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UNIT FOR PLANTING TULIP BULBS

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Abstract:
In order to develop floriculture in our republic, especially in the Namangan region, in order to grow tulip bulbs with high quality and cheap, and raise it to an industrial level, research work is being carried out in developed foreign countries, planting tulip bulbs has been studied and based on analysis units for planting tulip bulbs with a simple design and low cost, a method for planting tulip bulbs and a design diagram of the unit that implements it have been developed.

Keywords: Tulip onion, operating costs, growing season, according to and climate, metal and energy consumption, aggregates, seed placement depth, soil profile, square seeding method, temperature and linearity , wheels, hopper and frame, chain conveyor, chain drive, transmission, mechanized planting method.

Аннотация:
Развитие цветоводства в нашей республике в честности, с целью повышения качества и доступности выращивания лука-тюльпана в Наманганской области и поднятие его на промышленный уровень, были изучены исследовательские работы, проводимые в развиты зарубежных странах, занимающихся посадкой лука-тюльпана, и разработка конструктивной схемы посадки лука-тюльпана, на основе анализа показателей агрегатов.

Ключевые слова: Лук-тюльпан, затраты на эксплуатацию, время вегетации, почва и климат, потребление металла и энергии, агрегаты, глубина заделки семян, профиль почвы, способ квадратного заделывания, температура и лайнность, колеса, бункер и рама, цепной транспортер, цепная передача, трансмиссия, механизированный способ посадки.

Introduction

Floriculture is one of the most developed and highly profitable branches of agricultural production in many countries of the world. A special place in the assortment of flower bulbs is occupied by tulips, saffron, gladioli and others. One of the most popular plants are tulips, which are widely used as an excellent pasture crop and are used to decorate various landscape design objects.

The experience of domestic and foreign floriculture shows that maximum satisfaction of the population's demand for flowers in winter and early spring can be achieved with

the help of pasture crops and, first of all, tulips. That is why tulips occupy first place in the world among flower crops in open ground with an area of 10,000 hectares [1,2].

The Netherlands occupies a leading place in the production of flowering onion crops. For the production of tulip bulbs, the Netherlands - 86%, Japan - 5.0%, Great Britain - 3.0%, France - 2.5%, Denmark - 2.0%, USA and Canada - 1.0% and Germany - 0. 5%). The annual volume of onion exports from the Netherlands reaches 6.2 billion pieces, the trade turnover exceeds $1.0 billion [1] . It should be noted that in most regions of the above countries, with the exception of Germany and France, the plant does not grow under natural conditions [2].

The development of floriculture in our republic, especially in the Namangan region, is the task of growing tulip bulbs and bringing them to an industrial level; the cultivation of tulip bulbs on irrigated lands is expanding every day.

The land, water, climatic and soil conditions of our region allow us to plant tulip bulbs and get a high yield from them. This will dramatically improve the supply of floriculture to our people, which is a very profitable industry and will bring large incomes. But it is impossible to do this using the agricultural technology existing in our country, since existing technologies and planting methods are not designed for planting tulip bulbs. To do this, it is necessary to take measures to create a method for planting tulip bulbs and a unit for its implementation.

Over the past five years, a lot of work has been done to grow tulips in the Namangan region; tulips are grown in farms and individual farms. But the process of planting tulip bulbs is carried out manually. As a result, operating costs and costs rise. In addition, it is impossible to plant tulip bulbs over large areas. The reason is that the growing season is delayed.

Countries with developed agriculture are the Netherlands, Spain, USA, France, Germany, China. Some research has been done in the field of floriculture, especially on tulip bulbs, in Malaysia and other countries. However, the analysis showed that the use of one method or another depends on the soil and climatic conditions of the region and the depth of cultivation. Existing units have a complex structure. In addition, due to the high consumption of metal and energy, operating costs are high, and its purchase is limited from an economic point of view due to the fact that operating efficiency is not at the required level. [3]

Materials and Methods

Among the work carried out in this regard, the method of planting several rows in the soil and the creation of a unit for its implementation are of great importance.

But now in our region the process of planting tulip bulbs is carried out by manual labor, which leads to the implementation of the technology for planting tulip bulbs, operating costs and prolongation of planting time.

When carrying out the sowing process with the proposed unit, operating costs are reduced and sowing time is reduced. As a result, net profit from each hectare of land increases.

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Therefore, in order to find a solution to this problem, a method for planting tulip bulbs and a design diagram of the unit that implements it were developed.

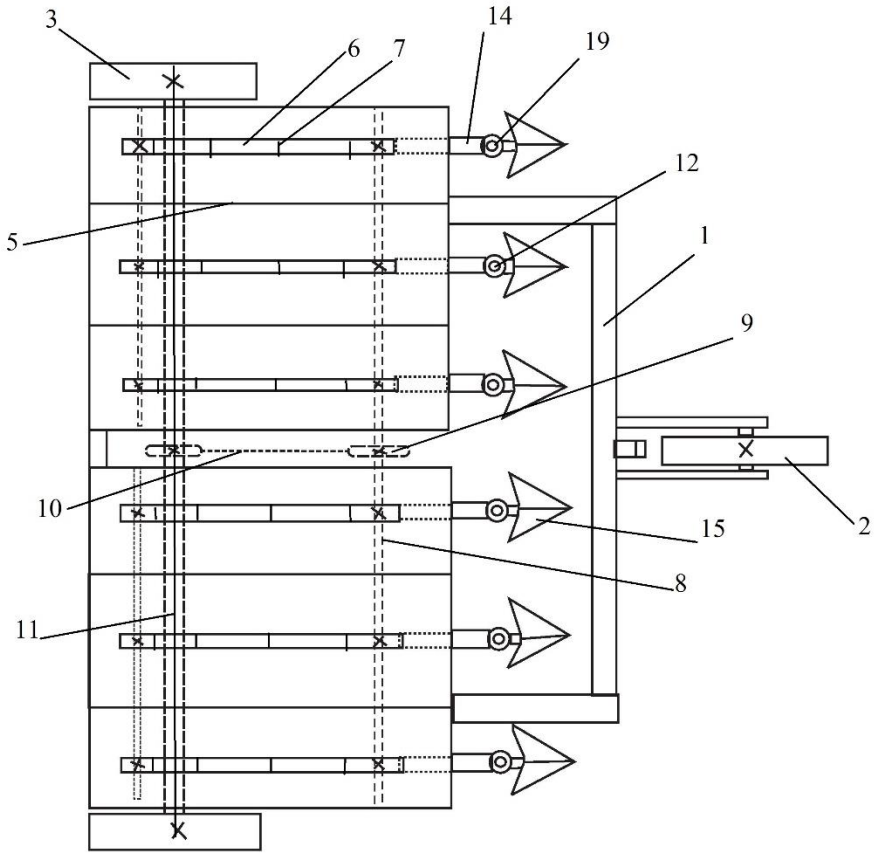

Figure 1. Device for planting tulip bulbs

Results and Discussions

The method of planting tulip bulbs is that seed furrows are formed on a profiled soil surface, tulip bulbs are placed in them at a certain interval and the top is buried with soil, at least three furrows are simultaneously formed, and the planted tulip is planted. bulbs at a certain distance and depth, cover the bulbs with mulch and then top with soil compacted with a disc compactor. As a result of planting tulip bulbs on the surface of profiled soil using the square nesting method, the optimal temperature and humidity conditions for the growth of tulip bulbs are ensured; precipitation and the heat of solar energy contribute to the rapid development of the root. system and qualitative changes. The recommended tulip bulb seeder includes 4 frames with 1 front and 3 rear impellers. The hopper, consisting of two semi-hoppers, is installed on a frame 4, each of which is divided into three parts 5, located vertically. Each section has a conveyor 6 and a chain conveyor 7, equipped with a bow holder. The transmission of the conveyors is carried out through the shaft 8 of the conveyor 6, the drive star 9 and the chain gear 10, kinematically connected to the walking wheel 3. Each subsection of the hopper 4 is connected by an onion conveyor 12, a fork 13 and connected to a column 14 by means of

a plow 15, forming a ditch. Column 14, together with the plow, is installed in a row on frame 1 with an interval of 150 mm, and a trench 20 is secured. In each section of the bunker 4, a bow conveyor 12 and a bow 13, as well as a trench opening plow 15, are attached to column 14 by a locking screw.

The unit operates as follows: The unit creates a landing trench with a given working depth h=100mm, lemex 15. During operation, the one-way conveyor 6, chain catcher 10, star 9, shaft 8 and walking wheel 3 are in constant motion. The onion receiving bucket 7, the small section of the hopper 4 throws the onion into the unloading bucket. In this case, the onion 19, under the influence of gravity, falls onto the onion conveyor 12, and then into the hopper. The soil is poured over the bow falling into an open ditch, and the movable hopper 20 is compacted with a mesh.

Conclusion

The method of planting tulip bulbs is that seed furrows are formed on a profiled soil surface, tulip bulbs are placed in them at a certain interval and the top is buried with soil, at least three furrows are simultaneously formed, and the planted tulip is planted. bulbs at a certain distance and depth, cover the bulbs with mulch and then top with soil compacted with a disc compactor. Thus, as a result of planting a square shape on a profiled soil surface, an optimal temperature and humidity regime is provided for the development and growth of tulip bulbs, the implementation of which brings a significant economic effect and develops decorative floriculture.

REFERENCES

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, S. A. "Determining of the measure disease control ornamental crops during the growing season in the conditions Tashkent region." Global Journal of Bio-Sciences and Biotechnology 5.1 (2016): 119-124.
3. Abdumutalovna, Misirova Surayyo, and Sarimsaqova Nilufar Sobirjonovna. "Bioecology of Fungi-Pathogens of Flower Crops and the System to Combat Them." Agricultural sciences 7.08 (2016): 539.
4. 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.
5. Misirova, Surayyo. "Technology of growing orchid flowers from seeds." E3S Web of Conferences. Vol. 390. EDP Sciences, 2023.
6. 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.

Journal Zone Publishing, Ilford, United Kingdom

7. Urmonovich, Numonov Otabek. "MANGOSTEEN NUTRITIONAL PRICE AND FUNCTIONAL PROPERTIES." ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ 14.5 (2023): 3-5.
8. Misirova, S. A. "BIOLOGICAL CHARACTERISTICS OF FUNGAL SPECIES THAT CAUSE DISEASES OF ONION FLOWERS AND MEASURES TO COMBAT THEM." (2022).
9. 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 (2021): 5922-5929.
10. 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.
11. Misirova, S. A., M. U. Davlatova, and Sh O. Tuhtaboeva. "Biological Characteristics of Fungal Pathogens of Bulb Flowers and Control Measures." JournalNX: 207-214.
12. Misirova, S., et al. "Growing Dutch tulips in Namangan region." Bulletin of Agrarian Science of Uzbekistan 1 (2021).
13. Sabirov, Ravshan Z., et al. "Volume-sensitive anion channels mediate osmosensitive glutathione release from rat thymocytes." PLoS One 8.1 (2013): e55646.
14. 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.
15. 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.
16. Sabirov, R.Z., Kurbannazarova, R.S., Melanova, N.R. and Okada, Y., 2010, January. Swelling-induced release of glutathione from rat thymocytes. In JOURNAL OF PHYSIOLOGICAL SCIENCES (Vol. 60, pp. S13-S13). 1-11-11 KUDAN-KITA, CHIYODA-KU, TOKYO, 102-0073, JAPAN: SPRINGER TOKYO.
17. Melanova, Nazira Rashidovna, and Sayyora Abduqahharovna Yulchiyeva. "EFFECT OF EXTRACELLUIAR GLUTATHIONE ON COLLOID-OSMOTIC LYSIS OF HUMAN RED BLOOD CELLS." Scientific and Technical Journal of Namangan Institute of Engineering and Technology 2.2 (2020): 144-149.
18. Choriyeva, Nargiza Mamarajabovna, and Nazira Rashidovna Melanova. "STUDY OF LYSIS OF HUMAN ERYTHROCYTES UPON ADMINISTRATION OF GOSSYPOL, MEGOSIN AND BATRIDEN." Scientific and Technical Journal of Namangan Institute of Engineering and Technology 1.9 (2019): 55-58.
19. Меланова, Назира Рашидовна. "Сравнительная характеристика выхода глутатиона из различных типов клеток." Universum: химия и биология 5 (59) (2019): 9-12.

Journal Zone Publishing, Ilford, United Kingdom

20. Насритдинов, Ахмаджон Абдухамидович, and Хусниддин Тургунбоевич Киргизов. "Агрегат для полосной обработки почвы." Современные научные исследования и инновации 12 (2015): 412-416.
21. Байбобоев, Набижон Гуломович, et al. "Энергоресурсосберегающий комбинированный агрегат для обработки почвы." Вестник Рязанского государственного агротехнологического университета им. ПА Костычева 3 (23) (2014): 42-44.
22. Насритдинов, А. А., and А. В. Рязанов. "Оптимальные условия установки углоснима." Техника в сельском хозяйстве 6 (2003): 34-35.
23. Насритдинов, Ахмаджон Абдухамидович. "Результаты исследования формы лобовой поверхности стойки чизеля-культиватора." Universum: технические науки 1 (58) (2019): 18-20.
24. Бойбобоев, Набижон Гуломович, and Ахмаджон Насритдинов. "Теоретические определение перемещение частиц почвы по поверхности углоснима." Science Time 6 (18) (2015): 84-89.
25. Misirova, S. A., M. U. Davlatova, and Sh O. Tuhtaboeva. "Biological Characteristics of Fungal Pathogens of Bulb Flowers and Control Measures." JournalNX: 207-214.
26. Шамситдинов, Ф. "Результаты опыта." Защита и карантин растений 5 (2003): 27-27.
27. 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.
28. 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).
29. Urmonovich N. O. MANGOSTEEN NUTRITIONAL PRICE AND FUNCTIONAL PROPERTIES //ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ. – 2023. – Т. 14. – №. 5. – С. 3-5.
30. 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.
31. Abdukhamidovich, Nasritdinov Akhmadzhon, and Numonov Otagek Urmonovich. "The Results of Theoretical Studies of the Chisel Cultivator Rack Frontal Surface Shape." Annals of the Romanian Society for Cell Biology (2021): 5930-5938.
32. Abdukhamidovich, Nasritdinov Akhmadzhon, Muhabbat Davlatova Urmanovna, and Numonov Otabek Urmonovich. "Strip Till Age of Soil for Deuteric Sowing (Second Crop)." International Journal on Orange Technologies 3.4 (2021): 71-74.

Journal Zone Publishing, Ilford, United Kingdom

33. Abduhamidovich N. A. et al. MANGOSTIN DARAXTI VA MEVASINI TIBBIYOTDA FOYDALANISH //Journal of new century innovations. – 2023. – Т. 28. – №. 2. – С. 12-14.
34. 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.
35. Рахманов, Дилшод Ортикбаевич, and Муҳаббат Ўрмоновна Давлатова. "ОРГАНОЛЕПТИЧЕСКИХ ОЦЕНКА СВОЙСТВ РЫБ И РЫБНЫХ ПРОДУКТОВ." O'ZBEKISTONDA FANLARARO INNOVATSIYALAR VA ILMIY TADQIQOTLAR JURNALI 2.14 (2022): 583-585.
36. Юсупова, Махпуза Нумановна. "БИОЛОГИЧЕСКИЙ МЕТОД ЗАЩИТЫ РАСТЕНИЙ." Scientific Impulse 1.9 (2023): 1460-1464.
37. Юсупова, Махпуза Нумановна. "АНОРНИ ЗАРАРКУНАНДАЛАРДАН ҲИМОЯЛАШ." PEDAGOG 6.4 (2023): 562-567.
38. Юсупова, Махпуза Нумановна. "САБЗАВОТ ЭКИНЛАРИГА БИОЛОГИК КУРАШ ҲАҚИДА МУЛОХАЗАЛАР." Scientific Impulse 1.9 (2023): 1469-1473.
39. Юсупова, Махпуза Нумановна. "ФАРҒОНА ВОДИЙСИ ШАРОИТИДА ИГНА БАРГЛИ ДАРАХТЛАРНИ ЗАРАРКУНАНДАЛАРДАН ҲИМОЯЛАШ." SO 'NGI ILMIY TADQIQOTLAR NAZARIYASI 6.4 (2023): 316-320.
40. O'rmonovna, Davlatova Muhabbat. "MANGOSTIN DARAXTI VA UNING KIMYOVIY XUSUSIYATLARI." INNOVATION IN THE MODERN EDUCATION SYSTEM 3.25 (2022): 1-4.
41. Юсупова, Махпуза Нумановна. "УФТ: 635 САБЗАВОТ ЭКИНЛАРИГА БИОЛОГИК КУРАШ ҲАҚИДА МУЛОХАЗАЛАР." Научный импульс: 355.
42. 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).
43. 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.
44. Qurbonov I. E-RECRUITMENT: SOCIAL MEDIA AND RECRUITING //InterConf. – 2021.
45. Qurbonov, Ibragim Sharifjonovich. "CLONELY MICRO-CULTIVATION OF PLANTS AND ITS APPLICATION TO AGRICULTURE." Scientific and Technical Journal of Namangan Institute of Engineering and Technology 1.4 (2019): 74-78.
46. Юсупова М. Н., Ахмедова М. М. МЕВАЛИ ДАРАХТЛАРНИ ЗАРАРКУНАНДАЛАРИГА УЙҒУНЛАШГАН КУРАШ ЧОРАЛАРИ //ЖУРНАЛ АГРО ПРОЦЕССИНГ. – 2020. – Т. 2. – №. 8.
47. Ходжаев, Ш. Т., Сагдуллаев, А. У., Исаев, О. Б., & Юсупова, М. Н. (2011). Проблемы защиты растений в Узбекистане. Защита и карантин растений, (8),

Journal Zone Publishing, Ilford, United Kingdom

23-24.Юсупова М. Особенности защиты хлопчатника посеянного под пленки от вредных организмов //Автореф. канд. дисс./М. Юсупова–Ташкент. – 2001.
48. Ходжаев, Ш. Т., Юсупова, М. Н., Курязов, Ш., & Саттаров, Н. (2008). Перспективы биологической защиты хлопчатника от хлопковой совки. Сб. трудов.-Ташкент: Таллин, 44-49.
49. Yusupova M. N., Nosirov B. Z. Pests of cotton and straw control at collection //EPRA International Journal of Multidisciplinary Research (IJMR)-Peer Reviewed Journal. – 2020. – Т. 6. – №. 12. – С. 57-61.
50. Yusupova M. N., Axmedova M. M. Mevali daraxtlarni zararkunandalariga uygunlashgan kurash choralari //Jurnal JURNAL AGRO PROTSESSING. Data publikatsii. – 2020. – №. 8. – С. 12.
51. Yusupova M. N. Biological method of crop protection in the fergana valley //Agrarian science. – 2018. – №. 6. – С. 68-70.
52. Urmonovich, Numonov Otabek. "MANGOSTEEN NUTRITIONAL PRICE AND FUNCTIONAL PROPERTIES." ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ 14.5 (2023): 3-5.
53. MN, Yusupova, and B. Z. Nosirov. "Control Of Cotton Pests On Stubble Lands." International Journal of Applied 10.2 (2015): 99-108.
54. Юсупова М. Н., Тургунова А. Н., Очилов С. Н. Система интегрированной защиты растений //Российский электронный научный журнал. – 2015. – №. 1. – С. 169-174.
55. Alimzhanova Z. I., Kadyrova D. S., Yusupova M. N. Ceramic pigments based on raw materials from Uzbekistan //Glass and Ceramics. – 2014. – Т. 70. – №. 11-12. – С. 441-443.
56. Yusupova M. N., Gapparov A. M. Biological Method Of Plant Protection In Uzbekistan //The American Journal of Agriculture and Biomedical Engineering. – 2020. – Т. 2. – №. 11. – С. 29-32.
57. Rashidovna M. N., Urmonovich N. O. Comparative Characteristics of the Leaving of Glutathione From Cells of Different Types //International Journal on Orange Technologies. – Т. 2. – №. 10. – С. 79-82.
58. Юсупова М. Н., Носиров Б. З. БИОЛОГИЧЕСКИЙ МЕТОД ЗАЩИТЫ РАСТЕНИЙ В УЗБЕКИСТАНЕ //Научно-практические пути повышения экологической устойчивости и социально-экономическое обеспечение сельскохозяйственного производства. – 2017. – С. 498-501.
59. Urmonovich, N. O. (2023). MANGOSTEEN NUTRITIONAL PRICE AND FUNCTIONAL PROPERTIES. ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ, 14(5), 3-5.
60. Yusupova M. et al. Protection of after harvest cultures-as a reservetors of cotton pests //Agriculture and Biology Journal of North America. – 2013. – Т. 4. – №. 5. – С. 576-582.

61. 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.
62. Yusupova M. N. et al. Possibilities of the biological method of cotton plant protection //Agriculture and Biology Journal of North America. – 2011. – Т. 2. – №. 5. – С. 742-744.
63. Ходжаев, Ш. Т., Юсупова, М. Н., Юлдашев, Ф., & Жамалов, А. Г. (2010). Хлопковая совка на пожнивных культурах. Защита и карантин растений, (12), 22-23.
64. Хайдарова, Х. А., Юсупова, М. Н., Ихтиярова, Г. А., & Хайдаров, А. А. ПОЛУЧЕНИЕ ХИТОЗАНА ИЗ ПОДМОРА ПЧЕЛ APIS MILLIFERA. Сучасний рух науки: тези доп. XI міжнародної науково-практичної інтернет-конференції, 8-9 жовтня 2020 р.–Дніпро, 2020.–Т. 2.–426 с., 352.
65. Yusupova M., Turgunova A., Ochilov S. INTERGRATED PLANT PROTECTION SYSTEMS.

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