

## Effective in Water Threat Conditions Principles of Use

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**ABSTRACT:** In this work, information is provided on the effective increase of water consumption and the cultivation of agricultural products, new varieties and their indicators. Fertilization and irrigation procedures are mentioned in the Andijan region.

**Key words:** source, resource, variety, yield, mineral fertilizer.

Today, one of the global problems of the 21st century is the extreme scarcity of water resources. Water is a very limited resource, and taking possession of its resources is already one of the necessary factors of geopolitics, becoming one of the causes of tensions and conflict situations in the world. In the conditions of water shortage in the world agriculture, following scientifically based methods of irrigation of crops today shows a positive effect on the increase of crop productivity and its quality. In this regard, it is urgent to carry out research on modern science-based irrigation methods that save water and resources, as well as improving the land reclamation condition.

Irrigation systems in the republic are implemented using water sources and pumping stations. Comprehensive measures are being taken to improve their efficiency, to improve devices and technologies to ensure their work efficiency. Decrees of the President of the Republic of Uzbekistan No. PF-4947 dated February 7, 2017 "On the strategy of actions for the further development of the Republic of Uzbekistan", No. PF-5418 dated April 17, 2018 "On measures to fundamentally improve the management system of agriculture and water management", 2021 serves to implement the tasks specified in the decisions "On the state program for the improvement of the reclamation condition of irrigated lands and the development of irrigation" and other regulatory legal documents related to this activity.

It is possible to ensure food security by developing the procedure and norms of watering autumn wheat after repeated shading, and obtaining a high and high-quality grain harvest based on the different soil and climate conditions of our republic. In particular, the elements of theoretical irrigation techniques, irrigation methods and standards for the growth, development and yield and its effect on the quality indicators in the conditions of the gray soils of the Andijan region's meadows are not scientifically substantiated. In the action strategy of the Republic of Uzbekistan for 2017-2021 "On measures to further increase the cultivation of spiked grain on irrigated lands", intensive methods are introduced in the field of agricultural production, first of all, modern agrotechnologies of agricultural crops adapted to local soil and climate conditions are introduced in the fields where spiked grain is planted. special attention is paid to the development of cultivation, especially grain production.

During the years of independence, great changes were made in the water management of our country. In particular, the water resources management system has been improved, the technical condition of irrigation networks has been improved, a wide range of works have been carried out to improve the reclamation of irrigated lands and increase their water supply. Wide attention was paid to the introduction of modern water-saving technologies, the installation of an automated management and monitoring system, and the diversification of the production of agricultural products. As a result of these activities, today 43 thousand ha. 46.4 thousand ha. 34.0 thousand ha. irrigation methods using flexible pipes were introduced in the area, 1 million 200 thousand ha. land reclamation improved, the area of strong and medium salinity lands decreased by 149,400 hectares, the areas near the surface of seepage water decreased by 302,900 hectares, 1 mln. 300 thousand ha. the water supply of the land was improved, cotton productivity increased by 3-4 t/ha and wheat yield by 4-5 t/ha in the meliorated lands.

The results of the study are explained by the fact that the works carried out on the winter wheat varieties "Polovchanka", "Durdona", "Chillaki" in the conditions of the meadow gray soils of Andijan region are scientifically based on the norms and efficiency of acceptable mineral fertilizers in obtaining abundant and high-quality grain and straw harvest.

Agrochemical characterization of irrigated grassland gray soils

Soil sampled layer, cm	Humus, %	Total amount, %			Mobile amount, mg/kg		
		азот	фосфор	калий	N-NO <sub>3</sub>	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
0-10	1,02	0,081	0,154	1,53	18,2	25,6	205
10-28	0,93	0,063	0,142	1,54	10,5	21,0	170
28-36	0,81	0,057	0,128	1,36	6,4	10,3	150
36-62	0,29	0,046	0,105	1,20	4,8	8,0	130
62-89	0,20	0,011	0,067	1,05	2,3	5,4	8,0

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The scientific significance of the results of the research consists in determining the effect of mineral fertilizers on the duration of the growth period and development phases of winter wheat varieties in the conditions of the gray soils of the meadow of Andijan region, the number of leaves, the photosynthetic potential, the net productivity of photosynthesis, as well as grain and straw yield, grain quality indicators.

Nitrogen occupies an important place in the life of plants, it is a component of protein, nucleic acids, chlorophyll. If nitrogen deficiency is felt in plants, their growth and development slows down, the leaves become shriveled and turn light green, the stems are shriveled, the formation of the crop slows down and its quantity decreases.

Potassium appears in the soil in the following forms:

1) soluble in water; 2) exchanger; 3) difficult exchanger or reserve and fixed potassium; 4) non-exchangeable, therefore fixed potassium; 5) potassium contained in insoluble aluminosilicates; 6) potassium in the organic part of the soil (microbes, organic residues).

The amount of potassium soluble in water is low (it depends on the degree of saturation of the soil with potassium and the total concentration of salts in the solution), and it is contained in the salts of carbonic, nitrogenous and phosphoric acids in the soil solution.

Although the winter wheat varieties "Durдона", "Chillaki" and "Polovchanka" produced high grain and straw yields in our research field, slightly lower results were obtained from "Durдона" and "Chillaki" varieties [2,3].

Based on the analysis and results obtained in our research, it has been proved once again that the local varieties created by us can compete with the winter wheat varieties brought from the MDX state in the conditions of the meadow gray soils of the Andijan region. It is recommended to use mineral fertilizers in the amount of N200 P120 K120 kg/ha in the cultivation of "Durдона", "Chillaki" varieties, and N250 P140 K140 kg/ha in "Durдона", "Chillaki", "Tabor", "Pervitsa" varieties.

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