

Peanut Butter Processing technology

Peanut butter products are popular and popular foods. They are well-flavored and well-suited for seasonings. They are high in peanut protein and rich in multivitamins. They have the unique effects of health care, beauty and anti-aging. Peanut butter is on. Since the mouth food, it is suitable for the fast-paced needs of modern life. Compared with common peanut edible methods, it is more nutritious, healthy, palatable, and extensive, and peanut butter is a food industry with high technology content, good product quality and high economic efficiency in peanut processing industry. Its products are deeply favored by customers. Favored, the market has broad prospects.

The production line mainly consists of peanut baking machine, peanut conveyor, peanut peeling machine, peanut selection belt, peanut crushing coarse grinding machine, peanut mixing mixer, peanut refining machine, peanut cooling machine and filling machine. The equipment can produce peanut butter, stable peanut butter, smooth peanut butter, salted peanut butter, sweet peanut butter and other peanut butter. It can also produce sesame sauce.

China's peanut resources are extremely rich, with an annual output of more than 500,000 tons, accounting for 25 to 30 intestines of the world's total output, ranking second in the world. Due to the special flavor and rich nutritional value of peanuts, it has long been loved by people.

According to the information, the United Kingdom, the United States, the Netherlands, etc. are popular with peanut butter. Especially in the United States, like the Coca-Cola and Hanburg bags, peanut butter has become a part of its culture and is eaten by families of 94%. Why is peanut butter so attractive? The reason is:

(1) Its high nutritional value (Table 1) The protein contained in peanuts is cow's milk, 7 to 8 times, and is known as "green cow milk". In its rich plant eggs

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White, not only has all the eight essential amino acids, but also has a digestibility rate of more than 96 intestines, which is a good source of protein supplement.

(2) It provides high heat and rich vitamins and minerals.

(3) It has a special flavor and a good taste.

(4) It is convenient to eat and eat a variety of foods. It is a good seasoning seasoning or seasoning food. Peanut butter has been produced in China for a long time, but it is only found in some small flower production places. The main reason is that after the peanuts are ground, the cell structure is destroyed and the oil is precipitated. Due to the difference in specific gravity and the incompatibility between the oil phase and the non-oil, it is inevitable that the grease will float and the non-fat portion will naturally settle to form a hard solid.

This inherent tendency to separate the oil sauce results in: the segregated oil loses the

protection of the fat cell membrane and quickly oxidizes to cause rancidity, thereby giving the original flavor, spreadability, sensory quality, and shelf life of the product. This is greatly reduced, which is the technical difficulty of the failure of traditional peanut butter to form large-scale production. This study is aimed at the above problems of traditional peanut butter. Based on the American famous peanut butter "5 ikppy", it has developed a rich, long-lasting, delicate taste, good spreadability and good mouth-melting properties. It has been stored at room temperature for more than one year. Stabilized peanut butter with oil sauce separation phenomenon.

Production technology

1. Production Process Stable Peanut Butter Production Process: Flowering, Shelling, Screening, Cleaning, Bake, Undressing, Picking a coarse grinding blade with a rod, fine grinding, cooling, packaging, curing, and finished product. The main procedures are described in detail below.

(1) Screening: The flowers after shelling are removed from impurities, mildew, worms and immature granules.

2) Cleaning: Peanuts are highly susceptible to aflatoxin contamination, and can be quickly detoxified by washing them quickly. Screening and cleaning processes are effective in reducing the amount of aflatoxin in peanuts and ensuring the health indicators of peanut butter.

Basic measures.

(3) Baking: A key process that directly determines the taste, taste and color of the finished product. The baking temperature and time are preferably 130 to 150 °C and 20 to 30 minutes. The degree of baking is mastered so that the flowers are light brownish yellow and produce a rich aroma. Too small flowers, aromas are too thin, too big and will be burnt bitter.

The roasted peanuts should be cooled immediately after treatment to prevent post-ripening due to the effect of residual heat, leading to peanut scorch.

(4) Undressing and picking: When the temperature of the peanuts drops below 45 °C, you can enter the stripping process, and then pick out the peanuts that have been baked too much or have not been cleaned. The peanut red dress should be cleaned as much as possible, because its presence will not only cause mottling spots on the sauce, but also make the product bitter, affecting the sensory indicators and taste. Requires that the amount of red residue does not exceed 5 intestines.

(5) Fine grinding: The coarsely ground sauce is proportioned with the flavoring material and stabilizer, and mixed, and then finely ground. The purpose of fine grinding is to further grind the sauce; the second is to mix the various materials so that the stabilizer can be completely dispersed in the sauce to achieve homogeneity of the whole system. Since the fineness of the grinding is directly related to the palatability of the peanut butter and the pros and cons of the mouth-melting, the flower cells are mostly at about 40 μm, so the grinding fineness must be lower than this value, otherwise the product will have a rough feeling. The test results show that:

- The grinding fineness is suitable at around 7 μm. The temperature of the sauce will increase during the grinding process. If the grinding method is used once, the grinding fineness should reach 7 μm, which will inevitably cause the thermal oxidation and heat accumulation of the oil due to the high temperature of the sauce, or the destruction of the antioxidants contained in the peanut itself. The color of the product becomes darker and the quality is degraded. With the secondary grinding method, the outlet temperature of the two grindings can be controlled to be below 68 °C, which avoids the above-mentioned phenomenon and greatly reduces the wear of

the equipment. In addition, export

The temperature also depends on the residence time of the sauce in the honing. The result of the test is controlled by the outlet temperature of the secondary grinding below 65 °C, and the residence time is less than 3 minutes.

(6) Cooling: The refined sauce should be cooled immediately and re-homogenized. The cooling process is essential to ensure the quality of the peanut butter. Because the emulsified colloidal system formed just after refining is unstable, if the heat of the system cannot be quickly discharged, the emulsified network which is not completely stable and hard will be destroyed by the intense movement of molecules between the substances. Structure, re-isolated oil. In theory, the faster the system cools, the lower the temperature and the better the stability of the finished product. In actual processing, it is quickly cooled to below 3 °C and packaged, and then cooled to below 25 °C.

(7) Ripening: The so-called ripening is to let the packaged product stand for 48 hours. The purpose is also to completely stabilize the network structure in the emulsified colloid. Tests have shown that any physical or mechanical action between them can have a great impact on the stability and hardness of the sauce. Therefore, frequent movement or vibration of the product should be avoided during the curing process.

2. Main production equipment

Shelling: Peanut Sheller

Screening - mechanical vibrating screen

Stone machine

Graded vibrating grading sieve ?washing spray cleaner arch roasting drum oven tunnel oven cooling chiller stripping peanuts picking machine picking high speed electronic color sorting machine coarse grinding stone grinding steel cooling cooling scraper type sandwich reaction pot cooling fan Fine grinding colloid mill packaging squeeze filling machine