

ASSESSMENT OF THE EFFECTIVENESS OF PHYTOMELIORATIVE MEASURES IN IMPROVING THE RECLAMATION CONDITION OF SALINE LANDS

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Abstract

in the article, in order to determine the yield of grain and straw of phytomeliorant plants after autumn wheat, in 2022, when determining the yield of oat (sorghum) plants, according to the guide, the plant was harvested and mowed separately from 1x1 meters of fields in an envelope method from 5 locations of each option and returns, and the grain and hay crop was determined by weighing on the scales. During the experiments, the highest yield from the phytomeliorant plant was obtained from white Linden planted in the autumn wheat rhizome. This variant claim that the average grain yield was 0.474 t/ha and the hay yield was 2.262 t/ha.

Keywords: phytomeliorant, sorghum

Introduction.

As a result of global climate change in the world, there are also other changes associated with changes in all geochemistry, the occurrence of World Ocean level rise, melting ice and permanent glaciers, an increase in the non-uniform precipitation of precipitation, changes in river flow patterns and climate instability. According to the "International Food and Agriculture Organization (FAO),"International Institute for Environment and Development (International Institute for Environment and Development) and World Resources Institute, about 30% of irrigated areas in the world are saline lands to varying degrees. They are mainly distributed in arid (arid) areas (China, India, Mexico, Pakistan, USA, Australia, etc.k.). In the world, 1500 million dry gods and 932 million. to there are saline soils, the yield of crops in their 32 million hectares is directly influenced by Salt"

4 cultural types of Sorghum Moench (pers) of the generation of white sorghum: white sorghum-s, which is planted for fodder, technical, food purposes. Vulganell Pers, Kokanok oat-S. Cernum Host, gaolyan

(Japanese white oats) – *S.chinensi*, a sudanot-s planted as a forage crop. *Sudanensi* is scattered.

Research methods. Methodology for conducting field experiments Buttermilk selectionasi, urugchiligi va etishtirish agrotekhnologiyalari Research Institute “Techniques for conducting field experiments” “Methodology of field experiments with grain crops” va “Methods of agrochemical and agrophysical research in irrigated cotton areas” uslubiy performed on the basis of applications

Biological classification of phytomeliorant plant

The roots grow as a poplar root, penetrating 2 meters deep into the soil and spreading around it up to 90 cm. The height of the STEM is 2.5-3.5 meters, in tropical countries it reaches 6-7 meters. The leaves are covered with a wide hairy sheath, each Bush contains 10-25 pieces or more on the plant. The ball guli Rovak, two spikes are located at the end of each branch of the rovagi. White oats are mostly pollinated from the outside. The grain is scaly and unpeeled, round, ovoid, white-brown, yellow-brown in color, the weight of 1000 grains comes from 25-40 gr. Each row contains between 1,600 and 3,500 grains. The grain, which is endosperm brown or reddish, contains additives that enter the tannin gruppaga. The presence of these substances is poor in its nutritional aspect, but plays an important role for the manufacturing industries of alcohol and maltose. According to The Shape of the White oat row, it is divided into 3 types: spreading-growing (broom), the row is long, the branch becomes sparse. The STEM is erect (row-shaped), the tip of the short stem is erect, growing or bent, gouging (bent). Basically, white oats with a porous fiber are planted a lot.

White oats are considered the most arid plant, with a transpiration coefficient of about 200, it is one of the most resistant grain crops to heat. White oat seeds germinate well at soil temperature 120s-140s. Young and established plants are absolutely frost-resistant. The air temperature can also grow at 350s-400s. A useful temperature sum of 22500s-25000s is necessary before the seed ripens. Light-demanding, short-day plant. It produces high yields in sunny fog with little cloud.

The Blue Stem of the White Linden is given to moles or the silage is suppressed. Its silo content is close to that of the giant mackerel oat silo. It will be a good hay if the White oat stem is mowed until it becomes rough. White oats sprout again. The White Linden has 100 kilograms of grain equal to 119, blue mass 23.5, silo 22.0, hay 49.2 food units. Cereals contain 15 percent protein. Sweet white oat varieties contain 10-15 percent sugar at the base and are used to make juice. White Linden can be planted as a snowflake and as a protective ixota crop from garmsel.

Phytomelioratn plant yield

In order to determine the yield of grain and straw of phytomeliorant plants after autumn wheat, in 2022, when determining the yield of white oat (sorghum) plants, the plant was harvested and mowed separately from 1x1 meters of fields in an envelope method from each of the options and returns in 2022, and the grain and hay crop was determined by weighing on the scales. During the experiments, the highest yield from the phytomeliorant plant was obtained from white Linden planted in the autumn wheat rhizome. In this variant, the average grain yield was 0.474 t/ha and the hay yield was 2.262 t/ha.

References

1. Khamidov, M., Juraev, A., Juraev, U., Atamurodov, B., Rustamova, K., Najmiddinov, A., & Nurbekov, A. (2022, July). Effects of deep softener and chemical compounds on mechanical compositions in heavy, difficult-to-ameliorate soils. In *IOP Conference Series: Earth and Environmental Science* (Vol. 1068, No. 1, p. 012017). IOP Publishing.
2. Atamurodov, B. N., Sobirov, K. S., & Najmiddinov, M. M. (2022). Rational Use of Water in Agricultural Regions. *Miasto Przyszłości*, 25, 88-89.
3. Rustamova, K. B., Najmiddinov, M. M., & Sobirov, K. S. (2022). Economical Use of Water Resources and Fertilizers in Irrigation of Crops. *Miasto Przyszłości*, 25, 84-87.

4. Jurayev, A. Q., Ro‘Ziyeva, Q. U., & Najmiddinov, M. M. (2022). CHO ‘L YAYLOVLARDA LAZERLI TEKISLASH ORQALI CHORVA OZUQABOB EKINLARDAN YUQORI VA SIFATLI HOSIL OLISH. *Oriental renaissance: Innovative, educational, natural and social sciences*, 2(6), 513-519.
5. Atamurodov, B. N., Najmiddinov, M. M., & Sobirov, K. S. (2022). INTENSIV BOG‘LAR TASHKIL QILISH–YAXSHI DAROMAD OLISH GAROVI. *Oriental renaissance: Innovative, educational, natural and social sciences*, 2(7), 205-211.
6. Rustamova, K. B., Najmiddinov, M. M., & Sobirov, K. S. (2022). INTENSIV BOG‘LARNI SUG‘ORISHDA TEJOVCHI USULLAR. *Oriental renaissance: Innovative, educational, natural and social sciences*, 2(7), 294-300.
7. 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.
8. Jurayev, A. K., Jurayev, U. A., Atamurodov, B. N., Sobirov, K. S., & Najmiddinov, M. M. (2022). IRRIGATION OF COTTON BY WATER-SAVING.
9. 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.
10. 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.
11. Atamurodov, B. N., Sobirov, K. S., & Najmiddinov, M. M. (2022). Development of Irrigation Procedures by the Method of Hydroponics. *American Journal of Social and Humanitarian Research*, 3(7), 40-44.
12. Jurayev, U. A., Atamurodov, B. N., Sobirov, K. S., & Najmiddinov, M. M. (2022). Technology of Irrigation of Agricultural Crops with Water of Different Quality. *American Journal of Social and Humanitarian Research*, 3(7), 45-49.
13. 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.
14. Juraev, A. K., Khamidov, M. K., Juraev, U. A., Atamurodov, B. N., Murodov, O. U., Rustamova, K. B., & Najmiddinov, M. M. (2023, February). Effect of deep softeners on irrigation, salt washing and cotton yield on soils whose mechanical composition is heavy and meliorative status is difficult. In *IOP Conference Series: Earth and Environmental Science* (Vol. 1138, No. 1, p. 012006). IOP Publishing.
15. 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.
16. 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.
17. 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.
18. 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.

19. 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.
20. Xamidova, S. M., Juraev, U. A., & Atamurodov, B. N. (2022). Evaluation of the effectiveness of phytomeliorative measures in the treatment of reclamation of saline soils. *Web of Scientist: International Scientific Research Journal*, 3(6), 835-841.
21. 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.
22. Rustamova, K. B., Sobirov, K. S., & Najmiddinov, M. M. (2022). Agriculture feed chapter the basics of crop irrigation. *Academicia Globe: Inderscience Research*, 3(6), 1-6.
23. Rustamova, K. B., Sobirov, K. S., & Najmiddinov, M. M. (2022). Cultivation of Fast-Growing Crops on Strong and Moderately Saline Soils. *Miasto Przyszłości*, 25, 94-97.
24. Rustamova, K. B., Najmiddinov, M. M., & Sobirov, K. S. (2022). Economical Use of Water Resources and Fertilizers in Irrigation of Crops. *Miasto Przyszłości*, 25, 84-87.
25. Rustamova, K. B., Najmiddinov, M. M., & Sobirov, K. S. (2022). The Effectiveness of Intensive Cultivation of Root Fruit Crops in Conditions of Saline Soils. *Miasto Przyszłości*, 25, 80-83.
26. Rustamova, K. B., Sobirov, K. S., & Najmiddinov, M. M. (2022). Norms of Irrigation and Fertilization of Grain Crops with Spike. *Miasto Przyszłości*, 25, 77-79.
27. 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.
28. 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.
29. 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.
30. Rustamova, K. B., Sobirov, K. S., & Najmiddinov, M. M. (2022). G ‘O ‘ZANI TOMCHILATIB SUG ‘ORISHDA SUG ‘ORISH ME’YORI VA SUG ‘ORISH MUDDATLARI. *Oriental renaissance: Innovative, educational, natural and social sciences*, 2(7), 301-307.
31. Rustamova, K. B., Najmiddinov, M. M., & Sobirov, K. S. (2022). INTENSIV BOG’LARNI SUG’ORISHDA TEJOVCHI USULLAR. *Oriental renaissance: Innovative, educational, natural and social sciences*, 2(7), 294-300.
32. Khamidov, M. K., Juraev, U. A., Buriev, X. B., Juraev, A. K., Saksonov, U. S., Sharifov, F. K., & Isabaev, K. T. (2023, February). Efficiency of drip irrigation technology of cotton in saline soils of Bukhara oasis. In *IOP Conference Series: Earth and Environmental Science* (Vol. 1138, No. 1, p. 012007). IOP Publishing.
33. Khamidova, S. M., Juraev, U. A., Juraev, A. K., & Khamidov, M. K. (2023, February). Evaluating the effect of phytoameliorative measures on the land reclamation status. In *IOP Conference Series: Earth and Environmental Science* (Vol. 1138, No. 1, p. 012022). IOP Publishing.
34. 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.
35. Xamidova, S. M., Juraev, U. A., & Sadullayev, A. N. (2022). THE EFFECT OF PHYTOMELIORANT CROPS ON THE ACCUMULATION OF SALT IN THE SOIL, NORMS

- FOR WASHING SOIL BRINE. *Spectrum Journal of Innovation, Reforms and Development*, 5, 78-82.
36. Juraev, U. A., & Nafiddinovich, S. A. (2022, July). APPLICATION OF RESOURCE-EFFICIENT IRRIGATION TECHNOLOGIES IN BUKHARA OASIS. In *INTERNATIONAL CONFERENCE: PROBLEMS AND SCIENTIFIC SOLUTIONS*. (Vol. 1, No. 2, pp. 176-185).
 37. Xamidova, S. M., Juraev, U. A., & Sadullaev, A. N. (2022). The effectiveness of phytomeliorative measures in conditions of saline soils. *Academica Globe: Inderscience Research*, 3(7), 1-5.
 38. Isaev, S. X., Juraev, A. Q., Juraev, U. A., Murodov, O. U., Najmiddinov, M. M., & Ruziyeva, M. A. (2022). INVESTIGATING IRRIGATION SYSTEM BY USING DRAINAGE WATER IN THE CULTIVATION OF REPEATED MILLET CROP. *Journal of Advanced Scientific Research (ISSN: 0976-9595)*, 2(2).
 39. 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.
 40. Khamidov, M. K., Balla, D., Hamidov, A. M., & Juraev, U. A. (2020). Using collector-drainage water in saline and arid irrigation areas for adaptation to climate change. In *IOP Conference Series: Earth and Environmental Science* (Vol. 422, No. 1, p. 012121). IOP Publishing.
 41. Anvarovich, J. U., Dagmar, B., Khamidpovich, K. M., & Muhammadkhonovich, K. A. (2016). Improvement of drainage water quality through biological methods: a case study in the Bukhara region of Uzbekistan. *European science review*, (9-10), 162-167.