ISSN NO: 2771-8840
November 2024

Growing Dutch Tulip Varieties In Soil And Climatic Conditions Of The Namangan Region The Importance Of Irrigation

Kurbanov Ibragimjon Sharifboevich
Namangan Engineering and Technological Institute

Abstract: This article presents research on the cultivation and development of 16 varieties of Dutch tulips in the soil and climatic conditions of the Namangan region. The main objective of the study was to determine the optimal options for the timing and rates of irrigation when growing tulip varieties.
Key words: Tulip, introduction, onion, soil, variety, consistency.

Growing tulip bulbs. Today, tulips are the most important ornamental bulbous crops in the world, and most tulip plantations are located in the Netherlands. About 800 varieties of tulips are widely used in these plantations. Today, the development of technology for growing and caring for these varieties of tulips in different regions is one of the most pressing activities.

Specialists from the Floriculture Development Center and scientists from the Institute took an active part in the process of planting tulip bulbs from the Netherlands. According to the conclusion of comprehensive studies by specialists, 5 hectares of land in the Tuya Taldy massif of the Kosonsoy District of the Namangan Region were allocated for the plantation, meeting the requirements of climate and soil conditions. Specialists from the Netherlands were also invited to adapt the tulip to climate conditions, establish care for it and selection. Planting of tulip bulbs was carried out depending on the variety, color and other natural features.

Watering : In the experiment, soil moisture was maintained at a level of at least 70% of the maximum field moisture capacity (MFMC). Watering rates were determined based on the moisture deficit in the soil (600-700 m3 / ha). The growth rate and survival of tulip varieties were calculated by maintaining the amount of moisture in the soil (field moisture capacity) at a level of 50-60, 60-70, 70-80% compared to the MFMC before watering the field soil.

During the spring growing season, tulips were watered 3-4 times.

The soil must maintain the required moisture level until the tulip blooms. If there is a lack of moisture in the soil, the amount and concentration of salts in it quickly increases, which disrupts the activity of the roots. This leads to poor nutrition. As a result, the onion yield and flower yield are sharply reduced.

The increase in flower productivity is explained by the degree of germination of herbs from planted bulbs, viability, resistance to external adverse factors, duration of flowering and duration of the period. Irrigation has a positive effect on the level of germination, viability and resistance to external environmental factors of tulip bulbs, creates the basis for preserving all germinated plants and a high yield.

flower productivity, it is necessary to analyze the flowering period and duration of flowering of tulip varieties. Because the flower yield of tulip varieties directly depends on the flowering period and duration of the flowering period.

In our experiments, we analyzed the length, diameter and size of flowers of tulip plantation seedlings at the end of the growing season, and the studies showed that due to the fact that the tulip plant is water-loving, in our variants they were watered 3 and 4 times, the stem length is on average 35-42 cm, the diameter is not less than 7 mm. In our control variant, it turned out that the average length of the stem is 19 cm, the diameter is 5 mm.

The flowering period of the cultivated varieties was 05.04-25.04. Includes early-ripening (05.04) varieties Dub rw, Double red with white effe, Crw 18 Creamwhite, Purple Cloud, light pink varieties Lichte copex, late-flowering (from 20.04 to 25.04) Wit Rode Punt, Ridgedale Orange, NC Pride dark lilac, Purple. Early-flowering varieties Piet Paulusma yellow, Givenchy red with screaming effe were presented .

The duration of the flowering period of all the selected varieties was 10-18 days. It was distinguished by the fact that the Wit Rode Punt variety imported from the Netherlands lived 14-18 days, which is 1-4 days longer than other varieties. Among the varieties, Barbara Sobel pink, Lichte Kopeks light pink, Crw 18 creamy white

ISSN NO: 2771-8840
November 2024

had a flowering period of 10-13 days and differed from other varieties in a shorter duration . The effect of the irrigation rate on the flowering period and duration of tulip varieties is shown in Table 1 below.

Table 1

The influence of maximum field humidity on the time and duration of flowering of tulip varieties

T/r	Name of the variety	Flowering period, date				Duration of flowering period, days			
		control	ChDNS 50-60%	ChDNS 60-70%	ChDNS 70-80%	control	ChDNS 50-60%	ChDNS 60-70%	ChDNS 70-80%
1.	Givenchy spar red	10.04	8.04	7.04	6.04	13	13	14	14
2.	Barbara Sobel Pink	8.04	6.04	6.04	4.04	10	10	11	11
3.	Wit was riding a punt	20.04	19.04	18.04	17.04	14	14	15	15
4.	Duplicate R.W.	5.04	4.04	3.04	2.04	13	13	14	14
5.	Double red with white effect	5.04	3.04	3.04	2.04	12	12	12	12
6.	Ridgedale Orange	25.04	22.04	22.04	21.04	11	11	12	12
7.	Brown semi-double	22.04	20.04	20.04	19.04	14	14	15	15
8.	Pride of North Carolina dark lilac	25.04	24.04	23.04	23.04	14	15	16	16
9.	Crw 18 creamy white	5.04	4.04	3.04	2.04	11	11	11	11
10.	Dana Winner is white	8.04	6.04	6.04	4.04	11	11	12	12
11.	Violet cloud	5.04	4.04	3.04	2.04	12	12	12	12
12.	Purple early blooming	25.04	23.04	22.04	23.04	11	11	12	12
13.	Pete Paulusma yellow	22.04	20.04	20.04	19.04	14	14	15	15
14.	Givenchy red with a scream effect	25.04	23.04	22.04	23.04	14	15	16	16
15.	Lichte Kopeks Light Pink	5.04	3.04	4.04	2.04	11	11	12	12
16.	Bl 16-17o purple	8.04	6.04	5.04	4.04	11	11	12	12

In conclusion , it can be said that according to the results of the conducted scientific research, it is possible to accelerate the flowering period by implementing irrigation, and a very good result was achieved at the maximum field humidity of 60-70%. It was noted that the flowering period began 3-4 days earlier than in the control variant (irrigation was not carried out). The duration of the flowering period was also longer at the maximum field humidity of 60-70%, which on average was 1-2 days.

Early flowering of tulip varieties and an increase in the duration of flowering also affected their productivity.

When growing tulips, it is recommended to water 3 times in the spring season until the end of the growing season and maintain the HDNS at 60-70%.

ISSN NO: 2771-8840
November 2024

Literature

1. Misirova, S. A. "Systematic types of fungi of allocated and determined types from decorative flowers in conditions region Tashkent." *Agricultural sciences* 6.11 (2015): 1387.
2. Misirova, Surayyo, and Ibrohim Qurbanov. "Biological Characteristics of Fungal Pathogens of Bulb Flowers and Control Measures." *Texas Journal of Agriculture and Biological Sciences* 22 (2023): 49-56.
3. Abdumutalovna, Misirova Surayyo, and Sarimsaqova Nilufar Sobirjonovna. "Bioecology of Fungi-Pathogens of Flower Crops and the System to Combat Them." *Agricultural sciences* 7.8 (2016): 539-547.
4. Misirova, S., et al. "Growing Dutch tulips in Namangan region." *Bulletin of Agrarian Science of Uzbekistan* 1 (2021).
5. Misirova, Surayyo, and Ibrohim Qurbanov. "Biological Characteristics of Fungal Pathogens of Bulb Flowers and Control Measures." *Texas Journal of Agriculture and Biological Sciences* 22 (2023): 49-56.
6. Misirova, Surayyo. "Technology of growing orchid flowers from seeds." *E3S Web of Conferences*. Vol. 390. EDP Sciences, 2023.
7. MISIROVA, SA, and NN ERNAZAROVA. "FIGHTING MEASURES THE DISEASE CAUSES A VERY DANGEROUS FUNGAL SPECIES WIDESPREAD IN TASHKENT REGION." *International Journal of Botany and Research (IJBR)* 6 (2016): 5-12.
8. MISIROVA, SA. "TECHNOLOGY OF CULTIVATION AND REPRODUCTION OF ORNAMENTAL AND UNIQUE ORCHID FLOWER IN NAMANGAN CONDITIONS." *World Bulletin of Social Sciences* 17 (2022): 156-164.
9. Misirova, S. A. "BIOLOGICAL CHARACTERISTICS OF FUNGAL SPECIES THAT CAUSE DISEASES OF ONION FLOWERS AND MEASURES TO COMBAT THEM." (2022).
10. Misirova, S., and M. Haydarova. "Flowers from Nederland are Considered to Develop in the Climatic Conditions of Uzbekistan and Are Identified the types of Fungus." *Annals of the Romanian Society for Cell Biology* 25.4 (2021): 5922-5929.
11. Misirova, S. A., et al. "Determination types of fungi-pathogens of ornamental flower crops in conditions region Namangan." *ISJ Theoretical & Applied Science* 10.66 (2018): 185-189.
12. Abdumutalovna, Misirova Surayyo, and Muhabbat Davlatova Urmanovna. "Technology of in vitro propagation of mangosteen in the climatic conditions of Uzbekistan." *NVEO-NATURAL VOLATILES & ESSENTIAL OILS Journal| NVEO* (2021): 5610-5617.
13. Мисирова, Сурайё Абдумуталовна. "БИОЛОГИЧЕСКАЯ ЭФФЕКТИВНОСТЬ ФУНГИЦИДОВ В БОРЬБЕ С МУЧНИСТОЙ РОСОЙ И РЖАВЧИНОЙ РОЗ." *Научный поиск в современном мире*. 2016.
14. Misirova, Surayyo. "Reproduction technology of a unique orchid flower in the conditions of Namangan." *Texas Journal of Agriculture and Biological Sciences* 22 (2023): 37-48.
15. Мисирова, Сурайё Абдумуталовна, Иброхим Шарифбаевич Курбонов, and Назокат Кобилжоновна Сайфуллаева. "ОПРЕДЕЛЕНИЕ ГРИБКОВЫЕ БОЛЕЗНИ ЦВЕТОЧНЫХ КУЛЬТУР В УСЛОВИЯХ ОБЛАСТИ НАМАНГАНА." *Theoretical & Applied Science* 10 (2018): 185-189.
16. Мисирова, Сурайо Абдумуталовна. "Биоэкология грибов-возбудителей болезней цветочных культур и создание ситемы борьбы с ними." *Материалы 54-й Международной научной студенческой конференции МНСК-2016: Сельское хозяйство*. 2016.
17. Насритдинов, А., А. Нормирзаев, and А. Нуриддинов. "Разработка агрегатов для основной и предпосевной обработки почвы к севы промежуточных." *ФУНДАМЕНТАЛ ФАНЛАР* (2015): 44.
18. Насритдинов, Ахмаджон Абдухамидович, and Хусниддин Тургунбоевич Киргизов. "Агрегат для полосной обработки почвы." *Современные научные исследования и инновации* 12 (2015): 412-416.

ISSN NO: 2771-8840
November 2024

19. Байбобоев, Н. Г., Насриддинов, А. А., Нормирзаев, А. Р., & Нуриддинов, А. Д. (2014). Энергоресурсосберегающий комбинированный агрегат для обработки почвы. *Вестник Рязанского государственного агротехнологического университета им. ПА Костычева*, *3*(23), 42-44.
20. Насритдинов, Ахмаджон Абдухамидович. "Результаты исследования формы лобовой поверхности стойки чизеля-культиватора." *Universum: технические науки* 1 (58) (2019): 18-20.
21. Бойбобоев, Набижон Гуломович, and Ахмаджон Насритдинов. "Теоретические определение перемещение частиц почвы по поверхности углоснима." *Science Time* 6 (18) (2015): 84-89.
22. Бойбобоев, Набижон Гуломович, and Ахмаджон Насритдинов. "Теоретические определение перемещение частиц почвы по поверхности углоснима." *Science Time* 6 (18) (2015): 84-89.
23. Ходжаев, Ш. Т., Сагдуллаев, А. У., Исаев, О. Б., & Юсупова, М. Н. (2011). Проблемы защиты растений в Узбекистане. *Защита и карантин растений*, (8), 23-24.
24. Yusupova, M. N., and A. M. Gapparov. "Biological Method Of Plant Protection In Uzbekistan." *The American Journal of Agriculture and Biomedical Engineering* 2.11 (2020): 29-32.
25. Ходжаев, Ш. Т., Юсупова, М. Н., Курязов, Ш., & Саттаров, Н. (2008). Перспективы биологической защиты хлопчатника от хлопковой совки. *Сб. трудов.-Ташкент: Таллин*, 44-49.
26. Yusupova, M. N. "Biological method of crop protection in the fergana valley." *Agrarian science* 6 (2018): 68-70.
27. Юсупова, Махпуза Нумановна, Азиза Нуьмановна Тургунова, and Сайдулло Нуриддинович Очилов. "Система интегрированной защиты растений." *Российский электронный научный журнал.–2015* 1 (2015): 169-174.
28. MN, Yusupova, and B. Z. Nosirov. "Control Of Cotton Pests On Stubble Lands." *International Journal of Applied* 10.2 (2015): 99-108.
29. Yusupova, M. N., S. T. Hodzhaev, and K. S. Mamatov. "Possibilities of the biological method of cotton plant protection." *Agriculture and Biology Journal of North America* 2.5 (2011): 742-744.
30. Yusupova, Maxpuza. "Protection of after harvest cultures-as a reservetors of cotton pests." *Agriculture and Biology Journal of North America* 4.5 (2013): 576-582.
31. Ходжаев, Ш. Т., Юсупова, М. Н., Юлдашев, Ф., Исаев, О. Б., & Шокирова, Г. (2011). Борьба с вредителями хлопчатника на пожнивных культурах в севообороте. *Вестник защиты растений*, (2), 46-52.
32. Ходжаев, Ш. Т., Юсупова, М. Н., Юлдашев, Ф., & Жамалов, А. Г. (2010). Хлопковая совка на пожнивных культурах. *Защита и карантин растений*, (12), 22-23.
33. Юсупова, М. "Особенности защиты хлопчатника посеянного под пленки от вредных организмов." *Автореф. канд. дисс./М. Юсупова–Ташкент* (2001).
34. Yusupova, Makhpuza, Shakhnoza Irisova, and Otabek Numonov. "Biology of Pomegranate Pests, Control Measures and First Aid in Case of Pesticide Poisoning." *BIO Web of Conferences*. Vol. 82. EDP Sciences, 2024.
35. Yusupova, M., Turgunova, A., & Ochilov, S. INTERGRATED PLANT PROTECTION SYSTEMS.
36. Yusupova, M. N., and B. Z. Nosirov. "Cotton Pest Control on Stubble Crops at Crop Rotation." *International Journal of Biotechnology and Allied Fields* 1.11 (2013): 472-482.
37. Khodzhaev, S. T., Sagdullaev, A. U., Isaev, O. B., & Yusupova, M. N. (2011). Plant protection problems in Uzbekistan.
38. Khodzhaev, S. T., Yusupova, M. N., Yuldashev, F., & Zhamalov, A. G. (2010). Cotton bollworm in the post harvest crops.
39. Khodzhaev, Sh T., and M. N. Yusupova. "Defoliation times and bollworm." (2001): 35.
40. Sabirov, R. Z., Kurbannazarova, R. S., Melanova, N. R., & Okada, Y. (2013). Volume-sensitive anion channels mediate osmosensitive glutathione release from rat thymocytes. *PLoS One*, *8*(1), e55646.
41. Rashidovna, Melanova Nazira, and Numonov Otabek Urmonovich. "Comparative Characteristics of the Leaving of Glutathione From Cells of Different Types." *International Journal on Orange Technologies* 2.10: 79-82.
42. Sabirov, R. Z., Kurbannazarova, R. S., Melanova, N. R., & Okada, Y. (2010, January). Swelling-induced release of glutathione from rat thymocytes. In *JOURNAL OF PHYSIOLOGICAL*

ISSN NO: 2771-8840
November 2024

SCIENCES (Vol. 60, pp. S13-S13). 1-11-11 KUDAN-KITA, CHIYODA-KU, TOKYO, 102-0073, JAPAN: SPRINGER TOKYO.

43. Melanova, N. R., M. U. Davlatova, and O. Numanov. "The Effect of Extracellular Glutathione on the Regulation of Thymocyte Volume in Rats under Conditions of Hypoosmotic Stress." *Annals of the Romanian Society for Cell Biology* (2021): 7032-7038.
44. Меланова, Назира Рашидовна. "Сравнительная характеристика выхода глутатиона из различных типов клеток." *Universum: химия и биология* 5 (59) (2019): 9-12.
45. Melanova, N. R., & Yulchiyeva, S. A. (2021). EFFECT OF EXTRACELLUIAR GLUTATHIONE ON COLLOID-OSMOTIC LYSIS OF HUMAN RED BLOOD CELLS. *Scientific Bulletin of Namangan State University*, *2*(2), 144-149.
46. Choriyeva, N. M., & Melanova, N. R. (2019). STUDY OF LYSIS OF HUMAN ERYTHROCYTES UPON ADMINISTRATION OF GOSSYPOL, MEGOSIN AND BATRIDEN. *Bulletin of Namangan State University: Vol*, *1*(9), 11.
47. Melanova, N. R., Yulchieva, S., Rahimova, G. L., & Mamadjanova, M. A. (2020). The role of intracellular camp in the production of glutathione from rat thymocyte cells under hypoosmotic stress. *International journal of Advanced Science and Technology*, *29*(8 Special Issue), 821-825.
48. Melanova, N. R. (2023). REPRODUCTION OF THE MAGNOLIA (MAGNOLIACEAE) PLANT IN NAMANGAN CONDITIONS. *British Journal of Global Ecology and Sustainable Development*, *22*, 81-87.
49. Melanova, Nazira R. "The importance of the soap tree plant (Kelreiteria Paniculata) in environmental protection and landscaping in the climatic conditions of the Namangan region." *E3S Web of Conferences*. Vol. 390. EDP Sciences, 2023.
50. Шамситдинов, Ф. "Результаты опыта." *Защита и карантин растений* 5 (2003): 27-27.
51. Абдуалимов, Ш. Х., and Ф. Р. Шамситдинов. "Влияние применения стимуляторов роста на всхожесть семян, рост, развитие и урожайность хлопчатника в условиях светлых сероземных каменистых почв Наманганской области Республики Узбекистан." *Актуальные проблемы современной науки* 5 (2019): 47-51.
52. Абдуалимов, Шухрат Хамадуллаевич, and Фазлиддин Расулович Шамситдинов. "НАМАНГАН ВИЛОЯТИНИНГ ҚИР АДИРЛИ ТОШЛОҚ ЕРЛАРИДА ЯНГИ СТИМУЛЯТОРЛАРНИНГ ҒЎЗА БАРГ ЮЗАСИ ВА ҲОСИЛДОРЛИГИГА ТАЪСИРИ." *Журнал Биологии и Экологии* 1 (2019).
53. Kurbanov, I. G. "CARE OF TULIP VARIETIES OF THE NETHERLANDS IN THE CLIMATIC CONDITIONS OF THE NAMANGAN REGION." *American Journal of Interdisciplinary Research and Development* 6 (2022): 117-120.
54. Qurbonov, Ibragim Sharifjonovich. "CLONELY MICRO-CULTIVATION OF PLANTS AND ITS APPLICATION TO AGRICULTURE." *Scientific Bulletin of Namangan State University* 1.4 (2019): 74-78.
55. Qurbonov, I. "E-RECRUITMENT: SOCIAL MEDIA AND RECRUITING." *InterConf.–2021*.
56. Qurbonov, I. "Tulip varieties imported from the netherlands technology of cultivation of namangan region. galaxy international interdisciplinary research journal (giirj) issn (E): 2347-6915 Vol. 9." (2021).
57. Yusupova, M., Irisova, S., & Numonov, O. (2024). Biology of Pomegranate Pests, Control Measures and First Aid in Case of Pesticide Poisoning. In *BIO Web of Conferences* (Vol. 82, p. 01014). EDP Sciences.
58. Irisova, Sh. "Protection Of Plants Sown After Cereals In The Fergana Valley." *Science and innovation* 2.D11 (2023): 158-166.
59. Irisova, Sh. "GROWTH AND REPRODUCTION CHARACTERISTICS OF BLACK FISH (SCHIZOTHORAX INTERMEDIUS) IN A PASTORAL POOL." *Science and innovation* 3.D10 (2024): 132-136.
60. IRISOVA, Shakhnoza. "BIO-ECOLOGICAL FEATURES OF BLACKFISH (SCHIZOTHORAX INTERMEDIUS) IN CHERVOK RESERVOIR." *Journal of Experimental Studies* 1.12 (2023): 18-24.

ISSN NO: 2771-8840
November 2024

61. Yusupova, Makhpuza, and Shakhnoza Irisova. "Agrotechnological protection of cotton from sucking pests in various ways of planting." *E3S Web of Conferences*. Vol. 390. EDP Sciences, 2023.
62. Faxriddinovna, Irisova Shaxnoza. "Ekish oldidan chigitga elektrofaollashgan suv bilan ishlov berishning g'o'zaning o'sish davriga ta'siri." *Science and innovation* 2.Special Issue 11 (2023): 421-425.
63. Urmonovich, Numonov Otabek. "MANGOSTEEN NUTRITIONAL PRICE AND FUNCTIONAL PROPERTIES." *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ* 14.5 (2023): 3-5.
64. Abduhamidovich, Nasritdinov Ahmadjon. "MANGOSTIN DARAXTI VA MEVASINI TIBBIYOTDA FOYDALANISH." *Journal of new century innovations* 28.2 (2023): 12-14.
65. Юсупова, Махпуза Нумановна. "ФАРҒОНА ВОДИЙСИ ШАРОИТИДА ИГНА БАРГЛИ ДАРАХТЛАРНИ ЗАРАРКУНАНДАЛАРДАН ҲИМОЯЛАШ." *SO 'NGI ILMIY TADQIQOTLAR NAZARIYASI* 6.4 (2023): 316-320.
66. Юсупова, Махпуза Нумановна. "АНОРНИ ЗАРАРКУНАНДАЛАРДАН ҲИМОЯЛАШ." *PEDAGOG* 6.4 (2023): 562-567.
67. Юсупова, Махпуза Нумановна. "БИОЛОГИЧЕСКИЙ МЕТОД ЗАЩИТЫ РАСТЕНИЙ." *Scientific Impulse* 1.9 (2023): 1460-1464.
68. O'rmonovna, Davlatova Muhabbat. "MANGOSTIN DARAXTI VA UNING KIMYOVIY XUSUSIYATLARI." *INNOVATION IN THE MODERN EDUCATION SYSTEM* 3 (2022): 1-4.
69. Юсупова, Махпуза Нумановна. "УФТ: 635 САБЗАВОТ ЭКИНЛАРИГА БИОЛОГИК КУРАШ ҲАҚИДА МУЛОХАЗАЛАР." *Научный импульс* 355.
70. Юсупова, М. Н., and О. У. Нумонов. "ЗАЩИТА ТУТОВОГО ДЕРЕВА ОТ ВРЕДИТЕЛЕЙ." *Экономика и социум* 6-1 (121) (2024): 1500-1503.
71. Shamsitdinov, Fazliddin, and Numonov Otabek Urmonvich. "FIBERS OF THE PREPARATION BIOBARS-M IMPACT ON QUALITY INDICATORS I." *American Journal of Interdisciplinary Research and Development* 23 (2023): 173-175.
72. Юсупова, Махпуза Нумановна. "ТУТ ПАРВОНАСИ ВА УНИНГ ЗАРАРИ." *O'ZBEKISTONDA FANLARARO INNOVATSIYALAR VA ILMIY TADQIQOTLAR JURNALI* 3.32 (2024): 35-38.
73. Khusanova, Onarkhon, and Muhammadali Kamoliddinov. "The ecological features of the soil seaweeds." *AIP Conference Proceedings*. Vol. 2789. No. 1. AIP Publishing, 2023.
74. Khusanova, O. G., M. I. Kamoliddinov, and D. B. Muhammadjanova. "The taxonomic structure of soil waterweed in altitudinal belt of the north fergana." *Asian Journal of Multidimensional Research (AJMR)* 8.2 (2019): 332-336.
75. Xusanova, Onarxon. "FARG 'ONA VODIYSI TEKISLIK MINTAQALARIDA TARQALGAN AL'GOSENOZLARNING EKOLOGIYASI." *Namangan davlat universiteti Ilmiy axborotnomasi* 8 (2023): 190-195.
76. Khusanova, Onarkhon, and Zulfiya Rakhimova. "ФАРҒОНА ВОДИЙСИ ТУПРОҚЛАРИДА ЎЧРАЙДИГАН (CHLOROPHYTA) ЯШИЛ СУВ ЎТЛАРИ." *Formation and Development of Pedagogical Creativity: International Scientific-Practical Conference (Belgium)*. Vol. 1. 2023.
77. Khusanova, Onarkhon. "GREEN SOIL ALGAE DISTRIBUTED IN THE SOILS OF FERGANA VALLEY." *Conferencea* (2023): 63-66.
78. Khusanova, Onarkhon. "SOIL ALGAE INDICATORS." *E Conference Zone*. 2023.
79. Onarkhon, G., Khusanova Kh, and X. A. Alimjanova. "Structure and taxonomic analysis of soil algae steep areas of northern Ferghana in winter." *European science review* 7-8 (2018): 26-29.
80. Khusanova, Onarkhon Gaybullaevna. "TAXONOMIC ANALYSIS OF THE SUANOPHYTA DEPARTMENT ON THE SOILS OF THE NORTHERN FERGANA." *Scientific Bulletin of Namangan State University* 2.2 (2021): 136-140.