

Table Of Content

Journal Cover	2
Author[s] Statement	3
Editorial Team	4
Article information	5
Check this article update (crossmark)	5
Check this article impact	5
Cite this article	5
Title page	6
Article Title	6
Author information	6
Abstract	6
Article content	7

Academia Open



By Universitas Muhammadiyah Sidoarjo

Originality Statement

The author[s] declare that this article is their own work and to the best of their knowledge it contains no materials previously published or written by another person, or substantial proportions of material which have been accepted for the published of any other published materials, except where due acknowledgement is made in the article. Any contribution made to the research by others, with whom author[s] have work, is explicitly acknowledged in the article.

Conflict of Interest Statement

The author[s] declare that this article was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright Statement

Copyright © Author(s). This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <http://creativecommons.org/licenses/by/4.0/legalcode>

EDITORIAL TEAM

Editor in Chief

Mochammad Tanzil Multazam, Universitas Muhammadiyah Sidoarjo, Indonesia

Managing Editor

Bobur Sobirov, Samarkand Institute of Economics and Service, Uzbekistan

Editors

Fika Megawati, Universitas Muhammadiyah Sidoarjo, Indonesia

Mahardika Darmawan Kusuma Wardana, Universitas Muhammadiyah Sidoarjo, Indonesia

Wiwit Wahyu Wijayanti, Universitas Muhammadiyah Sidoarjo, Indonesia

Farkhod Abdurakhmonov, Silk Road International Tourism University, Uzbekistan

Dr. Hindarto, Universitas Muhammadiyah Sidoarjo, Indonesia

Evi Rinata, Universitas Muhammadiyah Sidoarjo, Indonesia

M Faisal Amir, Universitas Muhammadiyah Sidoarjo, Indonesia

Dr. Hana Catur Wahyuni, Universitas Muhammadiyah Sidoarjo, Indonesia

Complete list of editorial team ([link](#))

Complete list of indexing services for this journal ([link](#))

How to submit to this journal ([link](#))

Article information

Check this article update (crossmark)



Check this article impact (*)



Save this article to Mendeley



(*) Time for indexing process is various, depends on indexing database platform

Impact of Seeds of Andizhan-36 Cotton Light And Various Methods for Cotton Harvesting

Atabaeva Mamura Sadirdin Kizi, atabaeva.mamura@mail.ru, (0)

Senior Lecturer of the Department of Plant Science, PhD, PhD, Andijan branch of Tashkent State Agrarian University, 1, Kuyganyor, Andijan district, 1, Kuyganyor-160700, Uzbekistan., Uzbekistan

Qodirov Odiljon, mrbobursobirov@gmail.com, (0)

, Uzbekistan

Xoliqova Gulirano, mrbobursobirov@gmail.com, (0)

, Uzbekistan

⁽¹⁾ Corresponding author

Abstract

With the use of resource-saving agricultural technology, using a new combine unit, once in the fall, nitrogen was applied at 50% of the annual rate of nitrogen 200% in liquid ammonia and the remaining 50% in the form of cotton ammonium nitrate. In the series and double-planted variants, the planting thickness of the cotton was greater than 1.2-5.9 thousand tons per hectare compared to the other variants of the system. 0.4 c / ha, yielding an additional yield of 4.1-5.9 c / ha compared to the control options and achieving maximum economic efficiency. Net profit from this option is 2079,1-2793.7 thousand sum, profitability rate is 52.3-68.4%, net profit per control option is 1127,7-1569,3 thousand sum, profitability rate is 29,1% up to 38.8%.

Published date: 2019-12-03 00:00:00

Introduction

In the world, the combined technology of minimizing soil fertility helps to preserve soil fertility, prevent soil compaction, reduce erosion processes, and ensure food security through high-quality, high-quality yields using scientifically sound technologies for the effective use of mineral fertilizers. Therefore, one of the main tasks of today is to develop the use of energy-saving technologies and techniques for soil protection in the maintenance of cotton and its crops.

Various effective measures for the introduction of optimal agricultural technologies for the cultivation of new high-yielding varieties of cotton, adapted to the various soil-climatic and extreme conditions of the republic, have been developed and are being implemented.

According to R. Nazarov, F. Khasanova, O. Sindarov, A. Hamrakulov [1], F. Khasanova [2], O. Yaqubjonov [3], H. Tursunov [4], the technology of sowing cotton in the fall is flat. Due to the intake, early spring agro-technical activities will be reduced, the possibility of planting seeds in the ground, as well as saving fuel and lubricants and water consumption for cotton irrigation has been proven. Temperature is 1 to 30 degrees above the level of flat ground. Within 10 days of sowing, the temperature will be 9-400 degrees Celsius more than flat ground. As a result, the seeds germinate 2-4 days earlier than in the flat ground and the yield increases to 4-8 centners. In the usual cases of sowing seeds, the thickness of 60-80-100-120-140 thousand seedlings per hectare has a significant impact on the growth and development of the S-6524 cotton variety.

Theoretical background

Based on the results of many years of scientific research by S.R Ryzhov, V.P Kondratyuk and Yu Pogosov [8], the application of the method of sowing seeds in early autumn sow seeds, in the case of uniform germination and subsequent growth of cotton. Together, this method is fully based on scientific and practical cost-effectiveness.

The thickness of saplings by S.Yusupov, A.Haydarov, T.Komilov [9] in the light gray soils of Andijan region in the scheme 90x10-1 and 90x10-1-2 of cotton grade Andijan-33 is 111 - 165 thousand shoots per hectare of mineral fertilizers. It was noted that the cultivation was fed at a rate of 250-175-125 kg, and the yield was 37.8 centners per hectare, with an additional yield of 3.2 centners per hectare.

Research Methods and Materials.

Field experiments were conducted in 2015-2017, with three variants located in the same shell, each variant with 8 lines, with a total area of 720 m² and a calculated area of 360 m².

The accuracy of the yields obtained on the basis of experimental variants and repetitions was analyzed by a dispersion analysis [5]. The methods of agrochemical [6] and agrovismatic properties [7] of experimental field soils were used.

Research results and discussion.

In our research, in the system of cotton-based agro-fertilizer, high-quality and early-yield, high-yielding, high-yielding seedlings, structure of seed bush, weight and ratio of growth and yield kings, yield elements, harvesting, growth, yield quality and weight. Indicators of direct impact.

It also has a direct impact on soil moisture, light, air temperature, nutrient supply, and field microclimate.

Therefore, the experiment has investigated the effect of the new combination technology of soil cultivation on the different forms of Andijan-36 cotton varieties at the rate of 200 kg per hectare at different seedling thicknesses.

However, from the time of seeds germination, the seedlings grow under the influence of various agrotreating species. Experimental variants did not observe any effect of the agrarian species on the thickness of the sapling of Andijan-36 cotton varieties. At the same time, 3-5 days early germination in new soil-treated variants (3-4 and 5-6 varies) was 7-10 days. Therefore, the plants of these variants grew and developed more rapidly than other variants. In the experiment, the number of seedlings of cotton was calculated after thinning and at the end of the life cycle. Observing the number of seedlings according to the experimental variants in the studies, in all three years of experimentation, it was possible to obtain 96-98% of the seedlings relative to the theoretical thickness of the program.

The traditional method of soil cultivation, which is 30-35cm in the fall, and used in 90x10-1 system of control, is an average of 95.7 thous. , 8,000 bushes averaged 95.7 thousand bushels in three years, and these methods are 141.7

when the cropping system is only 90x (30x12) -1; 144.8; 142,300 bushels on average for the past three years is 142,900.

Table 1 The actual planting thickness of Andijan-36 cotton varieties, thous ands

Option #	Planting system	Theoretical seedling thickness	In return			Average
			I	II	III	
	Plow 30 + 35 cm depth + plow + pruning (fall) NPK 200: 140: 100 (Control)	90x10-1	90-100	95,0	96,7	95,4
		90x(30x12)-1	140-150	148,5	145,7	148,9
		Liquid ammonia 200 + PK 140: 100 By processing with a new combine unit at a depth of 30-35 cm	90x10-1	90-100	95,3	96,6
			90x(30x12)-1	140-150	147,8	150,3
		Liquid ammonia 100 + NPK 100: 140: 100	90x10-1	90-100	98,0	
			90x(30x12)-1	140-150	149,5	

Table 1.

With the use of combined soil treatment technology, the annual rate of nitrogen fertilizer (200 kg / ha) in the form of 100% liquid ammonia was applied, and the plant 90x10-1 system used an average of 98,200 bushels in 3 years. The method was used, with the 90x (30x12) -1 planting system only using 147,600 bushes.

Combined aggregate was processed at a depth of 35 cm, single-sided, 50% of nitrogen substrate 50% in liquid ammonia and 50% ammonium nitrate (granule) throughout the life cycle of cotton, with 90x10-1 system. Option 5 shows an average of 98.5 thousand bushels in three years, and planting system at 90x (30x12) -1, with variant number 148.8 thousand bushels per hectare.

Conclusions. In our research, the soil thickness of the Andijan-36 variety of cotton was investigated in different ways, with the use of resource-saving agrotechnology, ie combine aggregate, and the same results were observed.

Figure 1 Thickness of sapling of Andijan-36 cotton varieties of different types of soil cultivation, thous.

Figure 1.

Combined aggregate, single-blade extracted, autoclave nitrogen under pressure to 100 kg / ha in autumn, 90x10-1 (single-row) system for early spring planting with cotton ammonium nitrate. Option 5: The average planting thickness is 0.3-6.0 thousand bushels, compared to the other variants planted in this system, and planting system 90x (30x12) -1 (double row) versus other variants planted in this system. Increase to 1,2-5,9 thousand bumps / ha nligi. The optimal thickness of the sapling is, ultimately, a high yield. Due to the positive features of the new combination technology, soil moisture has been maintained for the longest time, with the high efficiency of mineral fertilizers and sufficient nutrients. As a result, the growth and development of cotton in these variants significantly accelerated the soil by 30-35 cm, with the control of 1-2 variants, and the early harvest elements and germination, especially as the seeding process began early, with variants of 140-150,000 bushels.

Conclusion

As a result of this, it is possible to use 50% of the annual rate of nitrogen up to 200 kg / ha under autoclave by using a new combination unit from the resource-saving agricultural technology of soil cultivation. The cotton yield was 37.9 - 40.4 c / ha, with the remaining 50% in the form of ammonium nitrate with differentiation throughout the life cycle of cotton, in single and double-sided variants of cotton seeds (5-6 pages); The soil was traditionally cultivated at a depth of 30-35 cm and then yielded an additional yield of 4.1-5.9 c / ha compared to the control variants (1-2 pp.), with the highest economic efficiency. Net profit from this option is 2079,1-2793.7 thousand sum, profitability is 52.3-68.4%, net soil yield is 30-35 cm with traditional method 1127,7-1569 It was found that the profitability rate was higher than 3,000 soums and the yield was 29.1-38.8%.

References

1. Nazarov R, Hasanov F, Sindarov O, Hamrakulov I. Creation of optimal thickness of saplings // Agricultural Journal of Uzbekistan. 2010. No. 3. p. 2-3.
2. Khasanova FM Technology of breathing. // Agricultural Journal of Uzbekistan. Tashkent 2009 No. 12. p. 5.
3. Yaqubjonov O. "The impact of planting thickness on the growth, development and productivity of cotton". Deepening of agricultural reforms and development of farms. (Proceedings of the Republican scientific-practical conference) Andijan 2007. p. 391.
4. Tursunov H. "Effects of planting thickness and thickness of sapling on Andijan-37 cotton varieties" Uzbek Agricultural Journal. 2012. No. 8. p. 23
5. Daspekhov B.A. Methodology polevogo opyta.- M: Agropromizdat, 1985.- 230-240 p
6. Methods agrofizicheski iss issov Sredney Azii / - Tashkent, ed. 4- e dopn. UzNIXI, 1973-132 p.
7. Methods of agrochemical analysis poch Sredney Azii /-Tashkent, UzNIXI, 1973.-135 p
8. Yusupov S., Haydarov A. Agrotechnics of new varieties of "Andijan-36" and "Andijan-37" of cotton. // Agricultural Journal of Uzbekistan Tashkent.2006 № 6. p. 9.
9. Ryzhov S.N., Kondratyuk V.P., Pogosev Yu.A. Cotton cultivation on ridges and ridges. Tashkent, fan, 1980. P.76.
10. Yusupov S., Haydarov A. Agrotechnics of new varieties of "Andijan-36" and "Andijan-37" of cotton. // Agricultural Journal of Uzbekistan Tashkent.2006 № 6. p. 9.