

THE EFFECT OF VARIOUS COMPOSTS ON THE AMOUNT OF SALTS IN THE SOIL

J. Abdinazarov

Teacher of the Department of Agrochemistry and agrosilience
Termez institute of agricultural technologies and innovative development.
Republic of Uzbekistan.

Annotation

Natural agrorudas the application of composts made on the basis of Hawthorn bentonite. Guliobian phosphorite itself and semi-rotted manure in various norms and deadlines in the same period as the adsorption of easily soluble salts anion and cations in saline soils according to their properties of meliorance and otdsorbency. by coagulating difficult soluble salts. positively affecting changes in the amount of harmful salts in. application of compost once every 3 years to 13.0 t/ha of dew and as 2.0 t/ha of various composts during the growing season in thin-fiber Acorn care has been observed to improve soil reclamation and reduce chlorine ion by 0.011%.

Keywords. Agroruda. bentonite. phosphorite. manure. compost. dry residue.

Introduction

S.M.Shirazi. S.Wiwat. H.Kazama. J.Kuwano. M.G.Shaaban [1] scientific research has found that increased NaCl concentration in saline soils increases the rate of bentonite deposition. causing water-dissolved salts to coagulate.

It is believed that the cultivation of phytomeliorants by scientists in conditions of saline soils in various reclamation measures causes their desalination by reducing the amount of salts easily soluble in water in the soil plowing layer by transpiration. Khamidov. U.Zhuraev. K.Khamraev [2] defined.

Methods of Conducting Research

In the study. all observations. analyzes and calculation work were carried out on the basis of methodological applications "Methods of conducting field experiments". soil-containing nutrient quantities and agrophysical analysis « Methods of agrochemical. geophysical and microbiological studies in irrigated cotton areas» (1963).



Results

In our study, the effects of various norms and terms of composts prepared on the basis of agrorudas and those applied in conditions of moderately saline tailing soils with chloride-sulfate by type of salinity were studied as natural meliorants.

The salts contained in the soil were analyzed in all variants at 0-50 and 50-100 at the beginning of the season and at the end of the period of action of the change in the amount of dry residue and Cl ion (Table 1).

In the first year of our scientific research (2020y), the control option was N-200, P₂O₅-140, K₂O-100 kg of mineral fertilizers against a completely applicable background. in the 0-50 cm layer of the soil at the beginning of the season it was observed that the dry residue was 0.553%, and the chlorine ion was 0.036%, and the dry residue was 0.004% compared to the initial period.

In this variant, the dry residue in the 50-100 cm layer was 0.559%, while the chlorine ion was 0.038% by the end of the season, these indicators were equal to 0.554 and 0.036% in the same layer, and it was observed that the initial soil period increased by 0.02% dry residue and chlorine content by 0.004% compared to salinity.

The second option of the study was the control background option at N-200, P₂O₅-110, K₂O-70 kg/ha, in which the norm of seasonal mineral fertilizers was reduced, the amount of dry residue in the soil layers in the initial period was 0.557% chlorine 0.039%, and at the beginning of the season, this amount.

The most optimal effects of the various composts used on changes in the amount of salts in the soil layers in the care of thin-fiber acorns are ore fertilizers N-200, P₂O₅-110, K₂O-70 kg/ha against the background of 10 t manure and 3 t bentonite or composts made on the basis of 10 t manure and 3 t phosphorite 700 kg and 600 kg in flowering were observed in fed 4-6 variants.

In these variants, the accumulation of salts in the soil layers in the initial period was 0.50-50 and 50-100 cm layers, while the accumulation of dry residue and chlorine ions in the layers was 0.558-0.039 and 0.562-0.042% in 27.03.2020, this amount was reduced by 0.419-0.027 and 0.429-0.028%, respectively.



Table 1 The effect of various compost norms and deadlines applied to changes in the amount of salts in the soil layers of the experimental field during the season. in the first year of the study, in % accounting

№	Compost quantities	Initial salinity status of experimental soil. 2019				At the beginning of the season. 27.03.2020				At the end of the season. 14.08.2020			
		0-50		50-100		0-50		50-100		0-50		50-100	
		dry residue	Cl	dry residue	Cl	dry residue	Cl	dry residue	Cl	dry residue	Cl	dry residue	Cl
1	Control	0.557	0.037	0.558	0.039	0.553	0.036	0.559	0.038	0.556	0.037	0.554	0.036
2	Control fon	0.557	0.039	0.561	0.041	0.556	0.038	0.560	0.039	0.558	0.039	0.555	0.037
3	3.0 t bentonite	0.558	0.039	0.560	0.039	0.507	0.030	0.510	0.032	0.536	0.035	0.548	0.033
4	13.0 t campost + 2.0 t compost	0.558	0.039	0.562	0.042	0.419	0.027	0.429	0.028	0.428	0.027	0.430	0.029
5	3.0 t phosphorite	0.559	0.039	0.563	0.042	0.509	0.032	0.515	0.033	0.538	0.037	0.550	0.035
6	13.0 t campost + 2.0 t compost	0.559	0.040	0.561	0.041	0.422	0.029	0.430	0.030	0.431	0.028	0.431	0.030
7	2 t phosphorus year compost	0.557	0.039	0.561	0.041	0.505	0.029	0.508	0.031	0.534	0.032	0.546	0.032
8	2 t bentonite year compost	0.558	0.040	0.560	0.040	0.506	0.030	0.510	0.032	0.535	0.033	0.547	0.032

It should be said separately that although by the end of the season there was an increase in the amount of harmful salts in the soil layers in all variants, the increase in this amount in the most optimal variants was found to be much less than in the control and control background variants.

The amount of salt accumulation in soil layers under the influence of composts applied in variants 4-6 of the study was 0.428-0.027 in a layer of 0-50 CM and 0.430-0.029% in a layer of 50-100 cm, according to the results of analyzes obtained on the date 14.08.2020.

Under the influence of the various composts used, Option 4 of the study observed a decrease in the accumulation of dry residue and chlorine ion in soil layers by 0.13% dry residue 0.012% compared to the beginning of the period of action.

It was also found that in the 50-100 cm layer of soil, these indicators decreased by 0.13 as well as 0.013%. for the fact that the various composts used have natural meliorant properties and high absorbency, their norms caused a decrease in chloride salts from harmful salts in the soil.

Option 6 of the study observed a decrease in the amount of harmful salts in the soil layers towards the end of the period of action against the control and control background, even when the mineral fertilizer background was used before the use of Guliob phosphorite and manure-based composts. In the optimal effects of



compost meliorants applied to the control background, option 6 found that the dry residue decreased by 0.13% chlorine ion by 0.02% during the initial period and by 0.11%, the dry residue by 0.01% at the end of the period of action.

There was also a partial decrease in the amount of harmful salts in the 0-50cm layer of the soil at the beginning period and the beginning of the season, both in 7-8 variants, which were used in the amount of 2.0 t in combination with tumor processes and mineral nutrition from various composts prepared annually.

Even in the later years of our research, it was found that it positively influenced the reclamation of the soil, various composts.

References

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