

“ხეთის მანდარინი”/“Khetis Mandarinini”

Registered in Georgia as a Geographical Indication,

Registration № 23, Registration date: 22/12/2021¹

PRODUCT TYPE FOR WHICH REGISTRATION OF GEOGRAPHICAL INDICATION IS REQUESTED: TANGERINE

1.6. Fruit, vegetables and cereals fresh or processed

NAME AND ADDRESS OF APPLICANT: Association "Kheta Tangerine"; Khobi Municipality, Kheta Administrative Unit.

1. SPECIFICATION:

1.1 NAME: “ხეთის მანდარინი”/“Khetis Mandarinini”

1.2 PRODUCT DESCRIPTION:

GI “ხეთის მანდარინი”/“Khetis Mandarinini” is used for "Unshiu" (C. Unshiu Marc.) Georgian variety of tangerine cultivated during many years under the influence of local agro-climatic factors.

“ხეთის მანდარინი”/“Khetis Mandarinini” shall have the following features to be marketed:

PHYSICAL CHARACTERISTICS:

Size: no less than 54 mm;

Weight: no less than 60 g;

Peel: perfectly peeled out.

Segments – perfectly separating, quantity – 9-13. Has no seeds.

CHEMICAL CHARACTERISTICS:

Juice Content: 30-40%;

¹ The list of Georgian AOs and GIs - https://www.sakpatenti.gov.ge/en/state_registry/

Sugar Content: >8.7 Brix;

Acidity: 0.9-1%.

ORGANOLEPTIC CHARACTERISTICS:

Shape: Spherical or elliptical-spherical;

Color: Golden-yellowish to orange with ripening;

Taste: Fresh sour-sweet, sugar content balanced with acidity and distinct flavor.

Furthermore, the fruit shall be healthy (rotted or mildewed or otherwise damaged fruits are removed), pure and free from foreign substances, smells and tastes.

1.3 GEOGRAPHICAL AREA OF PRODUCTION

Area of production includes Khobi Municipality villages: Kheta, Larchva and Okhvamekari. Area for tangerine plantations is 125 h.

1.4 LINK WITH GEOGRAPHICAL AREA

“ხეთის მანდარინი”/“Khetis Mandarinini” exclusivity, uniqueness and high quality is provided by number of factors. Citrus gardens are cultivated on the Southern slope of Urti Mountain, on 30-80 m above sea level, approximately, open from Black Sea and cold air masses are not damped at the inversion, so said territory is warmer than other citrus zones of Georgia at vegetation period.

Geographical area is characterized with humid subtropical climate, not great amount of precipitations (moderate annual precipitations are 1700-1800 mm, air optimal relative humidity is 74-85%), sum of active temperatures is 3500-5000°C, air annual moderate temperature is +14.8°C. the coldest month is January, when temperature is +6.7°C.

Sea nearby disposition has great influence on air daily variation (from day to night). Fluctuations are especially sharp in the autumn, when sea temperature often exceeds surrounded air temperature. Such temperature fluctuations have direct influence on fruits color, their equal and early ripening, and provide sugar-acid optimal balance, as well.

The soils of geographical area are mostly humus-carbonated (humus content reaches 9-10%) and characterized with small thickness and it is heavy leptosol. Humus carbonated soils chemical reaction on upper layer is alkaline, sometimes even – slightly acidic because of carbonate acid lime content.

The most of humus carbonated soils are close to clay in accordance of mechanical content thereof, and characterized with good drainage because they are intensive leptosol. Fruit chemical content and high quality depends on local soil peculiarity.

The tangerine belongs to evergreen plants group, citrus genus and family Tegan originated from South China and South Indochina. Italian tangerine (*Citrus deliciosa*) was the first brought in 1885 in West Georgia; then, later, in 1896 – Japanese tangerine Unshiu (*C. Unshiu Marc*) industrially was cultivated since 1901. Tangerine cultivation on the territory of Khobi Region began since 1930.

After study of Georgian Unshiu in Japan, was concluded that new forms of local tangerine were created under long time influence of different agro climatic factors of Georgia, and old name – Japanese Tangerine more is no longer used, as a result.

Long-term tradition of fruit care accounts almost a century, and the usage of new "know-how" and technologies have made significant contribution not only on tangerine areas growth, but also in improving its quality.

Despite numerous changes in agricultural technologies, all the basic elements of traditional geographical area and cultivation have remained unchanged. This primarily concerns technical aids of processes (pruning, formation, wild plants removal, and fruits removal from young plants).

1.5. PRODUCTION

“ხეთის მანდარინი”/“Khetis Mandarin” harvest takes place in 10-15 days earlier of end of October. The harvest begins when 2/3 of fruit peel becomes yellow, and is executed by hands with special scissors to avoid fruit damage and keep high quality. Mineral and organic fertilizers are added in the soil at the spring and autumn: 60% of nitrogen fertilizers are added at the spring, and 40% – after flowering.

“ხეთის მანდარინი”/“Khetis Mandarin” FERTILIZING SCHEME (ON A PLANT)

Fertilizer	Average Amount by Age		
	1-5 years	6-10 years	up to 10 years
Organic	25 kg	40 kg	60 kg
Nitrogen	30-80 g	100-150 g	200-250 g
Phosphorus	150 g	300 g	
Potassium	50 g	100-120 g	
Microelements	30-50 g	80-150 g	200-250 g

Tangerine plant is pruned, became sparse after cutting of excessive young branches, growing tops and old branches are cut out, flowers are normalized, and plant is fertilized in accordance of given scheme to provide maximum production, growth and put off.

Annual limited harvest on 1 h in geographical area is 30 tons.

1.6. PACKING

“ხეთის მანდარინი”/“Khetis Mandarin” fruits are divided in 4 groups in accordance of diameters:

- I 70 mm and more;
- II 70-65 mm;
- III 65-60 mm;
- IV 60-54 mm.

All citrus fruits shall be sorted in packing pavilions on special sorting machines in accordance of fruit diameters, than packed in universal boxes of following sizes: width – 36 cm, height – 13cm, and length – 58cm.

Equal size and quality fruits are packed in one box. Fruits are stored in dry condition under optimal temperature – 3-5°C, optimal humidity 80-85%, and on 20-25cm height above the floor. The storage is ventilated often with air mass to avoid fruit wetting.

A packer notes fruits amount, quality, time of packing, and puts control number and producer name on the side of box after packing. Then the box is sent to the storage or market.

At fruits packing in the paper the loss is minimum, and it provides its storage during 3 months after harvesting, without paper it can be kept no more than 4 weeks.

1.7. CONTROL

State control for observance of “ხეთის მანდარინი”/“Khetis Mandarini” specification shall be carried out by Ministry of Environmental Protection and Agriculture of Georgia, specifically the Food Safety Agency.

Literature Used:

1. I. Lekveishvili, I. Beraia, Subtropical Cultures;
2. I. Lekveishvili, Scientific Bases For Citrus Production;
3. Agricultural University of Georgia, Subtropical Cultures;
4. V. Topuridze, M. Tabliashvili, V. Shanidze, Citrus;
5. Agroindustrial Committee of Soviet Georgia. State Landscape Institute of Georgia Sakskhmitsproekti (Georgian House And Landscape. Landscape Scheme of Khobi Region of Soviet Georgia;
6. Scientific Research Center of Agriculture – Agrotechnology of Citrus; Agricultur Ministry of Georgia, Sample Agricultural Practice in Tangerine Production;
7. D. Gabunia, M. Kvimsadze, E. Gabunia, Geographical Indications Quality and Development.

KHOBI MUNICIPALITY

