WEB OF SYNERGY:
International Interdisciplinary Research Journal
Volume 2 Issue 2, Year 2023 ISSN: 2835-3013
https://univerpubl.com/index.php/synergy

Calculation of Pasture Water Supply and Local Irrigation Networks

Roziyeva Kursiya Umarovna
Intern teacher at the Department of Water Resources Use and Reclamation, Tashkent Institute of Irrigation and Agricultural Mechanization Engineers National Research University Bukhara Institute of Natural Resources Management

Hamroyeva Farangiz Baxtiyorovna
3nd stage student of water management and land reclamation, Tashkent Institute of Irrigation and Agricultural Mechanization Engineers National Research University Bukhara Institute of Natural Resources Management

Yusupova Aynura Mekhriddinovna
1st-level student of water management and land reclamation, Tashkent Institute of Irrigation and Agricultural Mechanization Engineers National Research University Bukhara Institute of Natural Resources Management

Article Information

Received: December 18, 2022
Accepted: January 19, 2023
Published: February 20, 2023

Keywords: *Pasture, harvest, desert*

ABSTRACT

Today, almost 50-70% of the desert pastures of our republic have been degraded to varying degrees, and their average productivity has decreased by 21% in recent years. The fact that the decrease in the use of pastures and the yield of pastures as a result of irregular livestock grazing in the Republic of Karakalpakstan, Bukhara and Navoi regions is 42-43 percent determines the need to develop practical measures that will serve to stabilize their situation.

INTRODUCTION

Improving the reclamation of lands, the development of irrigation works, the development of new lands and other reclamation activities, determine the cultural level of the peasant community, become the main factor in the economic development of Agriculture. Goals and objectives of agricultural reclamation the main goal of Reclamation is to radically improve the unfavorable conditions of soils (water, air, feed, heat), constantly increasing its fertility. from agricultural crops is the cultivation of a stable, abundant, high-quality and affordable product. Today, almost 50-70 % of the desert pastures of our republic have degraded to varying degrees, and in recent years their average productivity has decreased by 21 %. The use of pastures and a decrease in their productivity as a result of irregular cattle grazing in pastures accounts for 42-43 % in the Republic of Karakalpakstan, Bukhara and Navoi regions determines the need to develop practical measures that will serve to stabilize their condition. As a result of many years of

research, 10-30 % of the nitrogen given is unused by plants, the amount around 15-5 % is added to the atmosphere. 30-35 % is assimilated by plants, 5-10 % sits on the soil, 5-15 % is absorbed into the lower layers of the soil and groundwater. Of the nutrients used in the form of phosphorus, 7-15% are assimilated by plants, 55-75 % are collected in the soil, 10-15 % are concentrated on the soil, 5-10 % are in surface waters, less than 1 % is added in the lower layers of the soil and groundwater.

"SARATOV-853" VARIETAL MILLET PLANT

His homeland is China and Mongolia. Widely distributed in Asia, America, Africa. It is planted in large areas in Afghanistan, India, southern Europe, Russia, Georgia, Armenia, Kazakhstan. There are about 500 species. Millet is a plant that has been planted since ancient times. Grown in Asia, Europe and North America from the 3rd millennium BC, it has been planted in China for 5 thousand years. Millet is a heat-loving, drought-resistant plant. Seeds germinate when the temperature is 8-10°, at 12-15° their grass begins to turn green. The growth period is 60-100 (120) days. Pasture land is planted in late April — early may, in irrigated land at the end of April, in late June — early July as a repeated crop. Millet grain contains 10-15 % protein, 50% carbohydrate, 3.8 % oil. Seed consumption is 10-30 kg per hectare. During the growing season, 1-2 cultivation is carried out, 3-5 are watered, graze. The average yield is 20-28 c per hectare. Diseases karakuya, bacteriosis.

EXPERIENCE SYSTEM

Variantlar	Ekin turi	Sug'orish ishlari
1	"Saratov-853" navli tariq o'simligini xo'jalik sharoitida yetishtirish (Nazorat)	Xo'jalik sharoitida sug'orish ishlarini o'lchab borish
2	"Saratov-853" navli tariq o'simligini CHDNS ga nisbatan 60-80-60 % da sug'orish	Lokal sug'orish usulini qo'llash

"SARATOV-853" CALCULATION TABLE OF THE NORM OF TRADITIONAL AND LOCAL IRRIGATION OF THE CROP OF THE VARIETAL MILLET PLANT.

Sug'orish usuli (variant)	Sug'orish soni	Sug'orish me'yori, m^3/ga	Mavsumiy sug'orish me'yori, m^3
"Saratov-853" navli tariq o'simligini an'anaviy sug'orish	3	850	2750
		960	
		940	
"Saratov-853" navli tariq o'simligini o'simligini lokal sug'orish	4	510	1980
		620	
		450	
		400	

Thus, the plant of the Saratov-853 variety millet was watered traditionally 3 times during the season, giving the irrigation norm in the amount of 850-960 m^3/ha, while water was spent in the amount of 2750 m^3/ha during the season, using the local irrigation method as Option 2 of the experiment, 4 times water was supplied and the irrigation norm was In Option 2 of the experiment, 770 m^3 of water was saved.

“SARATOV-853” GRAIN AND STRAW YIELD OF THE VARIETAL MILLET PLANT

Variantlar	Don hosili			Hashak hosili			O‘rtacha hosil,ss/ga		
	Qavtariqlar			Qavtariqlar					
	I	II	III	I	II	III	Don	Hashak	O‘rtacha hosil
2020									
1-variant	22,4	22,3	22,7	75,0	73,4	76,3	22,8	75,6	98,7
2-variant	26,5	26,2	27,7	80,0	76,4	81,3	26,8	79,6	110,4
2021									
1-variant	22,6	21,8	20,3	73,4	72,1	71.9	22,2	72,4	96,7
2-variant	25,6	24,8	22,3	77,4	75,1	73.9	24,2	75,5	103,7

The measures envisaged in the project cost 1278375 soums for each local irrigation option, total: 10227,000 capital funds, in return of which an average of 807812 from agricultural crops total: 6462500 soums of additional profit, an additional profit analysis compared with the egatli irrigation method of introducing a local irrigation system showed that 806250 m is

Conclusion

Thus, a millet plant of the Saratov-853 variety was watered traditionally 3 times during the season, giving the irrigation norm in the amount of 850-960 m^3/ha, while water was spent in the amount of 2750 m^3/ha during the season, using the local irrigation method as the 2nd option of the experiment, water was given 4 timesWaste from straw and cereals is considered a welcome feed for livestock.

REFERENCES

1. Khamidov, M., Juraev, A., Juraev, U., Atamuradov, 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., Atamuradov, 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 effectivenes 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. *Academicia 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.