

USEFUL DENDROFLORA PLANTS OF KUKHISTAN DISTRICT

Gulchekhra Saydullaevna Dadaeva

Jizzakh Polytechnic Institute

gulchekhra.dadaeva@mail.ru

ABSTRACT

The dendroflora of the Kuhistan district (the Uzbek part of the Turkestan and Malguzar ranges) is diverse and quite rich in species (123 species). Of these, 98 species are useful plants. The article presents the results of the study of the raw material groups of useful plants of the woody flora of the Kuhistan district and the prospects for their use.

Keywords: Kuhistan district, dendroflora, useful plants, fruit and berry, medicinal, fodder plants.

INTRODUCTION

The main purpose of this research work is: Kuhistan district is the most interesting floristic region of Uzbekistan. The dendroflora of this republic is diverse and quite rich in species that have certain useful qualities, and therefore are valuable and promising in various sectors of the national economy.

The vegetation of the Turkestan ridge within Tajikistan and Kyrgyzstan has been studied by some authors, but the Uzbek part of the Turkestan and Malguzar ridges has been little studied [1].

Based on the results of our research work and the analysis of scientific materials, it was established that the dendroflora of the Kuhistan district consists of 123 species belonging to 54 genera, 30 families, of which 19 families, 37 genera and 98 species are useful plants.

The solution of the research work: All types of useful plants, depending on their application, were assigned to a certain raw material group or groups on the basis of literary sources [3,4,5,6,7]. The raw material groups are determined mainly according to the modern classification of useful plants. Many useful plants have a variety of uses and belong to two or more groups [2].

The group of food plants includes fruit and berry representatives of the families Berberidaceae (Berberis), Juglandaceae (Juglans), Moraceae (Morus), Grossulariaceae (Ribes), Rosaceae (Amygdalus, Armeniaca, Cerasus, Crataegus,

Malus, Persica, Prunus, Pyrus, Rosa, Rubus, Sorbus), Anacardiaceae (Pistacia), Elaeagnaceae (Elaeagnus, Hippophae).

Fruit and berry plants include fruit trees and berry bushes. Many of them were introduced into the culture long ago, some began to be cultivated quite recently, and there are those that for the most part remain wild.



The fruits of wild plants are widely used by the local population in fresh and dried form. This natural raw material is also valuable for the food industry.

Fruit crops are usually divided into stone fruit (plum, cherry, sweet cherry, cherry plum, peach, apricot), pome fruit (pear, quince, apple), walnut (walnut). Berry crops are represented by shrubs, herbs and shrubs, among which the most popular are garden strawberries, red, white and black currants, gooseberries, raspberries, blackberries. Fruits and berries are grown for fresh consumption, for the preparation of all kinds of desserts and preparations for the winter in the form of jams, preserves, marinades, marinades. Juice is squeezed out of them and wine is made. A special place is occupied by the fruits of some cultures in dietary nutrition.

Fewer species in the dendroflora of the region include the group of forage woody plants. The largest number of forage species was found in the family Salicaceae (Populus, Salix), Fabaceae (Astragalus), Caprifolaceae (Lonicera). They are used by agricultural and wild animals.



Forage plants, uncultivated and cultivated plants used as feed for agricultural and wild animals. A variety of life forms can be used as fodder plants - trees, shrubs, dwarf shrubs, etc.

For example, the branches of deciduous trees are used as branch feed, and the branches of conifers (mainly spruce) - woody greens - to obtain fodder and vitamin preparations. The fodder value of most cereals and legumes is especially high. The economic value of forage grasses is determined by their yield, nutritional value, eaten by animals, as well as their prevalence in hayfields and pastures. The nutritional value of forage grasses depends on the content of proteins (proteins) and fiber in them: the more protein and less fiber, the higher the nutritional value of the plants. The amount of protein in various plant species differs, it also changes in plants of the same species, depending on the growing season.



It is impossible to determine the fodder value of a plant only by its nutritional value, since many plants have a good chemical composition, but are poorly eaten or not eaten by animals at all (for example: bitter, powerfully fragrant, powerfully pubescent, very coarse, etc.). Eatability changes dramatically with the seasons, different species of animals eat the same plants in different ways. The prevalence and

productivity of forage grasses is also of great economic importance. Yielding and highly nutritious uncultivated species of leguminous plants in most regions are found in insignificant quantities and are not of considerable economic importance. According to the method of consumption, forage plants are divided into pasture, hay, silage and used for the preparation of concentrated forage. Many types of uncultured forage plants (primarily legumes and cereals) have been introduced into cultivation, selection work is carried out with them, and the newest varieties are being created. They are included in the composition of grass mixtures used to create cultural hayfields and pastures, as well as to improve natural forage lands.

The nature of our sunny country is rich in medicinal plants. Our ancestors used them effectively in the treatment of various diseases.

The woody flora of the Uzbek part is rich in medicinal plants that are used in folk and scientific medicine. Representatives of this raw material group are found in the families: Cupressaceae (Juniperus), Ephedraceae (Ephedra), Berberidaceae (Berberis), Rosaceae (Amygdalus, Crataegus), Salicaceae (Salix). The species of these families have been studied to varying degrees in pharmacological and chemical terms and are promising for implementation in scientific medicine.



Raw plants are species of wild flora that provide raw materials for direct use or processing. Those plants that do not go into further processing and are used locally (mostly on the root) or undergo only primitive processing during harvesting (for example, drying hay) are not raw plants (fodder plants, melliferous plants, ornamental plants). A generally accepted classification of raw plants has not been developed. The most widely used classification is based on the principle of using raw plants. According to her, all raw plants are divided into 2 types, among which, in turn, there are groups: technical (rubbery, resinous) and natural (food, medicinal).

Groups, in most cases, are subdivided into subgroups. The classification is conditional, there is no clear boundary between species and groups, since the raw materials of many plant species are used both as technical and natural; and within the groups - as food and as medicinal, etc. There are classifications based on other approaches, as well as many modifications of the above classification.



Many medicinal plant species of the families Cupressaceae (Juniperus), Ephedraceae (Ephedra), Berberidaceae (Berberis), Betulaceae (Betula), Juglandaceae (Juglans), Salicaceae (Salix, Populus), Moraceae (Morus), Celtidaceae (Celtis), Grossulariaceae (Ribes), Rosaceae (Amygdalus, Armeniaca, Cerasus, Crataegus, Cotoneaster, Malus, Pyrus, Persica, Prunus, Rosa, Rubus, Sorbus), Rhamnaceae (Rhamnus), Solanaceae (Solippae), Aceraceae (Acer), Oleaceae (Fraxinus). All these plants are actively harvested by the local population [11].

DISCUSSION AND RESULTS

In traditional medicine, from medicinal plants of greatest interest are such species as *Crataegus pontica* C. Koch, *Crataegus pseudoheterophylla* subsp. *turkestanica* (Pojark.) K.I. Chr., *Crataegus songarica* C., *Sorbus persica* Hedl, *Sorbus tianschanica* Rupr., *Rosa canina* L., *Rosa begeriana* Schrenk & Fisch. ex C.A. Mey, *Rosa ecae* Aitch, *Rosa fedtschenkoana* Regel, *Rosa hissarica* Slobodova, *Rosa kokanica* (Regel) Regel ex Juz, *Rosa maracandica* Bunge, *Rosa nanothamnus* Boulenger, *Rosa transturkestanica* N.F. Russanov, *Ribes nigrum* L. *Rubus caesius* L. - et al [8]. They are also actively collected by the population.

Medicinal trees produce oxygen by absorbing carbon dioxide, protect from dust, provide coolness, building materials, edible fruits, after all, the list is endless. Not forgotten and folk recipes for the treatment of various diseases, based on the use of medicinal trees of the forest. Medicinal trees help in the prevention and fight

against fatigue, colds, diseases of the gastrointestinal tract and other common ailments of our time.

Trees have always held a special place in people's lives. It is no exaggeration to say that the history of our country will be incomplete without the history of the relationship between man and tree.

The group of vitamin-bearing plants includes medicinal and food plants. Representatives of this raw material group are found in the families: Grossulariaceae (Ribes), Rosaceae (Pyrus, Crataegus, Cydonia, Malus, Persica, Prunus, Rosa, Rubus, Sorbus), Elaeagnaceae (Hippophae, Elaeagnus).

The group of essential oil plants is rather small in the dendroflora of the region [9]. They are systematically very diverse and are found in the families Cupressaceae (Juniperus), Betulaceae (Betula), Rosaceae (Rosa, Berberis, Crataegus). Fibrous plants are mainly used for crafts. There are especially many of them in the families Salicaceae (Populus, Salix), Rosaceae (Sorbus), Ulmaceae (Ulmus).

The species of the pulp and paper plant group can be found in the Salicaceae (Populus) family.

The dendroflora of the region is especially rich in melliferous plants, which provide honey collection during the entire growing season. The largest number of melliferous plants is represented in the families Rosaceae (Amygdalus, Cotoneaster, Crataegus, Malus, Sorbus, Pyrus, Armeniaca, Rosa, Rubus, Spiraea) and Caprifoliaceae (Lonicera, Viburnum). Certain types of valuable melliferous plants are found in the families Fabaceae (Astragalus, Caragana), Salicaceae (Salix), Berberidaceae (Berberis), Crussulariaceae (Ribes).

The group of woody plants has a relatively small number of species. Among them there are representatives of the families Salicaceae (Populus, Salix), Betulaceae (Betula), Rosaceae (Crataegus, Sorbus, Padus), Platanaceae (Platanus), Juglandaceae (Juglans), Ulmaceae (Ulmus). The types of this group are used in construction, for the manufacture of furniture and handicrafts.

The dendroflora of the Kuhistan District contains a large group of ornamental plants, in which the most numerous are representatives of the families: Cupressaceae (Cupressus, Juniperus), Rosaceae (Amygdalus, Cotoneaster, Crataegus, Malus, Padus, Pyrus, Rosa, Sorbus), Salicaceae (Populus, Salix), Aceraceae (Acer), Elaeagnaceae (Elaeagnus), Caprifoliaceae (Lonicera), Ulmaceae (Ulmus), Juglandaceae (Juglans), Platanaceae (Platanus), Fabaceae (Caragana), Oleaceae (Fraxinus). and others. They differ in terms and duration of flowering [10,11].

Phyto-reclamation plants are used to fix slopes, protect soil against wind and water erosion, plant greenery and improve places, as well as protect railways and highways from drifting snow and sand. The group of phytomeliorative plants includes representatives of the families Salicaceae (Salix, Populus), Rosaceae (Amygdalus, Cotoneaster, Crataegus, Malus, Padus, Pyrus, Rosa, Sorbus), Betulaceae (Betula), Ulmaceae (Ulmus), Fabaceae (Caragana), Elaeagnaceae (Elaeagnus, Hippophae), Ephedraceae (Ephedra), Berberidaceae (Berberis), Platanaceae (Platanus), Juglandaceae (Juglans), Tamaricaceae (Tamarix), Cupressaceae (Cupressus, Juniperus), Moraceae (Morus), Aceraceae (Acerfolice).

The representatives of poisonous plants in the dendroflora are diverse. This group includes insecticidal and fungicidal species that are promising for the protection of cultivated plants. They occur as solitary species in the following families: Ephedraceae (Ephedra), Cupressaceae (Juniperus), Rhamnaceae (Rhamnus).

There are plenty of dye plants in the region. Currently, the use of a number of dye plants in this region is very important. This group includes species of the families Rosaceae (Crataegus, Sorbus, Padus, Rubus), Cupressaceae (Juniperus), Salicaceae (Populus, Salix), Caprifoliaceae (Lonicera), singly in the families Rhamnaceae (Rhamnus), Juglandaceae (Juglans), Moraceae (Morus), Berberidaceae (Berberis), Elaeagnaceae (Elaeagnus, Hippophae).

In the woody flora of the Republic of Uzbekistan, the species of tanning plants are represented by a relatively small amount. The species of this group are used for medicinal and technical purposes. The largest number of tanning plants is found in the families Cupressaceae (Juniperus), Salicaceae (Populus, Salix), Rosaceae (Crataegus, Sorbus) and Betulaceae (Betula), Juglandaceae (Juglans).

The species of the group of industrial plants are found singly in the families Cupressaceae (Juniperus), Betulaceae (Betula), Salicaceae (Populus, Salix).

The group of fatty oil plants in the dendroflora has fewer species. The largest number of such plants can be found in the families Rosaceae (Amygdalus, Cotoneaster, Crataegus, Rosa), Fabaceae (Caragana), Elaeagnaceae (Hippophae), Oleaceae (Fraxinus), Rhamnaceae (Rhamnus), Celtidaceae (Celtis).

CONCLUSION

Fatty oil plants are promising for use in the food industry as technical and medicinal raw materials, etc.

The smallest is the group of gum-bearing plants. The species of this group can be found in the Rosaceae families (Armeniaca, Padus, Persica, Prunus).

Thus, the dendroflora of the Kuhistan district (the Uzbek part of the Turkestan and Malguzar ridges) is of 123 species belonging to 54 genera, 30 families, of which 98 species belonging to the 37th genus and 19 families are useful plants.

REFERENCES

1. Afanasyev K.S. Vegetation of the Turkestan ridge (within Tajikistan and Kyrgyzstan), M.-L. 1956. with. 129-140.
2. Allanazarova U., Norboboeva T., Rakhmonulov U., Mamarakhimov O. Zominsuv havzassining ўsimliklar qoplamasi va ularni muhoofaza qilish muammolari. Ilmiy nazari conference materialari. Angren, 1996, 210-212 b.
3. Damirov I.A., Prilipko L.I., Shukurov D.Z., Kerimov Yu.B. Medicinal plants of Azerbaijan.-Baku: Maarif, 1988.-320 p.
4. Wolf E.V., Maleeva O.F. World resources of useful plants. Food, fodder, technical, medicinal, etc.-Leningrad: Nauka, 1969.-564 p.
5. Тайлаков, А. А., & Дадаева, Г. С. (2019). Загрязнения природной среды радиоактивными веществами. *Оказова Зарина Петровна, доктор, 446*.
6. Дадаева, Г. С. (2019). Отравления токсикологическими ядовитыми растениями. In *Экология: вчера, сегодня, завтра* (pp. 143-148).
7. Дадаева, Г. (2021). Полезные растения дендрофлоры кухистанского округа. *Academic research in educational sciences*, 2(4), 1140-1150.
8. Saydullaevna, D. G. (2020). Dendroflora of zaaminsky state reserve. *International Engineering Journal For Research & Development*, 5(6), 12-12.
9. Kuziyeva, S. (2020). Ferula Foetida (Bunge) Regel o'simligining biomorfologik va shifobaxsh xususiyatlari. *Архив Научных Публикаций JSPI*.
10. Имамова, Ф. М., & Дадаева, Г. С. Мелиоративное улучшение земли. *Ученый XXI века, 19*.
11. Дадаева, Г. С., & Тошпулатова, С. А. (2020). Охрана атмосферного воздуха от выбросов заправочной станции сжиженного газа. In *Арктика: современные подходы к производственной и экологической безопасности в нефтегазовом секторе* (pp. 79-88).
12. Khuzhanazarov, U. E., & Dadaeva, G. S. (2019). Ecological bases for the rational use of foothill pastures of kashkadarya basin. *Bulletin of Gulistan State University*, 2019(3), 14-19.