

Specification of Guanxi Mi You

1-Name of Product

琯溪蜜柚 Guanxi Mi You

2-Description of Product

Guanxi Mi You is originated from Pinghe County, Fujian Province, where it already has five hundred years of cultivation history. As one of the famed local specialties of Fujian Province, Guanxi Mi You was once chosen as an imperial court tribute during the Qianlong Era of the Qing Dynasty. The fruit is well-known both at home and abroad for its distinguished qualities such as large size, rich fragrance, thin peel, tender flesh, succulence, small number of seeds, long shelf life and so on. It is recognized as one of the best varieties of pomelos in existence.

With crisp and tender fruit flesh, Guanxi Mi You is full of juice, and has a delicious vinegary and sweet flavor. Per 100ml of juice, the sugar content $\geq 8.5\text{g}$, the acid content $\leq 1.1\text{g}$ and the content of dissolvable solids $\geq 10\%$. The fruit contains many mineral substances. And the rate of edible part $\geq 55\%$.

1. Appearance features

The fruit is of an inverted oval shape with a flat top and an apparent circle marking around the tip. Its skin is smooth, thin, and bright orange in color (a yellowish green color at the beginning of harvest). It is known for its good taste and peculiar flavor due to its cross embedded cells, juicy smooth texture and sweet-sour flavor.

2. Physical and chemical index:

Single Fruit Weight:

A single fruit weighs 1,000 g to 1,750 g.

Fruit shape:

It has the connatural features of the species, a smooth skin, few wrinkles and flat oil droplets.

Color:

It is even colored with orange. A yellowish green color is allowed at the beginning of harvest.

Fruit skin:

The fruit skin is smooth. The area covered by scars, rust louse harmed spots, pesticide stains, bruises and other blemishes should be less than 1/10 of the total skin area. There should be no serious sun-burned spots, signs of pest bruises and mechanically-caused injuries, rotten fruits or fruits that will cause rotting.

Inner quality:

Dissolvable solids $\geq 10\%$

Sugar content $\geq 8.5\%$

Total acid amount $\leq 1.1\%$

Skin thickness \leq 1.5cm

Edible percentage (by average) \geq 55%

Tolerance:

1. Single fruit weight: Due to natural loss of weight during transportation, the number of fruits of different grades should not exceed 5%.
2. Fruit skin defects: area of pest bruises, scars and dirty fixtures should not exceed 2%.

3-Defenition of the Geographical Area

The production regions for geographic indication protection of Guanxi Mi You include the hills, plains, paddy fields and eyots below 500 meters altitude in the 16 towns and villages in Pinghe County, which are Wenfeng Town, Shan'ge Town, Xiaoxi Town, Banzi Town, Nansheng Town, Wuzhai Village, Guoqiang Village, Anhou Town, Daxi Town, Xiazhai Town, Luxi Town, Qiling Village, Jiufeng Town, Changle Village, Xiufeng Village and Anhou Farm.

4-Proof of origin

Information of the fruits like planting location, general planting practice, date of collection, post-harvest processing, period of storage, conditions for storage and storage registration can all be traced and detailed in the system established by the Production Association of Guanxi Mi You. The unique code located on each outer package provides all related information of the product such as planting location, producer, factory for post-harvest processing and packaging date.

5-Method of Production

1. Garden selection and planting density: red soil hills, plains, paddy fields and eyots with thick soil layer, good permeability and the organic content $\geq 1.5\%$. 600 trees are planted per hectare.
2. Soil conversion and fertilization: as for the young pomelo garden, use interplant green manure, and dig channels where the green manure can be ploughed in, and apply more organic fertilizer after this. For the adult pomelo garden, make sure the ecological environment and the biota in the garden are well protected. All of the soils should be fertilized to increase the fertility. To meet the grow requirements, apply organic fertilizer of 12,000-15,000 kg and hydrated lime of 450-900 kg to the soil per hectare to keep the soil's PH value > 5.0 and organic matters $> 2.0\%$.
3. Scientific fertilization management: use both organic fertilizer and inorganic fertilizer. Organic fertilizer should account for 40-50% of the whole year's fertilization. The young trees should be fertilized quite frequently with light fertilizer using the rapidly available nitrogen as the main fertilizer with phosphate and potassium fertilizers as complement. For the adult trees, heavy fertilizer should be applied after picking. The trees should be well fertilized so as to promote several stem and flower growths. In addition, fruit-protecting fertilizer and fruit-strengthening fertilizer should be applied in addition to the adding of fertilizer before picking. References for normal fertilizing amount: apply pure nitrogen fertilizer of 1.2-1.5kg (organic N $>40\%$) per plant per annum for plants with an output of 100kg. The ratio should be N:P₂O₅:K₂O:CaO:MgO = 1.00:(0.54-0.59):(0.96-1.05):(1.33-1.37):(0.24-0.27). This should be complimented with an appropriate amount of boron, zinc, molybdenum and other trace elements to promote the trees' nutrient balance.

4. Proper trimming: Take pulling and shaping steps to promote the efficient growth of the young trees. Trim the over-dense branches, and those descend too far or branches with excessive growth. Adult trees should be trimmed so as to give the trees good ventilation and sunlight exposure. Trimming should be carried out twice in a year: once in summer and once in winter. In summer, the trees are trimmed to cut off the insect-infected branches, overcrowding branches, weeping branches, branches which cause too much shading, and those branches which drop too much blossom and fruit. In winter, the trees are trimmed to cut the projecting branches from the tree crown, overcrowded branches and insect-infected branches.

5. Tree girdling: For trees with strong vitality, girdling on the trunk or main branch can be operated during the beginning of November to mid December. Girdling effectively promotes flower bud differentiation and enhance flowering rate.

6. Flower and fruit thinning: This needs to be done in the year of heavy blossom. Flower thinning helps to reduce the unnecessary consumption of nutrition and therefore benefits the fruiting. It should first be applied on the anthotaxy and then the bud. Fruit thinning needs to be done after the end of physiological fruit drop. Fruits with abnormal shape or too small in size should be taken off. This stops the drop of fruit quality resulted in too many fruits on one tree.

7. Comprehensive prevention and control against insect, disease and damage: Pay attention to the prevention and control against pests such as anthracnose, red spider, leaf-mining moths. Attention should be paid to make sure that combine the tasks of integrated control and prevention together.

8. Timely harvesting: for altitude below 100 meters, begin from the last ten days of September; for altitude between 100-300 meters, the first ten days of October and the last ten days of October for altitude above 300 meters.

6-Link to the Geographical Area

The growing area of Guanxi Mi You covers between 24.02 and 24.35 degrees north latitude and 116.53 and 117.31 degrees east longitude. The place of origin of Guanxi Mi You is comprised of sixteen towns and villages (farms) of the Pinghe County of Fujian Province. This area belongs to the south-Asian subtropical monsoon climate, and is situated in a mountainous area just inland from the coast. The highest mountain (Daqin Mountain) in this area is 1544.8 meters above sea level. The terrain here is high in the northwest and low in the southeast, with hills running up and down. The soil is mostly composed of hill red soil. It has a unique climate.

Under a temperature conditions of an annual average temperature between 14.7-24°C, the average temperature in January between 3-20°C, the annual accumulated temperature of daily averages higher than or equal to 10 °C between 4800-8800 °C , and the absolute minimum temperature of -9°C below the freezing point, the shaddocks can bloom and bear fruits, they perform the best especially during the medium range of the above temperatures. The annual average temperature in Pinghe County is between 18.5-21.3 °C , the average temperature in January between 9.5-13.1 °C , the annual accumulated temperature of daily averages higher than or equal to 10°C between 6740-7488°C and the absolute minimum temperature -2.9°C. The temperature conditions in Pinghe County rightly fit between the preferential ranges. Therefore, the area is most suitable for the growth of pomelo trees in terms of climate and ecology. Due to the long term growth under this type of

ecological conditions, Guanxi Mi You of Pinghe County has the special characteristics of sweet-and-sour flavor

The annual average precipitation in Pinghe County reaches 1664-1938mm, which can rightly meet the requirements of normal growth for Guanxi Mi You. While the annual hours of sunshine amount 1758-1852 hours and most days between August and October are sunny, which are conducive to the production and accumulation of sugar, acid and vitamins. All of the elements contribute to the sweet-sour flavor.

There is fresh air and pollution-free water resource in Dongshan County. The land is characterized by its thick soil layer and loose and fertile soil. With a long history of planting Guanxi Polemo trees, a set of planting techniques have been developed on soil conversion and fertility improvement, fertilization, pruning, comprehensive prevention and control of disease and pest damages, and timely harvesting in order to fully develop its characteristics.

7- Inspection Body

Dongshan Division, Fujian Entry-exit Inspection and Quarantine Bureau

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Postcode: 363000

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8- Labelling

For the pre-packed Guanxi Mi You, the labels and pictorial markings for handling on the packing cases shall be in compliance with GB7718

General Standard for the Labeling of Prepackaged Foods and GB 191
Packaging - Pictorial markings for handling of goods.