

WEIGHT, SIZE AND TECHNOLOGICAL CHARACTERISTICS OF THE KARAKALPAK VARIETIES OF MELONS

¹Abdieva G. M., ²Sultanov J. D

PhD in Technical Sciences (PhD) Tashkent State Agrarian University¹, Doctoral student of Tashkent State Agrarian University¹

ABSTRACT

Melons, being the most ancient culture of Uzbekistan, have come a long way in their transformation and formation. Having been bred, initially from wild-growing forms, as they got into the conditions of cultivated agriculture, the nature of melons gradually changed. Man created new, more valuable varieties by purposeful action. For many centuries, folk breeders from generation to generation have continuously selected the best fruits of melons with high palatability, gradually grafted and consolidated these characteristics by inheritance. With their painstaking work, they created varieties of melons that have survived to this day, unmatched in other countries.

INTRODUCTION

The history of melon cultivation in the territory of modern Uzbekistan and Karakalpakstan goes back more than one hundred years. This is evidenced by both written sources (Abu Ali Ibn Sino, Beruniy, Moroccan traveler Ibn Botut, our compatriot Bobur, and others), and archaeological excavations. An example of this can be the seeds of cultivated varieties of this truly wonderful plant, found during excavations of the settlement of Topyrak-kaly (I-IV centuries AD). It is known for certain that melons were exported by camel caravans in those distant times to China, India, Iran and Egypt.

Today, more than 160 varieties of melons are grown in Uzbekistan, which are exported to neighboring states, to Russia and even to Europe and fascinate with their honey aroma and unsurpassed taste of the inhabitants of these countries.

New varieties of melons were bred by selective selection and crossing. With repeated repetition of this approach, the sugar content, aroma and keeping quality gradually increased. For example, in the Khorezm oasis and the Republic of Karakalpakstan, the most mature varieties have been created.

MAIN PART

Local aboriginal varieties, well adapted to certain soil and climatic conditions, when transferred to other areas with different soil and climatic conditions, lose their taste, and yield decreases. Only a few varieties retain their valuable qualities when grown in other conditions.

Many varieties created in one focus, gradually spreading to neighboring regions, are degraded and are unsuitable for cultivation in other regions. But at the same time, some varieties, getting into new conditions, changed not only in terms of economic characteristics, but also morphologically. The wider the variety spread, the more it changed. Gradually, under one varietal trait, a whole group of varieties appeared, similar in a number of characteristics and at the same time significantly different from each other. For example, under the name Gurbek, there are four varieties in production with spherical fruits, but with different colors, weights and yields. These are Ala-gurbek, Kara-gurbek, Gyuk-gurbek, Ak-gurbek. They are similar to them: Ak-Kaun, Kokcha, Beshek, Zamcha, belonging to the same variety origin.

Melon fruits, as a drying object, have their own characteristics that are necessary to take into account when preparing them for drying. These include: the shape, size, weight of the fruit, the thickness of the peel and pulp, the size of the seed cavity, the consistency and sugar content of the pulp.

V.F Belik [1] in his works notes that Central Asian varieties of melons are considered the best in the world in terms of the content of sugars, vitamins and aroma. He gives special assessment to the Khorezm and Karakalpak varieties, which are distinguished by their sugar content and keeping quality.

Depending on the shape of the fruits, their size and the growing season of development, Central Asian varieties of melons (in general) can be subdivided according to the recommendations of AI Filov [2] into five varieties: khandalyaki, early summer, summer, autumn and winter.

Khandalyaki is the earliest variety, the pulp contains 6-8% sugar, the shape is flattened-spherical, not recommended for drying. Behind the Khandalyaks, early summer varieties of melons ripen, which have an oval or obtuse elliptical shape of the fruit. The pulp is gently melting, the sugar content is from 8.5 to 12%. These varieties include Bosvaldy, Asati, Chogare and others. It is used fresh, not recommended for drying.

Summer ripening fruits are shuttle-shaped, ellipsoidal or fusiform. The sugar content is from 8 to 18%, they have crispy flesh, 4.8-6.0 cm thick. These varieties of melons ripen in the hottest period of summer and they include: Ok-kavun, Bargi, Bayty Kurgan, Arbakeshka, Ichikizil, Kukcha and a large number of other varieties.

Autumn melons are predominantly ovoid or shortened to spherical. Contains 9-11% sugar, coarsely crispy pulp, 5-6 cm thick. Average fruit weight is 5-7 kg. These include: Orange Gulobi, Umrboiki, Sary-gulobi, Beshek, Kora-Kand, Kora-kul, etc.

Winter melons are oblong-ovoid or nearly cylindrical-conical. The fruits are large - from 8 to 17 kg, sometimes up to 35 kg, the surface is wrinkled-smooth, the pulp is 6-8 cm thick, the sugar content is 9-12.5%. The growing season is 100-120 days, the yield reaches 300-350 centners / ha. These melons do not ripen in the field, the pulp reaches full maturity during maturation. These include: Arkani, Kalansoy, Ola-bundle, Ok-kosh, Kora-kosh, Beshek, Shabbaz, Ola-khamma, Koy-bash, etc. [8]

Of the above-mentioned varietal characteristics for drying, melon fruits are of interest, having a fusiform or cylindro-conical shape, convenient for mechanical peeling and cutting into ring slices. In this case, it is necessary to take into account the consistency and sugar content of the pulp.

According to the recommendations developed by UzNIOBK and K, in terms of physical, mechanical, technological and organoleptic indicators from the varieties of melons of the Karakalpak region and the Khorezm oasis, the following varieties are suitable for drying: Gurbek group - (Ola-gurbek, Ok-gurbek, Kora-gurbek, Kuk-gurbek), Bekzodi, Davletbai, Kuk-tinny, Ichikizil Turkmen, Amiri, Khitoi, Oknovvat Khorezm, Non-gusht, Shakarpalak, Shirin-bundle, Kara-kyz, Sary-gulobi, etc.

CONCLUSION

Analysis of literature sources shows that almost all varieties of melons are suitable for drying. However, it is necessary to take into account a number of factors affecting the cost of dried melon, these are: yield, sugar content of the pulp, ripening time of fruits, keeping quality, transportability, transportation distance to the place of processing and methods of preparing fruits for drying, as well as the finished product market.

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