

## THE FIRST HEALING AND BOTANICAL GARDENS ON THE TERRITORY OF MODERN UZBEKISTAN

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**Abstract.** *The first botanical garden in the city with an area of 8 hectares was created in 1922 on the territory of the garden of the Turkestan Governor-General. Initially, it belonged to the Central Asian State University. In 1944 he was transferred to the Academy of Sciences of the Uzbek SSR. The staff of the Tashkent Botanical Garden published a 14-volume "Dendrology of Uzbekistan" (in Russian), thematic collections, including 27 (as of the early 2000s) collections "Introduction of Plants", 5 (as of the early 1980s) "Proceedings", many monographs and scientific articles. A significant contribution to the development of publications was made by Academician F. N. Rusanov, who in 1943-1975 was the director, and in 1976-1979 - scientific consultant of the garden.*

**Keywords:** *botanical garden, plant fauna, property of the republic.*

### ПЕРВЫЕ ЛЕЧЕБНО-БОТАНИЧЕСКИЕ САДЫ НА ТЕРРИТОРИИ СОВРЕМЕННОГО УЗБЕКИСТАНА

**Аннотация.** *Первый в городе ботанический сад площадью 8 га был создан в 1922 году на территории сада Туркестанского генерал-губернатора. Первоначально он принадлежал Среднеазиатскому государственному университету. В 1944 году переведен в Академию наук Узбекской ССР. Сотрудниками Ташкентского ботанического сада изданы 14-томные "Дендрология Узбекистана" (на русском языке), тематические сборники, в том числе 27 (на начало 2000-х гг.) сборников "Интродукция растений", 5 (на начало 1980-х гг.) "Труды", множество монографий и научных статей. Значительный вклад в развитие изданий внес академик Ф. Н. Русанов, который в 1943-1975 годах был директором, а в 1976-1979 годах - научным консультантом сада.*

**Ключевые слова:** *ботанический сад, растительная фауна, достояние республики.*

### INTRODUCTION

The first medical and botanical garden in Europe was founded in 1545 by the professor of the University of Padua Francesco Vionafrede under the name "Garden of simple medicinal plants". In the future, the emergence of medical and botanical gardens at universities for the education of students was mandatory [1,4,6].

### MATERIALS AND METHODS

The seed science group was organized in 1934. One of the links in the introductory work of the botanical garden is the issuance, receipt and distribution of seeds, carried out in exchange through seed catalogs and correspondence of a scientific and reference nature, which was carried out by employees of the seed science group. The first catalog of seeds (No1) was published in 1934 [4,14,16]. It included 356 species, mainly herbaceous plants, of which 64 species were collected by I.A. Linchevsky in Talas Alatau. The plant protection group was organized in the botanical garden in 1970, which assesses the phytosanitary condition of introduced plants in the Botanical Gardens of Kazakhstan [5,11,18]. technical program "Botanical diversity of wild relatives of cultivated plants in Kazakhstan as a source of enrichment and conservation of the gene pool of agrobiodiversity for the implementation of the Food Program", work began on the

creation of a Seed Bank of wild relatives of cultivated plants. The laboratory is in charge of: Seed bank of wild relatives of cultivated plants, occupying an area of 92 m<sup>2</sup>; which has: drying room 12 m<sup>2</sup>, refrigerator 32 m<sup>3</sup>. For three years, two collections of seeds were collected and laid: long-term (basic) and short-term (active). A reproduction nursery of rare fruit plants has been established on an area of 1 ha. The activities of the laboratory are: collection, preservation and replenishment of seeds of wild flora of Kazakhstan in a seed bank; constant domestic and international exchange catalogs (delektus) and seed fund in order to enrich the collections with new plant species of the Main Botanical Garden; phytosanitary and entomological assessment of the state of seed material and plant stock of the Main Botanical Garden.

### RESULTS

The Botanical Garden had departments of plants: flora and ecology, woody, decorative floral, tropical, food and medicinal and technical reproduction and protection of introduced species and a laboratory of physiology and biology of plants. Scientists are developing the problem of the introduction and acclimatization of plants in Kazakhstan, exploring the plant resources of the Republic, identifying and cultivating economically valuable species. They donated over 100 species, 46 forms and 15 varieties of plants of various geographical origins for planting greenery in the city. [15,21,28,30] The Research Institute of the Main Botanical Garden coordinated the activities of 5 botanical gardens of Kazakhstan - Karaganda, Zhezkazgan, Altai, Ili and Mangyshlak. There was an exchange of scientific literature, planting material, seeds with 108 botanical gardens in 48 countries of the world [15,21,28]. southwestern greenhouse, to the right of the central alley, 800 meters above the street. Timiryazev.

The Tashkent Botanical Garden was founded by Academician Fyodor Rusanov in 1943. Today it is part of the Scientific Center "Botany" at the Academy of Sciences of Uzbekistan. The territory of the park occupies 68 hectares, it is the largest botanical garden in Central Asia.[24,26,27]From the day of its opening, global work has been carried out in this beautiful place to grow rare and tropical plants growing in different parts of the globe. In the botanical garden you can see more than 4,500 species of trees, vines, shrubs of various families, flowers and other flora. Among them, 68 species of plants are in the Red Book (some specimens of tulips and eremurus). Here grow such rare species of plants as: white oak, black birch, Chinese pine, sugar maple, ginkgo, large cypress, Manchurian walnut, Japanese quince, tulip tree and swamp cypress. [9,10,14,17]The uniqueness of the garden lies in that it successfully combined the favorable climate of the Republic and the special microclimate that is constantly maintained in the garden. Therefore, representatives of the flora from different climatic zones grow here together, which would never grow side by side under natural conditions. The territory of the garden is divided into five zones - Central and East Asia, the Far East, the continent of North America and Europe. Plants grow in the open air, in greenhouses, isolated nurseries, greenhouses, there is also a separate place for medicinal herbs. Exotic flowers of tropical and subtropical climatic zones coexist in heated indoor greenhouses. Next to medicinal plants (coltsfoot, mint, St. phytopharmacological industry of Uzbekistan).

### DISCUSSION

The garden collection is estimated at 6000 species, forms and varieties of plants (mainly from the temperate zone)[1][3], the number of species according to the 2013 estimate is 4500[15,11,18]. According to the encyclopedia "Tashkent" (1983), there are 2,500 species of trees and shrubs (this figure is also reproduced in the "National Encyclopedia of Uzbekistan"),

including 170 conifers, 2,200 species of one, two- and perennial grasses[1][3]. About 800 species of tropical and subtropical plants were collected in the greenhouse[1] (in the 1980s, more than 1000 species were grown on closed ground[3]), but in the winter of 2011-2012, when heating was not active during the frost period, 500 of them died.

### CONCLUSIONS

It should be noted that since the beginning of the 1980s, no plant inventory has been carried out. Flora of Europe and the Caucasus, the Mediterranean[30] coast, Central and East Asia (China), North America is represented in the garden plots. Among the species that are being introduced, there are ornamental and fruit trees, various berry bushes, and medicinal plants. For landscaping, seedlings of tulip tree, Lankaran acacia, large-leaved linden, Chinese poplar, pyramidal oaks are grown; perennial bulbous plants - tulip, crocus, hyacinth, - and rhizomatous plants - iris, peonies, over 90 forms of hybrid hibiscus (buttermilk). In the design of Tashkent, orange, juniper virginian, gledichia, wild grapes, as well as some types of oak, maple, birch, which have passed the initial acclimatization in the Botanical Garden, are actively used. An intergeneric hybrid of chilopsisaikatalpa-Tashkent chilocalpa was obtained, which is widely grown in California. In 2020, the Tashkent Botanical Garden annually provided 15,000 seeds for exchange with other botanical gardens.

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