

# Pomegranate, its Biological Characteristics and Economic Significance

Marufjanov Abdurakhman Mosinjon ugli

Assistant at the Department of "Storage and Primary Processing Technology Agricultural Products" Fergana Polytechnic Institute.

## Abstract:

In the conditions of Uzbekistan, pomegranates are buried before winter. When drawing up technological cards, the main attention is focused on the selection and implementation of economically efficient methods of growing agricultural products in the conditions of the farm. The model technological map of pomegranate cultivation in pomegranate orchards with buried crops on irrigated lands is based on the latest scientific and technological achievements and advanced practices, and includes a total of 29 agro-measures.

**Keywords:** Pomegranate, technological card, agrotechnical activities.

## Introduction

Pomegranate family (Punicaceae). This family belongs to the ancestor of bilberries (MYPTALES), the branches are often thorny and jagged, the leaves are simple, glossy, dark blue above, pale blue below, clustered on young branches. It is a shrub or tree that sheds its leaves in autumn. Flowers are large, bisexual, actinomorphic, calyx and sepals 5-8 lobed. He has many fathers. The mother is free or grown together with the flower, it is arranged in two layers, with 11-14 fruit leaves. The node is lower, 3-7 cells. The fruit is large, spherical, fleshy skin, false berry. The seeds are many and pointed, watery, with a sweeter sour taste, covered with flesh. This family consists of the only pomegranate genus that grows wild in Asia Minor, Iran, the Caucasus, and the southern region of the Central Asian republics.

**Pomegranate genus (*Punica*).** It includes 2 types. Common pomegranate (*P.granatum*). It is cultivated in the subtropics as a fruit plant and decorative shrub. The young branches of the common pomegranate are prickly, the flowers are very large, light red, single or in bunches of 2-4. Petals are not 7-8 connected, flowers have dimorphism. The first variety is a cup-shaped, long-flowered flower. [1].

The flowers of the second type are bell-shaped, the pistil is short, and it does not turn into fruit. It blooms in June and July, some of them open in autumn. Fruit leaves are 4-14, located in two layers. As a result, the nest of the knot will not be level. The fruit is thick fleshy, spherical, large, weighing 700 grams. Depending on the variety, the seeds are dark red, light red, pink and white, covered with sweet or sour, mushy flesh derived from the integument of the seed pod. Pomegranate is widely cultivated in Central Asian republics, especially in Uzbekistan. It is also grown in Azerbaijan and Georgia. Pomegranate is important as a subtropical fruit. The best varieties of pomegranate are grown in the Fergana Valley, but are buried in the fall. It is one of the best fruit and decorative plants. The delicious juice (juice) that refreshes when drinking pomegranate juice is not inferior to the best orange varieties in terms of taste and aroma, and is superior to them in terms of color.



Pomegranate juice contains 5-20% sugar and 0.5-10% organic acids, dullyl and pectin substances, depending on the variety: ripe and raw . In many countries, pomegranates are processed to make juice, soft drinks, and kiyam. But eating pomegranate in its natural form is more beneficial. Both the bark of the root and the skin of the fruit contain a large amount of double substances, and it is used in medicine as a laxative and carminative. [2]

Acetic acid is obtained from it. Pomegranate lives for 100 years or more. It is easily propagated by rhizomes, cuttings, division and seeds.

## References

1. Саимназаров Ю.Б., Акрамов У.И. Академик М.Мирзаев номли боғдорчилик, узумчилик ва виночилик илмий-тадқиқот институти. Анор ва унаби етиштириш бўйича тавсиялар. Тошкент, 2017 йил.
2. Қишлоқ хўжалиги экинларни парваришлаш ва маҳсулот етиштириш
3. бўйича намунавий технологик карталар (2016-2020 йиллар учун, I,II - қисмлар). Ўзбекистон ҚСХВ, ҚХИИМ, УзМЭИ ва Ўзбекистон бозор ислохатлари ИТИ.Тошкент, 2016.
4. Усмонов, . Н. (2023). ЧЎЛ МИНТАҚАСИ ҚУМЛИ ТУПРОҚЛАРИ ШАРОИТИДА ҒЎЗАНИ ЕРЁНҒОҚ БИЛАН ҲАМКОР ЭКИШ ТЕХНОЛОГИЯСИ. *Естественные науки в современном мире: теоретические и практические исследования*, 2(4), 67–69. извлечено от <https://in-academy.uz/index.php/zdtf/article/view/13456>
5. Usmonova Ozodakhon Qakhramon qizi, & Usmonov Nodirjon Botiraliyevich. (2022). Theoretical Foundations of Studying the Term Concept in English-Uzbek Information Communication Technologies. *Eurasian Journal of Humanities and Social Sciences*, 14, 53–57. Retrieved from <https://geniusjournals.org/index.php/ejhss/article/view/2641>
6. Usmonov Nodirjon Botiraliyevich. (2022). EFFECT OF SEED GERMINATION OF INTERCROPPING COTTON AND PEANUT. *E Conference Zone*, 1–2. Retrieved from <http://www.econferencezone.org/index.php/ecz/article/view/1423>
7. Usmonov Nodirjon Botiraliyevich. (2022). Effect of Intercropping of Cotton and Peanut on Quantity and Quality of Soil Microorganisms. *Eurasian Scientific Herald*, 11, 12–15. Retrieved from <https://geniusjournals.org/index.php/esh/article/view/1990>
8. Usmonov Nodirjon Botiraliyevich. (2022). BENEFITS OF CO-PLANTING COTTON WITH PEANUTS. *Conferencea*, 90–92. Retrieved from <https://conferencea.org/index.php/conferences/article/view/1040>
9. A.S.Abduraximov, N.B.Usmonov. Effectiveness of co-planting crops in sandy soils. *Plant Cell Biotechnology and Molecular Biology (SCOPUS JOURNAL)*. 2020. 21(65&66). pp 1-9 <https://www.ikppress.org/index.php/PCBMB/article/view/5688>
10. Usmonov Nodirjon Botiraliyevich. (2023). Technology of Intensive Planting of Sunflower and Soybean for Grain in Sandy Soils. *Web of Agriculture: Journal of Agriculture and Biological Sciences*, 1(8), 21–24. Retrieved from <https://webofjournals.com/index.php/8/article/view/313>



11. SAMIYEVICH, A. A., & BOTIRALIYEVICH, U. N. (2020). EFFECTIVENESS OF CO-PLANTING CROPS IN SANDY SOILS. *PLANT CELL BIOTECHNOLOGY AND MOLECULAR BIOLOGY*, 21(65-66), 1–9. Retrieved from <https://www.ikppress.org/index.php/PCBMB/article/view/5688>
12. Nazirova Rahnamohon Mukhtarovna, Usmonov Nodirjon Botiraliyevich, & Musayeva Iroda. (2022). Classification of Functional Products for Children's Food. *Eurasian Journal of Engineering and Technology*, 13, 36–39. Retrieved from <https://geniusjournals.org/index.php/ejet/article/view/2904>
13. Nazirova Rakhnamohon Mukhtarovna, Hursanaliyev Shohjaxon, & Usmonov Nodirjon Botiraliyevich. (2022). Apple Fruit Storage Technology. *Eurasian Journal of Engineering and Technology*, 13, 40–43. Retrieved from <https://geniusjournals.org/index.php/ejet/article/view/2905>
14. Nazirova Rakhnamohon Mukhtarovna, Makhmudov Nozimjon Nuriddin ugli, Usmonov Nodirjon Botiraliyevich. Technology of industrial storage of carrots. *Web of Scientist: International Scientific Research Journal*. Vol. 3 No. 6 (2022). pp 1455-1460. Retrieved from <https://wos.academiascience.org/index.php/wos/article/view/2068>
15. Nazirova Rakhnamohon Mukhtarovna, Aminjonov Hokimjon, Usmonov Nodirjon Botiraliyevich, Marufjonov Abdurakhmon Musinjon ugli. Production of alternative vegetable milk. *Web of Scientist: International Scientific Research Journal*. Vol. 3 No. 6 (2022). pp 1449-1454. Retrieved from <https://wos.academiascience.org/index.php/wos/article/view/2067>
16. Nazirova Rakhnamohon Mukhtarovna, Khodjimatom Javlon, Usmonov Nodirjon Botiraliyevich, Marufjonov Abdurakhmon Musinjon ugli. Complex processing of pumpkin fruit. *Web of Scientist: International Scientific Research Journal*. Vol. 3 No. 6 (2022). pp 1461-1466. Retrieved from <https://wos.academiascience.org/index.php/wos/article/view/2069>
17. Nazirova Rakhnamohon Mukhtarovna, Akhmadjonov Avazbek Akmaljon ugli, Usmonov Nodirjon Botiraliyevich. Rootstock growing technology. *International journal of research in commerce, it, engineering and social sciences*. Vol. 16 No. 5 (2022): May. pp 1-5. Retrieved from <http://www.gejournal.net/index.php/IJRCIESS/article/view/442>
18. Мухтаровна, Н. Р., Ботиралиевич, У. Н., & ўғли, М. А. М. (2021). Особенности Обработки Озоном Некоторых Видов Плодов И Овощей Для Их Долгосрочного Хранения. *Central Asian Journal of Theoretical and Applied Science*, 2(12), 384-388. Retrieved from <https://cajotas.centralasianstudies.org/index.php/CAJOTAS/article/view/367>
19. Mukhtarovna, Nazirova R., et al. "Study of the Influence of Processing on the Safety of Fruit and Vegetable Raw Materials." *European Journal of Agricultural and Rural Education*, vol. 2, no. 6, 2021, pp. 43-45. Retrieved from <https://www.neliti.com/publications/378976/study-of-the-influence-of-processing-on-the-safety-of-fruit-and-vegetable-raw-ma#cite>



20. Nazirova Rakhnamokhon Mukhtarovna, Tursunov Saidumar Islomjon ugli, & Usmonov Nodirjon Botiraliyevich. (2021). Solar drying of agricultural raw materials and types of solar dryers. *European Journal of Research Development and Sustainability*, 2(5), 128-131. Retrieved from <https://www.scholarzest.com/index.php/ejrds/article/view/824>
21. Nazirova Rahnokhon Mukhtarovna, Akramov Shokhrukh Shukhratjon ugli, & Usmonov Nodirjon Botiraliyevich. (2021). Role of sugar production waste in increasing the productivity of cattle. *Euro-Asia Conferences*, 1(1), 346–349. Retrieved from <http://papers.euroasiaconference.com/index.php/eac/article/view/110>
22. Nazirova Rahnokhon Mukhtarovna, Akhmadjonova Marhabo Makhmudjonovna, & Usmonov Nodirjon Botiraliyevich. (2021). Analysis of factors determining the export potential of vine and wine growing in the republic of uzbekistan. *Euro-Asia Conferences*, 1(1), 313–315. Retrieved from <http://papers.euroasiaconference.com/index.php/eac/article/view/99>
23. Nazirova Rakhnamokhon Mukhtarovna, Holikov Muhridin Bahromjon ogli, & Usmonov Nodirjon Botiraliyevich. (2021). Innovative grain reception technologies change in grain quality during storage. *Euro-Asia Conferences*, 1(1), 255–257. Retrieved from <http://papers.euroasiaconference.com/index.php/eac/article/view/79>
24. Nazirova Rakhnamokhon Mukhtarovna, Tojimatov Dilyor Dilmurod ogli, Kamolov Ziyodullo Valijon ogli, & Usmonov Nodirjon Botiraliyevich. (2021). Change in grain quality during storage. *Euro-Asia Conferences*, 1(1), 242–244. Retrieved from <http://papers.euroasiaconference.com/index.php/eac/article/view/75>
25. Nazirova Rakhnamokhon Mukhtarovna, Rahmonaliyeva Nilufar Nodirovna, & Usmonov Nodirjon Botiraliyevich. (2021). Influence of seedling storage methods on cotton yield. *Euro-Asia Conferences*, 1(1), 252–254. Retrieved from <http://papers.euroasiaconference.com/index.php/eac/article/view/78>
26. Nazirova Rakhnamokhon Mukhtarovna, Otajonova Baxtigul Bakhtiyor qizi, & Usmonov Nodirjon Botiraliyevich. (2021). Change of grape quality parameters during long-term storage. *Euro-Asia Conferences*, 1(1), 245–247. Retrieved from <http://papers.euroasiaconference.com/index.php/eac/article/view/76>
27. Nazirova Rakhnamokhon Mukhtarovna, Mahmudova Muhtasar Akhmadjon qizi, & Usmonov Nodirjon Botiraliyevich. (2021). Energy saving stone fruit drying technology. *Euro-Asia Conferences*, 1(1), 248–251. Retrieved from <http://papers.euroasiaconference.com/index.php/eac/article/view/77>
28. Nazirova Rahnokhon Mukhtarovna, Akhmadjonova Marhabo Makhmudjonovna, & Usmonov Nodirjon Botiraliyevich. (2021). Analysis of factors determining the export potential of vine and wine growing in the republic of Uzbekistan. *Euro-Asia Conferences*, 1(1), 313–315. Retrieved from <http://papers.euroasiaconference.com/index.php/eac/article/view/99>
29. Nazirova R. M., Qahorov F.A., Usmonov N. B. Complex processing of pomegranate fruits. *Asian journal of multidimensional research*. 2021, Volume: 10, Issue: 5. pp. 144-149. Retrieved from



<https://www.indianjournals.com/ijor.aspx?target=ijor:ajmr&volume=10&issue=5&article=020>

30. Mukhtarovna N. R., Alimardonugli S. A., Botiraliyevich U. N. Features of treatment of winter wheat seeds by different processors //International Engineering Journal For Research & Development. – 2021. – Т. 6. – С. 3-3.
31. R.M.Nazirova, M.X.Xamrakulova, N.B.Usmonov. Moyli ekin urug'larini saqlash va qayta ishlash texnologiyasi. O'quv qo'llanma. Фергана-Винница: ОО «Европейская научная платформа», 2021. – 236 с. <https://doi.org/10.36074/naz-xam-usm.monograph>.

