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USE OF FERULA.L. (KOVRAK) PLANT AS RAW MATERIAL

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Abstract

The territory of our republic is rich in healing, medicinal, nutritious, fodder and honey plants. Their rational use is an urgent problem of today. Among the medicinal plants, species of the genus Ferula (Ferula L.) occupy a special place. Types of the cover family are monocarpic and polycarpic plants.

Key words: medicinal, medicinal, nutritious, fodder, honey plants, Ferula foetida, monocarp and polycarp, root, leaf, branch, stem.

Enter. The territory of our republic is rich in healing, medicinal, nutritious, fodder and honey plants. Their rational use is an urgent problem of today. Resolution of the Cabinet of Ministers dated January 20, 2015 No. 5 "On measures to further expand the development of the forestry system, cultivation, preparation and processing of medicinal and nutritional plant raw materials in 2015-2017" In the minutes of the meeting, it was noted that great attention should be paid to the supply of raw materials to the sectors of the national economy, and the need to strengthen the introduction of ornamental, food industry and high-yielding plant species. Ensuring the implementation of the above decision to quickly organize the monitoring of plants used in the food industry, rare species that are on the verge of extinction in the desert and hilly regions. requires further research.

Among medicinal plants, species of the genus Ferula (Ferula L.) occupy a special place. There are about 200 types of carpet plants on earth, 55 of which are found in Uzbekistan. Species of the genus Kovrak are perennial monocarpic and polycarpic plants. Ferula foetida-sassik carpet plant is found in various groups of plants in the deserts and hills of Uzbekistan and is distributed in the regions of the red deserts, Mirzachol, Samarkand, Jizzakh, Bukhara, Kashkadarya, Surkhandarya and the Republic of Karakalpakstan. Its height reaches 1.0-1.5 meters, the stem is erect,

slightly porous inside, branched from the top, often forming one (sometimes 2-3) generative branch, 7-9 it blooms once a year. Its roots are strong, thick, and reach a depth of 1.5 meters. The main part of the root reaches a depth of 0.5 meters, and its shape is cylindrical, barrel-shaped or egg-shaped. Its leaves are soft, fade quickly, the upper part is hairless, and the lower part is a little hairy, the ones at the root neck are short, thickly banded, the ones at the stem are smaller, and the ones at the third part form the leaf blade. At the root neck, the shape of the leaves is pyramidal, the leaf plate is cut secondary, the leaf pieces are lanceolate, the edges are flat, the length is 14.0-18.0 cm, the width is 5-7 cm.

Vegetation begins at the end of February. It blooms in April and seeds at the end of May. The fruit ripens at the end of May and the first half of June. From the middle of March, the generative stem grows intensively up to 12.0-15.0 cm per day. At the end of March, the height of the generative stem reaches 45.0-50.0 cm, the paracladia and their umbels are clearly visible, and the central and side umbels are fully formed. The flowers of the paracladia located at the bottom of the stem in the central umbrella begin to bud. During this period, the leaves of the plant reach their maximum size, reaching 18.0-25.0 cm in height and 15.0-20.0 cm in width. Their number is 3, sometimes 4. At the beginning of the growing season of the plant on the stem, the leaves grow up to 3.0-5.0 cm per day. The growth of leaves continues until the flowering phase of the plant. The growth of the generative branch slows down during its flowering period and stops altogether at the end of the flowering period. At the beginning of May, the leaves of the plant begin to dry during fruiting. As with all monocarp species, in 35-40 days, first the tubers, and then the leaves on the stem, dry out. On 40-45 days of the vegetation period, the plant enters mass flowering period. Once the seeds are mature they are spread by insects, birds and wind.

In the 5-6th year of the vegetation of the planted peas, from the beginning of June, from the beginning of the cancer, around the root neck, 10-20 cm wide and 10-15 cm deep, the last year's and new leaf residues in the root neck are cleaned, cardboard and other covered with materials. Then, when the cancer starts, it is cut with a special afghan knife. It is thinly sliced in a spiral shape. The resin from the cut is scraped once every 2-3 days. This process is repeated 25-30 times during the season. It is repeated 25-30 times from one plant during the season (until the end of October). On average, 35-40 grams of tar can be obtained from one plant root. The initial solid

portion of the resin is highly valued in the market. On hot days of Cancer, the solid part is valued higher than the liquid part obtained later. On average, tar collectors can get 500-600 grams of tar per day. The Ferula foetida plant contains tar (glue) and essential oils, which are used in medicine, as a varnish and spice. The gum extracted from its root is used as a nastoyka, emulsion, to prevent extreme fatigue, hysteria, as an expectorant, expectorant. In Iran and India, in Central Asia, preparations have been made from the F. foetida plant, and aromatic substances are also obtained for food products. In India, the resin of this plant is used to add flavor to food products. In their daily life, the people of Nepal take the plant as a diet and use it to expel urine (Eigner, Schol, 1990; Bandyopadhay et al., 2006). used to treat influenza and eliminate intestinal parasites (Zargari, 1996; Takeota, 2001; Evans 2002; Lee et al., 2009).

All compounds isolated from the plant are divided into 3 groups; coumarins, terpenoid and sesquiterpene alcohols of complex esters, sesquiterpene lactones. As a result of studying its chemical composition, more than 70 biologically active substances were isolated from it. In Uzbekistan, the resin obtained from this plant is used in the form of nastoyka, emulsion, and plaster for the treatment of asthma, nervous diseases, various wounds, gastrointestinal diseases, and tumor diseases (Kholmatov, 1976; Cherepanov, 1981).

The latest pharmacological and biological tests of scientists have published materials about the fact that these plant substances have antioxidant, antiviral, antidiabetic and anti-influenza properties, they can be used as anti-cancer and hypotensive agents [Salim et al., 2001; Fatehi, 2004; Singh, 2007; Sitara et al., 2008; Dehpour et al. 2009).

Pharmacological properties of representatives of the Ferula L. family. At the end of the 19th century, substances extracted from plants in India, Central Asia, Pakistan, Iran, as well as the USA, European countries, Sweden, Germany, and Portugal were included in the official pharmacopoeia of these countries.

In many countries of the world, including our Republic, special attention is paid to the production of healthy and medicinal foods, especially those rich in vitamins and minerals, as well as obtaining medicines. Therefore, on the basis of our research, it is necessary to process, dry, and use the various botanical organs of the cruciferous plant, i.e., the leaves and stems, and use the resin (glue) obtained from the root of

the plant as a spice in food. . Therefore, at the next stage of our research, we found it necessary to preserve the stems and leaves of the carpet plant, dry the same parts of the plant and use them as a spice. Therefore, in the regions of our country, where the carpet plant grows, marinated canned food is consumed as food and snacks. Based on the analysis of its chemical composition, canned food is prepared from the leaves and stems of the carpet plant in order to obtain new dietary food products, medicinal substances, especially biologically active compounds for pregnant women and children. Abu Ali ibn Sina's book "The Laws of Medicine" mentions the use of tars in joint pain, strengthening the digestive process, expelling worms and abortion. In foreign countries, the demand for resin of the Ferula foetida plant is increasing. Currently, resin is extracted from the roots of F. foetida and F. kuhistanica plants, and hundreds of tons of raw materials are prepared and exported abroad every year. This situation leads to a decrease in plant resources.

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