Rate And Quantity of Vine Fertilizer

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ABSTRACT

Depending on the duration and quantity of organic and mineral fertilizers, they are divided into basic and additional fertilizers.
In autumn and early spring, the main fertilizer is introduced to provide plants with nutrition throughout the growing season.
During fertilization, additional fertilizers are introduced in small amounts to supplement the nutritional needs of the plants at the right time.
Their importance will be greatly increased if basic fertilizers are found in the vineyard. In the fall, a mixture of manure, compost, phosphorus or phosphorus-potassium fertilizers, ground phosphate rock, and engravings is used in the vineyard. Potash fertilizers are usually used simultaneously with phosphorus fertilizers. Most organic and mineral fertilizers add 40-60 cm to the depth of the bulk of the absorbing roots.

Keywords: Grapes, variety, bush, trellis, load, yield, juice, chemical composition, sugar content, acidity.

Introduction

Although the average yield in the country in 2020 (128 c/ha) was higher than last year, but it did not fully meet the needs of the population in grapes and grape products. From a medical point of view, in order to achieve the productivity that should be grown per capita, it is necessary to increase productivity by 1.5-2 times.

Favorable natural climatic conditions of Uzbekistan allow cultivating unique valuable food and raisin varieties of grapes ripening at different times, to obtain high yields, to meet the needs of the population and to export.

The decrees of the President and the Cabinet of Ministers of the Republic of Uzbekistan stipulate that by 2021 the area under vineyards will increase to 148,000 hectares, gross production to 1,500-1,600 tons, raisins and raisin production to 108,000 tons. In order to fulfill the tasks set for the increase of viticulture, it is necessary to increase the area of vineyards, increase productivity and the processing capacity of grapes, cultivation of grape products that meet the requirements of the world market.

The main factors in increasing the yield of grapes are the soil-climatic and economic conditions of the viticulture farms, the correct selection and placement of varieties, the cultivation of vines and agro-technical measures.

Scientific research method

The experiments have been carried out at the Karima Muruvvat Agro farm in Tashkent district of Tashkent region. The selection of experiments, the method of site of options was carried out in the generally accepted ways.

Each year, the vine receives necessary nutrients from the soil that needed to form leaves, stem, as well as roots, trunks and perennials parts. Nutrient uptake depends on crop yields, soil type, moisture, varietal

characteristics of agronomic techniques of cultivation.

Research Institute of Horticulture, Viticulture and Enology named after Academician M. Mirzaev [according to J.N. Fayziyev, A.S. Harutyunyan and M.L. Brodnikovsky], 90-105 kg of nitrogen, 40-50 kg of phosphorus, 200-300 kg of potassium fertilizers have been used to produce 200-300 c per hectare.

Therefore, in order to maintain and increase the fertility of the soil, it is necessary to fertilize it regularly in order to ensure the normal functioning of the grape plant.

Determining the type and amount of fertilizers, methods, periodicity and timing of fertilizer application, assortment of mineral fertilizers and a set of organizational and economic measures, taking into account the effects and consequences of quantities of scientifically based system of fertilizer use holds.

Any system of fertilization can give good results if it is approved by other agro-technical measures aimed at achieving this goal. For example, high yields of grapes are not possible if the soil is not properly treated or if pests and diseases are not adequately controlled.

Research results

Fertilizer application times are divided into basic and additional types of fertilizers depending on the timing and amount of organic and mineral fertilizers.

Basic fertilizers are applied in the fall and early spring to provide nutrients to the plants throughout the growing season.

During the growing season, small amounts of additional nutrients are added to replenish plant nutrients when needed, and their importance increases when less basic fertilizers are applied to vineyards.

Kuzda tokzorlarga go'ng, kampost, fosforli yoki fosfor-kaliyli o'g'itlar aralashmasi, fosforit un, prestiptatlari ishlatiladi.

In autumn, the vineyards are used manure, compost, a mixture of phosphorus or phosphorus-potassium fertilizers, ground phosphate rock, prestipates.

It is not recommended to apply superphosphate alone (especially in neutral or alkaline reaction types).

Because some of the water-soluble phosphates change shape during the fall and winter, plants cannot use them as nutrient.

It is best to use it in the spring with neutral forms of nitrogen fertilizers, as well as a supplement nutrient.

Due to the fact that grapes require a lot of nitrogen during the initial growth period, they are should be applied in the form of ammonium sulfate in the fall only.

In this case, almost no nitrogen leaching from the root layer was observed in the pit. Because the decrease soil temperature does not create conditions for netification processes.

Potassium fertilizers are usually applied at the same time as phosphorus fertilizers. Therefore, they are used at the same time.

At the same time, applying them in the spring sometimes does not increase the yield of grapes, but rather curls the plant.

This state is characterized by the fact that pre-vegetative potassium is absorbed by the soil colloid complex of the soil, from which calcium and magnesium are squeezed out into the soil mixture.

The excess of these substances adversely affects the yield of the branch.

Therefore, in the summer it is advisable to add potassium to the soil as an additional fertilizer. In the spring, liquid manure is also applied to poultry manure and other mixed organic fertilizers. The frequency (frequency) of application of basic mineral fertilizers to the soil depends on the period of deep plowing in the vineyards. In areas where deep plowing is recommended each year, it should be applied at the same time as phosphorus and potassium fertilizers.

It is primarily associated with heavy sandy soils with good moisture and deep root system of plants. When the roots of the vines are situated surface layer, the soil between the rows is applied after each row or less, which means that fertilizers are applied every two to three years.

When choosing the most favorable time for fertilization, it should be taken into consideration that in the first year the plant absorbs only half of the potassium that enters the soil, 10-30% of phosphorus. Nitrogen fertilizers should be applied for many years.

Lime and colloid particles are characterized by low absorption properties of very sandy, gravel and sandy soils.

Therefore, water-soluble fertilizers are washed into the lower layers when it rains and during irrigation. Such soils are fertilized with mineral fertilizers in the spring and compulsorily with organic fertilizers that increase the water retain capacity of the soil. Sand for phosphate gives good yields in soils. And they can be applied in the fall. The effectiveness of potassium fertilizers is much high in sandy soils than the loam one.

Depth and methods of fertilizer application

Most of the organic and mineral fertilizers were applied to the depth (40-60 cm) where the bulk of the absorbing roots are located.

This figure may vary depending on the type of soil, the depth of groundwater, methods of care, biological characteristics of varieties and other factors, and it is necessary to pay much attention to potassium fertilizers.

They moved slowly across the soil in heavy soils. Their higher penetration (20-25 cm) can be used in vineyards where the root system is located on the surface, light soil or well-drained.

In other cases, the nutrient substances that come with the fertilizer are less assimilated by the grape plant but enhance weed growth. Although nitrogen fertilizers have good mobility and tend to move towards soil moisture, they should be applied in areas with excess moisture and widespread root system.

Under these conditions, the widespread use of nitrogen fertilizers such as ammonium nitrate and ammonium sulphate helps plants to better absorb superphosphate phosphorus. Nitrogen fertilizers can be applied in small amounts, but in such cases it is necessary to make efforts to control weeds.

Organic and mineral fertilizers are spread on the ground using YOM-50 machine or PUM-8, POY-6, PRT-10 fertilizers. This, in turn, allows the application of fertilizers to deepen the soil in one process and rejuvenate the root systems of plants.

Conclusion

1. Viticulture scientists [J.N. Fayziyev, A.S.Arutyunyan ans M.L.Brodnikovski] offer to fertilize each row with basic fertilizers in the following schemes, i.e. in the first 3 years in two years at a distance of 35-40 cm from each row and 70 and 90 cm, respectively, in the fourth year between rows should be applied from the middle.

2. The depth of fertilizer application increases every year. At the same time, it is calculated that it does not fall from the root activity layer to the lower layer.

3. In vineyards, especially on sandy soils, the introduction of fertilizers and additional nutrients by the method of pits is widespread. In this way, the roots of the plants are almost not damaged. For this purpose, hydraulic drills and other input machines and mechanization are used.

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