



THE IMPACT OF AGROTECHNICAL MEASURES ON THE DAMAGE CAUSED BY PLANT CONFECTIONERY IN THE SOUTH OF UZBEKISTAN

¹Bahodir Meylikovich Xalikov

¹Doctor of Agricultural Sciences, Professor, Scientific-Experimental Station of The Research Institute of Agro Technologies of Cotton Selection, Seed Growing and Cultivation in Surkhandarya. Termez City, Uzbekistan,

²Mardon Tadjiev

²Candidate of Agricultural Sciences, Senior Researcher, Scientific-Experimental Station of The Research Institute of Agro Technologies of Cotton Selection, Seed Growing and Cultivation in Surkhandarya. Termez City, Uzbekistan,

³Najmiddin Norboevich Ochildiev

³Candidate of Agricultural Sciences, Researcher, Scientific-Experimental Station of The Research Institute of Agro Technologies of Cotton Selection, Seed Growing and Cultivation in Surkhandarya. Termez City, Uzbekistan,

⁴Abdimo'minov Shavkat Xolnazarovich

⁴Candidate of Agricultural Sciences, Researcher, Scientific-Experimental Station of The Research Institute of Agro Technologies of Cotton Selection, Seed Growing and Cultivation in Surkhandarya. Termez City, Uzbekistan,

⁵Xolmo'minov Sherzod Xolnazarovich

⁵Candidate of Agricultural Sciences, Researcher, Scientific-Experimental Station of The Research Institute of Agro Technologies of Cotton Selection, Seed Growing and Cultivation in Surkhandarya. Termez City, Uzbekistan,

⁶Qambarov Raxmonali Asqaralievich

⁶Candidate of Agricultural Sciences, Researcher, Scientific-Experimental Station of The Research Institute of Agro Technologies of Cotton Selection, Seed Growing and Cultivation in Surkhandarya. Termez City, Uzbekistan.

ABSTRACT

According to the results of the four-year study conducted, agrotechnical measures were found to have a significant effect on the number of candies in 100-unit plant and the damage caused.

When the number of seedlings of goose was taken care of 90-100 thousand/ha, the number of candies was 16.9 units on average, when the number of seedlings was 110-120 thousand/ha, the number of candies was 33.5 units and when the seedlings were taken care of 130-140 thousand/ha, the number of seedlings was 8.6 and 17.1. Watering the goose between the rut was observed that the number of candies from each rut to irrigation was less than 38 pieces, watering the goose 1-2 times in the season was observed to be less than 3-4 times the number of candies from 19,7 pieces. It was found that in favorable terms of the porcine to be less than 15.0 grains in comparison with the field in which the batter was late, the batter was late or the batter was not held at all. Similarly, it was also observed that sow herd losses in March, April-May in late terms than sow in late terms, were 15-18 percent lower. Prophylactic measures were also observed to reduce the number and harm of candies by at least 10-15 percent.



KEY WORDS: *Plantain confectionery, their number, the damage caused, the duration of planting, watering rut spacing, number of watering 1-2 and 3-4 times, methods of grinding the goose, use of ofojojen, vs the thickness of planting the goose.*

INTRODUCTION

According to official data obtained, insects, diseases and weeds cause at least 20-30 percent damage to the crop of the goose, in underdeveloped countries 40-50 percent, even more. There are more than 20 species of semi-rigid wings, 13 of them are harmful. Plantain beetles are stinging insects, which, when injuring the goose, are spilled shona, flowers and small breasts. Damaged large breasts change shape, weight decreases, fiber quality decreases, and as a result, the cotton crop decreases. Plant beetroot candies with alfalfa, millet and hemp candies cause strong damage to the corn crop. The region of Surkhandarya is a very hot region, the winter season will not be cold and the most favorable conditions will be created for the reproduction of insects. Since the region borders on foreign countries, most insects penetrate through Iran, Afghanistan and Turkey. In the latter years, vegetative candies in the districts of the Surkhandarya region have had a strong impact on the crop since 2005, especially in 2015-2019 years, and the cotton crop in the region has decreased and its size the subject of studying the effectiveness of preventive and agrotechnical measures against plant-borne candies is an innovation in this sphere.

The study of the effectiveness of agrotechnical measures against candies is the most urgent problem.

MATERIALS AND METHODS

Measures to combat plantain candies have not been sufficiently studied. Semi-rigid winged insects are widely distributed to all regions of the world, and agricultural crops cause strong damage to their growth, development and yield. More than 20 species of plant beet have been identified in the field, 13 of them are harmful, and the rest are useful species [Khodjaev 2016]. Among the semi-rigid wings, the Mazidae family occupies a special place. Representatives of this family have stuck-sucking oral organs, damage the mucous membranes, beetroot, legumes, fodder crops, fibrous plants, oilseed, tobacco, grain, melons, medicinal fruits, salivary liquids of sugars are affected by plant tissues, which leads to a violation of metabolism and membrane permeability. This leads to a change in plant tissues. Harmful insects are very mobile, they fly and spread over a large distance, so it is better to use prophylactic measures, identifying the places of reproduction of candies.

Out of the Alfalfa crop, the Beda beetle strongly harms the larvae, and the image and other seeds of legumes. It was found that alfalfa beetle, in

addition to leguminous plants, causes strong damage to the corn crop and the seed beet crop. The strong damage of alfalfa to the corn crop was the first to cause, I. Vasiliev (1914) identified in the conditions of the Fergana Valley. It is I. who discovered that the larynx is damaged by a flying Alfalfa from an older age. Vasiliev (1914, 1915 and 1974), Zavadovsky K.N.Y. (1955), N.T. Zaprametov (1952), who said the idea that the larvae of the I-II generation of green eyes hurt. Semi-solid-winged candelabra can be found in insects (Candelabra), which are insectivorous to I.N.Y. Krichenko (1951), Puchkov and V.T. Puchkova (1965) year was given a great place in scientific works.

For many years, scientific research work on candies has not been conducted, but only from 2016 Year D. Zire "Lost In Test Match T. Khodjaev, N. Sattorov, D. Musaev (2018), B.M. Khalikov, M. Tadjiev, N.N.Y. Opened, Sh. H. Abdimuminov, Sh. H. Xalmuminov, R. Khujanazarov (2019) has been carrying out a wide range of research work on this and has made clear conclusions. Foreign scientists also conducted research studies on the strong damage of candies to the plant, especially those who observed that exchanging plantain reduces diseases and insects [Vinber, 1969; Volger B, 1979]. They recommended exchanging crops in the fight against pests of pigs.

DISCUSSION AND RESULTS

Research methods production testing and all observational calculations in experiments and researches of the Research Institute of cotton growing of Uzbekistan "Methods of Providence of field experiments" (1961), "Methods of agrotechnical micro-biological and melioration in polyfous cotton plants" (Union of NIHN, 1963), "Methods of agrochemical analyses of soils and plants in Central Asia" (Union of NIHN, 1963). "Methods of field experiments with grain crops" (1971)

This research work was carried out in 2017-2020 years on four districts and 16 farmer farms of the province. In the districts of Muzrabot, Kizirik, Kumkurgan and Denov, scientific research works were carried out in 4 farmer farms in each district. In these farmer farms, different planting thickness of the goose, irrigation number 1-2 and 3-4 times, methods of sowing, dividing the goose by the rut, and irrigation from each rut, the growth development and yield of the varieties of the goose in agrotechnical activities such as planting periods, the number of candies and the damage caused to the goose were studied. For experiments, a field of manure was allocated from 1-1, 5 hectares of each



farmer's farm, and observation and research were conducted. In all experiments, observations were conducted on three repetitions. This article describes the results of studies conducted in the districts of Muzrabot and Kizirik in the south of the region. Farmers in the district of Muzrabot are planted in the farms of Bukhara-102 of medium-fiber Goose and Iolatan-14a-I of fine-fiber Goose and Bukhara-102 of goose in the district of Kizirik. The effect of agrotechnical measures on the growth, development and damage to the gums is presented in the table.

When the army of thin-fiber goose in the farmer farm "new prosperous Luchini" in muzrabad district was taken care of by iolatan-14a-I navi from Turkmenistan leaving 120 and 140 thousand/ha of Bush, when monitoring was carried out on the number of candies in 100 plant 21 pieces per 100 thousand/ha of Bush were left, 31 pieces per 120 thousand/ha of In the farmer farm "Yangiabad mirishkori" in the district of muzrabat, Bukhara 102 varieties of medium-fiber Goose were planted, and at the most favorable times of the goose were observed on the number of candies in the late transfer or at least 100 plants, according to the results of the observation, it was found that 21 pieces when the chilpish was carried out and In this district, when the goose was watered 2 times during the growth in the "Sardorbek" farmer farm, the number of beetles in 100 plants was 15 pieces and in the "Mamatali Kholboy" farmer farm, when the goose was watered 4 times during the growth period, it was determined that 47 beetles damaged the goose.

When Buxoro102 varieties of medium-fiber sheepskin were taken care of, 14 pieces were taken when sheepskin was most comfortable and 34 pieces were taken when sheepskin was very late.

In the "Shokbarakat" farmer farm in kizirik district, when the Bukhara-102 varieties of Goose were taken care of, the number of Bush in the goose was 100-120 and 140 thousand/ha when the norm was taken care of, the number of candies in 100 plants was 12,17 and 29 grains.

In this District, 102 varieties of Bukhara were taken care of in "Ahror 2017" farmer farm, when the goose was watered 4 times during the growth period, the number of candies in 100 plants was 35 pieces and in "Oyday Yangiabad" farmer farm the number of candies when the goose was watered 2 times during the growth period was 16 pieces.



Table
Periods of determination of the number of plant sugars in the conducted agrotechnical activities

| T.p | District name | Name of farmer farms | Head of farmer farms FN, S.N | Grandchild | VARIOUS | Periods of determination of the number of candies in 100 plants | | | |
|-----|---------------|----------------------|------------------------------|----------------|-----------------------------|---|----------|----------|----------|
| | | | | | | 28.06.18 | 17.07.18 | 09.08.18 | 28.08.18 |
| 1 | Muzrabot/d | Yangiobod lochini | Muzrabot Sardorbek | Iolatan- 14A1 | 90-100минг/га | 1 | 2 | 14 | 21 |
| | | | | | 110-120 минг/га | 2 | 3 | 22 | 31 |
| | | | | | 130-140 минг/га | 4 | 15 | 30 | 45 |
| | | Muzrabot Sardorbek | Dustqobilov Olim | Iolatan - 14A1 | 1-2 watering times | 6 | 9 | 15 | 15 |
| | | Yangi obod madadkor | Boybulov Xolmurod | Бухоро-102 | Chilpish is not transferred | 7 | 4 | 15 | 21 |
| | | | | | Chilpish is not transferred | 9 | 8 | 24 | 35 |
| | | Mamataliyev Xolboyev | Yusupov Xolboy | Iolatan - 14A1 | 3-4 watering times | 1 | 25 | 22 | 47 |
| 2 | Kizirik/d | Bektepa Mersaj | Qoraboev Ilxom | Bukhara -102 | Chilpish is not transferred | 9 | 11 | 9 | 14 |
| | | | | | Chilpish is not transferred | 16 | 22 | 15 | 34 |
| | | Shoxbarakat | Muxammadiyev Olim | Bukhara -102 | 90-100минг/га | 1 | 5 | 12 | 12 |
| | | | | | 110-120 минг/га | 1 | 9 | 21 | 17 |
| | | | | | 130-140 минг/га | 2 | 14 | 31 | 29 |
| | | Oydinoy Yangiobod | Xasanov Maxmud | Bukhara-102 | 1-2 watering times | 7 | 8 | 17 | 16 |
| | | Axror-2017 | Rajabov O'roq | Bukhara -102 | 3-4 watering times | 29 | 14 | 22 | 35 |



CONCLUSION

In conclusion, it was found that different agrotechnical measures applied to the gauze affect the number and harm of candies in 100 units of the plant differently. If the puncture of the larynx was accompanied by oyojogen in the most favorable terms, the number of candies and the damage caused by the larynx compared to the latetirib transferred field was observed to be 15-18 percent less.

During the growth period of the goose, it was found that twice watering can reduce the number of candies and the damage caused by it by 10-15 percent compared to 4 times watering. It was proved that watering the goose between the rut and the rut reduces the number of candies and the damage caused by it by 15-17 percent compared to irrigation from each rut. Similarly, it was found that the storage of normative seedlings (up to 100 thousand/ha) in the fields, the number of loaves (up to 120 140 thousand/ha) and the damage caused by it significantly reduced compared to the number of loaves left.

REFERENCE

1. *Ходжаев.Ш, Мусаев.Д, Тавсиялар Тошкент, 2016 2016, б.11*
2. *Васильев И.В. Вредители хлопчатника в Фергане.- Тр. Бюро по энтомол., м., 1914, 10, 10.*
3. *Завадовский К.Н. Меры борьбы с главнейшими вредителями лубяных культур.- В кн.: Сбдостиж. Науч. Учр. Краснодарского края, 1953, 1,143-144.*
4. *Запратов Н.Г. Болезни коробочек и волокна хлопчатника. Ташкент, 1952, 16с.*
5. *Кособуцкий М.И.Люцерновый клоп как вредитель плодообразований различных селско хозяйственных растений. – ТрУзб. с.-х. ин-та, Ташкент, 1949, 6, 65-76.*
6. *Кириченко А. Н. Оброз настоящих полужестокрылых районов среднего и нижнего течения р. Урала и волжско- уральского междуречья.- Тр. Зоол. Ин-та АН СССР, 1954, 16, 295-320.*
7. *Пучков В. Г. И Пучкова Л. В. Яйца и личинки настоящих полужестокрылых – вредителей сельскохозяйственных культур. – Тр. Всесоюз.энтомол. о-ва, 1956, 45, 218-342.*
8. *Хўжаев Ш.Т, Саттаров Н,Мусаев Д- “Ўсимликхўр қандалаларнинг инсектицидларга сезгирлиги” Ж. “Агрокимёҳимоя ва ўсимликлар карантини”, 2018 №2, б.28-29.*
9. *Очилов Р.О, Хўжаев Ш.Т, Сағдуллаев А.У, Мухитдинов В.Н, Саттаров Н.Р, Мусаев Д.М, Умархонов М,- “Ғўзанинг ўсимликхўр қандалаларбилан зарарланишининг олдини олиш ва қарши кураш усуллари ҳамда воситаларини яратилишининг илмий-амалий асослари”, Тошкент-2018, б,т. 2б 33.*
10. *Халиков Б.М, Таджиев. М – “Агротехник тадбирларнинг ўсимликхўр қандалалар сонига таъсири”, Ж. “Ўзбекистон қишлоқхўжалиги” 2017, №12.б.10-12*
11. *Халиков Б.М, Таджиев М, Очилдиев Н.Н, Абдимуминов Ш, Холмуминов Ш, Хўжаназаров Р – Ғўза парваришида агротехник тадбирларнинг*

ўсимликхўр қандалаларнинг кўпайиши, сони ва отказилган зарарига таъсири бўйича тавсиялар. Тошкент, 2019, б.31.

12. *Методы агро технических, агро физиологических, микро биологических исследований в поливных хлопковых районах (СоЮЗННХ,1963)с 180*
13. *Binder K, Zurishth zandweis shart. Bonn. 1969. -29 p.*
14. *Volger B.Nitratverfugfarkeit des Bodens in Abhangigkeit von zwishenfruehtfau. Lard.W. Z. Rheinland. 1979. S 2617-2618. -P. 143-146.*