# SUMMARY TECHNICAL SPECIFICATION

# NAME OF THE GEOGRAPHICAL INDICATION: MIERE DIN CODRII MOLDOVEI

# CATEGORY OF THE PRODUCT FOR WHICH THE NAME IS PROTECTED (Annex XI of R. (EU) N° 668/2014)

1.4. Other products of animal origin (eggs, honey, various dairy products except butter, etc.) Honey.

### **APPLICANT:**

# Uniunea de Persoane Juridice "Asociația Producătorilor, Procesatorilor și Exportatorilor de Produse Apicole din aria Codrilor", MD

Str. Vasile Alecsandri nr. 109, MD-2009, Chişinău, Republic of Moldova

#### PROTECTION IN THE STATE OF ORIGIN

AGEPI's decision no. 3135 of 16.03.2020 on registration of geographical indication MIERE DIN CODRII MOLDOVEI [http://www.db.agepi.md/GeogrIndications/Details.aspx?id=3833]

### DESCRIPTION OF THE AGRICULTURAL PRODUCT OR FOODSTUFF

The following varieties of honey can be sold under the product name "Miere din Codrii Moldovei":

Monofloral honey (acacia, linden and pollen);

- Polyfloral honey (wildflowers, flowers of agricultural crops, perennial plantings, spontaneous flora);

"Miere din Codrii Moldovei" is the natural honey obtained from bees from beehives located in the geographical area defined in the specifications.

After extraction, the honey can be made in liquid form, crystallized or in whole or proportionate combs and cannot be modified by the beekeeper to improve its original quality.

RAW MATERIALS:

#### Physico-chemical characteristic:

Maximum humidity 20%;

The mass fraction of invert sugar at least 60% for pollen or linden and 65% for other types of honey;

Saccharose content 5-8%, and for pollen honey - max. 10%;

Diastatic index 6.5 - 8 units. gote;

Hydroxymethylfurfurol maximum 20 mg / kg;

Acidity maximum 4 milliequivalents per 100 g of honey and maximum 5 for pollen honey.

| <b>Organoleptic</b> | characteristic | of  | honey types: |
|---------------------|----------------|-----|--------------|
| - <b>o</b>          |                | - J |              |

| Organoiepite characteristic of noney types. |                 |                         |                           |  |  |
|---|-----------------|-------------------------|---------------------------|--|--|
| The type of                                 | Color           | Smell, Taste            | Consistency               |  |  |
| Honey                                       |                 |                         |                           |  |  |
| Linden Honey                                | Yellow-orange,  | Pronounced aroma,       | Homogeneous,              |  |  |
|   | Reddish         | sweet woody             | liquid, viscous or finely |  |  |
|   |                 | -                       | crystallized              |  |  |
| Acacia Honey                                | Almost          | The sweetest            | Fluid, viscous and        |  |  |
|   | colorless       | assortment, pleasant    | homogeneous, without      |  |  |
|   | Light-yellow    | with a                  | signs of crystallization  |  |  |
|   | Golden-Yellow   | floral tint             |                           |  |  |
| Pollen Honey                                | Yellow-Brown,   | Specific aroma,         | Uniform, fluid or         |  |  |
| (also called forest                         | shades of green | pleasant sweet or       | viscous                   |  |  |
| honey)                                      |                 | slightly bitter taste,  |                           |  |  |
|   |                 | slightly caramelized    |                           |  |  |
| Polyfloral Honey                            | Yellow          | Pleasant, sweet         | Uniform, fluid,           |  |  |
|   |                 | viscous or crystallized |                           |  |  |

#### SPECIFIC PRODUCTION / PROCESSING METHODS:

"Miere din Codrii Moldovei" is produced and harvested in the geographical area, while extraction and packaging can be done outside the production area, which has no negative consequences on the product specificity and quality.

Obtaining "Miere din Codrii Moldovei" takes place according to the following description: *Location of beehives - pastoral beekeeping* 

Honey can be obtained in any system of beehives, preferably of the vertical type, but provided, in the case of horizontal beehives, that honey is not extracted from the honeycombs in the nest containing brood and beebread. In the case of vertical beehives, the shallow super or crown board for the harvest are located above the nest before harvesting begins, by applying the bee queen excluder.

In 1-2 weeks, before carrying out the pastoral, the area is explored, the suitable areas for beehives are identified, the health status of the bees in the respective areas is monitored, and the itinerary and the access area are established. The movement of the beehives can be done several times during the season, thus following the places where the desired honey sources are found. Pastoral beekeeping begins in early spring and may end in late autumn.

Thus, in March - April, bee families are located in the forest at the massifs of maple, white willow, sycamore maple, fruit trees and early herbaceous flora. Then the beehives are placed next to the forest belts with acacia, linden.

For the optimal use of the honey potential, and in order to obtain high yields, the overcrowding of beehives is avoided, and the loads per hectare of plantation are taken into account depending on the flora (acacia - 18-25 bee families; linden - 8-12 bee families).

The end of nectar harvesting is determined by: the end of flowering honey plants, the decrease of bee activity, as well as by the evidence of the control weighing (one or several beehives inhabited by bees are placed on the scales, where the amount of collected nectar is checked daily).

Harvesting of bee honey begins when 1/3 of the honeycombs are capped and mature enough, and the water content is 18-20%. Thus, after sorting, the honeycombs are uncapped and centrifuged.

After centrifugation, the honey is filtered to remove the cover leftovers, and pour into vessels for purification, after which the unfiltered leftovers, raised from the surface of the vessel with honey, is collected and removed. After pouring into packages, they are sealed with a lid and labeled accordingly. It is recommended the storage of honey in clean, dry, odorless rooms at 10 - 14  $^{\circ}$  C until delivery.

#### **CONCISE DEFINITION OF THE GEOGRAPHICAL AREA**

The production area of "Miere din Codrii Moldovei" are the districts: Hâncești, Călărași, Criuleni, Dubăsari, Nisporeni, Anenii Noi, Orhei, Straseni, Telenesti, Ungheni, Ialoveni and Chisinau.

## LINK WITH THE GEOGRAPHICAL AREA

Our country has been famous for its beekeeping from the oldest times.

Beekeeping products are still highly appreciated both abroad and in our country due to their specific taste and aroma.

The country's history archives show that bees' honey and wax were considered the main products that were exported from the country, and taxes were paid with honey and wax.

The intense development of beekeeping and large quantities of honey were caused, first of all, due to the specific settlements, climate and vegetation in the region, which are still considered one of the most favorable for beekeeping in Europe. In these conditions, most of the peasants were engaged in this sweet and useful industry. Thus, some of the names of villages existing in our country until today tell us about this important branch of industry: Albina village from Căuşeni district, Ştiubeieni village, Râşcani district and Medveja commune, Briceni district.

Boyars were not positive about the development of beekeeping by peasants, so they established natural gifts and money for beehives. However, serf peasants continued to occupy

and develop this branch of industry. The boyars were afraid that the honey flora on their territory and lands would end, therefore they restricted this ancient occupation to the peasants. In "Description of Moldova", Dimitrie Cantemir said:" The inhabitants of the country benefit greatly from them; all the fields are full of the most beautiful and pleasant flowers, and the forests continually give them enough food to gather their wax and honey. They would have even greater benefits from them, if they were allowed to keep all the bee colonies that swarm every year. But the rules of the country stops them from having more beehives than the land of each of them allows, so that the growth of bees will not harm their neighbors. "

There were about 4,000 apiaries in the country in 1890, which amounted 81,000 beehives, of which 1296 poods of honey and 4618 poods of wax were collected. Over the next four years, the number of beehives and apiaries increased slightly and remained at the same level until the mid-1990s., when the number of bee colonies suddenly decreased, and the amount of honey and wax received fell by half. This period did not last long, so in 1910, the number of apiaries was over 46,000 from which 17,000 poods of honey were obtained.

Before the First World War, there were more than 43,000 beehives in Bessarabia, 30% of which used the frame system. Immediately after the First World War, significant attention was paid to this branch of industry and the Chisinau-based Beekeeping Society was created, while numerous articles mentioned the uniqueness and specificity of the territory, climate and flora of Bessarabia, as well as the importance of beekeeping.

During the period between the two world wars, the demand for honey grew, and the policy pursued in this sector by the associations allowed a significant increase in the number of apiaries and the amount of honey.. Thus, in 1940, about 60 kg of honey were collected from one bee colony in Moldova, while in other countries 50-52 kg were collected. During World War II, most of the apiaries were destroyed, so that their number was halved.

Simultaneously with the socialist industrialization of the country, as well as with the development of other sectors of agriculture, beekeeping developed very intensely and in a short time, which still remains the main branch of the country's economy.

From a geomorphological point of view, the territory occupied by the forest vegetation of Codru is located in the central part of the uplands of Central Moldova. The territory is a specific region with a fragmented relief with an altitude range of 382 m to 147 m. In general, the relief is presented as a set of undulating hills (few potholes, surrounded by hills), whose peaks descend to the south and south-east (less often to the north-east), after waterstreams, that fragment them and separate them from narrow valleys. The difference in altitude and the exposure of the slopes influence the thermal regimes in this geographical area. The climate is temperate continental, with short and mild winters and long and warm summers.

In Codru there are 8 species of non-native plants being accidentally introduced in the region, but all being honey plants with a potentially rich source of nectar:

Acer negundo L. - American maple, Amorpha fruticosa L. - small acacia or acacia, Caragana arborescens Lam. - Siberian pea-tree or yellow acacia- is a honey bush with a flowering period of 2-3 weeks when it provides bees with nectar and pollen. Fraxinus lanceolata Borkh - lanceolate ash, Fraxinus pennsylvanica Marsh. - Pennsylvania ash, Phellodendron amurense Rupr. - cork tree, Pinus sylvestris L. – wild pine, Robinia pseudoacacia L. - white acacia.

In this area is also the "Codru" Reservation, which is the oldest scientific reservation in the Republic of Moldova, established on September 27, 1971. The nature here amazes with its variety of species and forms, many of which are on the verge of disappearing. Thus, L. Николаева (1984) in the article "Редкие виды" published in the work, Природа зоведника Кодры, indicates 53 species of rare plants for the "Codrii" Reserve. Rare plants make up 20% of the composition of the plants in the reserve and 5% of the number of rare plant species registered in the flora of the Republic of Moldova.

Among the rare plants, 14 species are included in the Red Book of the Republic of Moldova - wolf's spine Athyrium filix-femina (L.) Roth, red strawberry Cephalanthera rubra (L.) Rich., dagger weed Cephalanthera longifolia (L.) Fritsch , strawberry grandiflora Cephalanthera damasonium (Mill.) Druce, Carthusian fern Dryopteris carthusiana (Vill.) H.P.Fuchs, purple bush Epipactis purpurata Smith, oak fern Gymnocarpium dryopteris (L.) Newm., sucker Hypopitys monotropa Crantz, flying feather Lunaria annua L., Bulgarian onion Nectaroscordum bulgaricum Janka, Cuckoo's crest Polystichum aculeatum (L.) Roth., mutulica Scopolia

carniolica Jacq., elegant crown Securigera elegans (Panc.) Lassen, domestic sorrel Sorbus domestica L.

Polyfloral honey occupies the largest proportion of total domestic production annually (50%), followed by other types of honey produced in the country. Almost 1000 varieties of protected plants are grown in Codru, that is, half of the flora characteristic of the Republic of Moldova. Meadows and shrubs occupy 45% of the area, but cultivated lands - 10%. The vast majority of these plant species, which are part of the Codru honey flora, not only provide plentiful food for the bees, but also provide important production yields. At the same time, nectar and pollen, once transformed by bees, distinguish this honey from honey produced elsewhere or in other territories. Thus, both beekeepers working in stationary apiaries in the Codru area and those involved in pastoral work in the area benefit from the polyfloral honey harvest.

Several elements give specific taste and aroma to "Mierii din Codrii Moldovei":

- favorable climate and long period for bees to collect nectar;
- rich and varied flora.

Each type of honey has its own physical, chemical and organoleptic characteristics, which are defined in the specifications and correspond to the floral diversity of the region.

#### CONTROLS

OC from Î.S. "Conservstandard" S.R.L., MD 2012, mun. Chișinău, str. București 90, e-mail: cons\_cert@mail.ru

#### SPECIFIC RULES CONCERNING LABELLING (IF ANY)

Honey is packaged and sold in barrel or in glass jars, paper envelopes, plastic containers, wood or other transparent materials. For crystallized honey, liquefaction is allowed by slow heating in a water bath at temperatures up to 40  $^{\circ}$  C. After pouring into packages, closed tightly with a lid and labeled accordingly.

The name of the product "Miere din Codrii Moldovei" followed by the words "Protected Geographical Indication" or the acronym "PGI" - which will be placed in the central, visible part of the label.

For the product "Miere din Codrii Moldovei" packed in jars, the label will be attached on the lid of the jar so that the jar will be opened only after breaking the label.