APPLICATION FOR REGISTRATION
OF THE DESIGNATION OF ORIGIN / ~~GEOGRAPHICAL INDICATION~~
FOR AN AGRICULTURAL PRODUCT OR FOODSTUFF

I. Applicant

1. Name:
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4. Person acting on behalf of the applicant:
Roman Bartoń

5. Group:
The group comprises beekeepers associated with the Voivodeship Beekeepers' Association in Rzeszów.

II. Specification

1. Name:

Podkarpacki miód spadziowy

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	X
2) geographical indication	

3. Category:

Class 1.4. – Other products of animal origin, honey

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.

1. 'Podkarpacki miód spadziowy' is liquid or crystallised honey produced from honeydew gathered by bees from the European silver fir (*Abies alba*) from the area of Podkarpacie, further specified in Section 5. It may also contain honeydew from spruce (family *Pinaceae*, genus *Picea*) and from Scots pine (family *Pinaceae*, genus *Pinus*, species mainly *Pinus sylvestris*), which also occur in the area. However, honeydew from the European silver fir predominates in 'podkarpacki miód spadziowy' and never accounts for less than 70%. Honeydew is produced by aphids and scale insects from plant sap derived from firs, spruces and pines, and then collected by bees. 'Podkarpacki miód spadziowy' is produced by aphids of the *Lachnide* family and scale insect of the *Coccina* family.

2. Only bees of the following races are used in the production of 'podkarpacki miód spadziowy': *Apis mellifera mellifera* (dark European honeybee), *Apis mellifera carnic*a (Carniolan bee), *Apis mellifera caucasica* (Caucasian honeybee).

3. 'Podkarpacki miód spadziowy' may contain traces of pollen from nectariferous plants or of honeydew honey from other trees. The pollen content must not result in any change to the honey's characteristic taste or smell, and in particular, it must not result in non-compliance with any of the characteristic values referred to in this description (e.g., reducing the electrical conductivity specific of the honey).

4. Before crystallisation, the honey ranges in colour from dark brown with greenish highlights to almost black, with an intensity of at least 82 mm on the Pfund scale. It has a thick, highly viscous consistency and, after crystallisation, which proceeds slowly and results in a finely granular texture, it takes on a somewhat lighter colour. It has a mildly sweet taste, with a typically resiny fragrance reminiscent of the needles of coniferous trees.

5. Physico-chemical characteristics:

   - water content – not more than 19%,
   - monosaccharide (glucose and fructose) content – not less than 50%,
   - sucrose content – not more than 4%,
   - melezitose content – around 3.5%,
   - HMF (5-hydroxymethylfurfural) content – not more than 30 mg/kg,
   - diastase activity (Schade scale) – not less than 10,
   - free acids – 20–40 meq/kg,
   - electrical conductivity – not less than 1.0 mS/cm,
   - water-insoluble content – not more than 0.1 g/100 g,
   - even if stored for several years, the honey does not ferment and high osmotic pressure prevents the development of microorganisms,
   - the predominance of the reducing sugar fructose in relation to glucose slows down crystallisation of the honey and also enhances its taste,
   - contains twice as many disaccharides as nectar-based honeys (maltose, trehalose, turanose), which have antioxidant properties.

5. Geographical area:

'Podkarpacki miód spadziowy' is harvested in 17 State Forest Districts (Rymanów, Komańcza, Lesko, Baligród, Cisna, Wetlina, Stuposiany, Lutowiska, Brzegi Dolne, Strzyżów, Nadleśnictwo Bircza, Dukla, Brzozów, Dynów, Kańczuga, Radymno and Krasiczyn) and in two national parks (Bieszczady National Park and Magura National Park).

6. Proof of origin:

Provide information on the procedure adopted to confirm that the agricultural product or foodstuff originates from the defined geographical area.

1. The entire production process is monitored by a special control system, which facilitates product traceability. The designation 'podkarpacki miód spadziowy' can only be applied to products that fully meet each of the following conditions:
   a) They are produced in the specified geographical area outlined in Section 5, following the production method described in Section 7, and possess the characteristics specified in the description in Section 4;
   b) Their producers have agreed in writing to comply with the specifications, including the 'proof of origin' obligations;
   c) Their producers provided the information below to the Voivodeship Beekeepers' Association in Rzeszów.

2. Control of the production of 'podkarpacki miód spadziowy' is based on a system of quality management and supervision designed to ensure that only products complying with this specification are marketed under the protected designation. The origin of the honey in the Subcarpathian region is confirmed by organoleptic and laboratory analyses, as well as by a traceability system covering the production of the honey from the beginning of beehive production to the time of sale.

3. Any producer wishing to produce the PDO product in question must submit a declaration to the Voivodeship Beekeepers' Association in Rzeszów. These declarations must include at least the following information:
    a) first name and surname of the beekeeper,
    b) location of the apiary,
    c) number of colonies, race of bees and information on the sanitary status of the bee colonies,
    d) a statement by the beekeeper that they undertake to comply with the specification,
    e) a certificate of completion of a qualification course in the beekeeping profession (as a 'qualified worker' or 'master'),
    f) the required documents referred to in Section 7(2), that is, all the necessary authorisations needed to harvest the honey.

4. Beekeepers should inform the association of any changes to the elements of this declaration. The register should be updated at least twice a year – at least once after winter and once after the honey harvest in November or December.

5. Beekeepers who are not registered but wish to produce the PDO product in question must submit a declaration on proceeding with the production at the latest by 31 December of the previous year.

6. One label design must be used by all beekeepers. The Voivodeship Beekeepers' Association in Rzeszów distributes labels based on the data contained in the declaration. Each label should have a serial number and information identifying the beekeeper. Detailed rules and procedures for the distribution of labels among beekeepers by the association shall be submitted to the control body.

7. The Voivodeship Beekeepers' Association in Rzeszów will carry out an internal inspection, independent of the inspection carried out by the authority referred to in Section 9, and check based on organoleptic and incomplete laboratory analyses (including melezitose test), of at least 5% of beekeepers who have submitted declarations and who intend to produce the PDO product in question.

8. If the Voivodeship Beekeepers' Association in Rzeszów finds, as a result of an inspection, non-compliance with the specification, it may refuse to issue labels. Entities may appeal against this decision to the control body specified in Section 9 and request to verify compliance with the specification. If this body confirms compliance, the association will issue labels.

9. The Voivodeship Beekeepers' Association in Rzeszów should have an up-to-date list of beekeepers interested in producing honey under the protected designation in a given year, as well as a list of entities interested in further market preparation. These lists may only include beekeepers who have submitted a declaration in good time and whose apiaries are located in the area defined in Section 5. This list is forwarded to the control body along with information on the labels issued.

10. The beekeeper must always keep the following records up to date:
    a) A current copy of the report submitted to the Voivodeship Beekeepers' Association in Rzeszów.
    b) Current documents confirming the proper sanitary condition of the colonies.
    c) If the apiary has been transported, records must also include information on where the 'podkarpacki miód spadziowy' was harvested.
    d) A record of labels received and used.
    e) A record of the total amount of honey produced and sold on the farm in a given year, indicating the amount of honey covered by the protected designation.
    f) Results of tests on water content and electrical conductivity of honey after centrifugation.

11. Entities wishing to buy the product from beekeepers for further packaging under the protected designation should notify the association. Such entities must be located in the area defined in Section 5. The notification shall include at least the name of the owner/company, the nature of the business, the location, the characteristics of the facility, the packaging system and capacity, and information on the operation of the business in accordance with the relevant regulations. Honey buyers distribute honey under a single approved label.

12. The Voivodeship Beekeepers' Association in Rzeszów maintains a list of entities interested in buying honey from beekeepers and further market preparation under the protected designation. Entities who are not registered but wish to buy and pack the PDO product in question must submit a notification no later than 31 December of the current year. The list of entities is forwarded to the control body.

13. These entities must provide the association and the control body with information on the quantities of honey purchased and sold under the protected designation and on the beekeepers from whom the honey was purchased, together with a list of numbers of labels with which the honey was sold. This information should be submitted at the latest by the end of each year.

14. If the control body finds non-compliance at any stage of the production chain, the product may not be marketed under the protected designation.

Producers must comply with the conditions set out in Section 6 (proof of origin) (1)(a) from the moment the application for registration is sent to the European Commission. Producers must comply with the conditions set out in Section 6 (proof of origin) (1)(b) and (c) no later than three months after the first publication of the application for registration in the Official Journal of the European Union.

Keeping records makes it possible to determine the origin and destination of the honeys, as well as the quantity of product received and marketed. The introduction of the compulsory sale of 'podkarpacki miód spadziowy' under a common label is intended to ensure a proper level of control, to monitor the product and its quality and the quantity marketed. The obligation to use a single label is intended to guarantee that an original product is sold under a protected designation. This obligation is not a restriction for beekeepers, as labels can be

obtained by both affiliated and non-member beekeepers. The same rules apply to entities involved in buying-in of the honey who engage in further market preparation. The requirement to sell honey under a single label is also intended to reduce the possibility of counterfeiting and adulteration of honey.

7. Method of production:

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.

1) The apiary must be located within the area defined in Section 5. The choice of the final location of the apiary is made by the beekeeper and depends on the quantity of honeydew present and takes into account the beekeeper's knowledge and experience in this area.

2) The beekeeper must have all the required permits to harvest honey. In particular, the beekeeper must have documents confirming the health of the bees, the consent of the competent forestry authority and, if located in the area of nature reserves or national parks, the consent of the relevant authorities.

3) Only bees of the following races are used in the production of 'podkarpacki miód spadziowy': *Apis mellifera mellifera* (dark European honeybee), *Apis mellifera carnic*a (Carniolan bee), *Apis mellifera caucasica* (Caucasian honeybee).

4) 'Podkarpacki miód spadziowy' is honey that can be harvested only in the period when honeydew appears, i.e., from the beginning of June to the end of September.

5) Before harvesting 'podkarpacki miód spadziowy', the honey previously collected by the bees must be harvested. Small amounts of honey may remain on the frames if the proper functioning of the bee colonies requires it. The amount of honey left must not lead to a change in the taste and smell of the final product or lead to a failure to meet the requirements laid down in the description.

6) Bees may be fed only before winter, after their honey has been spun, and only white beet sugar or ready-made syrup (bee feed) containing at least 73% sugar (glucose, fructose, sucrose) may be used. The white beet sugar and the sugar syrup do not need to originate from the area where 'podkarpacki miód spadziowy' is obtained. This does not affect the quality of the honey. If, owing to unforeseen external factors, the bees have to be fed at any other time, this can be done only after the Voivodeship Beekeepers' Association in Rzeszów has notified the control body accordingly. If this process is used, it must be completed at least 14 days before the start of the honeydew-gathering period, during which supplementary feeding is prohibited.

7) At the end of the harvesting period, the frames with honey are removed and prepared for spinning.

8) The honey is cold-spun in a honey extractor using centrifugal force.

9) In order to remove any impurities that may be present in the honey, this extracted honey undergoes a straining process using a special strainer. The strained honey is decanted into settling tanks.

10) After being clarified in tanks, the honey is decanted into various kinds of retail packaging. These are glass or stoneware containers with a capacity not exceeding 1,400 g. The honey should be kept away from light, at a temperature of 10–18°C and no more than 65% humidity. It is permissible to sell honey from special barrels with a larger capacity than glass containers. However, the barrels must be specially labelled and documentation must be available to prove the origin of the honey.

11) Decanting into containers must take place in the area defined in Section 5 in accordance with the requirements for the protected designation of origin.

12) The PDO honey may be sold in containers other than those specified in Section 10, provided that the Voivodeship Beekeepers' Association in Rzeszów informs the control body in advance of such a procedure.

13) The honey must not be filtered (to remove pollen), creamed, pasteurised or artificially heated. The temperature of the honey must not exceed 42°C at any stage in its production.

14) The use of chemicals or other bee repellents, whether in solid, liquid or gaseous form, is forbidden during the process of harvesting the honey.

15) The application of pharmaceutical products is prohibited during the honeydew gathering period.

16) Honey cannot be marketed under the 'podkarpacki miód spadziowy' PDO if there are visible defects, such as phase separation, fermentation, or a noticeable change in taste or odour.

17) When harvesting honey, in situations not addressed or specified in the specification, the beekeeper should adhere to the Code of Good Beekeeping Production Practices. This code was endorsed at a meeting of the Commission for the Promotion and Food Safety of Beekeeping Products on 18 February 2004. It was adopted for use by Polish beekeepers through a resolution passed during the 17th General Meeting of Delegates of the Polish Beekeeping Association on 29 February 2004, in Pszczela Wola.

18) Entities that will collect honey from beekeepers and subsequently prepare it for marketing under the protected designation should have an internal system to accurately determine the quantities of the honey purchased and sold under the protected designation. The internal system is designed to eliminate the possibility of mixing the PDO honey with other honeys.

Packaging of honey in the area

The requirement for honey to be bottled for retail packaging in the area of extraction (defined in Section 5) stems from traditional practice and serves to guarantee the appropriate quality

of the product. This restriction is also designed to increase the level of supervision and control of the origin of the honey.

According to the practice of Subcarpathian beekeepers, honey is usually harvested in a traditional (artisanal) way. As part of these practices, beekeepers themselves decant honey produced in their own apiaries into retail packages.

This way they avoid the risks associated with any change in the honey's physico-chemical and organoleptic properties that could occur when moving the honey over long distances if it has not been properly packaged. Transportation and related processes, i.e. prolonged movement, shaking, and re-mixing of honey, can induce crystallisation, which is also of importance for maintaining the quality of the honey. If the appropriate conditions are not maintained upon moving the honey it can, as a hygroscopic substance, absorb water. This may lead to failure to meet the requirements specified in the product description (water content below 19%). Due to the restriction that the temperature of the honey must not exceed 42°C at any stage of production, evaporation of water can be hindered. This carries the risk that if decanting and packaging is not made compulsory in the area, the product will not be of adequate quality.

The transport and decanting of honey outside the area defined in Section 5 may also entail the risk of 'podkarpacki miód spadziowy' being mixed with honey from other areas. If it were possible to transport honey before it is decanted into retail packages outside the area defined in Section 5, there would be a risk of 'podkarpacki miód spadziowy' being mixed with other honeys or of other honeydew honeys being sold under the protected designation.

The aim of the restriction is therefore also to maintain the high reliability of the control system and to eliminate a factor that could affect the quality of the honey sold.

8. Link with the geographical area:

Historical and human factors

Wild beekeeping in the Subcarpathian region boasts some ancient traditions and dates back centuries. Good natural conditions, large forest areas (both coniferous and deciduous) meant that beekeeping initially developed in tree-hives (hives hollowed in thick trees) of forest firs, spruces, and pines. Forest beekeepers had their own professional organisations, their own self-government and a judiciary based on the wild beekeeping law. The first sources containing references to the keeping of wild bees in the area date back to the 15th century. In 1464, the various taxes paid by the inhabitants of Dębowiec, a small town near Jasło, included a honey tax. Regular tributes in honey or wax paid to the rulers convince us that wild beekeeping was a stable branch of the economy, similar to agriculture and craftsmanship. Royal inspections in the 15th and 16th centuries conducted in the villages of Przemyśl and Sanok starosties detail the types of tributes, for example, for entry into the forest or for owning hives in the forests. This information confirms that by the 15th century, beekeeping had been inseparably linked with the Subcarpathian region.

Beekeeping ordinances, which are among the oldest in Poland, provide further evidence that wild beekeeping was highly developed in the Subcarpathian region. An ordinance of 1478 for the beekeepers of Łańcut, Kańczuga and Tyczyn and the Biecz beekeeping ordinance of 1538 set out detailed regulations governing the keeping of wild bees, and these have developed over the centuries (*Z przeszłości bartnictwa na Podkarpaciu* [From the history of wild beekeeping in the Subcarpathian region], by Tadeusz Sławski. Studies and materials from 1982 – available at the Regional Museum in Krosno). In the 15th century, in the Przemyśl and Sanok regions, wild beekeeping, as a primitive form of beekeeping, began to decline and give way to apiary beekeeping. In the 16th century, wild beekeeping in the Przemyśl and Sanok regions was present only in the mountainous forest areas, large forests, on the edge of wetlands, and sandy lands.

Over time, the process of removing beekeepers from the forests took place to protect the tree stands, which were being destroyed due to fires caused by beekeepers and due to advancing settlement and developing wood industry. Heavy burdens and obligations imposed on beekeepers and hives, and not extending these to home apiaries, such as in Leżajsk starosty in the 17th century, resulted in the transition from wild beekeeping to apiary beekeeping. Beekeeping then grew significantly and became a serious branch of the economy in the Subcarpathian areas. The production of honey and wax far exceeded local market needs and, alongside other goods exported from these areas to the north through Kraków, held a significant place. In 1589, *15 horses with honey, 6 horses with honey and wax, and 4 horses with only wax* from the Subcarpathian region were recorded at the Kraków customs office. Similar quantities of honey and wax, as well as mead, were recorded in the following years and at the beginning of the 17th century, exceeding the supplies of these goods from other regions of Southern Poland, such as Nowy Sącz. It can be assumed that honey and wax were also transported in other directions (*Z przeszłości bartnictwa... ibid*).

Apiary beekeeping was the domain of the peasantry, but bees were also kept on magnate estates and in manor farms. In the mountainous areas of Bieszczady and Pogórze, apiaries with log hives predominated. Stand hives were rare and were found in the lowland areas around Leżajsk, Raniżów, Sieniawa, and Lubaczów. Initially, log hives were made from cut or overturned wild beekeeping trees, then from large tree trunks.

Beekeeping developed the most on the weakest lands near large forest complexes (mainly fir forests), and there, in their archaic forms, both wild and apiary beekeeping survived the longest. Apiaries with log hives survived until World War II and could still be found in the 1950s in Przemyśl, Sanok, and Lubaczów Poviats, for example in Miękisz Stary, Kobylnica Ruska and Wołoska, Jasienica Sufczyńska, Łukawiec, as well as in Leżajsk and Kolbuszów Poviats ('Z badań nad dawnymi technikami pszczelarskimi w dorzeczu Sanu' [From research on old beekeeping techniques in the San Basin], by Krzysztof Wolski. *Rocznik Przemyski*, 1962).

At the end of the 19th and the beginning of the 20th century, old apiary beekeeping was giving way to more modern beekeeping techniques. 'Podkarpacki miód spadziowy' was 'discovered' as an export in the middle of the 20th century. In the 1950s, Western European countries were interested in coniferous honeydew honey, which was then paid 2 to 3 times more than nectar honeys. These honeys were valued for their three times higher mineral salt content and the presence of melezitose trisaccharide, the presence of which in honey proves its honeydew

origin. This sugar occurs only in the sap of firs and larches and is formed naturally through the synthesis of simple sugars occurring in the digestive tract of aphids and scale insects.

The year 1967 was a key year, when over 1,000 tonnes of forest honeydew was harvested in the Subcarpathian region, of which 924 tonnes by the Centrala Spółdzielni Ogrodniczej (Central Horticultural Cooperative). Interest grew in the forest as a 'grazing area' for bees that supplied them with a sweet substance called honeydew. In 1970, an apicultural research service was set up at the Regional Agricultural Experimental Establishment at Boguchwała near Rzeszów, the largest city in Podkarpackie Voivodeship, one of its tasks being to forecast the availability of honeydew and organise bee migrations to forests where honeydew was present. It was the first such service in Poland and was set up pursuant to a decree of the Voivodeship National Council in Rzeszów. The location was chosen because of the abundance of top-quality honeydew in the area's forests.

Since 1980, research done under the direction of Prof. H. Gałuszkowa has been continued by the Bee Research Department at the Agricultural University of Kraków.

Research results have shown that in the southern, southeastern, and central parts of the voivodeship, honeydew is an annual phenomenon of varying intensity. Studies conducted in the Beskid Niski Mountains around Strzyżów, Frysztak, Komańcza, Wojtkowa, and Krempna have shown that only 5–10% of the available coniferous honeydew is utilised by bees. During this period, beekeeping developed in this area, with 17,160 registered apiaries housing 110,695 hives. It should be noted that the greatest development occurred in poviats where the highest quality honeydew honey was harvested, for example, in Sanok Poviat, there were 1,168 apiaries and 10,299 hives, in Jasło Poviat there were 1,183 apiaries and 8,040 hives, and in Przemyśl Poviat there were 926 apiaries and 7,776 hives. In forests in areas with honeydew yields, permanent and migratory apiaries began to be established (*Podstawy prognozowania pożytków dla pszczół ze spadzi jodłowej w warunkach Polski Południowej* [Basics of forecasting honeydew yields for bees from fir honeydew in the conditions of Southern Poland], by: H. Gałuszka, W. Ostrowska, W. Kędracki, published by RRZD Boguchwała, 1973).

Much more detailed materials confirming the history and tradition of beekeeping in the Subcarpathian region and materials confirming the collection of honeydew honey are available at the Regional Museum in Krosno.

A distinctive feature of beekeeping in the Subcarpathian region is the large number of beekeepers (approx. 3,000), the vast majority of whom collect honey on a small-scale, using traditional methods. The popularity of beekeeping and the beekeepers' great commitment to maintaining the quality of honey in this region is evidenced by the fact that the Voivodeship Beekeepers' Association in Rzeszów brings together 54 local beekeeping societies. It is also significant that the association celebrated its 40th anniversary in 2006. Regional beekeepers' cooperatives in Przemyśl, Jarosław and Jasło are also active in the areas where 'podkarpacki miód spadziowy' is obtained.
The strong connection of 'podkarpacki miód spadziowy' with the identity and culture of the region is also confirmed by the presence of this product at numerous fairs, markets, and competitions organised for a long time in the Subcarpathian region, such as in Boguchwała, Mielec, Lesko, and Przemyśl.

The link between the honeydew honey and the Subcarpathian region is further confirmed by the fact that beekeepers very often used geographical indication on honey packaging to show that the honey they were selling was of the highest quality because it came from the Subcarpathian region.

The high level of skill of the local beekeepers is particularly due to the preservation of traditional apiary management, so closely linked to this region. These skills are also bound up with the siting of the hives, in particular with regard to the variability in honeydew levels and topography, the method of harvesting such a unique honey as 'podkarpacki miód spadziowy', the (cold) spinning of the honey and the rules on the storage and decanting of the honey. The strict characteristic values imposed on 'podkarpacki miód spadziowy', in particular with the aim of maintaining its varietal purity and preventing its mixing with other honeys, can be adhered to only by exercising the greatest care as regards hive management and the harvesting and storage of the honey. This is a result of the beekeepers' skills and requires both a passion and understanding of bee behaviour and knowledge of the processes occurring in nature.

Natural link

The area where 'podkarpacki miód spadziowy' is harvested is under the supervision of the Regional Directorate of National Forests (RDLP) in Krosno and encompasses the forests of southeastern Poland. This area, as specified in Section 5, includes a large portion of Podkarpackie Voivodeship. It also includes two national parks: Bieszczady National Park and Magura National Park. The entire Subcarpathian region under RDLP Krosno's jurisdiction is highly forested, with a forest cover of 38%. In the area specified in Section 5, the level of forest cover is even higher, reaching up to 90% in the Bieszczady forest districts.

Podkarpackie Voivodeship encompasses three distinct regions. The northern part of the voivodeship lies in the lowland area belonging to the Sandomierz Basin, the central part is in the Carpathian Foothills, and the southern part in the Beskid Niski and Bieszczady Mountains. The area where 'podkarpacki miód spadziowy' is harvested covers the central and southern parts of the voivodeship.

With few exceptions, the soils in these two parts tend to be poor, falling within Classes IV and V. They are mainly brown soils, mostly leached, and podsolic soils, both powdery and clayey. Moor soils and alluvial soils occur in small amounts in the southern part of the area described. These soils and the topography (the Carpathian Foothills are located at an altitude of 350–600 m above sea level, and in the Beskid Niski and Bieszczady Mountains elevations reach 850 m above sea level) create ideal habitats for coniferous trees, in particular the European silver fir (*Abies alba*). The fir is a highly sensitive species and therefore thrives only in a very favourable, clean environment. The variety that grows here — the European silver fir (*Abies alba*) — has historically been the most widespread variety in the Subcarpathian region. This is evidenced by the very high share of fir in the forests of this area, estimated at 16.5%, and the average age of fir stands, which is 87 years. It is estimated that the forest area occupied by fir in 2006 was about 67,784 ha, which constitutes almost 50% of the fir found in Poland. Fir stands in our country occupy 137,000 ha, but their share in the forest area of neighbouring voivodeships does not exceed 25% of the entire forest stand. In addition to two national parks,

the area described contains as many as 15 nature reserves — Jedlina, Rebece, Wilcze, Minokąt, Nad Trzciańcem, Mójka, Góra Chełm, Jażwiana Góra, Turnica, Krępak, Na Opalonym, Dybek, Chwaniów, Polanki, and Hulskie — where protecting stands of fir is one of the key conservation aims. The Stuposiany Forest District also contains the fir tree with the biggest circumference in any of Poland's forests – 505 cm.

High precipitation (especially in winter), the resulting humidity of the air and stable high temperatures in the growing season create optimum conditions for honeydew-producing insects, namely conifer aphids (*Lachnidae* family) and scale insects (*Margarodidae* family). The presence of honeydew in the forests of the Subcarpathian region is therefore an annual phenomenon which occurs with varying intensity.

The soils on which the fir stand grows are rich in mineral salts which are taken up by the plants along with water and which then, after being secreted by honeydew-producing insects, find their way into the honey. This fact contributes to the high content of microelements which are important to health, such as magnesium, manganese, iron, copper, cobalt, calcium, phosphorus, and others. 'Podkarpacki miód spadziowy' owes its characteristic dark colour to green algae associated with the fir stand in the area described.

'Podkarpacki miód spadziowy' is a unique product that is closely linked to the area from which it originates. It is harvested from a natural basin of coniferous forests characterised by a very high proportion of European silver fir. The continuous harvesting of honey from the fir variety found in this area has been ongoing for a very long time. Only a combination of all factors – from the purity of the environment, the extensive habitat use, to traditional harvesting techniques, to the local tree stands – makes it possible to produce the unique, specific honey that is the region's hallmark. 'Podkarpacki miód spadziowy' is therefore a product with a strong link to its area of origin. The production level of 'podkarpacki miód spadziowy' varies depending on the time and amount of honeydew present.

Summary

'Podkarpacki miód spadziowy' is a unique product that is closely linked to the area from which it originates. The specific characteristics of the geographical area, makes it a natural basin of coniferous forest cover and typified by a very high proportion of European silver fir (*Abies alba*). The quality of the product is also determined by optimum climatic conditions (prolonged periods of stable high temperatures of 25–30°C) and very high air humidity, which create specific conditions favouring the mass reproduction of honeydew-producing insects, namely aphids of the *Lachnidae* family and scale insects of the *Margarodidae* family. These conditions also have a beneficial impact on the production of honeydew by these insects.
The continuous harvesting of honey from the fir variety found in this area has been ongoing for a very long time.

The much higher than normal electrical conductivity typical of 'podkarpacki miód spadziowy' demonstrates the high content of microelements which are important to health, such as magnesium, manganese, iron, copper, cobalt, calcium, phosphorus and others. This characteristic property of the product is also a result of its origin because the soils on which the fir stand grows are rich in mineral salts which are taken up by the plants along with water and which then, after being secreted by honeydew-producing insects, find their way into the honey.

‘Podkarpacki miód spadziowy’ owes its characteristic dark colour to green algae associated with the fir stand in the area described.
‘Podkarpacki miód spadziowy’ characteristically has a higher than average reducing monosaccharide content which, combined with moderate acidity, improves the flavour of the honey, giving it a less intense sweet taste.

The method of harvesting ‘podkarpacki miód spadziowy’ is closely linked with the skills of local beekeepers. The high level of beekeeping skills is reflected, among other things, in the numerous restrictions during honey collection: at no stage of production should the temperature exceed 42°C. Bees may be fed only before winter, after their honey has been spun, and only white beet sugar or ready-made syrup (bee feed) containing at least 73% sugar (glucose, fructose, sucrose) may be used. These factors, combined with the area’s specifics, allow for the production of honey with the highest quality parameters.

9. Control body:

Name of the competent body or organisational unit:	**Chief Inspector of Agricultural and Food Quality**
Address:	**ul. Wspólna 30 00-930 Warsaw**
Telephone number:	**+48 22 623 29 00**
Fax number:	**+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.

All beekeepers and entities engaged in the buying-in and further market preparation of honey under the protected designation are required to use one type of label. The Voivodeship Beekeepers’ Association in Rzeszów will decide on its model. Every label must include information on the capacity of the container and indicate the producer’s address, the veterinary register number and the serial number of the label. The label will also bear the (Protected Designation of Origin) symbol or this symbol and the inscription ‘Chroniona Nazwa Pochodzenia’ [Protected Designation of Origin]. Labels will be distributed by the Voivodeship Beekeepers’ Association in Rzeszów. The Voivodeship Beekeepers’ Association in Rzeszów forwards detailed rules to the control body concerning the distribution of labels. Such rules must not in any way discriminate against producers who produce ‘podkarpacki miód spadziowy’ in accordance with the specification but do not belong to the Voivodeship Beekeepers’ Association in Rzeszów.
The single-label system is intended to guarantee the appropriate quality and facilitate product traceability.

11. Specific requirements introduced by current regulations:

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

None

12. Additional information:

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

None

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.

Materials and publications referenced in the application:

1. *Podstawy prognozowania pożytków dla pszczół ze spadzi jodłowej w warunkach Polski Południowej* [Basics of forecasting honeydew yields for bees from fir honeydew in the conditions of Southern Poland], by: H. Gałuszka, W. Ostrowska, W. Kędracki, published by RRZD Boguchwała, 1973.
2. 'Z badań nad dawnymi technikami pszczelarskimi w dorzeczu Sanu' [From research on old beekeeping techniques in the San Basin], by Krzysztof Wolski, *Rocznik Przemyski,* 1962.
3. *Z przeszłości bartnictwa na Podkarpaciu* [From the history of wild beekeeping in the Subcarpathian region], by Tadeusz Sławski, Studies and materials from 1982.
4. *Kodeks Dobrej Praktyki Produkcyjnej w Pszczelarstwie* [Code of Good Beekeeping Production Practices] – adopted for use by Polish beekeepers through a resolution passed during the 17th General Meeting of Delegates of the Polish Beekeeping Association on 29 February 2004 in Pszczela Wola.
5. Certified copy from the National Court Register.
6. *Co decyduje o walorach smakowych i wysokich parametrach jakościowych Podkarpackich miodów ze spadzi iglastej* [What determines the taste qualities and high-quality parameters of Podkarpackie coniferous honeydew honeys], ed. by Dr. Helena Rybak-Chmielewska, ISiKW O/Pszczelnictwa w Puławach, 2007.

Single Document

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

Podkarpacki miód spadziowy

EC No:

☐ PDO ☒ PGI

1. Name: Podkarpacki miód spadziowy

2. Member State: Poland

3. Description of the agricultural product or foodstuff:

3.1. Class: Class 1.4. – Other products of animal origin, honey

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

'Podkarpacki miód spadziowy' is liquid or crystallised honey produced from honeydew gathered by bees from the European silver fir (*Abies alba*). It may also contain honeydew from spruce (family *Pinaceae*, genus *Picea*) and from Scots pine (family *Pinaceae*, genus *Pinus*, species mainly *Pinus sylvestris*). However, honeydew from the European silver fir predominates and never accounts for less than 70%. 'Podkarpacki miód spadziowy' may contain traces of pollen from nectariferous plants or pollen grains from anemophilous plants. The pollen and other honeydew content must not result in any change to the honey's characteristic taste or smell, and in particular, it must not result in non-compliance with any of the characteristic values referred to in this description.

Only bees of the following races are used in the production of 'podkarpacki miód spadziowy': *Apis mellifera mellifera* (dark European honeybee), *Apis mellifera carnic*a (Carniolan bee), *Apis mellifera caucasica* (Caucasian honeybee).

Organoleptic characteristics

Before crystallisation, the honey ranges in colour from dark brown with greenish highlights to almost black, with an intensity of at least 82 mm on the Pfund scale. It has a thick, highly viscous consistency and, after crystallisation, which proceeds slowly and results in a finely granular texture, it takes on a somewhat lighter colour. It has a mildly sweet taste, with a typically resiny fragrance reminiscent of the needles of coniferous trees.

Physico-chemical characteristics

- water content — not more than 19%,
- monosaccharide (glucose and fructose) content — not less than 50%,
- sucrose content — not more than 4%,
- melezitose content — around 3.5%,
- HMF (5-hydroxymethylfurfural) content — not more than 30 mg/kg,
- diastase activity (Schade scale) — not less than 10,
- free acids — 20–40 meq/kg,

- electrical conductivity — not less than 1.0 mS/cm,
- water-insoluble content — not more than 0.1 g/100 g,
- even if stored for several years, the honey does not ferment and high osmotic pressure prevents the development of microorganisms,
- the predominance of the reducing sugar fructose in relation to glucose slows down crystallisation of the honey and also enhances its taste,
- contains twice as many disaccharides as nectar-based honeys (maltose, trehalose, turanose), which have antioxidant properties.

3.3 Raw materials:

1.4 Feed (for products of animal origin only):

Bees may be fed only before winter, after their honey has been spun, and only white beet sugar or ready-made syrup (bee feed) containing at least 73% sugar (glucose, fructose, sucrose) may be used. The white beet sugar and the sugar syrup do not need to originate from the area where 'podkarpacki miód spadziowy' is obtained. This does not affect the quality of the honey. If, owing to unforeseen external factors, the bees have to be fed at any other time, this can be done only after the Voivodeship Beekeepers' Association in Rzeszów has notified the control body accordingly. If this process is used, it must be completed at least 14 days before the start of the honeydew-gathering period, during which supplementary feeding is prohibited.

1.5 Specific steps in production that must take place in the identified geographical area:

All production steps — from the positioning of the hives to the final packaging of the honey — must take place in the defined geographical area.

'Podkarpacki miód spadziowy' may be harvested only in the period from the beginning of June to the end of September. The honey is cold-spun in a honey extractor using centrifugal force. After being clarified in tanks, the honey is decanted into various kinds of retail packaging. These are glass or stoneware containers with a capacity not exceeding 1,400 g. The honey should be kept away from light, at a temperature of 10–18°C and no more than 65% humidity. The honey must not be filtered (to remove pollen), creamed, pasteurised or artificially heated. The temperature of the honey must not exceed 42°C at any stage in its production. The use of chemicals or other bee repellents, whether in solid, liquid or gaseous form, is forbidden during the process of harvesting the honey.
The application of pharmaceutical products is prohibited during the honeydew gathering period.

1.6 Specific rules concerning packaging:

'Podkarpacki miód spadziowy' must be packaged in the area defined in (4). This is because of traditional practices designed to ensure that the product is of an appropriate quality and aimed at monitoring and checking its origin. This avoids any risk of changes in the honey's physico-chemical and organoleptic properties that might occur if it were transported over long distances. The requirement for packaging to take place in the area is also aimed at minimising the risk of 'podkarpacki miód spadziowy' being mixed with other types of honey and of other honeydew honeys being sold under this protected designation.

1.7 Specific rules concerning labelling:

All beekeepers and entities engaged in the buying-in and further market preparation of honey under the protected designation are required to use one type of label. Every label must include information on the capacity of the container and indicate the producer's address, the veterinary register number and the serial number of the label. Labels will also include the Community symbol or the Community symbol and the inscription 'Chroniona Nazwa Pochodzenia' (Protected Designation of Origin). Labels will be distributed by the Voivodeship Beekeepers' Association in Rzeszów. The association forwards detailed rules to the inspection body concerning the distribution of labels. Such rules must not in any way discriminate against producers who produce 'podkarpacki miód spadziowy' in accordance with the specification but do not belong to the Voivodeship Beekeepers' Association in Rzeszów.

4. Geographical area:

'Podkarpacki miód spadziowy' is harvested in 17 State Forest Districts (Rymanów, Komańcza, Lesko, Baligród, Cisna, Wetlina, Stuposiany, Lutowiska, Brzegi Dolne, Strzyżów, Nadleśnictwo Bircza, Dukla, Brzozów, Dynów, Kańczuga, Radymno and Krasiczyn) and in two national parks (Bieszczady National Park and Magura National Park).

5. Link with the geographical area:

5.1. Specificity of the geographical area:

5.1.1. Natural factors

The area in which 'podkarpacki miód spadziowy' is obtained is indicated in (4). With few exceptions, the soils in this area tend to be poor, falling within Classes IV and V. They are mainly brown soils, mostly leached, and podsolic soils, both powdery and clayey. Moor soils and alluvial soils occur in small amounts in the southern part of the area described. These soils and the topography (the Carpathian Foothills are located at an altitude of 350–600 m above sea level, and in the Beskid Niski and Bieszczady Mountains elevations reach 850 m above sea level) create ideal habitats for coniferous trees, in particular the European silver fir (*Abies alba*).

The fir is a highly sensitive species and therefore thrives only in a very favourable, clean environment. The variety that grows here — the European silver fir (*Abies alba*) — has historically been the most widespread variety in the Subcarpathian region. A very high proportion of the trees in the area's forests are firs — the figure is put at 16.5% — and the stands of fir have an average age of 87 years. In 2006, firs occupied about 67,784 ha of the forested area In addition to two national parks, the area described contains 15 nature reserves — Jedlina, Rebece, Wilcze, Minokąt, Nad Trzciańcem, Mójka, Góra Chełm, Jażwiana Góra, Turnica, Krępak, Na Opalonym, Dybek, Chwaniów, Polanki and Hulskie — where protecting stands of fir is one of the key conservation aims. The Stuposiany Forest District also contains the fir tree with the biggest circumference — 505 cm — in any of Poland's forests.

High precipitation (especially in winter), the resulting humidity of the air and stable high temperatures in the growing season create optimum conditions for honeydew-producing insects, namely conifer aphids (*Lachnidae* family) and scale insects (*Margarodidae* family). The presence of honeydew in the forests of the Subcarpathian region is therefore an annual phenomenon which occurs with varying intensity.

5.1.2. Historical and human factors

Wild beekeeping in the Subcarpathian region boasts some ancient traditions and dates back centuries. Good natural conditions meant that beekeeping developed very rapidly in this area. The first sources containing references to the keeping of wild bees date from the 15th century. In 1464, the various taxes paid by the inhabitants of Dębowiec, a small town near Jasło, included a honey tax. Beekeeping ordinances, which are among the oldest in Poland, provide further evidence that wild beekeeping was highly developed in the Subcarpathian region. An ordinance of 1478 for the beekeepers of Łańcut, Kańczuga and Tyczyn and the Biecz beekeeping ordinance of 1538 set out detailed regulations governing the keeping of wild bees, and these have developed over the centuries. Honey and wax production far exceeded the needs of the local market and occupied an important place alongside other goods exported to the north via Kraków from this area. 'Podkarpacki miód spadziowy' was 'discovered' as an export in the middle of the 20th century. In the 1950s, conifer honeydew honey, which fetched two to three times more than nectar honeys, was sought-after in western European countries and the USA. The year 1967 was a key year, when over 1,000 tonnes of forest honeydew was harvested in the Subcarpathian region. Interest grew in the forest as a 'grazing area' for bees that supplied them with a sweet substance called honeydew. In 1970, an apicultural research service was set up at the Regional Agricultural Experimental Establishment at Boguchwała near Rzeszów, one of its tasks being to forecast the availability of honeydew. It was the first such service in Poland and was set up pursuant to a decree of the Voivodeship National Council in Rzeszów. The location was chosen because of the abundance of top-quality honeydew in the area's forests. Since 1980, research done under the direction of Prof. H. Gałuszkowa has been continued by the Bee Research Department at the Agricultural University of Kraków.

A distinctive feature of beekeeping in the Subcarpathian region is the large number of beekeepers (more than 3,000) harvesting honey on a small-scale, using traditional methods. The popularity of beekeeping and the bee-keepers' great commitment to maintaining the quality of honey in this region is evidenced by the fact that the Voivodeship Beekeepers' Association in Rzeszów, which brings together 54 local beekeeping societies, has been active for more than 40 years. Regional beekeepers' cooperatives in Przemyśl, Jarosław and Jasło are also active in the areas where 'podkarpacki miód spadziowy' is obtained.

The highly developed skills of local beekeepers are connected in particular with the maintenance of the traditional hive management method so closely associated with this area. These skills are also bound up with the siting of the hives, in particular with regard to the variability in honeydew levels and topography, the method of harvesting such a unique honey as 'podkarpacki miód spadziowy', the (cold) spinning of the honey and the rules on the storage and decanting of the honey.

The strict characteristic values imposed on 'podkarpacki miód spadziowy', in particular with the aim of maintaining its varietal purity and preventing its mixing with other honeys, can be adhered to only by exercising the greatest care as regards hive management and the harvesting and storage of the honey.

5.2. Specificity of the product:

The characteristic features attesting to the properties of 'podkarpacki miód spadziowy' are:

- glucose and fructose content – not less than 50%,

- average trisaccharide (melezitose) content – 3.5%,
- electrical conductivity – not less than 1.0 mS/cm,
- colour – not less than 82 mm on the Pfund scale.

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):

'Podkarpacki miód spadziowy' is a unique product that is closely linked to the area from which it originates. Its specific characteristics derive from the geographical area, which has natural coniferous forest cover and is typified by a very high proportion of European silver fir (*Abies alba*). The quality of the product is also determined by optimum climatic conditions (prolonged periods of stable high temperatures of 25–30°C) and very high air humidity, which create specific conditions favouring the mass reproduction of honeydew-producing insects, namely aphids of the *Lachnidae* family and scale insects of the *Margarodidae* family. These conditions also have a beneficial impact on the production of honeydew by these insects.

The much higher than normal electrical conductivity typical of 'podkarpacki miód spadziowy' demonstrates the high content of microelements which are important to health, such as magnesium, manganese, iron, copper, cobalt, calcium, phosphorus and others. This characteristic property of the product is also a result of its origin because the soils on which the fir stand grows are rich in mineral salts which are taken up by the plants along with water and which then, after being secreted by honeydew-producing insects, find their way into the honey.

'Podkarpacki miód spadziowy' owes its characteristic dark colour to green algae associated with the fir stand in the area described.

'Podkarpacki miód spadziowy' characteristically has a higher than average reducing monosaccharide content which, combined with moderate acidity, improves the flavour of the honey, giving it a less intense sweet taste.

Honey has been obtained over a very long period of time, without interruption, from fir trees in this area. The method of harvesting 'podkarpacki miód spadziowy' is closely linked with the skills of local beekeepers. The high level of beekeeping skills is reflected among other things by the many requirements to be met during the harvesting of the honey which, combined with the area's unique features, make it possible to obtain honey that possesses the specific characteristics referred to in (5.2).

REFERENCE TO PUBLICATION OF THE SPECIFICATION
(Article 5(7) of Regulation (EC) No 510/2006)

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