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PROCESSING OF MELON FRUITS IN UZBEKISTAN

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ABSTRACT

Studies have been carried out on the processing of melon products in the primary seed production of melon crops on the basis of German and local technology. As a result, the yield of dried melon products from Sakhovat variety was 20,2%, Zar gulobi variety 12,6% and Suyunchi 2 variety 13,6%. “Melon jam” is prepared from melon fruits. From 1 ton of melon fruits, 1,6 tons of jam were obtained.

KEYWORDS

Melon, variety, primary seed production, processing, dried melon, melon jam, candied fruits.

INTRODUCTION

The fruit of the melon plant is highly valued and loved by the countries of the world. Eating melon fruit in human life helps to control many physiological processes. It is used as a medicine for atherosclerosis, kidney, stomach, liver, nerve, cardiovascular diseases, bronchitis, tuberculosis, gout and anemia. Melon seed tinctures are used in the treatment of cough, skin and stone diseases.

Obtaining a dried product from a marketable melon crop using solar energy consists in using a standard, non-standard harvest of mass and clean-up collections that was not sold on time in a timely manner, as well as the use of melon seed raw materials, this makes it possible to make melon production waste-free. According to Umbetaev I., Makhmadzhanov S.P. (Kazakhstan), the drying time depends on the thickness of the layer on the sieve or tray and ranges

from 6 to 9 days [6]. Jam, candied fruits were made from melon, pickling was carried out [3; 4].

Year-round supply of vegetables and gourds is possible only when processing the entire unsold crop (non-standard marketable crop, by-product of seed production), which according to! nutritional value is not inferior to the standard part of the crop and can be used for canning, marinating, preparing a wide range of canned food [5].

Melon fruit is not only a valuable product that is eaten fresh when it is ripe, but it does not lose its taste and quality even after processing. Melon can also be used to make valuable food products. Melon contains sugar compounds such as glucose, fructose and sucrose, as well as a large amount of fiber, hemicellulose, pectin and other healing substances. In addition, melon is a valuable source of naturally distilled medicinal water. Melon is used to make jam, jam, puree, compote, povidlo, and its peel is used to make candies. Melon honey containing 60 percent sugar is made from melon juice. It is used in extracting oil from melon seeds.

15000-20000 tons of melon seeds are used annually in seed farms in Uzbekistan. As a result of processing

such amount of melon, more than 1000 tons of melon pulp can be made. This allows for additional income in farms.

RESEARCH RESULTS

In the experiment, the primary seeding of Suyunchi-2, Zar Gulobi, Sakhavat varieties of melons, which were created at the Scientific Research Institute of Vegetables, Rice Crops and Potatoes and entered into the State Register, was organized. Since the flesh of these varieties is carcillated and semi-carcillated, after the seed is removed, a part of the remaining product was dried in the sun on specially equipped machine hooks.

In this case, the melon fruits are divided into two equal parts and the seeds are removed. The cut branches were cut into slices 3-4 cm thick, peeled and hung to dry in pairs (Fig. 1).

In the second method, the melon core was cut lengthwise and placed in a dryer with a length of 11 m, made on the basis of German technology. During the drying period, the melon kernels were ventilated using a special fan (Fig. 2).



Figure 1. Method of solar air drying of melon.



Figure 2. Melon drying process in German technology

According to the obtained results, 40,16 kg of melon rinds were obtained from 198 kg of melon products of the Sakhovat variety. In this case, 157,9 kg of moisture was lost, and the yield was 20,2%. 26,13 kg of melon pulp was obtained from 207 kg of melon flesh in the Zar

Gulobi variety, or 12,6% pulp yield, and 28,4 kg of melon pulp was obtained from 208 kg of melon flesh in the Suyunchi-2 variety, and the pulp yield was 13,6% (Table 1.)

Table 1

Indicators of yield of melon products

№	Varieties	Mass taken for drying, kg	Loss of fruit juice, kg	Mass of dried product, kg	Melon peel, %
1	Sakhovat	198	157,9	40,16	20,2
2	Zar Gulobi	207	180,7	26,13	12,6
3	Suyunchi-2	208	180,0	28,4	13,6

After extracting the seeds from the melon fruits, when the pulp was removed from the pod, 34% of the pods were extracted from the Sakhovat variety, 31% from the Zar Gulobi variety, and 30% from the Suyunchi-2 variety.

Preparation of melon jam. After extracting the seeds from the melons for making jam, the skin was first peeled, the flesh was cut into 15-20 mm pieces and blanched in boiling water for 5-10 minutes. After blanching, the melon flesh was slightly cooled. Prepared pieces of melon were placed in a sugar solution with a concentration of 70-75% at a temperature of 70-80 degrees. 1,3 liters of solution are used for 2 kg of peeled melon pieces. The pieces of melon in the solution are kept for 3-4 hours (until the solution is absorbed) and slowly boiled for 1-1,5 hours over low heat until the jam is ready. After boiling, the finished jam is cooled and packed in glass containers.

Melon pulp was prepared on the basis of German technology and local methods for waste-free processing of the melon product left over from the primary melon seeds. The yield of melon rind after drying was 20.2% in the Sakhovat variety, 12,6% in the Zar Gulobi variety, and 13,6% in the Suyunchi-2 variety.

As a result of making "melon jam" from the remaining product after harvesting melon seeds, it was possible to obtain 1,6 tons of melon jam from 1 ton of melon fruit.

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CONCLUSION

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