

Product Specification Of Jinxiang Da Suan

1-Name of the Product

金乡大蒜 Jinxiang Da Suan

2-Product Description

Jinxiang Da Suan is one kind of garlic harvested from Jinxiang County of Shandong Province. The bulb of Jinxiang Da Suan is big, which is 5-7cm in diameters, 40-80g in weight and has 8-11cloves in outer layer. The garlic with regular oblate shape is bright white and tastes mild hot, in which the cellulose is no more than 0.7%, the total sulfur is not less than 0.9% and the water content is not less than 60%.

3-Defenition of the Geographical Area

The specific place of origin of Jinxiang Da Suan includes the following town: Inxiang town, Gaohe town, Puji town, Huji town, Yangshan town, Yushan town, Mamiao town, Jishu town, Xinglong town, Wangpi town, Huayu town, Sima town and Xiaoyun town, which cover a total area of 885 square kilometres.

4-Proof of origin

Jingxiang Da Suan refer to the Da Suan(Chinese pinyin for garlic) named after the Jinxiang County, which is produced in the area specified in the No. 4 Announcement of AQSIQ in 2003 according to the standard and technical rules of PGI product of 'Jinxiang Da Suan'.

All garlic materials come from private or contracted planting bases. The material incoming records of the company can clearly show in which piece of field in the protection area the garlic materials grow and are purchased, the purchase date and time, volume and detailed information on the piece of field.

The processing companies do sanitary registration in accordance with the requirements on exported products. They have a normative system to record information of the process from materials to the final goods and a product track system.

A batch number is printed on the outer package of garlic products for export, which can precisely reflect such information as the name of manufacturing company, processing date and base number, etc.

The garlic can be traced back through the following flow chart:

The information in the label of end products — the inspection report of end product — the inspection of semi-final product — ex-warehouse record of raw materials — warehouse entry record of raw materials — the incoming record of raw materials— garlic growing base.

5-Production Method

5.1 Selection and treatment of seed bulbs.

Only bulbs with pure color, weighed not less than 5g, no overlapped cloves and free from rot, pest, cut, disease and sprouting, can be chosen as seed bulbs. The seed bulbs shall be placed in the sun for 2-3 days before planting.

5.2 Planting of seed bulbs.

The planting period is from 8th to 15th of October. No more than 350,000 seed bulbs can be planted in one hectare. The seed bulbs shall be covered with soil, which is 1-1.5cm thick, after being planted.

5.3 Field management

5.3.1 Fertilizing

The quantity of organic compost applied in the field should not be less than 67,500 kg/ha.

5.3.2 Plastic film covering

After sowing, the furrows shall be covered with plastic film, and the film will be broken by farmer when the sprout is 1-2 cm above the surface.

5.3.3 Irrigation

The seed bulbs can be watered in specific time during the growth period of the following year, including the late March when the seed bulb resume to green growth, the late April when the garlic scapes begin to grow and the early May when the garlic bulb begin to form after the garlic scapes are harvested.

5.3.4 Harvest and storage

The garlic will be harvested in the late May, when the leaves of lower part of stem become withering, only 2-4 leaves left green in the upper part of stem and the stem become soft. The harvested garlic shall be preserved by freezing with the temperature of $-2^{\circ}\text{C}\sim-4^{\circ}\text{C}$ between 10th and 30th of July. The storage period should not exceed 300 days.

5.3.5 Processing operation

Grading -- Top cutting – Peeling – Stem cutting – Quality check of semi-final product
– Weighing – Packing – Working code printing – Quality check of final product.

6-Link of product characteristics to the geographical area

6.1 Soil condition

The primary type of arable land of Jinxiang county is fluvo-aquic soil. The texture of the topsoil is light loam and medium loam, which is characterized by loose soil, good permeability, excellent holding capacity for water and compost, and high content of organic matters. With above-mentioned features, the land is suitable for growing crops with shallow root system including garlic, which can well-develop and come into regular shape in such soil.

6.2 Water Quality

The irrigation water of the Jingxiang Da Suan is suitable for garlic production, with the pH value of 6.8 – 8.4, rich trace elements and high content of sulphate ions between 140 and 512mg/L, which can increase the flavour of garlic and make it crispy and mild hot.

6.3 Climate characteristics:

Jinxiang County is located in the temperate zone with a semi-humid and semi-arid continental monsoon climate and is characterized by distinctive four seasons and sufficient sunshine, where the winter is dry and cold, the summer is hot and rainy, the autumn is clear and chilly and the spring is windy. It is critical growing period for garlic from March to May, when the change of diurnal temperature can be 11-15°C and the growth of garlic bulbs is accelerated . Especially in May, the average temperature in this region is above 20°C, the average daytime is 8.4 hours and the sunshine rate is over 60%, furthermore, the sunshine radiation can reach 14.88 kcal/cm² on the average in peak time.

From December 10th to February 10th of the following year, the average temperature is 0.4°C and the minimum temperature is above -7°C, as is conducive for garlic to live through the winter safely. Furthermore, longer vernalization time is favourable to form more cloves in the garlic.

6.4 Human factor:

It has been a long history since Jinxiang County grew garlic. It is recorded in the county annals that the Jinxiang White Garlic has been planted since the beginning of the Eastern Han Dynasty which is 2000 years ago. The garlic planting area was about 200 hectares at the beginning of the last century, 330 to 700 hectares at the middle of last century, 40,000 hectares in this century.

Based on the rich experiences of garlic planting, air-drying and processing accumulated year after year, an advanced concept of garlic planting has been created, which requires the selection of top quality seed bulbs, shallow sowing, manuring soil before planting, watering frequently and harvesting early considering the weather. In order to maintain the garlic the original bright white colour, bamboo tray is used to dry it, which can ensure the garlic to be dried completely and evenly. Furthermore, arc-shaped knife has been invented to improve the garlic quality in processing.

7- Inspection Body

Shandong Entry-Exit Inspection and Quarantine Bureau

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8- Labelling

The special label of PGI product shall be applied in the sales package with the name of production area on it.

8-Local Legislative Requirements

<The provisional regulation of the Jinxiang government on the control over the application of PGI product label of Jinxiang Da Suan>