

## COUNCIL REGULATION (EC) No 509/2006

### 'OLEJ RYDZOWY'

EC No: PL-STG-007-0049-28.12.2006

#### 1. Name and address of the applicant group

Name of group or organisation: 'SemCo' S.G.N.i P. Krystyna Just,

Instytut Włókien Naturalnych — Tłocznia Oleju,

Krzysztof Gałkowski -Zakład Wytłaczania Oleju i Wyrób Kitu,

Zakład Doświadczalno-Dydaktyczny Uprawy Roli i Roślin, Gorzyń

Address: Śmitowo 16

64-500 Szamotuły

POLSKA/POLAND

Tel. +48 612920402; +48 603137517

E-mail: info@semco.pl

#### 2. Member State or Third Country

Poland

#### 3. Product specification

##### 3.1. Name to be registered

'Olej rydzowy'

##### 3.2. Whether the name

—  is specific in itself

—  expresses the specific character of the agricultural product or foodstuff

'Olej rydzowy' is produced from the plant *Camelina sativa*, i.e. gold-of-pleasure or false flax, known as *lnianka siewna* in Polish but popularly called *rydz*, *rydzyk*, *ryżyk*, or, more seldom, *lennica*.

Some regions of Poland only use the popular name of this plant, i.e. *rydz*, which is due to its exceptionally rusty-coloured seeds. The colour is similar to that of the mushroom *Lactarius deliciosus* (Saffron milk cap), called *rydz* in Polish and found all over the country. It is precisely because of the rusty colour of the gold-of-pleasure seeds that we call the oil made from them 'olej rydzowy'.

##### 3.3. Whether reservation of the name is sought under Article 13(2) of Regulation (EC) No 509/2006

—  Registration with reservation of the name

—  Registration without reservation of the name

### 3.4. Type of product

Class 1.5 — Oils and fats (butter, margarine, oil, etc.).

### 3.5. Description of the agricultural product or foodstuff to which the name under point 3.1 applies

'Olej rydzowy' has the appearance of a clear, transparent, oily liquid with a small quantity of sediment at the bottom and a rusty colour. Depending on whether the spring or winter variety of the plant is used (*Camelina sativa*, *Camelina silvestris*) the colour of the oil varies from golden to reddish-brown. The colour is also influenced by the temperature at which the seeds are heated. 'Olej rydzowy' has a characteristic taste of onions and mustard and a strong and rich aroma.

'Olej rydzowy' has the following physico-chemical properties:

- Acid value — Not more than 6 mg KOH/g
- Peroxide value, mval active oxygen per kg — not more than 6
- Iodine value: 140-160
- Freezing temperature: between - 15 °C and - 18 °C

'Olej rydzowy' can be stored for a long time, unlike oils of similar composition and proportion of saturated and unsaturated fatty acids. This is due to the high content of natural antioxidants of the tocopherol group (vitamin E), approx. 550-1 100 mg/kg of oil.

The content of saturated acids is low, 10-11 %, while unsaturated acids constitute approx. 90 %, of which monounsaturated 36 % and polyunsaturated between 50 % and 60 %.

### 3.6. Description of the production method of the agricultural product or foodstuff to which the name under point 3.1 applies

Step —Obtaining the seeds:

- 1 The seeds are obtained from the cultivation of spring or winter gold-of-pleasure. Depending on the species, the plant is sown in autumn or in spring.  
  
The plants are harvested once only, when the seeds have matured.

Step —Drying and cleaning the seeds:

- 2 The seeds are dried within 6 hours after harvesting. They must be dried until the humidity reaches a level of 7-12 %.  
  
This step is followed by cleaning the seeds to above 98 %.

Step —Preparing the pressing:

- 3 The first preparatory step is flaking (crushing) the seeds with a smooth roller.

Step —Conditioning the seeds:

- 4 The flaked seeds are heated to 38 °C in a kettle with either a water jacket or heated tin sheets.

Step —Pressing:

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In order to obtain oil of the desired physico-chemical properties, the pressing must take place only in presses which do not increase the temperature of the crushed seeds above the limit of 38 °C.

Step —Cleaning the oil:

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The oil is cleaned by sedimentation, i.e. a process consisting in allowing the heavier fusel oils to fall to the bottom of the container at a room temperature during 7-10 days, after which time the top layer of the oil is suitable for consumption.

The oil is not refined in any way.

Step —Storing the oil:

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The oil is stored in dry places which are not exposed to sunlight at a maximum temperature of 20 °C and a minimum of 4 °C. Correct storage has an influence on the quality of the oil.

Forbidden practices:

In order to maintain the specific character of 'olej rydzowy', the following are not allowed during production:

- heating the seeds to a temperature exceeding 38 °C,
- using oil presses that significantly increase the temperature of the pulp above the fixed temperature of 38 °C,
- increasing the pressure during oil pressing above 300 A.

### **3.7. Specific character of the agricultural product or foodstuff**

The specific character of 'olej rydzowy' is due to its basic features, namely:

- exceptional taste and smell,
- colour,
- physico-chemical composition,
- possibility of long storage.

#### **Taste and smell:**

The oil differs from other products of this type by its specific taste with a distinct hint of onion and mustard, as well as a pleasant, moderately strong pure aroma.

#### **Colour:**

Gold-of-pleasure oil has a rusty colour.

#### **Physico-chemical composition:**

'Olej rydzowy' is very specific mainly due to its nutritional value and its rich chemical composition. It contains a number of components sought after in dietetics, especially polyunsaturated fatty acids (PUFA).

The content of these acids in 'olej rydzowy' is between 50 % and 60 %, with Omega-3 acids between 35 % and 40 % and Omega-6 between 15 % and 20 %. These features make 'olej rydzowy' one of the richest plant sources of Omega-3 acids known to man.

#### **Possibility of long storage:**

In spite of its high acid content, 'olej rydzowy' is durable and fit for consumption for six months after the production date, if the recommendations for storage are respected. The long shelf life is possible because of the antioxidants of the tocopherol group (vitamin E, approx. 550-1 100 mg/kg of oil) which the oil contains. This is yet another feature that confirms the particular character of this product.

### **3.8. Traditional character of the agricultural product or foodstuff**

#### **Traditional raw material:**

The basic material for the production of 'olej rydzowy' is gold-of-pleasure (or false flax), a plant belonging to the *Cruciferae* family and of the genus *Camelina*, which includes a number of species. Two species of gold-of-pleasure are used for the production of oil: the spring species (*Camelina sativa*) and the winter one (*Camelina silvestris*). Gold-of-pleasure is 30-100 cm tall and has an inflorescence in the shape of an elongated yellow-white bunch. The fruit of gold-of-pleasure is a pear-shaped silique (3-7 mm), which soon becomes woody and hard and contains about 10 rust-coloured or rusty-yellow seeds, about 0,6 to 2,6 mm long. The plant can be grown on lighter and sandy soils.

The plant originates in the Middle East. According to research into the history of the cultivation of the plant and the pressing of oil from it, its seeds were found on Polish territory at excavations in Strzegom Śląski dating from the Bronze Age, i.e. 3 000 years ago (this information is confirmed in an article from 1966 by Professor F. Dembiński entitled '*Rośliny oleiste*' ('Oil plants')). In his works on the gold-of-pleasure plant, the botanist Professor Marian Nowiński has highlighted the discovery of its seeds at archaeological sites that reveal the activities of Proto-Slavic peoples of the Lusatian Culture, as well as in the area of Biskupin, a settlement from the eighth century B.C. and the most famous archaeological reserve in Central Europe.

The large number of Polish popular names for this plant, namely: *rydz*, *rydzyk*, *ryżyk*, *lennica*, is further testimony to the fact that gold-of-pleasure seeds have been used for many centuries (cf. *Szczegółowa uprawa roślin* ('Plant cultivation in detail'); a collective work from 1956 edited by Professor Anatol Listkowski).

According to the popular saying '*lepszy rydz niż nic*' ('better something than nothing') which is often repeated until this day, it is better to have at least this ubiquitous '*rydz*', i.e. gold-of-pleasure, than to be left empty-handed. This saying, too, confirms the enormous popularity of this plant in the community.

The popularity of this plant is also due to its modest requirements as to the soil, and its short vegetation period of 70 to 100 days.

According to Professor Tadeusz Zając, until the nineteenth century the cultivation of gold-of-pleasure dominated on worse soils, where it was a very popular oil plant, and its seeds were used for 'olej rydzowy' (article in the review *Magazyn Farmerski*, July 2006).

The prevalence of gold-of-pleasure allows us to assume that oil pressing was known since time immemorial to Slavic tribes living on current Polish territory. For centuries, 'olej rydzowy' was consumed by the community although its chemical composition was not known.

#### **Traditional method:**

The tradition of pressing oil from gold-of-pleasure seeds goes back a very long time. Archaeological discoveries have shown that the inhabitants of the site of Biskupin were familiar with the process of pressing oil from gold-of-pleasure seeds. Besides gold-of-pleasure seeds, archaeologists at the site have also found the remains of appliances for pressing oil. Other archaeological discoveries confirm that oil from gold-of-pleasure seeds was also pressed after the end of Lusatian Culture, as Slavic tribes were settling in Polish territory.

In his book *Olejarnia dworska z XVII wieku* ('Manor oil mills in the seventeenth century'), H. Samsonowicz describes in detail manor and peasant oil mills from that time and the machines used for pressing oil at the time, such as wedge presses, as well as the method used to drive in the wedges. The book also mentions the fact that oil from gold-of-pleasure seeds was popular among the Polish landed nobility. Yet another confirmation of this information is the exhibition at the Agricultural Museum in Szreniawa of machines and appliances used for oil pressing at Polish manors.

H. Olszański writes in his book *Tradycyjne olejarstwo w Polsce* ('Traditional oil-milling in Poland') that, as technological thinking progressed in the nineteenth century, traditional appliances for oil milling such as querns, mortars or wedge presses were replaced by heating systems with stirrers, appliances with several rollers for flaking the seeds and lever presses, and later hydraulic presses driven by thread-mills, then by steam engines, motor engines and more recently by electric engines. Machines of this type are used until now, while the basic way of obtaining oil, i.e. not increasing the temperature of the crushed seeds beyond 38 °C, has not been changed.

This feature confirms the traditional character of 'olej rydzowy', not only because of the unchanged production process, but also since it testifies of how excellent this process is.

#### **3.9. Minimum requirements and procedures for checking the specific character**

With regard to the specific character of 'olej rydzowy', the following should be particularly checked:

The quality of the raw material used for production, i.e.:

- checking how clean the seeds are, and
- checking the process of crushing, heating and pressing the seeds.

The quality of the finished product, i.e.:

- the characteristic taste of onion and mustard,
- the pleasant, pure aroma,
- the clarity of the liquid, coloured golden to brownish, with a small amount of sediment at the bottom.

Checks will be carried out at least once every year.

#### **4. Authorities or bodies verifying compliance with the product specification**

##### **4.1. Name and address**

Name: Główny Inspektorat Jakości Handlowej Artykułów Rolno-Spożywczych

Address: ul. Wspólna 30

00-930 Warszawa

POLSKA/POLAND

Tel. +48 226232901

Fax +48 226232099

Email: —

<input checked="" type="checkbox"/> Public authority	<input type="checkbox"/> Public agency
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##### **4.2. Specific tasks of the authority or body**

The above inspection authority is responsible for verifying the entire specification.