

## Activities for Promotion of Local Food and Protected Agricultural Products in Slovenia

---

**Patricia Blatnik, Štefan Bojnec**

University of Primorska, Faculty of Management, Slovenia

### Abstract

Activities for promotion of Local Slovenian food have been carried out through several national projects. One of the most prominent ones is the project Traditional Slovenian breakfast. Other projects include advertising campaigns (We Are Connected with delicacies from our countryside, Fresh food from your vicinity, Be aware of local origin), school schemes (School fruit scheme, School milk scheme), events (Goodness of farms in Ptuj, The countryside in the city), website promotion (Buy local), and brand establishment (Buy Slovenian).

For protection of agricultural products and foodstuffs there are 3 European quality schemes: Protected designation of origin, Protected geographical indication, and Traditional speciality guaranteed. Besides the three European schemes in Slovenia there is also another scheme for protection, Designation of higher quality. In Slovenia are 5 protected milk products, all of them cheeses. Under the quality scheme Protected designation of origin are included: Mohant cheese, Nanos cheese, Tolminc cheese, and Bovec cheese, Under the quality scheme Higher quality is included: Semi-hard cheese without preservatives – semihard cheeses of Zelena dolina.

**Keywords:** local food, promotion, quality scheme, Slovenia

---

COMPETE Working Papers present work being conducted within the COMPETE research project. The project analyses competitiveness of various European agri-food supply chains and its determinants. Working papers are intended to stimulate reactions from other experts in the field. For more information on the project see the back cover. Unless otherwise indicated, the views expressed are attributable only to the authors in a personal capacity and not to any institution with which they are associated.

Available for free downloading from the COMPETE website ([www.compete-project.eu](http://www.compete-project.eu))

© Copyright 2015: Blatnik, Bojnec

## Contents

---

1	Introduction.....	4
2	Activities for Promotion of Local Slovenian Food .....	4
2.1	Traditional Slovenian Breakfast .....	4
2.2	We Are Connected with Delicacies from our Countryside, Fresh Food from your Vicinity, Be Aware of Local Origin.....	7
2.3	School Fruit Scheme, School Milk Scheme.....	8
2.4	Goodness of Farms in Ptuj .....	10
2.5	Buy Local.....	10
2.6	The Countryside in the City.....	11
2.7	Buy Slovenian.....	11
2.8	Slovenian Consumer Attitudes to Slovenian Brands .....	12
3	Slovenian Protected Agricultural Products and Foodstuffs .....	14
3.1	Legislation .....	14
3.2	Quality Schemes for Protection of Agricultural Products and Foodstuffs .....	15
3.3	Process of Protecting.....	17
3.4	Protected Milk Products .....	17
3.4.1	Mohant Cheese .....	18
3.4.2	Nanos Cheese.....	21
3.4.3	Tolminc Cheese.....	23
3.4.4	Bovec cheese.....	25
3.4.5	Semi-Hard Cheese without Preservatives –Semihard Cheeses of Zelena Dolina ....	27
4	Conclusion.....	27
	References.....	28

## Tables

---

Table 1 Importance of Locally Produced Food in Educational Institutions .....	12
Table 2 Shopping Habits of Slovenian Consumers - Attitude Towards Brands (in %) .....	13
Table 3 Mohant Cheese Production .....	20
Table 4 Nanos Cheese Production .....	22
Table 5 Tolminc Cheese Production .....	24
Table 6 Bovec Cheese Production .....	26

## Figures

---

Figure 1 Traditional Slovenian Breakfast .....	5
Figure 2 Labels: Protected Designation of Origin .....	15
Figure 3 Labels: Protected Geographical Indication .....	16
Figure 4 Labels: Traditional Speciality Guaranteed .....	16
Figure 5 Label: Designation of Higher Quality .....	16
Figure 6 Label: Organic Production and Processing .....	17
Figure 7 Label: Integrated Production .....	17
Figure 8 Label: Mohant Cheese .....	21
Figure 9 Label: Nanos Cheese .....	23
Figure 10 Label: Tolminc Cheese .....	23
Figure 11 Label: Bovec Cheese .....	25

# Activities for Promotion of Local Food and Protected Agricultural Products in Slovenia

Patricia Blatnik, Štefan Bojnec

## 1 Introduction

This paper aims to present activities for promotion of local food and protected agricultural products in Slovenia. Activities for promotion of Local Slovenian food have been carried out through several national projects, which include special food days, advertising campaigns, school schemes, events, websites and brands. These projects have had different specific aims: promoting consumption of healthy and delicious food among children; inspiring a sense of belonging and, consequently increasing the trust in Slovenian food production and products and agriculture and food processing industry; increasing awareness that due to short or none transport routes local food stays fresh and thus of better quality and tasty; reminding consumers of the importance of checking the origin when buying food; presentation of locally produced food, products and services.

Agricultural products of special higher quality present a specialty among foodstuff and can be protected under different schemes. For protection of agricultural products and foodstuffs there are 3 European quality schemes: Protected designation of origin, Protected geographical indication, and Traditional specialty guaranteed. Besides the three European schemes in Slovenia there is also another scheme for protection, Designation of higher quality.

In Slovenia, there are 22 protected products under European Union (EU) quality schemes, among these 4 milk products, all of them cheeses: Mohant cheese (Protected designation of origin), Nanos cheese (Protected designation of origin), Tolminc cheese (Protected designation of origin), Bovec cheese (Protected designation of origin). Semi-hard cheese without preservatives – semihard cheeses of Zelena dolina is protected at the national level (Higher quality).

The rest of the paper is organized into three sections. The next second section presents activities for promotion of Local Slovenian food. The third section presents European and Slovenian schemes for protection of quality and protected Slovenian milk products, all of which are cheeses. The final section concludes.

## 2 Activities for Promotion of Local Slovenian Food

### 2.1 Traditional Slovenian Breakfast

#### Honey breakfast

The project *Traditional Slovenian breakfast (Tradicionalni slovenski zajtrk)* started in 2008 as the project *Honey breakfast* initiated by the Slovenian Beekeepers' Association. The project Honey Breakfast started when the Slovenian beekeepers offered their honey for breakfast to

kindergarten and school children for the first time. In the context of this annual education and promotion action various presentations and workshops are organized to bring the importance of bees for our food supply closer to children, with emphasis on maintaining clean and healthy environment and rural areas. The focus is also on raising awareness of other target audiences about the role of breakfast as an important daily meal for healthy lifestyle.

Bees and their work have a positive impact on the entire ecosystem and biodiversity protection. Their most important role is pollination of plants, whereby they contribute to effective agricultural production that is key to ensuring food security. The benefits of bees' work are also apicultural products that have favourable effects on human nutrition and healthcare (MAFFS, 2014a).

### **Traditional Slovenian breakfast**

In 2011 the project Honey breakfast was upgraded into Traditional Slovenian breakfast, as other institutions and food producers were invited to participate. The Traditional Slovenian breakfast is held every third Friday in November.

Food processing companies, agricultural companies and cooperatives, colleges, study center and an agricultural institute, farmers and beekeeping associations joined the project with their donations. Food was delivered by donors themselves, and where not possible, by a shopping center, which took care of the distribution of food.

On 18 November 2011 the Traditional Slovenian Breakfast project was carried out in kindergartens and primary schools throughout Slovenia. During the first hour of school, children breakfasted on brown bread, honey, butter, milk and apples, all of which were of Slovenian origin. Many well-known faces joined them for this meal, which acquainted them with a healthy way of eating.

*Figure 1 Traditional Slovenian Breakfast*



Source: GCO, 2011

Farmers, agricultural companies, food-processing companies and beekeepers contributed 19,000 kilograms of bread, 2,600 kilograms of butter, 53,600 litres of milk, 3,220 kilograms of

honey and 32,000 kilograms of apples. A total of 828 primary schools and 707 kindergartens participated in the project.

The purpose of the project is to educate, inform and raise awareness among school youth and parallel to a certain extent also among the general public about the importance of breakfast in the context of eating habits, importance and benefits of locally produced foodstuffs of Slovenian origin, the importance of farming and beekeeping for the production, the environment, economic activity and the wider environment, the proper management of waste generated by everyday activities and rational management of package. It is also important to raise general awareness of young people about the importance of healthy lifestyle, including the importance of sport and implementation of sports activities.

Institutions that are involved in the project are:

- Slovenian Beekeepers' Association,
- Ministry of Agriculture, Forestry and Food;
- Ministry of Education and Sport;
- Ministry of Health;
- Chamber of Agriculture and Forestry of Slovenia;
- Chamber of Agricultural and Food Enterprises of the Chamber of Commerce and Industry of Slovenia;
- Institute of Public Health of the Republic of Slovenia.
- The National Education Institute of the Republic of Slovenia

The project was carried out also in years 2012, 2013, and 2014 and is to be continued (MAFFS, 2015d).

### **Slovenian food day**

In 2012 the project Traditional Slovenian breakfast got a wider context with declaration of *Slovenian food day*. The government of Slovenia adopted a resolution declaring the Slovenian food day, which will be celebrated every year, on every third Friday in November. The main objective and purpose of such proclamation is to support Slovenian food producers and processors and to promote awareness and the importance of local self-sufficiency, maintaining a clean, healthy environment, maintaining the countryside, informing young people with the production and processing of food and stimulating interest in activities of the agricultural sector. The profession of farmer and food processor is to be presented as something positive, and as an activity for achieving important strategic objectives (MAFFS, 2013a).

### **European honey breakfast**

Given the importance of bees and beekeeping Slovenia is putting great efforts into preserving and protecting bees not only in its territory but also throughout the European Union. In this context close attention is paid to raising public awareness of the importance of bees and apicultural products, with the Ministry of Agriculture and the Environment placing special focus on the youth. Most habits are formed in childhood. Hence, education and

building up good habits that foster environmental care and concern for nature should start with the youngest members of our society.

On the basis of good practice Slovenia launched an initiative at the Agriculture and Fisheries Council in March 2014 to introduce the *European Honey Breakfast* that was warmly welcomed by several Member States. In addition, an interest in participation was expressed by countries candidate to EU membership and third countries. The proposal was very positively assessed by the European Commissioner for Agriculture and Rural Development Dacian Cioloş, who considers that the Slovenian Honey Breakfast is a good practice example of the new legislative proposal on school scheme as it includes both shaping healthy eating habits in children as well as enhancing the educational dimension with a focus on agricultural, food and health (balanced diet) and environmental topics. Commissioner Cioloş expressed his support to the Slovenian initiative.

The initiative for the introduction of the European Honey Breakfast was presented at the 3rd International Beekeeping Conference in November 2014 in Slovenia and in April 2015 to the EU parliament (MAFFS, 2014a).

## 2.2 We Are Connected with Delicacies from our Countryside, Fresh Food from your Vicinity, Be Aware of Local Origin

Activities of Ministry of Agriculture, Forestry and Food for promotion of local food have been carried out in three parts:

### **We are connected with delicacies from our countryside**

First TV commercial and printed ads under a slogan *We are connected with delicacies from our countryside* (*Povezani smo z dobrotami naše dežele*) communicated a message that farmers, the food processing industry as well as consumers are interconnected because a farmer as well as food industry provides us with food. A Slovenian farmer provides quality ingredients for food processing industry, moreover the food and inputs from Slovenian farmer are of high quality, produced in a natural and environmentally friendly manner; further on its production is highly controlled through a system of ensuring food safety. Even the social aspect of food production is not negligible, since by maintaining production the rural population and its cultivation are being preserved, and at the same time the cultural landscape is being taken care of. The farmer and the food processing industry are the generator of new jobs and marketable products, and thereby also contribute to ensuring a more stable social situation of the population of Slovenia. And last but not least the tradition of growing and preparing food is carried on, and traditional Slovenian preparation methods also enrich the flavours of market products developed by the food industry.

The promotional activities wanted to inspire a sense of belonging, the feeling that each of us is a part of this connection and, consequently increase the trust in Slovenian food production and products and agriculture and food processing industry (MAFFS, 2014b).

### **Fresh food from your vicinity**

In the second part promotional activities under a slogan *Fresh food from your vicinity* (*Sveža hrana iz vaše bližine*) wanted to increase awareness that due to short or none transport

routes local food stays fresh and thus of better quality and tasty. Reduction of transport consequently protects the environment.

For this purpose several activities were carried out:

- In 2012 TV commercials drawing attention to the length of the distance travelled for apples, bread, honey, meat, oil, tomatoes and wine to the consumer.
- In 2013 a strategic plan, research (attitude towards Slovenian origin, promotion of local food) and updated TV commercials that draw attention to local quality of apples, milk, and tomatoes (MAFFS, 2014b).

### **Be aware of local origin**

In September and October 2014 a TV campaign *Be aware of local origin (Bodite pozorni na lokalno poreklo)* was held. It built on already-known campaign of 2013, aimed at increasing the Slovenian consumer confidence in locally produced food and represented an answer to a Russian embargo on food imports from the EU.

The campaign reminded consumers of the importance of checking the origin when buying food. The campaign was based on actual data and facts.

The messages from the campaign were:

- Food production and processing employs 90,700 people in Slovenia. Let's preserve these posts and support our quality. Let's pay attention of local origin (radio and TV commercial).
- In Slovenia we consume 35% less fruit and vegetables than recommended by World Health Organisation. Let's eat an apple more. Let's enjoy the local quality. Let's pay attention to the local origin (radio and TV commercial).
- In Slovenia we import for 1.9 billion euro of food. Let's rather buy local quality. Let's pay attention to the local origin (radio and TV commercial) (MAFFS, 2014b).

## **2.3 School Fruit Scheme, School Milk Scheme**

### **School fruit scheme**

*School Fruit Scheme* is a measure of EU Common Agricultural Policy in the fruit and vegetable sector. The purpose of this measure is to stop the trend of declining consumption of fruit and vegetables while limiting the rising prevalence of overweight and obesity in children. The latter increases the risk of many diseases of modern times (type 2 diabetes, cardiovascular disease, cancer, osteoporosis and similar).

The EU School Fruit Scheme is a programme that provides fruit and vegetables and promotes healthy eating habits to more than 8.6 million children and more than 50.000 schools across Europe.

The idea for the School Fruit Scheme was endorsed by the Council in 2008 at the big support of the European Parliament. The European Commission has drafted a regulation and in the school year 2009/2010 introduced a School Fruit Scheme. With the new common agricultural policy School Fruit Scheme got a new name: *The Scheme of School Fruit and Vegetables* (EC, 2015a).



In Slovenia, the School Fruit Scheme has been successfully implemented since 2009, the involvement of schools, however, increases from year to year. In the school year 2013/14 90% of all elementary schools (417 schools with ca 148,000 pupils) were included. In Slovenia school fruit scheme is financed 75% by EU and 25% by the Republic of Slovenia (from the 2009/10 school year up to 2013/14). In the last school year 759,761 euro were allocated to schools (of which 569,821 euro of EU funding (75%) and 189,761 euro of funds of Republic of Slovenia (25%)). The aid per pupil amounts to about 6 euro/academic year, which means an average of 1-2 times a week an extra meal free of charge of fresh fruit or vegetables. Annually about 500 tons of fruit and vegetables are distributed. Evaluation of the effects of the scheme in the year 2010/11 showed a short-term positive impact on changing attitudes and behavior of children in relation to fruit and vegetables as a result of the school fruit scheme and intake of fruits and vegetables, especially in boys and younger children from poorer families (MAFFS, 2014c).

### **School milk scheme**

*The School Milk Scheme* was shaped in Slovenia in 1977, when there was a surplus of milk and was intended to encourage consumption of healthy dairy products containing important vitamins and minerals. The School Milk Scheme wants to provide quality products for children, to contribute to a healthy way of living and to nutritional education with a better knowledge on products. The scheme does not only have a nutritional character but also an educational character and therefore greatly contributes to the fight against obesity among children. Fund beneficiaries are children or parents that are entitled to support for the payment of school meals. With entering EU Slovenia got the possibility to gain European funds from EU school milk scheme. EU co-finances milk and milk products in the amount of four cents to a maximum of 0.25 liters of milk per day. Slovenia is less successful in utilizing the funds from the scheme as only a few schools are involved in it (CAFS, 2013b; EC, 2015b).

On 30 January 2014, the European Commission published a proposal of bringing together the two currently separate school schemes, the School Fruit Scheme and the School Milk Scheme, under a joint framework. In a context of declining consumption among children for these products, the aim is to address poor nutrition more effectively, to reinforce the educational elements of the programmes and to contribute to fight against obesity. The legislative proposal is accompanied by an impact assessment that evaluates alternative scenarios for the evolution of the policy on the basis of extensive quantitative and qualitative analysis. The proposal is under discussion in the Council and the European Parliament (EC, 2015b).

The new scheme will be implemented within a common legal and financial framework, which will improve and simplify the administrative requirements within both existing schemes. This single framework will reduce the managerial and organizational burden for national authorities, schools and suppliers, and will make the scheme more effective. Member States will participate in the scheme on a voluntary basis, and they will also be able to decide which products will be distributed (MAFFS, 2014c).

## 2.4 Goodness of Farms in Ptuj

Chamber of Agriculture and Forestry of Slovenia (CAFS), Farm advisory services, municipality Ptuj and Agricultural Institute Ptuj have for many years organized the exhibition and evaluation of agricultural food products *Goodness of farms in Ptuj (Dobrote slovenskih kmetij)*. The exhibition takes place in the Minorite Monastery Ptuj and is one of the most important events in Ptuj. On this exhibition farms from all over Slovenia put their culinary products on show. Speciality of the product is, that they are homemade and home grown. Farmers are presenting and exhibiting delicacies such as homemade bread, milk food, pumpkin oil, dry fruit, juices, schnapps, fruit wine, vegetables and other agri-food products. The expert committees annually assess products and grant quality awards.

The evaluation took place for the first time in 1990 when less than a 100 delicacies were evaluated. Today the number has grown to more than 1,300 products, and the quality of products has raised significantly.

Farmers from all over Slovenia and Slovenians living abroad apply their products to the call for proposals at the beginning of the year. Products are rated by the jury, made up of agricultural experts, representatives of the university and representatives of agricultural, agri-food and catering schools. All the evaluators are qualified, have many years of experience and have passed the test in the field of sensors.

The products are divided into 13 groups: meat, wine, fruit liqueur, brandy, juices, marmalades and jams, compotes, dried fruit, vinegar, canned vegetables, oil, milk products, cereal products. Each of the group has specific criteria for evaluation. Products which have acquired a sufficient number of points are awarded with gold, silver or bronze award. Products that get the highest recognition three times in a row are awarded quality labels.

During the exhibition there is a cultural performance which is worth to see. One can also try and buy products on the exhibition (CAFS, 2013a).

## 2.5 Buy Local

*Buy local (Kupujmo domače!)* – [kupujmodomace.si](http://kupujmodomace.si) – is a webpage, set up by CAFS. The website is intended for Slovenian farms that want to present a wide range of locally produced food, products and services and to consumers who can find in one place a rich variety of quality offer of farms from all over Slovenia.

The main purpose of the webpage is to help Slovenian farmers and food processors by internet advertising to increase direct sales on the farm, while enabling the Slovenian consumer to purchase locally grown, fresh, authentic local food, whose importance and benefits are recently more and more emphasized.

Products, and also the agricultural and forestry services can be browsed through categories, regions and individual provider. The renewed website enables automatic registration and online submission of offers. The number of offers submitted by the individual user is not limited.

With publishing on the website [kupujmodomace.si](http://kupujmodomace.si), Slovenian farms offer their produce, products, and services directly. This saves the cost of intermediaries' commission, and consequently allows for higher earnings on the farm, the possibility of additional labour

employment, the contact with people, immediate feedback from customers and, ultimately immediate payment (CAFS, 2011; 2015b).

## 2.6 The Countryside in the City

*The countryside in the city (Podeželje v mestu)* is a set of events organized in Slovenian cities (mostly in Ljubljana) that want to present culinary delights, rural life and handicrafts of Slovenia to the visitors. The project started in 2005 and is held in the Easter time on Saturdays in urban markets. It is organized by the Slovenian Chamber of Agriculture and Forestry and with the participation of municipalities.

The purpose of the events is to connect the city to the countryside and rural areas to the city. The central location is intended for farms and offer of products of the Slovenian countryside. The countryside in the city delights visitors with the cuisine, music, dance and everything that is distinguished by exceptional rural tradition (CAFS, 2013c).

## 2.7 Buy Slovenian

*Buy Slovenian (Kupujem slovensko)* is a campaign and a brand, started by Chamber of agricultural and food processing companies in 2008. The campaign was prepared by a special group for promotion that consists of marketing experts of agricultural and food companies.

The main purpose of the brand Buy Slovenian is to remind the Slovenian consumers of the choice they have, when they stand in front of a shelf in the store as well as of the importance of consumption of domestic, Slovenian products for the growth and stability of the domestic economy.

- The brand Buy Slovenian is composed of 4 main elements: quality, safety, taste, tradition and additional social element of retaining jobs:
- The quality element refers to the actual and perceived quality, subject to the level of production and selection of raw materials.
- The second element, security (trust), refers to the method of production, compliance with all standards and surpassing these, traceability of the products and short routes.
- Tradition (homeliness) refers to the traditional presence of the producers on the domestic market, and established brands, whose products have a traditional Slovenian flavor.
- The fourth element, taste, represents an important separation over products of foreign producers that are present on the market with generic “multinational” tastes, as through long history of presence in the domestic market Slovenian products are adapted to the preferences and tastes of domestic consumers
- The fifth dimension is added to the four main pillars, covering the social aspect of the campaign that is preserving jobs. This includes employment issues, preservation of Slovenian food and agricultural markets and production, and ensuring the quality and competitiveness of Slovenian manufacturers.

Supporters of the campaign Buy Slovenian want to remind consumers of advantages of Slovenian food products. Some of the packages of Slovenian products are already marked with the mark of the campaign that represents safety, Slovenian quality, Slovenian taste and tradition (CCIS-CAFE, 2015).

## 2.8 Slovenian Consumer Attitudes to Slovenian Brands

### Public institutions

In 2013 Ministry of Agriculture, Forestry and Food issued Guidelines and recommendations for ordering food in public institutions. One of the guidelines is implementation the principle of short supply chain that wants to achieve a greater degree of self-supply with quality and locally produced food, ensure healthy food for vulnerable population, as children, youth, sick and elderly, encourage a sustainable use of land, used for growing food and preserve jobs in rural areas.

In 2012 legislation about public ordering changed (Uradni list RS, št. 90/12) so that it enables a greater possibility for ordering locally produced food.

A survey carried out about short supply chain in 2014 encompassed 675 educational institutions. 288 institutions replied: 248 primary schools and 40 kindergartens answered the survey.

The majority of surveyed institutions answered that they really prioritize locally produced food and give special attention that the biggest share of ordered food is locally produced.

*Table 1 Importance of Locally Produced Food in Educational Institutions*

Give locally produced food a great importance and when ordering we put great efforts into maximazing the share of locally produced food	221 (78%)
Give locally produced food priority, but when ordering we don't put additional efforts into maximizing the share of locally produced food.	59 (21%)
Don't give any priority to locally produced food	4 (1%)

Source: Potočnik, 2014

The survey found out that 60% of institutions that already carried out public ordering after the changed law in 2012 report that the share of locally produced food in their institution increased for about 8.6% (Potočnik, 2014).

### Individual consumers

The shopping habits and attitude towards brands of individual Slovenian consumer were researched by Slovenian Marketing Association.

Results of a survey, carried out in spring 2015 showed that about 30% of Slovenian consumers pay attention to Slovenian brands and about 27% of Slovenian consumers are loyal to brands they are used to buying (SMA, 2015).

*Table 2 Shopping Habits of Slovenian Consumers - Attitude Towards Brands (in %)*

	I completely agree	I agree	Nor nor	I do not agree	I definitely not agree
I prefer to buy Slovenian brands even if the price is a bit higher	5	26	38	16	16
I am loyal to brands	4	23	40	17	15

Source: SMA, 2015

## 3 Slovenian Protected Agricultural Products and Foodstuffs

### 3.1 Legislation

Already in 1993 EU legislation for protection of agricultural products and foodstuffs that originate or are processed in a specific region, place or country or are made according to a particular recipe, or production or processing method entered into force. These products are distinguished from others by specific characteristics in production or composition and have to follow specific rules of production, and the product is subject to a strict additional control of certification body.

In 2006 EU published new, improved legislation concerning protection of agricultural products and foodstuffs. Council regulation (EC) No 510/2006 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs and Council Regulation (EC) No 509/2006 on agricultural products and foodstuffs as traditional specialities guaranteed have been published. In 2012 they have been substituted by regulation (EU) No 1151/2012 of the European parliament and of the council on quality schemes for agricultural products and foodstuff. Besides products with protected designation of origin, protected geographical indication and traditional speciality guaranteed prescribes another level of quality systems, namely the optional quality terms of a product with specific features or characteristics, which might be also sold with added-value.

EU regulations:

- Regulation (EU) No 1151/2012 of the European parliament and of the council of 21 November 2012 on quality schemes for agricultural products and foodstuff.
- Commission Delegated Regulation (EU) No 664/2014 of 18 December 2013 supplementing Regulation (EU) No 1151/2012 of the European Parliament and of the Council with regard to the establishment of the Union symbols for protected designations of origin, protected geographical indications and traditional specialities guaranteed and with regard to certain rules on sourcing, certain procedural rules and certain additional transitional rules.
- Commission Delegated Regulation (EU) No 665/2014 of 11 March 2014 supplementing Regulation (EU) No 1151/2012 of the European Parliament and of the Council with regard to conditions of use of the optional quality term 'mountain product'.
- Commission Implementing Regulation (EU) No 668/2014 of 13 June 2014 laying down rules for the application of Regulation (EU) No 1151/2012 of the European Parliament and of the Council on quality schemes for agricultural products and foodstuffs.

Slovenian national quality schemes are prescribed by the Agriculture Act and some additional rules:

- Agriculture Act, official consolidated text (Uradni list RS, št. 45/08).

- Rules on procedure for protection of Agriculture Products and Foodstuffs (Uradni list RS, št. 15/08).
- Rules on the trade mark for labelling agricultural products or foodstuffs (Uradni list RS, št. 3/2011).
- Rules on recognition of groups of producers of quality agricultural products and foodstuff (Uradni list RS, št. 71/2009).

### 3.2 Quality Schemes for Protection of Agricultural Products and Foodstuffs

For protection of agricultural products and foodstuffs there are 3 European quality schemes:

- Protected designation of origin,
- Protected geographical indication, and
- Traditional speciality guaranteed.

Besides the three European schemes in Slovenia there is also another scheme for protection:

- Designation of higher quality (SLO).

#### Protected designation of origin

This quality scheme covers agricultural products and foodstuffs that originate from a specific region, place or country. Production is geographically limited while quality and characteristics of agricultural products or foodstuffs result exclusively or essentially from geographical environment and its natural and human factors, such as climate, ground quality, local knowledge and experience. All production and processing procedures must take place in the defined geographical area while the ingredients used must also originate from it (MAFFS, 2014d; 2015b).

Figure 2 Labels: Protected Designation of Origin



Source: MAFFS, 2015b

#### Protected geographical indication

This quality scheme covers agricultural products and foodstuffs that originate from a specific region, place or country, yet the relationship between the geographical area and final product is less strong as the one in the Protected Designation of Origin scheme. Still, agricultural products or foodstuffs possess special quality, reputation or other characteristics. At least one of the production phases must take place in the defined geographical area that gave the products or foodstuffs their name, while raw materials can originate from other areas (MAFFS, 2014d, 2015b).

Figure 3 Labels: Protected Geographical Indication



Source: MAFFS, 2015b

### Traditional speciality guaranteed

The traditional speciality guaranteed quality scheme indicates the protection of a particular traditional recipe, production or processing method, or traditional composition or materials. The production is not restricted to a certain geographical region as these agricultural products and foodstuffs can be produced by all who conform to the registered recipe, production method and product specifications (MAFFS, 2014d; 2015b).

Figure 4 Labels: Traditional Speciality Guaranteed



Source: MAFFS, 2015b

### Designation of higher quality

This quality scheme covers agricultural products and foodstuffs which stand out among products of the same kind with their higher quality. Special features of a product within this quality scheme are determined according to its composition, sensory or physical-chemical properties and production or processing method (MAFFS, 2014d, 2015b).

Figure 5 Label: Designation of Higher Quality



Source: MAFFS, 2015b

### Other quality schemes in Slovenia

Beside these quality schemes for protection, 3 other Slovenian quality schemes exist:

Organic production and processing: agricultural product or foodstuff is grown and processed according to natural methods and procedures (MAFFS, 2014d).



Figure 6 Label: Organic Production and Processing



Source: Kon-cert, 2015

Integrated production: Agricultural produce is grown using the methods where permitted agro-technical measures are used (MAFFS, 2014d).

Figure 7 Label: Integrated Production



Source: Kon-cert, 2015

Goodness of the farms and high quality: Agricultural products and foodstuffs, grown or processed in a farm according to recipes typical of farm products and with the use of a large part of its own raw materials or raw materials from the local environment. The scheme is not yet implemented (MAFFS, 2014d).

### 3.3 Process of Protecting

Protection of agricultural products or foodstuff takes place in two stages:

In stage one Ministry of Agriculture, Forestry and Food protects the name. For this purpose, the applicant (Manufacturers Association, irrespective of legal form) prepares an application which is then sent for review to various expert institutions and committees, whose members are experts in various fields (e.g. meat, milk, salt, oils, vegetables, and grains). After a positive opinion of expert institutions and committees the Ministry protects the agricultural product or foodstuff and confirms the specification, where the conditions which the agricultural product or foodstuff must comply to be labelled with the protective name are specified.

In stage two a certification authority assesses conformity of production for products protected with the specification (i.e. certification). If the production of individual producer complies with the specification, the certification body issues a certificate which proves that the product using the protected name is really authentic. Manufacturers are required to renew certificates annually (MAFFS, 2014d).

### 3.4 Protected Milk Products

In Slovenia there are 5 protected milk products.

Under the quality scheme Protected designation of origin:

- Mohant cheese (*Mohant*),
- Nanos cheese (*Nanoški sir*), and

- Tolminc cheese (*Tolminc*).
- Bovec cheese (*Bovški sir*)

Under the quality scheme Higher quality:

- Semi-hard cheese without preservatives – semihard cheeses of Zelena dolina (*Poltrdi sir brez konzervansov – poltrdi siri Zelene doline*).

### 3.4.1 Mohant Cheese

Mohant cheese (*Mohant*) is semi soft cheese made in villages and on dairy mountain farms in Bohinj and its vicinity. Mohant cheese represents original speciality of Slovene cheese making. Its distinctive, slightly tangy and bitter taste and a strong smell make it different from other cheeses produced in Slovenia. It has a whitish-yellow colour, distinctive smell and piquant taste which can be repellent to some people, yet they are typical of Mohant and make it unique amongst cheeses.

In geographically closed area of Bohinj due to natural resources strong dairy farming and cheese making have developed. In the area of Bohinj two special kinds of cheese, bound only to this area are preserved: Bohinj cheese and Mohant. On farms, remote from the main roads or milk collecting locations home production of cheese Mohant has been preserved and it occurs only in this part of Slovenia. Traditionally it was made from the surplus milk which the local farmers could not sell. Even today Mohant is produced in a traditional way which has been passed from generation to generation. Preservation of this cheese-making heritage and transmission of knowledge crucial for the production of Mohant are both coordinated by Cheese-making Society Bohinj. From 1997 when the movement for its preservation started the number of producers of Mohant cheese in Bohinj increased, and demand is growing.

The forage of dairy cows is based on voluminous fodder (pasture, hay, silage), made at the farm or in the area of Mohant making. The animal feed must contain at least 75% of dry matter from the fodder, grown in the area of Mohant making.

The process of making Mohant cheese starts when the evening milk is partially cooled and ripens during the night. In the morning the milk is skimmed with ladle and full fat milk from the morning milking is added. Milk is heated to 32°C and powder rennet is added. After thirty or forty minutes, the milk has to curdle. Optimal firmness of coagulum is tested with a finger – when lifting the finger, the coagulum has to burst. Coagulum is then slowly cut and curd the size of a nut is made. With draining of whey the curd is reduced to pea size. The content of the boiler can be additionally heated for 2 to 3°C, especially if the content has cooled. Curd is dried for 10 to 15 minutes. With intermittent stirring they let the curd settle to the bottom of the boiler. After draining the whey the curd is put into containers of 10 to 15 litres, salted by layers, pressed, covered with wooden boards and weighted with about 2 to 3 kilograms per a kilogram of curd. The prepared curd is fermented for 12 hours at a temperature of 20 to 22°C.

Under the influence of fermentation the whey is secreted and covers the surface of the curd. Secreted whey is withdrawn. It is important that it creates anaerobic conditions with overlapping the surfaces. After this time containers are brought into the ripening room with a

temperature of 12 to 16°C – cool Mohant maturation, which takes 15 to 20 days. The whey is continuously removed, but anaerobic conditions are maintained.

Mohant cheese can also be made differently. The curd is put on the cheese table with a cloth and then put into models, where it is gently pressed for 24 hours. In this time fermentation at 20-22°C takes place. Loaves of cheese are dry salted for two to three days at steady temperature or pressed for 24 hours and moved into containers. The loaves in containers are well pressed and empty spaces are filled with curd (one loaf is crushed) and salted. They do the same with loaves of cheese that have been salted for a few days with the difference that they don't salt them again in containers. These pressed loaves (which make anaerobic conditions) are covered with wooden boards and weighted with about 2 to 3 kilograms per a kilogram of curd. The whey that is secreted is removed and container is covered with cheese cloth.

After 15 to 20 days all Mohant producers – those who move the dry curd into containers right away and those who fill the containers with cheese loaves – bring the containers for 15 to 20 days into a warm room with a temperature of 19 to 23°C, where Mohant boils, matures, softens, and gets its plastic texture, aroma and taste. The cheese is then again brought into a cooler room with 12 to 16°C where it matures for another 2 months when it is mature enough for eating.

Mohant is then filled into packages and cooled to a temperature of 3 to 5°C until it is sold. Shelf life can be up to one year, but such a Mohant has extremely aggressive smell and taste, which may be repulsive to many people (MAFFS, 2015a).

Table 3 Mohant Cheese Production

Production levels	Main characteristics of Mohant cheese
1. Milk production	<ul style="list-style-type: none"> <li>• Making of Mohant cheese from raw milk</li> <li>• Milk production on a specific geographical area</li> <li>• Voluminous fodder, produced on a specific geographical area, additional purchase of strong fodders. Option of additional purchase or gaining of voluminous fodder outside the specific area in case of natural disasters</li> <li>• Respecting sanitary-technical regulations</li> <li>• Milk analysis</li> </ul>
2. Milk typification	<ul style="list-style-type: none"> <li>• Evening milk ripens through the night, in the morning it is scooped with ladles and fresh morning milk is added</li> <li>• Use of skimmer allowed</li> </ul>
3. Curdling	<ul style="list-style-type: none"> <li>• Temperature of curdling 32 to 35°C</li> <li>• Adding of rennet</li> <li>• Coagulation 30 to 45 minutes</li> <li>• Cutting of curd</li> <li>• Heating and drying</li> <li>• Removal of whey</li> </ul>
4. Salting	<ul style="list-style-type: none"> <li>• Salting in layers or</li> <li>• Dry salting</li> </ul>
5. Pressing and filling into containers	<ul style="list-style-type: none"> <li>• Pressing 2 to 3 kg of cheese</li> <li>• Filling gently pressed loaves into containers or</li> <li>• Putting dry salted loaves into containers and pressing</li> </ul>
6. Ripening	<ul style="list-style-type: none"> <li>• Cold ripening 15 to 20 days at 12 to 16°C</li> <li>• Warm ripening 15 to 20 days at 19 to 23°C</li> <li>• Cold ripening to 2 months at 12 to 16°C</li> </ul>
7. Packaging	<ul style="list-style-type: none"> <li>• Kneading and cutting of cheese</li> <li>• Carefully filled package</li> <li>• Carefully sealed package</li> <li>• Evaluating and labelling with logotype</li> </ul>
8. Storage	<ul style="list-style-type: none"> <li>• Storing at a temperature to 8°C to 1 year</li> </ul>
9. Selling	<ul style="list-style-type: none"> <li>• Selling of the product in a refrigerated display</li> </ul>

Source: MAFFS, 2015a

Figure 8 Label: Mohant Cheese



Source: MAFFS, 2015a

### 3.4.2 Nanos Cheese

Nanos cheese (*Nanoški sir*) has been produced since the 16th century. The tradition started on the Nanos plateau which also gave it its name. Milk used for its production is distinguished for the high content of carotene which gives Nanos cheese the intensive yellow colour. Due to the specific microflora of the wine-growing area where cheese ripening depots are placed, a special piquant taste, typical of Nanos cheese, develops after two months' ripening.

Nanos cheese is a hard cheese for cutting, shaped as a roll, measuring 32-34 cm, 7-12 cm high, weighing 8-11 kg. After ripening chemical composition has to be: at least 60% of dry matter, at least 45% of fat in dry matter. Cheese crust is yellow with a shade of brick red or brown colour. In parts traces of mold can be seen which is the result of classical ripening. Crust is smooth, dry, without cracks and damages. Shape of the roll is slightly curved. In the cross section the cheese has intense yellow colour, the dough is elastic, flexible, supple, smooth and firm, small to medium size holes of irregular shapes may be sparsely in the dough. Smell of the cheese is clear, a bit intensive and the taste slightly spicy, nicely salty and intense.

In the geographical area of Nanos brown breed of cattle is the most spread breed and is suitable for this area because of its characteristics. The quantity and quality of milk produced in the brown breed is not so dependent on the quantity of concentrated feed in the diet, as is typical for other dairy breeds. In Nanos area harsh climate is not so suitable for growing of crops (with the exception of Vipavska dolina) which are the basis for strong fodder. The most important characteristics of brown cows important for making Nanos cheese are: exploitation of large quantities of basic forages; robustness, resilience and flexibility; higher content of protein and fat (quantity of Kappa casein affects the quality of the curdling and, consequently, the defined properties of produced Nanos cheese).

Milk intended for processing into Nanos cheese is heat-treated at low temperatures from 63°C to 69°C in order to maintain the majority of the milk naturally occurring lactic acid microorganisms. In the process of cheese making only starter culture and enzymatic anti-inflation agent are added. Individual stages of cheese making take place in open containers, which enables entering of indigenous microflora in milk or curd, which has settled in cheese dairy,

salting room and ripening room. The strong yellow colour of the cheese is not due to addition of pigments, but only achieved by natural yellow colour content in milk. Spicy taste is formed after two months of cheese ripening in a ripening depot with a specific indigenous microflora, mainly yeasts.

Maturation of cheese is affected also by famous Vipavska bora, which is typical only for the upper part of the Vipava Valley. Bora is a cold north wind blowing through the valley from the top of the Nanos and carries out the selection of indigenous microflora in ripening depot of Nanos cheese (MAFFS, 2013b).

*Table 4 Nanos Cheese Production*

Production levels	Main characteristics of Nanos cheese
Milk production	<ul style="list-style-type: none"> <li>• Milk production on a specific geographical area</li> <li>• Min 80% of milk from brown cows.</li> <li>• Feeding the cows with natural fodder</li> <li>• Respecting sanitary regulations</li> </ul>
Milk collecting and processing	<ul style="list-style-type: none"> <li>• Separate collection and processing of raw milk for Nanos cheese</li> </ul>
Heat treatment	<ul style="list-style-type: none"> <li>• Heat treatment at low temperatures 63°C to 69°C - thermisation</li> </ul>
Milk treatment before curdling	<ul style="list-style-type: none"> <li>• Adding of lysozyme culture</li> <li>• Milk mixing</li> </ul>
Curdling	<ul style="list-style-type: none"> <li>• Milk curdling</li> <li>• Making curd</li> </ul>
Cheese making	<ul style="list-style-type: none"> <li>• Cheese making</li> <li>• Cutting and cheese formation</li> </ul>
Pressing and ripening of fresh cheese	<ul style="list-style-type: none"> <li>• Pressing and making fresh cheese</li> <li>• Ripening and microbiological fermentation</li> </ul>
Salting	<ul style="list-style-type: none"> <li>• Cheese labelling</li> <li>• Cheese salting for 3 days and daily turning around</li> </ul>
Ripening	<ul style="list-style-type: none"> <li>• Drying of the surface of fresh cheese</li> <li>• At least 60 day ripening</li> <li>• Manual cheese processing</li> </ul>
Cheese selection, sensory evaluation, chemical analysis and labelling	<ul style="list-style-type: none"> <li>• The selection of the cheese relative to the outer appearance of the reels</li> <li>• Sensory analysis</li> <li>• Chemical analysis</li> <li>• Labelling</li> </ul>

Source: MAFFS, 2013b

*Figure 9 Label: Nanos Cheese*

Source: MAFFS, 2013b

### 3.4.3 Tolminc Cheese

Tolminc cheese (*Tolminc*) is a circular type of cheese with seldom holes which are the size of lentils or peas. Tolminc is a hard-fat cheese. The basis is raw or thermised (57-68°C) cow milk, produced in specific geographical area of Zgornje Posočje. Its speciality is its long history and traditional procedures of making, and climate and other natural conditions of the area of Zgornje Posočje. It has a very long tradition of making. It first appeared as “Formaggio di Tolmino – Tolminski sir” in 1756 in a cheese price list in the town of Videm. The people of Tolmin have remained faithful to the tradition and preserved the original cheese making technology which results in recognisable sensory characteristics of Tolminc. The prevalence of mountain dairies in Zgornje Posočje is a speciality in Slovenian area as in these mountains 90% of all milk from Slovenian mountain pastures is produced.

*Figure 10 Label: Tolminc Cheese*

***Tolminc***<sup>®</sup>

Source: MAFFS, 2012b

Tolminc cheese comes in shapes of circular loaf of 3.5-5 kg, 23-27 cm wide and 8-9 cm high. Its crust is smooth, of a straw-yellow colour. The dough is elastic, yellowish with little holes (size of a lens or peas). Chemical composition has to be: at least 60% of dry matter, at least 45% of fat in dry matter.

Zgornje Posočje has some natural characteristic that are passed on to milk through voluminous fodder grown in this area, and with technological procedures to the final product. Due to moist air, coming from the Adriatic Sea, Zgornje Posočje is the area with the highest rainfall in Slovenia. Average year temperature of the air is 11°C. Warmer Mediterranean climate has a strong influence on the composition of the vegetation; the meadows are floristically very rich and colourful. This is due to geological history (location on the southern edge of Ice Age glaciation), geological structure (limestone or dolomite, somewhere mixed with marl and claystone) and climate (humid, relatively warm mountain climate). Specialties

Table 5 Tolminc Cheese Production

Production levels	Main characteristics of Tolminc cheese
1. Milk production	<ul style="list-style-type: none"> <li>• Min 80% of milk from brown cows.</li> <li>• Production of basic fodder (hay, silage, pasture) on a specific geographical area</li> <li>• Additional fodder mixtures and mineral-vitamin additives can be produced outside the specific area.</li> <li>• Milk production within the specific geographical area</li> <li>• Daily meal has to be predominant in voluminous fodder – hay, silage or pasture (at least 75% dry matter)</li> </ul>
2. Collecting and processing of raw milk	<ul style="list-style-type: none"> <li>• Periodical control of milk quality under the applicable legislation</li> </ul>
3. Cooling, maturation and storage of milk	<ul style="list-style-type: none"> <li>• Milk maturation of previous milking has to take at least 12 hours, which enables the development of lactic micro flora</li> </ul>
3.1 Milk heating	<ul style="list-style-type: none"> <li>• Milk can be thermised (57-68°C)</li> </ul>
4. Adding of starter cultures	<ul style="list-style-type: none"> <li>• To speed up the fermentation use of homemade cheese vaccines (maturing of small amount of milk at higher temperature at least 12 hours) or screened vaccines is allowed</li> <li>• Screened starter cultures may be added, suitable for hard cheeses</li> </ul>
5. Adding of rennet	<ul style="list-style-type: none"> <li>• Rennet suitable for hard cheeses is added</li> </ul>
6. Coagulation	<ul style="list-style-type: none"> <li>• Milk coagulation lasts from 25 to 35 min at 32-34°C</li> </ul>
7. Cutting	<ul style="list-style-type: none"> <li>• Cutting starts when suitable compactness of coagulum is achieved</li> <li>• Curd is crushed to a size of a small hazelnut</li> </ul>
8. Drying	<ul style="list-style-type: none"> <li>• Curd is heated to an optimal temperature from 44-48°C</li> <li>• Drying of curd is ended at suitable curd hardness</li> </ul>
9. Separation of curd from whey	<ul style="list-style-type: none"> <li>• Cheese making and separation of curd from whey can be done in classical utilities with cheese cloths or other utilities</li> </ul>
10. Pressing	<ul style="list-style-type: none"> <li>• Pressing lasts 6-12 hours with gradual weighting</li> </ul>
11. Salting	<ul style="list-style-type: none"> <li>• Salting lasts from 24 to 48 hours, depending on the cheese roll and concentration of the brine</li> </ul>
12. Ripening	<ul style="list-style-type: none"> <li>• Tolminc cheese reaches eating maturity after at least 60 days of ripening</li> </ul>
13. Sensory evaluation and labelling	<ul style="list-style-type: none"> <li>• Cheese selection according to:                             <ul style="list-style-type: none"> <li>○ External parameters (outlook, shape, weight)</li> <li>○ Sensory evaluation</li> <li>○ Results of chemical analyses</li> </ul> </li> <li>• Labelling</li> </ul>

Source: MAFFS, 2012b



of the local flora are some endemics. Due to the influence of the Mediterranean climate in mountain meadows even more thermophilous sorts of vegetation thrive.

Alpine pasture farming in Zgornje Posočje has a long historic tradition that has marked this area. In the alpine pastures circulation of cattle from the valley to mountain pastures is a constant, which has established the basis for animal feeding system. Every year this circle began with farmers driving the cattle from valley villages to so-called lower or meadow mountains. At the end of June the cattle was driven to high mountains, where it grazed; there also the cheese was made. At the beginning of September farmers returned back to lower mountains. Here the cattle remained until the first snow. Mountain economy is so tightly connected to culture. The described economic cycle is still the practice of livestock farmers today (MAFFS, 2012b).

#### 3.4.4 Bovec cheese

Bovec cheese (*Bovški sir*) was named after the town of Bovec. It dates back for centuries: it was mentioned for the first time as Bovec cheese (Formaggio di Plezzo vero in Italian) in the price list of the town of Videm/Udine in 1756. Its production is limited to the summer pasture season in the area around the town of Bovec. Bovec cheese used to be made from raw sheep's milk with the addition of goat's or cow's milk. Nowadays it is mainly pure sheep's milk although some producers still add up to 20% of cow's or goat's milk. (MAFFS, 2015b) The milk used to make the cheese comes from the indigenous breed of sheep - the Bovec sheep that evolved in the Upper Soča Valley over the centuries and was named after the town of Bovec. The breed of goats and cows (for additional milk) is not prescribed.

Figure 11 Label: Bovec Cheese



Source: MAFFS, 2014e

Speciality of Bovec cheese derives from climate and natural conditions specific to Bovec area and from special making procedures. A very long tradition of making the cheese and inseparable sheep and goat breeding, particularly of indigenous breeds – the Bovec sheep and Drežnica goat are main factors for eligibility of Bovec cheese protection.

Table 6 Bovec Cheese Production

Production levels	Main characteristics of Bovec cheese
1. Milk production	<ul style="list-style-type: none"> <li>• Production of basic fodder (hay, silage, pasture) on a specific geographical area. In case of natural disasters (drought, flood, landslide falls ...) which can cause shortage of basic fodder purchase of additional fodder is allowed.</li> <li>• Pasture and milk production on specific geographic area</li> <li>• Production of Bovec cheese is limited to lactation period of animals, which coincides with the growing cycle of pastures. The main part of the meal is pasture, which can be combined with hay or silage. The basic fodder represents a minimum of 75 % of dry matter of daily meal.</li> <li>• Additional fodder mixtures and mineral-vitamin supplements can be produced outside geographic area.</li> </ul>
2. Collecting and processing of raw milk	<ul style="list-style-type: none"> <li>• Control of milk quality under the applicable legislation (microbiological and chemical analyses)</li> </ul>
3. Adding of starter cultures	<ul style="list-style-type: none"> <li>• To speed up the fermentation use of homemade cheese vaccines (maturing of small amount of milk at higher temperature at least 12 hours) or selected vaccines is allowed</li> </ul>
4. Adding of rennet	<ul style="list-style-type: none"> <li>• Rennet suitable for hard cheeses is added</li> </ul>
5. Coagulation	<ul style="list-style-type: none"> <li>• Before coagulation milk is heated to 35-36°C. Milk coagulation lasts from 30 to 45 min</li> </ul>
6. Cutting	<ul style="list-style-type: none"> <li>• Cutting starts when suitable compactness of coagulum is achieved</li> <li>• Curd is crushed to a pea size particles</li> </ul>
7. Heating and drying	<ul style="list-style-type: none"> <li>• Curd is heated to an optimal temperature from 44-49°C</li> <li>• Drying of curd is ended at suitable curd hardness</li> </ul>
8. Separation of curd from whey	<ul style="list-style-type: none"> <li>• Cheese making and separation of curd from whey is done with molds of certain sizes depending on cheese diameter</li> </ul>
9. Pressing	<ul style="list-style-type: none"> <li>• Pressing lasts 4- 6 hours</li> </ul>
10. Salting	<ul style="list-style-type: none"> <li>• Wet – in salt water lasts from 24 to 48 hours</li> <li>• Dry – lasts 2 hours</li> </ul>
11. Ripening	<ul style="list-style-type: none"> <li>• Eating maturity is reached after at least 60 days of ripening</li> </ul>
12. Sensory evaluation and labelling	<ul style="list-style-type: none"> <li>• Cheese selection according to: <ul style="list-style-type: none"> <li>○ External parameters (outlook, shape, weight)</li> <li>○ Sensory evaluation</li> <li>○ Results of chemical analyses according to applicable legislation that are needed for determining cheese type</li> </ul> </li> <li>• Labelling</li> </ul>

Source: MAFFS, 2014e

Due to specific pastures in Bovec area these breeds have developed through centuries. This fact is closely linked to diet and fodder constitution and consequently to milk quality that is the basic ingredient for Bovec cheese production. Bovec area is the only micro area in Slovenia that is known for sheep and goat breeding. It has a very long tradition of alpine farming through which the tradition of cheese making has been maintained. (MAFFS, 2014e)

Bovec cheese comes in flat discs each weighing between 2.5 and 4.5 kg. Its rind is hard and smooth and grey-brown to dull beige in colour. It has a compact, elastic, grey-beige coloured body with sparsely but uniformly distributed lentil-sized eyes or a few tiny holes. It has a characteristic aromatic, full, intense and slightly pungent odour and spicy flavour. The addition of cow's or goat's milk results in a milder flavour and odour. The cheese must be aged at least 60 days before it can be sold. The body of longer-aged cheeses is more compact and fragile. (MAFFS, 2015b)

#### 3.4.5 Semi-Hard Cheese without Preservatives –Semihard Cheeses of Zelena Dolina

Semi-hard cheeses without preservatives (*Poltrdi sir brez konzervansov – poltrdi siri Zelene doline*) are produced following standard technological semi-hard cheese procedures, yet the milk for their production undergoes bacteriostasis. This procedure takes place during the pasteurization of milk and removes approximately 99–99.5% of bacteria and their spores. When milk for semi-hard cheeses is not bacteriostated, preservatives which prevent the growth of unwanted microorganisms that could cause unwanted spoilage (e.g. blowing of cheese) in later phases of semi-hard cheese production need to be added. Semi-hard cheeses made from bacteriostated milk are long lasting despite not having any preserving agents added (MAFFS, 2015b).

These semi hard cheeses are Edam cheese, Trappist cheese, Gouda and Šmarski Rok cheese. The latter (Šmarski Rok cheese), besides being without preservatives also has lower fat content (25% milk fat in dry matter).

## 4 Conclusion

Protection under EU quality schemes gives the products a special value and appeal. As the AND research (2012) has shown the sales value of products protected under Geographical indication has risen by 12% from 2005 to 2010. The first Slovenian agri-food products have been protected just a few years ago, so we cannot yet see a lot of tangible results and benefits, but some issues have arisen already. As it has been pointed out at the Slovenian Roundtable during EU week in May 2015 producers have problems with procedures for protection that are very complicated and also costly. Some of the producers cannot afford to protect their products as the protection may cost up to 1500 euro per year. On the other hand a few of the protected products are currently even not produced (among them Nanos cheese). There is ongoing discussion whether the number of protected foodstuffs should be reduced as every protected product should get its own story to make it more interesting. This is an issue for further research.

## References

- AND International (authorised by European Commission) (2012). Value of production of agricultural products and foodstuffs, wines, aromatised wines and spirits protected by a geographical indication (GI). [http://ec.europa.eu/agriculture/external-studies/2012/value-gi/final-report\\_en.pdf](http://ec.europa.eu/agriculture/external-studies/2012/value-gi/final-report_en.pdf). on 4.08.2015
- Chamber of Agricultural and Food Enterprises of the Chamber of Commerce and Industry of Slovenia (CCIS-CAFE) (2015). Kupujem slovensko. <http://www.kupujemslovensko.si/>. on 10.06.2015
- Chamber of Agriculture and Forestry of Slovenia (CAFS) (2011). Kupujmo domače – brezplačni mali oglasi slovenskih kmetij. <http://www.kgzs.si/GV/Aktualno/V-srediscu/Novica/ArticleId/1298/Kupujmo-domace-brezplacni-mali-oglas-slovenskih-kmetij.aspx>. on 10.06.2015
- Chamber of Agriculture and Forestry of Slovenia (CAFS) (2013a). Skupna kmetijska politika: Dobrote slovenskih kmetij, [http://www.zarazvojpodezelja.si/dobrote\\_slovenskih\\_kmetij.php](http://www.zarazvojpodezelja.si/dobrote_slovenskih_kmetij.php). on 10.06.2015
- Chamber of Agriculture and Forestry of Slovenia (CAFS) (2013b). Pregled šolskih shem, ki zagotavljajo kmetijske proizvode otrokom v šolah, <http://www.kgzs.si/gv/razvoj-podezelja/solske-sheme.aspx>. on 10.06.2015
- Chamber of Agriculture and Forestry of Slovenia (CAFS) (2013c). Podeželje v mestu, [http://www.zarazvojpodezelja.si/podezelje\\_v\\_mestu.php](http://www.zarazvojpodezelja.si/podezelje_v_mestu.php). on 10.06.2015
- Chamber of Agriculture and Forestry of Slovenia (CAFS) (2015a). Dobrote slovenskih kmetij. <http://www.kgzs.si/gv/promocija/sejmi-in-prireditve/dobrote-slovenskih-kmetij.aspx>. on 10.06.2015
- Chamber of Agriculture and Forestry of Slovenia (CAFS) (2015b). Kupujmo domače <http://www.kupujmodomace.si/kupdom/>. on 10.06.2015
- Chamber of Agriculture and Forestry of Slovenia (CAFS) (2015c). Podeželje v mestu 2015 – pomlad. <http://www.kgzs.si/gv/promocija/sejmi-in-prireditve/podezelje-v-mestu.aspx>. on 10.06.2015
- European Commission (EC) (2015a). European School Fruit Scheme. [http://ec.europa.eu/agriculture/sfs/european-commission/index\\_en.htm](http://ec.europa.eu/agriculture/sfs/european-commission/index_en.htm). on 10.06.2015
- European Commission (EC)(2015b). European School Milk Scheme. [http://ec.europa.eu/agriculture/milk/school-milk-scheme/index\\_en.htm](http://ec.europa.eu/agriculture/milk/school-milk-scheme/index_en.htm). on 10.06.2015
- Etnofolk.eu (2014). Mohant cheese. <http://www.etnofolk.eu/sl/article/mohant-cheese>. on 04.05.2015
- Government Communication Office of the Republic of Slovenia (GCO) (2011). Slovenia.si: Traditional Slovenian Breakfast day in kindergartens and primary schools. <http://www.slovenia.si/slovenia/society/health/traditional-slovenian-breakfast-day-in-kindergartens-and-primary-schools/>. on 10.06.2015

- Ministry of Agriculture, Forestry and Food of Slovenia (MAFFS) (2012a). Mohant cheese specification,  
[http://www.mkgp.gov.si/fileadmin/mkgp.gov.si/pageuploads/podrocja/Varna\\_in\\_kakovost\\_na\\_hrana\\_in\\_krma/zasciteni\\_kmetijski\\_pridelki/Specifikacije/MOHANT\\_SP\\_EU.pdf](http://www.mkgp.gov.si/fileadmin/mkgp.gov.si/pageuploads/podrocja/Varna_in_kakovost_na_hrana_in_krma/zasciteni_kmetijski_pridelki/Specifikacije/MOHANT_SP_EU.pdf). on 04.05.2015
- Ministry of Agriculture, Forestry and Food of Slovenia (MAFFS) (2012b). Tolminc cheese specification,  
[http://www.mkgp.gov.si/fileadmin/mkgp.gov.si/pageuploads/podrocja/Varna\\_in\\_kakovost\\_na\\_hrana\\_in\\_krma/zasciteni\\_kmetijski\\_pridelki/Specifikacije/TOLMINC\\_januar\\_2012.pdf](http://www.mkgp.gov.si/fileadmin/mkgp.gov.si/pageuploads/podrocja/Varna_in_kakovost_na_hrana_in_krma/zasciteni_kmetijski_pridelki/Specifikacije/TOLMINC_januar_2012.pdf). on 04.05.2015
- Ministry of agriculture, forestry and food of Slovenia (MAFFS) (2013a). Dan slovenske hrane,  
[http://www.mkgp.gov.si/si/delovna\\_podrocja/promocija\\_lokalne\\_hrane/dan\\_slovenske\\_hrane/](http://www.mkgp.gov.si/si/delovna_podrocja/promocija_lokalne_hrane/dan_slovenske_hrane/). on 10.06.2015
- Ministry of Agriculture, Forestry and Food of Slovenia (MAFFS) (2013b). Nanos cheese specification,  
[http://www.mkgp.gov.si/fileadmin/mkgp.gov.si/pageuploads/podrocja/Varna\\_in\\_kakovost\\_na\\_hrana\\_in\\_krma/zasciteni\\_kmetijski\\_pridelki/Specifikacije/NANOSKI\\_-\\_spec.\\_junij\\_2013.pdf](http://www.mkgp.gov.si/fileadmin/mkgp.gov.si/pageuploads/podrocja/Varna_in_kakovost_na_hrana_in_krma/zasciteni_kmetijski_pridelki/Specifikacije/NANOSKI_-_spec._junij_2013.pdf). on 04.05.2015
- Ministry of agriculture, forestry and food of Slovenia (MAFFS) (2014a). Honey breakfast.  
[http://www.mkgp.gov.si/en/areas\\_of\\_work/agriculture/honey\\_breakfast/](http://www.mkgp.gov.si/en/areas_of_work/agriculture/honey_breakfast/). on 10.06.2015
- Ministry of agriculture, forestry and food of Slovenia (MAFFS) (2014b). Promocija lokalne hrane. [http://www.mkgp.gov.si/si/delovna\\_podrocja/promocija\\_lokalne\\_hrane/](http://www.mkgp.gov.si/si/delovna_podrocja/promocija_lokalne_hrane/). on 10.06.2015
- Ministry of agriculture, forestry and food of Slovenia (MAFFS) (2014c). Združitev shem za večjo ozaveščenost otrok o zdravem prehranjevanju.  
[http://www.mkgp.gov.si/nc/si/medijsko\\_sredisce/novica/article//7098/](http://www.mkgp.gov.si/nc/si/medijsko_sredisce/novica/article//7098/). on 10.06.2015
- Ministry of Agriculture, Forestry and Food of Slovenia (MAFFS) (2014d), Quality schemes,  
[http://www.mko.gov.si/fileadmin/mko.gov.si/pageuploads/podrocja/Varna\\_in\\_kakovostna\\_hrana\\_in\\_krma/zasciteni\\_kmetijski\\_pridelki/sheme\\_kakovosti.pdf](http://www.mko.gov.si/fileadmin/mko.gov.si/pageuploads/podrocja/Varna_in_kakovostna_hrana_in_krma/zasciteni_kmetijski_pridelki/sheme_kakovosti.pdf). on 04.05 2015
- Ministry of Agriculture, Forestry and Food of Slovenia (MAFFS) (2014e). Bovec cheese specification.  
[http://www.mkgp.gov.si/fileadmin/mkgp.gov.si/pageuploads/podrocja/Varna\\_in\\_kakovost\\_na\\_hrana\\_in\\_krma/zasciteni\\_kmetijski\\_pridelki/Specifikacije/Bovski\\_sir\\_specifikacija.pdf](http://www.mkgp.gov.si/fileadmin/mkgp.gov.si/pageuploads/podrocja/Varna_in_kakovost_na_hrana_in_krma/zasciteni_kmetijski_pridelki/Specifikacije/Bovski_sir_specifikacija.pdf). on 04.08.2015
- Ministry of Agriculture, Forestry and Food of Slovenia (MAFFS) (2015a). Mohant cheese specification,  
[http://www.mkgp.gov.si/fileadmin/mkgp.gov.si/pageuploads/podrocja/Varna\\_in\\_kakovost\\_na\\_hrana\\_in\\_krma/zasciteni\\_kmetijski\\_pridelki/Specifikacije/MOHANT\\_SP\\_EU.pdf](http://www.mkgp.gov.si/fileadmin/mkgp.gov.si/pageuploads/podrocja/Varna_in_kakovost_na_hrana_in_krma/zasciteni_kmetijski_pridelki/Specifikacije/MOHANT_SP_EU.pdf). on 04.05.2015
- Ministry of Agriculture, Forestry and Food of Slovenia (MAFFS) (2015b). Slovenian Protected Agricultural Products and Foodstuffs,

[http://www.mkgp.gov.si/fileadmin/mkgp.gov.si/pageuploads/publikacije/Zasciteni\\_proizvodi\\_SLO\\_ANG/Zasciteni\\_brosura\\_ANG\\_SPLET.pdf](http://www.mkgp.gov.si/fileadmin/mkgp.gov.si/pageuploads/publikacije/Zasciteni_proizvodi_SLO_ANG/Zasciteni_brosura_ANG_SPLET.pdf). on 04.05.2015

Ministry of agriculture, forestry and food of Slovenia (MAFFS) (2015c). Shema šolskega sadja <http://www.shemasolskegasadja.si/>. on 10.06.2015

Ministry of agriculture, forestry and food of Slovenia (MAFFS) (2015d). Tradicionalni slovenski zajtrk <http://tradicionalni-zajtrk.si/>. on 10.06.2015

Inštitut za kontrolo in certifikacijo v kmetijstvu in gozdarstvu Maribor (Kon-cert) (2015). Zaščitni znaki, <http://www.kon-cert.si/zascitni-znaki.html>. on 04.05.2015

Potočnik A., Ministry of Agriculture, Forestry and Food of Slovenia (MAFFS) (2014) Evalvacija ankete o kratkih verigah 2014, [http://www.mkgp.gov.si/si/delovna\\_podrocja/promocija\\_lokalne\\_hrane/uveljavitev\\_nacela\\_kratkih\\_verig/](http://www.mkgp.gov.si/si/delovna_podrocja/promocija_lokalne_hrane/uveljavitev_nacela_kratkih_verig/). on 10.06.2015

Slovenian Marketing Association (SMA) (2015), TRŽENJSKI MONITOR DMS pomlad 2015 (Marketing monitor SMA spring 2015), [http://www.dmslo.si/media/trzenjski.monitor.dms\\_pomlad.2015\\_porocilo.pdf](http://www.dmslo.si/media/trzenjski.monitor.dms_pomlad.2015_porocilo.pdf). on 10.06.2015

## Project information

- Title:** International comparisons of product supply chains in the agri-food sectors: determinants of their competitiveness and performance on EU and international markets (COMPETE)
- Funding:** Collaborative research project (small or medium-scale focused research project), FP-7-KBBE.2012.1.4-09, total EU contribution is 2,422,725 €
- Duration:** 01/10/2013-30/09/2015 (36 months)
- Objective:** The objective of the COMPETE project is to gain a more comprehensive view on the different elements which contribute to the competitiveness of the European agri-food supply chain in order to provide better targeted and evidence based policies on the EU as well as on the domestic level. The project investigates selected determinants of competitiveness like policy interventions and the business environment, productivity in agriculture and food processing, the functioning of domestic and international markets, the choice of governance structures, and innovative activities in food processing. The research results will enable a congruent, coherent and consistent set of policy recommendations aiming at improving competitiveness of European product supply chain.
- Coordinator:** IAMO, Germany, Prof. Heinrich Hockmann
- Consortium:** 16 Partners from 10 European countries. COMPETE brings together academics, trade bodies, NGOs, agricultural co-operative, industry representative advisory services. In addition, the project is supported by the group of societal actors, incorporating farmer, food processing and consumer associations, providing in-depth knowledge on the agri-food sector and speeding up the achievement of the project goals.
- Contact:** [compete@iamo.de](mailto:compete@iamo.de)
- Website** [www.compete-project.eu](http://www.compete-project.eu)



This project is funded by  
the European Union