

THE IMPORTANCE OF USING BIOLOGICAL METHODS IN REDUCING GROUNDWATER WATER IN CURRENT NATURAL CONDITIONS

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Annotation. The content of this article discusses the importance of biological methods in reducing the level of groundwater, the efficient use of irrigated lands and improving the reclamation of lands, as well as the achievement of sustainable and high yields of agricultural crops. By planting a variety of plants in irrigated areas, we can see a decrease in groundwater levels.

Key words: irrigation networks; biological ditches; artificial ditches; crop rotation; LUC (land use coefficient); groundwater; garmsel.

Today, biological treatments require less capital than other measures. They soften the microclimate of irrigation fields and protect cotton and other crops from the harmful effects of hot winds. Also, they shade the canals and reduce evaporation from the water level. It slows down the speed of the wind on the ground. Fruit trees growing along the

irrigation networks bring income every year, and fruitless trees are considered a source of wood necessary for construction and carpentry [1]. The consumption of a large amount of water by plants for transpiration does not affect the dissolved salts in the soil and seepage waters. These salts remain in the soil and in the fresh waters. Natural undisturbed areas must be artificially disturbed, otherwise there will be no guaranteed harvest from these lands. Biological measures include the following actions: Planting trees in irrigation areas. Use of herbaceous crop rotation in the field of crop rotation. (Table 1).

Table 1. Evaporation rates of different trees

№	Types of trees	The amount of water that evaporates	
		Average daily	from April to October total
1.	willow tree	548,1	91992
2.	Poplar tree	509,1	82949
3.	Mulberry tree	411,4	65750
4.	Apricot tree	190,2	32364

Usually in the middle part of the irrigation fields (assuming their area is not less than 10 ha) in the lowlands, trees are planted to break the curve of the depression on the high edges and to further reduce the level of seepage water [2]. Dry ditches are also examples of biological ditches, that is, we can see the evaporation of water from non-irrigated land in the area of the irrigated area (EFK, examples). It is recommended to plant sycamore, white acacia in saline lands, willow and poplar in swampy lands, saxovul and turangil in desert and desert lands [3]. Choosing the right type of ditch is of great importance in lowering the level of stormwater. Before adopting any hydraulic trench in a project, it is necessary to justify whether it is suitable for a given design condition. Today, hydrotechnical ditches are used to reduce the salinity level of the irrigated area and maintain the level of seepage water at a normal level [4]. By introducing crop rotation in

barren lands, effective results are obtained in increasing cotton productivity. If alfalfa, corn and other crops are planted in cotton fields affected by diseases such as wilt and spider mite, these pests will disappear [5]. Also, if another crop is planted in the corn fields infected with black moth. Korakuya sleeps. A disease or pest that is dangerous for one planting is not dangerous for two different crops, for example: sunflower, tobacco, alfalfa, and hemp are affected by aphids, but they are completely harmless to corn and oats. When crop rotation is implemented correctly, the meliorative condition of the fields improves.

Conclusion. If we conclude from the above data, on average, one tree can evaporate up to 90 m³ of water during the year or up to 12-15 thousand m³ of water per 1 ha of alfalfa area in 1 season. We can see how necessary this event is. Also, biological ditches require less capital than other activities. They soften the microclimate of irrigated fields and protect cotton and other crops from the harmful effects of warm winds

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