



EFFECT OF DISSOLVING NITROGEN FERTILIZERS AND DRIP IRRIGATION ON VEGETABLE CROP PRODUCTIVITY

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Vegetable crops - a group of cultivated crops grown for food, fodder and technical purposes. some scientists include only watermelons, melons and pumpkins in vegetable crops; it grows crouching or lying on the ground. Spread from tropical and subtropical countries of Asia, Africa and America. Nowadays, it is cultivated on all continents. It is widely cultivated in Central Asia, Transcaucasia, Ukraine, USA, Bulgaria, and Spain. the fruit of vegetable crops is a valuable dietary product; given as feed to livestock. Oil is extracted from the seed.

The medicinal properties of vegetables have been known since ancient times. they normalize nervous excitement and prevent nervous mental states. A number of vegetable plants (onions, garlic, tomatoes, peppers, parsley, horseradish, radishes) contain phytochemicals with bactericidal (destroying) properties. some vegetables (celery and garlic) have energy-boosting properties.

ABSTRACT

This article provides information on the effect of dissolving nitrogen fertilizers and drip irrigation on productivity in the cultivation of vegetable crops and vegetable products.

The amount of various vegetables in the food of a healthy person should not be less than 1/4 of the daily ration. It is necessary to eat about 300 g of potatoes and 400 g of vegetables every day. according to the data, the average annual rate of vegetable consumption per capita is 146 kg, between republics and regions from 128 kg to 164 kg, including: white-headed cabbage - 32-50, cauliflower, brussels and savoy cabbage - 3-5, tomatoes - 25-32, vegetable products - 20, zucchini and eggplant - 2-5, bell pepper - 7-13, green peas - 7-8, aromatic vegetables - 1-2, various vegetables should be 3-5 kg.

In the regions of Uzbekistan, it is proposed to increase the annual rate of vegetables and rice crops to 164 kg, and to reduce potatoes to 50 kg. taking into account the fact that the crop perishes during storage and transport, it is necessary to increase the rate of vegetable preparation by 25-30% compared to the rate of consumption. Polycrops are grown in all countries of the world. at present, its gross yield is 560-



570 mln. t, each person's consumption of vegetables is 100 kg during the year. According to the physiological (medical) norm, this indicator should not be less than 120-130 kg. China ranks first in the production of vegetables and fruits (202-205 million tons or 170 kg of vegetables per capita, 100 kg of watermelons).

Tasks facing Uzbekistan and world crop production.

First: Increasing the yield of vegetable crops and reducing their cost.

Second: Exclusion of seasonality in providing the population with vegetables.

Third: Expand the range of vegetables and improve their quality.

Among the tasks that are an obstacle to the regular production of high-quality crops in our republic and the improvement of the efficiency of vegetable growing and agricultural products, include:

1. Although climatic and soil conditions allow the cultivation of various vegetable plants, there are no more than 20 types of cultivated crops. The expansion of the range of vegetables not only meets the growing needs of the population, but also the demand of foreigners coming and living in our country, enriches the potential of the industry.

2. The absence of farms specializing in a certain type of crops reduces the level of mechanization of production processes and increases the need for manual labor.

3. Type of culture, soil from organic and mineral, nitrogen, phosphorus and microbiological fertilizers properties and use depending on the planned crop. The use of potash fertilizers.

5. Use of new progressive methods (drip irrigation, rain irrigation, etc.), and not just watering crops.

6. Production by eliminating the shortcomings of technology implementation timely and high-quality implementation of technological measures. Application of advanced methods of preparing seeds for sowing.

To increase the production of polyproducts, it is necessary to carry out qualitative changes in these branches. To do this, it is necessary to increase soil fertility with the help of intensification factors and fully use the agrobiological and productive potential of plants. Because the soil is a plant (variety, seeds) - technology - chemistry - melioration - organization - bringing the components of production, such as a person, into a single whole is the highest factor.

It is recommended to create and produce modern technologies by science and technology in order to use factors that accelerate crop formation. As a result, productivity and product quality will increase, and the level of utilization of all positive opportunities of vegetation and climatic conditions will increase. Any technology creates new opportunities to increase human labor productivity, but in practice, the introduction of new technologies into production is not easy and requires effective use of all available opportunities.

A set of modern cultural types and varieties of polys crops has been cultivated for many years on a farm that is fertilized every year, as a result, it absorbs nutrients from the surface (arable) layer of the soil. species (forms) of plants with poorly developed root system and demanding soil fertility have appeared. The relationship of polys crops to nutrients within a unit of time and during the entire growth period, assimilation of mineral elements per unit of



surface area, requirement for the presence of mineral nutrients in the soil, relationship to the saturation and salinity of the soil solution, elements determined by absorption and accumulation of harmful ions. The conditions of mineral nutrition directly and indirectly affect the growth and development of plants. The direct assimilation of food elements, the rapid transition of photosynthesis and transpiration, the transition level of ontogenesis, the distribution of food elements and the product of photosynthesis between plant organs and them, the level and quality of the crop are invisible.

The amount of mineral fertilizers absorbed by plants from one hectare of land during the growth period shows the level of its absorption. The absorption of mineral nutrients per day from one hectare of land is considered as its daily average absorption capacity. The amount of mineral elements that a plant takes from the soil per unit of yield (tons, quintals) is its defining indicator.

Drip irrigation means watering the plant, not the field. Mineral fertilizers, added to the water content, reach the roots directly. Only one person can irrigate the land that used to require about 10 waterers. It saves time and money. Increases productivity. Previously, a person who wanted to engage in farming and horticulture had to bring water to crops from a canal or ditch. Even though it is hard and expensive, there are still farmers who work in this way. But now is the time of innovation. Tons of bountiful crops can be obtained through drip irrigation. The USA, Germany, China, Turkey, Israel, Egypt and other countries widely use drip and sprinkler irrigation

methods in agriculture. is called For the first time, this unique method was proposed by Israeli Simcha Blass. Since the 1960s, micro-irrigation has spread rapidly throughout the world. Drip irrigation, in addition to minimizing water consumption, has a positive effect on the development of crops and increases productivity in crop production. This method has become especially popular in arid climates.

The usual way of irrigating the land in agricultural plots is sprinkling with the help of various devices. The automatic drip irrigation system has clear advantages over traditional methods of moistening the soil:

- It can be used in vegetable gardens, greenhouses, indoor plants and outdoor areas, fully automatizing the watering process.

- Water enters the root zone of the plant and provides uniform moisture to the required area of the soil. It does not destroy the upper layer of the earth.

- Adjustable jet pressure and water intake time. The root system of the plant organism does not get wet from excess moisture.

- Through the micro-irrigation facility, mineral fertilizers can be delivered directly to the roots, which serves the natural nutrition of crops and increases productivity.

- In the conditions of constant waterlogging of the soil, the probability of disease of cultivated plants due to rotting infections affecting them is minimized.

- Fewer weeds as water does not enter the pavement.

- The soil does not require constant loosening for air intake, because a dense crust does not form on the surface of the earth.



- Water consumption is significantly reduced.

Drip irrigation has many advantages and they are all important:

Labor intensity is significantly reduced. The system can be fully automated, but even in its simplest version, watering requires a few minutes of your attention. Reducing water consumption... This happens because moisture is provided only under the roots, excluding other zones. There is no need to relax often. With a measured water supply to a small area, a crust does not form on the soil, so there is no need to disturb it. Plants develop well, and the yield increases. As water is supplied to one zone, the root system

develops in this place. It has more thin roots, becomes more lumpy and absorbs moisture faster. All this contributes to rapid growth and abundant fruiting. Root feeding can be organized... In addition, due to point feeding, the consumption of fertilizers is also minimal.

In conclusion, it should be said that the economic efficiency of drip irrigation systems has been proven many times even on an industrial scale. In private greenhouses and vegetable gardens, the effect will not be so significant: the costs of creating the system can be reduced by a small amount, and all the advantages will be preserved.

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