

# About Some Edible Plants Distributed in the Fergana Valley

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**Annotation.** This article contains information on the families, species and their importance in industry, as well as their bioecological characteristics, found in the Fergana Valley.

**Key words:** morphobiological, rare, raw material, fiber, glue, saponin, mining, winemaking, medicine, textile.

## Introduction

There are about 4,500 species of tall plants in the flora of Uzbekistan, most of which are herbaceous plants. For example, 42 types of food plants, 107 types of fodder plants, 113 types of medicinal plants, 76 types of alkaloid-containing plants, 15 types of saponin-containing plants, essential oil plants type 53, oil-accumulating plants type 56, tannin-preserving plants type 59, dyeing plants type 58, resin-preserving plants type 9, wax-preserving plants 5<sup>th</sup> type of plants, 4<sup>th</sup> type of rubber-storing plants, 14<sup>th</sup> type of pulp-paper plants, 16<sup>th</sup> type of wood-yielding plants, 30<sup>th</sup> type of ornamental plants, nectar plants include 115 species. Studying the morpho-biological aspects of these plants is one of the urgent issues.

Ma'lumki Farg'ona vodiysi antropogen omillar kuchli ta'sir ko'rsatadigan hududlardan biri hisoblanadi. Shuning uchun ham kamyob va yuqolib ketish havfi bu hududda boshqa hududlarga nisbatan kuchliroq hisoblanadi. Mazkur hududda hozirga qadar qator izlanishlar olib borilgan bo'lsa ham florasi to'g'risida aniq ma'lumotlar mavjud emas, faqatgina M.M Arifxanova (1967) tomondan 97 oila, 717 turkumga mansub 2625 tur borligi hamda oilalardagi turlar soni bilan cheklangan.

As a result of scientific research conducted by scientist O.N. Bondarenko (1949-1950), geobotanical description of 15 formations and 52 associations was given. About 600 species distributed in the territory were compiled by him "List of species". This, in turn, motivated the development of floristic research in the valley.

Botanical studies in the Ferghana Valley have a long history of 100 years. The first studies were carried out by O.A. Fedchenko and B.A. Fedchenko (1868-1871). In June 1871, as a result of their two-year research in the Ferghana Valley (Beshariq, Isfara, Vorukh, Sokh, Shahimardan, Uchkurgan), they managed to collect several thousand herbarium specimens of 1527 species. Later, Z.A. Minkvits conducted research on the vegetation cover of Fergana region.

Based on the above, we tried to study the morpho-biological features of some raw plants distributed in the Fergana Valley, presented in this article. In this, we have presented the families, types of raw plants distributed in the Fergana Valley and their importance in industry.

## Materials and methods

The study of food plants of the Fergana Valley was carried out in 2021-2023. Observation and experimental methods were used in almost all places of the researched area in order to determine the species composition of native plants, to determine their phytocenotic groups, to determine and map their areas, natural reserves.

Special methods of determining their distribution and reserves in nature (Borisova, Schroeter, 1966, Krilova, Schroeter, 1971, Pimenov, 1971, 1979, Krilova, 1973, 1978, 1985, Borisova et al., 1982, Malsev, 1989, Metodika opredelenia zapasov syrya lekarstvennyx methods such as Rasteni, 1986) were used.

## Results and discussion

Fibrous plants distributed in the Fergana valley are mainly representatives of the families of sedges, linseeds, and sedges. Cotton (*Gossypium L*) is especially important among fibrous plants. The cotton seed

contains fibers 20 g 1 50 mm in length. The cotton plant accounts for 75% of the fibers produced worldwide. Cotton fibers are used to make various gauzes, film films, explosives, artificial silk, paper, insulating fabrics [1].

Saponin is a product of plant metabolism. In saponin-containing plants, saponin accumulates in various organs of the plant, mostly in seeds and roots. They are used in various branches of industry, especially in textiles, as a washing agent for silk and woolen fabrics, in non-ferrous metallurgy, in firefighting and in the production of foam concrete, in medicine, and in the food industry.

Among the rare plants that contain saponin, there are also plants belonging to the carnation family included in the Red Book of Uzbekistan. The plant belonging to this family is used in medicine in the textile, confectionary and confectionary industries. Protection of the species included in the Red Book, as well as meeting the needs of the industry through their reproduction and cultivation, expanding the areas where they are planted is one of the most urgent problems of the present day. plant It grows on the hills and mountain slopes of Uzbekistan. The height is 20-30 cm, the leaves are opposite, pencil or lanceolate. The flowers are small. It grows in hills and mountains on saline soils, gravel and stony rocks.

*Acanthophillium gypsophilla*, *Acanthophillium alibum* species are found in the Fargona valley. The root contains saponin. Yetmak is also used in the food and confectionery and wine industries, in medicine, in the bleaching of fabrics in the textile industry, and for washing silk and fabrics [2, 7].

Rovoch (Rheum) is a perennial herb found in hilly and mountainous regions in different soil conditions. It is one of the representatives of the thorn family with a leafy stem and a height of 70-150 cm. The leaf is long-banded, the leaf is round, the base is kidney-shaped, the length is 40-55 cm, the width is 50-60 cm. The flowers are greenish in color, arranged in pyramidal inflorescences with bands. The fruit is large, hanging and pointed. It blooms in April-June, the fruit ripens in July-August. This plant is a raw material for the mining industry [3, 5, 3, 6].

Shirach (Eremurus) is a perennial herb belonging to the onion family. The width of the leaves is 5-10 mm. The diameter of the calyx is 8-12 mm. The height of the stem is 50-150 cm. It is hairless. It blooms and gives seeds in June-September. From ancient times, glue has been prepared from the root of the lychee. For this, its root is dried, then crushed and boiled. Shirach is used in carpentry and shoemaking. Since it is a very beautiful plant, it can also be planted in flower gardens [6, 7].

This table shows the bioecological characteristics of the types of raw plants distributed in the Fergana Valley region.

**Table**  
**List of some edible plants distributed in the Fergana Valley**

Name of plants	Family	Distribute	Life form	Usage
<i>Acanthophillium alibum</i>	Caryopyllaceae	Central Asia, South Kazakhstan, Caucasus, Iran, Pakistan	Perennial shrub	In confectionery, medicine, textiles, bleaching gauze and washing silk wool gauze
<i>Glycine hispida</i>	Fobaceae	Africa, Asia, America, Russia	Annual grass	In medicine, in raising productivity in animal husbandry, in the treatment of diabetes
<i>Erumurus</i>	Xanthorrholaceae	In Central and Ancient Asia, South-Eastern Europe, Central Asia, Caucasus, Crimea	Perennial grass	It is used for making glue, the leaf contains a lot of vitamin C, it is a good honey plant
<i>Hibiscus cannabinus</i>	Gulhayridoshlar Malvaceae	Iron, China, India, Brazil,	Annual grass	In the varnish industry, soap making, fiber

		America		extraction
<i>Gossypium</i>	Malvaceae	Asia, America, Africa, Australia	Annual grass	In fiber extraction, clothing industry, oil extraction
<i>Rheum</i>	Polygonaceae	USA, China, Central Asia	Perennial grass	It is considered a raw material for the tanning industry and is used in medicine

### Conclusions

In our opinion, it is necessary to research and regulate the use of plant resources of the Fergana Valley. At the same time, it is necessary to pay special attention to the issues of effective use of these useful plants, their enrichment and protection.

Improper use of raw material plant resources, failure to take into account their biological characteristics, failure to organize harvesting within the specified period, harvesting more raw materials than the specified plan lead to the disappearance of plant species and this unique plant. not only causes damage to the restoration of plant species, but also causes the disappearance of some species.

By providing information through these plants, we should not forget that they have a sacred duty to awaken the feeling of infinite love for our unique beautiful land in front of the general public and to preserve our own precious nature like the apple of an eye and pass it on to the next generation.

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