



**ECOLOGICAL MELIORATIVE CONDITION OF IRRIGATED SOILS IN
OUR REPUBLIC**

<https://doi.org/10.5281/zenodo.10786628>

Diiana Janibek kyzy

*TSAU, plant protection and soil science department, Agrochemistry and soil
science department teacher
dianajanibekqizi @gmail.com*

ABSTRACT

This article focuses on the ecological reclamation of saline soils in agriculture with regard to the negative consequences that lead the soil to salinity. Soil structuralism tends to deteriorate from loose soils towards soils in the desert region. The structural status of hydromorphic soils in both regions is better compared to automorphic soils. In irrigated areas, the amounts of water-resistant structural fragments are sharply reduced. The condition of the soil structure has also been shown to be influenced by plant species.

Key words

soil salinity, salts, agriculture, compost, organic fertilizers, saline water, soil physical properties, old regions, salinization, sod ium cation , water evaporation, structure of soils, hydromorphic soils, automorphic soils.

INTRODUCTION

At present, about 9.6 percent of irrigated lands in our country are in bad meliorative condition, which is primarily due to the high level of soil salinity and the rise of underground water. Therefore, expanding the irrigated land areas and improving their productivity through land reclamation is one of the most important tasks of today's agriculture (Kuziev, 2000). To date, 46.3% of the total land area of the republic is made up of lands with varying degrees of salinity (Atlas of Soil Covers of the Republic of Uzbekistan, 2010).

Soil salinity - it harms or destroys plants in agriculture, reduces the quality and quantity of crops. In saline areas, it is recommended to apply organic fertilizers in the form of manure and compost every year. Some plants are highly resistant to saline irrigation, and yield reduction is mainly due to deterioration of physical properties of the soil. Preventing salinity is only one aspect of effective soil management.

Role of solution contains soil in itself soil water soil accumulation of salts in itself movement in another structural part of a chain move



meliorating problems solving them interdependence ~> browsing output is extremely important. The role of seepage water in the process of formation of soil crop is especially tool move, they have a influence on formation of order of saline in itself and in another one condition, salt tool is service move, in another one condition collecting dissolved salts in water in itself and with its flow to other lands move, salt stocks redistribute the tool is service

In the old regions of Central Asia, large areas are occupied by saline, saline soils, and these soils are saline at one depth or another. The basis of a number of negative properties of these soils is related to the amount of water-soluble salts and the absorbed sodium cation values . According to L. I. Prasolov, more than 10% of the territory of the former allied republics consists of saline and saline soils. More than half of the irrigated lands of Central Asia, including Uzbekistan, are saline. The main area of land reserves that can be used for development and irrigation is saline to one degree or another. Central Fergana deserts, Zarafshan Valley, Khorezm, Karakalpakstan and other regions belong to such lands. The use of saline lands has been known to some extent by the peoples of Central Asia for a long time, including removal of the layer of salt on the saline and saline-like lands and farming, construction works, providing irrigation water in the areas where the saline lands are spread, etc.

Today, extremely difficult conditions have formed in the entire zone of the Aral Bay region. In these lands, the quality of water and land resources has deteriorated, the composition and stability of ecosystems have been disturbed, and the productivity and regeneration of the environment has decreased. About 300 days of sand and salt storms are observed in the region [2, 3]. In the evaluation of the main properties of the soil-soils and the ecological and meliorational condition of the studied dry bottom of the sea and the island regions, the upper 0-30, 30-70 and 70-100 cm of the soil sections placed in the area. The results of the analytical and chemical analyzes of the soil samples taken from the lyc layers were reflected.

According to the FAO (Food and Agriculture Organization of the United Nations), saline soils occupy very large areas of the world - about 25% of the entire earth's surface. To date, significant parts of saline soils are located in South Kazakhstan, Central Asia, the western part of the USA, especially in the arid regions of South America and Australia, and North Africa. Soils in deserts and semi-deserts are characterized by particularly high levels of salinity in arid or arid climates. Potential effectiveness, according to international experts, is a complex set of measures to ensure sustainable land use in saline soils. FAO experts offer a number of methodological recommendations for the prevention, minimization and mitigation of soil salinization, as well as sustainable management of soil resources:



saline soils, saline-like soils, and brines are also included and are formed under the influence of various factors. When justifying land reclamation and choosing melioration methods, the following should be taken into account: soil properties (composition of exchangeable sodium, salinity level, salt balance of the soil, calcium carbonates and gypsum depth of occurrence, degree of mineralization and mineralization of the soil). underground water); climatic conditions (precipitation amount); specificity of agricultural use (arable fields, hayfields, pastures, garden or fruit plots).

CONCLUSION

In short, a comprehensive study of the problem of salinity in all countries and the development of coordinated methods of combating it will help to improve the economic situation in the world. For this, it is clear that it is necessary to support the state, in particular, to introduce modern technologies of conservative agriculture, to grow nutritious plants, to restore saline soils, to implement programs for the use of modern irrigation systems in order to increase soil fertility, which increases the efficiency of agriculture.

REFERENCES USED

1. Abdullaev S.A. , Nomozov Kh.S. "Soil reclamation" // textbook « Uzbekistan national encyclopedia State scientific publishing house Tashkent - 2011- iyl
2. Abdullayev S. "Soil melioration " Tashkent , 2000- year.
3. Akhmedov A., Ruzmetov M., Mirzambetov A. "The main properties and ecologic-ameliorative condition of the soils of the coastal areas of the island and the dry bottom of the sea" // Journal of Agro Science - No. 4, 2019
4. Allashov B.D., Jamalov S.G "Cultivation of nutritious crops in irrigated fields" //Educational and methodological manual for farmers. Tashkent. 2019 4-6 p.
5. Badalova M. "Actual problems of finding solutions to saline soils in agriculture" // Galaxy international interdisciplinary research journal #10 2022
- 6.<https://agriecomission.com/base/zasolenie-pochv-problema-i-puti-resheniya-prodolzhenie>.