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Rational Use of Water in Agricultural Regions

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Abstract: Demand for water is growing in Uzbekistan as the population grows and the economy grows rapidly. The most fertile land in the country is irrigated. They are now irrigated in the old-fashioned way. In terms of losses, about 50-60% of the water taken from the river evaporates before it reaches the fields and plants. the issue of economical use, especially the introduction of water-saving technologies in irrigation of crops is urgent.

Key words: Water, water users' association, arable land, land, reclamation, irrigation methods.

INTRODUCTION

The role and importance of the agricultural sector in ensuring food security of the world's population is growing day by day. In particular, the rational use of available resources and opportunities in our country, the guaranteed supply of agricultural products to the population, further increase productivity and interest, the introduction of scientific advances and modern approaches to the field is an urgent issue. It is also important to use the available resources wisely and use the irrigated land wisely. Knowing how to use the irrigated land will help to maintain the quality of the land. Being aware of the groundwater level, the reclamation status of the water used, the adaptation of the crop type to the land used and the climatic conditions will help to achieve the expected yield. Ekin dala In order to ensure the rational use of water used for irrigation, farmers and dehkan farms should establish a contractual relationship with their Water Consumers Association (SIU) for the supply of water and its terms. In order to ensure the proper organization of water supply, each SUI must have its own irrigated water supply system. They must have developed clear plans for the use of water for the fields. They must also set up a pre-settlement account between the association and the farmers. must be fully equipped with measuring facilities.

At the same time, in order not to leave the water for irrigation of the population unattended, each citizens' assembly should sign a service contract with the SIU and appoint neighborhood mirabs. Each water consumer (farmer) must submit a written application to the SIU for water five days before irrigation. If the water taken from the canal in the SIU area is distributed evenly in small amounts, the absorption and evaporation of water will increase, the total amount of water used to irrigate each hectare will increase, and the irrigation time will increase. and when irrigation is carried out in turn, a large amount of water first one field then another field and then another field.

As a result, irrigation is faster and water consumption in irrigation canals is reduced by 30-35%. In current practice, the following water-saving methods are available.

Irrigation with short furrows: In this method, the length of furrows (distance between two furrows) is set at 50-60 m depending on soil conditions. This drastically reduces the amount of water discharged, resulting in a uniform wetting of the edges along the entire length. As a result, the amount of water supplied to the field is reduced by 15-20%.

Intermittent irrigation: In this method, water is given to the field not from each ditch between the plots, but from one ditch, leaving the next ditch dry. the total amount of water used for irrigation is reduced by 20-25%.

In areas with high slopes, in order to achieve a uniform humidification of the field and reduce runoff, a large water flow is first sent to the field, and as the water reaches the end of the field, water consumption is sharply reduced, ie water is sent to the field in alternating flow. decreases.

In irrigated lands with low slope, it is also possible to dampen the end of the ridge by blocking the end of the ridge to prevent runoff. This will reduce the total water supply by 15-20%. The length of the egats and the water consumption in the egats play a special role in the division of the arrows. Part of it is wasted by soaking the soil in the head of the field. , in areas with poor water absorption, heavy soils should not exceed 60-70 meters, and in fields with row spacing 90 cm should not exceed 60-70 meters. A uniform wetting of the field ensures high productivity. A uniform wetting of the soil along the entire length of the slope ensures a high yield. , 8 l / s, 0.3-0.4 l / s in light and medium sandy soils and 0.1-0.2 l / s in heavy sandy and clayey soils.

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In the rational use of water, it is important to carry out irrigation not from each ditch, but from the ditch. Irrigation rate is usually set at 600-800 m3. Irrigation by the juice method plays an important role in the efficient use of water. When applied, manure not only nourishes the cotton, but also acts as mulch. When irrigating with juice, special attention should be paid to the complete mixing of water from the ditch with manure. In addition to juice, old mulch, paper, straw or various algae can be used as mulch. For irrigation, non-traditional water resources. In particular, the use of wastewater, sewage and drainage water can reduce the amount of water used for irrigation. The salinity of the water is 3 g / l. It is recommended to mix it with fresh river water. The amount of fresh water used for irrigation can be reduced by 15-25% due to the use of drainage water for irrigation.

It is known that cereals, including winter wheat, enter the milky ripening period in May. Otherwise, due to lack of water, grain grains may be empty and the scales may not weigh down. During this period, depending on soil moisture, the irrigation rate for winter wheat should be set at 700-800 m3 / ha. creates a moderate microclimate. The duration of irrigation should be 8-12 hours, depending on the mechanical composition of the soil, the slope of the area and the rate of irrigation. In some areas with large slopes, the duration of irrigation should not exceed 16-18 hours. , cultivation and mowing) are carried out in a timely manner, and most importantly, if irrigation is approached responsibly, the desired crop will undoubtedly be grown. Therefore, the organization of scientific and practical research in this area requires the testing of new modern innovative technologies in irrigation and the introduction of large areas. p depends on the efficiency of irrigation technologies.

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