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INTRODUCTION OF PLANTS IN UZBEKISTAN

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Annotation: This article discusses plant introduction, its importance in biodiversity conservation, scientific research conducted in Uzbekistan, and the methods of introduction. The ontogenesis, seed biology, morphological, and ecological adaptation characteristics of introduced plants are analyzed. In addition, the role of plant introduction in the cultivation of medicinal and economically valuable plants, expansion of cultivated areas, and creation of raw material resources is highlighted.

Keywords.: Introduction, biodiversity, introduction methods, introduction analysis, bioecological characteristics, ontogenesis, phenology, seed biology, morphological adaptation, medicinal plants, ecological factors, introduction assessment, plant conservation, Botanical Garden, introduction experiment.

Introduction

(introduction, meaning to introduce) means to introduce a plant species to a place where it has not previously grown. It is well known that natural biodiversity is a vast source of meeting the economic, ecological, pharmaceutical, and cultural needs of society, and without it, nature and society cannot develop sustainably. One of the pressing issues in Uzbekistan is the preservation of biodiversity, the problems associated with its decline, and the preservation of the current state as the basis for sustainable development. The reduction of plant species ranges due to various anthropogenic factors is causing the complete disappearance or decline of some plant species. Therefore, the protection and rational use of the plant world, as well as its enrichment at the expense of species brought from abroad, is an urgent problem.

Scientific institutions and research centers

Initially, local and imported medicinal plants were grown under introduction conditions by scientists of the Botanical Garden of the Central Asian State University. Scientific work was carried out in the Botanical Garden of the Central Asian State University, in the suburbs of Tashkent, in Bozbazar, in the foothills of the southwestern Tien Shan, in Khojand and Chimyon.

R.L.Khazanovich, M.I.Russian, P.A.Gomolitsky (1951) studied the growth and development of local and imported medicinal, starch-containing, and essential oil plants in conditions of introduction, as well as changes in their chemical composition.

O.A.Ashurmetov and H.Q.Karshiboyev (1995) studied the reproductive biology of Shirinmiya and Meristotropis.

In 1930, the Pima, Sakel, and Maraad varieties of cotton from Egypt began to be planted in Uzbekistan and Turkmenistan. Thus, in the early years, fine-fiber cotton varieties were introduced to Central Asia based on the introduction and acclimatization of Egyptian varietie Purpose of inroduction

Uzbekistan is engaged in the selection of species of plants to different climatic and soil conditions, identification of cultivation opportunities and study of bioecological features and the

establishment of their crop fields and the creation of some of the raw materials.s.

Objectives of introduction:

- introduction of plants to various climatic conditions (study of bioecological characteristics and development rhythm).
- determination of the level of adaptation of plants and selection of promising species.
- creation of cultivated areas of plants.
- determination of bioecological properties.

Methods of introduction:

Ecological-historical (Ecologo-istorichesky method) method-In this method, the introduced (plants) object is studied and evaluated based on the historical analysis of the natural flora.

Ecological genetic method - In this method, the plants to be introduced are studied in terms of their ecological system and origin.

Ecological-introduction method- In this method, plants are studied and evaluated based on experimental experiments on their relationship to the ecological factors of the introduction conditions.

Category complex method- This is a complex method, within the framework of the category, plant species are studied and evaluated experimentally under conditions of introduction.

Biological characteristics - main areas of study

Ontogeny and phenology

It is of great importance to study the individual development of introduced species at different stages of their ontogeny, since the features of adaptation of introduced species to new conditions are manifested in the early stages of plant ontogeny. A significant stage in plant ontogenesis is the flowering phase, which serves as the main criterion for the interdependence of all phenophases and the adaptation of the plant to a new environment.

The stages of ontogenesis are divided into: embryonic-latent (embryo, seed), pregenerative (seedling), generative and senile periods.

Seed biology and reproduction

The study of the bioecological characteristics and seed biology of representatives of plant families common in the desert and mountainous regions allows us to determine the main directions of their seed reproduction and recovery.

Morphology and adaptation

In Uzbekistan, important work has been carried out in the field of morphogenesis based on the widespread use of the anatomical method; the doctrine of the stages of organogenesis and their dependence on the external environment has been developed in objects living in difficult environmental conditions. The introduction of plants in botanical gardens is based on data on the ontogenetic and ecological morphology of plants.

Conclusion

Introduction is the process of transplanting plant species to new areas and adapting them to local climatic and soil conditions. This process is important for preserving biodiversity, protecting endangered plant species, and increasing the number of plants useful for the national economy. Introduction work in Uzbekistan has been carried out by botanical gardens and scientific centers since the beginning of the 20th century, with particular attention paid to the study of medicinal, essential oil, and agricultural crops.

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