

FEATURES OF DRIP IRRIGATION OF CROPS

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Annotation: *Melons grown in our country contain 85-92% water, 8-15% dry matter, 0.8% protein, 1.8% fiber, 6.2% other carbohydrates, 0.9% oil, 0.6% ash, Contains 20-30 mg% ascorbic acid, 0.03-0.07 mg% other drugs, trace elements such as phosphorus, sulfur, manganese, zinc, bromine, iron, calcium, magnesium, potassium, pectin, organic and mineral salts. The content of sugar in the fruits of melons of Uzbekistan reaches 14-16%.*

Keywords: *melon crops, physical properties of soil, nutrients in the soil, melon root, melon seeds.*

INTRODUCTION

Uzbekistan, as the country with the largest irrigated land area and the largest population in the region, faces particular challenges in terms of water resources provision. Only about 18% of the volume of water resources needed to cover the country's needs is formed within the country, and the main part is covered by the resources of transboundary rivers - Amudarya and Syrdarya. Recently, water shortage is becoming a limiting factor in the development of agriculture 98% of the irrigated lands of Bukhara region are irrigated by pumps, water shortage in the region has a great impact on crop yields, in order to prevent this, it is advisable to use improved modern economical irrigation technologies.

In the Action Strategy of the Republic of Uzbekistan for 2017-2021, special attention is paid to the further improvement of the reclamation condition of irrigated lands, the development of the network of reclamation and irrigation facilities, the wide introduction of intensive methods, first of all, modern agro-technologies that save water and resources in the field of agricultural production. In this regard, it is important to expand the scientific research work on mitigating the water shortage, studying the influence of the soil melioration condition through the effective use of collector water, and introducing it into production.

For watering the soil, drops with a maximum water flow of 1.2 - 2.4 l / h are used. In this case, the maximum size of the wetted surface diameter is from 0.3-0.5 m in sandy soil and up to 1.2 m in loam;

The shallow but wide root system of watermelons and melons can extend beyond the irrigation radius. It is recommended to use a shelter for this area with

non-woven material or straw, which reflects ultraviolet rays and does not overheat the soil, to preserve moisture in the corridors;

The depth of moisture and the rate of watering depends on the stage of development of the plant and the type of soil. At the stage of planting seedlings and before flowering, the depth of moisture should be 55 cm³ at an irrigation rate of up to 60 m³ / ha for sandy loam soil. In later stages, the rates will increase and the yield will remain unchanged until harvest.

For light sandy soil with a dense structure, the depth of moisture at the stage of planting seedlings and before flowering should not be less than 50 cm³ with an irrigation rate of 75 m³ / ha.

With this irrigation method, the yield is almost 60% higher compared to irrigation and more than 100% higher than rainfed cultivation. Drip irrigation also significantly reduces the possibility of damaging plants with fungal and bacterial diseases.

USING DRIP IRRIGATION TO GROW POLYS CROPS

In the open field, polys crops have a shallow root system located mainly in the upper soil horizons. An exception is watermelon, whose lateral roots can reach a depth of 4-5 m into the ground. These plants are thermophilic, so they are traditionally grown in arid climates.

THE SCHEME OF PLANTING POLYS CROPS WITH DRIP IRRIGATION

It is the best way to plant with a density of 7.12 - 10.2 thousand plants per hectare. At the same time, the distance between individual plants is about 100 cm, the row spacing is 170 cm and 40 cm.

Irrigation pipes are laid at the same time as planting seeds. If seedling cultivation is used, the installation of the drip irrigation system is carried out before planting the young crop.

Experimental field plot

CONCLUSION:

The result of the study showed that drip irrigation of rice crop leads to water saving and increase in productivity. It is the best way to plant with a density of 7.12 - 10.2 thousand plants per hectare. At the same time, the distance between individual plants is about 100 cm, the row spacing is 170 cm and 40 cm.



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REFERENCES:

1. Fazliyev, Z. S., Shokhimardonova, N. S., Sobirov, F. T., Ravshanov, U.K., & Baratov, S. S. (2014). Technology of the drip irrigation use in gardens and vineyards. *The Way of Science*, 56.
2. Begmatova, S. (2021). Development of information technology competence in future teachers as a current pedagogical problem. *Society and Innovation*, 2 (4 / S), 655-658.
3. Mustafayeva, M. I., & Khakimova, Z. Z. (2019). The study of the ecology of the algae of sewage as biotechnological disciplines. In *International Conference EUROPE, SCIENCE AND WE ISBN* (pp. 978-80).
4. Mustafaeva, M. I., & Xakimova, Z. Z. (2020). Development of phytoplankton depending on the season of the year in prudax ochistitelnyx soorujeniy. *JOURNAL AGRO PROTSESSING*, 2 (6).
5. Mustafayeva MI, Khakimova ZZ "Study of sewage algae ecology as a biotechnological science" - international conference Europe, science and we ISBN 978-80-907845-4-3 DOI: [http://doi.org /10.37057/CH_5](http://doi.org/10.37057/CH_5) Conference materials available in *Virtualconferences.press* 2020 y. P 9-13.
6. Хакимов Р.А., Халимова М., Расулов Ф., Алимухаммедов С.С. Рекомендации по агротехнике выращивания высококачественных бахчевых культур. Ташкент - 2017. б 3-10.
7. Хакимов Р.А., Хакимов А.С., Ташмухаммедов А.А. Семеноводство овощных культур. Ташкент, 2003. С. 144.
8. Алимухаммедов С.С., Холдоров М.Ю. Влияние семян-удобрений на всхожесть семян дынь и арбузов // «Перспективы, проблемы и пути решения выращивания овощей, товарных культур и картофеля в республике», сборник материалов Республиканской научно-практической конференции. – Ташкент, 2019. – С 375-379.
9. 18. Авезова, Д. (2022). статья Методика преподавания языка иностранным студентам. *ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz)*, 25(25).
10. 19. Abdurasulovna, B. M. (2022). Clinical Features of Rheumatoid Arthritis in Patients at the Age of Older 60 Years Old. *Central Asian Journal of Medical and Natural Science*, 3(6), 650-655.
11. 20. Авезова, Д. (2022). МОРФОНОЛОГИЧЕСКИЕ ЯВЛЕНИЯ В РУССКОМ СЛОВООБАЗОВАНИИ. *ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz)*, 23(23).
12. 21. Авезова, Д. (2022). КАКИЕ ГРАММАТИЧЕСКИЕ КАТЕГОРИИ ЯВЛЯЮТСЯ ОБЩИМИ ДЛЯ ЧАСТЕЙ РЕЧИ РУССКОГО И УЗБЕКСКОГО ЯЗЫКОВ?. *ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz)*, 23(23).
13. 22. Авезова, Д. (2022). ОСНОВНЫЕ РАЗЛИЧИЯ МЕЖДУ СТРУКТУРОЙ РУССКОГО И УЗБЕКСКОГО СЛОВА. *ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ*

- (buxdu. uz), 23(23).
14. 23. Farkhodovna, K. F., Rakhmatulloevna, N. U., & Abdurasulovna, B. M. (2022). ETIOLOGY OF CHRONIC RHINOSINUSITIS AND EFFECTIVENESS OF ETIOTROPIC TREATMENT METHODS (LITERATURE REVIEW). *Новости образования: исследование в XXI веке*, 1(4), 377-381.
 15. 24. Авезова, Д. (2022). статья Составные части и их выражение в творчестве Абдуллы Каххора. *ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz)*, 22(22).
 16. 25. Авезова, Д. (2022). Spirituality Маънавият инсонни комилликка етаклайди. *ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz)*, 22(22).
 17. 26. Авезова, Д. (2022). Инсоният тарихида БУЮК ЛЕВ ТОЛСТОЙ. *ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz)*, 17(17).
 18. 27. Авезова, Д. (2022). статья Стихи Есенина были его судьбой. *ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz)*, 22(22).
 19. 28. Shaxnoza, A. (2022). PROSODIC FEATURES OF SPEECH FORMS OF ADDRESS IN ENGLISH DISCOURSE IN COMPARISON WITH RUSSIAN. *Journal of Modern Educational Achievements*, 3, 33-38.
 20. 29. Артикова, Ш. М. (2023). Специфика Функционирования Плеоназмов В Русском И Английском Языках. *Miasto Przyszłości*, 33, 250-254.
 21. 30. Artikova, S. (2022). PROSODIC FEATURES OF SPEECH FORMS OF APPEAL IN ENGLISH DISCOURSE IN COMPARISON WITH INTERNATIONAL LANGUAGES. *Conferencea*, 144-145.
 22. 31. Artikova, S. (2022). PROSODIC FEATURES OF SPEECH FORMS OF ADDRESS IN ENGLISH DISCOURSE IN COMPARISON WITH DIFFERENCE INTERNATION LANGUAGES. *American Journal of Interdisciplinary Research and Development*, 3, 55-59.
 23. 32. Artikova, S. M. (2020). About the importance of teaching foreign languages in the republic of Uzbekistan. *ISJ Theoretical & Applied Science*, 5(85), 79-83.
 24. 33. Artikova, S. M. (2020). О НЕОБХОДИМОСТИ ОБУЧЕНИЯ ИНОСТРАННЫМ ЯЗЫКАМ В РЕСПУБЛИКЕ УЗБЕКИСТАН. *Theoretical & Applied Science*, (5), 79-83.
 25. 34. Artikova, S. (2022). PROSODIC FEATURES OF SPEECH FORMS OF APPEAL IN ENGLISH DISCOURSE IN COMPARISON WITH RUSSIAN. *Conferencea*, 142-143.
 26. 35. Artikova, S. (2022). FEATURES OF SPEECH FORMS OF ADDRESS IN ENGLISH DISCOURSE IN COMPARISON. *American Journal of Interdisciplinary Research and Development*, 3, 60-63.
 27. 36. Артикова, Ш. М., & Муминова, М. А. (2011). ИСПОЛЬЗОВАНИЕ ИННОВАЦИОННЫХ ТЕХНОЛОГИЙ В ИЗУЧЕНИИ АНГЛИЙСКОГО ЯЗЫКА В ТЕХНИЧЕСКИХ ВУЗАХ. *УЧЕНЫЙ XXI ВЕКА*, 55.
 - 28.