

Irrigation Of Gardens From Modern Innovative Technologies Which Are Very Low Waste In Dry Land With Digital Automatic Methods

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Annotation: This article provides information and examples of methods of garden irrigation and mineral nutrition using modern innovative technologies that are very wasteful in dry lands using digital automated methods.

Keywords: irrigation, mineral nutrition, garden irrigation, arable land, digital automation.

One of the global challenges of the 21st century today is water scarcity. It is well known that between 1960 and 2019, that is, in the last 60 years, the consumption of drinking water in the world has increased eightfold. This indicates that the world's water resources are very limited. The above information calls for the rational use of available water resources. The world uses 2.8 thousand km³ of fresh water per year for agricultural purposes, accounting for 70% of total freshwater consumption. According to the International Commission on Irrigation and Drainage, the world's irrigated area is estimated at 299.488 million hectares.

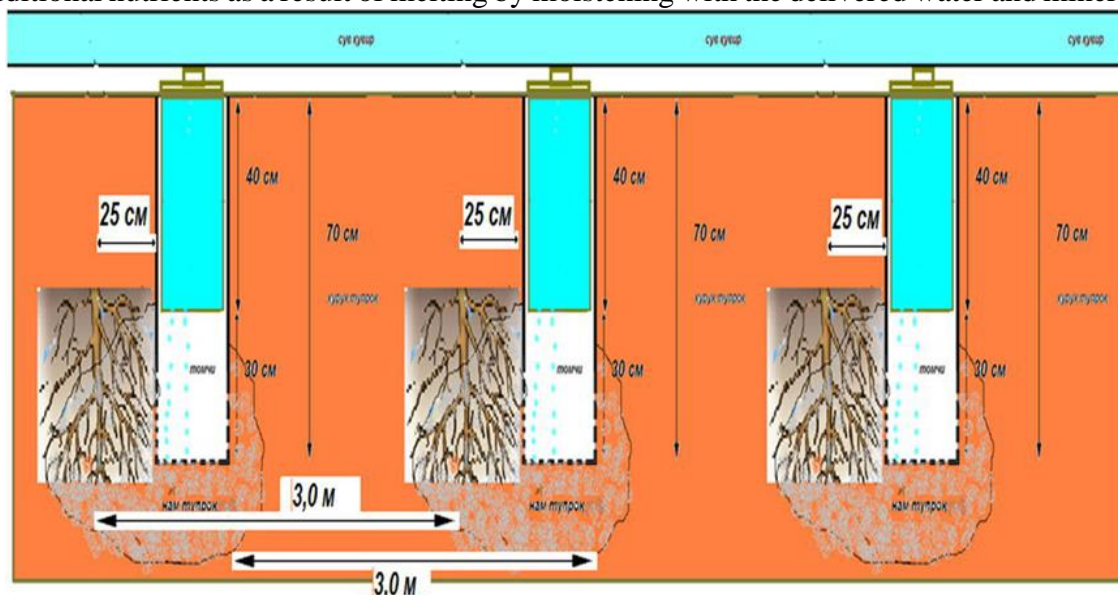
In addition, 40 percent of food and 60 percent of cereals come from irrigated land. Irrigation of agricultural lands in the present field leading to global water shortages as a result of high crop yields and misallocation of water resources through irrigation networks. It is known that the search for and development of new water resources and the maintenance of water management systems can require large investments. The rising cost of each cubic meter of water is causing problems for water supply in developing countries. Given the current model of water use in the country, taking into account the per capita water consumption, it is important for the country to take a number of measures to address the shortage of water resources. In the effective use of available water resources in the country, the application of water-saving irrigation technologies is of great importance in the irrigation of agricultural crops and the determination of water consumption.

Methods and techniques of irrigation of agricultural crops.

Irrigation method is a set of methods and measures used to distribute irrigation water to irrigated areas and to transfer water from the flow form to soil and atmospheric moisture. Elements of irrigation techniques are selected to implement the irrigation method. Irrigation technology is the technology and technical means of transferring water from the stream to the soil and atmospheric moisture. Let's talk about the essence of irrigation methods and conditions of usage. The essence of irrigation methods is to create optimal soil moisture for the plant, as well as to obtain high and stable yields by applying the optimal irrigation method in order to use water resources efficiently and rationally. The method and type of irrigation affects the order of irrigation, labor productivity in irrigation, land reclamation, location of water networks, construction and operating costs, productivity and others. Choosing the right type determines the yield and productivity of agricultural crops.

For example, let's consider the method of irrigation and mineral feeding of gardens using modern innovative technologies, which are very wasteful in dry lands, using new digital automated methods: a depth of 70 cm at a distance of 25 cm from the root of each vine a pipe with a diameter of 80 mm is installed. The bottom 30 cm of this pipe acts as the bottom reservoir. Inside this 80 mm diameter pipe, a 76 mm diameter 40 cm pipe is closed at the bottom, but a 0.3 cm hole is drilled. Through these holes, water drips into the lower tank. Holes with a diameter of 0.3 cm are also drilled from the bottom reservoir. A special sensor is installed in the pipe to direct water and mineral nutrients through these holes. This device provides the same amount of water and mineral nutrients from the 1st walnut root to the last walnut root. In this technological process, water and mineral nutrients are prevented from evaporating into the air. Water and nutrients are delivered

directly to the root of the walnut tree. The microelements of the soil at a depth of 70 cm also reach the plant roots as additional nutrients as a result of melting by moistening with the delivered water and mineral nutrients.



In human nature, the goal is to control the environment. Man unconditionally enjoys the gifts of nature throughout his life. This is not just for scientific and technological progress. It should be noted that the reasons for the violation of the laws of nature are its geographical terminology, techno-nature system and the presence of complexes of natural techniques. The synthesis of natural processes and human activity must be scientifically substantiated.

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