

## CHAPTER 14

# Food, nutrition, and health in Romania

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### 14.1 Introduction

Its geographic position, the way the air masses circulate above it, its resources of radiant and thermal energy, make Romania one of the privileged European countries with pedoclimatic conditions favorable for obtaining quality agricultural productions in significant quantities. Romanians maintain their traditions and old food recipes that are valorizing the diversity of plants and animals raised on Romania's territory. Over 150 varieties of vegetables and fruits are grown and over 100 breeds of bovines, ovines, caprines, cabalines, porcines, and poultry are raised (Roman, 2015).

Although Romania, with the exception of the Dobrogea territory, is not part of the Balkan Peninsula, it is traditionally considered a Balkan country due to its vicinity to and common history with Greece, Bulgaria, states of former Yugoslavia, and Turkey. Fig. 14.1 illustrates the provinces of Romania. Banat, Oltenia, Walachia (Țara Românească), Dobrogea, and the south of Moldova are the Romanian provinces where the influence of Balkan cuisine is present. This influence was strong enough to make a clear difference between what is consumed in these provinces and the other Romanian provinces which, in turn, have been influenced either by the Austro-Hungarian cuisine (Transylvania and Crișana) or Ukrainian and Russian cuisine (Moldova, Bucovina, Maramureș, and Satmar—today, Satu Mare county).

#### 14.1.1 Basic ingredients in Romanian cuisine

The main characteristic of the Romanian cuisine is the use of vegetables and herbs in large amounts. Even in winter time, Romanians are used to cook with vegetables, most of which are at that time available as preserves. Potatoes and pulses are also used as main ingredients. Dishes have distinct aromas due to especially thyme, parsley, dill, ail, lovage, bay leaves, and sometimes tarragon, basil, rosemary, mint, caraway, and oregano, spices that are used along with black pepper and paprika for obtaining a heat note. If we have to think to a special herb for Romanians, then we have to mention lovage. According to Nistoreanu, Dorobantu, and Gheorghe (2013), the use of lovage as a spice has lost its fame in other countries, being there only a medicinal herb, while in Romania this is



**Figure 14.1** Romania's traditional provinces. Balkan cuisine is found in Banat, Oltenia, Walachia, south of Moldova and Dobrogea. *Courtesy of Romania Tourism.*

constantly used in sour soups. The consumption of wild plants is also common nowadays in Romania, especially in spring time. These include red orache (*Atriplex hortensis*), wild garlic (*Allium ursinum*), nettle (*Urtica dioica*), sorrel (*Rumex acetosa*), garden sorrel (*Rumex patientia*, *Rumex alpinus*), and dandelion (*Taraxacum officinale*).

Sunflower oil is used to the greatest extent, while olive oil is preferred for salads. Although olive trees are not growing in Romania, olives and olive oil are imported to satisfy Romanians' preference for these products. This preference is inherited from the Greeks who lived in Romania for centuries.

When it comes to meat, pork, poultry and beef are preferred nowadays, while lamb and mouton were a frequent choice until 50 years ago. To eat lamb meat at Easter and mouton pastrami in the autumn has been a long tradition that is still followed by Romanians. Meat products as dried cured salami and sausages are popular too, as they are good appetizers. Their name is *mezeluri* from the Turkish word "meze" meaning snack or starter. Fish is also popular, with recent data showing that 6 kg per capita are consumed yearly (AGERPRES, 2017), which means less than before 1990 (AGERPRES, 2017), while shellfish are becoming an option.

Dairy products are represented by butter, sour cream, and a variety of fermented dairy products including yoghurt and different varieties of cheeses that start with fresh cheese and continue with brined cheese and pasta filata cheese.

Bread is served with every meal on the side and often helps in absorbing the sauces of dishes—numerous dishes have sauces consisting mostly of the natural juices of the vegetables in the dish. For some dishes, *mămăliga* (the equivalent of Italian polenta) replaces bread. Traditionally, *mămăliga* is obtained by cooking one part corn meal in three parts boiling water in a round bottom cast iron pot called *ceaun* or *tuci*. Depending on the dish it accompanies, *mămăliga* may have two different consistencies: one is hard, which allows cutting into slices, and the other is soft, almost like porridge.

### 14.1.2 Romanian cuisine

Romanian cuisine is “simple,” “traditional,” “heavy,” “diverse,” “rich,” “amazing,” “tasty,” “mouth-watering,” and, according to Baker (2014), a Lonely Planet writer, “[it] is a near-perfect reflection of the country’s agrarian roots and twisted history.” Taking into consideration that history and geographic position put a mark on the cuisine of each region of Romania, it is possible to make some regional distinctions.

#### 14.1.2.1 Regional cuisine

Moldova’s (north east region, close to the country Moldova) cuisine has Polish, Ukrainian, Russian, Turkish, and even Greek and Austrian influences and is considered more refined than that of other Romanian regions (Curelea, 2020a). Poultry and fish are the preferred meat, but pork, veal, mouton, and game are also cooked often. Vegetables, eggs, and dairy products are also used as ingredients. Sour soups are soured with *borș* (borsh) and are often supplemented with eggs and cream. Second courses are considered more dietetic than in other regions of Romania, because they are prepared with a base of poached onions instead of fried onions, and the sauces are mostly obtained with tomato or bell pepper paste instead of roux sauces (Ciobanu & Brote, 1968). Moldova is also famous for its sweet leavened dough used to make *cozonac* and *mucenici*.

*Muntenia*’s cuisine has Oriental influences combined with the refinement of French and Italian cuisine (Curelea, 2020b). This is the reason why, besides soups soured with unripen fruits (e.g., cherry plums, grapes) and dishes made with minced meat, it is possible to find puddings, soufflés, vegetables *au gratin*, mushrooms added to dishes to enrich their taste, sweets made of fine pastry, but also dishes such as *ciulama*, *pilaf*, and *musaca* (Ciobanu & Brote, 1968).

The cuisine of *Dobrogea* is rich in fish dishes, as the region is bordered by the Black Sea, the Danube Delta, and the Danube River. It is said that people living in the Danube Delta can prepare with fish any Romanian dish that needs meat. Then, it has many dishes made

either with sheep milk or cheese or with mutton meat, similar to Oriental dishes, due to the large population of Turkish and Tartar communities living in this area.

In *Ardeal* (*Transylvania* and *Crișana*), the Western Romania that was part of the Austro-Hungarian Empire, pork meat is preferred, sauces accompanying meat are thickened with flour, fruits are often used as side dish or as main ingredient in soups, sweet paprika replaces the tomato paste, and cooking with lard is practiced more than in other parts of Romania (Ciobanu & Brote, 1968). Soups are often seasoned with sour cream. Then, the cakes look different in this part of Romania as they are more elaborated: either made as pastry or as sponge cake; the multiple layers they contain are stacked together, while separated by thin layers of apricot jam, chocolate crême, walnuts and poppy seeds, or combinations of these.

*Oltenia* is renamed for baking bread in a special type of terra cotta oven named *țest*, for cooking food in terra cotta vessels, and for consuming leek, a vegetable that is emblematic for this region of Romania.

In *Banat* are felt the influences of Serbian, Hungarian, Austrian, and Greek cuisine. Many dishes are made with roux sauces. Distinctive are also *sarmale* that are almost triple in dimension than those prepared elsewhere in Romania. Spices used are those that imprint an aromatic note (e.g., dill, marjoram, and rosemary) instead of a heat note (Ciobanu & Brote, 1968).

Names of dishes or food products prove that some of them are authentic Romanian, while others have been adopted from the country's neighbors.

#### 14.1.2.2 Authentic Romanian food

Many Romanian foods have the geographic specificity of the region they represent included into their names. Although geographic dimension is just a facet of the authentic foods (Johnston & Bauman, 2015), this proves the extent they belong to a certain region. Thus, from Dobrogea come *plăcintă dobrogeană* (Dobrudja pie) and *tochitură dobrogeană*, Moldova and Bucovina are renamed for *borș moldovenesc*, *tochitură moldovenească*, *mucenici moldovenești*, *ciorbă rădăuțeană*, *pasăre cu bureți ca la Suceava*, *plachie bucovineană*, Muntenia has *mucenici muntenesti*, *covrigi de Buzău* and *colerezi ca în Prahova*, Oltenia gave *cârnăciori oltenesti*, Banat *cotlet de porc ca în Banat*, and Ardeal *varză à la Cluj*, just to name a few of the dishes that made famous a Romanian region or a place. Then, we have *ochiuri românești*. Although the eggs of this dish are poached as eggs Benedict, they are served with melted butter and *mămăligă*, this way of serving making the difference between the American dish and the Romanian one.

When it comes to *adopted food*, the name of the dish is either kept unchanged or has its origin declared, like a tribute paid to the country or people whose dishes or products served as inspiration.

#### **14.1.2.3 Romanian dishes inspired by Greeks**

As Greeks have been not only visitors to Romania, but even inhabitants, Romanians borrowed a multitude of their recipes. When using the lemon juice to sour the dish, as it happens for a variety of soups and dishes made with vegetables, to the dish name is added *à la grecque* to emphasis that the dish is made in the Greek manner. Then, Romanians kept the name of *musaca* (*musaka* in Greek) for the eggplant or potato-based dish, prepared with ground meat between the layers of fried vegetables and covered with a mixture made of eggs and tomato paste, and *scordalea* (*skordalia* in Greek) for the thick purée of potatoes, combined with oil, lemon juice, crushed garlic, and walnuts, and often smoked fish. Meantime, many other dishes are similar to what can be found in the Greek cuisine.

#### **14.1.2.4 Romanian dishes inspired by Turks**

From Turks, the Romanians borrowed *sarmale* (*sarmak* in Turkish means to wrap), *chiftea* (*köfte* in Turkish), *pilaf* (*pilav* in Turkish), and *ciulama* (*çulama* in Turkish) (Ionescu, 2017). Many of the famous Romanian sour soups (e.g., trip soup, soup with meatballs) have been created in the kitchens of the Ottoman army located on the Romanian territory. The generic name of such soup is *ciorbă* coming from the Turkish *çorba*. Then, the Romanians are paying tribute to Turks naming the coffee prepared in hot sand *Turkish coffee* and the dessert made from flour, oil and hot sugar syrup *Turkish halva*. Even the name for the workshops where bagels are prepared and sold is *simigerie* coming from the Turkish “simitci”, which means the person who is preparing such goods.

#### **14.1.2.5 Romanian dishes inspired by Bulgarians**

The renamed *shopska* salad is familiar to Romanians under the name of *Bulgarian salad* and is served especially in the summer time either as side dish accompanying grilled meat or alone as a light meal. The replacement of the olive oil with sunflower oil and the *sirene* cheese (Bulgarian cheese similar to feta) with *telemea* (Romanian cheese similar to feta) represents the Romanian touch.

#### **14.1.2.6 Romanian dishes inspired by Serbians**

The pilaf made with a lot of vegetables is called *Serbian pilaf* (*pilaf sârbesc*) or *Serbian rice* (*orez sârbesc*) and is considered ideal for the many fasting days in Romania. The same is true for the pot rich in vegetables, which is named *Serbian vegetable pot* (*ghiveci sârbesc*). Then, *babic*, a dried cured spicy salami made from pork and beef meat in villages from Buzău county, has Serbian roots.

#### **14.1.2.7 Romanian dishes inspired by Hungarians and Austrians**

The *gulaş* (goulash) and *Doboş tort* (Dobos-torta), both originating from Hungary, and *şniţel* (schnitzel) and *ştrudel* (strudel), both originating from Austria, are often made in Ardeal.

#### **14.1.2.8 Romanian dishes inspired by Ukrainians and Russians**

There are many dishes inspired by the Ukrainian or Russian cuisine that entered into the Romanian cuisine, but not so many kept their original name. One dish much appreciated by Romanians is the famous Olivier salad, a traditional salad dish in the Russian cuisine, which is known in Romania as Russian salad or *salată à la Russe*.

An interesting situation concerns *borş* (*borsch*), which has just borrowed its name from Ukrainians, while the way it is prepared differs from the Ukrainian, Russian, or Polish dish. To make a difference between these products, the Romanian one is an opalescent liquid obtained by lactic fermentation of a cereal mash, while the other is a dish obtained with beetroot, Nicolau and Gostin (2016) called them white borsh and red borsh. The unicity of *borş* is recognized by Alexe (2015). According to him, Romanians have two essential food products that are not made by anybody else, food products that contain vitamins and have a good antimicrobial activity, contributing to strengthening the immune system of Romanians along the years: *borş* and *mujdei* (i.e., an emulsion made of ail, oil and water).

#### **14.1.2.9 Romanian dishes inspired by Jews**

As Romania had large communities of Jewish people, some of their cuisine passed into the Romanian one, but the Jewish names of the dishes have not been kept. A spectacular dish inherited from Jewish people is *ştiucă umplută*, which is made by skinning the fish (*Esox lucius*), taking the flesh out of the bones, mincing it and then mixing with finely chopped browned onions, grated carrots, eggs, salt, and pepper. The fish skin and head are stuffed with the mixture and poached.

It can be said that Romanian cuisine is a type of fusion cuisine, although it was not invented by chefs, but occurred naturally.

## **14.2 Culture and traditions**

One cannot speak of culture and tradition in a geographical area without discussing food habits that are substantially influenced by the environment and history. According to Super (2002), “food is the ideal cultural symbol that allows the historian to uncover hidden levels of meaning in social relationships and arrive at a new experience of human experience.” The food and eating habits in today’s Romania are a testimony in this regard.

### 14.2.1 Culture and traditions in ancient time

Unlike other civilizations, there are no direct data on the diet of distant ancestors of Romanians, the Thracian tribes of Dacians and Gets. It can only be inferred that their diet was strongly influenced by the Mediterranean people, such as the Greeks and, further on, by Romans. Geto-Dacians exported honey, wax, animals, salt, fur, but also cheese. Lucius Junius Moderatus Columella, the most important Latin agronomist, writes in one of his 12 volume opera “Rei rusticate” that sheep provide wealth through milk and cheese, and that for some people, including Gets, cheese and milk are staples. Therefore, Gets could be called “milk drinkers” (Dordea, 2013). Elements from archeological findings, as well as images from Trajan’s Column from Rome, show a culture based on agriculture and animal husbandry, as well as apiculture—a specific local activity that is practiced to our days. Data on daily life, as described in folk stories and ballads, highlight the pervasive presence of herds, correlated with a steady production and consumption of milk and meat. Frequently, a shepherd is the central figure in ballads such as “Miorița”—a ballad considered emblematic for Romanians. The wealthier people had perhaps a more nutritious diet than poorest, but elaborate and complicated preparations were surely hard to find, due to the frequent periods of war and the raids of the Tartar tribes.

### 14.2.2 Culture and traditions until modern times

After the introduction of Christianity, another important factor influencing the diet was observed: religion. The majority of Romanians are Orthodox Christians, like many Balkan nations. This means a peculiar schedule of religious events, usually preceded by long periods of fasting. However, in contrast with other types of Christian fasts, the Orthodox one excludes completely all foods of animal origin, being entirely vegan. Days of fasting during the year are not limited to the big periods around Christmas, Easter, and Saint Marry, but they are very frequent, covering Wednesdays and Fridays weekly. There are also days of “black fast” that might remind Ramadan, and days of fasting when some forbidden foods are permitted (like fish or cheese). In total, there are over 200 days of fasting along a year.

After the 16th century, some local recipes and eating habits can be found in the narratives of foreign travelers through the Romanian historical counties. For example, the German Andreas Wolf wrote that during a feast with the head of the Orthodox Church he ate *mămăligă* mixed with cheese, dish known as *mămăligă îmbrânzită* (cheesed polenta) (Wolf, 2005). The richer strata of the population from Țara Românească and Moldova counties ate a diet that was strongly influenced by the Orient, Turkish and Greek dishes being introduced little by little and modified by local likings.

The frequency of fasting combined with poverty led to a diet in which meat was mostly present during celebrations and was rarely seen in every day dishes, while dairy products and vegetables covered the daily nutritional needs of the average locals. During the 19th century, doctor Constantin Caracaș noticed that, when not fasting, people's diets were based on sour milk, hard cheese, eggs, salted fish, and meat in small quantities (Bărbulescu, 2015). In his writings, Ion Claudian, a medical doctor from the early 20th century, described Romanians as being "vegetarian and milkivore shepherds" (Claudian, 1939). Indeed, cheese and milk had significances far beyond nutrition. For instance, cheese had an apotropaic action; it was used before Saint George, when bad spirits might penetrate the world, or in cheese puppets given to young women as a symbol of fertility by transhumant shepherds descending from the mountains (Enache, 2011).

Whatever the daily diet was, feasts before fasts or during religious celebrations were rather epic, with dedicated dishes. Before the longest fast, the Easter one, for example, people gave up meat (*lăsatul secului de carne*) in the first place and only after a week, eggs and cheese. This last week, named "white week" after the color of cheese, involved eating kneaded cheese in dried sheep stomach (*brânză de burduf*) on Monday, on Tuesday cheese consumption was mandatory, on Wednesday (even though it is generally a fast day) it was allowed to eat cheese and fish, on Thursday a rich pie was prepared not for people, but for ants that had to be "bribed" to be kept away, and finally, on Friday people were expected to pray and keep a total fast until nightfall.

Malnutrition, hygiene, and public health in the Romanian counties began to be registered at the end of the 19th century. The work of doctor Gheorghe Crăiniceanu entitled "Hygiene of the Romanian peasant" (Crainiceanu, 1895) describes households, clothes, and dietary habits in Romanian rural communities. Poverty is frequent, corn meal represents the basis of daily meals, and meat is reserved for rare occasions of feasting. Even though in many households animals are present, meat, eggs and milk products are frequently sold and valuable sources of protein and other nutrients are lacking. Nutritious vegetables like beans are in some areas absent and corn porridge, vinegar and salted onion or soups of leafy greens are mainly every day dishes. Crainiceanu notices that frugal meals lacking main nutrients are present even in richer households, people considering this way of life as being traditional and healthy (Crainiceanu, 1895).

The situation is better in some counties belonging to the Transylvanian region, where at least meat products are consumed more frequently, due to the pervasiveness of animal husbandry. Pellagra begins to be endemic, a situation that will be corrected only later in the 20th century. Nutrition in rural areas continued to be rather poor and the same can be noticed for pauper workers in urban dwellings.

During the first decade of the 20th century and the interwar period, gastronomy and traditions diversified, being strongly influenced by foreign habits, mainly French,



but also English or, to a lesser extent, Italian. However, local dishes were preferred by locals, and foreign and trendy dishes were rather a way to display wealth and social success. A connoisseur of the Romanian terroir of the period was Păstorel Teodoreanu, who offers both elaborate recipes (e.g., how to prepare an ostrich egg from . . . hen), and very simple combinations (e.g., a slice of cheese with fried trout and a glass of Dragășani white wine, or a roast and a glass of Nicorești wine), and calls these basic meals worthy of being devoured by people with fine tastes like Brilliant Savarin (Teodoreanu, 2005).

### 14.2.3 Culture and traditions in Romania after the World War II

Many things have changed in Romania after the World War II, for better or worse, since food habits are closely influenced by the political and socioeconomic framework. Under the Communist regime, most of the imported food is scarce and people have to rely on local products. Crops are produced in small quantities and cover only part of the household's needs. Hygiene (including food hygiene) and malnutrition become important topics. Food intake surveys in different groups of population take place to identify areas in need of action. Thus, old problems like pellagra and iodine deficiency are little by little solved, either by changing eating habits (e.g., polenta intake has been diminished by building village bakeries that provided bread) or by offering supplements to high-risk groups (e.g., children, pregnant women summoned weekly in schools for iodine supplements).

Regarding everyday life, homemade food is the norm, but in some factories and institutions canteens were set up for the workers. At home or at work, main meals consist in three courses, with a soup or a sour soup (“*ciorbă*”) opening the meal. For souring *ciorba* it is used *borș*, vinegar, sauerkraut juice, a thick broth made of cherry plums (*Prunus cerasifera*), or unripen grapes. The main course is generally meat in different forms: grilled, boiled, baked, or minced in traditional courses like *sarmale* in cabbage or vine leaves, *chiftele*, *perișoare* (meatballs), etc. Deserts are simple (e.g., apple pies, homemade cakes, rice milk, or compotes) and frequently are made-up of seasonal fruits. Significant occasions are celebrated with feasts, where the talent of the cook dictates the pleasures of the palate. Since the cook is the lady of the house, the recipes are changed among friends and long hours are spent in the kitchen in order to transform rather basic food into sophisticated courses. When the weather permits, people go outdoors in green areas of towns or nearby areas, eat barbecues, and drink Romanian beer and homemade wine.

The source of food is, as stated before, mainly local. Peasants sell small quantities of produce, meat, and cheese in markets at prices generally dictated by local administrators. Food shops (*alimentara*, *aprozar*) sell Romanian products originating from farms and factories built during the Communist regime. Seasonally, exotic fruits appear in

shops and are given especially to children (e.g., oranges, bananas, etc.). Imported food products come mainly from other communist countries (e.g., China, Cuba, African countries) and are highly cherished.

In the 1980s, unfortunately, food and many other basic commodities become scarce. Food in shops is limited to some vegetable preserves, sugar, flour, and oil are rationed and, from time to time, people can buy milk, low quality sausages, or hen and pig legs, after staying in long queues for hours. The only hope remains food bought from the black market or from the countryside, although the Communist regime banned slaughtering animals even in the household. The only upside of this dark decade is the fact that Romanians postponed the obesity epidemic that began in the same period in other European countries. Due to intense food shortage, people remain at a normal or low weight, overweight, and obesity is present on a large scale only after the anti-Communist revolution of 1989. Nutritional transition was delayed by a decade.

Indeed, after 1989 the market became free, and foreign food products flooded Romanian shops. Global fast-food companies open subsidiaries in Romania and even if initially their products have high prices, they dwindle in time, becoming affordable.

Thirty years after the anti-Communist revolution, food habits in Romania are very similar to those in any other European country. Fast-food is available everywhere, people are struggling with excess weight and obesity, the demand for organic food is on the rise, more and more local produce are cherished. Maybe one thing is still different for at least a while: despite the high availability of ready-to-eat food or affordable prices in some restaurants, Romanians rely mainly on homemade food. Signs show that this will not last long, as young people prefer to skip cooking due to lack of time or lack of skills in the kitchen.

## 14.3 Typical foods and food products

### 14.3.1 Traditional Romanian food products

In Romania, attestation of traditional food products is legally supported by the Joint Order of the Minister of Agriculture and Rural Development (MADR), the Minister of Health, and the President of the National Authority for Consumer Protection. The [Order no. 724/1082/360 \(2013\)](#) modified by [Order no. 394/290/89 \(2014\)](#) sets out the definition of traditional products and the conditions and eligibility criteria for their attestation. Accordingly, traditional food products are defined as foods produced within the borders of the national territory, for which local raw materials are used, which are free of food additives, are based on a traditional recipe and/or a traditional type of processing, and which differ from other similar products belonging to the same category. When applying to attest their products as traditional, food producers must prepare a dossier in which many items must be provided, from a description of the characteristics of the food to documents demonstrating that the product has been manufactured and transmitted over generations. If the documentation submitted by the applicant is complete, this is subsequently verified on-site



**Figure 14.2** Logos used for Romanian traditional products (left), prestigious recipes (center) and mountain product (right). *Courtesy of Romanian Ministry of Agriculture and Rural Development and National Agency of Montan Area.*

by a representative of MADR and, if the information contained in the documentation is confirmed after verification, the product is registered in the National Register for Traditional Products (*Registrul Național pentru Produse Tradiționale—RNPT*), and the document certifying this is issued. Following registration in the RNPT, traditional products can be marked with the national logo for traditional products (Fig. 14.2). At the end of 2019, there were 716 products were registered as traditional products belonging to the following categories:

- Meat and meat products: 295.
- Milk and dairy products: 149.
- Bread, bakery, and pastry: 114.
- Fruit and vegetables: 114.
- Drinks: 22.
- Fish: 20.
- Other products: 2 (i.e., *sarmale maramureșene ca la Ancuța and borș “Dinu”*).

One of the products belonging to the fish products category that was attested as traditional is *Salata de icre de crap “Delta din Carpați Doripesco”*, produced by Doripesco, a company from Brașov county. The salad is made of 65% sunflower oil, 27% carp roes (the highest content of roes compared to similar products on the Romanian market), 2.5% salt, and lemon juice. This salad is a very nutritious spreadable salad, with a large amount of quality proteins (which make up about 30% of the roe mass), vitamins, especially the B complex, of which B12 is well represented, choline, tocopherol, magnesium, phosphorous, selenium, and sodium. Lemon juice contributes to the intake of vitamin C, an important antioxidant for the diet. The level of carbohydrates is low, but roes have a high cholesterol content that should be considered, especially by dyslipidemic consumers. Fats are mostly mono- and polyunsaturated, and the eicosapentaenoic acid (EPA, 20:5, omega-3) and docosahexaenoic acid (DHA, 22:6, omega-3) levels are quite important in cold-water fish (almost double the daily recommended intake). The omega-3/omega-6

ratio is high, making roes an important contributor for healthy fats intake. Calories associated with this product are 611.21 kcal/100 g and are mostly provided by oil, because roes *per se* have only around 150 kcal/100 g. Roes are easily digestible, the salad being a healthy snack for all ages. Due to the high oil content, the product is not well tolerated by consumers with biliary problems.

Another product attested as traditional is *braga* “Alina”, which belongs to the beverage category. The product made in Galați by SC Comalina SRL is based on a mash obtained from a mixture of flours (i.e., wheat and maize), which undergoes a fermentation process under the action of a mixed fermentative flora of bacteria and yeasts. The final product is a consistent, fizzy beverage, highly caloric, with a hint of ethanol, and rich in sugars (originating from cereals and sugar added after fermentation), with traces of proteins, free amino acids, soluble fiber, organic acids, and small amount of vitamin B complex and trace elements. The presence of organic acids (mainly lactic acid) and fiber are responsible for the laxative effect of the product. Being a fermented product, without food additives, it can be an occasional refreshing and hydrating drink, although the presence of ethanol restricts to some extent its consumption by young children. This type of beverage, also known as the sultan’s beverage, is based on a recipe brought to Romania by Turks and was the equivalent of today’s summer soft drinks for consumers.

### 14.3.2 Prestigious Romanian recipes

Although not named traditional, another category of food products based on old recipes is that of prestigious Romanian food products. These types of products are legally supported by the Joint Order no. 394/290/89 (2014) of the Minister of Agriculture and Rural Development, the Minister of Health and the President of the National Authority for Consumer Protection. To be certified as a prestigious Romanian recipe, the food product must be manufactured according to the composition used for more than 30 years before April 2, 2014, the date of entry into force of the order. So far, there are 151 products registered as prestigious Romanian recipes in the National Register of Prestigious Recipes (*Registrul Național al Rețetelor Consacrate*—RNRC):

- Meat products: 79.
- Dairy products: 41.
- Bakery products: 27.
- Products obtained by processing fruits and vegetables: 3.
- Other products: 1 (mustard).

Products certified as prestigious Romanian recipes are allowed to have on their label the logo dedicated to this type of products (Fig. 14.2).

One of these products is *cașcaval de Fetești*. It is a highly nutritious dairy product, from the category of hard cheeses, which is obtained from sheep and cow milk. With

low water content, the nutrients are highly concentrated (fat reported to dry mater content is 45%). The 22% protein content makes the product an important source of valuable proteins. The protein it contains is rich in essential amino acids, including much-needed branched chain amino acids, easily digestible and easy to use for metabolic purposes. The presence of calcium at high levels, by concentrating it from milk, makes pasta filata cheeses, such as *cașcaval*, an essential source for people. Calcium in *cașcaval* is also highly usable due to the absence of components that lower its absorption. Thus, *cașcaval* can be seen as a product with an important “structural” nutrient content, protein and calcium being the main actors. Children, pregnant or lactating women benefit from eating such a dairy product. The composition of *cașcaval* is also rich in B vitamins, especially B2 and B6, retinol, phosphorous, iodine, sodium, etc. On the downside, *cașcaval* is very rich in fats (around 25%–30%), with a high content of saturated fatty acids, cholesterol, and with some traces of trans fats. As a consequence, consumers with dyslipidemia and cardiovascular problems are advised to eat it as seldom as possible. *Cașcaval*, like other dairy products, has very low iron content and no vitamin C. However, it is easy to digest and can be recommended even to lactose intolerant people or to persons with a low gastric peptic secretion, due to the predigestion suffered by the basic ingredients during processing (i.e., the rennet hydrolyzes casein and the lactic acid bacteria ferment lactose).

### 14.3.3 Mountain products

“Mountain product” is an optional quality statement. Accordingly, meat products must come from animals raised in the mountain area for at least two thirds of their life. In the case of products made from transhumant animals, they must spend at least a quarter of their life on pastures in mountain areas. In the case of plant products, the term “mountain product” may be applied if they are grown in a mountain area. The characteristic of these products is their close connection with the mountains of Romania, considered cradles of local civilization. If not ecologically certified, at least these products (e.g., milk, dairy, meat products, hive products, etc.) are pure and tightly linked to the Romanian tradition. Such products are registered in the National Register of Mountain Products (*Registrul Național al Produselor Montane*—RNPM). Their total number so far is 250. The logo that this type of products can display on their label is presented in [Fig. 14.2](#).

### 14.3.4 Other Romanian products

The following products have geographical indications and traditional specialties status:

- *Protected geographical indication (PGI)*—5 products: Magiun de Topoloveni (plum jam), Sibiu salami, smoked Novac (*Hypophthalmichthys nobilis*) from Bârsei county, Smoked Danube Mackerel, Pleșcoi Sausages.

- *Protected designation of origin (DOP)*—1 product: Telemea de Ibănești (brined cheese).
- *Geographical indication*—9 products, all from the category of distilled alcoholic beverages: Vinars Târnave, Vinars Vaslui, Vinars Murfatlar, Vinars Vrancea, Vinars Segarcea, Pălincă, Țuică Zetea de Medieșu Aurit, Țuică de Argeș, Horincă de Cămârzana.

Consumers can access the Certified Romanian Food Products Catalogue available on the Ministry of Agriculture website (CPAC, 2020)—the application allows users to find, in real time, certified foods in the area where they originate, as well as full details about the manufacturer and the recipes used.

#### 14.3.4.1 *Magiun de Topoloveni*

Made in Topoloveni, in the Arges county, this product is the first Romanian food product that obtained the PGI status in 2011. It is made exclusively from plums belonging to various local varieties of *Prunus domestica*. Plums are stoned and then heated at 68°C for about 12–14 h without sugar, until a homogeneous thick dark brown paste is obtained. The high dry matter content (55 degrees Brix) of the paste ensures the preservation of the product at ambient temperature. Although based on a traditional recipe, the industrial product tastes and looks better than when obtained in households, due to better control of the heating process. The product has been highly praised in the last decade. As advantages, the lack of added sugar, lack of food additives that makes it a “clean label” product, the natural presence of antioxidants and fibers (27.97% of which 5.47% insoluble and 22.5% soluble—pectic substances) can be listed. The presence of insoluble fiber in plums decreases the glycemic index of the product, constituting an advantage for “magiun,” in contrast to other jams. Traditionally, plums are associated with normalizing the digestive transit, thus being a solution to a widespread modern suffering: constipation. Last but not least, “magiun” has a high load of antioxidants, originating in plums. These substances, mainly polyphenols, curb inflammation and have many benefic effects. Some in vitro research and clinical trials even found positive actions of anthocyanins, a type of polyphenols found in plums, on cardiovascular disease and other contemporary health problems like diabetes or systemic inflammation (Fallah, Sarmast, Fatehi, & Jafari, 2020; Lila, 2004).

#### 14.3.4.2 *Scrumbie de Dunăre afumată (Smoked Danube Mackerel)*

This is the 4th Romanian food product that obtained the PGI status. The Danube mackerel (*Alosa pontica* Eichwald, *ssp. Alosa pontica*), a type of fish that cannot be aquacultured and which is captured only during its migration from the Black Sea to the Danube river (i.e., from Sulina or Sf. Gheorghe in Tulcea county to Cotul Piscii in the Galați county), is well-known for its richness in fats. Since fish is generally rich in omega-3 fatty acids, especially long-chain ones, this fish can be considered an important

source of EPA and DHA, which are much-needed at any age to counteract the effects of diets abundant in omega-6 proinflammatory fatty acids. However, the presence of high levels of fat and cholesterol makes the product very high in calories. Therefore it is recommended to be consumed only occasionally by people with abnormal levels of circulating lipids. Like any other fish, this provides a high level of easily digestible and valuable animal protein, high content of retinol, vitamin D, and B vitamins (with the notable exception of thiamine), minerals like magnesium and phosphorous, and many trace minerals. Due to the specific processing (i.e., salting, drying, then cold smoking), it has a high level of salt that can be problematic for a healthy eater or especially for a consumer with high blood pressure. Smoking generates polycyclic aromatic hydrocarbons that make digestion rather difficult, so when the product is consumed in excess, it can raise health problems. Traditionally, people who consume high levels of salted smoked fish are at a higher risk of gastric cancer ([American Cancer Society, 2017](#)) than those who eat the product occasionally.

#### **14.3.4.3 Pleşcoi sausages**

The *Pleşcoi sausages* are the 5th Romanian product that obtained the PGI recognition. They are meat products originating from Pleşcoi, county of Buzau, obtained in natural casings, which are available in two forms: dried or smoked. Being made from sheep (85%) and cow (15%) meat, their fatty acids profile shows a high content of long saturated fatty acids, difficult for digestion and with atherogenic effects. Natural trans fatty acids (especially sheep fat) are present, having a detrimental effect on the normal functioning of arteries. However, fats are around 14%, which together with the 18% protein, give the product a rather acceptable number of calories, around 200 Kcal/100 g. The sausages contain vitamins and minerals, as well as some natural antioxidants brought by condiments (e.g., garlic, paprika, and thyme). Salt is always present, but its level may vary. Smoking and final preparation by frying can make these products more problematic for digestion, especially on a background of biliary or pancreatic illnesses. However, these sausages are not a daily food, so their occasional consumption is welcomed, due to the presence of nutrients from meat.

### **14.4 Sustainability and environment (preservation options)**

It is difficult to advance an opinion on the sustainability of traditional Romanian food products due to the complexity of assessing food sustainability in general and lack of data on the indicators used in calculations. When the Food Sustainability Index (FSI) has been measured in 2018, Romania was among the 67 countries participating in this study performed across the world and was ranked the 44th. FSI, which was commissioned by the Barilla Center for Food and Nutrition (BCFN) Foundation and carried out by The Economist Intelligence Unit (EIU), is constructed from 37 indicators and 89 individual metrics that measure the

sustainability of food systems across three categories: food loss and waste, sustainable agriculture, and nutritional challenges. The index has three key performance indicators (i.e., environmental, societal, and economic) and was established to allow ranking between countries, promoting best practices and measuring progress over time. Romania's overall score was 64.4, which is medium. Romania scored 67.7 for food loss and waste, 68.0 for sustainable agriculture, and 57.4 for nutritional challenges (indicators are scaled from 0 to 100, where 100 equals fully sustainable) (FSI, 2020). In another worldwide study performed by [Béné et al. \(2019\)](#), in which 27 indicators were included in the metric to obtain an image of the food system in terms of environmental, economic, social, and food and nutrition sustainability, Romania qualified among the 164 countries for which at least one indicator exists in each of the four dimensions of the metric. However, the country was not among those that have a complete data set of all 27 indicators. Romania's composite sustainability score was between 0.5 and 0.65, 1 being the maximum and representing full sustainability.

Sustainability of traditional food products should be judged case by case. For sure it cannot be considered sustainable a product that has to be cooked using an open fire or a stove producing smoke. This is the case for the process involved in making *braga* “*Alina*” (see [Section 14.3.1](#)), as the mixture of water and flours is boiled in a stainless steel recipient that is heated by a fire made of beech wood ([Mototolea, 2013](#)). Meanwhile, food preservation by pickling (e.g., extending the shelf life of food by lactic fermentation in brine, immersion in vinegar, or by mixed acidification when vinegar is added in small amounts to allow lactic fermentation to take place) is considered sustainable due to several reasons: (1) allows extending seasonality of food, (2) allows eating locally, (3) has no environmental footprint (pickling was the natural way of preserving food before having access to refrigeration), and (4) reduces food waste.

Preparing pickles is a tradition throughout Romania and the obtained product is called *murături*. Usually early autumn is the season for making pickles, but producing pickled cucumbers in the summer time for immediate consumption is also common. When talking about pickles obtained either by lactic fermentation or by mixed acidification, the most common are cucumbers and sauerkraut, but mixtures containing green tomatoes, cauliflower, celery, and carrots in variable amounts are also popular, as well as bell peppers stuffed with cabbage or sweet Hungarian pimento peppers stuffed with grapes. Some fruits can also be pickled, the most common being small watermelons, apples, and grapes. The condiments used and the variable proportion of the different vegetables in the mixture contribute to the distinct taste, specific to each household. Cucumbers and sweet Hungarian pimento peppers are commonly used in the preparation of pickles with vinegar. Herbs and spices used for both taste and antimicrobial effect include dill, sour cherry leaves, bay leaves, celery leaves, horseradish roots, garlic cloves, mustard seeds, and peppercorns. Another famous preserve is *zacuscă*—a spread made of roasted eggplant, roasted peppers, sautéed onions, tomato paste, and sometimes mushrooms, carrots, or celery. Other types of preserves are



dedicated especially to fruits and are represented by *compotes*, *jams*, *jellies*, and *syrups*. These preserves are obtained from all the fruits that are specific to Romania, the most popular being those obtained from strawberries, cherries and sour cherries, apricots and peaches, raspberries and blackberries, apples, plums, and quinces.

Besides fruits and vegetables, meat like pork can be preserved in salt and lard after it has been fried and this product is called *carne la borcan* (meat in jar), while fish can be preserved in a marinade made of oil, vinegar, and spices. Although some of these preserves are certified as traditional products and are available for purchase in stores or online, the habit of preparing them at home is still in place.

## 14.5 Present nutritional conditions

In Romania, diseases caused by inadequate nutrition currently have the same profile as in other European countries. As demonstrated, chronic health problems like cardiovascular diseases, metabolic diseases, or cancer have a strong link with the overabundance of food. Noncommunicable diseases are the leading cause of morbidity in Romania, following the trend of weight gain, familiar in modern societies. Although different sources give different figures, the PREDATORR study (on adults 20–75 years of age) shows for 2016 an alarming prevalence of overweight and diabetes in Romania (Table 14.1) (Mota et al., 2016; Popa et al., 2016).

Results confirm that more than half of Romanians consume an excessive caloric diet, which leads to weight gain. Abdominal (central) obesity is a matter of deep concern, since

**Table 14.1** Prevalence of overweight and diabetes in Romania.

	Prevalence (%)	Estimated number of participants	
Prediabetes	16.5	2,491,083	1 of 6 adults
Diabetes (total)	11.6	1,751,307	1 of 9 adults
Diabetes: confirmed by a doctor	9.2	1,388,968	
Diabetes: unknown by the subject	2.4	362,339	1 of 5 adults
Overweight or obesity (BMI $\geq 25$ Kg/m <sup>2</sup> )	66.6	10,054,917	1 of 2 adults (BMI $\geq 25$ kg/m <sup>2</sup> )
Obesity (BMI $\geq 30$ kg/m <sup>2</sup> )	31.9	4,816,094	
Overweight (BMI 25–29.9 kg/m <sup>2</sup> )	34.7	5,238,823	
Central obesity	73.9	11,157,033	
Metabolic syndrome	38.5	5,812,527	1 of 3 adults

adiposity with this location is a driver for multiple metabolic disturbances. Regarding overweight in children, the COSI (European Childhood Obesity Surveillance Initiative) program investigated primary school pupils and found a prevalence of overweight (including obesity) in 8-years-olds of 26.75% and a prevalence for obesity of 11.6% (INSP, 2016).

Regarding nutritional deficiencies, traditionally Romania has been characterized by pellagra and endemic goiter. Special age groups (e.g., children, pregnant, and lactating women) can also be at risk of other types of malnutrition, such as iron deficiency anemia, rickets, and low levels of 25-hydroxycholecalciferol (25OHD).

Endemic goiter was widespread in many subcarpathian counties, due to the scarcity of iodine in soil and water. The number of cases in the early 20th century is difficult to recon, but in the second half of the last century, studies showed the persistence of endemic goiter, despite iodine supplements offered freely to population groups mostly at risk of iodine deficiency. The highest prevalence was noted in children and adults living in rural areas in high-risk counties (ReSanMed, 2017, 2018). In most of the cases, clinical symptoms were minimal or absent. Different studies showed a low excretion of iodine in urine, as evidence of a suboptimal iodine intake. Consequently, iodination of salt was considered the best preventive measure and was introduced by a governmental decision in 2002 and reinforced by 2009. Results were considered satisfactory, with only 419 cases registered in 2018 (ReSanMed, 2018). More than half of the cases originate in rural areas and involve adults between 35 and 74 years of age. However, good results tend to be hindered by a certain apprehension of the population toward iodized salt.

Pellagra, a disease caused by vitamin B3 deficiency, was present in Romania at the end of the 19th century and in the first part of the 20th century. Due to the substitution of polenta with bread in most rural areas during the middle of the 20th century, morbidity decreased dramatically, being limited to cases with aggravated comorbidities (malabsorption syndromes), extreme poverty, or associated with alcoholism (Zugravu, Pătrașcu, Stoian, & Prejbeanu, 2008).

Regarding vitamin D deficiency and its consequences it should be noted that, although rickets is rare and limited to cases with comorbidities (e.g., cystic fibrosis), low levels of 25OHD are prevalent (Zugravu, Soptica, Tarcea, & Cucu, 2016). Studies show that lower levels of 25OHD are present within any age group (Chirita-Emandi et al., 2015). Indeed, the consumption of foods rich in vitamin D3 is rather insufficient (Zugravu et al., 2016). As a consequence, special guidelines have been published (INSMC, 2010).

Another deficiency prevalent especially in children, but also in women at fertile age, is iron deficiency anemia. National prophylaxis programs have been implemented during the last decades, leading to a significant decrease in morbidity (i.e., from 404 DALYs (Disability-Adjusted Life Year) in 2004 to 323 in 2015). However, DALYs per 100,000 persons remained at 322 in 2016 due to iron deficiency anemia, warranting the need of further measures (INSP, 2019).

**Table 14.2** Ethno-cultural events organized across Romania to promote traditional food.<sup>a</sup>

Name of the event (as it is promoted in Romania)	Organizer	Place and period	Type of food that is celebrated
Festivalul sarmalelor <sup>b</sup>	SÓVIDÉK Microregional Association	Praid, Harghita county, the third weekend of September	“Sarmale”
Festivalul scrumbiei	Galati Town Hall	Galati, Galati county, during the weekend preceding the Easter	Danube mackerel ( <i>Alosa pontica Eichwald</i> )
Burduf Challenge	Râu Sadului Village Hall & The Association My Transylvania	Râu Sadului, Sibiu County, in August	Cheese
Craft Fest Sibiu	Grey Projects Association	Sibiu, Sibiu county, in September	Artisanal beer
Transylvanian Brunch	The Association My Transylvania	Cristian, Brasov county, in October	Local dishes
Festivalul borşului de peşte și gastronomiei deltaice	ANTREC Tulcea	Tulcea, Tulcea county, in September	Borsht made with fish and other food specific in the Danube Delta region
Târgul apicol Oltenia	Râmnicu Vâlcea Town Hall & Scundu Bee Farmers Association	Râmnicu Vâlcea, Vâlcea county, in April	Honey and honey products
Târg de produse agro-alimentare	Ministry of Agriculture and Rural Development	Bucureşti, in October (in connection with the World Food Day)	Traditional food products, including PDO, PGI, TSG
Festivalul cârnaţilor de Pleşcoi	County Council of Buzău, ANTREC Buzău, Pensiunea Casa Matei	Berca, Buzău county, in October	Pleşcoi sausages and other local food
Răvăşitul oilor— festivalul brânzei și al pastramei	Bran City Hall, Club Vila Bran, Breeding Animal Association from Bran Region, Bran Castle	Bran, Braşov county, in September	Cheese, pastrami and other local products

<sup>a</sup>The list is not exhaustive.

<sup>b</sup>The first cuisine festival from Romania, which is annually organized since 1998.

## 14.6 Future outlook of the Romanian cuisine

Several initiatives have been established to support the traditional Romanian food and cuisine. Some initiatives consist of ethno-cultural events, such as festivals and fairs, which are organized by a local community, association, or institution, but which have an impact at national and often even at international level (Nistoreanu, Dorobantu, & Gheorghe, 2013). Some of these events are presented in Table 14.2.

Other actions consist of (1) initiatives aimed at documenting traditional knowledge about Romanian food and its spiritual and health attributes; (2) restaurants that introduce traditional Romanian food in their menus; and (3) national programs that promote Romanian cuisine. All these initiatives encourage the consumption of authentic local products obtained through traditional processes that are environmentally friendly.

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