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Cultivation of Fast-Growing Crops on Strong and Moderately Saline Soils

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Abstract: Sufficient measures are being taken to fill the markets of our country with high-quality food products, increase the number of Uzbek fruits and vegetables on world trade routes, as evidenced by the fact that soybeans are grown separately from legumes. paid. The goal is to reduce the mineralization of saline and saline soils, the cultivation of secondary shade in grain-free areas, and meeting the needs of the population through drip irrigation, as well as the preparation of nutritious feed for poultry.

Key words: effusion water regime, global climate, zone, own, closed territory, leguminous crops.

INTRODUCTION

A number of targeted measures are being implemented to fill the markets of our country with high-quality food products, increase the number of Uzbek fruits and vegetables on world markets, as evidenced by presidential decrees. Central Asia differs from other countries in climate, soil type and geographical location. Fruits and vegetables, cereals and legumes grown in this country differ from other regions in taste and quality. The question is, why? This is due to the natural conditions of the region. The climate of the region is sharply continental, with hot summers and cold winters. The crops grown here are saturated with hot sunlight and are far from artificial. In addition, special attention is paid to land and water in the region. Analyzing Uzbekistan from the point of view of its natural geographical location, in recent years the country has implemented consistent reforms aimed at improving the efficiency of land and water resources use, improving water management systems, modernization and development of water bodies.

At the same time, the shortage of water resources is growing every year due to global climate change, population and economic growth, as well as their growing demand for water.

The average annual volume of water used ranged from 51 to 53 billion cubic meters, including 97.2 percent from rivers and streams, 1.9 percent from collector networks and 0.9 percent from groundwater, which is 20 percent below the established limit.

Stable water supply to the population and all sectors of the country's economy in 2020-2030, improvement of irrigated land reclamation, widespread introduction of market principles and mechanisms and digital technologies in water resources management, reliable operation of water facilities. Examples are resolutions. The President of the Republic of Uzbekistan in order to increase the efficiency of land and water use [1].

Saline soils include soils harmful to plants containing mineral salts. The oppression of agricultural crops begins when the amount of salts in the profile is more than 0.25% of the soil mass.

Saline soils do not have a continuous distribution, but they occur in separate areas of the main soil type and form complexes with them. They are common in all zones, but most of all in Kazakhstan, Central Asia, Western Siberia, the Middle and Lower Volga region, and southern Ukraine.

The formation of saline soils is associated with favorable conditions for the accumulation of salts in groundwater and rocks and their accumulation in the soil.

Under the influence of rocks, a large amount of salts is formed. The annual inflow of soluble salts from land to the ocean is 2.735 million tons, while about 1 billion tons of salt annually enters the closed areas of the continents. Many soluble salts are formed as a result of volcanic eruptions.

In arid climates and in the effusion water regime, when evaporation significantly exceeds the amount of precipitation, conditions are created for the accumulation of salts in groundwater and soil-forming rocks. Saline soils predominate in these territories. It can occur in arid desert and semi-desert zones without deep moistening of the soil, as well as as a result of pulse formation (wind conduction). [2]

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In such saline and saline-prone arid areas, we transplanted shade in irrigated areas and irrigated them using water-saving irrigation technologies. It was assumed that the salinization of our land would be relatively low due to the use of water-saving irrigation technologies. If irrigation is carried out traditionally, a lot of water is required, and a large amount of water brings a certain amount of salt to our fields. When the amount of water supplied to the plant exceeds the plant's need, the plant receives the water it needs and there is enough of it, and the remaining water is absorbed and added to the groundwater, which in turn raises the groundwater level above the critical point." shrinks. As a result, under the influence of heat, water rises into the atmosphere in the form of steam, and the salts contained in the water accumulate on the soil surface, causing secondary salinization. Use water-saving irrigation technologies to solve this problem.

In recent years, special attention has been paid to the placement and cultivation of non-traditional crops in the country. In particular, in 2017, for the first time in the country, soybeans were planted on an area of more than 12 thousand hectares, 14 thousand tons of soybeans were grown, more than 2 thousand tons of soybean oil and 10 thousand tons of high-quality soybean meal were delivered. poultry farms. [3]

The research shows that all theoretical and practical measures are based on the development of the country's economy, increasing the position of Uzbek products on world markets, increasing exports, providing adequate and high-quality, affordable products to meet the needs of the population, the population, intended.

REFERENCES

1. Atamurodov, B. N., Sobirov, K. S., & Najmiddinov, M. M. (2022). BASICS OF FARMING ON SALINE AND SALINE-PRONE SOILS. *Oriental renaissance: Innovative, educational, natural and social sciences*, *2*(6), 725-730.
2. Xamidova, S. M., Juraev, U. A., & Atamurodov, B. N. (2022). EVALUATION OF THE EFFECTIVENES OF PHYTOMELIORATIVE MEASURES IN THE TREATMENT OF RECLAMATION OF SALINE SOILS. *Web of Scientist: International Scientific Research Journal*, *3*(6), 835-841.
3. Jurayev, A. K., Jurayev, U. A., Atamurodov, B. N., Sobirov, K. S., & Najmiddinov, M. M. (2022). IRRIGATION OF COTTON BY WATER-SAVING METHOD. *Oriental renaissance: Innovative, educational, natural and social sciences*, *2*(6), 718-724.
4. Atamurodov, B. N., Sobirov, K. S., & Najmiddinov, M. M. (2022). USE OF RESOURCE-EFFICIENT IRRIGATION TECHNOLOGY IN THE REPUBLIC OF UZBEKISTAN. *Science and innovation*, *1*(D2), 96-100.
5. Jurayev, A. K., Jurayev, U. A., Atamurodov, B. N., Najmiddinov, M. M., & Sobirov, K. S. (2022). EFFECTIVE USE OF WATER IN IRRIGATED AREAS. *Oriental renaissance: Innovative, educational, natural and social sciences*, *2*(6), 810-815.
6. Jurayev, A. K., Jurayev, U. A., Atamurodov, B. N., Sobirov, K. S., & Najmiddinov, M. M. (2022). GROWING TOMATOES HYDROPONICALLY IN GREENHOUSES. *Science and innovation*, *1*(D2), 87-90.
7. Atamurodov, B. N., Murodov, O. U., Najmiddinov, M. M., & Sobirov, K. S. (2022). IN IRRIGATION OF AGRICULTURAL CROPS, IRRIGATION WITH DIFFERENT QUALITY WATER. *Science and innovation*, *1*(D2), 91-95.
8. Jurayev, A. K., Jurayev, U. A., Atamurodov, B. N., Sobirov, K. S., & Najmiddinov, M. M. (2022). SOYBEANS ARE TRANSPLANTED INTO SALINE AND SALINE SOILS TO JUSTIFY THE EFFECTIVENESS OF DRIP IRRIGATION.
9. Jurayev, A. K., Jurayev, U. A., Atamurodov, B. N., Sobirov, K. S., & Najmiddinov, M. M. (2022). IRRIGATION OF GOOSE BY WATER-SAVING METHOD.
10. Jurayev, A. K., Jurayev, U. A., Atamurodov, B. N., Sobirov, K. S., & Najmiddinov, M. M. (2022). SCIENTIFIC AND PRACTICAL IMPORTANCE OF EFFICIENT USE OF WATER IN IRRIGATED LAND.
11. Jurayev, A. Q., Jurayev, U. A., Atamurodov, B. N., & Najmiddinov, M. M. (2021). Cultivation of Corn as a Repeated Crop. *European Journal of Life Safety and Stability (2660-9630)*, *10*, 49-51. Jurayev, A. Q.,
12. Jurayev, U. A., Atamurodov, B. N., & Najmiddinov, M. M. (2021). Scientific Benefits and Efficiency of Drip Irrigation. *Journal of Ethics and Diversity in International Communication*, *1*(6), 62-64.
13. Jurayev, A. Q., Jurayev, U. A., Atamurodov, B. N., & Najmiddinov, M. M. (2021). Aphorisms of Farming in the Method of Kidroponics. *International Journal of Discoveries and Innovations in Applied Sciences*, *1*(6), 133-135.
14. Jo'rayev, U. A., Jo'rayev, A. Q., & Atamurodov, B. N. (2021). Application of Provided Irrigation Technologies in Irrigated Agriculture. *International Journal of Development and Public Policy*, *1*(6), 164-166.
15. Atamurodov, B. N., Ibodov, I. N., Najmiddinov, M. M., & Najimov, D. Q. The Effectiveness of Farming in the Method of Hydroponics. *International Journal of Human Computing Studies*, *3*(4), 33-36.
16. Jurayev, A. Q., Jurayev, U. A., Atamurodov, B. N., & Najmiddinov, M. M. (2021). The Main Purpose of Drip Irrigation in Irrigation Farming and Its Propagation. *European Journal of Life Safety and Stability (2660-9630)*, *10*, 46-48.

17. Fazliev, J., Khaitova, I., Atamurodov, B., Rustamova, K., Ravshanov, U., & Sharipova, M. (2019). EFFICIENCY OF APPLYING THE WATER-SAVING IRRIGATION TECHNOLOGIES IN IRRIGATED FARMING. *Интернаука*, *21* (103 часть 3), 35.

18. Xamidova, S. M., Juraev, U. A., & Murodov, O. U. (2022). EFFECTS OF PHYTOMELIORANT PLANTS ON LAND RECLAMATION CONDITION AND SALT WASHING NORMS. *Oriental renaissance: Innovative, educational, natural and social sciences*, *2*(6), 803-809.

19. Ulugbekovich, M. O., Komiljonovna, S. M., Sobirovich, K. B., & Murodovich, M. M. (2021, March). DETERMINATION OF EFFICIENCY OF GROUNDWATER USE IN IRRIGATION OF MILLET PLANTING. In *Euro-Asia Conferences* (Vol. 3, No. 1, pp. 131-134).

20. Murodov, O. U., Teshayev, U. O., Amrulloev, O. I., & Islomov, S. U. (2021). DETERMINING THE EFFICIENCY OF THE USE OF UNDERGROUND WATER IN IRRIGATION OF TARIK. *Экономика и социум*, (3-1), 187-191.

21. Ulugbekovich, M. O., Sobirovich, K. B., & Komiljonovna, S. M. son of the Islamic Charter of Prayer.(2020). Smart irrigation of agricultural crops. Middle European Scientific Bulletin, 3, 1-3.

22. Ulugbekovich, M. O., Sobirovich, K. B., Komiljonovna, S. M., & Nizomiy ogli, I. I. (2020). Smart irrigation of agricultural crops. *Middle European Scientific Bulletin*, *3*, 1-3.

23. Khamidov, M. K., Balla, D., Hamidov, A. M., & Juraev, U. A. Using collector-drainage water in saline and arid irrigation areas for adaptation to climate change. 2020. In *IOP Conference Series: Earth and Environmental Science* (Vol. 422, No. 1, p. 012121).

24. Dagma, B., Hamidov, A., Muhammadkhon, K., & Jurayev, U. Improvement of drainage water quality through biological methods: a case study in the Bukhara region of Uzbekistan. *European Science Review.–Ausrtia Vienna.–2016.–№ September-october.(05.00. 00. № 3)*.

25. Ro'Ziyeva, M. A., & Najmiddinov, M. M. (2022). Sho'rlik darajasi turlicha bo'lgan suvning jamadon tipidagi ko'chma quyosh suv chuchiktgich qurilmasining unumdorligiga ko'rsatadigan ta'siri. *Science and Education*, *3*(4), 218-221.

26. Ruziyeva, M. A., Najmiddinov, M. M., & Sobirov, K. S. (2022). COMPARATIVE ANALYSIS OF METHODS FOR MEASURING BURNUP OF SPENT FUEL ASSEMBLIES BETI. *Oriental renaissance: Innovative, educational, natural and social sciences*, *2*(5), 385-389.

27. Саксонов, У. С. (2022). АКТУАЛЬНОСТЬ ВОДОСБЕРЕГАЮЩИХ ТЕХНОЛОГИЙ ПОЛИВА. *Scientific progress*, *3*(2), 1004-1009.

28. Жураев, А. К., & Саксонов, У. С. (2019). BUG 'DOY O 'SIMLIGINING BIOLOGIYASI HAMDA AGROTEXNIKASI. *ЖУРНАЛ АГРО ПРОЦЕССИНГ*, (6).

29. Жураев, А. К., & Саксонов, У. С. (2019). BUXORO VOHASIDA KUZGI BUG 'DOYNI SUG 'ORISH MUDDATLARI VA ME 'YORLARINI ILMIY ASOSLASH. *ЖУРНАЛ АГРО ПРОЦЕССИНГ*, (6).

30. Фазлиев, Ж. Ш., Хаитова, И. И., Атамуродов, Б. Н., Рустамова, К. Б., & Шарипова, М. С. (2019). ТОМЧИЛАТИБ СУҒОРИШ ТЕХНОЛОГИЯСИНИ БОҒЛАРДА ЖОРИЙ ҚИЛИШНИНГ САМАРАДОРЛИГИ. *Интернаука*, (21-3), 78-79.

31. Атамуродов, Б. Н., Фазлиев, Ж. Ш., & Рустамова, К. Б. (2020). ИССИҚХОНАЛАРДА ПОЛИЗ ЭКИНЛАРИ УЧУН ГИДРОПОНИКА УСУЛИ САМАРАДОРЛИГИ ВА ФОЙДАЛИ ЖИХАТЛАРИ. *ЖУРНАЛ АГРО ПРОЦЕССИНГ*, *2*(3).

32. N., Atamurodov B., et al. "The Effectiveness of Farming in the Method of Hydroponics." *International Journal of Human Computing Studies*, vol. 3, no. 4, 2021, pp. 33-36, doi:10.31149/ijhcs.v3i4.2026.

33. Rustamova, K. B., Sobirov, K. S., & Najmiddinov, M. M. (2022). BASICS OF FARMING ON STRONGLY SALINE SOILS. *Web of Scientist: International Scientific Research Journal*, *3*(6), 1902-1907.

34. Rustamova, K. B., Sobirov, K. S., & Najmiddinov, M. M. (2022). AGRICULTURE FEED CHAPTER THE BASICS OF CROP IRRIGATION. *Academicia Globe: Inderscience Research*, *3*(06), 381-386.

35. Rustamova, K. B., Sobirov, K. S., & Najmiddinov, M. M. (2022). ECONOMICAL USE OF WATER RESOURCES IN IRRIGATION IN THE REPUBLIC OF UZBEKISTAN. *Web of Scientist: International Scientific Research Journal*, *3*(6), 1860-1865.

36. Jurayev, A. K., Rustamova, K. B., Sobirov, K. S., & Najmiddinov, M. M. (2022). WATERING THE COTTON BY DRIP IRRIGATION METHOD. *Spectrum Journal of Innovation, Reforms and Development*, *4*, 605-610.

37. Jurayev, A. K., Sobirov, K. S., & Najmiddinov, M. M. (2022). HIGH AND HIGH QUALITY HARVEST FROM PET FOOD CROPS BY LASER LEVELING ON DESERT SLOPES. *Academicia Globe: Inderscience Research*, *3*(06), 387-391.

38. Jurayev, A. K., Jurayev, U. A., Atamurodov, B. N., Sobirov, K. S., & Najmiddinov, M. M. (2022). THE EFFECTIVENESS OF INTENSIVE CULTIVATION OF POTATOES IN CONDITIONS OF SALINE SOILS. *Web of Scientist: International Scientific Research Journal*, *3*(6), 1853-1859.

39. Atamurodov, B. N., & Najmiddinov, M. M. (2022). The Effectiveness of Farming in Greenhouses Drip Irrigation Method. *Journal of Intellectual Property and Human Rights*, *1*(1), 14-18.

40. Jurayev, A. K., Jurayev, U. A., Atamurodov, B. N., Sobirov, K. S., & Najmiddinov, M. M. (2022). WATERING THEIR CROPS WITH WATER OF DIFFERENT QUALITY. *Oriental renaissance: Innovative, educational, natural and social sciences*, *2*(6), 1251-1257.