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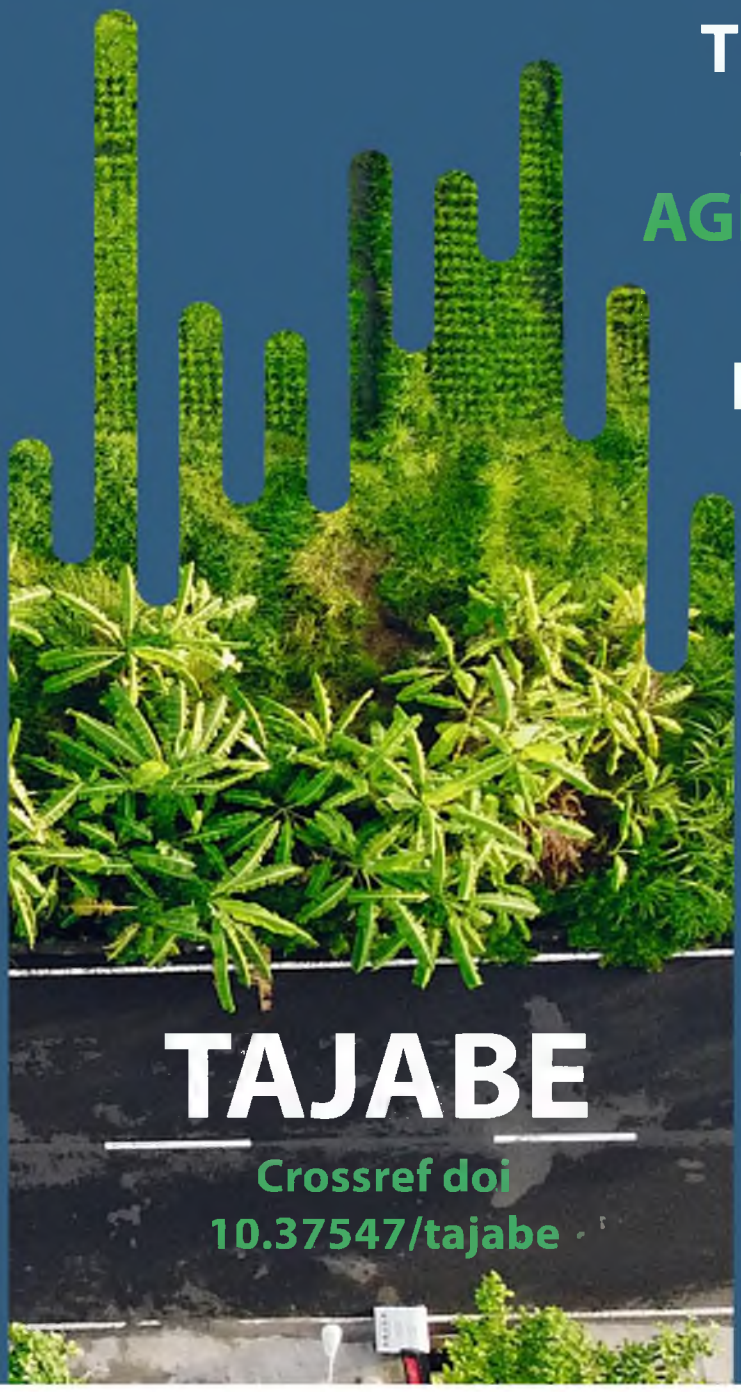

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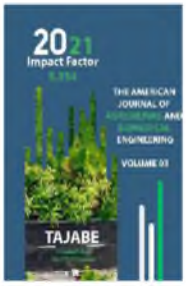

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Effects Of Sideration On The Number Of Weeds Used At Different Times

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ABSTRACT

In keeping up and expanding soil fertility by applying siderite (green manure), increasing the yield of cotton by planting and cultivating pisum, pea, rapeseed, and grain as siderite crops from selected plants; amid cultivation, 39-51 tons of green biomass per hectare was collected in summer and 17-22 tons in autumn, and their effect on weed numbers were determined.

In this case, in the experimental field, more perennial weeds were found, such as salomalaykum (Cyperus rotundus L.), field bindweed (Convolvulus arvensis L.), ajrik (Cynodon dactylon (L.) Pers.), and annuals were found in semizoot (Portulaca oleracea L.), white sorghum (Chenopodium album L.), common rosemary (Amaranthus retleflexus L.), ituzum (Solanum nigrum) and others were observed.

As a result, the number of yearly and perennial weeds beneath the influence of summer sideration diminished by 2.4-2.6 units compared to the control option before the 1st cultivation between cotton rows, and by 4.6-4.7 units before the final irrigation, or under the influence of autumn sideration. In accordance with the over, a decrease of 2.8-3.1 units was accomplished, and before the final irrigation - to 5.0 units. The most noteworthy reduction in weeds was observed in rapeseed and barley variants utilized as siderates in both experiments.

KEYWORDS

Pisum, peas, barley and rapeseed siderate crops, sideration, glucosinolates, soil, fertility, weed seeds, reproductive organs, top and bottom layers of soil drive, weeds, weed seeds, alleleopathy.

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INTRODUCTION

The extension of the area beneath cereals and the specialization of ranches in grain crops will lead to an increment in the share of cereals in crop turn, the improvement of particular diseases, weeds, and bugs. The as it were way to restrain such negative situations is to plant intermediate crops. Extensive use of intermediate crops as green manure and animal feed ensures the ecological health of trim rotation, as well as a sterile method of effective cleaning of the field from weeds, pests, and pathogens [Sh.Bakhromov, D.Siddikov, 1. pp. 357-360; X.Botirov, X.Kiryigitov, 2. pp. 41-43; I.Kovalenko, A.Zaytsev. 4. pp. 56-61; R.Murodov, Sh.Rizaev, 5. pp. 60-61].

THE MAIN FINDINGS AND RESULTS

S.Savenkov, L.Dobromyslova [6. pp. 132-134] used 25 t / ha of siderate, 60 t / ha of manure, 6 t / ha of straw, and their blends. Studies have shown that the antiphytopathological potential of barley in the accumulation phase is 10.3% in the control, 44.1 within the siderate; 50.6 in fertilizers; whereas straw was 35.9%, whereas siderate, manure, and straw were 60.9% when used together. In addition, beneath the influence of sideration, the harmful (toxic) occurrence in the soil driving layer is sharply reduced.

Scientists from the Bulgarian Institute of Tobacco and Tobacco Products have determined [K. Dovban, 3. p. 404] that root extracts of rapeseed, esparto, alfalfa, and oats affect the richness of sorghum seeds, and the effect of root extracts can be used in practice to combat parasites.

L.Saad [15. pp. 6-8], an oily radish root system releases a specific inhibitor into the soil, disrupting the conductive system of the rhizome. Planting intermediate crops of cabbage, especially oilseed radish, inhibits the growth of weeds, so it can reduce the use of herbicides or lead to their complete non-use.

K.Dovban [3. p. 404], on the other hand, cauliflowers (autumn and spring rapeseed, surepitsa, and oily radish close to them) don't appear to coordinate allelopathic activity in relation to the plant. The address arises when rapeseed is used in biological control against competitive weeds such as weeds?: this condition is affected not by the direct allelopathic dynamic substance of rapeseed but by some other mechanism. Even in the absence of direct allelopathic dynamic substances against weeds in the plant, their impact is by implication related to the allelopathic impact, among which microorganisms are included. Accordingly, the creators emphasize that cauliflower crops are a great factor within the steady interaction with microorganisms and play a vital part in cleaning the soil from infections. The utilize of cauliflower enhances the prophylactic sterile impact of the edit revolution. They can be used with complete certainty in the healing of micro-biocenosis in any soil condition.

E.Haramoto, E.R.Gallandt [13. op. 187-198] reduced the density of 16 species of weeds to 23–34% when applied to cabbage flower crops as a siderate, delaying the germination of weed seeds by 2 days compared to pure plowing.

The agro phytocoenosis method of combating weed defilement is the use of artificially made profoundly competitive cultivated plant species against the effects of weeds.

The importance of reducing the number of weeds within the areas is gigantic in expanding edit yields. On irrigated lands, the importance of this measure is even greater, because as a result of irrigating crops, many weed seeds

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spread to the areas, and field pollution increases. That is why weed control is carried out in the cotton areas from sowing to harvesting, which requires a lot of labor and money.

R.Murodov, Sh.Rizaev [5. pp. 60-61], weeds reduce the yield of fast-growing crops by 15-24% and those growing at medium speeds by 45-66%. Weeds also reduce the yield of cotton by 15-20%, rye by 64%, spring wheat by 32%, oats by 31%, barley by 43%, potatoes by 39% and corn by 90%.

A.Yuldashev, N.Turdieva, D.Alamatov, N.Shernazarova [7. pp. 233-234], cotton yields are reduced by 20-25% and wheat yields by 30-55% due to weed damage.

F.Khasanova, Sh.Salomov [8. pp. 258-259], which is found in cotton and wheat, sorghum, wild oats, etc., retains light, moisture, and nutrients exceptionally well, leading to a 30-40% reduction in nutrient take-up and a 20-50% reduction in grain yield. Weeds are plants that grow in the areas within agricultural crops, around fields, in arable lands, along ditches and roadsides, and elsewhere, and there are a few thousand species of them within the world. Of these, more than 400 species are recorded on irrigated lands of Uzbekistan, and 74 species are found in cotton fields [B. Hasanov, A. Hamroev, O. Eshmatov, S. Alimukhammedov and others, 9. pp. 335. 379].

Proper organization of crop rotation is also important in the fight against weeds, and it is important to choose it on a scientific basis, especially the previous crop.

RESEARCH METHODS

Conducting field experiments, planting, caring for crops, harvesting and analysis of the generally accepted Uzbek Scientific Research Institute of Botany, (1986); the methods of the Uzbek Cotton Research Institute (1981, 2007) were used.

EXPERIMENTAL RESULTS

In the current framework of cultivating, ie in the system of cotton-grain rotation, it is vital to study the issue of weeds and apply practical measures in the introduction of intermediate crops. In this regard, when we utilized siderate crops, we constantly took into account the number of weeds in the cotton field. To do this, agreeing to the strategy of I. Maltsev, weeds were taken from the roots of 1 m2 zone at certain interims, partitioned into species, the number was calculated and the number of weeds per hectare was determined.

Contamination of the field with weeds was carried out by counting the weeds between the rows of cotton. In this case, the number of weeds before the first and last cultivation of cotton row spacing was calculated according to the options and the type was studied.

Table 1 below shows the effect of sideration on weeds by options.

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Table 1

Effect of sideration on weed number, pieces / m² (2016-2018)

№	Experiment options	Before the first cultivation			Before the last cultivation		
		Total	Total		Total	Шундан	
			perennial	one year		perennial	one year
Summer sideration							
1	Without control-siderate	3,0	1,2	1,8	5,0	1,0	4,0
2	Pisum	0,6	0,3	0,3	0,3	0,1	0,2
3	Peas	0,5	0,3	0,2	0,4	0,2	0,2
4	Rapeseed	0,5	0,2	0,3	0,3	0,1	0,2
5	Barley	0,4	0,2	0,2	0,3	0,1	0,3
Autumn sideration							
1	Without control-siderate	3,6	1,8	2,4	5,5	1,2	4,4
2	Pisum	0,8	0,5	0,3	0,5	0,2	0,3
3	Peas	0,6	0,3	0,3	0,5	0,2	0,3
4	Rapeseed	0,5	0,2	0,3	0,5	0,3	0,2
5	Barley	0,7	0,5	0,2	0,5	0,2	0,3

Among the perennial weeds listed below, salomalaykum (Cyperus rotundus L.), field bindweed (Convolvulus arvensis L.), ajrik (Cynodon dactylon (L.) Pers.) are more common, while annuals are more common with semizoot (Portulaca oleracea L.), white sorghum (Chenopodium album L.), common rosemary (Amaranthus retleflexus L.), ituzum (Solanum nigrum) and others.

The number of yearly and perpetual weeds beneath the impact of summer sideration decreased by 2.4-2.6 pieces between the cotton push compared to the control option before the 1st development, to 4.6-4.7 pieces before the final irrigation, or according to the over beneath the effect of autumn sideration. 2.8-3.1 units and 5.0 units before the final water system. The most prominent decrease in

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weeds was watched in rapeseed and barley variants used as siderates in both tests.

Due to the fact that the number of weeds in the siderate-applied variant is lower than in the control-siderate variant, the vacant area after the main crop, especially grain, is irrigated for repeated sowing, at which point the weed seeds start to germinate.

In the process of preparing the soil for planting, weeds and many seeds that germinate are killed and buried deep. In addition, the intermediate crops are cared for until late autumn after germination, amid which the weeds are also lost, whereas the green mass prepared for siderate is crushed and buried in the soil using the same procedure, along with those mass weeds and their seeds are also buried. This condition leads to a subsequent decrease in the number of weeds.

One of the main reasons for the loss of weed seeds is the breakdown of the glucosinolates in rapeseed into sulfur compounds, thiocyanates. Glucosinolates - have a toxic effect, preventing the growth of weed seeds and reproductive organs in the soil.

Thus, the use of pusim, peas, barley and rapeseed as a siderate is due to their alleleopathic effect on the reduction of weed germinated seeds in the driving subsoil of the soil.

CONCLUSION

1. In order to preserve and increase soil fertility with the use of sideration (green manure), to increase the yield of cotton, 39-51 tons per hectare in the summer and 17-5 tons in the autumn. Up to 22 tons of green biomass will be collected.
2. The number of annual and perennial weeds under the influence of summer and autumn sideration is 2.4-2.6 and 2.8-3.1 pieces, respectively, before the 1st pre-cultivation and between the rows of cotton and 4.6-4 before the final irrigation, a decrease of 7 and 5.0 units were provided.

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