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## AGROTECHNICS OF GRAPE GROWING ON STONE GRAVELY BLACK GRAY SOILS

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### ABSTRACT

*The vine grows in one place for 40-50 years or more. Its longevity, productivity, cost-effectiveness, environmentally friendly production depend on the correct placement of vineyards, the right choice of location and varieties, attention to care. The construction of new vineyards is associated with high capital expenditures, especially in the current period of market reforms. It is very difficult to correct mistakes in this regard. Therefore, it is important to choose a place for the vineyard, cultivate the land, organize the vineyard area, select and place varieties, plant and care for seedlings in a timely manner, based on scientific and best practices.*

**KEYWORDS:** *Longevity, Productivity, Vineyard, Environmentally*

### INTRODUCTION

The soil and climatic conditions of Uzbekistan allow growing varieties of grapes ripening at different times in all regions. The vineyard should be open, well-lit, fertile, and well watered. Sandy and rocky soils, mountains and foothills, which are considered unfavorable for crops such as wheat, cotton, sugar cane, flax, hemp, are also suitable for growing vines. Up to 100 slopes in mountainous and hilly areas can be used for vines.

Strongly saline for current, groundwater 1 m. above, lowlands are considered unusable. However, their reclamation status can be improved (Djavakyants Yu.M., Gorbach V 2001).

Selection of land for vineyards is carried out on the basis of technical and legal documents of the directive bodies. It defines the area of land allocated for the vineyard, the varieties and directions for their use (for the cultivation of edible, raisin and vinobop grapes). It will be considered and decided by a special commission. The selection of land for the vineyard takes into account such factors as its relief, the location of slopes, the depth and chemical composition of groundwater, soil and climatic conditions, water bodies.

In recent years, mountain slopes, rocky and sandy lands have been developed and used effectively in the construction of vineyards, as the quality of grapes on the slopes is better (juicy, colorful) than on flat lands.

The slope of the slope should be taken into account when choosing slopes. As the slope increases, so do the costs and labor involved in planting and maintaining the vineyard. Slopes of up to 100 are few, those of 10-200 are moderate and strong, those of more than 200 are very steep, and the establishment of vineyards in such places is associated with great difficulties and does not justify itself (picture). On low and medium slopes, power lines are laid across them. The purpose is to prevent soil erosion, waste of irrigation and rainwater, and loss of soil moisture, as well as to facilitate maintenance. The higher the slope (more than 100), the more terraces are formed. Stepped platforms are especially common. This method also protects the soil from erosion, promotes moisture accumulation, and facilitates maintenance.

Current growth, productivity, and crop quality largely depend on the nature and characteristics of the soil. In Uzbekistan, gray and meadow-grass soils are suitable for growing vines. The soil layer is 50-60 cm. It is also possible to grow high-quality crops on rocky soils of not less than 100 cm. When choosing a place for the vineyard should also pay attention to the wind regime. Areas with strong winds and not surrounded by protective trees are dangerous for vines.

A number of organizational and agro-technical works are carried out to prepare the land for planting (clearing the land of weeds and other plant residues, leveling the land, applying organic and mineral fertilizers, identifying irrigation facilities, etc.). Weeds should be 20-25 cm deep, plowed deep and cleaned of root debris. To do this, use plow harrows and cultivators. A mixture of legumes and legumes (peas, beans, soybeans, alfalfa, rye, etc.) is planted for 2-3 years on the old orchards, vineyards and shrubs. Many of them can be driven in the fall as green manure.

Vine can be planted after the reclamation of saline soils with close groundwater (1-1.5 m). Otherwise, the vines may not develop and may even die. This is due to the fact that the root system is damaged by lack of oxygen, and the salts in the groundwater are partially oxidized, which has a devastating effect on the roots. Drains are used to prevent such cases. There will be dehumidifiers, desalination and erosion ditches. Recently, plastic drainage pipes with a diameter of 40-50 mm are widely used. They are 1.5-1.8 m to the ground using DPBN-1.8 pipework. depth.

The vineyard is severely damaged by hot and cold winds, heavy rains (floods). To protect them, it is necessary to plant protective trees around the future vineyard. Several rows of forest trees and shrubs also protect the vineyard from snow, soil erosion and landslides.

In viticulture, mainly protective trees that regulate flow and wind are used. The first is mainly used in mountainous and foothill areas, where 3-5 rows of shrubs (cherry, currant, raspberry, willow, etc.) are planted at intervals of 1x0.5 m. Wind protection trees (a row of walnuts at a distance of 6 m, 2-3 rows of poplars, apricots, cherries at a distance of 1-2.0 m) will be planted along the territory of the quarters. The distance between protective trees should be 500-1000 m in flat areas and 200-300 m in mountainous areas. They are placed at a distance of 10 m from the vineyards (Buzin N.L., Pelyax M.A. 1956).

Before planting, the soil is plowed with organic and mineral fertilizers. In particular, deep tillage (60-70 cm) with a plantation plow improves the physical and chemical properties of the

soil, air, water, heat regimes, nutrient uptake by plants, enhances the activity of microorganisms in the soil, improves soil fertility. regulates water permeability and moisture retention, eliminates weed forgetfulness and bq

The best time for planting is autumn (November). Post-plowing soil loosens to allow more water to be absorbed into the soil and stored. During the winter, the soil level is maintained until the seedlings are planted in the spring. Deep plowing of the land with a plantation is preferable to 2-3 months between planting. It is not recommended to plant seedlings on a white background. This is because when the soil settles, the growing roots are cut off and the plant does not grow well. Frozen or snow-covered lands are usually not planted. Before planting, 30-40 tons of rotten manure, 500-600 kg of superphosphate or ammophos and 90-100 kg of potassium salt are applied per hectare.

Planting was carried out using plantation plows PP-50PG, PPN-50. They are used in attachment to T-100M or T-100 type tractors. RN-80B softener or UOM-50 machine is also used for deep loosening of the soil layer without overturning (up to 80 cm). Before planting, the area is divided into piles (400-500 m long and 30-40 m wide). It is not allowed to drive the earth on the plant plow. Because of poor quality plowing, the unit can break down quickly (Tursunov G. Temurov Sh 1972).

This responsible work is carried out in accordance with the development plan of the farm and must meet the requirements of modern technology of vineyard care. It is better to have a large, integrated area for the vineyard. This greatly simplifies the work, such as better organization of work, efficient use of labor and mechanization, crop preservation. As vines require a lot of labor, it is advisable to place the vineyard closer to the settlement.

Once the land is allocated for the vineyard, a plan for the organization of the vineyard area is developed. Vineyard plots, quarters and maps, road networks, water sources, protective tree plantations, field sheds, warehouses, etc. determined. In designing them it is necessary to take into account the low-altitude of the allocated area, soil layer, varietal characteristics of the current.

In order to facilitate the organizational and maintenance work, the area allocated for the vineyard is divided into blocks of 20-25 hectares, which in turn are divided into 3-5 hectare plots. Quarters 12-15 in the mountains and foothills. is defined as On flat lands, the block should be rectangular in shape and should not exceed 400 m in width and 700 m in height. The maps are 300-500 m long and 100 m wide. Roads will be 8 m wide between blocks, 5 m wide between cards, and 10 m wide at the edge of the field.

It is important to mark the current line correctly. In flat areas where the retention of soil moisture does not depend on the terrain, the power lines are placed from north to south. In this case, the vine makes good use of light throughout the day. In irrigated areas, rows of vines are placed along the irrigation ditches facing the wind. Permanent irrigation points are located at the edge of the block, and temporary irrigation points are located along the road between the maps. Roads should cover 7-8% of the total vineyard area.

On the slopes, vines are laid across them to protect the soil from erosion and to trap atmospheric precipitation.

It is also important to ensure airflow, ie, air drainage, to combat spring frosts and fungal diseases. To do this, every 200 m at the intersection of protective trees. and 20 m. space should be left. Special geodetic instruments are used to accurately perform all the work described above. (Yusupov X.S., Kats Ya.F., Preobrazhensky A.A. Juravel M.S. 1960)

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