

Analysis of the Assessment of the Introduction of Hibiscus Syriacus L. Based on Phenological Observations

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Annotation: This article presents data on the introduction evaluation of Hibiscus Syriacus L. imported from other regions to the Namangan region and changes in the first-year adaptation process of planted bushes for control purposes.

Data on the growth of 1-year-old shoots, lignification status, and initial cold temperature resistance indicators are presented until December 1.

Keywords: Hibiscus Syriacus L. introduction, annual shoot, temperature, phenology, growth ability, bud awakening.

Introduction. Today, the green economy is not just a phrase, but a reality that is becoming the driver of our future. The words of our people, their vital desires and noble dreams are listened to carefully, and every proposal, every idea is directed not to the ears, but to the heart. It is on this basis that our President Shavkat Mirziyoyev proposed declaring 2025 the “Year of Environmental Protection and Green Economy” in our country. This proposal is not just the name of the year, but a life-giving principle embedded in life. It embodies such priority areas as introducing “green” technologies, valuing every drop of water, delicately touching nature and creating green areas, covering the pain of the island with a cure, seeing waste not as a problem, but as an opportunity, and most importantly, strengthening the health of our people. This year will be a year of loving nature, putting ecology at the center of attention, and taking decisive steps towards a green future.

LITERATURE ANALYSIS

The “Green Space” nationwide project program, the implementation of which is stipulated in the “Environmental Protection Concept of the Republic of Uzbekistan for the Period Until 2030” of the President of the Republic of Uzbekistan dated October 30, 2019, the “Measures to Accelerate Greening in the Republic and More Effectively Organize Tree Protection” of December 30, 2021 [2], the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan “On Additional Measures to Improve the State Administration System in the Field of Ecology and Environmental Protection” No. PQ-3956 dated October 3, 2018 [3]. Relations in the field of nature protection and rational use of natural resources in the Republic of Uzbekistan are regulated by this Law, as well as by the laws of the Republic of Uzbekistan on land, water, forests, subsoil resources, on the protection and use of atmospheric air, flora and fauna, and other legislative acts. On nature protection [4]

The main limiting factors for plant introduction are high summer temperatures and dry air, and therefore, the viability of introduced plants was determined using the 100-point assessment method, and during the conducted scientific studies, the introduction assessment of plants was carried out Lapin P.I., Sidneva S.V, [5] N.I. Shtonda [6] Morphology and vital functions of vegetative organs of trees Kayimov A.Q. Berdiev E.T. [7] Tree and shrub plants are not only a source of raw materials and various products, but also one of the main factors improving the natural environment. The vital activity of the plant world has an impact on the climate, namely, it neutralizes SO₂ and other harmful gases in the air, reduces the amount of dust in the city air, and the phytoncides released by trees kill disease-causing bacteria [8].

Studying the flowering process and pollination of introduced plants allows us to characterize them ecologically and biologically. The flowering phase is considered the most basic phase, which is a system that embodies the interdependence of all phenophases and the adaptation of the plant to a new environment [9]. Two processes of plant development are used for observations: generative and vegetative [10]. Phenology (observation methods) D. V. Tishin, N. A. Chizhikova 36/16 – p. [11] Zaitsev G.N. Phenology of woody plants. M.: Nauka, 1981, 120 p. [12] Growth and development indicators of the introduction of *Broussonetia papyrifera* into the territory of Uzbekistan. Интрадукция и акклиматизация растения 16-том ISSN 0135-1664. 24,37-р. [13]

RESEARCH OBJECT METHODOLOGY.

A 100-point assessment method for the viability of *Hibiscus Syriacus* L. plants for the first year. Research was conducted in the conditions of Namangan city using the method of Lapin P.I., Sidneva S.V., N.I. Shtonda (2016) for the introductory assessment of plants according to the indicators of lignification of shoots, frost resistance, heat resistance, resistance to diseases and pests, preservation of plant shape (habitus), branching ability, generative development ability, and self-propagation.

RESEARCH RESULTS

The following results were obtained in the research conducted in the conditions of the Namangan region: *Hibiscus Syriacus* L. Lignification of shoots: 100% lignified 20 points, Frost resistance: The plant does not freeze 10 points, Heat resistance: resistant 10 points, Resistance to diseases and pests: average 3 points, Preservation of plant shape: preserved 10 points, Branching ability: average 3 points, Generative development ability: Grows every year 5 points, Self-reproduction: Seeds ripen 25 points, Self-reproduction: Reproduces by itself 10 points. *Hibiscus Syriacus* L scored 96 points in terms of overall prospective index. Table 1 is attached.

Table 1. Hibiscus Syriacus L scored

Indicators	Points	<i>Hibiscus Syriacus</i> L.
1. Lignification of branches		
100%	20	

75%	15	
50%	10	
25/%	5	
2. Cold resistance		
The plant does not freeze.	10	
Less than half of one-year-old branches freeze	8	
One-year-old branches freeze 50-100%	6	
Old branches and annual branches also freeze	4	
The surface of the ground freezes until it is covered with snow.	2	
The surface of the earth freezes completely.	1	
3.Heat resistance		
Durable	10	
Middle	7	
Unbearable	5	
4. Disease and pest resistance		
Resistant	5	
Medium	3	
Unresistant	0	
5. Preservation of plant form (habitus)		
Saved	10	
Not Saved	5	
Restored	1	
6. Ability to branch		
High	5	
Medium	3	
Low	1	
7.Generative development ability		
Grows every year	5	
Does not grow every year	2	
8. Self-reproduction		
The seed ripens	25	
The plant flowers, but the fruit and seeds do not ripen	20	
The plant flowers, but the fruit does not form	15	
The plant does not flower	1	
9. Self-reproduction		
Self-propagating	10	
Artificially propagated	7	
Naturally vegetatively propagated	5	
Artificially vegetatively propagated	3	
Seeds or plants imported from other regions	1	
Total score	100	96

CONCLUSION

From the results obtained, we can conclude that the following results were obtained in the research conducted in the conditions of the Namangan region: *Hibiscus Syriacus L.* Lignification of shoots: 100% lignified 20 points, Frost resistance: The plant does not freeze 10 points, Heat resistance: resistant 10 points, Resistance to diseases and pests: average 3 points, Preservation of plant shape: preserved 10 points, Branching ability: average 3 points, Generative development ability: Grows

every year 5 points, Self-reproduction: Seeds ripen and ripen 25 points, Self-reproduction: Reproduces by itself 10 points. This indicates that *Hibiscus Syriacus* L has a general promising index of 96 points and can be recommended for planting in the Namangan region as an ornamental plant.

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