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Biological and decorative properties of juniper virginiana, used in landscaping roads and streets of Tashkent

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ANNOTATION

Juniperus virginiana has a pyramidal branch, which in its natural state forms a branched and sparse branch. For landscaping purposes, it is necessary to artificially shape tree branches. In terms of the density of its branches, juniper virginiana belongs to the group of compact trees.

Introduction

The role of ornamental trees in the appearance of residential areas, cities and villages is incomparable. In greening these areas, it is necessary to have practical knowledge of the selection and planting technologies of suitable trees and shrubs, taking into account the soil and climatic conditions of the place. In our republic, it is important to choose the right types of ornamental trees and shrubs, to study their biology, to plant ornamental trees in the areas of greening the surroundings of educational institutions, to build beautiful parks and parks with a wonderful composition. It is important to study their distribution and planting schemes.

Today, great progress is being made in all areas of the economy using modern new technologies. This process led to changes in all areas of the economy with the development of science and technology. In modern urban construction networks, projects are being created in harmony with the luxurious modern structures that are being built in keeping with the era, in order to melt into elegant-looking landscapes with green flora.

The law approved by the decision of the President of the Republic of Uzbekistan on amendments and additions to the Law of the Republic of Uzbekistan "On Forestry" dated 17.04.2018 provides for protection, protection, reproduction, reproduction of forests. reproduction, restoration, improvement of their productivity and regulation of relations in the field of their use.

In the "Strategy of Actions" of the Republic of Uzbekistan for 2017-2021, it is planned to pay special attention to the reform of higher education, strengthening of its material and technical base, construction of new ones, beautification and greening of their territory.

Material And Research Methods

The research is based on a systematic approach and generally recognized and proven methodologies used in scientific research of fruit crops. Research on introduction, morphology, bioecological characteristics, phenological observations, biology (growth and development) and shrubs were carried out using general scientific research methods: N.A. Aksenova; R.V. Vafin, V.P. Putenikhin; T.P. Dedenko, E.P. Khazova]; S.V. Zalesov, E.P. Platonov and others; S.V. Kolmukidi, E.A. Kryukov; P.I. Lapin, S.V. Sidneva; M.A. Mingaeva G.E. Schultz [28]; and others.

The study of exposure phenology was carried out according to the method of G.E. Shultz and N.A. Aksenova. Studies were carried out to determine the beginning of the growing season of plants. On these dates, the beginning of flowering was noted. About 5-10% of the trees of the studied varieties had flowers; at the end of flowering, up to 90% of the flowers, most of them are marked by a faded, already destroyed period. During this period, the beginning of fruit ripening is noted, reaching normal size and appropriate color. A cessation of kidney growth was also noted. The beginning of leaf fall is considered to be falling when more than 25% of the leaves and most of the trees have already dropped their leaves (up to 75%).

Long-term observations of its behavior in new natural conditions are necessary to assess the prospects of the introduced culture and its reasonable zoning. The result of such observations is an assessment of the most important ecological and biological characteristics of the plant and determination of the level of its adaptation

ISSN NO: 2771-8840
March 2024

to new conditions. Currently, many methods are used in introductory work. When preparing the report, the main available methods were analyzed, and directions of research in the field of implementation are reflected in the list of references used.

Results Of Research

Biological feature. Virginia juniper - Juniperus Virginiana L. Cypress - is a tree belonging to the Juniper family of the Cypress family. Species belonging to this family are monoecious or dioecious trees and shrubs. There are 20 genera and 145 species in the family, the most characteristic of which is juniper.

The juniper family includes trees and shrubs. Their leaves are lanceolate or coin-shaped. Typically, young trees develop new leaves first and then develop a grain-like shape. They are arranged in a circle in groups of 3 people. Juniper reproduces well by seeds. This category includes 60 species. Distributed in temperate regions of the Northern Hemisphere, in the mountains of Central America, the West Indies and tropical parts of East America. 21 years in the CIS. In the Caucasus and Central Asia, some species have formed woody trees.

Juniperus virginiana is a tree about 15-30 m high. The horns are narrow-ovate or spreading. It branches from below the juniper trunk, and later these branches dry out and fall off. The bark is gray or brown-red, the branches are thin, green-gray, tetrahedral. The petals are opposite.

The leaves on the lateral branches or branches are small, granular, and do not exceed 1-2 mm in length. The leaves have long resin glands. The domes are 5 mm long, spherical, and ripen in the first year. 1-3 seeds develop in it. The length of the seed is 3.5-4 mm, width 2-2.5 mm, rounded-ovoid, the tip is sharp, shiny, the shell is hard. Weight of 1000 pieces is 2.5-2.6 g. Seeds remain viable for up to 3 years. This juniper also grows from seeds. It germinates in the second year after sowing.

Distributed in the western and eastern states of North America. Doesn't choose the soil. Grows on dry rocky, sandy-swampy and moist acidic soils. Resistant to drought, air pollution, shade. The wood is dense, soft and aromatic, and sticks are made from it. Furniture and other items are also made from it. This juniper grows in the Black Sea, the Caucasus and Crimea, Ukraine, and Belarus.

Figure 1. 3-4-year-old virgin fir seedlings

ISSN NO: 2771-8840
March 2024

It is recommended to plant it singly or in bunches as a hedge. This type of spruce is well adapted to the conditions of Uzbekistan and is widely used in landscaping. A species resistant to urban air pollution and smoke; about 80% of junipers growing in Tashkent belong to this species

Decorative properties. The shape of tree branches is one of the most important decorative indicators of an architectural composition.
Juniperus virginiana has a pyramidal branch, which in its natural state forms a branched and sparse branch. For landscaping purposes, it is necessary to artificially shape the tree's branches. Depending on the density of the branches, virgin fir belongs to the group of compact trees.

Juniper trees are long-lived, they live up to 600 years. In nature, they multiply with difficulty. Buds are naked, without a dome, sometimes surrounded by shortened leaves. Common juniper - Juniperus somminis, only in juniper juniper (Juniperus drupaceae) there are many densely dome-shaped leaves, 3 in a row, lanceolate, linear-lanceolate, inflexible base.

Table 3.5
Dendrological parameters of virgin juniper tree (Juniperus virginiana L.)
(Cypress family - Cupressaceae family, Juniper - Juniperus family), i.e. life form.

№	Factors	General description of the virgin fir tree
	Xayotiy shakli	A tree
	Sizes	Height - 15-30 m Branches - Narrow ovate or spreading - 5-10 m Body diameter - up to 50 cm
	Body	Cracked
	Crown	Ovoid
	Leaf	It is granular, 1-2 mm long
	Dome	Domes are 5 mm long, spherical
	The seed	3.5-4 mm long, 2-2.5 mm wide, round ovoid, sharp tip, shiny, hard shell.
	1000 seed mass	The weight of 1000 pieces is 2.5-2.6 g. The seed preserves its ability to germinate for up to 3 years
	Growth characteristics	it grows from the seed. It germinates in the second year after sowing.
	Liveability	Lives up to 500 years.
Relation to the environment:		
	To the light	Light-loving, relatively shade-tolerant.
	To the soil	Soil does not choose. It grows in dry stony, sandy and marshy and moist loamy soils.
	To moisture	It is resistant to drought and can withstand a lack of moisture.
	To the wind	Withstood the wind.
	To the temperature	Cold-loving, hot-loving.
	In urban conditions	Resistant to smoke and gas as well as dust.
	Landscape	Branches, leaves, fruits, body are decorative.
	Application	It is used in case of single tree, alley and compositions.
	Naming	Virgin fir tree

From the top, the beak is not divided with a line or a thick transverse vein is separated from the middle, or it is lanceolate in young plants. in large or small trees, it is small dome-shaped, there is gypsum on the branches, it is in pairs, and in some cases it consists of three-membered branches. Male flowers are placed singly or in the axils of several leaves, on last year's branches or side branches. Several pairs are located opposite or in rows. There are 3 domed columns (beaks).

ISSN NO: 2771-8840
March 2024

Picture 2. Virgin juniper fruits in spring

Figure 3. Ripe appearance of Virgin juniper fruits

Each is divided into 3-6 dusters. In female varieties with reduced domes, the dome-shaped fruit consists of leaves, and they are opposite or 3-membered seed pods, each of which is formed in 1-2 seed pods. Domes do not open, densely covered with strong fleshy dome shells, globose or several (elongated) oblong, with 1-10 seeds, in a branched or granular fir, there are growths. Domes ripen only in the second year.

Juniper seeds have been used in medicine since ancient times. Medicines prepared from flour are used as an anti-cold product in the treatment of liver diseases and blood in the urine.

Its decoction is used in the treatment of juniper dermatitis and various eczemas: juniper oil is used in the treatment of rheumatism, polyarthritis, neuralgia and radiculitis. Juniper roots are used in the treatment of

ISSN NO: 2771-8840
March 2024

pulmonary tuberculosis, bronchitis, and skin diseases. A decoction made from its branches is used to prevent allergies.

Figure 4. A scenic view of the Virgin's arch

Juniper is used in cooking for its aromatic qualities. Chopped fruits add a specific taste to pork or poultry dishes. Marinades and liqueurs are also prepared for sauces, soups, cabbage dishes, cutlets, meatballs, and meat. Juniper is widely used in Scandinavian, Northern French and German cuisines.

Also, containers for storing fruits, vegetables and mushrooms are made from its wood. Tree and shrub junipers are used for landscaping gardens in the form of a small group and especially when planted alone. Junipers in the form of a low bed are used in the construction of mountain slopes, as well as rocky and rocky mountains. Some types of juniper are used to create living walls, hedges and woodland gardens. It has many types and forms, which differ in growth form and leaf color. Compared to the information about ancient manuscripts, relatively few remains have been identified that have been excavated on the territory of Russia and its neighboring countries.

Without taking into account the phytocidal properties of virgin juniper, it is impossible to fully imagine their healing function. Virgin juniper produces organic compounds that destroy harmful microorganisms and have a positive effect on the environment and the human body. Urban air contains more disease-causing microbes than outdoor air. Parks and parks have less bacteria than streets.

The effect of volatile phytoncide fractions on microorganisms is closely related to the composition of the plant species. For example, in spruce forests, the number of bacteria in 1 m^3 of air is 170, in birch forests - 1806, and in mixed forests (coniferous and deciduous) - 1400.

Phytoncidal substances released by plants can be extremely large. From 1 hectare of juniper forests, 4 kg of organic substances with phytocidal properties are released into the atmosphere in 1 day, and from 1 hectare of deciduous forests - 2 kg of substances. Under the influence of plants, the number of microbes in the

ISSN NO: 2771-8840
March 2024

air is reduced by more than half during the day. Juniperus virginiana and other species of the cypress family reduce the number of microbes by 67%.

Juniperus virginiana has especially high phytocidal properties. They are able to destroy common microorganisms in 3-5 minutes. When planning landscaping work, it is necessary to pay special attention to the phytocidal properties of trees and plants.

Conclusion

Virgin spruce plantations can fully demonstrate the sanitary and hygienic characteristics of large plant tracts created in accordance with the requirements of natural conditions and in compliance with relevant agrotechnical rules. It is necessary to take into account the ecological and biological characteristics of virgin virgin juniper: requirements for light, soil, moisture, as well as the degree of mutual proportionality in time and latitude. The width of the distance between structures should be chosen taking into account the growth of tree branches. Excessive thickening of plantings is not good, since in this case the trees have a bad influence on each other, and in this case the main function of plants is weakened - enriching the air with oxygen and improving the environment.

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March 2024

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March 2024

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