



THE EFFECTIVENESS OF INTENSIVE CULTIVATION OF POTATOES IN CONDITIONS OF SALINE SOILS

Jurayev A. K.

Bukhara Institute of Natural Resources Management of the National Research
University of TIAME - 32, Gazli Shokh Ave., Bukhara, 105009, Uzbekistan

Jurayev U. A.

Bukhara Institute of Natural Resources Management of the National Research
University of TIAME - 32, Gazli Shokh Ave., Bukhara, 105009, Uzbekistan

Atamurodov B. N.

Bukhara Institute of Natural Resources Management of the National Research
University of TIAME - 32, Gazli Shokh Ave., Bukhara, 105009, Uzbekistan

Sobirov K. S.

Bukhara Institute of Natural Resources Management of the National Research
University of TIAME - 32, Gazli Shokh Ave., Bukhara, 105009, Uzbekistan

Najmiddinov M. M.

Bukhara Institute of Natural Resources Management of the National Research
University of TIAME - 32, Gazli Shokh Ave., Bukhara, 105009, Uzbekistan

Annotation

The world's population continues in the image of growth, while this growth is naturally driven by further kuchaytiradi demand for food. If we look at the world, then countries that are full of food products are few. The main expenditure for the cultivation of products requires rational use and protection of limited water resources, as well as a solution with a scientific and technical approach to the problems in this area. The fact that we have chosen potatoes as our research paper is also an example of say - efforts aimed at eliminating these problems.

Аннотация: население мира продолжает расти, и этот рост, естественно, еще больше увеличивает спрос на продукты питания. Когда мы смотрим на мир, есть бесчисленное количество стран, которые полностью обеспечены продуктами питания. Для производства продукции требуется рациональное использование и охрана основных расходных, ограниченных водных ресурсов, а также решение проблем в этом направлении с научно - техническим подходом. Тот факт, что





мы выбрали картофель в качестве предмета нашего исследования, также является примером действий, направленных на устранение этих проблем.

Key words: food safety, herbaceous plant, extinction, light-loving, potato haze, humus-loving, cluster, drought.

Ключевые слова: безопасность пищевых продуктов, травянистое растение, известь, светолюбивое, картофельное пюре, влаголюбивое, кластерное, засухоустойчивое.

INTRODUCTION

Decree of the president of the Republic of Uzbekistan on measures to ensure more effective organization of the process of acquisition of rights over land parcels and other immovable property as part of the South Caucasus pipeline expansion project more:

1. Within the framework of the strategy of the development of Agriculture of the Republic of Uzbekistan for 2020 – 2030 in 2021:

- a number of definitions have been put forward in the direction of the development and introduction of public policy on food safety.

a) due to the formed agricultural skills, soil-climatic conditions, water supply, the regions of all districts of the Republic are gradually specialized in the cultivation of certain types of products. Such:

in the placement of agricultural crops, the main attention will be paid to its yield, exportability, cultivation in holistic areas;

on the basis of cooperative and cluster system, the system of product cultivation, processing, storage and sale to domestic and foreign markets is established.[1]

The initiatives of President Shavkat Miromonovich Mirziyoyev in this regard are aimed at developing agriculture and water economy. In particular, the decision of PP - 4486 “on measures for further improvement of the water resource management system” on 09 October 2019 is an obvious proof of this. In accordance with this decision, timely and qualitative development of the consortium for the development of Water Resources in 2020-2030 years was defined as the task of Gal [2].

Potatoes in vegetables are considered the most delicious and rich in starch.

Potato *Solanum tuberosum* (Latin) is a perennial herbaceous plant of the Solanaceae family, a perennial herbaceous plant, one of the main food products of which is a one-year Food, technical and poppy crop. Homeland-South America. About 150 wild and cultural species most of them grow in South and Central America. Potatoes were





planted by the indigenous inhabitants of America about 14 thousand years ago. It was brought to Europe in 1565-th year. It began to be planted in Russia at the beginning of the 18-th century. And to Uzbekistan were brought by Russians and Tatars who moved here from the 70-ies of the 19 century. The total area planted potatoes worldwide is 17,9 million ha, productivity is 16,3 t / ha, gross yield is 294,3 million t (1999). The crop area in Uzbekistan is 52 thousand ha, the yield is 12,7 t/ha, the gross yield is 729,8 thousand t (2000). It is sown a lot in China (3 million), Poland (1,2 million).[3] at present, special attention is paid to the cultivation of potatoes in our country and in the future, the import of potatoes will be completely abandoned. With the aim of growing new varieties of potatoes in vitro in cooperation with the world leader in potato growing, the state of Vengria, the center of AKIS Agro-Services operates in the territory of Tashkent region.

Currently, 130 varieties of potatoes are grown in Uzbekistan.

Today, the potato harvest grown in our country is exported to such countries as the Republic of Belarus, Kazakhstan, Kyrgyzstan, Russia, Turkmenistan.

Potatoes-the second name of mankind after bug'doy. It is a perennial herbaceous plant with a fruit of endemic origin, belonging to the family of tomatoes. At the end of the potato there are starch (about 20%), protein, sugar and other substances. From them, alcohol, starch and glucose are obtained. Potatoes are a moisture-loving (especially during flowering and extinction), light-loving, somewhat frost-resistant plant.

In our research work we are located in the District Rabotikalmak MFY sida On March 10, 2022, we planted the Arizona potato variety on 0.3 acres of farmland "culture Ismat Muhammad". The humidity of the soil is 70-75 %, the air temperature is 27-28 Co. We have provided cultural technical service to our crop area. We divided our overturned area into 7 rows.

We pulled the thread from the beginning to the end of the first row. And under the thread we put out one by one the potato niches with the top facing up. On top we make a lump of soil from a hoe. In the same way as in the 2 - row, we just drew the niches on the 2 chip, we put the 3-row upside down, we put the 4-5-6 - row potatoes on top of the various cannons. For this it took 15 kg of salmon. Before planting potatoes in 7-th row, we put 6 kg of shlukha under the potatoes. We watched every 10 days after planting potatoes. In the cultivation of vegetables such as potatoes, turnips, radish, carrots, it is desirable to soften the soil so that the crop grows well, vegetables such as carrots, turnips, potatoes are considered to be products that grow under the soil, so that the soil becomes soft.





I came across another excellent recommendation as long as it is desirable that the potato should not be watered by pouring jelly. The reason is that if watered to the bottom of the fur coat does not solidify the soil, this will lead to the fact that the potatoes will develop well and form the basis for the increase in Harvest.

As an advantage of this variety, I would say, gardeners have identified several advantages when evaluating arizona varieties:

- Excellent presentation;
- Good storage;
- Drought-resistant;
- Does not lose its presentation during long-distance transportation;
- Resistance to Golden nematode and potato crayfish.

Among the disadvantages of Arizona potatoes include sensitivity to simple scabies, late Burns of leaves.

Arizona potato tubers, treated with the drug, withstand frosts up to -5 C, the bushes grow stronger and stronger, and the roots ripen faster.[3]

The main objective of our research is to obtain abundant and abundant harvest with low water consumption and to apply it in the national economy by achieving water saving. In our experiment, we managed to save water from watering by pouring water on a potato grater. So I want to say that in our study, which we conducted in our 5 variants, we kept a high level of humidity in our variant of Sumon millet. As a result, our productivity of this option was high.

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 AGROTEKNIKASI. *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.

