroma that resembles a cold basement and mushrooms warmed to butter. Those cheeses made from sheep’s milk have subtle sweetness with mild impurities of roast lamb or lanolin, while those made from goat’s milk have a taste of almonds and marzipan.

**Characteristics of young white cheeses**

Types that are made in factory conditions usually have a thick, corniccrust that looks more like a packaging than on a delivered part of the cheese. On the opposite side, there are cheeses made in a traditional way in craft workshops that are characterized by a thinner, white crust that can have...
admixtures of reddish pigment or yellow-gray spots of mold. The crust protects the cheese from drying and accelerates the maturation process, which is why they are called moldy cheeses.

**Crust:** thin and creaking sprinkled with thick powder from a white mold that gives the look of velvet.

**Humidity:** They have high moisture content, which keeps fat content low.

**Milk:** The milk from which the cheese is made largely determines the color of the interior.

**Fat content:** Low fat content 24-26%, but it can go up to 75% if done with the addition of cream.

**Color:** These cheeses can be made from cow, goat, sheep, buffalo, even from camel milk. Color varies: whitish white when made from goat's milk; butter yellow when made from cow's milk from the Guernsey variety.

**Age:** It is considered mature after 21 days depending on size.

**Flavor:** Depending on what milk is used, different flavors of wild mushrooms, almonds to roast lamb and lanolin can dominate.

**Texture:** when young is reminiscent of chalk, and aging becomes soft and creamy.

**How are young white cheeses made?**

To achieve that almost liquid texture, soft young cheeses contain a high percentage of whey. These signs that the clusters of clotted milk are collected with a spoon and placed in modli. During this phase, only the weight of the lumps is used for extrusion of excess whey. The cheese surface is then wrapped in a white, cohesive Penicillium candidium mold made from millions of microscopic small fungi from the family of penicillin fungi (Ascomycetes).

The gelatinous bosom (cheese or curd) gently gathers from the pot and puts a gentle layer over a layer in a rounded fashion with high walls.
When it softens, the cheese is turned over and released from the modulus, and a disc is placed on each piece in order to squeeze the residual whey.

After sprinkling with some salt, they are transported to separate rooms where white and sometimes other types of mold are used.
The mold naturally attracts moisture, the surface with high content proteins is a good development ground, and the mold that has expanded the entire surface of the cheese.

After two weeks an angular white cover is formed. Various molds may occur, but most dairies are determined only for those with pure white color.

**How they are consumed**

**Shearows:** these wonderful cheeses are best when served at room temperature, with crunchy bread and a glass of wine.

**Ready:** The most popular is the recipe in which soft young cheeses are in small quantities sealed in an oven for 15 minutes, then the melted mixture is collected with a spoon and placed on slices of bread or raw vegetables. These cheeses are also very delicious, served with French croissant with baked peppers, but it is necessary to remove the crust because it can dry and become bitter.

**Combination with drinks:** The French serve as calvados with Camembert cheese, Chardonnay with Brie de Meaux, and champagne with Chaource. By rule, goats and sheep cheese agree well with similar wines. On the contrary, the smallest port cheese is combined with strong wine.

**Great examples**

**Brie de Melun**

Like all Brie's cheeses Brie de Melun has a strong taste of mushrooms, but is less known than Brie deMeaux.

Although in France there are over 500 varieties of cheese, Bree is the most popular. We are talking about soft, fat cheese from cow's milk. This type of cheese is not only popular in France, but it also experiences "glory" in other parts of the world.

The rich creamy taste, at the same time mild and aromatic, makes this cheese perfectly go with fruit, honey and jam. It is also recommended that you take a tasting bowl with champagne, but with wine.

Brie de Melun has been known since the eighth century as royal cheese. The legend says that he adored the most famous French ruler Carlo the Great as one of the greatest gourmets in history.
Camembert de Normandie

The second soft French cheese is usually packed in wooden boxes. The crust may be pink or brown.

Camembert de Normandie

Sharpham

This cheese has a yellowish color due to admixture of carotene from the milk obtained from the variety of Jersey cows. Sharpham is a cheese made in one of the first dairies in England. Cows from the Jersey flock are brought to grazing by the River Dart, near Totnes, Devon, England. This cheese has a lovely creamy texture (which is first solid and then softens during maturation) and has a unique aroma that reminds of the aroma of mushrooms.

Sharpham

Brillat - Savarin

This cheese contains added sour cream, which increases the percentage of fat three times to 75%, which gives an extremely rich feeling in the mouth.

Brillat - Savarin
Capricorn Goat

One of the first English soft white cheeses of goat milk. It has a bright white interior, typical of goat cheese.

Capricorn Goat

SEMI-HARD CHEESE

Semi-hard cheeses are characterized by a thin and dry or orange and sticky crust.

Semi-hard cheeses vary in appearance and texture more than any other cheesecloths, but can still be divided into two groups: cheeses with a dry crust slowly mature and have a wide range of flavors from lightly sweet and nuts with barely noticeable crust to rubbery, colorful and supports the taste with a thick leather crust. When made from goat's milk, they have a mild and nuts taste with marzipan impurities. Those that are sticky with orange crust are called cheese with washed rind softer and sour, sour taste, smoky taste, and even taste of meat. Their texture is grainy, with a soft part beneath the crust when young, and become more fluid and softer with maturing. These species include cheeses like Trapist or so-called. Monk cheeses.

Characteristics:

All semi-hard cheeses are washed with salt in order to avoid the appearance of mold. They are formed with a dry crust, with a thin, inconspicuous crust, to the more colorful sheets of gray mold sprinkled with red, yellow and white mold over the rosy leathery crust.

Roasted cheese cheeses are regularly treated with salt and have a moist, sticky, light orange to brownish crust. The more they rinse, they become softer, watery and smoother.
**Flavor:** Depending on the crust, it can be tender and juicy, while on the other hand it can remind smoked meat.

**Texture:** Some cheeses with a crust are ready to flow when they mature.

**Crust:** It varies from barely formed to thick, leathery with gray cover or can be shiny, sticky and orange.

**Maturity:** It is considered mature after three weeks to three months

**Fat content:** The fat content ranges from 22-30%

**Color:** In the interior it can be different: from bright straw to creamy - yellow.

**Texture:** Both the gray cheeses and those with washed crust greatly soften over time. The texture of semi-hard cheeses varies from rubber and elastic to brittle and rusty.

**Humidity:** They emit quite a fluid when they are slightly pressed. The liquid is kept inside the cheese.

**How they are made:**

Hard cheeses fall into one of the two categories. Pressed cheeses (unworked) are easily pressed for several hours and are ready for eating after a week old age while still mild and with spring flavor. Pressed and boiled cheese are heated in a whey and then pressed. Different temperatures give different results. Other methods involve grinding the grudge between cutting and pressing, in order to further disperse the surplus of whey and to create a finer texture, immersion in a salt to achieve a thick crust, or rinsing the breast in hot water in order to dress to get a smooth texture.
1. The cigarette itself throws itself in the milk to coagulate. Together with the starter culture, it causes the breast to respond to whey.

2. Doodle patterns allow the whey to run out of the breast, although some semi-hard cheeses may be well-pressed.

3. When it is pulled out of the modula, it remains wrapped in a thin wooden tape and manually flushed with brine and fermented pear juice.

4. All the white mold that is created is destroyed by the rinsing process, and after five to six weeks the crust becomes a lot of measure.

5. The end product has a thin, sticky crust and a texture that is so soft that it literally flows when the cheese is cut.

How it is consumed:

**Raw:** mild half - hard cheese like Edama or Havartija are classic breakfast cheeses, while those with a slightly stronger taste are always part of the cheese board.

**Ready:** Cheese with a dry crust is best prepared for the heat, because in this way their texture stretches without changing the shape, but for the same reason they are not good for the neighbors. On the other side, the cheese with a crust perfectly melt in the sauces, and in order to get a rich taste, a small amount is needed. When stamped as a whole piece, they become sweet and popcorn, and therefore make it an excellent choice for stewing.
With drinks: With lighter cheeses, Chardonnay merges well, bright red as Merlot, and wines with high acid should be avoided because they make cheese acidic. The crust repair in the washed cheese is perfectly matched with sweeter wines. These wines emphasize the fruity, meadow flavor that is usually suppressed by the scent that recalls the farm.

EXCELLENT EXAMPLES

Taleggio

Fine, dry crust, has a sandy taste, and is woven with strips of white and gray mold. The surface of each cheese has a four-sheet quality stamp issued by the TutelaTaleggio Consortium. Its crust, as well as the existence of a press release, even when the cheese is cut off, give the authenticity of this brand. It signifies the guarantee of the quality of the origin of this cheese, and even the paper in which it is packaged must be of special material and contain the mark of the Taleggio brand.

Origin: Data for the sale of this cheese exist from the 10th and 11th centuries. However, the name has been used since the 20th century and is associated with the village of Val Telaggio in the province of Bergano, which is also known for the Gorgonzola and Grana Padano cheeses.

Stinking Bishop

This cheese with washed crust is irrigated or eluted with a salt mixed with fermented pear juice. It got its name from the various pear varieties used to get the pear tree. Stinking Bishop was first made by Charles Martel in 1972. Since then it has become the most famous and most beloved English stink cheese.
Langres

The name of this cheese comes from the Langres Plateau in the region of Šampanja where it is traditionally sold. Anato - the agent added during the rinsing of the cheese gives it a distinctive orange color. As cheese grows, the crust gathers and gets folds, and it can be covered with powdered white mildew. It combines with any tasty wine, for example, a black Burgundy that merges with its strong flavor.

![Langres](image1.jpg)

Edam

Edam is cheese from a laundered breast and it has a sweet taste, a rubbery texture and a very thin, almost imperceptible crust protected by a layer of red wax.

This cheese is first mentioned in 1439, when it was manufactured in Edam Bay which is located north of Amsterdam and is made of skimmed soft. Its distinctive crust with a red wax layer makes it recognizable in restaurants around the world. Most of this cheese is exported because the Dutch prefer Gouda cheese.

![Edam](image2.jpg)

Vacherin Mont d'Or

This cheese is characterized by a thick crust that protects its moist interior and a very fluid and juicy environment of cheese. The best thing to eat is when carefully you will make a small hole with a spoon and put white wine. Cut it in an oven at 2200 C for 30 minutes along with the whole box. It is combined with white wine.

![Vacherin Mont d'Or](image3.jpg)
HARD CHEESE

Hard cheeses are characterized by rough or polished crust, flaky to elastic environment and complex taste.

Huge pies, hard cheese cylinders can be found in countries that traditionally produce cheese, and are usually made from cow, goat or sheep milk. The diverse range of crust moves from smooth, polished crust and carved and recessed like the surface of the moon. Tastes change with maturation; many old hard cheeses such as Parmezan - Rediano (Parmigiano - Reggiano) and Dry Jack become granular. Classical cheeses made from sheep milk like Mančego or Pekorino, have an elastic, less flaky texture with a mild-dry taste in the mouth, a characteristic sweet taste of caramelized garlic, and an aroma that resembles roast lamb and wet fleece. Hard cheese goats' cheeses have a subtle flavor of almond.

Characteristics:

Hard cheeses can be of very different shape. Traditional British hard-boiled cheeses are in the form of a drum or a high cylinder. The Dutch and the Swiss often make big pies with polished or waxy boots. Spanish cheeses usually have a embroidered cane of wooden canes or wooden patterns in which they are actually dried. Manufacturers from France and Italy make hundreds of different twisty cheeses from the smooth Pecorino in the shape of a barrel to Beaufort's huge beets, with a thin but firm crust.

Flavor: While young still have a slightly sharp or tasty taste, the maturation is dried and the intensity is amplified and the cheese gets intense fruity aroma and aroma.
Color: varies depending on the season - pale in winter when the animal feeds on hay, fresh - yellow when feeding on pastures during the summer.

Humidity: The amount of spinning whey determines the texture. The more fluid is removed, the process of maturation lasts longer, and cheese gets a more complex taste.

Texture: The most diverse texture from cream to elastic and firm

Fat content: 28-34%

Crust: It can be from thin and leathery to very hard and thick. Some species are polished, spilled with wax or wrapped with cloth.

How they are done:

Hard cheeses can be pressed and raw (unwashed) and wrapped and pressed. Pressed raw (unsweetened) cheeses are easily pressed for several hours and are ready for eating after a week old age while still mild and with spring flavor. Wrapped and pressed cheeses are heated in the whey and then pressed. Different temperatures give different results. Other methods involve grinding the grudge between cutting and pressing, in order to extract surplus whey further, and thus create a finer texture, immersed in brine to obtain a delicate crust or the breast is pumped into hot water to mold and get a elastic structure.
1. Coagulation process: the breast is cut down with the help of huge comb wires as sharp as knives.
2. When cheese is made from a laundered breast like Gauda, the hot pot adds hot water to the cheese bowl that gives the cheese a sweet taste.

3. Some cheeses like Parmezan - Rediano, drop in a bath with salt to stay up to 21 days to extract as much whey as possible.

4. Purification is usually done manually. The pressure gradually increases in order to control the extrusion of the whey, which must not be lost too quickly.

5. To prevent moisture loss, some cheeses mature with wax, they are wrapped with a cloth or sometimes coated with pig fat.

**How they are consumed:**

**Raw:** Hard cheeses are the most common on cheesecloths. It can also be made for salad, sauces or dressings, such as Parmezan in pesto sauce.

**Ready:** Hard cheeses play a key role in the history of gastronomy in the country in which they are made. Thermally processed cheeses such as Gruyere and Beaufort become expandable during warming, making them perfect for the foundation, more than for sauces. Some are completely melting, while others that are too hard as Parmezan simply dissolve giving a taste but not a texture, and both are excellent in pastes, sausages and soups.

**With a drink:** High fat content and strong intense flavor, best match with red wine. Cheese absorbs the heavy taste of the wine and softens the tannin in the wine such as KaberneSuvinjon or Barolo. White wines extract the fruity taste found in cheese.

**EXCELLENT EXAMPLES**

**Manchego**

Manchegoire was named after La Manchaia, which is located south of Madrid. They baptized the Arabs of Al Mansha (a land without water). La Manchaia is a spacious region on a dry plain with little vegetation and very high temperatures (500C) and a minimum amount of precipitation. This region is a nice part in Spain, which is full of ruined old castles pasturing sheep, and this region also has windmills that have become famous for Don Quixote.

The interior of the cheese has small holes and oil gloss characteristic of hard cheese from sheep's milk. It is dried on a wooden board and therefore there are rough prints on the crust.
Emmentaler

Emmentaler is one of the great classics in the world of cheese, which has a history of production since 1293, but according to its name it was first mentioned in 1542. Etmentaler is a Swiss half-hard cheese made from cow's milk. It is originally made in the Etament Valley in the Canton of Bern. Hence his name. Today, over 1,600 producers around the world make Etamentaler.

Emmentaler cheese is best known for its large holes, which are the result of the action of gases during its ripening, which from small ones merge into larger ones, which are the result of the fermentation of propionic bacteria and the formation of propionic acid and CO2.

The milk is heated to 540C during a process known as heat treatment, which achieves sweet fruity taste and elastic texture. With its unmistakable flavor and solid structure, Emmental can be served with strong red or white Swiss wine.

Grana Padano

It was invented in the 12th century by cysterian monks in Chaplain Italy. This hard cheese is now made in many dairies in the Padana Valley and is the largest of all PDO cheeses.

The grudge is cut into pieces of rice sized grain, giving this texture a mole texture. It has a thick, hard crust which is a result of soiling with a salty flow of 21 days and has a sweet taste like ripe pineapple.
Cheddar

In the 16th century, this hard cheese was made at the foot of the Mendip hill, in the immediate vicinity of the Caldera Caldera in Somerset, England. Studies show that this cheese was made by the Romans who brought it to England. In the Mendip Hill there are numerous pastures and many caves that offered ideal conditions for keeping large herds and the possibility of making large cheeses (27-54 kg) which took them 2-3 years to fully mature.

When making a cheese cheese, the breast is heated to a temperature of 400°C and then it is grinded before it goes to the press, to get a very creamy texture and resist the taste of raw onions.

Mimolette

This cheese originates in the Netherlands, but since the seventeenth century it was made in Northern France. It is done by the same method as Edamer cheese, but it is left to the anatomy to leave a minimum of six months.

This cheese has a dry, rough crust that is attacked by harmful mercury mites, which create a crust that resembles cannon fodder.

It is consumed as a meal with any mild, fruit wine like Côte de Beaune, but is usually served with a beer port or Madera.
BLUE CHEESE

The blue cheeses are characterized by a rough crust, seasoned with blue mildew and seasoned flavor. The blue mold is part of the penicillin family, but unlike the white mold, it grows inside the cheese. Blue cheese from sheep milk, such as Roquefort, retains the sweet, caramelistic flavor of the milk that represents an ideal balance for the sharp, salty, metallic taste of the blue mildew. Most European blue cheeses are wrapped in thin foil, which ensures that the crust is elastic and sticky and develops a multitude of stretchy molds. English types of blue cheese have a hard, dry, rough, orange-brown crust, which seems to be sprayed with blue or gray mold.

Characteristics: There are a lot of flavors and textures, but for all blue cheeses it is characteristic that they have a spicy, slightly metallic tone, usually salted with other cheeses and attracting mold in the different rainbow colors that only emphasize the powerful aroma. The wet interior of blue cheeses with moist crust develop imperfect cracks and slits with blue mold, while dry blue cheeses have elastic, compact texture with thinner and longer stripes and look like broken porcelain. There are also soft fluffy cheeses that have white crust and layers of blue mold.

Flavor: Blue cheeses are usually creamy and juicy, some have a smoother flavor with herbal aroma, but there are also those that have high acidity and humidity, usually have a sandy taste and salty finish.

Color: Different shades of blue mold that gives authentic appearance to each cheese.

Crust: varies from wet with blue, gray and white mold, to dry, hard and rough.

Texture: blue cheeses vary widely in texture, a wide range of elastic and compact to creamy and sticky.

Humidity: most blue cheeses have a moist interior, which attracts mold and helps to expand.

Age: for mature is counted from 1-6 months.

Fat content: typically 28-34%

How they are made:

These cheeses ripen earlier in caves, stone basements or cottages where it is possible to reproduce the blue mold. The mold finds the path to the warm interior through the cracks in the crust and develops between the area of the fresh breast. Today, blue mold is added to the milk in the form of powder, then the young cheese is stabbed to let go of the air and release the passage for entering the mold. In soft young cheeses, the mold is infused with injections, because they are too creamy and compact so that the molds can naturally develop in them.
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1. Together with a starter culture, penicillin mold is added to the warm milk, or sometimes (as in the picture) is added to the fresh breast.

2. Blue cheese is never pressed. The grudge must remain loose while packing, in order to leave room for spreading the mold.

3. After two to three weeks, the sides of the blue cheese are crushed to be smooth in order to wipe out all the cracks with salt.

4. After several weeks, the young cheese is drilled with needles to drill tunnels. In conditions of exposure to air, the blue mold begins to develop and fill the cracks.

5. In order to check the texture and the uniformity of the blue mold, the masters have one piece with a special tool.

**How it is consumed:**

**Raw:** Blue cheeses are an integral part of the cheese board, and can also be sprinkled on dishes with honey and vinegar overflows. The bread with walnuts is a very good partner of blue cheese and with very little honey, the whole subtleties of cheese are emphasized.

**Ready:** Adds in asti, soups and sauces to gain liveliness in classical dishes such as Stilton soup, peanut paste, roasted fillet with a blue cheese sauce.

**With drinks:** It combines with wines, which are not sweet, nor with a complex taste because the wine will dominate the taste of blue cheese. Dried Riesling can be a great partner, while the tenth wine like Sauternes merges with Roquefort cheese, which is with a sharp, salty, metallic taste, but with a sweet podton.

**EXCELLENT EXAMPLES**

**Stilton**

This cheese has a dry crust typical of many English blue cheeses. The smooth oily interior conditions the mold to form in thin strips.

**Roquefort**

One of the most famous blue sheep milk sheeps has a loose, moist interior that permits Penicilliumroqueforti to multiply in thin strips and large scattered pockets.

Roquefort is usually served traditionally with Porto wine, but can be combined with any dessert wine that will cut its salinity and emphasize the sweetness of the milk.
Gorgonzola

The first name of the gorgonzola was Stracchino di Gorgonzola from the Italian word stracca which means tired because the tired cows return from the mountain pastures in the watery meadows Lombardy where gorgonzola has been a tradition for centuries.

The thick blue-green stripes and scattered cracks fill the interior. The thin and moist crust is covered with brush mold, which is typical of traditional European blue cheeses.

Bavaria Blu

This is a soft young cheese in the style of blue cheese. Blue pockets (instead of lines) are the result of the introduction of blue mold directly into this creamy cheese. Bavaria Blu is a fusion of Camembert and Gorgonzola cheeses. Blue mold is injected into cheese by a technique developed in Germany in 1970. Bavaria Blu is regarded as blue cheese for people who do not like blue cheese.
AROMATIZED CHEESE

Flavored cheeses are colorful and exotic crust. Consistency can be solid or semi-hard, and after the aroma sugary or sweet. These are cheeses of light colors, and are usually decorated in delicacies divisions around the world. Shattered cheeses have existed since people learned to make hard cheeses, stored it alongside loaded trees, while in the 16th century Dutch dairies in Edamer and Gauda put exotic spices brought from East India, creating such a remarkable blend of flavors. Today, many aromatic cheeses include hard or semi-hard cheeses that combine with fruits, spices and herbs.

Flavored cheeses can be divided into four different categories. Naturally smoked cheeses have crust with golden-brown color, but the interior is colorless. Traditional examples (based on original Dutch recipes where the ingredients ripen in fresh whey) absorb and emphasize the aroma and essence of the added ingredients. The aromatic crust cheeses have various ingredients, such as leaf vines, tested hops or clusters embedded in the crust itself. Most of these cheeses are so-called. reconstructed cheeses, which means that young cheeses are decomposed, mixed with added ingredients and re-shaped.

How they are made:

Smoked cheeses mature close to natural fire. Traditional aromatic cheeses are made by adding ingredients whose taste we want to emphasize in the whey of semi-hard and hard cheeses. Additives for the aromatic crust cheeses are added after pressing the cheese. Reconstructed cheeses are decomposed while still in the young stage, then the desired flavors are added, after which the cheese is pressed and re-formed.

Herbs and onion

Fresh herbs can ruin the humid environment of cheese, so it is mainly used in dried form. Ex. Žalphia, nettle, basil, rosemary and lavender. Garlic and garlic are very popular.

Nuts

Nuts are rarely used, but walnuts are sometimes added to fresh cheeses due to their pronounced acidity, which makes the cheese mature faster.

Spices

The cumin, cumin seeds, black and red pepper, pepper and cloves are the most widely used ingredients because they naturally agree with the firm and sharp taste of hard cheeses.
Dried fruits

Adding fruit is a modern trend. The most popular are candied citrus fruit, dried berries, apples, figs and apricots.

**How they are consumed:**

**Raw:** The choice of flavors that can be added is limited to the creativity of the chef making himself. Flavored cheeses with dried fruit are usually served with dessert, while those with garlic, herbs, vet or smoked sausages are best combined with salads. An unusual combination of chocolate, pickles and fruit is a curiosity intended for those who want to experiment.

**Cooked:** Traditionally prepared cheeses with semi-mild or strong flavor can change their taste during cooking and thus add the character of basic foods such as baked potatoes or pasta-cheese cheeses are especially suitable for this.

**Beverage Consumption:** These cheeses often combine your beer, especially those with a sharp taste like with onions, mulberry, garlic, smoked in oak trees. Sweet dessert cheeses are well combined with white wine (Chardonnay). The aroma of tannins and red berries that are distinguished in red wines largely disagree with most aromatic cheeses, with the exception of hard cheeses such as Cheddar with garlic or Gouda with pepper in the grain.

**EXCELLENT EXAMPLES**

**Nagelkaas**

This traditionally made aromatic cheese from the Netherlands is based on the Gouda recipe and is used in cloves. The orange color is due to the addition of anato (annatto), the natural color obtained from the Bixaorellana seed, which gives contrast with dark cloves. Nagelkaas means nail cheese, which refers to the cloves pressed inside the cheese.

![Nagelkaas](image)

**Wensleydale with Cranberries**

Most successfully reconstructed cheese with additional flavors is a mixture of young, sweet and sour cheese with freshly dried fruits. In this case, the young hardcore Wensleydale is decomposed along with the cranberries.
Taramundi

Traditional Spanish cheese with semi-soft texture, and is made by adding local walnuts and hazelnuts.

Yarg- corn cheese

The best-known sample of English cheese with flavored crust. Its elegant crust is intertwined with woodland hive that has a subtle taste.
CHEESE IN MACEDONIA
The pleasant climate of Macedonia, due to the influence of the warm Mediterranean streams coming from the river valleys, the fertile land and the large number of sunny days, enable a fruitful harvest. Macedonia is simply said, a treasure trove of flavors and tastes for gourmets and lovers of home-made good food. It is especially known for the production of cheese, white-white salted cheese and yellow-gold cheese, as well as milk, curd and yogurt. Every Macedonian village has a unique and especially tasty type of home cheese. Here you have to mention the excellent different Macedonian pies and greenhouses, stuffed with cheeses, cottage cheese, spinach, leeks, pumpkin...

WINE CHEESE

1. Origin and history
The beehive is an autochthonous cheese from Macedonia that was produced in the Mariovo region, also known as "beaten" cheese. In the Kumanovo region it is also known as "yellow cheese". Previously, it was made exclusively from sheep's milk, today and from cow's milk.

The preparation of this cheese was previously conditioned by the diet of the population, so that during the preparation, the milk fat was separated and consumed as a curd, while the skim milk was processed into cheese which was kept in a concentrated saline solution. This product was very important for the diet of the poor population, because it was consumed in smaller quantities, and as a result it was excessively salty (5-7% salt in the cheese). This way of making cheese cheese was also inhabited in the flatlands where predominantly grown cattle - cows, so this kind of cheese began to be made from cow's milk.

Beef cheese from cow's milk in relation to sheep has lower nutritional value, while in terms of organoleptic characteristics it does not deviate much. The habits of the population acquired in the past to consume beef cheese, as well as the high selling price, condition the day-to-day increase in production. Bean cheese is a very interesting product because the technology of preparation and
consistency are approaching the technology of hard cheeses, while according to the method of ripening and storage it is included in the type of sour - salted salmon cheese, i.e. cheeses that ripen in brine.

2. Description of the production
The main characteristic of this cheese is that the birch (cheese) after the cutting is boiled with hot water and is beaten with a trunk, and from here it bears the name Bianco cheese. Then it is poured into lard and formed as balls, which are then exposed to the sun and higher temperature in order to grow and germinate the growers, when there is an intensive process of development of microorganisms from the milk, which leads to the formation of the eyes. Then the pies are cut into pieces, it is served in bins, dry salts, and then salad is added.

3. Sensory characteristics
Shape and size: pieces of 10x20cm

Exterior appearance and crust: no crust, yellowish surface

Color: yellowish color

Consistency: tight and tight, with multiple eyes, differently arranged

Odor and flavor: the smell is milk-sour, with emphasized (often side-by-side) microbiological fermentation. The taste is acidic - salty with a distinctive piquant note of fats that separated in the test during the sunbathing of the pies, and then fermented during fermentation

4. Consuming
Manner of consumption: table, grilled, grated in pasta

Matching with wine: Red wines

Bean cheese produced in a traditional manner

Bean cheese produced in an industrial way

Strong texture

A slight texture

More cavities

Less cavities

Greater yellow color
Bright yellow
Intensely salty taste
Poor salty taste
A smell of smell
Slight smell

**WHITE SALAMURED CHEESE**

1. **Origin and history**

It originates from the Mediterranean region. It has been produced throughout history because of the need to process and conserve milk as protein food for the winter.

2. **Description of the production**

White brine cheese and Feta ripen in brine, followed by intense acidification of cheese, thus conserving cheese.

3. **Sensory characteristics**

**Shape and size:** blocks with dimensions 10x10x8cm, weight up to 800g. Stacked or bent

**Exterior appearance and crust:** no crust

**Color:** expressively white

**Consistency:** fragile and lubricating consistency in cutting with a knife, with numerous cracks and mechanical eyes

**Odor and flavor:** fresh taste with a distinctly milky - sour note and pronounced solubility

4. **Consuming**

**Manner of consumption:** Combination with olive oil and spice herbs, with vegetables, in salads and in winter, in baked goods

**Matching with wine:** white aromatic wines
MACEDONIAN CHEESE (KASHKAVAL)

1. Origin and history

It is produced in Roman times and, together with Mozzarella, belongs to Pasta Filata cheeses. Typical cheeses from Central Asia from where the production of the nomadic people was brought to the Balkans and its production was accepted for the acceptability of climate, social and cultural events.

2. Description of the production

The prepared rough mass when fermented (acidified) with the so-called. cashing, get money in hot water. Then the evaporated crust is massaged on a table (like a bread dough) and is formed in the form of a mushroom from which the "fold" is pulled out and placed in a lid. Then dry the salts several times.

3. Sensory characteristics

**Shape and size:** cylinder diameter 25-30cm, height 10cm, weight 7-8kg

**Exterior appearance and crust:** smooth crust, which can be even thicker

**Color:** yellow

**Consistency:** Compact elastic dough, no intersection to the intersection

**Odor and flavor:** a typical scent of fermented hard cheese. Salty and rich balanced taste that can be a bit bitter and reminiscent of the milk from which it is made and prolonged taste of caramelized onions.

4. Consuming

**Manner of Consumption:** Corn cheese is consumed with delicatessen products and added to white baked goods and pizza

**Matching with wine:** Strong white wines or red mild wines

SUCCESSFUL EXAMPLES
Galichki cheese. Manually legal in traditional way and with geographical origin, the Galichnik yellow cheese is of unique quality and smell, but also with a higher price. Galichani process milk into the veal, it is a mixture from which a part of the cheese, a part of cheese, a piece of cottage cheese and so on are separated. They carry the telemate early in the morning in the stack. To get out the cheese as it is, there are various activities. Take salt 2-3 times over a period of one week, 40 to 50 days. Waiting to melt the salt. Then the cheese is washed and dried for 5-6 days. Then it is poured out on stalls in the sun to wash, to release natural grease so as not to catch mold. After sunbathing, it is carried to a warehouse, where it dives. It's a process when the pies are placed on top of each other, so they do not mumble while the cheese is ripening.

The records of Sir Samuel, born in 1854, one of the investors for the construction of the Titanic, speak of how the Galician cheese was found at the Titanic's table. In these records stored at the Royal National Library in Britain, Sir Samuel describes his meeting with a Lambe, a luxury goods merchant who traveled from Russia.

According to a note by Sir Samuel, who, after his death, was kept at the Royal Library of Britain, Lambe was an elderly man with mustache and thick eyebrows. He came to Russia from the southern part of the Balkans, west of Skopje, near the border with Albania, and was born in a village with developed livestock breeding, with many sheep and livestock that were planting on unprecedented mountain meadows.

Also, Sir Samuel wrote that during a meeting with Lambe, he told him about some durable, hard yellow cheese (yellow cheese) that could be found at the table of Titanic’s great ship. Samuel was interested in this story, who asked Lambe to bring him this famous cheese. Lambe immediately went to his homeland, in today's Galichnik. According to the data from that time, only in Galichnik there were 150,000 sheep.

A lamb of horses and donkeys loaded sacks of cheese and through the mountain range entered Albania and arrived at the port of Durres. From there, by boat to Italy, then through France and Channel Lamanch, after six months, the cheese arrived in England.

When he tried cheese (ham), Samuil not only enjoyed the exclusive product he paid very dearly, but from his new friend, Lambe, bought other goods he traded with.

In the entry of this Englishman, it is said that 15 tons of hard cheese was stored on the Titanic, where it was an integral part of the exclusive menu in the numerous salons and terraces of the ship.

Maleshevo cheese
As much as Maleshevia is old, the recipe for the traditional Maleshevo cheese, and the Berovo herders observe the secrets of his mandrakes. Due to the abundance of greenery, meadows and pastures, as well as pure air, Berovo cheese is of top taste. Milk from sheep, cows and goats is also used for making famous Maleshevsky specialties: Maleshevo (Berovo) cheese, cheese cheese, cheese cheese, cheese, bulamach, cottage cheese, buttermilk, etc.

In the catering facilities Macedonian traditional dairy products should be set aside. It would be good for their employees to be trained, suggest the guests the best combinations - what cheese with which wine goes or tell them what the story is behind it and that cheese, where it originated, how it was obtained ... For Sorry, we still do not have such a service. Waiters often do not know which type of cheese they serve, nor is it, from which region. This is important from two aspects, on the one hand, the owner of the site is advertising that he offers good, quality food, and on the other, promotes the richness of Macedonia, its natural potentials, the state that makes efforts to preserve and protect indigenous races from extinction.

Terms of sale of traditional cheeses

Traditionally, cheese is produced for at least 20 years using the same recipe and technology that is passed from generation to generation. In order to sell it, it is necessary for producers to be registered in the Register of approved facilities and food operators with traditional characteristics of the Food and Veterinary Agency (AHV) according to previously fulfilled minimum standards regarding the construction and adaptation of production facilities, equipment, hygiene conditions, ...

The approval is the basis for the sale of safe sheep and goat cheese with traditional features, guaranteeing traceability of the product as a basis for smooth trade and export. To be recorded, livestock farmers should meet the general and special conditions for carrying out this kind of activity prescribed by the laws and bylaws, explained by AFV.

According to the Rulebook on the conditions and equipment in the facilities that produce food with traditional characteristics - cheese obtained from milk from sheep and goats (mandra), 14 registers have been registered in the Register so far, although their number is actually much higher.

The Food and Veterinary Agency provides support to farmers who want to record themselves as producers of sheep and goat cheese with traditional characteristics. It provides information on the manner of approval of farms and their recording, guidelines for adapting farms and production facilities, meeting the minimum production conditions.

HOW TO SERVE CHEESE

The basic rule is that cheese is served without foil and without packaging, and the outer layer is not removed. The pieces of cheese are lined up on a large plate in the direction of movement of the arrows of the clock.

If you have more than one species of this milk product, always start from the ones with a weaker aroma, to the ones with the strongest taste, which are the last ones. If you store the cheese in the refrigerator, it is best to remove it at least an hour before serving, so that the aroma can come to full expression.

If you serve camemeber, rockfruit, goat cheese or some other hard cheese, in such a case you can combine with walnuts, bulbs, grapes and radishes.
You should know that the consumption of cheese should not be exaggerated. If you serve it as a main meal, **200g is quite enough.** On the other hand, if you respect the French and Italian traditions and the cheese you serve after the meal, it is enough to serve about 60-80 grams.

Cheese in small packings wrapped with stanniol, slurry paper or aluminum foil, in quantities up to 100 grams is not usually cut into smaller pieces. The servant before the guest's table, using a fork and a knife, opens the packaging, puts the cheese together with the package in a plate and serves the client. If there are several types of cheeses on the cart, which are to be cut, then there are also many types of knives with which they will be made, because with the same knife you can not cut different types of cheeses that are different by firmness, smell and taste. Cut cheese plates and place them under a glass or plastic "bell", especially if exposed to the guests. Cheese must not be frozen, because there is a change in its structure, which impairs quality.

While cutting soft and greasy cheese, cheese rich in moss and cheese, which in consistency is similar to it, should be cut with a warmed knife, because otherwise cheese will fall, break and hard to cut.

Guests expect young and fresh cheese to be young and fresh, the mature to be mature, not unheard-of or over-ripe, hard and tasteless. It has been proven that mature cheese helps digest food. Cheese rich in moss, blue and white, should not be recommended to guests who have difficulty digesting food, and you should use more bread and butter.

The so-called "block" serving of cheese is when cheese is cut before the guest and when he decides on the size of the piece himself.

The cheese needs to serve several types of bread, it would be advisable to be an integral kind of bread, whole grain of rye, corn, barley or wheat. Some types of semi-fat or lean cheese can also be served as cold stew, in their original (original) form or processed as cream cheese, pancakes, etc.

Cheese can serve as an independent meal, as part of breakfast, lunch or dinner. Cheese should be offered in the most interesting way, nicely presented to the guests, so that they can easily decide what kind of cheese they want. Guests can get to know the different types of cheese in several ways: place the cheese in a prominent place on the table;
place the cheese in a striking place on the auxiliary mass - geridon;

offer cheese to the guests on the carrying cart;

offer it through the list of dishes, menu - à la carte and daily menu.

Guests are kindly invited to offer more kinds of cheeses. In some catering facilities abroad, 10 to 15 types of cheeses are offered to guests. If the guest takes the cheese as a cold starter, it is recommended to recommend young, less fatty cheese, with spicy taste, in the amount of 50 to 100 grams. A chef who loves a hot chef’s cheese can be offered some semi-hard or hard chewed cheese.

A chef who loves cheese at the end of the meal to supplement what was not enough in the menu, by quantity or energy value, is recommended for mature and fatty cheese. The guest who wishes after the meal to continue enjoying the wine, is offered fat or extra fat, ripe cheese.

After which part of the meal is served cheese, depends on the customs and tradition of the people. The French and the Italians eat cheese after the last salty meal, and before the dessert, and consider it to be the most practical, since they can continue to drink the wine they drank and the previous meal. The Germans and the English, however, want cheese to be their last meal from the meal, so that they can continue to talk and socialize afterwards, without ordering the next meal.

**CHEESE SET**

From the cutlery, with the cheese, a fork and a knife are worn. If the butter is served with butter, then there should be a knife. On the choice of cheese, as well as its serving and eating, the acquired regional habits have a significant influence.

**DECORATING THE CHEESE**

Like other dishes, cheese, before serving the guests, should be decorated in some way. So the cheese bowl will look more beautiful, and the ingredients that decorate the cheese are eating and complementing the flavor.

**Hard-boiled and cheese** is served 20 to 30 grams of butter. In some of our areas, young onions are served with young onions and bread.

**Mature cheese** is served a slice of tomatoes, a circle or two of pepper, radishes and how many olives.

**Cheese that has a sweet taste**, some peoples serve grated horseradish, celery or onions.

**Cheese rich in mold** can be served with walnuts, fresh or dried fruits, grapes, bulbs, and the like.

**A cheese that has a specific smell** is added to the cumin, and with unsheltered cheese a teaspoon of powdered sugar.

In some catering facilities, cheese sticks, crackers, peanuts, etc. are served with cheese.

**ANNEX WHICH IS PROCESSED BY CHEESE**

**Bread**

There are almost the same number of types of bread and cheeses. The best is homemade bread. Some guests prefer bread with walnuts or grapes, but plain bread is more often suited to cheese.

**Nuts**
Europeans often also use nuts, almonds or hazelnut hazelnuts with cheese.

**Pickles**

Serving pickles with cheese is a custom for the English. This attachment is usually suitable for hard, mature cheese, such as "Cheddar", but their taste may again prevail.

**Fresh fruit**

Seasonal fruit is served, preferably locally. The citrus fruit is overgrown, and the tropical fruit is too small, therefore the ideal fruit for serving with cheese are apples, pears and figs.

**Vegetables**

Olives, celery, green beans and crispy vegetables with battered leaves can be served on strips, but on cheese.

**Honey**

If moldy cheese is easily sprayed with a few drops of honey, the taste of cheese will be emphasized.

When you cut the cheese before the guests, you must know which knife should be used for a particular type of cheese. It is important to remove the crust of the cheese so that you can properly cut the crisps, which is also economical, because you will not be left unused, unaddressed pieces of cheese that could not be used for further consumption.

The soft, hard and very hard cheeses are cut, and for each type, a special tool that suits cheese is needed. Apart from the blade that is suitable for the given cheese, a cutting board is required, as well as a paddle to help you maneuver.

**Cheese rich in blue mold** is very greasy, so it is often rotten when cutting. Therefore, before cutting each slice, it is recommended to bake the knife in boiling water.

**Cheese rich in white mold** is made in a size of one to two meals, wrapped in a flatbed and packed in wooden boxes. Before being consumed, it is removed from the coffin, the stanilo is developed with the help of a fork and a knife, and since this cheese is half-right, it is only served by the guests' wishes.

**Many hard cheeses** are mostly used as supplements in certain dishes or as desserts. Can be served as broken, torn pieces, in size of a bite.

**Cheese in marinade, or cheeses soaked in olive oil, wine, brandy and the like.** Before cutting, you should gently grind them to remove the outer melting layer.
Cutting according to the shape of the cheese

If you cut a **cheese with a round shape** for one or two meals, you should extract a triangular piece from it, and then continue to cut the slices in equal size.

*Cheese with a rectangular shape* is cut directly into tiles, not thicker than 1.5cm.

**Oval cheese** is cut in width, so one or two crisps are enough for a meal.

**Cheese with round shape** is cut in width and smaller pieces are cut from both halves in a wedge-shaped shape.

**Pyramidal cheese** is cut flat from the thinner to the thicker part or can be cut into the middle, on 2 or 4 pieces from which the slices of the same size will be cut.

**Small cheeses** are never cut, but served in their original form directly in front of the guests.

How to prepare a cheese board

In every part of the year, and especially in winter, there is no better combination of delicious cheese and wine.

To prepare a hard plate requires at least 3 different types of cheese - soft cheese, semi-hard and hard.

Add salty mushrooms with different flavors and textures. It can be nuts and various types of salami.

Add crackers, salted, bruised or roasted French bread.

Insert sauces and spreads.

Fill the places with dried and fresh fruit like dried apricots, a fresh pear on fillets, grapes, and so on.
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DEGUSTATION OF CHEESE

Sensory analysis of a cheese allows us to distinguish its organoleptic properties from the type, touch, sense of smell and taste for taste. Sometimes, it enters the game and hearing, which is associated with the sound that the product releases under the teeth (which can be creaked or crunchy) or in special situations such as the evaluation of the target pies of Grana Padano (Grana Padano) or Parmigiano Reggiano (hammered hammer) to check the completeness (in this case, by observing the sound that can be correct, irregular, full, empty, ringing, deaf). However, normally, the four senses listed above determine the cheese image.

Sensory analysis is performed by tasting a sample by multiple tasters collected on one panel, following standardized criteria and parameters, according to common and uniform methodologies.

Visual examination

Visual examination refers to both the outer and the inner aspect of the shape of a cheese or part of it.

Outside look

The starting point is represented by the examination for the exterior appearance, so two parameters must be considered for its evaluation: the shape and the surface.

FORM

This term denotes the set of so-called "geometric" characteristics of cheese, where we have:

Geometric shape: cylindrical, parallelepiped, cut pyramidal, undetermined sphere. In addition, each of these species can be further classified according to regularity, correct or irregular: this assessment, obviously, does not apply in the case of cheeses of undefined form, which are irregular by definition.

The size, or dimension, can be: small, medium, large. Size is not an absolute value because it is related to the type of cheese that is being tested.

The side form of cheese is called another thickness or height. The side form can be: straight, concave, convex.
The faces, that is, the upper and lower parts that constitute the placement surfaces are cylindrical or parallelepipedal. Faces can be flat, concave, convex.

**SURFACE**

It is defined as skin, peel or crust, in function of obesity:

Skin: a very thin layer, with poor consistency (Mozzarella and fresh cheeses in general)

Decoction: a thin layer, with a certain consistency and often elastic (Robiola from Rocavera, Kachiocavallo)

Crust: consistent layer, hard, with variable thickness (sheep, Fontina)

In colloquial speech, the outer surface is called a crust.

The examination of the outer surface provides an assessment of:

Appearance: the crust may be smooth, wrinkled, washed, treated, moldy, with stains, mold, with erosion or openings, a crust that binds liquid.

Color: in the first place the equality / inequality of staining is assessed, hence the tonality for which the following descriptors can be used:

white: milky white, white - ivory, grayish white
yellow: pale yellow, gilded yellow, amber yellow
gray
reddish
Brown
gray
black

The characteristic seal of the cheese can be imprinted on the outer surface.

**Internal aspect**

After completing the examination of the outer appearance, the cheese is cut and continues with the evaluation of the inner appearance, that is, of the dough, taking into account the appearance of the size, excessively dry and thick crust, the color, the eye, the technique of creation mold.

**THE ASPECT OF CUTTING**

In cutting, the dough can be compact, liquid, charcoal, rough, leafy, have fluid, greasy.

**SURFACE**

This is the section that is located just below the crust. The subcolor should be evaluated: the thickness (thick / thin), the obvious (obvious / less obvious), the color for which it is possible to refer to the same elements for a description already shown for the crust, with additional precision for the existing difference in color the rest of the dough (brighter / darker).

**COLOR**
The examination should be conducted on the basis of the same criteria already presented in the case of the crust, with the exception of the black color. Two additional parameters complete the color analysis:

Intensity: any tonality can be pale, bright, light, weak, intense, full, blunt, alive

Brightness: originates from the way the cheese batter is reflected in the light, in this case, the dough can be light, matte, glossy, vitreous, pearly

It should be emphasized that the color of the cheese batter affects the animal species and their diet. Ovt and goat's milk are whiter than the cow because sheep and goats are not able to metabolize carotenoids and flavonoids in fresh fodder. In addition, the milk originating from the hay is whiter than milk originating from fresh fodder from the Alpine pastures. Light, air and temperature make it easier for the dough to oxidize, producing yellowing and darkening of the cheese surface. Ripening, the cheese mass (dough) tends to darken in the subcut, this part is more susceptible to physical agents because it is closer to the outside.

OKCA

The windows are a set of gaps, called eyes that manifest in the cheese batter after acid fermentation with gas production, especially carbon dioxide. The eye test involves a variety of features:

Form: circular (homogeneous / non-homogeneous) or irregular

Distribution: equal or uneven

Dimension: small, medium, large

MOLD

Mold is a characteristic of cheeses in which the whirlpool has spots with green, gray - green and blue as a mold appearance. This feature is tested by the following features:

Regularity

Dimension

Distribution: equal or uneven

Color

CONSISTENCE

For a full description, cheese is taken between the fingers or in any case touches to feel the consistency. Even a visual examination can help us with this operation, especially when the touch test encounters difficulties. Touching cheese can be creamy, soft, gentle, semi-hard, hard, greasy, elastic, rough, like rubber.

TESTING AROMA

The smell test is the toughest part because it provides significant and continuous training.

The smell is evaluated concentrating in a peaceful setting, smelling the cheese for a second and then separating the smell in all its different aspects: if appropriate, after 5 - 10 seconds it can be smelled again. After the third smell comes the sensory effort that causes confusion. The first step is composed of a quantitative assessment, which refers to the intensity of the smell, which may be: weak, slightly intense, rather intense, intense, very intense.
Hence, it passes to the qualitative exam, which consists of separating the range of stimuli that can be perceived in cheese. In this relationship, it is possible to separate seven microcategories of stimuli:

**Milk stimulants:** milk, cream, butter, yogurt, whey, sour milk

**Herbs:** green grass, aromatic grass, hay / straw, wet hay, flowers / honey, cooked potatoes, cooked cauliflower, onions, garlic, truffles, mushrooms, wetland, bush, mold, marsh, wood, cellar

**Fruity stimuli:** dried fruits, chestnut, walnut, green nut, almond, hazelnut, apple, citrus, fermented fruit (with flavored alcohol), olive oil

**Roast stir:** croissant (roasted butter), caramel, hard caramel, roasted fruit, burnt

**Animal sensations:** sweat, skin, barn, fleece, cheese, sheep, goats

**Spices of spices:** vanilla, pepper, nutmeg, saffron, ginger

**Irritations associated with production technology and fermentation:** smoked, smoked, propionic acid (etamental), butyric acid (spoiled butter), proteolysis (rotten meat), acetic acid, yeast (crust of bread), rubber, ammonia, silage plants (fermented cheese), pungent on the nose, oxidation (metal), rotten, rot, sewage, soap.

It should be pointed out that the smells that will be considered defective for some cheese, for the other cheese is not the same.

**TESTING FLAVOR**

"Taste - odor" is composed of a set of perceptions that register in the mouth: flavors, retrospective fragrant stimuli (aromas) and touch sensations. In other words, the smell in the mouth is entirely consistent with the Anglo-Saxon flavor-taste. The flavor test - smell is a sensory operation that is quite complex, which includes, besides the tongue, voltapalatine (hard palate), soft mucosa, retronage cavity. In particular, the inclusion of the scent is fundamental: if tasting with a clogged nose (for example, in the case of a cold), only the basic flavors are perceived, everything else is lost. In order to perform the taste and smell test, a small piece of cheese is battered and slowly chewed, trying to recognize the slowly developing stimuli. The attempt may possibly be repeated after the piece is swallowed. It is always necessary to try a little cheese because, otherwise, a pair of samples will penetrate the feeling of satiety and the sensitivity begins to decline.

As with the smell test, in the first place it continues with a quantitative assessment, which in this case refers to the intensity and endurance. For the intensity, the same rules as the smell test apply. The perseverance and permanence of the sensations of taste and odor after the cheese is swallowed is measured based on the time during which the irritations are received in the same way. The perseverance associated with the number of seconds of the duration of the perception of the sensations can be defined as:

- weak: up to 2 - 3 seconds
- less intense: 4 to 6 seconds
- pretty intense: from 7 to 9 seconds
- intense: from 10 to 12 seconds
- very intense: over 12 seconds
FLAVOR

The taste is composed of four primary stimuli: mild, sour, salty and bitter. The four primary tastes feel generally at the top of the tongue. To make it simpler, a map of the flavors of the tongue is created: mildly on top, sour to the front and middle parts, salted in the middle parts, bitter on the back center.

It is blended immediately, in the first two or three seconds, then it is lost to leave a place for acid and saline stimuli that last for ten seconds, and as a last, bitter stimuli are felt.

Aroma

Aromas are odors that are emitted during chewing and which exhale the air contained in the mouth, come into contact with the smell through the passage between the mouth and nose. The aromas apply the same descriptions already given for the smell test.

Other irritations in the mouth

In the mouth are noticed, except flavors and aromas and other perceptions that are not recognized by well-defined receptors, but are applied from the ends of the nerve trigeminus. These are basic, and on the side are some products in question that represent the feature in a clearly defined manner.

DRAWING DESCRIPTION / PRODUCT FOR WHO WILL BE A WORD

DRYNESS- Feeling dry, right. Ripe apple or Japanese apple. And they are prescribed for abnormal fermentation or excessive lime

Spicy - A stinging stimulus that bakes. In mature cheeses

METAL - Mineral stimulation, that is, dry and cold, which resembles the irritation of metals in the mouth, especially iron

ELECTRICITY - Small cracking accompanied by a light sting. Sparkling water

Touch sensations in the mouth or structure

Touch of mouth in the mouth, which is perceived from the front middle part of the tongue and gums, defines the structure of the cheese mass. The term texture is often used to indicate the material, ie the general consistency of the cheese, which is evaluated through the receptors for touch, vision and possibly hearing.

The palatability expresses the sum of the sensory stimuli that are perceived in the interior of the oral cavity. It is a quantitative court determined in particular by the concentration of fat and the perceptions that originate from it. In other words, it is about the fullness of the mouth.

Comfort or comfort in the mouth expresses a qualitative opinion of the sum of the sensations of touch in the oral cavity, which are associated with the richness of aromas and flavors from the cheese sample.

As a consequence, the most common touch of touch and some of the products in question are listed.

DRAWING DESCRIPTION
HARDNESS
Chewing durability. Hard carrot

Solubility
Strives to melt in the saliva. Protein from an egg

HUMIDITY
Water content and whey

Troublesome
To break into small parts. Cracker

Cruelty
Durability of compression and deformation - Reverse elasticity

Grain
Perception of compact granular particles during chewing. Mature pear

Stickyness
Tends to stick to the walls of the oral cavity and tongue. Hard caramel

WITH CRYSTALS
Perception of "glassy" beads that emit sound under the teeth

Clotting
Perception of lumps or small hardened masses

Sandy
Perception of very small grains that give sand consistency during chewing

FATTY
An irritation attributed to a superficial fat deposit at the top of the tongue and on the palatal walls. Butter

DESCRIPTION OF THE SURFACE TABLE
Typology of cheeses
Manufacturer / Breeder
Locality / region
Date of production

VISUAL EXAMINATION
EXTERNAL FORM
SIZE
PART SIDE
PERSONS
EXTERNAL SURFACE
OUTLOOK
COLOR OF CHEESE TREATMENT
INTERNAL / SUPPLY
SURFACE
COLOR OF CHEESE TREATMENT
OPEN / PURPOSE OF MUSLIMATION
COASTING OF DOPIR

TEST FOR AROMA
INTENSITY
DRAW DESCRIPTION

TEST FOR FLAVOR AND AROMA
INTENSITY
FLAVOR
AROMA
OTHER DROPS IN THE CONSTITUTION
STRUCTURE
DURATION

Final observations