

## **THE MOST EFFICIENT USE OF BASE EARTH RECTIFIERS IN IMPROVING THE RECLAMATION OF IRRIGATED ARABLE LAND.**

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**Annotation:** The article presents a research analysis directed to the development of new scientific and technical bases of resurstejamkor technologies and technical means of their implementation in the improvement of melioration of irrigated crop areas and the effect of leveling on fertility and the organization of the leveling process.

**Keywords:** Leveling, technological process, unevenness, current leveling, basic leveling, machine, productivity, soil, productivity.

Today, it is an urgent issue to improve the level of the terrain, carry out its quality leveling work and create a high leveling aggregate of work productivity for these works. The modernization of techniques used by farms in the current leveling work of arable land is aimed at improving the quality of work of base rectifiers, the dependence of tractor – machine units on work productivity, reducing fuel consumption and improving leveling units. Improving the reclamation and quality leveling of irrigated land, among other things, is currently one of the pressing problems.

Agriculture is one of the most important sectors of the economy of the Republic of Uzbekistan, depending on the agricultural technology in which the reclamation of existing arable land is carried out and its leveling is carried out. It should be noted that more than 90% of agricultural production is produced by irrigation farming. This situation indicates that water resources are extremely important in agriculture, and their shortage negatively affects not only the production of agricultural products, but also the entire economy of the country.

At the moment, work is increasingly underway, such as improving land reclamation, saving water use. It is worth mentioning at this point that land reclamation, which is becoming another pressing problem, is a violation and an increase in the level of salinity. Partial prevention of this problem depends on this

qualitative alignment. Ground leveling machines used in ground leveling and ground leveling play a major role in high-yield. When the soil is treated several times, irregularities in the ground occur during watering. This problem is recommended to improve the reclamation of land through current Leveling Works and machines. Temporary sugaring networks, the irregularities formed in the process of land processing are smoothed out. Hanging graders and long-base Earth rectifiers are used in this. The current and pre-planting ground leveling works are scheduled and held annually.

The importance of land leveling - the flatter the land agricultural machinery works with high unum, the land is well washed, the seeds fall to the same depth, their germination is also the same, 6-7% water is saved. In all fields, it is impossible to carry out leveling work at the same time, for this reason, these works must be carried out on the basis of planning, as described above. In a leveled field, moisture spreads evenly, the soil matures at the same time and the Acorn is treated qualitatively between the rows. On uneven ground, the deep ground becomes wet and the high ground dries up. Such lands cannot be softened by the cultivator at the same depth. When the soil is leveled, the soil becomes dense. At the first stage of leveling work, it is advisable if it is leveled using graders. The flatter the Earth retains moisture well in itself, and the norm of watering has decreased. In flattened areas, the yield increases by up to 40%, water consumption in irrigation decreases by 2 times [3]. If the land area is not leveled in time-reduces the quality of work, large cuts appear on unimproved lands, the plant does not develop well, Salt washing is carried out of poor quality. Ground leveling machines should also be brought through the ground from 6-7 times to one to two times. Because the walking trail hardens the soil much compaction. We recommend aligning fields that were previously plowed and cleared of stone and gooseberry residues, and with land rectifiers with a long base for aligning before planting. It should be noted that the development of Agriculture is directly related to land resources and their reclamation status today. In ensuring the effectiveness of the activities carried out to improve the reclamation of land, the

achievements of Science, the cooperation of scientists and specialists are clearly significant.

In overcoming these problems, the results of the research described above and the experiments carried out show that the leveling of irrigated land areas has the following advantages, along with the improvement of land reclamation [2].

- Furrow irrigation productivity increases by 4 times;
- Irrigated land drinks water evenly and the soil is made at the same time;
- The salinity of the soil is obtained because the rise of groundwater slows down, and as a result, the release of salts into the top layer of the Earth is reduced;
- Quality processing between the series is ensured;
- The ability to carry out all agrotechnical activities with good quality and high speed is created;
- \* Crop yields increase;
- The working conditions of the mechanizer are improved;

In conclusion, it should be said that in improving the reclamation of irrigated lands, qualitative leveling of Lands is of great importance, we can see from the above points and a number of measures. The involvement of improved ground leveling machines in timely and high-quality ground leveling work in combination with improving the reclamation of arable land as well as increasing productivity also leads to water economy, which, as it turns out, has a positive effect on the development of Agriculture.

#### **List of literature.**

1. Decree of the president of the Republic of Uzbekistan No. PF-4533 of April 19, 2013.
2. Materials of the scientific practical conference on the topic "modern problems of Agriculture and water economy " Part II. Tashkent 2013
3. Internet data. [www.ziynet](http://www.ziynet)
4. Egamberdiyev, M. S., Oripov, I. U., Hakimov, S., Akmalov, M. G., Gadoyev, A. U., & Asadov, H. B. (2022). Hydrolysis during hydration of anhydrous calcium sulfosilicate. Eurasian Journal of Engineering and Technology, 4, 76-81.

5. Egamberdiev, M. S., Oripov, I. U., & Sh, T. S. (2022). Development of a Method for Measuring the Layered Moisture State of Concrete and Various Bases. Eurasian Journal of Engineering and Technology, 4, 82-84.
6. Z.Z.Qodirov, I.A.Oripov, A.Tagiyev, G.Shomurodova, & M.Bobirova. (2022). water-saving irrigation technologies in soybean irrigation, effect of soybean on growth and development. European Journal of Interdisciplinary Research and Development, 3, 79–84. Retrieved from <https://www.ejird.journalspark.org/index.php/ejird/article/view/33>
7. Isayev S. X., Qodirov Z. Z., Oripov I. O., & Bobirova M. B. (2022). effects of resource-efficient irrigation technologies in irrigation of sunflowers on land hydrogeological conditions. British Journal of Global Ecology and Sustainable Development, 4, 95–100. Retrieved from <https://journalzone.org/index.php/bjgesd/article/view/55>
8. Qodirov Z.Z, Oripov I.O, & Avezov Sh. (2022). Effect of Drip Irrigation of Sunflower Crop on Soil Meliorative Status. Texas Journal of Agriculture and Biological Sciences, 8, 107–111. Retrieved from <https://www.zienjournals.com/index.php/tjabs/article/view/2382>
9. Khodirov Z, Jumaev J, & Oripov I. (2023). Application of water-saving irrigation technologies in the irrigation of fodder beets grown as the main crop. Texas Journal of Agriculture and Biological Sciences, 17, 34–39. Retrieved from <https://zienjournals.com/index.php/tjabs/article/view/4137>
10. The importance of saving water used for irrigation in irrigated agriculture and proper distribution of water resources by sectors
18. Egamberdiyev, M. S., Oripov, I. U., Hakimov, S., Akmalov, M. G., Gadoyev, A. U., & Asadov, H. B. (2022). Hydrolysis during hydration of anhydrous calcium sulfosilicate. Eurasian Journal of Engineering and Technology, 4, 76-81.
19. Egamberdiev, M. S., Oripov, I. U., & Sh, T. S. (2022). Development of a Method for Measuring the Layered Moisture State of Concrete and Various Bases. Eurasian Journal of Engineering and Technology, 4, 82-84.

20. Z.Z.Qodirov, I.A.Oripov, A.Tagiyev, G.Shomurodova, & M.Bobirova. (2022). WATER-SAVING IRRIGATION TECHNOLOGIES IN SOYBEAN IRRIGATION, EFFECT OF SOYBEAN ON GROWTH AND DEVELOPMENT. European Journal of Interdisciplinary Research and Development, 3, 79–84. Retrieved from <https://www.ejird.journalspark.org/index.php/ejird/article/view/33>
21. Isayev S. X., Qodirov Z. Z., Oripov I. O., & Bobirova M. B. (2022). EFFECTS OF RESOURCE-EFFICIENT IRRIGATION TECHNOLOGIES IN IRRIGATION OF SUNFLOWERS ON LAND HYDROGEOLOGICAL CONDITIONS. British Journal of Global Ecology and Sustainable Development, 4, 95–100. Retrieved from <https://journalzone.org/index.php/bjgesd/article/view/55>
22. Qodirov Z.Z, Oripov I.O, & Avezov Sh. (2022). Effect of Drip Irrigation of Sunflower Crop on Soil Meliorative Status. Texas Journal of Agriculture and Biological Sciences, 8, 107–111. Retrieved from <https://www.zienjournals.com/index.php/tjabs/article/view/2382>
23. Khodirov Z, Jumaev J, & Oripov I. (2023). Application of water-saving irrigation technologies in the irrigation of fodder beets grown as the main crop. Texas Journal of Agriculture and Biological Sciences, 17, 34–39. Retrieved from <https://zienjournals.com/index.php/tjabs/article/view/4137>