

## **GEOGRAPHICAL INDICATION: KUTAISI GREENS**

**(Kutaisi Greens)**

**NUMBER OF REGISTRATION: 20**

**DATE OF REGISTRATION: 2016-04-01**

Name

"Kutaisi mtsvanili"

Description of the product

Special qualities and high quality of "Kutaisi Mtsvanili" are conditioned by the unique microclimate conditions within the territories adjoining the middle end of the Rioni River, which further the growing there of greens with special taste and fragrance. The peculiar local climatic conditions have a special favorable effect on such leaf vegetables as: dill, parsley, coriander and celery. The greens grown in the region enjoy high reputation and are in great demand both on the Georgian and foreign markets, primarily in Ukraine and Russia, as well as in some European countries.

Dill (*Anethum graveolens*) is an annual herb in the celery family *Apiaceae*, with slender hollow stems and alternate, finely divided softly delicate leaves; the ultimate leaf divisions are broad and threadlike. After emergence of 3-4 primary leaves, rapid stemming begins and in 35-40 days from sowing the stem's length reaches 8-10 cm, being shaped as an umbrella on the 50-60 day. Dill is a long-day plant. Under conditions of extended radiation it quickly stems. Under conditions of weak radiation the total yield of dill reduces and its quality deteriorates, especially in terms of fragrance. Its green leaves are used as aromatic dressing for different dishes. Its young shoots can also be used as greens. By its chemical composition the dill is considered as vegetable of high nutritive value. On average, it contains 83.8 % water, 3.5 % nitrogenous substance, 7.3 % carbohydrates, including dietary fiber – 2.1 % and ash – 2.4 %. The dill contains aromatic essential oils, large quantities of vitamins C, B1, B2, PP, P, carotene, potassium, calcium, phosphorus, iron and salts of other microelements.

Parsley (*Petroselinum*) belongs to the Umbelliferae family of plants. It is an annual or biannual herb. Three types of parsley are known. Garden parsley (*Petroselinum sativum*) is a biannual herb in temperate climates; in the first year, it forms a rosette of tripinnate leaves 10-25 cm long with numerous 103 cm leaflets and a taproot; in the second year, it grows a flowering stem to 75-150 cm tall with sparser leaves and flat-topped 3-10 cm diameter umbels with numerous 2 mm diameter yellow to yellowish-green flowers. The seeds are ovoid, 2-3 mm long, with prominent style remnants at the apex. Parsley grows best in moist, well-drained soil, with full sun. It grows best between 22–30 °C, and usually is grown from seed. High temperature, especially as it is associated with the lack of moisture in soil, increases the content of essential oil in parsley, intensifying thus its aroma, i.e. improves the quality, although the yield in this case reduces. Parsley is a sun-loving plant. The chemical composition of parsley leaves is on average as follows: dry matter – 14.9 %; nitrogen – 3.7 %; carbohydrates – 9 % in total, including dietary fibers – 1.5 %, ash – 1.7 %. Parsley is rich in vitamins C (150 mg), B1 and B2, folic acid, carotene provitamin A, mineral substances and essential oils. It is used both fresh and dried in culinary and canning industry.

Coriander (*Coriandrum sativum*) is an annual herb in the family Apiaceae. It is a soft plant growing to 50 cm tall. The leaves are variable in shape, broadly lobed at the base of the plant, and slender and feathery higher on the flowering stems. The flowers are borne in small umbels, white or very pale pink, asymmetrical, with the petals pointing away from the centre of the umbel longer (5–6 mm) than those pointing toward it (only 1–3 mm long). The fruit is a globular, dry schizocarp 3–5 mm in diameter. Although sometimes eaten alone, the seeds often are used as a spice or an added ingredient in other foods. Coriander contains water – 92.2 g, proteins – 2.1 g, carbohydrates – 1.9 g, dietary fiber – 2.8 g, also carotene, volatile oils, vitamins C, B1 and B2 and potassium. Its seeds contain up to 2 percent of essential oil and other useful substances

Celery (*Apium graveolens*) is a biennial plant in the family Apicaceae which produces in the first year an upright rosette of leaves (40 to 60 cm in height) with closely appressed succulent leaf stalks. In the second year, it produces a tall flowering stem with terminal an axillary umbels of small, greenish-white flowers that give rise to tiny 1.5 mm long fruits. Two types of celery are known: leaf and root. The first has rather weak coloring and less fibrous well-developed palmate leaves. These cultivars have well-developed roots, but without a taproot. The blanched (etiolated) stems together with leaf blades, raw or boiled, are used for eating. Leaf celery types predominate generally in Georgia. Celery is rich in vitamins A,

B, PP, C, K, iron, magnesium, phosphorus, folic acid, sodium and manganese. It also contains essential for human acids and volatile oils

#### Geographical area

The production area of "Kutaisi Mtsvanili" includes:

Vani district: Chkvishi, Shuamta, Mtisdziri, Tobanieri, Tsikhe Sulori, Amaghleba, Zeindari

Samtredia district: Jikhaishi, Etseri, Ghaniri, Sajavakho, Vazisubani, Bashi, Kulashi, Mitsabogira, Ianeti, Akhalsopeli.

Terjola district: Godogani, Nakhshirghele, Simoneti

Zestaponi district: Ajameti, Sviri

Baghdati district: Dimi, Rokhi, Didvela, Vartsikhe

Khoni district: Gubi, Kukhi, Akhalsopeli, Kutiri, Mitsatsiteli, Ivandidi

Tskaltubo district: Geguti, Patriketi, Tkachiri, Opshkviti, Sakulia, Mukhiani, Meskheti, Ukaneti, Maghlaki, Kvitiri, Partskhanakanebi, Gumbra, Banoja, Gvishtibi, v. Tskaltubo, Opurchkheti, Rioni, Gumati.

#### Link with the geographical area

The territorial units of Tskaltubo, Vani and Samtredia are located in a semi-humid subtropical region. The average temperature of the coldest month, January, varies within +4.1-5.3 °C, while that of the hottest months – July and August equals 24-25 °C. Average precipitation makes 1500-1700 mm/year; in the vegetation period the accumulated temperatures above 10 °C makes 4200-4500°, which makes it possible to gather several harvest during a year. The average estimate humidity is 73 %. The length of annual solar

radiation exceeds 2000 hours. The maximum autumn-spring average accumulated temperatures, natural ventilation (the prevailing east wind), the proximity of subsoil waters (influencing the soil temperature) and high temperature range have a particular effect on the formation of the product's unique taste and aroma. The product obtained under such conditions is characterized of particular extended shelf-life under proper storage conditions (approximately up to a month).

#### Specific steps in production

The "Kutaisi Mtsvanili" is produced under two types of greenhouse conditions and in open field. The ideal temperature for growth and development is 22-30 °C. It is sown in 8-12 cm rows at a 5 cm distance, approximately at 1-1.5 cm depth.

Harvestable, when reaches 18-22 cm. To grow certified greens, the rotted organic fertilizer (manure) in the amount of 30-40 m<sup>3</sup> is applied on 1000 sq meters, which enriches the soil with minerals and improves its structure (loosens and ensures aeration).

Dill. Grows optimally under conditions of enough moisture in 7-10 days, depending on the ambient temperature. For best results dill should usually be started indoors or in a glasshouse and transplanted to the garden or field. Under greenhouse conditions it is sown during September and harvested till the end of April, approximately 11-12 times. Its average yield makes about 0.35 kg per square meter, for one harvest, or about 4-5.5 kg per meter in total. Under conditions of open field, it is sown from April and is harvested during several months, approximately 3 times.

Parsley. Parsley grows best in moist, well-drained soil, with full sun, sprouting in 20-25 days. It is sown in the end of August through September and is harvested till the end of April, approximately 5 times. Its average yield is about 0.9 kg per square meter, for one harvest, or about 4.5-5 kg per square meter in total. Under open field conditions, it is sown in February and is harvested during the year 4-5 times. Its average yield makes about 1.3 kg/m<sup>2</sup>, for one harvest, or 5 kg/m<sup>2</sup> in total.

Coriander. Grows optimally under conditions of sufficient moisture in 7-10 days. Under hothouse conditions, it is sown in the end of August through September and is harvested

till the end of April, approximately 5-7 times. Its average yield is about 0.9 kg/m<sup>2</sup>, for one harvest, or about 4.5-5 kg/m<sup>2</sup> in total. Under open field conditions, it is sown from March and is harvested during several months, about 3 times. Its average yield makes about 1.3 kg/m<sup>2</sup>, for one harvest, or 3-5 kg/m<sup>2</sup> in total.

Celery. Grows optimally under conditions of enough moisture in 20-25 days Under greenhouse conditions it is sown in the late August through September and is harvested till the end of April, approximately 4-5 times. Its average yield makes about 1-1.5 kg per square meter, for one harvest, or about 5-5.5 kg per meter in total. Under conditions of open field, it is sown in August and is harvested from March during the year 4-5 times. Its average yield makes about 1.3 kg/m<sup>2</sup>, for one harvest, or 5-5.5 kg/m<sup>2</sup> in total.

#### Specific rules concerning packaging

Greens should be sold in new and clean packaging. The material used for this purpose must ensure good conditions for ventilation, transportation and storage of the product. The product should be packaged in ... kg lots.

#### Specific rules concerning labeling

Each packaging should bear the logo of the product origin and the words "Kutaisis Mtsvanili", as well as the attached numbered label indicating the appellation of origin.

#### Specific rules concerning control:

The official control of over compliance of the product "Kutaisis Mtsvanili" with the specifications shall be exercised by the Ministry of Agriculture of Georgia.