“RELATIONSHIP OF SOIL MELIORATIVE SALINING WITH ECOLOGICAL PROBLEMS’’

Egamberdiyev Abror Ibragimovich*

Teacher of Karshi state university

ABSTRACT. A number of scientific-research works aimed at identifying and eliminating processes that negatively affect the fertility of irrigated soil and land reclamation in the developing agricultural sector of our republic are being carried out and positive results are being achieved. That is why it is important to determine the influence of natural and anthropogenic factors on the microbiological activity of the irrigated meadow alluvial soils of the Kashkadarya oasis with varying degrees of salinity, as well as the extent to which these processes increase soil fertility and crop productivity.

It consists in determining the influence of various natural and anthropogenic factors, including soil salinity and salt content, on pale gray soils with varying degrees of salinity.

KEY WORDS. Salinity, ecology, irrigated agriculture, desertification, productivity, relief, natural, thermostat, agrophysics.

INTRODUCTION. The research was carried out in field, laboratory and chamber conditions according to the standard methods generally accepted in soil science. Agrochemical and agrophysical methods were used in the research. Land reclamation has become a very serious problem at the present time, the reason for this is that, firstly, it is necessary to provide food and other agricultural products to the ever-increasing population of Kurram, and secondly, human reclamation due to the development of industry while increasing its capacity, it was felt that there is a need to develop many new lands, to expand the cultivated areas and to improve the reclamation of irrigated lands [5]. The amelioration condition, salt content, agrochemical and agrophysical properties of the irrigated oases' light-colored soils are

comparatively studied, factors and indicators that have a negative effect on soil fertility and the growth and development of agricultural crops, and their optimization is defined.[7]

MATERIALS AND METHODS. The availability of land in irrigated agriculture limits the possibilities of increasing soil fertility and yield of cotton and other crops. The implementation of large-scale reclamation works is unable to stop the process of soil salinization. Districts (farms) studied by the scientists of our republic depend on the level and level of mineralization of ground water, the relief conditions of the area, the level of irrigation of the land, the condition of the collector-irrigation networks and the types of cultivated crops [7]. Acceleration of irrigated agriculture in the oasis activates the processes of salt accumulation, increases the secondary salinity in the soil, and the current state of the collector-zower networks allows the mineralized seepage waters to flow and keep their level at a certain depth. Therefore, it is natural for the salt reserves to increase in the oasis if quick melioration measures are not applied to prevent the processes of secondary salinization in the soil and the factors that cause them.

RESULTS AND DISCUSSION. According to the formation and characteristics of climate conditions, the territory of Kashkadarya region belongs to the subtropical climate group and is separated as a separate Kashkadarya climate district of Turan province.

The existence of almost all types of minerals has been found on the Kashkadarya soil. After all, the mineral wealth, which is the result of various geological periods and processes, is related to the geological development characteristics of a certain place. It is known that until the Neogene period, the plains of the region were the eastern part of the warm sea. Therefore, it can be said that the territory of the region was part of the large oil and gas basin in the current Turan lowland. Today, the natural gas produced in the regional mines meets not only the cities and villages of our republic, but also the needs of other neighboring republics.

Gas, gas condensate and oil are obtained mainly from cracks and collectors of corallite limestones, fossilized coral polyps, between the first marine deposits of the Jurassic period, at a depth of 1.5-3.5 thousand meters.

Distribution of soils by degree of salinity.

№	Salinity level	The amount of salts in the 0-100 cm layer	
		Dry residue	Including chlorine
1.	Not salted	<0,3	<0,01
2.	Lightly salted	0,3-1,0	0,01-0,05
3.	Medium salted	1,0-2,0	0,05-0,10
4.	Strongly salted	2,0-3,0	0,10-0,15
5.	Salted	>3,0	>0,15

Humus content is very low in pale gray soils, 1.2-1.4% in layer A. Typical gray soils contain between 1.5 and 4%, and dark gray soils contain up to 4.5%. Accordingly, the humus reserve in 1 m of soil thickness reaches 50-60 tons in light gray soils, and 140-160 tons in dark gray soils. The absorption capacity of gray soils is also small, which is directly related to the low humus condition of the soil. 80-90% of absorbed cations correspond to calcium and 10-15% to magnesium cations.

CONCLUSION. Conclusion From the evidence presented above, it became clear that the purpose of creating land reclamation measures is to create conditions that ensure the maximum possible yield of crops - the optimal water, salt, nutrient, and air composition in the soil, with the efficient use of running water. Salts appear everywhere and accumulate in the upper layers of the earth's surface. Nevertheless, the area of saline soils, and especially the area of salt marshes, does not occupy a very large area on the earth's surface, because the accumulation of salts in the soil requires certain conditions.

REFERENCES

1. Abdullayev.S. Sho‘ryuvish-muhim tadbir O‘zbekiston qishloq xo‘jaligi jurnali №11. 2011 y. 6-7 b.
2. Boysunov Nurzod Bekmurodovich, Juraev Diyor Turdikulovich, Nurillaev Ilhom Xolbek o’g’li, & Begmatov Bekzod Elmurod o’g’li. (2023). "RESISTANT TO THE COMPLEX STRESS FACTORS (SALT, DROUGHT, DISEASE) OF THE ”OROLBO’YI” REGION, THE YIELD OF SPRING WHEAT, THE QUALITY INDICATORS OF THE GRAIN WILL BE STABLE HIGHER. ACTIVITY IMPLEMENTED WITHIN THE FRAMEWORK OF DEVELOPMENT OF TECHNOLOGY. *Intent Research Scientific Journal*, *2*(6), 193–200. Retrieved from https://intentresearch.org/index.php/irsj/article/view/148
3. Ostonaqulov T.E., Nurillayev I.X. SABZAVOT MAKKAJO‘XORI NAVLARINI ERTAGI VA TAKRORIY EKINLAR SIFATIDA TURLI MUDDATLARDA O‘STIRILGANDA HOSILDORLIGI // SAI. 2023. №Special Issue 6. URL: https://cyberleninka.ru/article/n/sabzavot-makkajo-xori-navlarini-ertagi-va-takroriy-ekinlar-sifatida-turli-muddatlarda-o-stirilganda-hosildorligi (дата обращения: 07.11.2023).
4. Silkin L.Y. Vliyaniye SH i SS grupp na soleustoychivost rasteniy. Fiziologiya rasteniy. Tom 12, vip. 1, M., «Nauka», 1965. s. 117.
5. Snisarenko T.A. Adaptatsiya rasteniy raznix ekologicheskix grupp k razlichnoy stepeni vlajnosti pochvi v protsessax fotosinteza i dixaniya. http: // WWW. Vestnik. Stavsu. ru. Вестник, 2006. № 47, c. 159-161.
6. Пейве Я.В. Биохимические особенности серы. В. КН.: Биохимия почв. М., сельхозгиз. 1976. с. 307-311.
7. Церлинг В.В. , Ерофеев А.А. Динамика поступления серы и вынос ее разными культурами в зависимости от уровня обеспеченности серой. Ж. «Агрохимия», 1974. № 3, с. 79-86.

8. www.nauka-shop.com/mod/shop/product\D2726/-114k
9. Овчинников Ю.А.Биоорганическая химия.Изд-во.”Просвещение”М. 1987. с. 153-156.
10. Nurillayev , I. X. o‘g‘li. (2023). BODRINGNI VEGITATIV YO‘L BILAN PAYVANDLASH TEXNOLOGIYASINING AFZALLIKLARI. *GOLDEN BRAIN*, *1*(27), 110–114. Retrieved from
11. https://researchedu.org/index.php/goldenbrain/article/view/4929
12. Гулимов С. Содержание серы в некоторых орошаемых почвах и ее значение как элементов питания для хлопчатника. Автореферат дисс. на соиск. учен. степ. канд.с.-х.наук, Ташкент, 1980. с.3,10,13.
13. Mayer B., Pritzel J., Kroyse H.R., Rehfuess K.E., Fritz P.Transformation of simylated wet sulfat deposition in forest soils assesed by a core experiment using sulfur isotopes // Water, Air and Soil pollut. – 1995. - №1/ - P. 243-260.