

## **SAMARQAND DAVLAT UNIVERSITETI GERBARIYSI TARIXI VA BOTANIKA BOG`I HUDUDIDAGI O`SIMLIK TURLARI.**

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**Annotatsiya:** Samarqand davlat universiteti botanika kafedrasida gerbariy kolleksiyasi tarixi 1927-yil Samarqand davlat universitetining birinchi rektori, professor N.A. Merkulovich nomi bilan bog'liq. Gerbariy kolleksiyasi Samarqand davlat universitetining biologiya fakulteti binosida joylashgan. Ushbu kolleksiyada 20 ming gerbariy namunasi bo'lib, ulardan 16 ming namuna ilmiy, 4 mingtasi o'quv metodik gerbariy hisoblanadi.

**Kalit so'zlar:** SamDU gerbariyi, *lameacea*, *Heteroceryum*, *Lappula*, *Rochelia*, *Onosma*.

**Abstract:** History of the herbarium collection of the Botany Department of Samarkand State University 1927 The first rector of Samarkand State University, Professor N.A. It is related to the name Merkulovich. The herbarium collection is located in the building of the Faculty of Biology of Samarkand State University. This collection includes 20,000 herbarium specimens, of which 16,000 specimens are scientific and 4,000 are educational methodical herbariums.

**Kirish:** Gerbariy fondini tashkil etishda dastlabki gerbariy namunalari 1927-1941-yillar davomida N.A. Merkulovich, M.G. Popov, Q.Z. Zokirov, E.I. Proskoryakov, O.F. Gaze, G.A. Sergeeva, G.S. Chugaeva, X. Eshonkulov, M. Axmedov, G. Shodiyev, R.F. Fayziyev, V. Romanenko va boshqa olimlar tomonidan respublikamiz va chegaradosh respublikalar hududlaridan yig'ilgan. Gerbariy kolleksiyasini to'plashda SamDU professor-o'qituvchilari, doktorantlar, ilmiy tadqiqotchilar va iqtidorli talabalar bilan birgalikda bir qator hududlarga ilmiy

ekspeditsiyalar uyushtirilgan. Ular asosan Zarafshon vodiysiga va qisman respublikamizning janubiy va sharqiy hududlarida o'tkazilgan. Universitet tarixiy manbalarida qayd etilishicha, gerbariy kolleksiyalarining asosiy qismi 4 ta yirik Angren, Zarafshon, Pomir-Oloy va Hisor ekspeditsiyalari mahsuli hisoblanadi. Mazkur ekspeditsiyalar davomida yig'ilgan namunalari gerbariy fondini to'ldirishda katta ahamiyat kasb etgan. Ilmiy gerbariyning katta qismi Zarafshon vodiysi florasidir. 1938-yilda Samarqand davlat universitetiga Saratov davlat universitetidan taklif qilingan professor M.G. Popovning gerbariy kolleksiyasi boyishi va rivojlanishida hissasi katta. Professor SamDU olimlari bilan birgalikda 500 dan ortiq gerbariy nusxalarini to'plagan va sistematik tahlil qilgan. Kolleksiyaning tarixiy bo'limiga akademik Q.Z. Zokirov, prof. N.A. Merkulovich va M.G. Popovlar yig'gan gerbariy taalluqli. Bu kolleksiyalar qadimiy va noyob bo'lib, ular XX asrning boshlarida yig'ilgan. Bular asosida gerbariyning taksonomik bo'limi shakllantirilgan. Professor N.A. Merkulovich (1927-1930 yy.) "Zarafshon, Pomir-Oloy, Hisor, va Hazrati-Sulton" ga uyushtirilgan ekspeditsiyalarda va ko'plab to'plangan gerbariy ma'lumotlari asosida bir necha o'simlik oilalari bo'yicha ilmiy maqola va monografiyalar nashr etgan. Shu bilan birga, alloma O'zbekiston florasini tahlil qilishda birinchilar qatorida tadqiqotlar olib borgan va Respublikamizning yirik kapital asari «Флора Узбекистана» ning I tomiga muharrirlik qilgan.

**Mavzu yuzasidan adabiyotlar tahlili:** Terilgan gerbariy fondi yangi turkum va turlarning yaralishiga asos bo'lgan. Aynan shu gerbariyning ko'p qismi O'zR FA Botanika institutiga va V. L. Komarov nomli (Sankt-Peterburg) Botanika institutining gerbariy fondiga taqdim etilgan. Gerbariyning eng katta qismi akademik Q.Z. Zokirovga tegishli. Yosh olim 1937-1941-yillar mobaynida mashhur florist, sistematik, florigenetik, botanik-geograf M.G. Popov bilan yonma-yon mehnat qildi. Qodir Zokirovich professor M.G. Popov bilan birgalikda Zarafshon daryosi havzasining florasini batafsil o'rganishni boshlab berdi va bir qator yangi turlarni kashf etdi. Dastlab, 1938-yilda sho'ra turkumining yangi turini kashf etdi va

ustozi nomiga - *Salsola Merkuloviczi* Zak. deb nomladi. Shu jarayonda Qodir Zokirovich *Heteroceryum*, *Lappula*, *Rochelia*, *Onosma* turkumlaridan bir qator yangi turlarni kashf etdi. Bu ma'lumot universitetning ilmiy ishlari to'plamida e'lon qilindi. Ushbu yangi tur "Флора Узбекистана" ning II jildiga kiritildi. Keyinchalik turlarga ancha boy hisoblangan Kampirchopondoshlar - *Boraginaceae* oilasini chuqur o'rganib, Kampirchopondoshchalar kichik oilasi hajmida ma'lum bo'lgan 6 tribadan tashqari yana 4 tribaning mavjudligini, *Solenanthus* turkumidan ayrim turlarni *Lindelofia* turkumiga o'tkazishni ilmiy asosladi.

**Natija va muhokama:** 2017-2022-yillarga kelib Samarqand davlat universiteti rektori tashabbusi bilan SamDU tarixiy gerbariy kolleksiyasiga katta e'tibor qaratila boshlandi. Biologiya fakultetining bir necha o'quv xonalarida saqlanayotgan ushbu nodir xazina uchun alohida bino tashkil etilib, SamDU ning "Gerbariy – Botanika tadqiqotlar ilmiy laboratoriyasi» deb nomlandi. Bundan tashqari laboratoriya qoshida «Palinologiya», «Mikologiya», «Briologiya va lixenologiya» nomli laboratoriyalar tashkil etildi. Ushbu laboratoriyalar respublika bo'yicha birinchi bor tashkil etilganligi bilan xarakterlidir. 2021-yilda SamDU gerbariyasi tarixiy nodir obyekt sifatida AQSH da tashkil etilgan xalqaro gerbariyalar platformasida "Herba SamDU" nomi bilan 3100 talik ro'yxatdan joy oldi.

**Xulosa:** Hozirgi kunda dunyo bo'yicha ilmiy tibbiyotda va halq tabobatida 120 mingdan ortiq o'simliklar turlari ishlatiladi. Jumladan O'zbekiston florasida 1000 dan ortiq turlarning dori–darmonlik xususiyatlariga ega ekanliklari to'g'risida ma'lumotlar bor. Yalpizdoshlar (*Lamiaceae*) oilasi shifobaxsh va dorivor o'simliklarini o'rganish bo'yicha tadqiqot ishi birinchi marotaba qilindi. Yalpizdoshlar (*Lamiaceae*) oilasi shifobaxsh va dorivor o'simliklarining 26 turkum va 69 turdan iborat ekanligi aniqlandi. Yalpizdoshlar (*Lamiaceae*) oilasi dorivor o'simliklarning taksonomik tarkibi aniqlanib keng tarqalgan turlarining konspekti tuzildi. Yalpizdoshlar (*Lamiaceae*) oilasi shifobaxsh va dorivor o'simlik turlari taksonomik, geografik va fitotsenologik tahlil qilindi. Ularning turli guruhchalari o'rtasidagi nisbati aniqlandi.

## Adabiyotlar ro'yxati:

1. Shodiyeva, D. G., Shernazarov, F. F. o'g'li, & Tohirova, J. I. qizi. (2023). BAKTERIYALARNING IKKILAMCHI BIOLOGIK FAOL METABOLITLAR SINTEZ QILISH XUSUSIYATLARI VA ULARNING FARMASEVTIKADA QO'LLANILISHI. *RESEARCH AND EDUCATION*, 2(1), 269–276. Retrieved from <https://researchedu.org/index.php/re/article/view/1455>
2. G'iyosovna, S. D., Mansur o'g'li, S. S., & Izzatullayevna, T. J. (2023). CICHORIUM INTYBUS KO'CHATLARIDAN OLINGAN YANGI KISLOTA FOSFATLARINING KINETIK VA TERMODINAMIK TADQIQOTLARI. *Новости образования: исследование в XXI веке*, 1(7), 428–434. извлечено от <http://nauchniyimpuls.ru/index.php/noiv/article/view/5283>
3. Shodiyeva, D. G., & Annayev, M. G. o'g'li. (2023). DOMINANT MICROORGANISMS IN CICHORIUM INTYBUS. *GOLDEN BRAIN*, 1(3), 175–181. Retrieved from <https://researchedu.org/index.php/goldenbrain/article/view/1492>
4. Shodiyeva, D. G., & Xoljigitov, X. T. o'g'li. (2023). HUMAN IMMUNITY. *GOLDEN BRAIN*, 1(5), 174–180. Retrieved from <https://researchedu.org/index.php/goldenbrain/article/view/1718>
5. Худжанова М. А., Шодиева Д. Г., Холжигитов Х. Т. СОСТОЯНИЕ МИКРОЭЛЕМЕНТНОГО СТАТУСА У ДЕТЕЙ БОЛЬНЫХ ОСТРОЙ РЕСПИРАТОРНО-ВИРУСНОЙ ИНФЕКЦИЕЙ //GOLDEN BRAIN. – 2023. – Т. 1. – №. 6. – С. 15-19.
6. Shodiyeva Dildora, & Annayev Muxriddin. (2023). Berberis integerrimaning umumiy tasnifi, tarqalishi va tibbiyotda qo'llanilishi. *INTERNATIONAL JOURNAL OF RECENTLY SCIENTIFIC RESEARCHER'S THEORY*, 1(1), 7–12. Retrieved from <https://uzresearchers.com/index.php/ijrs/article/view/24>
7. Shodiyeva, D. G., Annayev, M. G. o'g'li, Mamarasulova, N. I., & Odilova, G. M. (2023). BERBERIS INTEGERRIMA BUNGENING IKKILAMCHI METABOLITLARINING DORIVORLIK XUSUSIYATLARI VA BIOTEKNOLOGIK AHAMIYATI. *GOLDEN BRAIN*, 1(10), 33–43. Retrieved from <https://researchedu.org/index.php/goldenbrain/article/view/2998>
8. Annayeva, D. (2022). CICHORIUM INTYBUS LISOLATION OF ENDOPHYTIC MICROORGANISMS FROM PLANTS AND IDENTIFICATION OF BIOTECHNOLOGICAL POTENTIAL. *Eurasian Journal of Medical and Natural Sciences*, 2(6), 54–61. извлечено от <https://www.in-academy.uz/index.php/EJMNS/article/view/1755>
9. Annayeva, D. G. Y., Azzamov, U. B., & Annayev, M. (2022). ODDIY SACHRATQI (CICHORIUM INTYBUS L) O'SIMLIGIDAN ENDOFIT MIKROORGANIZMLAR AJRATIB OLIISH. *Oriental renaissance: Innovative, educational, natural and social sciences*, 2(5-2), 963-972. <https://cyberleninka.ru/journal/n/oriental-renaissance-innovative-educational-natural-and-social-sciences>
10. Azimovich, A. U. B., G'iyosovna, S. D., & Zokirovna, M. M. (2022). XLAMIDIYANING INSON SALOMATLIGIGA TA'SIRINI MIKROBIOLOGIK TAHLILLI VA DIOGNOSTIKASI. *Talqin va tadqiqotlar ilmiy-uslubiy jurnali*, 1(11), 153-161. <https://doi.org/10.5281/zenodo.7305057>
11. Giyosovna, S. D. (2023). ODDIY SACHRATQI (CICHORIUM INTYBUS L) O'SIMLIK QISMLARIDAN ENDOFIT BAKTERIYALARNING SOF KULTURALARINI AJRATISH USULLARI. *Новости образования: исследование в XXI веке*, 1(6), 387-393. <http://nauchniyimpuls.ru/index.php/noiv/article/view/3573>
12. Shodiyeva, D. (2023). BIO-MORPHOLOGICAL CHARACTERISTICS, GEOGRAPHICAL DISTRIBUTION AND USE IN TRADITIONAL MEDICINE OF CICHORIUM INTYBUS. *GOLDEN BRAIN*, 1(2), 252-256. <https://researchedu.org/index.php/goldenbrain/article/view/1337>
13. Shodiyeva, D. (2023). SANOAT MIKROBIOLOGIYASINING BIOTEKNOLOGIYADAGI AHAMIYATI. *GOLDEN BRAIN*, 1(2), 116-120. <https://researchedu.org/index.php/goldenbrain/article/view/1310>
14. Shodiyeva, D. (2023). INDOLIL SIRKA KISLOTA MIQDORINI ANIQLASH. *GOLDEN BRAIN*, 1(2), 321-324. <https://researchedu.org/index.php/goldenbrain/article/view/1361>
15. Dildora, S. (2023). CICHORIUM INTYBUSDAN OLINGAN BACILLUS AVLODIGA MANSUB BAKTERIYALARINING BIOTEKNOLOGIK POTENSIALI VA MIKROBIOLOGIYADAGI

- ISTIQBOLLARI. O‘ZBEKISTONDA FANLARARO INNOVATSIYALAR VA ILMIY TADQIQOTLAR JURNALI, 2(15), 726-732. <https://bestpublication.org/index.php/ozf/article/view/3359>
16. Annayeva, D. G. Y., Azzamov, U. B., & Annayev, M. O. S. (2022). O‘SIMLIGIDAN ENDOFIT MIKROORGANIZMLAR AJRATIB OLISH.
17. Dildora, S., & Mekhriniso, B. (2023, January). APPLICATION AREAS OF BIOLOGICALLY ACTIVE METABOLITES PRODUCED BY ENDOPHITE BACTERIA. In E Conference Zone (pp. 92-95). <http://www.econferencezone.org/index.php/ecz/article/view/1941>
18. Shodiyeva Dildora, & Bobakandova Mekhriniso. (2023). APPLICATION AREAS OF BIOLOGICALLY ACTIVE METABOLITES PRODUCED BY ENDOPHITE BACTERIA. E Conference Zone, 92–95. Retrieved from <http://www.econferencezone.org/index.php/ecz/article/view/1941>
19. Жамалова , Ф. А., Болтаев , К. С., & Шодиева , Д. Г. (2023). ВОЗБУДИТЕЛИ МИКОЗОВ СЛЕПНЕЙ НА ТЕРРИТОРИИ РАЗЛИЧНЫХ РЕГИОНОВ УЗБЕКИСТАНА. GOLDEN BRAIN, 1(3), 28–34. Retrieved from <https://researchedu.org/index.php/goldenbrain/article/view/1465>
20. Makhmudova Zakro Vahobovna, Shodiyeva Dildora, & Olimjonova Sadokat Gulomjon’s daughter. (2023). BIOLOGY AND BIOTECHNOLOGY OF ENDOPHITE MICROORGANISMS. World Bulletin of Public Health, 18, 115-117. Retrieved from <https://scholarexpress.net/index.php/wbph/article/view/2074>
21. Olimjonova , S. G. qizi, & Shodiyeva , D. G. (2023). BAKTERIYALARNI SUYUQ VA QATTIQ OZUQA MUHITLARIDA O‘STIRISH SHAROITLARI. GOLDEN BRAIN, 1(3), 182–188. Retrieved from <https://researchedu.org/index.php/goldenbrain/article/view/1496>
22. Shodiyeva , D. G., & Annayev , M. G. o‘g‘li. (2023). DOMINANT MICROORGANISMS IN CICHORIUM INTYBUS. GOLDEN BRAIN, 1(3), 175–181. Retrieved from <https://researchedu.org/index.php/goldenbrain/article/view/1492>
23. G‘iyosovna, S. D. (2023). ODDIY SACHRATQI (CICHORIUM INTYBUS L) O‘SIMLIGIDAN ENDOFIT MIKROORGANIZMLAR AJRATISH VA ULARNING BIOTEXNOLOGIK POTENSIALINI BAHOLASH. <https://researchedu.org/index.php/goldenbrain/article/view/1506>
24. Shodiyeva , D. G. (2023). ODDIY SACHRATQI (CICHORIUM INTYBUS L ) O‘SIMLIGIDAN ENDOFIT MIKROORGANIZMLAR AJRATISH VA ULARNING BIOTEXNOLOGIK POTENSIALINI BAHOLASH. GOLDEN BRAIN, 1(3), 230–240. Retrieved from <https://researchedu.org/index.php/goldenbrain/article/view/1506>
25. Shodiyeva Dildora G‘iyosovna, & Tohirova Jayrona Izzatullayevna. (2023). VAKSINA OLISH TEXNALOGIYASI VA UNING AHAMIYATI. GOLDEN BRAIN, 1(3), 256–260. <https://doi.org/10.5281/zenodo.7605291>
26. Boltayev , K. S., Jamalova , F. A., & Shodiyeva , D. G. (2023). MIKOZLARGA MIKROBIOLOGIK MIKROSKOPIK TASHXIS QO‘YISHNING O‘ZIGA XOS XUSUSIYATLARI. GOLDEN BRAIN, 1(3), 35–40. Retrieved from <https://researchedu.org/index.php/goldenbrain/article/view/1466>
27. Shodiyeva , D. G., Jamalova , F. A., & Boltayev , K. S. (2023). BACILLUS THURINGIENSIS BAKTERIYALAR ASOSIDA YARATILGAN BIOPREPARATLAR. GOLDEN BRAIN, 1(3), 23–27. Retrieved from <https://researchedu.org/index.php/goldenbrain/article/view/1464>
28. Hamza, S., Muzaffar, A. ., Dildora, S., & Ulug‘bek, A. . (2023). BACILLUS THURINGIENSIS BAKTERIYA SHTAMMLARINING PHASEOLUS VULGARIS O‘SIMLIGI BIOMETRIK KO‘RSATKICHLARIGA VA RIVOJLANISHIGA TA‘SIRI. Scientific Impulse, 1(6), 327–332. Retrieved from <http://nauchniyimpuls.ru/index.php/ni/article/view/4355>
29. Shodiyeva, D. G., Shernazarov, F. F. o‘g‘li, & Tohirova, J. I. qizi. (2023). BAKTERIYALARNING IKKILAMCHI BIOLOGIK FAOL METABOLITLAR SINTEZ QILISH XUSUSIYATLARI VA ULARNING FARMASEVTIKADA QO‘LLANILISHI. RESEARCH AND EDUCATION, 2(1), 269–276. Retrieved from <https://researchedu.org/index.php/re/article/view/1455>
30. Azimovich, A. U. B., G‘iyosovna, S. D., & Akmalovich, M. A. (2023). ANTIBIOTIKLAR TA‘SIR DOIRASIGA KO‘RA KLASSIFIKATSIYASI. Talqin va tadqiqotlar ilmiy-uslubiy jurnali, 1(17), 245-251. <https://cyberleninka.ru/article/n/antibiotiklar-tasir-doirasiga-kora-klassifikatsiyasi>
31. Azimovich, A. U. B., & G‘iyosovna, S. D. (2023). O ‘SIMLIK O ‘SISHI VA RIVOJLANISHIDA FOYDALI MIKROORGANIZMLARNING AHAMIYATI. Talqin va tadqiqotlar ilmiy-uslubiy jurnali, 1(17), 257-260. <https://cyberleninka.ru/article/n/o-simlik-o-sishi-va-rivojlanishida-foydali-mikroorganizmlarning-ahamiyati>
32. Shodiyeva D., Ashirov F., Murodova A. EFFECT OF BACILLUS THURINGIENSIS BACTERIAL STRAINS ON PHASEOLUS VULGARIS PLANT BIOMETRIC INDICATORS AND

- DEVELOPMENT //Science and innovation. – 2023. – T. 2. – №. D2. – C. 49-56. <https://cyberleninka.ru/article/n/effect-of-bacillus-thuringiensis-bacterial-strains-on-phaseolus-vulgaris-plant-biometric-indicators-and-development>
33. Shodiyeva D., Shernazarov F. ANALYSIS OF THE COMPOUNDS PROVIDING ANTIHELMITIC EFFECTS OF CICHORIUM INTYBUS THROUGH FRACTIONATION //Science and innovation. – 2023. – T. 2. – №. D2. – C. 64-70. <https://cyberleninka.ru/article/n/analysis-of-the-compounds-providing-antihelmitic-effects-of-chichorium-intybus-through-fractionation>
34. Vahobovna , M. Z. ., G‘ulomjon qizi, O. S. ., & G‘iyosovna , S. D. . (2023). CICHORIUM INTYBUSNI AN‘ANAVIY TIBBIYOTDA QO‘LLANILISHI, FITOKIMYOVIY TARKIBI VA FARMAKOLOGIYADAGI AHAMIYATI. Scientific Impulse, 1(6), 1386–1392. Retrieved from <http://nauchniyimpuls.ru/index.php/ni/article/view/4776>
35. Giyosovna, S. D. (2023). CICHORIUM INTYBUSDAN YANGI BIRIKMA OLIISH VA ULARNING BIOLOGIK TASIRI. O‘ZBEKISTONDA FANLARARO INNOVATSIYALAR VA ILMIY TADQIQOTLAR JURNALI, 2(16), 156-164.
36. Giyosovna, S. D., Mansur ogli, S. S., & Izzatullayevna, T. J. (2023). CICHORIUM INTYBUS KOCHATLARIDAN OLINGAN YANGI KISLOTA FOSFATLARINING KINETIK VA TERMODINAMIK TADQIQOTLARI. Новости образования: исследование в XXI веке, 1(7), 428-434.
37. Giyosovna, S. D., & Abdusalomovna, J. F. (2023). BACILLUS AVLODIGA MANSUB BAKTERIYALARNING ANTIMIKROB VA ANTOGONISTIK XUSUSIYATLARI. Scientific Impulse, 1(6), 1852-1858.
38. Bobakhandova Mekriniso Fazliddinovna, & Shodiyeva Dildora G‘iyosovna. (2023). USAGE OF CICHORIUM INTYBUS IN TRADITIONAL MEDICINE, PHYTOCHEMICAL COMPOSITION AND IMPORTANCE IN PHARMACOLOGY. GOLDEN BRAIN, 1(5), 43–49. <https://doi.org/10.5281/zenodo.7663888>
39. G‘iyosovna, S. D., & Toshtemir o‘g‘li, X. X. (2023). HUMAN IMMUNITY.
40. Bobakhandova, M. F. (2023). USAGE OF CICHORIUM INTYBUS IN TRADITIONAL MEDICINE, PHYTOCHEMICAL COMPOSITION AND IMPORTANCE IN PHARMACOLOGY. GOLDEN BRAIN, 1(5), 43-49.
41. G‘iyosovna, S. D., & Muxriddin G‘iyos o‘g‘, A. (2023). DOMINANT MICROORGANISMS IN CICHORIUM INTYBUS.
42. G‘iyosovna, S. D. (2023). BAKTERIYALARNI SUYUQ VA QATTIQ OZUQA MUHITLARIDA O‘STIRISH SHAROITLARI.
43. Boltayev, K. S., & Jamalova, F. A. (2023). MIKOZLARGA MIKROBIOLOGIK MIKROSKOPIK TASHXIS QO‘YISHNING O‘ZIGA XOS XUSUSIYATLARI. GOLDEN BRAIN, 1(3), 35-40.
44. Tohirova, J. I. (2023). VAKSINA OLIISH TEXNALOGIYASI VA UNING AHAMIYATI. GOLDEN BRAIN, 1(3), 256-260.
45. Jamalova, F. A., & Boltayev, K. S. (2023). BACILLUS THURINGIENSIS BAKTERIYALAR ASOSIDA YARATILGAN BIOPREPARATLAR. GOLDEN BRAIN, 1(3), 23-27.
46. Vahobovna, M. Z., & Giyosovna, S. D. (2023). CICHORIUM INTYBUSNI ANANAVIY TIBBIYOTDA QOLLANILISHI, FITOKIMYOVIY TARKIBI VA FARMAKOLOGIYADAGI AHAMIYATI. Scientific Impulse, 1(6), 1386-1392.
47. Giyosovna, S. D., Mansur ogli, S. S., & Izzatullayevna, T. J. (2023). CICHORIUM INTYBUS KOCHATLARIDAN OLINGAN YANGI KISLOTA FOSFATLARINING KINETIK VA TERMODINAMIK TADQIQOTLARI. Новости образования: исследование в XXI веке, 1(7), 428-434.
48. o‘g‘li Shernazarov, F. F., & qizi Tohirova, J. I. (2023). BAKTERIYALARNING IKKILAMCHI BIOLOGIK FAOL METABOLITLAR SINTEZ QILISH XUSUSIYATLARI VA ULARNING FARMASEVTIKADA QO‘LLANILISHI. RESEARCH AND EDUCATION, 2(1), 269-276.
49. Shodiyeva, D., Bobakandova, M., Annaev, M., & Tokhirova, J. (2023). IDENTIFICATION AND ISOLATION OF ENDOPHYTIC FUNGI PRODUCING L-ASPARAGINASE IN REPRESENTATIVES OF THE ASTERATCEA FAMILY. Science and innovation, 2(D2), 107-112.
50. Giyosovna, S. D., Fazliddinovna, B. M., & Shodiyevich, S. H. (2023). FITOPATOGENLARGA QARSHI BAKTERIYALARDAN FOYDALANISH VA ULARNING SAMARADORLIGINI BAHOLASH. IQRO JURNALI, 2(1), 78-82.
51. Annayev, M., Shodiyeva, D., & Annayev, M. (2023). BACILLUS SAFENSIS BAKTERIYA SHTAMLARINING BIOTEXNOLOGIK POTENSIALINI BAHOLASH. GOLDEN BRAIN, 1(7), 25-30.

52. Hamza, S. S., & Giyosovna, S. D. (2023). Development of Optimization Models of Logistics Processes in Large Cities. *Web of Synergy: International Interdisciplinary Research Journal*, 2(6), 246-253.
53. Shodiyeva , D. G., & Xoljigitov , X. T. o`g`li. (2023). HUMAN IMMUNITY. GOLDEN BRAIN, 1(5), 174–180. Retrieved from <https://researchedu.org/index.php/goldenbrain/article/view/1718>
54. Azimovich, A. U. B. Shodiyeva Dildora G `iyosovna.". O `SIMLIK O `SISHI VA RIVOJLANISHIDA FOYDALI MIKROORGANIZMLARNING AHAMIYATI." *Talqin va tadqiqotlar ilmiy-uslubiy jurnali*, 1, 257-260.
55. Fazliddinova, B. M. Shodiyeva Dildora G`iyosovna.(2023). *USAGE OF CICHORIUM INTYBUS IN TRADITIONAL MEDICINE, PHYTOCHEMICAL.*
56. Azimovich, A. U. B. Shodiyeva Dildora G `iyosovna, and Maxmudov Aziz Akmalovich." ANTIBIOTIKLAR TA'SIR DOIRASIGA KO `RA KLASSIFIKATSIYASI." *Talqin va tadqiqotlar ilmiy-uslubiy jurnali* 1, no. 17 (2023): 245-251.
57. Shodiyeva, D., & Shernazarov, F. (2023). Analysis of the compounds providing antihelmitic effects of chichorium intybus through fractionation. *Science and innovation*, 2 (D2), 64-70.
58. THEERTHA MOHAN JOSE MERIN TREESA PADIMALLA USHASREE PRATAP THARANI, & ANNAEV MUZAFFAR. (2023). MYOCARDITIS AND PERICARDITIS. *Innovations in Technology and Science Education*, 2(9), 1885–1896. Retrieved from <https://humoscience.com/index.php/itse/article/view/933>
59. Shodiyeva, D., Jamalova, F., Annayev , M., & Tohirova, J. (2023). HISTORY OF STUDY OF ENDOPHYTIC MICROORGANISMS. *GOLDEN BRAIN*, 1(14), 20–29. Retrieved from <https://researchedu.org/index.php/goldenbrain/article/view/3598>
60. Shodiyev Shohzod Hamza o`g`li, & Shodiyeva Dildora G`iyosovna. (2023). JAMOAT TRANSPORTIDA YO`LOVCHILAR TASHISHNI TASHKIL ETISH IMKONIYATLARI VA UNDA TRANSPORT LOGISTIKASI O`RNI. *Ustozlar Uchun*, 45(5), 43–50. Retrieved from <http://pedagoqlar.uz/index.php/01/article/view/5178>
61. Dildora, S., Fazliddinova, M., Gulnoza, O., & Shohzod, S. (2023). BACILLUS PUMILIS BAKTERIYALARI MIKROBIOLOGIK TAHLILI VA BIOTEKNOLOGIYADAGI AHAMIYATI. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, 22(2), 154-161. [https://scholar.google.com/scholar?hl=ru&as\\_sdt=0%2C5&q=BACILLUS+PUMILIS+BAKTERIYALAR I+MIKROBIOLOGIK+TAHLILI+VA+BIOTEKNOLOGIYADAGI+AHAMIYATI.&btnG=](https://scholar.google.com/scholar?hl=ru&as_sdt=0%2C5&q=BACILLUS+PUMILIS+BAKTERIYALAR I+MIKROBIOLOGIK+TAHLILI+VA+BIOTEKNOLOGIYADAGI+AHAMIYATI.&btnG=)
62. G`iyosovna , S. D. ., Mansur o`g`li, S. S. ., & Izzatullayevna, T. J. (2023). CICHORIUM INTYBUS KO`CHATLARIDAN OLINGAN YANGI KISLOTA FOSFATLARINING KINETIK VA TERMODINAMIK TADQIQOTLARI. *Новости образования: исследование в XXI веке*, 1(7), 428–434. извлечено от <http://nauchniyimpuls.ru/index.php/noiv/article/view/5283>
63. Shodiyeva , D. G., Annayev , M. G. o`g`li, Mamarasulova , N. I., & Odilova , G. M. (2023). BERBERIS INTEGERRIMA BUNGENING IKKILAMCHI METABOLITLARINING DORIVORLIK XUSUSIYATLARI VA BIOTEKNOLOGIK AHAMIYATI. *GOLDEN BRAIN*, 1(10), 33–43. Retrieved from <https://researchedu.org/index.php/goldenbrain/article/view/2998>