

FERULA L. THE IMPORTANCE OF GENERATIONS IN FOLK MEDICINE

Berdikulova Nargiza Yusuffjon qizi

Independent researcher of Jizzakh State Pedagogical University,

Khushnazarova N.D.

Jizzakh State Pedagogical University, student of Stage 3

ABSTRACT

The article provides information about the general species of the genus *Ferula* L., its distribution and general properties, chemical composition and use in folk medicine of a valuable medicinal plant - Chayir (*Ferula tadshikorum* Pimenov). During the study, maps of the distribution of this plant around the world and in the regions of the republic were presented.

Keywords: *Apiaceae*, *Ferula* L., *Ferula tadshikorum*, medicinal, biological, flora, ArGis 10, areal.

INTRODUCTION

The flora of the Republic of Uzbekistan is very rich and diverse in medicinal plants. Many plants that grow wild in our flora are used in various sectors of the national economy, including food, fodder, cooking and dyeing, perfumery and medicine. Many medicinal plants are used in medicine. Plants occupy a special place on earth, there are more than 8,000 species of plants in Central Asia and more than 4,383 in the flora of our Republic, of which about 1,500 species are considered medicinal plants. Of these, more than 250 species are used in folk medicine, and about 120 species are used in medicine [10].

LITERATURE ANALYSIS AND METHODOLOGY

A number of laws and decisions have been adopted regarding the cultivation of medicinal plants found in our republic, as well as the preservation and reproduction of their stocks. In particular, the Decree of the Cabinet of Ministers of the Republic of Uzbekistan No. 02/1 of January 22, 2009 "Increasing the cultivation of medicinal raw ash and providing the population", April 10, 2020 PQ 4670 "Protection of medicinal plants growing in the wild, cultured cultivation, processing and "Measures for rational use of available resources" were adopted.

In particular, as a result of the unplanned, uncontrolled and non-stop use of natural resources of flora by the users of nature, a number of medicinal plants are decreasing or on the verge of extinction.

One of the main features of medicinal plants is that they have very few negative effects on the body. For example, it is well known that 70% of digestive system diseases, 88% of genital diseases, 70% of expectorant preparations, glycosides used in

the treatment of circulatory system diseases and alkaloids, essential oils and many other preparations used in medicine for certain purposes are derived from plants [1]. Especially in recent years, the number of medicines prepared from plants is increasing and the demand for them is high. Because chemical preparations that are used continuously for a long time will certainly lead to a violation of the function of an organism. Medicines prepared from plants do not have negative effects, but increase the amount of biologically active substances in the body. For this reason, over the years, measures have been taken to study medicinal plants, that is, to determine their natural resources and to cultivate them as much as possible, and practical work is being carried out. There are deficiencies in the use and protection of medicinal plants based on scientific research and developed criteria, and as a result of improper use, the medicinal plant reserves have been decreasing in recent times.

We can mention *Ferula L.* among the plants whose natural resources have been drastically reduced. Species of the *Ferula L.* family have been widely used for the purpose of obtaining tar (resin) since the 4th century AD [9].

Currently, some species of *Ferula L.* species found in our flora are decreasing in population due to the influence of various natural and anthropogenic factors, and natural raw ash reserves are decreasing sharply (Jizzakh, Mirzachol, Karshi and Sherabad deserts) [8,6].

In order to solve the problems in this regard, the decision of the President of the Republic of Uzbekistan dated March 20, 2018 No. "Association of Blanket Growers and Exporters" was established in order to provide. The main task of this association is to develop methodical assistance and recommendations for the organizers of carpet plantations regarding the establishment of plantations and cultivation of raw materials.

The name of the genus *Ferula L.* was first described by Temufort (Temufort, 1700), and later by K. Linnaeus, who described 9 species. (Linnaeus, 1753), this nomenclature has been preserved until now (the word *Ferula* means erect). Systematics of species of the genus *Ferula L.* E.P. Korovin (1947) and modern analysis by M.G. studied by Pimenov (1983). There are 150 species of *Ferula L.*, currently representatives of the genus *Ferula L.* are distributed in Central Asia, Western Siberia, the Caucasus, the Mediterranean Sea, North Africa, Asia Minor, Iran, Afghanistan, China (Xinjiang) and India, of which 105 species are in Central Asia. , about 60 species are found in our republic.

The species of the *Ferula L.* family are mainly mountain plants, which are relatively high - from 300 to 3600 m above sea level, in small stony, gravelly hills. Some species of the category are endemic plants of the Pamir Aloy mountain range and are distributed especially in Samarkand, Kashkadar, Surkhandar, Jizzakh regions of our republic. Including in the Nurota reserve, in the basins of Topalang Darè of Surkhandarè region in the Khysar mountain range of Kashkadarè region, around the

villages of Tanga Topdi, Jum-jum creeks of Jizzakh region, and Kulsoy creeks of the Zomin reserve, and in several places in the territory of the neighboring Republic of Tajikistan. Some of their species are found at altitudes of 200 - 2500 meters above sea level [1,2,4,5].

"Vegetation cover of Central Asia" (T. I-X. 1968-1993), E.P. Karovin (1947), A.L. Takhtadjian (1978), S.P. Cherepanov (1981; 1995), M.G. It was determined based on the data of Pimenov et al. Distribution map was created using Ar Gis 10 program [4,5].

In the study of the chemical composition of species of the *Ferula* L. family, scientists of the Chemical Institute of Plant Substances G.K. Nikonov, A.I. Saidkhodjaevva V.M. A number of scientific studies were conducted by the Malikovs [6].

During the 1970s and 1980s, the chemical composition of about 50 species of *Ferula* L. found in Central Asia was studied, and about 250 terpenoid substances were isolated from them. More than 90 types contain sesquiterpenoid substances, of which 55 types are terpenoid coumarins (56.0%), 34 types are complex esters (35.0%), and 15 types are sesquiterpene lactones (20.0%).

DISCUSSION AND RESULTS

At present, about 100 species of carpets have been found to contain sesquiterpenoid substances, of which (54.7%) carpets contain terpenoid coumarins, 40 (35.5%) species contain complex esters, and 15 (12.4%) species contain sesquiterpene lactones [1,9].

As a result of the comprehensive study of the *Ferula* L. species found in Middle Asia, new medicinal preparations are being created from them. Currently, panoferol, estroferol preparations, which have estrogenic properties, are used in medicine [3,7,11].

Ferula kokanica Regel & Schmalh., *Ferula kuhistanica* Korovin, *Ferula tadshikorum* Pimenov, *Ferula penninervis* Regel & Schmalh, *Ferula diversivittata* Regel & Schmalh. Contains soluble carbohydrates from 1.1 to 11.2%, proteins from 4.9 to 18.3% [1,9]. *Ferula sumbul* (Kauffm.) Hook in our country. f. and *Ferula tadshikorum* Pimenov are included in the Red Book of Uzbekistan [13].

Species of the category are essential oil, fodder, beekeeping, medicinal, starch-giving, aromatic, nutritious and technical plants.

Ferula L. species are also used in veterinary medicine against skin and intestinal parasites and to prevent animal suffocation. The results of further investigations show that in humans (drug addicts) tar cuts the drug effect. The glue (resin) of some species is used as a food flavoring agent in many eastern countries.

Ferula kuhistanica Korovin, *Ferula varia* (Schrenk) Trautv. and *Ferula hyacinth* (Kauffm.) Hook. f. it is used as a stinky blanket in folk medicine.

In medicine, the resin obtained from the roots of *Ferula L.* species is used in the form of *nastoyka*, emulsion to prevent extreme exhaustion (hysteria), and also as an expectorant. For this purpose, preparations were made from *Ferula foetida* (Bunge) Regel in Iran and India, *F. alliacea* and *F. narthex* in Central Asia. Flavoring agents are also obtained from these plants [1].

Ferula foetida (Bunge) Regel, *Ferula foetidissima* Regel & Schmalh., *Ferula kuhistanica* Korovin, *Ferula kokanica* Regel & Schmalh., *F. foetida*, *F. foetidissima*, *F. kopetdagensis*, *F. kokanica*, *F. persika*, *F. zoongarica*, *F. sumbul*, *F. badrakema*, *F. diversivittata*, *F. kapsica*, *F. karatavika*, *F. karelini*, *F. gummoza*, *F. varia*, *F. kuhistanica* root glue (tar, resin) ancient medicinal plants Ushturgyoz, Kovrak, Sassik kovrak, Sumbul, Spagen, Galbanum, Kinna and other names as simple and complex drugs in the treatment of stomach, kidney, spleen, liver diseases, as well as in gynecological diseases. used as a driver, joint pain reliever, brain, sclerosis, bronchitis, asthma, jaundice, whooping cough, diabetes, stop bleeding, urinary and kidney pain.

Ferula tadshicorum Pimenov, included in the Red Book of Uzbekistan, belongs to the *Ferula L.* family of the *Apiaceae* family, is a perennial monocarpic plant, 1.5-1.8 m tall, with a strong garlic smell. The root is thick, with a vertical rhizome, simple caudex, single stem, 5 cm in diameter at the base, smooth, whole. The leaves are soft, wither quickly, the upper part is almost hairless, the lower part is gray hairy, circular in structure, with a large number of conductive tube-fiber strands, the plate is large, 40 cm long, up to 30 cm wide, elliptical, three-fold, first-order segments divided into two or three times, the upper stems are unbranched, the lower leaves are similar to rhizome leaves but smaller in size, the upper leaf lobes are large, up to 20 cm long, 7-9 cm wide, ribbon-shaped or ovate-lanceolate, the edge is blunt.

Ball-wide shingle. The umbrellas are numerous, all of them bear fruit, the central umbrellas are densely banded, in most cases they form a ring, 20-30 rays, they are 3-6 cm long, almost equal in color. The umbels have 10-15 flowers and are leafless. Flowers are short, 0.5-0.8 cm. The teeth of the sepals are small, three-sided. Petals are yellow, 2-2.5 cm long, oblong-elliptical, blunt, the tip is turned inward. The base is cup-shaped. The fruit is 1.9-2.7 cm long, 0.9-1.2 cm wide, inverted ovoid, oblong-ovoid, oval or ellipsoid, compressed from the back, flat, hairless. The back edges are stringy, the edges are wide wing-like. Ajiratma canals are single in the outer mesocarp, 4 in total, large, 4-6 on the side of the commissure, 1 on the back edges and 3-4 on the edges. It blooms in April-May and bears fruit in June-July. In our republic, it is found in Kashkadar and Surkhandar regions [11,12].



Areas of distribution of F. tadshikorum.

CONCLUSION

In conclusion, the fact that *F. tadshikorum* is a medicinal plant, its population has decreased, and its natural reserve has decreased, indicates the need to propagate from seeds, establish mother plantations, establish artificial plantations, and preserve natural reserves in order to meet the demand for this plant..

REFERENCES

1. Авалбоев О.Н. Фарбий Помир-Олой тизмаси *Ferula L.* турларининг биоэкологияси ва улардан оқилона фойдаланиш усулларини такомиллаштириш. Дисс. б.ф.ф.д. (PhD). Самарқанд. 2020. 120 с.
2. Авалбоев О.Н., Рахмонкулов У. Жиззах тумани шароитида *Ferula L.* туркуми турларининг интродукцияси // Ўзбекистон биология журнали. - Тошкент. 2014. №4. 22-25-б.
3. Ахмедходжаева Х.С., Курмуков А.Г. Об эстрогенных свойствах веществ, выделенных из ферулы // Гормоны и гормональные препараты в животноводстве. М. 1974. -С. 32-33.
4. Виноградова В.М. Род *Ferula L. (Ariaceae)* в Центральной Азии // Новости сист. выс. раст. Л. 1990. 27. -С. 113-120.
5. Коровин Е.П. Род *Ferula L.* // Флора СССР. Изд. АН СССР. М. –Л. 1951. Т. 17. С. 62-155.
6. Рахманкулов У., Мелибаев С., Саидходжаев А.И. Среднеазиатские виды рода *Ferula L.* источник сесквитерпеновых производных // Биологическое

- особенности и распространение перспективных лекарственных растений. Ташкент: ФАН. 1981. -С. 138-153.
7. Рахманкулов У. Терпеноидсодержащие растения Западного Тянь-Шаня и их использование. Дис. докт. биол. наук. - Ташкент. 1999. 243 с.
 8. Рахмонкулов У., Авалбоев О.Н. Ўзбекистон ковраклари (монаграфия) // «Фан ва технология» нашрети. Тошкент. 2016. 240-б.
 9. Рахмонов Х.С. Биология и ресурсы *Ferula tadshikorum* M.Pimen. в южном Таджикистане//Диссер.на соискание ученой степени кандидата сельскохозяйственных наук. Дисс. канд. биол. наук. Душанбе. 2017. 131 с.
 10. Тургинов О.Т., Шарипова А.Э. Доривор *Ferula tadshikorum* ўсимлигининг истиқболли хусусиятлари // Ўзбекистонда доривор ва зировор ўсимликлар муҳофазаси, етиштириш, қайта ишлаш ва соҳанинг экспорт салоҳиятини оширишдаги долзарб масалалар. Республика илмий-амалий анжуман материаллари. Тошкент. 2020. 116-118 б.
 11. Хожиматов О.К., Хамраева Д.Т., Махмудов А.В., Хужанов А.Н. Жанубий Ўзбекистон шароитида *Ferula tadshikorum* Pimenov турини уруғидан етиштириш бўйича йўриқнома. Тошкент. 2019. 44 б.
 12. Флора СССР: В 30 т. М.-Л.: Изд-во АН СССР, 1950. – Т. 16. – С. 58- 646.
 13. Ўзбекистон Республикаси Қизил китоби. 1 Т. Тошкент. 2019. - 95 б.