MORPHO-BIOLOGY OF GRAPES

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ANNOTATION

Generative (reproductive) organs include inflorescences, flowers, clusters, clusters, and seeds. Vegetative organs include roots, stems, leaves, buds, curls.

Keywords: vine, generative, inflorescence, flower, bunch, bud, seed, vegetative organ, root, stem, leaf, bud, curly.

INTRODUCTION

Vine is a heat-loving, creeping perennial flowering plant by its biological properties. As mentioned above, the modern representatives of the family Vitamins Vitaceae Juss have gone through a complex evolutionary period (genetic variability, struggle for survival, selection, adaptation to changing environmental conditions, etc.) that spans thousands of years. The first members of the Tokdosh family were in the form of erect shrubs, which grew in a monopodial (simple) type, without curls. Because they grow in open areas, their demand for light has also increased. Later, as thick tropical forests began to emerge, the Tokdo family was in danger of disappearing altogether or they were forced to adapt to the external environment. As a result, changes in their structure, growth, development have taken place, and the current life forms of the current have been formed. According to the structure of the current is divided into vegetative and generative organs.

Vegetative organs include roots, stems, leaves, buds, curls, and are important in ensuring their plant life. Through them, water and nutrients are assimilated, and important processes such as photosynthesis, transpiration, and respiration take place. They also perform the functions of growth, vegetative reproduction through stem parts. Generative (reproductive) organs include inflorescences, flowers, clusters, clusters, and seeds. Through them sexual reproduction takes place. Generative organs stop developing when the fruit ripens. The vine, like other plants, is composed of underground (root and root system) and aboveground (stem) parts.

ROOT

The root of the vine performs a number of important functions. First of all, it serves to keep the root current in the soil (ground). The main function of the root is to absorb water from the soil, absorb nutrients and deliver them to the surface (stem). The vine root accumulates large amounts of nutrients and undergoes complex biochemical processes. As a result, assimilated minerals are involved in metabolism and produce phytohormones. The root adapts to the soil environment and communicates directly with it. Depending on the structure and location of the roots are divided into 3 groups: dewy or succulent roots develop in the upper part of the underground part of the stem, mainly in the plowed layer of soil 15-25 cm. They are thin, short, and fragile, and most die in the fall. In order to improve the movement of water and nutrients between the root and stem, it is desirable to remove such roots in the spring, when opening the vines. Main or skeletal roots.The underground and aboveground parts of the vine are mainly developed by the lower part of the plant underground. It is long, fleshy, almost the same thickness, reaching a depth of 10-12 m in the soil. Lateral roots develop from the middle of the underground part of the stem. Slightly different from the main roots, it can grow up to 6–8 m on the side slopes under the soil. The sum of all the roots and rhizomes forms the root system. As the vine grows older (mainly after 25-30 years), the roots become thinner, the number of small roots is significantly reduced, and as a result, the vine grows old, stops growing, and the yield decreases. Water and nutrients necessary for the growth

and development of the vine are absorbed and assimilated. The small sucking roots play an important role in conveying them to the surface through their main roots.

The stem is the part of the vine that connects the root system with the surface. When water from the root and dissolved minerals pass through the stem to the leaf and other parts, the products of photosynthesis, that is, organic compounds, pass through the leaf to the root. In the stem, its stem, wood, and lub tissue accumulate a supply of nutrients necessary for the plant. In vines grown by cuttings or by pruning, the stem grows from wintering buds and begins at the base of the rooted cuttings (seedlings) or pruning. The vine stem is similar to a liana, i.e. it has a tendency to grow rapidly in the neck. It is slender under natural conditions and can grow up to 20-30 m in length and 30-40 cm thick. If it is not regulated, it can grow on any tree or pole or on the ground. Cultivated vines are grown in the form of a bush with a body of 180-200 cm. Perennial twigs 30-40 cm long and 10-15 cm long twigs from the part of the day (head of the body), from which annual shoots grow, and from them in the spring of next year will grow fruit and barren green twigs. From these, during the growing season, the shoots sprout forth. Annual green twigs consist of joints and joint spaces, at the joints of which are leaves, curls, buds, inflorescences (which later turn into buds and form a vine head).

The leaf is one of the vegetative organs of the plant. It plays an important role in the vital activity of the vine. In the leaf, under the influence of sunlight, the process of photosynthesis takes place, that is, inorganic compounds become organic. Transpiration through the leaves protects the plant organs from overheating, regulating the movement of water and nutrients in the plant. As a result of the respiration of the leaves, energy is released, which is necessary for metabolic processes. The leaf plays an important role in gas exchange between the plant and the external environment. The vine leaf is usually simple and consists of a leaf blade and a leaf blade. The vine leaf consists of flesh and veins. The roots are bulging on the back of the leaf. The main (head) vein passing through the middle of the leaf blade divides it into two. From the place where the leaf blade joins and from the main veins develop lateral veins, and from them small veins of the next order.

The vine flowers are small, yellow-green, unsightly. Attached to the axis of the inflorescence using a thin bouquet. When the buds are born, the flower becomes a fruit. Female, male, bisexual, functional female, functional male flowers are found in the vine. Most of the cultivated grape varieties have a bisexual flower and the stems are erect, long-stemmed, with the ability to fertilize. In a functional female flower, the seed is normally developed and the pollinator is underdeveloped. The process of measuring leaf surface. The flowers of most of the cultivars, ie cultivated vine varieties, are bisexual. The flowers of some varieties, such as "Nimrang", "Kattakurgan", "Charos", "Tavkveri", "Daroyi", "Echkimar", are functional females. Such varieties, of course, flowers should be planted in combination with bisexual (pollinating) varieties. Pollen of functional female flowering varieties is sterile. If such flowering varieties are not pollinated with flowers of flowering bisexual varieties, or the fruit is not born, or small parthenocrapic fruits are formed. As a result, the quantity and quality of the product decreases. Sometimes layered (layered) flowers are also found. Such flowers appear as a result of the transformation of seeds, pollinators, nectarines (secretory glands) into petals.

Curly is a deformed rod that grows in the sympodial-hand type. It would be simple (unbranched) and branched. It is located mainly on the opposite side of the leaf. In unripe branches, wrinkles appear at the lower 3-4 joints, and on fertile branches at the upper joints. Curls only play a mechanical role in the growth of plants by attaching them to any base. During current cutting, it causes difficulties in freeing the branches from the symbionts.

Inflorescence - in the form of intricate bracts and petals, part of a green twig with flowers, ending with flower buds. Its shape will be similar to the shape of a future grape head. The size depends on the branching of the axis,

the amount of flowers, grape variety and conditions of formation. The inflorescence is formed on last year's winter buds and will be in the form of the initial bud until the buds are recorded in the spring of next year. There are 1 to 3 inflorescences on a single fruiting branch. In the spring, when the branches reach 15–20 cm, inflorescences (shoots) begin to appear. Depending on the navigation of the vines, the inflorescences are conical, cylindrical, etc. will be in the form of.

Humidity. Soil and air humidity are important factors for the vine. When there is enough moisture, the vine grows rapidly and gives a good and quality crop. When there is a lack of moisture, all its parts develop slowly, the fruit buds shed a lot, the ripening of buds is delayed, sugar and other substances do not accumulate enough, frost resistance is reduced. The vine is especially demanding to moisture in the second period of the growing season. Because during this period, branches, leaves, inflorescences, fruit buds, buds are strongly developing, the process of transpiration is much more accelerated. In particular, more moisture is required during the ripening of buds, but excess moisture during the ripening of grapes has a negative impact on the quality of grapes, the cold hardiness of the plant, delays the ripening of twigs.

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