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Drying the waste generated by pressing apples using solar energy

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Annotation: The Juice developed from unripe raw materials contains a large amount of acid, low in sugar, it is sour. Apples are sent either to production or storage, depending on the quality, degree of ripeness. Depending on the degree of ripening of apples, a plan table is drawn up for storing raw materials, and according to this table, apples are ready for processing.

Keywords: apple, pressing, energy, generated, waste, solar energy

Introduction

Apple fruit contains up to 15% sugar (glucose, fructose, sucrose), organic acids (Apple, citric acid), pectin, iron from microelements, potassium, matganets, copper, cobalt, vitamins C, B1, B2, PP, provitamin A. The apple fruit has also been found to contain phosphatic acid. Apples cause a wrinkle to a number of microbes, destroy blood movement, relieve brain snoring, end perversion. It reduces cholesterol levels in the blood due to the pectin contained in apples and the corresponding fiber. A single UNED apple contains 3.5 gr of fiber, that is, more than 10% of the fiber norm that the body needs in one day. And in arched apples, the fiber content is 2.7 gr. Insoluble molecules of fibers cling to cholesterol, helping them get out of the body, thereby reducing the risk of clogged vessels, heart attacks.

At the same time, apples also have soluble fibers known as pectins, which attach excess cholesterol, which is formed in the liver, and act to release from the body. Apple juice contains a large amount of quercetin antioxidant, which, along with vitamin C, prevents free radicals from exerting harmful effects on the body. Pectin is also a substance that gives apples its main protective strength. It binds and releases harmful substances from the body, such as gashin and marimush, which enter the body. Insoluble fibers in apples prevent constipation and prevent the development of intestinal cancer in this way.

Researchers have found that eating 2 apples a day reduces cholesterol levels in the body by 16%. The same amount of apples eaten with small or medium-sized onions and 4 cups of green tea reduces the risk of heart attack by 32%. Traditionally, apples are considered a natural remedy against gastric disorders. It makes it normal for food to be digested. There are other reasons for this: apples contain Apple and wine acid, which help digestion. Apple seeds are very rich in iodine. It is said that if 5-6 apple seeds are consumed per day, The Daily need for iodine will be fully satisfied.

For the production of juice, raw materials are selected that are suitable for a pleasant stick, smoothness and beautiful color, which are required in the juice from which the content of sugars, acids, additives, concoctions and coloring substances is obtained. In canned juices, within the standard, the amount of dry matter and acidity of the raw material are normalized depending on the type of finished product. Ready-made indicators of juice mainly depend on the sugar-acid index. Since natural juice contains no auxiliary material, the main role is played by the quality of raw materials. Developed from bad and moginfested raw materials, the juice has an unpleasant odor.

The degree of ripeness of raw materials is of great importance. The cells of the immature raw material have a lot of protoplasm, vacuoles are small, the cell The amount of juice is low. All this leads to a large amount of waste output when pressing. The Juice developed from unripe raw materials contains a large amount of acid, low in sugar, it is sour. The ripening of fruits and berries after moving the structure of cells plant changing of remain qima spreading, toe presslab juice can flow in the present channel of the toe I was product yield toe six ladi. From such raw materials, The Juice is pressed with difficulty, it becomes turbid, it

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is complicated to tin and filter.

Ripe fruit contains juice 90-95%. Small defects in the fruit stem, size and shape of the MEA do not indicate an impact on the quality of the product. Reception of raw materials. Every one brought to the manufacturing enterprise the party is considered to be checked for the quality of raw materials. A batch is understood as the number of apples of the same type delivered to the plant. In this case, it is checked whether the raw materials are suitable for the certificate of one batch of product loading documents. Jo downloads in documents sender organization name, product name, and varieties of goods pomologik, orin, the number of joint with the container and the container except the weight of the period to take a break and send time score need. If an Apple is treated with chemicals, the time of processing must be written in the name of the chemical substance. The purpose of knowing this is to use substances that wash away. The chemical in the washing process.

An average sample of apples delivered to the plant is taken at a different depth. The average sample weight can be up to 100 kg. Taking him to the labaratory go and cook, lat egani, foreign spoon, O quality, O average quality separate. Depending on the result, the price and grade for the same batch product will be determined and accepted. Apples are sent either to production or storage, depending on the quality, degree of ripeness. Depending on the degree of ripening of apples, a plan table is drawn up for storing raw materials, and according to this table, apples are ready for processing.

Storage of raw materials. If the processing enterprise is fully loaded with raw materials, the raw materials received at the plant are sent to temporary storage areas. These fields are located in the form of a relay, with 4 sides open, with the top closed, the raw materials are packed in crates, without diapers. Between the stencils, the carriers can easily move bovarnishes left. During the storage of raw materials, the main biochemical processes continue in its composition. The aqueous product is transferred to a tape press. As a result of the opposite rotation of two tapes, squeeze the apples and separate the juice. The Juice separating from the apples is washed in a hunting vessel, and with the help of a pump, the YIG.in the technological system is transferred to a hunting vessel and from it ―to a heating device in the pipe‖ language.

Heat up. Mezga is heated to 90 C and cooled to 25-30 C. The cooled product capacity is transmitted from 2 tons to 5 clamping devices. Fermentation of mezga. In a special container, chemical products are prepared to Tin the Juice. First mixed 25 kg of bentanite in 225 litr of water in Pot 1. The this 2 tonna in the squatting clotting device is added to the juice from it to 50 liter, mixed for 5 min and stored for 30min. In a special container, 50 liters are added to every 2 tons of juice from a gelatine solution mixed with 10 kg of this 240 liters of water, another 30 thousand are mixed and the iana is kept for 30min. After that, the spindasol substance, which is presented in liquid form in 5-liter plastic bottles, is added to this juice every 2 tons of juice from 5 liters. It is stirred for 5 min and stored for 30-45 min and separated from the sediment.

All collecting containers and dipping devices are equipped with mixers of different construction. The juice separated from the sediment is collected in a collecting container. In a container, randolite powder is mixed every 1000 liters of water from 120 kg. This powder is insoluble in water. An aqueous mixture of randolite powder, vaacum, is transferred to the bath of the filter. Inside the filter, a vaacum is formed, and the powder is sucked into the surface of the filter material to a thickness of 4-5 sm. The water left inside the bath is pumped out of the randolith free water and the juice from the container washed into it by cleaning the inside of the bath wash is transferred using a pump.

Inside the filter, a vacuum is formed and The Juice is pushed into the filter through a randolite layer, the parra is cleaned in extremely fine maggot particles and collected in a collecting container installed at the bottom of the filter. Using blades mounted next to the filter material, the randolite layer is sheared and removed from the device using a tape carrier mounted on the side of the device. Then the juice is transferred to the collecting container, and The Juice collected in the required volume in this container is automatically passed through a rayomalic filter. After that, it is collected in a collecting container with a capacity of 1 ton. The Juice collected in the norm is transferred to the vacuum evaporator.

Packing, capping. The finished product is packaged in bottles. The bottles are washed in a washing device. Packed bottles are covered in a capping device and transmitted to a heating device. Metal jars have a production productivity of 22-220 cans per minute, they are covered in automatic or semi-automatic capping

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machines. Glass bottles are covered in automatic or semi-automatic machines of various systems. Their performance is based on the banka on pinch of the cap edges of the rotating rollers on the machines. Production productivity 1 min 70 jars is A3M-3p brand steam waacum capers bottle with capacity from 200 to 1000 sm3. Sterilization and cooling. The product is transferred to a heating device and sterilized and quickly cooled.

How high-quality and long-term preservation of canned food depends on how much of your sterilization and pasteurization processes are carried out, how high the microorganisms contained in the product are and the organization of an environment in which they cannot live. The sterilization procedure depends on the type of product, density, type of container, size. The sterilization process is carried out in special autoclaves or continuous and continuous, pressurized sterilizers. The circulating jars are cooled with running water to 30-40C. Removing the jars from the refrigerator is done using tightly closed valves, just like when loading.

Conclusion

Get concentration on steam. This device is made up of 2 stages is, plate heating cameras are located outside the steam body. Using a semi-barometric capacitor, 02-04 bar vacuum is generated inside the device. Steam boiler going from sharp steam from the special device at the required temperature 1-heater transmitted to the housing plate, 1-corps steam who separated a steam heater steam mixed with 2-steam heating plate inside the chamber of the housing heater is transmitted. In order to be poured to the required amount in Step 1, the product is forcibly repeatedly heated using a pump and developed circularly in the steam chamber.

From this, the after is transferred to the heating chamber of the 2nd body using a pump and is poured, creating a force-free llit, until the amount of dry matter is 70% condensend.

Literature used

1. Man-Veit D. Application of solar energy. M. "Energoizdat" 1981
2. Brinkward B. Solar energy for man. M. "Mir" 1976
3. Karimov I.A. Highly qualified specialists the stimulus of progress: Speech at the opening of the Academy of State. and total.page. October 3, 1995, T., "Uzbekistan", 1995, 32c.
4. 4.Karimov I.A. Our highest goal is the independence and prosperity of the Motherland, freedom and well–being of the people. Tashkent, 2000.