# APPLICATION FOR REGISTRATION OF THE DESIGNATION OF ORIGIN<sup>1)</sup> FOR AN AGRICULTURAL PRODUCT OR FOODSTUFF

# I. Applicant

# 1. Name<sup>2)</sup>:

Regionalny Związek Hodowców Owiec i Kóz [Regional Sheep and Goat Breeders Association]

# 2. Seat or residence and address:

34-400 Nowy Targ ul. Szaflarska 93 d/ 7

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# 4. Person acting on behalf of the applicant:

Jan Janczy

# 5. Group:

Provide information on the composition of the group.

The group includes shepherds who are members of the Regional Sheep and Goat Breeders Association.

# **II. Specification**

1. Name: Provide the name of the agricultural product or foodstuff.

# 'Redykołka'

# 2. Application for registration of:

Mark with a cross if the applicant is seeking to register the name referred to in Section 1 as a designation of origin or geographical indication.

1) designation of origin
2) geographical indication

<sup>&</sup>lt;sup>1)</sup> Delete as appropriate.

<sup>&</sup>lt;sup>2)</sup> Only a group is entitled to apply for registration. A natural or legal person may apply for registration after the European Commission has laid down the conditions under which such a person may be treated as a group.

# 3. Category:

Indicate the category to which the agricultural product or foodstuff belongs<sup>3</sup>).

1.3. Cheese

# 4. Description:

Provide a description of the agricultural product or foodstuff and, where necessary to demonstrate the link referred to in Section 8, also information on the raw material composition, physical, chemical, microbiological, or organoleptic characteristics.

**'Redykołka'** is a small cheese in the shape of a miniature animal, bird, heart or spindle. The glistening straw colour of the rind (pale brown with a slight sheen) is imparted during the smoking process. Small amounts of another colour may be present on the rind, or the colour of the rind may be slightly faded. The rind is smooth and elastic but may be slightly rough. It may display a slight unevenness and have cracks that do not penetrate the cheese itself. The cheese is elastic and slightly hard. It has a slightly salty taste and a pronounced smoked aroma.

'**Redykołka**' is obtained from sheep's milk or sheep and cow's milk. Cow's milk may not account for more than 40% of the total quantity of milk used in its production. Milk, the main ingredient of '**redykołka**', comes exclusively from sheep of the Polish mountain sheep (Polska owca górska) breed. The sheep are milked from May to September – after the lamb rearing period, which lasts from March to May. Since the possibility of obtaining sheep's milk is limited to the period between the end of April and the beginning of October, production of '**redykołka**' is likewise only possible between May and September.

Milk from cows of the Polish red cow (Polska krowa czerwona) breed grazed in the specified geographical area may be used in the production of '**redykołka**.'

The chemical composition of **'redykołka'** depends on the length of time for which it is smoked and varies according to the time of year: the water content must not exceed 44%, the dry matter content must not be less than 56%, and the fat content in the dry matter must not be less than 38%.

From an organoleptic perspective, its dense, firm texture and rich aromatic palette of flavours are what give '**redykołka**' its distinctiveness.

# 5. Geographical area:

Indicate geographical area.

The area in Śląskie Voivodeship includes:

- the following municipality in Cieszyn Poviat: Istebna
- the following municipalities in Żywiec Poviat: Milówka, Węgierska Górka, Rajcza, Ujsoły, Jeleśnia and Koszarawa
- The area in Małopolskie Voivodeship includes:

the whole of Nowy Targ Poviat and the whole of Zakopane Poviat

- the following municipalities in Sucha Beskidzka Poviat: Zawoja and Bystra Sidzina
- the following municipalities in Limanowa Poviat: Niedźwiedź and the part of Kamienica, which is situated within the Gorce National Park or to the south of the River

<sup>&</sup>lt;sup>3</sup>) For completion by the body submitting the application to the European Commission.

Kamienica, and the following civil parishes in Mszana Dolna municipality: Olszówka, Raba Niżna, Łostówka, Łętowe and Lubomierz;

the following municipalities in Nowy Sącz Poviat: Piwniczna, Muszyna and Krynica.

- Annex

The area described almost entirely coincides with the only compact area of viable Tatra pastoralism existing today – Podhale, a historical and ethnographical region in the northern foothills of the Tatra Mountains.

# 6. Proof of origin:

Please indicate the method used to confirm that the agricultural product or foodstuff originates in the defined geographical area.

The control of the authenticity of the place of origin and quality of '**redykołka**' is multiphased and is carried out at a number of stages, beginning with milk production and ending with the control of a finished product on the market. This comprehensive control system ensures the consistent quality of the final product.

The system not only controls the location of the pasture and the breed of animal from which the raw material is obtained, but also makes it possible to monitor the correct production process (as declared in the specification) and the correct proportions of milk used in production.

The control system reflects the specific characteristics of sheep grazing in this area. A list of shepherds involved in the production of '**redykołka**' is kept. Producers who intend to start production register themselves on this list.

Shepherds-producers are required to declare the number and location of the sheep grazed (Polish mountain sheep) and cows (Polish red cow). The declaration is to be submitted no later than the deadline set each year. A special register is kept containing all the necessary information about the owners of the sheep and all the information about the animals.

Each producer keeps records at the production site. The register contains information on the production process. This allows the history of the product to be reconstructed and traced.

The compliance of the production method with the specification is verified by a control body. The origin of the raw material, the different stages of the production process, and the characteristics of the finished product are verified. All producers as well as their association are subject to controls in accordance with the control plan held and approved by the control body.

# 7. Method of production:

# All of the described production steps are carried out manually.

Step 1 – Obtaining the raw material

# DESCRIPTION OF TRADITIONAL PRACTICES

Milk used in the production of '**redykołka**' comes from sheep of the Polish mountain sheep (Polska owca górska) breed. The sheep are milked from the end of April to the beginning of October – after the lamb rearing period, which lasts from March to May. From early May to September, the sheep are milked two or three times a day.

From early May to September, the sheep are milked two or three times a day. Typically, the first milking is carried out around 5 a.m., the second between 12 and 2 p.m., and the third around 9 p.m. If it is done only twice a day, evening milking is not carried out. From the beginning of September, the sheep are only milked twice a day, and from the beginning of October, only once a day if they still have milk. Milking is carried out behind the rear legs.

Cow's milk, if used in the production, comes from cows of the Polish red cow breed. Milking of cows, depending on their milkability, is carried out 2 or 3 times a day.

Both cows and sheep graze on mountain pastures, meadows and pasturages located in the declared area specified in Section 5.

# REQUIREMENTS

The producer is required to use milk from the Polish mountain sheep and the Polish red cow.

#### **Step 2 – Cold ripening (acidification)**

#### DESCRIPTION OF TRADITIONAL PRACTICES

Sheep's or sheep's and cow's milk, pre-milked, is stored for several hours (2 to 10) at ambient temperature and its acidity increases due to the development of lactic fermentation bacteria. Depending on the temperature at which this process is carried out, the development of the bacterial flora may be faster or slower. The duration of this process depends on the skill and knowledge of the *baca* [shepherd] and is closely linked to the prevailing weather conditions. The shepherd decides whether the container of sour milk should be outside the *bacówka* [shepherd's hut]<sup>4</sup> or inside it, near the fire, where the temperature is much higher. Only the specific skills of the shepherds and the knowledge passed on from generation to generation allow them to carry out the process properly. On average, the pH decreases by 0.8 during milk storage. The milk used for cold ripening (acidification) accounts for 5–6% of the total milk used in the cheese production.

#### REQUIREMENTS

The producer is required to carry out a cold ripening process to obtain the right amount of acidified milk. The milk used for cold ripening (acidification) may not exceed 8% of the total milk used in the cheese production.

<sup>&</sup>lt;sup>4</sup> *Bacówka*: A traditional shepherd's hut (sometimes a shelter or *koliba* [chalet]) that is constructed entirely of wood. Traditionally, the width of a shepherd's hut is between 4 and 5 metres and its length between 8 and 9 metres. It usually has two rooms. The central large room is where most of the production steps are carried out. In the corner of this room, below floor level (40 to 100 cm), there is a hearth. The fire is continuously maintained. The wooden walls next to the hearth are protected by a layer of boulders and stones. Stone slabs or metal sheets are also often used for fire protection. This room was also traditionally used as a sleeping area for the senior shepherd and for *juhasy* (young shepherds). The second, smaller room was used as a storage area. This is where cheese intended for sale was placed and stored, and where cheese taken out of the brine for smoking was dried. Special wooden shelves were used for cheese intended for drying and sale. The hut usually has a single entrance door and no windows, resulting in very poor interior lighting. Smoke produced during burning escapes only through gaps in the roof or specially cut openings in the gables, under the hut's roof. The main room is often heavily smoked, which enables the cheese to be smoked.

## Step 3 – Warm ripening (acidification)

# DESCRIPTION OF TRADITIONAL PRACTICES

The ripening period is short (1/2 hour). This process involves mixing soured milk and fresh milk, i.e., sheep's or cow's milk (see previous paragraph) and sheep's or mixed sheep's and cow's milk from the pasture (morning and often noon milking). Soured milk is mixed with fresh milk in a copper kettle, also known as a *koltlik* or *kotlicek*. The kettle hangs over the hearth inside the *bacówka*. In this phase, the milk is heated to a temperature of about 40°C.

## REQUIREMENTS

The soured milk should be mixed with fresh milk and then heated to a temperature not exceeding 50%. The final ratio of cow's milk to sheep's milk used in the production of 'redykołka' must not exceed 40:60.

## **Step 4 – Addition of rennet**

## DESCRIPTION OF TRADITIONAL PRACTICES

Traditionally, 1.1 g to 2.7 g of powdered rennet per 100 litres of milk is used, dissolved in a small amount of warm water. The dosage often varies but is not related to the ratio of sheep's to cow's milk used. The rennet is usually purchased from local dairies.

The coagulation time under the influence of rennet (the period in which the milk loses its fluidity to gain high viscosity) is not strictly defined by the producer but ranges from 10 to 30 minutes, depending on whether the milk temperature is around 20°C or 39°C. The resulting curd is more or less dense depending on the milk temperature at the time of rennet addition.

#### REQUIREMENTS

The prepared milk should be treated with rennet.

#### **Step 5 – Coagulation**

#### DESCRIPTION OF TRADITIONAL PRACTICES

This is the period that separates the moment of adding rennet to the milk from the moment when the curd forms. The whole process takes place in a *puciera*<sup>5</sup> (traditional barrel), and coagulation continues until the curd forms (the moment when whey separates from the curd). The temperature is maintained at a constant level by placing a round wooden or metal lid on top.

#### REQUIREMENTS

The coagulation process must be carried out, leaving the rennet-treated milk until the curd forms. The producer is required to conduct the coagulation process in a *puciera*.

 $<sup>^{5}</sup>$  *Puciera* – a tall flared wooden barrel, strapped with a metal or wooden buckle. Its size depends on the amount of milk processed by the shepherds, but it must be relatively easy to manipulate which also limits its size.

## Step 6 – Grinding (breaking) of the curds

# DESCRIPTION OF TRADITIONAL PRACTICES

Initially, the curd is cut crosswise, then after a few minutes, it is vigorously broken using a *ferula*<sup>6</sup> (a type of wooden spatula with one or two wires in the middle). After about 3 minutes, a granular mass is obtained, where the granules are the size of grains of cereal. The breaking is carried out at a temperature between 20°C and 35°C depending on the producer (*baca*). Hot water is added during the breaking of the curd to reach a temperature that allows the grains to stick together into lumps (about 35°C). (Photos 41 to 45)

# REQUIREMENTS

The curd should be broken using a *ferula*, and then an appropriate amount of hot water should be added to achieve a temperature that allows the grains to stick together into lumps.

## Step 7 – Settling

## DESCRIPTION OF TRADITIONAL PRACTICES

The *puciera* with the broken curd is left until the lumps of cheese settle to the bottom. This allows the whey to separate from the lumps of cheese.

#### REQUIREMENTS

The broken curd must be left until the lumps of cheese settle to the bottom.

#### **Step 8 – Draining of the whey**

#### DESCRIPTION OF TRADITIONAL PRACTICES

The producer (*baca*) removes the whey from the traditional barrel in the amount of 30 to 50% of the total. The pH decreases by about 0.1 on average. Some of the whey is stored in a separate container for the next steps. The rest is used as feed for pigs or to produce  $\dot{z}etyca^7$ , but the whey is never discarded.

#### REQUIREMENTS

Up to 50% of the whole whey should be drained from the *puciera*.

# Step 9 – Removal – pressing the curd in *puciera*

#### DESCRIPTION OF TRADITIONAL PRACTICES

After removing the whey, the producer (*baca*) gently presses the granular mass (the curd) against the bottom of the *puciera*. The resulting lumps of cheese are then removed. To facilitate this operation, the *puciera* is usually tilted towards the person working.

#### REQUIREMENTS

The curd should be removed from the *puciera*.

<sup>7</sup> Żętyca: a beverage obtained by lactic fermentation. It is a whey from sheep's milk (also known as *żentyca*, *żyntyca*, *rzetyca* – the spelling varies across regions).

 $<sup>^{6}</sup>$  Ferula – a wooden hardwood stirrer with two to four arms, used for breaking the curds and mixing the contents of a *puciera*.

#### **Step 10 – Pounding – pressing the granular mass into lumps**

# DESCRIPTION OF TRADITIONAL PRACTICES

The removed curd lumps are manually pounded and then placed in a *czerpok* (a wooden mug, scoop<sup>8</sup>), which is a traditional measure of the size of the 'oscypek' cheese. When the *czerpok* is full, the drained mass is further pounded in the hands to form a ball, which is then placed in a container with warm whey (see Step 8).

# REQUIREMENTS

The removed curd should be manually pounded and then formed into a ball and placed in a container with warm whey. The cheese ball should be the size of the *czerpok*.

# Step 11 – Kneading the ball and shaping

# DESCRIPTION OF TRADITIONAL PRACTICES

The ball is taken out of a vessel filled with whey and placed into another vessel filled with hot water or hot water with added whey. This vessel is either placed next to the hearth to maintain a constant water temperature ( $45-66^{\circ}C$ ), or hot water is added to it gradually. The amount of water in the vessel should allow the cheese balls to be completely submerged. After a few minutes of scalding, the ball is taken out and compressed for a long time in both hands over the vessel, so as to drain out as much whey as possible (Photos 39 to 40). The cheese ball is then scalded, pulled out, and kneaded again. This process is repeated 2 to 5 times. The exact temperature of the water, the scalding time, and the frequency and duration of compressing are determined each time by the *baca*, as these activities depend on the following factors: the amount of added rennet, the chemical composition of the milk, and, in particular, atmospheric factors such as ambient temperature and air humidity.

The cheese mass is then formed with the aid of special moulds into the shape of a heart, bird, lamb, spindle, etc.

# REQUIREMENTS

The cheese ball is placed in a vessel with hot water or hot water with added whey (at a temperature up to 66°C) and scalded for several minutes. The ball is removed and compressed over the vessel to expel the whey. This process should be repeated 2 to 5 times.

# Step 12 – Soaking in brine

# DESCRIPTION OF TRADITIONAL PRACTICES

After a short period of draining, the so-called brining (soaking in brine) takes place. The formed cheese is placed in brine for up to 24 hours. The brine is prepared with boiled and then cooled water, to which salt is added. The brine should be heavily saturated so that the cheese floats and stays on the surface. However, the cheese should not dry out, so the brine is covered to prevent the cheese from floating (a cloth or wooden cover placed on top keeps it submerged).

<sup>&</sup>lt;sup>8</sup> *Czerpak* (*czerpok*) – a wooden mug – was used to measure out the cheese mass to make 'oscypek' and as a vessel for drinking *żentyca*. A carved hook-shaped handle allowed the *czerpok* to be suspended from the edge of the *puciera*. The carving on the handle often depends on the region of origin.

The soaking time in brine affects the salt content in the final product. This operation is usually carried out in a separate room, where *żętyca* (*żentyca*) is also stored in barrels for fermentation, **'redykołka'** is dried, and sometimes *bundz* is drained.

REQUIREMENTS The cheese should be placed in brine for up to 24 hours.

**Step 13 – Drying** DESCRIPTION OF TRADITIONAL PRACTICES

The cheeses are placed on a board or wooden shelf, where they are dried for 12 to 24 hours.

# REQUIREMENTS

The cheese should be naturally dried for a period of 12 to 24 hours.

# Step 14 – Smoking (maturing)

DESCRIPTION OF TRADITIONAL PRACTICES

The maturing process of '**redykołka**' is carried out using cold smoke. The products are placed in smoke chambers, specially designed wooden shelves known as *komorniki*<sup>9</sup>, in the roof-space of the shepherd's hut, usually on the wall or by the hearth (sometimes '**redykołka**' is smoked in a specially prepared smokehouse). The smoking is done with cold smoke from a fire where wood is burned: larch for a darker colour or alder for a lighter colour. Ash or spruce is also often used.

During smoking, the '**redykołka**' is turned at least once a day to achieve and maintain a uniform and regular colour and shape. Smoking lasts for 3 to 7 days. After this time, '**redykołka**' is ready for sale.

#### REQUIREMENTS

The dried cheese should be subjected to smoking. Smoking is carried out using cold smoke and lasts for 3 to 7 days.

Expand boxes or table with the following stages of production, if necessary.

Additional information on the method of production:

#### Variable factors in the production process:

- coagulation temperatures (21°C do 39°C) amount of powdered rennet
- draining of the whey (up to 50%)
- water temperature for scalding the cheese ball (up to 66°C)
- scalding repetitions (2 to 5)
- smoking, maturing time (3 to 7 days)
- cow's milk content may not account for more than 40% of the milk used in the production.

<sup>&</sup>lt;sup>9</sup> Komornik – a special wooden shelf, where '**redykołka**' is placed for smoking.

#### Unacceptable practices:

It is unacceptable to use curdled milk in the production of '**redykołka**.' Although using such milk results in a more uniform weight of '**redykołka**', it affects the final taste of the cheese.

Provide a description of the production method for the agricultural product or foodstuff and provide information on packaging if there are reasons why packaging should take place in the geographical area defined in Section 5 and indicate those reasons.

# 8. Link with the geographical area:

When applying to register the name indicated in Section 1 as a designation of origin, provide elements demonstrating the link between the quality and characteristics of the agricultural product or foodstuff and the geographical environment in the area referred to in Section 5.

When applying to register the name indicated in Section 1 as a geographical indication, provide elements demonstrating the link between the specified quality, reputation or a characteristic of the agricultural product or foodstuff and the geographical origin in the area referred to in Section 5.

## Historical and human factors

**'Redykołka'** (also 'redykałka') is an ancient product of Wallachian shepherds who grazed their sheep in highland glades. The cheese came to Podhale along with the Wallachian culture, the way of organising grazing, the traditional shepherd's hut and the method of processing the milk. As early as the 15<sup>th</sup> century, the founders of the Gorce village of Ochotnica paid their dues in the form of cheese.

The first mention of cheesemaking in Podhale and neighbouring areas is to be found in the founding charter of Ochotnica village in the Gorce Mountains. Dawid Wołoch (David Valachi) was granted the right to found the village in **1416**. Although the village was settled under the law of Środa Śląska, i.e., German law, some tributes and taxes imposed on the village and its inhabitants are characteristic of Wallachian law. One such tribute is the sheep and cheese tribute. Villagers who kept sheep were obliged to pay it around St. Martin's Day (11 November) (Długopolski 1921<sup>10</sup>).

The next source of indirect information on cheese production is the inspection of royal estates. In the first inspection carried out in the Polish lands in **1564**, Nowy Targ Starosty listed five villages that paid a mutton tribute. In Klikuszowa, the sheep tribute was calculated based on 920 sheep, and among the other duties listed with the sheep tribute was a tax on cheese. In Szaflary, both sheep and cow's cheese were taxed. It is also known that the sheep of Waksmund were grazed 'between the mountains' by four inhabitants, and in the newly founded village of Czarny Dunajec, two settlers had flocks of sheep and also paid a tax on cheese. In the village of Olszówka, a sheep tribute was also paid. This mutton tribute was also imposed in some villages in the Gorce Mountains and the area of Żywiec (Inspection of Kraków Voivodeship).

<sup>&</sup>lt;sup>10</sup> Bibliography of the referenced publications – Annex III.

Since the material culture associated with pasturing was strongly influenced by the Wallachian shepherds and is therefore very similar throughout the Western Carpathians, it can be illustrated by analogy with examples from the Żywiec, Sucha Beskidzka or Gorce regions, and even from around Limanowa.

A report produced in **1564** refers also to the Vlachs grazing sheep flocks in Lanckorona starosty of the Żywiec region and in the Duchies of Oświęcim and Zator. In the Duchy of Zator, the Vlachs gave 3 rams per hundred head and one Wallachian cheese for permission to graze their flocks in the summer. In 1564, the sheep tribute in the area brought the treasury 18 rams at 16 grosz each, 4 sheep cheeses at 6 grosz each, and 1 goat cheese, also 'worth 6 grosz'. On 16 January **1574**, the then owners of the Żywiec estate – Jan Spytek and Krzysztof Komorowski – granted the town of Żywiec the right to brew beer, and wishing to increase other benefits for the townspeople, issued the following order: 'We also command that all our Wallachian subjects, who have any cheeses or *bryndza* for sale, must not take and sell them anywhere but in our town of Żywiec....' The same ordinance 'on the Vlachs, who have to sell dairy products, cheeses, and *bryndza* only in Żywiec' for Żywiec was confirmed on 5 February 1626 by the new owner of the Żywiec estate, Queen Constance, wife of Sigismund III Vasa (Szczotka 1951).

The term 'ser wałaski' [Wallachian cheese] appears not only in the inspection but also in a document from **1494** (Court and Land Records), where we read 'Duos caseos Walachicos', or in a document from the town of Biecz from **1521** 'Caesi Valachorum' (Bujak 1914) and as 'ser valaski' is mentioned several times in the records of Kasina Wielka from **1678** (*Księgi sądowe wiejskie* [Village Court Records], vol. I, p. 313–314). Kowalska-Lewicka (1967) claims that it is most likely equivalent to the term 'gruda' in other documents, and the name 'ser wałaski' was given to it in Poland to emphasise its origin. On the other hand, Baranowski (1916) writes that Wallachian cheeses were part of the tribute of the upper villages of Lanckorona as late as the 17<sup>th</sup> century, and in the memoirs from the Beskid Sądecki region of the same century, there is a mention of a local merchant, Sebastian Żmijewski, who at that time transported copper, nuts, and Wallachian cheeses to Warsaw. The fact that they were transported over such a long distance suggests that they were dry cheeses (Kopczyńska-Jaworska 1961).

Village foundation documents from Podhale dating from the end of the 16<sup>th</sup> century refer to authorisations to 'graze sheep freely in mountain pastures' which seems to indicate that herds already existed at that time or that the possibility of holding them was taken into account (Falniowska-Gradowska 1997). It should be emphasised here that the majority of levies and tributes in Nowy Targ Starosty were soon converted from in-kind to in-money payments.

There is detailed information on the fees and tributes in the starosty from the early 17<sup>th</sup> century, when Mikołaj Komorowski was the starost. It comes from the peasants' complaints against the starost for overcharging tributes beyond the inventory requirements. According to the inventories, 'every 3 years the subjects who raised sheep were to give one cheese from 100 sheep, as can be made from one milking of 100 sheep, or 40 grosz instead. The starost increased this tribute and ordered to give 66 grosz annually instead of cheese, and if anyone gave shepherd's cheese in kind, it would be so large that it could hardly be made from the milking of 300 sheep' (Długopolski 1911). The starost also ordered: 'gruda, that is, curd cheese or young cheese from one milking of all the sheep in the shelter' (*Księgi sądowe wiejskie* [Village Court Records], vol. II, p. 572). The amount of the sheep tribute, formerly collected only from Wallachian settlers, and later extended to all who grazed sheep and goats, was thoroughly examined by the referendary court and in a judgment of **1630**, finally regulated, ordering adherence to the inventories. The starost was ordered to return the unlawfully collected amount

for the cheeses. Instead of the cheese tribute, settlers could submit *gruda szałaśna* [shepherd's curd] – young cheese. The decree prohibited the starost from demanding both cheese and *gruda*. This is the first clear indication that two types of cheese were already produced in Podhale: *bundz* and probably smoked cheese.

The sheep tribute and cheese fee from all those grazing goats, sheep, and rams in the Tatras is also mentioned in the inventory made in 1638 (Baranowski 1909). The first detailed description of how cheeses should be made in shelters comes from the instruction of the Slemień estate in the Żywiec region. It was created in 1748 and rewritten and recommended for use in 1773. The original copy is kept in the archives of the Żywiec Land Museum in Żywiec (Szczotka 1949). It specifies both the payment for shepherds and the method of making cheeses. 'The first sheepherder, known as *baca*' is entitled to, as part of his yearly sustenance, i.a., 'a barrel of bryndza for greasing, of seven old measure gallons, and as the gallon is now larger, each gallon having five quarts of the old measure, he should now receive almost six gallons of the current measure, but he should actually receive six gallons.' The second younger shepherd is entitled to the same amount of *bryndza*. It was emphasised that the head shepherd, who oversees the cheese in the hut, should do so 'properly and neatly'. The head shepherd 'having gauged how large the lumps from one milking will be, should give twenty-one of such lumps each week. When *baca* coagulates<sup>11</sup> the milk and then gathers the lumps, he should do it well and firmly so that there are no raki in *zentyca*<sup>12</sup>, as they say in the highland dialect, i.e., so that pieces of cheese do not remain in the whey. If cheese is to be made from these lumps, gilatki, i.e., mould is needed, and while watching, he should make as much as required and as many lumps as it takes to make them. (...) When the cheese is to be delivered to the manor each week, in the quantity mentioned earlier, the administrator, the scribe, the senior shepherd, and the sworn village head should be present. The baca should make the bryndza in the presence of these authorities or one of them designated for supervision (...).' The instruction also stated that bryndza was also made from goat's milk.

On 31 March **1739**, Szymon Biegun from Cięcina, the *wajda* [shepherd supervisor] of the Żywiec estate, bought a plot from Jan and Piotr Jurasz for 24 'twarde' and a barrel of *bryndza* (Szczotka 1951). In the Tatras, the first mention of cheese production in the mountain pastures comes from Stanisław Staszic, who, descending from the ridge in the evening, visited a shepherd's shelter. Unfortunately, he did not provide any details about the cheeses, simply mentioning that he was warmly welcomed and served with milk and young cheeses.

In **1830**, Ambroży Grabowski, describing the highlanders, mentioned that they set up shelters in the mountains for the entire summer, 'to which they gather sheep from the whole area and make cheeses (*oszczypki*) and *bryndza* from their milk, part of which they then return to the owners along with the sheep as profit.' A similar account of *oszczypki* production also exists from 1835 (Anonymous 1835). From the 19<sup>th</sup> century onwards, as the Tatra Mountains were increasingly explored and visited, there are more and more descriptions of pastoral customs in the meadows and the cheese-making process in the mountain shelters and the Podhale villages. In addition to the growing number of publications on the Tatra Maountains and memoirs of visits to the region, there are numerous general references to the cheeses produced and consumed in the mountains.

<sup>&</sup>lt;sup>11</sup> *Klag*: acid produced in the stomach of a calf, dissolved in water, also known as *podpuszczka* (rennet).

<sup>&</sup>lt;sup>12</sup> Żentyca also known as żyntyca, żętycą or rzynytyca.

From the first half of the century there are reports from Ludwik Kamiński (vel Kamieński), Ludwik Zejszner and Seweryn Goszczyński. The former mentions only that the cheese is made from sheep's milk. This cheese is intended as a gift 'for their lords, if the lord wishes to accept it, and if a great need drives them to the manor'. More importantly, says Kamiński: 'They feed their own in the autumn, giving out a small piece as a rare delicacy, taking it to Kraków to sell, or preserving it for a celebration of some event, be it a christening, wedding, marriage, the reception of a guest, or the last days of Carnival, never without *brusk*'.

Żegota Pauli, describing the life of shepherds in the Tatra Mountains in the mid-19<sup>th</sup> century, notes that the front part of the Tatra shelters serves as living quarters for the shepherds, with a hearth in the middle where a pot for cooking *żentyca* hangs. The rear part of the shelter is enclosed and used for storing supplies, including cheeses and bryndza. Regarding cheese production, he explains: 'The head shepherd strains the freshly milked milk through a cloth into a large copper kettle, which hangs on a hook in the centre of the shelter over an open fire. To facilitate coagulation, he adds a bit of rennet from a calf's stomach (klag). The milk then curdles into cheese and separates from the whey, or *żentyca*. Once cooled, the shepherd collects the curds, forms them into a large ball, and places it into a sack to drain the remaining whey. He presses the cheese with his hands and stores the entire mass in the chamber, where he shapes it into round oszczepki using wooden moulds. Sometimes they also create various decorative braids, nets, and whips from the fresh cheese, as it is exceptionally elastic. Most of the cheese is made into *bryndza*; the balls of salted cheese are placed on a long board in the chamber next to the shelter. After fermenting for two or three days, they are ground into bryndza. The best bryndza comes from milk obtained in August and September, when the sheep produce less milk, as it is then very fatty; spring milk is thinner and of lower quality. The quality of bryndza is greatly enhanced by the fragrant pastures of the highest peaks. The leftover żętyca, still containing cheese flakes, is cooked for another hour and then serves as food for the shepherds, who drink it with czerpak ( ... ) Żętyca also serves as the sole nourishment for the shepherds' dogs.'

A more extensive and detailed description of sheep grazing, the equipment of the shelters, and cheese production is provided by Maria Steczkowska (1858). This is also the first such detailed description of the vessels used by shepherds in the Tatra Mountains to make cheese. 'The young shepherds milk the sheep into wooden containers called gieleta. At the beginning of summer, when the pasture is more abundant, they milk three times a day; later, only twice a day, in the morning and evening. Girls, known as kucharki [cooks], tend to the cows. The sheep's milk is poured into a tall churn reinforced with iron bands, called *puczera*, and is coagualted, meaning some rennet is added, which causes the cheese to separate from the whey. This whey, boiled in a kettle, becomes *zentvca*, which has beneficial effects that many sick people have experienced. A quart-sized container of *żentyca*, referred to by the highlanders as a *czerpak*, is enough for one meal. (...) Before the head shepherd begins the cheese-making process, he meticulously washes his hands up to the elbows several times in clean water and wipes them with a clean cloth. He also pushes back the hair on his head and ensures that no ash or dust contaminates the milk. Part of the cheese, as agreed, is given to the sheep owners. (...) The shepherd returns an amount of cheese equivalent to the weight of the agreed number of water units. (...) The cheese is shaped into bruski, or disks weighing several pounds, or into oszczypki [small barrel-shaped cheeses], made using wooden moulds carved with various patterns that imprint on the cheese. After shaping, the cheeses are soaked in a saline solution, a process called *rosolenie*. Once salted, they are dried either in the open air or over a fire. Both the cheeses and bryndza made by the farmers at home from fresh cheese received from the shepherds, are sold at markets in Nowy Targ and Czarny Dunajec.' Using the same technique, small cheeses in the shape of animals and hearts – **redykołki** – are made from the leftover cheese, which is not enough to make *oszczypki*. Like *oszczypki*, these are salted, dried and smoked. In addition to animal-shaped cheeses, on the eve of their return from the pastures, the shepherds made heart-shaped cheeses – *parzenice* – also pressed in moulds.

Walery Eljasz, in his frequently reprinted guides, provides us with the prices of *oszczypek* and other cheeses, as well as *żentyca*. For instance, in 1870, an *oszczypek* cost between 20 and 25 cents depending on its size, while a wheel of cheese cost 1 to 1<sup>1</sup>/<sub>4</sub> gulden (Eljasz 1870). For a quart of thick *żętyca*, the price ranged from 8 to 14 cents at that time. (Eljasz 1886). In 1886, Eljasz described the cheeses in Zakopane, stating: 'They only make sheep cheeses here; the highlanders know little about cow's milk cheeses. Sheep cheese is sold in the Tatras in small rounds called *oszczypek*, priced at 25 cents each. Besides *oszczypek*, in the Kościeliska Valley at the Pyszna pasture, sheep cheese is made in wheels called *bruski*, weighing from 1 gulden 30 cents to 1 gulden 60 cents. This is the best quality Tatra sheep cheese. Visitors drinking *żętyca* in Zakopane source it from the nearest pastures, such as Kondratowa, Miętusia, or Upłaz. There are two types, thick and thin; the price is 16 cents per quart of thick and 8 cents for thin (...)'

Undoubtedly, the detailed and extensive description by Władysław Matlakowski (1901) significantly popularised Tatra pastoralism. The method of cheese production is similar to those previously mentioned. However, the equipment used in the production and the moulds for making *parzenica, oscypek* (i.e., *rozczepki*), and other duck- and bear-shaped cheeses are discussed in great detail. All this equipment is illustrated in numerous drawings in the text. Between 1899 and 1904, the Komitet Towarzystwa Rolniczego Krakowskiego [Committee of the Kraków Agricultural Society] conducted work in the Tatra Mountains to improve meadow and pasture cultivation. It was noted that in 1901, 962 livestock units (16 horses, 242 cows, 75 oxen, 201 heifers, 2,669 sheep, 461 lambs, and 28 goats) were grazed in the Western Tatras. As tribute to the manor for grazing, 168 *oszczypki* and 6 *bruski* were issued, along with 200 crowns and 92 hellers for wood for bonfires. The method of settling accounts with sheep owners and payment in *oszczypki* was also described in detail. Ignacy Baranowski (1914) provided a brief overview of the forms of payment for grazing in the mountains from the time of the starosts to the early 20<sup>th</sup> century and the structure of grazing, referring to the said studies.

Zygmunt Jaworski, in describing the economic conditions of Podhale, also mentions shepherding. He discusses the sheep grazed in the Tatras, their build, names, and colouring, emphasising that they belong to the Zackel group. He talks about the quality and quantity of wool and milk obtained from the sheep. He also describes in detail the customs related to grazing, the construction of shelters, negotiating grazing payments (*mirowanie*), and the milking and cheese-making process. Jaworski begins the detailed cheese-making process by discussing the production of *gruda*, i.e. the milking and the *bryndza* made from the milk. He further describes the production of *oscypek* (according to him, these are 'small barrel-shaped cheeses weighing about 0.5 kg'), *parzenica*, duck- and deer-shaped cheeses. He clearly states that this cheese is prepared somewhat differently from *oszczypki*. In addition to animal-shaped cheeses, on the eve of returning from the pastures, the shepherd makes heart-shaped cheeses – parzenice – also pressed in moulds. These are salted but not smoked, as there is no time for smoking.

In contemporary times, the monumental eight-volume publication edited by W. Antoniewicz, *Pasterstwo Tatr Polskich i Podhala* [Shepherding in the Polish Tatras and Podhale], stands out. It contains numerous articles addressing cheese production in the mountain pastures and villages of Podhale.

A publication from this series titled 'Historia osadnictwa i organizacja społeczna pasterstwa oraz słownictwo pasterskie Tatr Polskich i Podhala' [History of settlement and social organisation of shepherding and shepherding vocabulary in the Polish Tatras and Podhale] (1962) states that 'From the remnants of cheese that are insufficient to make *oszczypek*, figurines of animals are made, pressed in special moulds. These small cheeses are made in the same areas as *oszczypek*. Besides moulds in the shapes of deer, sheep, or pigs, one can also find more or less naturalistic roosters in the shelters of Podhale, Gorce, and the Żywiec region. It is said they also appear on the southern slopes of the Carpathians. The last group of cheese figurines made are deer.'

In Anna Kowalska-Lewicka's publication *Hodowla i Pasterstwo w Beskidzie Sądeckim* [Breeding and Shepherding in Beskid Sądecki] (1980), we also find information about the production of '**redykołka**', 'The skill of making these small cheeses likely came from the neighbouring village on the left bank of the Dunajec, Tylmanowa, with which Obidza has close relations due to their bordering fields and frequent mixed marriages. In the past, they were made in every household that kept sheep, intended as gifts for friends, especially for children. They are made from fermented rennet cheese, the same used for *bryndza*. A piece is cut off, thrown into boiling water, taken out after a moment, and kneaded in hands; this process is repeated three times. When soft and elastic, the cheese is pressed into a mould, and once it solidifies, it is soaked for three days in brine (highly salted water), then placed on a shelf in the storeroom to dry, and even better, put in the sun 'to turn yellow.' The moulds are shaped like hearts, birds, lambs, etc. Balls shaped by hand, undecorated "like little apples," were also

In the article 'Góralska sztuka plastyczna pasterzy Podhala i Tatr Polskich' [Highlander art of shepherds in Podhale and the Polish Tatras] (1966), W. Antoniewicz describes the tradition of gifting cheese figurines to various people: 'Upon returning, and sometimes on their way from the autumn sheep return from the pastures to the villages, the senior and young shepherds give children, and less often older relatives, two animal figurines pressed from sheep's cheese in double-sided wooden moulds. All cheese gifts distributed by shepherds in connection with the sheep drive to Podhale villages are called *redykołki*. These include full animal figurines representing motifs of sheep, deer, ducks, roosters, and forest birds.' Thus, '**redykołka**' (*redykowka*) owes its name to the fact that it was distributed for free when sheep were being brought back from the mountain pastures — an event known as '*redykanie się*'. In the region of Dolina Pięciu Stawów, *redykowka* referred to the cheese treat given on the first day after arriving at the shelter (after the sheep return). The shepherd would offer them to the farmers who brought their sheep for mixing. The treated farmer would say, 'dostałek redykowki' [I received a redykołka].

The name **'redykolka'** also had a broader meaning in the old days. It referred to any cheese gift, including an *oszczypek* given to a better-off farmer. The uniqueness of 'redykołka' also lies in its ceremonial functions. In the Beskid Wyspowy Mountains, inhabited by the Lachy and Kamienica highlanders, cheese doves and cockerels used to decorate wedding branches and the tops of harvest wreaths. In Hutsul regions, **'redykołka'** was given to beggars with a request for prayers for the deceased. It was also offered to win someone's favour or as a thank-you for a received favour. Often, it served as a toy for children. (17<sup>th</sup> century, Institute of the History of Material Culture of the Polish Academy of Sciences, Polish Ethnography V, Wrocław – Warsaw – Kraków. Zakład Narodowy Imienia Ossolińskich, published by PAN 1961).

The old highlanders say that the term '**redykołka**' refers to any cheese gift given during the autumn return from the pastures (*redyk*), including an *oszczypek* given as a gift, but especially

a small heart-shaped cheese, *parzenica*. '**Redykołka**' was attributed with magical properties, particularly important on the last day of the stay and when returning from the pastures to the village. In the words of a baca: '...*parzenice* are made for *redykołki*.

They are given to farmers upon return. Poorer farmers receive *parzenice*; wealthier receive deershaped cheeses or even an *oszczypek*...' This is confirmed in a 1967 article by J.G.H. Pawlikowski, who states that 'the descent from the pastures occurs around 25 September. After returning from the mountain pastures, the fire is extinguished with the brine from the *oszczypki*, as it is believed that the water is sanctified by the salt. During the *redyk*, the *baca* must prepare **redykolka** as a treat for the sheep owners. He also provides a barrel of beer, invites musicians and the sheep owners. The next morning, farmers from outside the village come to collect their sheep, and if the sheep are from further away, the young shepherds take them to those farmers. When a farmer comes to collect his sheep, he is invited into a room, treated with sliced cheese, and given some *redykolka*, i.e. cheese cuts shaped like *parzenica*, ducklings, and for the wealthier farmers, a deer (two deer equal to one *oszczypek*, and ten *parzenica* equal to one *oszczypek*). When grazing on the estate's pasture, the forester is given **redykolka** consisting of two pairs of *oszczypki*.'

In Highland customs, '**redykołka**' has always found a prominent place, as it is closely associated with sheep grazing and their return from the mountain pastures.

## Natural link to the region

The extensive transhumance of sheep, which in Podhale is a natural feature of the farming of the sheep that provide the raw material (milk) for the production of '**redykolka**', is the result of the traditions of the shepherds' ancestors, who, as long ago as the middle ages, began to move their sheep to grazing land. This long history of sheep-rearing and pastoral farming in Podhale led to the development of a new breed of sheep known as the Polish mountain sheep (Polska owca górska) (Photos 55 to 61).

The Polish mountain sheep is an improved type of the primitive Zackel sheep, which occur in the eastern Carpathians and in the Balkans. This breed is closely linked to the history and traditions of Podhale and its people. It is superbly adapted to the climatic conditions and traditional systems of husbandry in mountainous areas. It has numerous applications – it provides wool for folk costumes and artistic fabrics, skins for sheepskin coats, very tasty lean meat, and milk for the production of traditional sheep's cheeses (including 'oscypek', 'bunc', 'bryndza' and '**redykołka**'). Dairy farming of this breed ('Polish mountain sheep', formerly 'Zackel') is an ancient tradition of the Carpathian people. The milk of the Polish mountain sheep is used to make '**redykołka**'.

The Vlachs, a nomadic pastoral people originating from what is now Romania, migrated to the Podhale region over 600 years ago. The Wallachian culture was pastoral, based on a system of sheep and cattle breeding known as *szałaśny* [shelter]. It consisted of keeping large herds of animals in the summer on mountain pastures outside the village and its associated agricultural areas. On these pastures, called *hale* or *cerkle*, owners of small flocks would group their animals into a single *kierdel*, and entrust its care to the *baca* and his subordinate *juhasy*. Sheep known as *cakle* [from the name Zackel] were milked from May. Their milk was used in a shelter on those pastures to make rennet cheese – *bundz*, and hard, smoked cheese with a long shelf-life – *oscypek*, as well as the characteristic animal-shaped cheese called '**redykołka**'. The animals were kept outdoors throughout the summer, and were only brought in to be milked in sheds called *kosory*.

The grazing conditions in the Podhale and Tatra regions were particularly harsh, as the summer here is short, cold, and rainy, making it especially unfavourable for sheep. This species had been domesticated and bred for centuries in dry, steppe climates. Winter was even more challenging for the mountain sheep. In autumn, the flocks were driven down to the villages 'on St Michael's Day<sup>13</sup>,' the animals were divided among the owners, and the so-called wintering began. The shortage of fodder often meant that spruce *cetyna*<sup>14</sup> were used to feed the sheep during the winter.

Under such extreme rearing conditions, a specific breed of sheep was developed, adapted to the mountain climate - the Zackel, a direct ancestor of the Polish mountain sheep bred in Podhale today. It was a primitive sheep with a tufted wool coat structure that provided excellent protection against the adverse effects of precipitation. Due to the fact that this coat grew very quickly, up to 25 cm a year, these sheep were sheared biannually, in spring and autumn. A characteristic feature of the coat is the presence of tufts, consisting of two types of hair, a thick, long guide (D, DE classification) hair, 40-50 microns thick, and a short downy hair, which forms the 'undercoat' of the tuft and is 24-28 microns thick. Such a coat structure is the advantage of sheep 'equipped' with it over sheep with a uniform fleece, which absorbs precipitation water, becomes damp and exposes the animal to high heat loss. The coarse yarn obtained from this wool was used by the highlanders to make coarse cloth (the famous 'beech' highlander breeches) and jumpers, the leathers were used to make sheepskin vests and coats. Therefore, the mountain sheep represents, in the conditions of pastoral culture of Podhale, a versatile utility type - it provides wool, milk, hides, and meat. The sheep as such are small, latematuring, weighing no more than 40 kg. Their characteristic feature to this day are the horns found in both sexes, especially in rams, which are massive and have a spiral or auger-like form. The great resistance of this sheep to diseases, from lameness to worms and lung diseases, and the strongly developed herd grazing instinct were and are useful to the breeder. In the inter-war and post-war period, a refined variety of Zackels was already developed - the Polish mountain sheep. It was created by mating indigenous Podhale Zackel ewes with rams of the 'Transylvanian Zackel' breed imported from Romania and, to a lesser extent, rams of Friesian sheep.

These activities improved the body weight of adult ewes – approx. 50 kg, the performance and quality of the wool coat, the milk yield which currently under 150 days of pasture milking is amounts to 70–80 litres. Despite improvements in the breed's productive parameters, it has been possible to maintain, in the bulk population, its valuable qualities, which are evidence of its excellent adaptation to the difficult climate: sound health, longevity, disease resistance, the taste of the meat of the young lambs, which for years have been exported to the demanding Italian market, and a decent milk yield and fertility – for the conditions in which the breed is reared. These phenotypic adaptations to the mountain environment of Podhale unquestionably testify to the native character of this population's genotype – a very valuable one, superbly established in our culture and landscape of the region.

The Polish mountain sheep grazed in Podhale also feed on a wide variety of distinctive vegetation (specific botanical composition of the pastures), which has an impact on the taste and composition of the milk and consequently lends the product made from it a particular taste and aroma. In the 1870s, priest W. A. Sutor (1876), describing in detail the shepherd's customs

<sup>&</sup>lt;sup>13</sup> That is 29 September.

<sup>&</sup>lt;sup>14</sup> *Cetyna*: cut or fallen spruce branches.

and the production of cheese from sheep's milk on the mountain pastures, wrote, among other things, as follows: '... They make a slightly different kind of *żentyca* for the treatment (*clenie*) of guests, which differs from ordinary *żentyca* in that it is strained and therefore has no lumps of cheese... The best one comes from sheep that graze on the high alpine pastures of the Tatras, where an abundance of plants and fragrant alpine flowers grow...'. As recorded in *Pamiętnik Towarzystwa Tatrzańskiego* [Memoir of the Tatra Society] (1876), '... when the mountain pastures and meadows are in full blossom, they attract the botanist, who then has the best opportunity to collect the rarest Alpine plants ...'.

For the production of 'redykołka', cow's milk may also be partially used, but only from cows of the oldest Polish breed, the Polish red cow, which are grazed exclusively in the area specified in Section 5 of the application. For centuries, this breed has been associated with the Slavs and, until the end of the 18<sup>th</sup> century, was the most common breed of cattle found on Polish soil. It is a typical dairy-meat breed of cattle. Perfectly adapted to harsh conditions, it has modest feed requirements and is robust, fertile, long-lived, and resistant to disease, especially tuberculosis. On average, Polish red cows yield up to 3,000 to 3,500 litres of milk with a high fat content (44.5 per cent), and their meat is tender and delicate. Diverse climatic and terrain conditions have shaped different varieties of Polish red cattle. As early as the end of the 19<sup>th</sup> century, breeders were already naming such varieties as: 'primal mountain cattle' - brown in colour, occurring in the Central Carpathians, red cattle present in the Kraków Upland, and there were also lowland, valley, Silesian, and Poznań varieties. The first herds of red cow were established in 1876 at Stróża in Limanowa Poviat. The year 1895 saw the foundation of the Polish Union of Polish Red Cow Breeders, attached to the Kraków Agricultural Society. This meant the beginning of systematic husbandry and consequently led to the formation and improvement of the breed between 1884 and 1934. The cattle was recognised as the only indigenous breed of cattle reared on Polish soil.

The areas where '**redykołka**' is produced are amongst the most unspoilt in Poland and throughout Europe. The '**redykołka**' production area is situated amidst four national parks. To the north is the Gorce National Park, to the south the Tatra National Park, to the west the Babia Góra National Park, and to the east the Magura National Park. In addition, a fifth national part, the Pieniny National Park, is situated in the very heart of the '**redykołka**' production area.

The ultimate taste of the sheep's milk used in the production of '**redykolka**' is also strongly influenced by the specific vegetation found in the area where it is produced. This vegetation, consumed by sheep while pasturing, is very common only in the Tatra Mountains and Podhale. The climate of Podhale is characterised by low average temperatures throughout the year, high variability during the day, rapid changes, frequent cloudiness, a significant number of days with precipitation (in the higher altitudes most precipitation is snow), fog, long-lasting snow cover, strong sunlight and winds usually blowing from the west and south-west. Most of these weather phenomena are associated with the passage of fronts and force the vegetation to adapt.

Winter in the Tatra Mountains usually lasts from the end of November to the end of March and from mid-October to early May at Kasprowy Wierch 1987 metres above sea level). The coldest month is usually February and the warmest is July. The lowest temperature, -37.5°C, was recorded in February 1929 and the highest temperature, +32.2°C, in August 1943. Winter temperature inversions (the higher the altitude the warmer) and snowstorms in the middle of summer are characteristic of the Tatra Mountains climate.

The conditions prevailing in Podhale are distinctive and the flora has to adapt specifically to them. Factors of particular importance include a substantially reduced vegetation period, a low average annual temperature, significant variations in temperature in the vegetation period, stronger insolation (direct effect of the sun rays on surfaces) than in the lowlands, high winds and mountain winds, a thick snow cover, avalanches, and the specific properties of soils occurring on calcareous and granite bedrock.

These conditions shape the characteristics of mountain vegetation. Insolation promotes plant growth and partly compensates for the low air temperature by warming the soil more than in the valleys. However, when combined with strong winds, it significantly increases evaporation from the plants. Plants living in such conditions show a number of adaptations protecting them from water loss – fleshy leaves and a waxy coating on their surface (mountain cowslip, *Primula auricula*), a well-developed trichome (edelweiss, *Leontopodium nivale*), deposition of calcium carbonate on the leaf surface (some *Saxifraga*), dwarfism, cushion forms.

The plants are also highly exposed to mechanical damage, mainly caused by strong winds. Their low growth also protects them from the adverse effects of winter winds by allowing them to 'hide' under a layer of snow.

Because of the challenges associated with pollination (short growing season, frequent poor weather and the resulting low numbers of insects in the mountains), insect-pollinated mountain flowers are usually brightly coloured (e.g., spring gentian (*Gentiana verna*) and Clusius' gentian (*Gentiana clusii*)) and strongly scented as a result of the increased secretion of essential oils, which is facilitated by the sun exposure (e.g., mountain cowslip, unlike lowland species, is strongly scented).

Several species are found exclusively in Poland within the Tatra Mountains and Podhale: Tatra larkspur (Delphinium oxvsepalum), carpathian flax (Linum extraaxillare), snow gentian (Gentiana nivalis), Clusius' gentian (Gentiana clusii), alpine saw-wort (Saussurea alpina), hawkweed-leaf saxifrage (Saxifraga hieracifolia), alpine violet (Viola alpina), alpine bellflower (Campanula alpina), yellow vulneraria (Anthyllis alpestris), Shaggy hawkweed (Hieracium villosum), pendulous milkvetch (Astragalus penduliflorus), tufted leopard's-bane (Doronicum clusii), creeping sibbaldia (Sibbaldia procumbens), creeping avens (Geum reptans), buttercup (Ranunculus pseudomontanus), yellow mountain saxifrage (Saxifraga aizoides), dark stonecrop (Sedum atratum), yellow whitlow-grass (Draba aizoides), rock rose (Helianthemum grandiflorum), Oeder's lousewort (Pedicularis oederi), thora buttercup (Ranunculus thora), grey alpine groundsel (Senecio carniolicus), carpathian groundsel (Senecio carpaticus), glacier pink (Dianthus glacialis), dwarf fleabane (Erigeron nanus), alpine sainfoin (Hedysarum hedysaroides), carpathian locoweed (Oxytropis carpatica), whorled lousewort (Pedicularis verticillata), moss campion (Silene acaulis), alpine butterwort (Pinguicula alpina), four-toothed sunray (Heliosperma quadridentatum), alpine hutchinsia (Hutchinsia alpina), tatra scurvy-grass (Cochlearia tatrae), Hungarian fleabane (Erigeron hungaricus), Wahlenberg's wallflower (Erysimum wahlenbergii), carpathian snowbell (Soldanella carpatica), hardy saxifrage (Saxifraga perdurans). The following plants are commonly found here: The following plants are commonly found here: matgrass, alpine bluegrass, great masterwort, thora Buttercup, daisystar aster, Sesleria tatrae (Degen) Deyl, alpine sainfoin, alpine aster, eightpetal mountain-avens, Carduus defloratus subsp. glaucus, alpine clover, Cardamine glanduligera O.Schwarz, tufted fescue, distichous oreochloa, bog bilberry, whorled lousewort, highland rush, alpine bistort, meadow rue, and rosebay willowherb.

Plants such as: edelweiss (*Leontopodium alpinum*), Turk's cap lily (*Lilium martagon*), silver thistle (*Carlina acaulis*), crocus scepusiensis (*Crocus scepusiensis*), alpine avens (*Geum montanum*), yellow mountain saxifrage (*Saxifraga aizoides*), spotted gentian (*Gentiana punctata*), willow gentian (*Gentiana asclepiadea*), spring gentian (Gentiana verna), autumn crocus (Colchicum autumnale), precocious carnation (*Dianthus praecox*), alpine poppy (*Papaver burseri*), mountain houseleek (*Sempervivum montanum*), angelica (*Archangelica officinalis*), aconite (*Aconitum firmum*) and alpine pasqueflower (*Pulsatilla alpina*) are also very common in these areas.

It should be added that the presence of certain plant species is limited to so-called ecological niches – this is what makes sheep's milk, and therefore the products made from it, so special. Certain sheep pastures of Dursztyn, Turbacz, mountain pastures and meadows of Podhale make it possible to conclude that some of the plant species found here have no equivalent in other parts of the country.

An observation-based analysis indicated that the plant species of the Podhale meadows, pastures and mountain pastures most commonly eaten by the sheep are as follows: snowcap (*Arabis alpina*), yellow thistle (*Cirsium erisithales*), arctic yellow violet (*Viola bilora*), alpine clematis (*Clematis alpina*), *Senecio subalpinus*, alpine snowbell (*Soldanella carpatica*), Austrian leopard's bane (*Doronicum austriacum*), wolfsbane (*Aconitum firmum*), saxifrage, alpine buttercup (*Ranunculus alpestris*), moss campion (*Silene acaulis*), cranberry (*Oxycoccos quadripetalus*), yellow saxifrage (*Saxifraga aizoides*), alpine blue sow thistle (*Cicerbita alpina*), net-leaved willow (*Salix reticulata*), Saxifraga wahlenbergii, alpine poppy (*Papaver burseri*), golden cinquefoil (*Potentilla aurea*) and narcissus-flowered anemone (*Anemone narcissifolia*). It should be noted that many of these species are medicinal plants found and used in folk medicine. These plants contain vitamins, proteins, lipids, and elements essential to the health and proper functioning of the body, such as: magnesium, zinc, selenium, iodine, and lithium.

Apart from the unique natural factors, '**redykołka**' owes its exceptional characteristics to the traditional method of production. The production of Wallachian cheeses in Podhale, from which '**redykołka**' is a direct descendant, is documented as far back as the 15<sup>th</sup> century. The production of sheep's (mountain cheese) was an integral part of sheep grazing in Podhale. Shepherds going out into the mountains (*hale*) with their sheep would spend several months there. During that time they lived practically exclusively on sheep's milk and its products.

Co-ownership of the mountain pastures necessitated collective grazing arrangements under the leadership of an elected shepherd (*baca*). Moreover, dairy farming associated with sheep grazing is only profitable in larger groups. During summer grazing, the cheese produced ensured the maintenance of the sheep (covering all fees, taxes, or tributes related to grazing). Summer grazing also paid off handsomely thanks to the wool and the increase in the animal's body mass. This organisation also avoided the need for a larger number of shepherds and increased pasture efficiency.

The agreements between the *baca* and the sheep owners were traditionally oral and primarily concerned payment for grazing the sheep. They were made in the spring, in the months preceding the grazing season. Traditionally, grazing began on St. Adalbert's Day (23 May) and ended on St. Michael's Day (29 September). However, this timing largely depended on the weather conditions in the mountains. Currently, the grazing period has been slightly extended and now lasts from the end of April to the beginning of October.

On the third day of the stay in the mountain pasture, the sheep owners would visit the *baca* to determine the amount of cheese the *baca* would owe them for grazing their sheep. This custom was known as *miry*, that is measuring the milk yield of the sheep. Each sheep owners milked his animals and poured the milk into a single vessel. The milk level in the container would then be marked using a notch<sup>15</sup> on a stick or a special board called *zamirek*. A splinter would be chipped off from the *zamirek* to the level of the notch, which the sheep owner would take with them, while the *zamirek* would remain in the *baca*'s shelter. When it was time to pay the cheese, the owner would return to the pasture, and the correct *zamirek* would be identified by the chipped-off splinter. Water would be poured into a special vessel called *gieleta mirowa* or *raitok mirowaczny* up to the level of the notch on the stick, and a specific amount of water, corresponding to the agreement between the *baca* and the owner, would be measured out. The weight of this amount of water determined the amount of cheese to be paid to the owner.

The production of 'redykołka' is traditionally associated with management in the shepherd's hut (*bacówka*), where little has changed over hundreds of years<sup>16</sup>. The sheep were milked into a gieleta – a wooden container. Then, the milk from the morning milking and subsequent milkings was poured into a large *puciera* – a barrel to which the producer (*baca*), adds *klag*. According to tradition, the klag added to milk was powdered calf stomach, whose enzymes coagulated proteins in the milk<sup>17</sup>. Using a *ferula* – a special stirring stick – the producers (*bacas*) would break up the curd that forms in the milk. This process, known as pucenie, involves kneading the cheese coagulating in *żentyca*. This stage demands considerable strength and can be exhausting for the cheesemaker. The *baca*, holding a wooden *czerpok* (resembling a small bucket) between his legs, filled with cheese selected from the bottom of the puciera, kneads balls of cheese (grudy) weighing over a kilogram each. Kneaded balls are put into hot water (scalding). Warm water enables the thorough extraction of whey from the cheese, while also allowing it to be carefully and properly shaped. Accordingly, the process of immersing the cheese in warm water and then removing it is repeated numerous times. This makes the body of the cheese pliable and malleable. It takes up to 10 litres of milk to produce 1 kg of cheese. Then the cheese ball is transferred to special animal-shaped moulds. Such shaped cheese cuts are then put in brine (also referred to as broth) - a solution of salt and water. The brine is typically prepared in a wooden container (dzierza) where the cheese acquires its characteristic salty flavour. In the end, 'redykołka' needs to dry.

The production method described above is entirely unique, rooted in several hundred years of history and tradition in the Podhale region, and is specific only to producers (*bacas*) who make cheese in a well-defined geographical area.

The interaction between unique natural and human factors described above, in particular, the traditional method of production, which requires scrupulous adherence to all stages of production and the knowledge passed on from generation to generation, as well as the exceptional characteristics of the region (the fauna and flora), have enabled '**redykołka**' to achieve a high level of consumer recognition.

<sup>&</sup>lt;sup>15</sup> Notch: known as *karb* or *rysa*.

 $<sup>^{16}</sup>$  See Annex 1 – an album with old and modern tools.

<sup>&</sup>lt;sup>17</sup> The properties of *klag* were most likely discovered by the makers of 'redykołka', owing to the observation that milk stored and transported in bags (skins), which were crafted from calves' stomachs, among other materials, becomes sour and its consistency changes – it becomes denser.

'**Redykolka**' is an integral part of the Podhale landscape, a tangible evidence of the centuries-old tradition of cheese making in the area. This further proves that this unique product, with its very distinctive taste and smell, is a typical product linked with the specific region and an inseparable part of its culture.

# 9. Control body:

Provide the name and address of the body or departments<sup>18</sup>) carrying out the control of compliance with the specification and the scope of controls.

#### **Agricultural and Food Quality Inspection**

ul. Wspólna 30 00-930 Warsaw Tel.: +48 22 623 29 00 Fax: +48 22 623 29 98 +48 22 623 29 99

# 10. Labelling:

Provide, if any, specific labelling rules for the agricultural product or foodstuff in question.

The packaging will bear the logo or logos and the words 'Protected Designation of Origin.' The abbreviation 'PDO' may be used on the packaging. The name used must be provided in Polish. The product may be sold without packaging.

On the packaging of '**redykołka**', there shall always be information about the milk used in production. Information shall be provided on whether '**redykołka**' is made exclusively from sheep's milk or from a mixture of sheep's and cow's milk in accordance with applicable legal requirements. If '**redykołka**' is to be sold without packaging, this information shall also be provided.

It is acceptable for one type of packaging or label to be used by more than one manufacturer. In such a case, producers are required to have distribution policies and procedures in place and provide them to the control body.

# 11. Specific requirements introduced by current regulations:

Indicate whether there are specific requirements imposed by European Union or national legislation concerning the agricultural product or foodstuff to be notified.

# **12.** Additional information:

Provide additional information, if any, on the agricultural product or foodstuff to be notified.

A product using a registered name, whether it uses only the community logo or the logo and the words 'Protected Designation of Origin,' can only be sold in its entirety. It is unacceptable to sell the product in portions, sliced or grated.

<sup>&</sup>lt;sup>18</sup>) More than one department may be involved in the control.

# 13. List of documents attached to the application:

Please provide a list of materials and publications referenced in the application and a list of accompanying annexes.

No	Document name:
I.	Map of the geographical area
II.	Presentation of source texts
III.	Bibliography
IV.	Promotional brochures

Expand the table, if necessary.

#### SINGLE DOCUMENT

Council Regulation (EC) No 510/2006 on the protection of geographical indications and designations of origin

'Redykołka'

EC No:

1. NAME

#### REDYKOŁKA

The name '**redykołka**' fulfils the conditions set out in Article 2(2) of Council Regulation No 510/2006. Etymologically, the name '**redykołka**' is derived from 'redyk', a word used to denote the act of bringing back sheep from pastures. In the past, it was also used to denote any gift made of sheep cheese offered in Podhale. '**Redykołka**' is closely linked to the area defined in Section 4. This is confirmed by numerous references in literature, the natural link to the region, as well as the skills of local producers.

#### 2. MEMBER STATE OR THIRD COUNTRY

Poland

#### **3.** DESCRIPTION OF THE AGRICULTURAL PRODUCT OR FOODSTUFF

#### **3.1.** Type of product:

Category: Cheese - class 1.3

# **3.2.** Description of the product to which the name in Section 1 applies:

'**Redykołka**' is a small cheese in the shape of a miniature animal, bird, heart or spindle.

The glistening straw colour of the rind (pale brown with a slight sheen) is imparted during the smoking process. Small amounts of another colour may be present on the rind, or the colour of the rind may be slightly faded.

The chemical composition of the cheese depends on the length of time for which it is smoked and varies according to the time of year: the water content must not exceed 44%, the dry matter content must not be less than 56%, and the fat content in the dry matter must not be less than 38%.

**3.3.** Raw materials (for processed products only):

Milk:

Milk, the main ingredient of '**redykołka**', comes exclusively from sheep of the Polish mountain sheep (Polska owca górska) breed. Milk from cows of the Polish red cow (*Polska krowa czerwona*) breed grazed in the specified geographical area may be used in the production of '**redykołka**.' However, cow's milk may not account for more than 40% of the total quantity of milk used in the production of '**redykołka**.' **3.4.** Feed (for products of animal origin only):

'**Redykolka**' is a seasonal product, made from May to September, during the sheep-grazing period. During this period, the animals feed exclusively on the fresh vegetation of pastures in the specified geographical area.

**3.5.** Specific steps in production that must take place in the identified geographical area:

To ensure that the product is of the highest quality, the entire 'redykołka' production cycle must take place in the specified geographical area. All stages of production take place in log huts located on the mountain-sides where the animals are grazing. At all times, the animals feed on the specific vegetation found only in the area where 'redykołka' is made, which determines the final taste of this cheese. The final quality and taste of 'redykołka' also owes much to the specific skills of the shepherds and the passing down from one generation to the next of the knowledge that is necessary to maintain the product's traditional character and unique taste. The specific stages of production associated with the exceptional skills of the shepherds include:

- **cold ripening (acidification)** the milk is kept at ambient temperature so as to increase its acidity;
- warm ripening (acidification) involves mixing soured milk with fresh milk;
- **addition of rennet** rennet is added to the milk;
- grinding of the curds with the aid of traditional tools, e.g. a *ferula*;
- draining of the whey up to 50% of the whole;
- **removal** pressing of the grains and removal of the cheese;
- **pounding** the cheese mass is pounded by hand and a ball is formed, which is placed in a vessel containing whey;
- **shaping** the cheese mass is formed with the aid of special moulds into the shape of a heart, bird, lamb, spindle, etc.;
- **soaking in brine** for up to 24 hours;
- **drying** the cheeses are dried for a period of 12–24 hours;
- **smoking** maturing smoking is carried out using cold smoke and lasts for 3–7 days.
- **3.6.** Specific rules concerning slicing, grating, packaging, etc.:

Not applicable

**3.7.** Specific rules on labelling:

Not applicable

**4.** CONCISE DEFINITION OF THE GEOGRAPHICAL AREA:

The area in Śląskie Voivodeship includes:

the following municipality in Cieszyn Poviat: Istebna the following municipalities in Żywiec Poviat: Milówka, Węgierska Górka, Rajcza, Ujsoły, Jeleśnia and Koszarawa The area in Małopolskie Voivodeship includes: the whole of Nowy Targ Poviat and the whole of Zakopane Poviat the following municipalities in Sucha Beskidzka Poviat: Zawoja and Bystra Sidzina the following municipalities in Limanowa Poviat: Niedźwiedź and the part of Kamienica, which is situated within the Gorce National Park or to the south of the River Kamienica, and the following civil parishes in Mszana Dolna municipality: Olszówka, Raba Niżna, Łostówka, Łętowe and Lubomierz; the following municipalities in Nowy Sącz Poviat: Piwniczna, Muszyna and Krynica. The area described almost entirely coincides with the only compact area of viable

Tatra pastoralism existing today – Podhale, a historical and ethnographical region in the northern foothills of the Tatra Mountains.

**5.** LINK WITH THE GEOGRAPHICAL AREA

#### 5.1. Specificity of the geographical area

Specificity of the area in which 'redykołka' is produced:

#### 5.1.1. Natural factor:

The extensive transhumance of sheep, which in Podhale is a natural feature of the farming of the sheep that provide the raw material (milk) for the production of **'redykolka'**, is the result of the traditions of the shepherds' ancestors, who, as long ago as the middle ages, began to move their sheep to grazing land. This long history of sheep-rearing and pastoral farming in Podhale led to the development of a new breed of sheep known as the Polish mountain sheep (Polska owca górska). The Polish mountain sheep is an improved type of the primitive Zackel sheep, which occur in the eastern Carpathians and in the Balkans. This breed is closely linked to the history and traditions of Podhale and its people. It is superbly adapted to the climatic conditions and traditional systems of husbandry in mountainous areas.

Whilst cow's milk can be used in production, it may come only from cows of the Polish red cow breed, the oldest Polish breed of cattle. This breed had for centuries been associated with the Slavs and, until the end of the 18<sup>th</sup> century, was the most common breed of cattle found on Polish soil. The first herds of red cow were established in 1876 at Stróża in Limanowa Poviat. The year 1895 saw the foundation of the Polish Union of Polish Red Cow Breeders, attached to the Kraków Agricultural Society. This meant the beginning of systematic husbandry and consequently led to the formation and improvement of the breed between 1884 and 1934. The cattle was recognised as the only indigenous breed of cattle reared on Polish soil.

The final taste and aroma of '**redykolka**' owes much to the quality of the milk used in its production. The distinctive vegetation in the area where '**redykolka**' is produced has a major bearing on the high quality of the milk and its characteristic taste. These are endemic species found only in Podhale. Together they form meadows, pastures and mountain pastures.

The areas where '**redykołka**' is produced are amongst the most unspoilt in Poland. The '**redykołka**' production area is situated amidst four national parks. To the north is the Gorce National Park, to the south the Tatra National Park, to the west the Babia Góra National Park, and to the east the Magura National Park. In addition, a fifth national part, the Pieniny National Park, is situated in the very heart of the '**redykołka**' production area, as is the Tatra National Park.

#### 5.1.2. Human factor:

'**Redykołka**' is an ancient product of Wallachian shepherds who grazed their sheep in highland glades. The cheese came to Podhale along with the Wallachian culture, the way of organising grazing, the traditional shepherd's hut and the method of processing the milk. The first mention of cheesemaking in Podhale and neighbouring areas is to be found in the founding charter of Ochotnica village in the Gorce Mountains. Dawid Wołoch (David Valachi) was granted the right to found the village in 1416.

'**Redykolka**' owes its name to the fact that it was distributed for free when sheep were being brought back from the mountain pastures — an event known as '*redykanie siq*'. This name is also used to denote any gift made of the cheese that was offered, for instance, as a way of gaining someone's esteem or as a token of gratitude for a service rendered. '**Redykolka**' is also unusual in that it had ceremonial uses: shaped as doves and cockerels, it was used to decorate wedding branches and the tops of harvest wreaths.

The fact that '**redykolka**' is a cheese that is typical of Podhale is borne out by the numerous references to it found in old documents, books and other written reminders of the past in this and adjacent areas. The first precise description of how the cheese was made in log huts dates from 1748 and comes from the official instructions of the 'State of Ślemień'. In 1773, these instructions were rewritten and prescribed for use.

A detailed account of how the sheep were grazed and how the log huts used primarily for making cheese (including '**redykołka**' and 'oscypek') were equipped is given by Maria Steczkowska (1858), who states that the remainders of cheese that were insufficient to make 'oscypek' were used to make '**redykołka**' cheeses in the shape of animals and hearts. Like 'oscypek', the animal-shaped 'redykołka' was salted and then dried and smoked. This is also the first such detailed description of the vessels that were used by shepherds to make cheese in the Tatra Mountains.

References to **redykołka** in literature still appear today. The fact that this is a product specific to the Podhale region is also evidenced by other numerous references found in the eight-volume publication entitled *Pasterstwo Tatr Polskich i Podhala* [Shepherding in the Polish Tatras and Podhale] of 1960. However, the best evidence of the product's popularity and its link with the region is the interest shown by tourists and the fact that buying '**redykołka**' is a must, as it is one of the main souvenirs of a stay in Podhale.

#### 5.2. Specificity of the product

'**Redykolka**' is distinguished by a slightly salty taste, which is the result of soaking in brine, and by an aromatic smoky aftertaste obtained as a result of the production method traditionally used.

Another distinguishing feature is its specific shape. 'Redykołka' comes in the shape of miniature animals, birds, hearts or spindles.

The special historical use of '**redykołka**' as a gift offered, for instance, as a way of gaining someone's esteem or as a token of gratitude for a service rendered is also one of its distinguishing features. According to our ancestors' tradition, the cheese figures are always made, sold and offered as gifts in pairs.

**5.3.** Causal link between the geographical area and the quality or characteristics of the product (for PDO) or a specific quality, the reputation or other characteristic of the product (for PGI):

The very high quality of '**redykołka**' is determined by the interaction between unique natural and human factors, in particular, the traditional method of production, which requires scrupulous adherence to all stages of production and the knowledge passed on from generation to generation. Also of great importance in the production of '**redykołka**' is the milk from the Polish mountain sheep (Polska owca górska) breed typical only of the geographical area defined in Section 4, characterised by the endemic vegetation found there.

'**Redykolka**' is an integral part of the Podhale landscape, a tangible evidence of the centuries-old tradition of cheese making in the area. This is further proof that this unique product, with its very distinctive taste and smell, is a typical product linked with the specific region and an inseparable part of its culture.

#### **REFERENCE TO PUBLICATION OF THE SPECIFICATION**

(Article 5(7) of Regulation (EC) No 510/2006)

http://www.bip.minrol.gov.pl/strona/DesktopDefault.aspx?TabOrgId=1620&LangId=0