

## Ferula Assa -Foetida (Bunge) Regel. Pests and Control Measures

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**Abstract:** Currently, 112 types of medicinal plants are allowed to be used in official medicine in the Republic of Uzbekistan, and 80% of these medicinal plants are naturally growing plants. Therefore, the main diseases and pests that harm the Sassi q rug are being studied. This problem is still relevant today.

**Keywords:** pest, saprotroph, a stinky blanket, medicinal plant, seeds, medicine, flora.

**INTRODUCTION.** Uzbekistan is a region rich in natural and geographical medicinal plants. About 4,500 species of tall plants can be found in this area. About 1,200 of these plant species have medicinal properties, which indicates the richness of the flora of the Republic of Uzbekistan.

According to the data of the World Health Organization, 60% of the available medicines are preparations obtained from the raw materials of medicinal plants. Natural resources of medicinal plants are also limited, and their protection, study of bioecological properties, proper use of resources and development of scientifically based methods of reproduction are urgent problems. Therefore, in Uzbekistan, it is necessary to supply the needs of the pharmaceutical industry with raw materials of medicinal plants, to enrich the local flora with new introduced plant species, and to develop technologies for their cultivation.

**RESEARCH METHODS.** Entomological calculations and observations were made by B. Yakhantov, B. Biyenko 1943, the density of insects by Sh.T. Khojayev 2014, the dominance and quantity of entomophages was performed based on the methods of K.K. Fashlati, S.N. Alimukhammadov.

**RESEARCH RESULTS.** Ferula foetida (bunge) regel. Tur- species-ferula foetida l. b) Category-genus- ferula c) Family-family-apiaceae d) Class- classes- dicotyledones (dicots) e) Division - divisio - angiospermae (closed seeds) f) Plant kingdom- flora - plantae

**Plant propagation.** Sassi q carpet is distributed in the Ferghana Valley, in the lower part of the Zarafshan River, in Kyzylkum, in the Surkhan-Sherabad Valley, and in Ustyurt.



**Figure 1. The growth and appearance of the stink bug**

The plant is drought-resistant, undemanding to growing conditions. There are 104 types of rugs in Central Asia. 45 species are listed in the flora of Uzbekistan. Five species are included in the Red Book of Uzbekistan: Archa korak, Nor korak, Sumbul korak, Tuganakli korak and Qizilkum korak. In Uzbekistan, two types of carpet are used on an industrial scale: sassik carpet and Kokhistan carpet.



**Figure 2. The appearance of the leaves of the stinky carpet**

**Preparation of raw materials and its quality.** After 4-5 years from the root of the plant, when the number of leaves increases from 6-8, sap extraction begins. At first, when the leaves of the plant begin to dry, that is, when the leaves are easily separated from the root neck, the root circumference is dug up in a scheme of 30x30 cm. The leaves are gently separated from the root neck and pressed on the root. The leaves are buried with a little soil so that they do not blow away in the wind, and the root of the plant is moistened for 30 days.



**Figure 3. The appearance of the remedy for the smelly carpet**

During this time, sap accumulates at the root of the plant. Then the root surface is gently cleaned. After cleaning, it is cut with a special sharp knife. After three days, saps are collected from the upper part of the root.



**Figure 4. The process of collecting the sap of the blanket**

Kovrak grows in the sandy deserts, hills, mountains and foothills of the Tashkent, Surkhandarya, Kashkadarya, Jizzakh, Navoi, and Bukhara regions of our republic and in the sandy deserts of the Republic of Karakalpakstan. *Ferula assa-foetida* (*Ferula assa-foetida* L.) is widely distributed in nature, and glue-resin is mainly obtained from this species. Its medicinal plant is a biologically active substance that has a positive effect on the patient's body in medicine. Roots, leaves, bark, flowers, fruits, sap and other parts of plants are used as medicines. The duration of this event depends on the sharpness of the knife and not damaging the root by moving it. Each root is thinly cut up to at least 15 times. Collected sap is stored in 5-10 kg plastic containers for up to 1 year. In established plantations, 2-3 plants per 10 m<sup>2</sup> are left to seed and regenerate naturally. The seeds are harvested when they are full. Pests damage all plants, including cowberry, black-fruited aronia, common belladonna sweet brain, sharp-leaved psano, Persian cumin, Samarkand immortelle. Some subterranean mice cause serious damage by eating the roots of the woodworm. As we know from literature sources, we will dwell on the kavrak vizildogi, which causes great damage to the medicinal plants mentioned above.

**Blanket whistle** — *Machozethus lehmani* men. The body length is 42-49 mm, black-brown color, large and pointed head of a large whistling beetle. The life and development of this species takes place in the soil, in a special burrow up to 10 cm deep. Beetles lay their eggs in this nest and carry seeds to feed the next generation. It feeds on the seeds of the sedge, thereby preventing the reproduction of this plant species. It lives in the deserts and mountains where the umbel plant grows.



**Figure 5. The whistle of the blanket**

**Blanket mustachioed**— *Placaederus scapularis* Fisch. One of the large mustached beetles of the Central Asian fauna. The length of the body is 27-36 mm, long, dark-brown, almost black, shiny whiskers are short and thick. The top of the body is covered with soft gray hair. It lays its eggs in the axils of the leaves in the root neck of the kavark plant. The larvae of this beetle live and develop in the wood of the main stem of the bark beetle and open a wide path for themselves, moving towards the root and turning into a tuber (within two years). Beetles fly out in mid-April. Ants feed on the flower and stem of the cowberry. It is found in Bobotog Forestry of Surkhandarya.



**6-rasm. Blanket mustachioed**





**Plant juices.** Plant juices. As a result of sucking tissue sap from leaves and branches, plants weaken, leaves turn yellow, curl and dry. Severely affected leaves change shape and become twisted. Aphids feed on the green and soft part of the plant by sucking its juice. Such plants grow very slowly. In damaged plants, the yield can be reduced by 15-20%. Aphids that damage the carpet are small insects with soft skin, the size of the mature breed is 2.5-4 mm. There are two forms of aphids, wingless and winged. Development is incomplete, often due to parthenogenetic live birth, there is no mushroom phase. Aphids develop in 3-20 days depending on the temperature. Gives 10-16 generations during the season. Females live for 18 days in the summer and give birth to up to 150 larvae.

**Agrotechnical activities.** The plant is propagated by sowing seeds. Before planting, the soil is cleaned of weeds, enriched with organic and mineral fertilizers. The best places for planting are areas close to the plant's natural growth area. The main plow is carried out at a depth of 25-30 cm. It is planted in wide rows. Row spacing is 70 cm, planting rate is 2-3 kg/ha, planting depth is 2-3 cm. The time of planting is November-December, because it is necessary not to allow the seeds to germinate in the fall. In the spring, in mid-March, the seeds germinate. After the second true leaf is formed on the plant, it is cleaned of weeds and made uniform. A plant is left from one bush at 40-50 cm. It consists of plowing the top layer of the soil by turning it over, cleaning the weed residues in the fields and weed control measures.

**CONCLUSION.** In order to preserve the stock of medicinal plants listed above, it is necessary not to prepare more than the allowed quantity of medicinal products, and official leaders should strictly control this work, strictly observe it themselves, and demand it from others as well. Preserving medicinal plant resources, which are one of nature's treasures, for the next generation, protecting their natural growth places, will create the basis for their service for the benefit of mankind for many years.

It is preferable to fight against pests of medicinal plants by biological methods, because chemical preparations cause the loss of its medicinal properties. Using biological methods rather than chemical methods is safer for the environment, warm-blooded animals, beneficial insects, humans and plants. Chemical control should be used only when necessary.

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