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Modern Technology of irrigation of garden trees in Agriculture

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ABSTRACT

This article provides instructions on the systematic organization of irrigation work in horticulture and saving water.In dry farming, it is recommended touse hydrogels that retain water using local waste to save water

Keywords*: horticulture, irrigation, water and waterworks, farming, hydrogel, lalmikor*

Introduction

Gross agricultural output in the reporting period, determining the value of the volume of fruits and vegetables grown in horticulture, produced by entities engaged in agricultural activities, and expressing its place in the total volume of production [1-2].

As a result of measures to optimize the structure of areas for agricultural crops for the period 2000-2016 until 2016, the area of orchards was increased by 75.6 thousand hectares due to the reduction in comparison with 2000 of areas for certain types of agricultural crops. [3].

Due to the fact that the creation of world reserves of drinking water and its economical rational use is an urgent problem for people, at present, to irrigate young shoots per 1 hectare in newly created garden plots, it is required to use the most effective irrigation method while reducing the annual amount of water from 500 m3 up to 800-1000 m3 in garden plots that have already started harvesting [4].

At present, an effective method of drip irrigation is widely used in 17 percent of the total area of gardens created in our republic. With this method, culverts are laid in areas where fruit trees have been planted, through these pipes sprouts are watered from the drip culvert under each tree. But with this method of irrigating gardens, it is necessary to provide for an economical rational use of fresh drinking water and a decrease in the cost of growing garden berries due to the additional consumption of electricity or fuel for water pumps brought into the pipelines [5].

Every gardener who has contributed to the enrichment of the green world by creating a garden carefully preserves the fruit tree that he plants and cares for. In the future, by harvesting fruits from these trees, he will help increase the number of products in the markets, as well as sell them to the domestic markets to meet his family's wet fruit needs and make a profit in excess of his needs. This is why our gardeners do not so easily achieve the goal of producing fruit from the fruit trees in the orchards they tend to. Because even new varieties of fruit trees, created by nature to be resistant to various whims, can lead to the fact that their yield will decrease or the tree itself will die from a lack of moisture in areas where nature is deficient in water and watering is difficult. [5].

Therefore, our enterprising gardeners introduce in their gardens both artificial and natural methods of organizing irrigation work and maintaining the amount of moisture in the soil during the period of watering the trees. For example, for an additional supply of water during irrigation, trenches or pools are arranged, and in the absence of water in the ditches and canals, pumps are used. Our gardeners, who use various organic and mineral fertilizers to provide sufficient moisture in the root layer of the soil for a certain period of time, now also use an artificial method of

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maintaining moisture in the soil.

Our gardeners, based on their experience, have now widely adopted drip irrigation in order to increase water savings when irrigating orchards where fruit trees are planted. In these drip-irrigated gardens, along with local fertilization in the soil layer where each bush has developed lateral roots, some gardeners use artificial disposable diapers that have the ability to retain moisture by collecting used baby diapers (waste hydro gel, they checked on their work experience maintaining sufficient moisture in the soil around the root of the tree by dipping and burying in the soil layers where the lateral roots of the trees they tend to develop.

Table 1

The degree of water absorption of the spent hydrogel itself

№	Hydrogel	Reaction temperature and degree of bending			
		20 °C	**60 °C**	**80 °C**	**100 °C**
1	Untreated	80	120	100	110
2	Redesigned	360	420	440	440
3	Industrial hydrogel	500	560	600	520

If we make a useful product from such waste by recycling, then the purification of our ecology will be good. The use of these types of waste without recycling can cause very dangerous diseases for human health. Such waste needs to be recycled to protect itself from the hygienic side.

For this, a disposable diaper, separated from the waste composition and having moisture-retaining properties, and the waste, the contents of which correspond to the diaper, are collected and cleaned in a special steam room at a temperature of + 100 ° C using steam, after which they are disinfected with chemicals that kill bacteria that cause various infectious diseases. Such purified waste is crushed in a special crushing device, and artificial materials crushed by mixing with glue are continuously produced in the form of cylindrical turbines in such a device as a press machine for plotline pipes with a diameter of 60-80 mm.

This type of recycled material, which has moisture-retaining properties, is cut into pieces 4-5 m long and, before being placed in special covers, is impregnated with a 20% solution of potassium mineral fertilizer in water. The finished pieces of fresh product are wrapped in a spiral form and packed in special protective bags.

Conclusion

This new technology, convenient for novice gardeners, is taken from their experience, is that an environmentally friendly, hygienic product and potash fertilizer can be given when fruit trees are in bloom before harvest, and also spirally twisted so that the lateral roots of fruit trees are conveniently located in accordance with the developed soil layer.

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