

IMPACT ON VEGETABLE YIELDS BASED ON COST-EFFECTIVE TECHNOLOGIES

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Abstract: This article describes the scientific research on the impact of energy-saving technology on seedling thickness and fertilizer yield in the Lower Amudarya region.

Keywords: Amudarya, vegetables, technology, fertilizer, yield, biological properties.

Biological properties of vegetable crops, cultivation techniques, cold and heat resistance, root system development, water and nutrient requirements. The amount and structure of the product depends on the nutrients, the amount of nutrients absorbed by the plant. The nutrient requirements of vegetable crops, the relationship to the concentration of fertilizers, the effect of soil solution concentration on the plant. Chemical control of weeds in vegetable crops is extremely difficult and is one of the most difficult agro-technical processes. Currently, Goal 2 E (USA "Rom and Xaao"), Zelek super (USA "Dau Agrasyaenses"), Zenkor (Germany "Baer"), Nabu (Uzbekistan, Russia) Trifluralin are used to control weeds in vegetable crops grown in Uzbekistan. India, United, Targa super (Japan's Nissan Chemical), Totril (France's Ron-Pullen), Fuzilad Super (England's Zeneka) and other herbicides are used.

Goal 2 E 25% EM.K. is a systemic herbicide used against annual biennial weeds in pies. When the onion produces 2–4 leaves, the field is sprayed at a rate of 0.5–1.0 liters per hectare. Zellek Super 12.5% em.k .. systemic active substance Haloxifon ethoxy ethyl. In all generations of carrots, potatoes, onions, annual weeds are sprayed during the active growing season, producing 2-6 leaves. Moderately toxic to humans and warm-blooded animals. Consumption rate is 1.0 liters per hectare. Nabu 20%

em.k. The active ingredient is itoxidine. Systemic herbicide. Consumption rate is 1.5 liters per year for perennial weeds against 1.5 l per hectare of annual monocotyledonous weeds in onions. 10-15 cm per year for annual monocotyledonous weeds in carrots when sprayed. The drug is less toxic to humans and warm-blooded animals (its UD50 value is 3200 - 3500 ml / kg for rats. Nitran 30% em.k. The active ingredient is trifluraline. tomatoes are sprayed into the soil and immediately mixed into the soil until the annual two-stage and single-stage weed control is carried out. Consumption rate is 1.6-2.4 liters per hectare. Consumption rate in cabbage tomatoes is 4-6 liters per hectare.

Carrots are sprayed into the soil before planting or at the same time against annual biennial and monocotyledonous weeds and immediately sanded. Consumption rate is 4.0-6.0 liters per hectare. Trifluralin is applied to the soil before sowing of annual biennial and monocotyledonous weeds in the tomato seed field and immediately buried in the soil. Fyuzilad Super 12.5% em.k. active substance fluase fol-p-butyl. Systemic active herbicide. In all generations of sugar beets, sorghum and beets, sunflowers, carrots, tomatoes, cabbage, cucumbers and onions, 1.0-2.0 meters per hectare of annual single-stage weeds per hectare of perennial single-stage weeds. Sprayed at a rate of 2.0–4.0 liters. Annual weeds produce 2-4 leaves and perennial weeds are 10-15 cm tall.

Vegetable Fertilizer System: Basic Fertilization, Nest Fertilization and Feeding, Fertilizer Standards, Timing and Methods of Fertilization. Standards, timing and methods of application of local fertilizers. Combine application of mineral and local fertilizers, preparation of mixtures from them. Determining the amount of fertilizers for the planned harvest, the distribution of fertilizers by soil properties and their adjustment according to the agrochemical chart, the norms of nitrogen, phosphorus and potassium fertilizers for soil type and other Adjustment on indicators, fertilizer norm after perennial weeds. Impact of vegetable fertilizers on crop quality and cost-effectiveness.

Vegetable crops are very sensitive to nutrient solutions and can be divided into 2 groups depending on their requirements for the concentration of the soil solution: 1) highly resistant - these are beets, tomatoes, cabbage; 2) less resistant: carrots, onions, cucumbers.

All vegetable crops absorb a lot of nutrients and so₂ from the soil due to the production of a lot of dry matter. Therefore, depending on the absorption of nutrients, vegetable crops are divided into the following 4 groups:

1. High-yielding crops - mid and late cabbage;
2. Medium - tomatoes, cucumbers, onions;
3. Kam - beets, carrots;
4. Very little - turnips.

Different vegetable crops absorb nutrients from the soil in different ways. This depends on the length of the growing season, the structure of the root system and other biological characteristics. For example, cabbage absorbs nutrients quickly, while onions, carrots, and beets, on the other hand, absorb them very slowly, with tomatoes in between. Vegetable crops also vary in the nutrient content of the soil. M: Cabbage needs nitrogen in the first place, early vegetable crops need a lot of phosphorus, and long-term winter crops need phosphorus and potassium.

From the above, it is clear that organic fertilizers should be applied in the field of vegetable rotation, first for cucumbers, then for onions and cabbage (evening and middle). In light sandy soils, it is recommended to apply manure in spring, and in heavy soils in autumn before plowing. Experiments have shown that for every 1 ton of fertilizer applied to the ground, the yield of tomatoes increases by 170-180 kg, cabbage by 150-160 kg, potatoes by 85-90 kg and melons by 180-190 kg. Once the local sources of fertilizer have been identified on the farm, a manure rotation plan is developed, which outlines the sequence of application of organic fertilizers across the fields. In the fourth year after the demolition, it is planned to use 50-60 tons of

fertilizer per hectare for potatoes, 70-75 tons for vegetables and 80-90 tons for melons.

For different vegetable crops, there is a lack of any nutrients in the soil. Depending on the effectiveness of mineral fertilizers, vegetable crops can be arranged as follows: beets, cabbage, tomatoes, cucumbers and onions. Experiments in different soil and climatic conditions have shown that additional yield of vegetable crops can be obtained when each element is given at 60-90 kg / ha. In order to ensure good nutrition of vegetable and melon crops during the growing season, ie to meet the nutrient needs of the plant from a young age, the annual norm of fertilizers should be set close to the young seedlings, and the main part to plant nutrients. should be added when the demand for the substance increases. Most of the mineral fertilizers should be applied at a depth of 25-30 cm during the main tillage. Vegetable crops usually start using fertilizers that are first applied to the soil to a depth of 25-30 cm, ie 20-30 days after germination in the field. Depending on the biological characteristics of vegetable crops, methods of sowing and transplanting, as well as soil properties, it is recommended to apply fertilizers on time.

Karam. Manure is applied at the rate of 20 tons per hectare. If it is planted for the first time instead of perennial grasses, then the fertility rate will be reduced by 20-25%. With 100 s of cabbage yield, an average of 31 kg of nitrogen, 12 kg of phosphorus and 40 kg of potassium are removed from the soil. Most nutrients are absorbed during the formation of cabbage. Cabbage can be grown by sowing and seedlings. Seedlings grow well in a special mixture of the following environment (rn) - 6-7 (75% peat, 22% humus, 2-3% cattle manure). For one square meter area add 1.5 kg of ammonium nitrate, 1.7 kg of ordinary superphosphate, 0.6 kg of potassium chloride, 0.5-1.0 bur and 0.4 g of ammonium molybdate. '

With a yield of 100 s, cucumbers absorb 28 kg of nitrogen, 19 kg of phosphorus and 44 kg of potassium from the soil. Nitrogen and phosphorus are slowly absorbed in the first 10-15 days of development, and potassium in the 30th day. Maximum nutrient uptake occurs during crop formation. Since cucumbers are very sensitive to

soil concentrations, the annual norm of mineral fertilizers should be given in installments. The annual norm of organic fertilizers is 70-75% of all R, K is applied during the main tillage, the rest of R is applied and n is applied with 10-15%. The rest of the fertilizer is given in three parts: 1 when 2-3 leaves appear, 2 when the tubers start to sprout, and 3 when the crop is harvested 2-3 times. When using micronutrients, it is important to work with micronutrients before sowing the seeds of vegetables and melons and to feed them with these types of micronutrients through the roots and outside the roots.

The yield of fertilizers used in crop rotation is 50-55% for each crop. In addition, fertilizers applied to crops have a positive effect on product quality: they improve the taste, increase the amount of vitamins, carbohydrates, dry matter, etc. The soil conditions in Uzbekistan are extremely diverse and require the use of fertilizers in a stratified manner. Fertilization system is based only on the norms, timing and methods of mineral and local fertilizers, their biological characteristics of the plant, the planned yield, soil and climatic conditions, the type of crops grown in the previous year, the amount of fertilizer given to them. Depending on the amount of fertilizers should include not only the plan for the use of fertilizers, but also organizational measures (storage of fertilizers, mechanization of their application) that will allow the effective implementation of the developed system.

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