

CULTIVATION AND HUMAN HEALTH EFFECTS OF THE MEDICINAL PLANT ABSINTHIUM (ARTEMISIAE ABSINTHII L.)

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Abstract. *The adoption of the decree of the President of the Republic of Uzbekistan dated April 10, 2020 PD-4670 "On measures for the protection, cultivation, processing and rational use of available resources of medicinal plants growing in the wild". Now how to implement systematic work on medicinal plants fully demonstrated that it is necessary. That is, to create a favorable environment for the further development of the cultivation and processing of medicinal plants, to unite many areas towards a single goal with the continued rational use of the gifts of our mother nature.*

Keywords: *absinthol, absinthin, anabsinthin, hamazulen, prokhamazulenogen, artabsin, amber, malic and ascorbic acids, carotene, arabsin, lactones, artemyzetin, pinene, cadinene, phellandrene, caryophyllene, bizabolene.*

Introduction: Absinthium -Artemisiae absinthii L., a medicinal plant belonging to the Asteraceae (Compositae) family, was studied in the study of its effects on cultivation and human health. Absinthium is a perennial herb growing 50-100 cm tall. The rhizome is short and branched, giving rise to rhizome leaves, several long flower-producing stems, and short leafy stems. The stem is erect, slightly pointed, and the upper part is branched. Root leaves are long-banded, triangular-round, two-three times feathery. The short banded leaves on the stem are of different shapes: those on the lower part of the stem are twice lobed, the ones in the middle are lobed, and the upper ones are three lobed. Some parts of the leaf are lanceolate or linear, with a blunt tip, flat, some parts sometimes have tooth-like edges.

The stems and leaves of the Absinthium appear silver in color due to the abundance of hairs. The flowers are small, located on the peduncle, globose, facing down, collected in a basket with a diameter of 3 mm. The shingles, which are made up of baskets, form a bunch of flowers.

All the flowers in the basket are yellow, tube-shaped, with 5 male nodes, and one female node, located at the top. The fruit is a pointed, oblong, brown pistachio. It blooms in July-August.

Geographic distribution. It grows as a weed in residential areas, roadsides, meadows, forest edges, water banks, and cultivated fields. It is abundant in the European part of Russia (except the northern regions), Moldova, Ukraine, Belarus, the Caucasus, Western Siberia, Kazakhstan and Central Asia. The product is mainly produced in Ukraine, Moldova, Krasnodar region, European part of Russia.

Appearance of the product. The product consists of some aerial parts of bitter wormwood and some root leaves. The above-ground part consists of whole or partially crushed, 25 cm long and without thick stems, leafy and flowering stem tips. The stems are slightly pointed, the upper

side is small, the diameter is 2.5-4 mm, and it is finished with a complex and curved furrow. Baskets are drooping, with one or two lanceolate bracts growing from the axils, and covered with striated, serrate-stripped leaves. The flowers are small, the ones at the edge of the basket are tube-like, one-sex (mother flowers), the ones in the middle are funnel-shaped, two-sex. The upper flower leaves are unbanded, oblong, flat-edged, the lower ones are three-lobed, sometimes two or three times feathery. The product may contain stems with petals that do not produce flowers. The stems are green-gray, the leaves are gray-green on top, silver-gray on the bottom, the flowers are yellow, and have a strong, unique pungent smell and aromatic bitter taste. The leaves are long-banded, triangular-rounded, two-three times pinnately divided, or three-lobed without banded and pinnately divided. Leaf blades are filiform-oblong, blunt-pointed, flat-edged, up to 10 cm long, covered with hairs on both sides. The upper side of the leaves is gray-green, the lower side is silvery-gray, and it has a strong unique aroma and bitter taste.

Chemical composition. The surface part of bitter gorse contains 0.5-2% essential oil (absinthol), bitter glycosides (0.09-0.525% absinthin, 0.03% anabsinthin), hamazulen, artabsin, amber, malic and ascorbic acids, carotene, arabsin and other lactones, artemisinin flavonoid and additives. Chamazulene accumulates in large quantities (151.0-292.0 mg %), especially before flowering (292.0 mg %), and in the stem (1-3 mg %) in the flower cluster (baskets) of bitter gorse.

Eight leaves from the upper part of the stem (175.0 mg %) contained 2 times more hamazulene than leaves from the lower part of the stem (90.0 mg %). The essential oil is a dark green poisonous liquid containing 24.1-35.2% tuyl alcohol, ketone-thionine, pinene, cadinene, phellandrene, caryophyllene, bizabolene, chamazulenogen and esters of tuyl alcohol with acetic, isovaleric and palmitic acids.

Usage. Preparations of the bitter wormwood plant are used as an appetite suppressant and digestive aid, as well as in liver, gall bladder and gastritis diseases. Chamazulene obtained from the plant is used in the treatment of bronchial asthma, rheumatism, eczema and X-ray burns.

Medicinal preparations. Tincture, nastoyka and dark extract are prepared from the plant. The plant is part of appetizer and laxative preparations - teas, tablets used for stomach ailments, and bitter nastoika.

Cultivation of bitter Absinthium. The bitter Absinthium plant can be found naturally in all regions of our republic. It is almost never planted on irrigated land. The plant is heat-loving, drought-tolerant and moderately saline. It is advisable to plant it in irrigated light-colored and typical gray soils that are common in our country. In the fall, the fields where bitter Absinthium is planted are plowed to a depth of 22-25 cm, fed with rotted manure and phosphorus fertilizer.

Absinthium can be propagated from seeds and roots. Since the plant is perennial, it is planted in autumn and spring. Before planting, plowed fields are plowed in the fall to soften the soil and improve the air exchange of the plowed layer. In order to prepare bitter wormwood seeds for planting and complete germination, and in order to create a surface layer with soft soil during its maintenance, the trowel is pressed again. In early spring, the land where the plant will be planted is leveled and cleared of weeds.

Absinthium (wormwood) seeds are sown on the surface of the soil in March and early April, when the soil temperature is 12-15°C, with a distance of 60 cm between the rows. Since the seeds are very small, it is advisable to mix it with dried manure and sand. On average, 1.5-2 kg of seeds are used per hectare. Wormwood can also be planted in the fall.

After the seeds are sown, before the grasses emerge, the field is bouquetized by cross-cultivation. In order for the seeds to germinate evenly, the fields should be cleared of weeds and the soil moisture should be sufficient. Wormwood seeds germinate in 20-22 days after sowing. Since the grass that sprouts from the ground is very small, it is softened between the rows to a depth of 8-12 cm, taking into account that it does not get stuck among the weeds.

In order to grow high-quality and more raw materials from the bitter wormwood plant, it is required to take care at a high level in the first year. During the growing season, the land planted with plants should be cleared of weeds and the density of the soil layer should be maintained up to 1.30-1.35 g/cm, allowing for moderate root development. Since the grass of the plant is very delicate, it is necessary to soften the knots formed as a result of the shoots that fell in the spring. In the first year, the leaves and 1-5 stems appear above the root of the plant, and in the following years up to 25-30 stems appear, and the plant blooms and yields. The flowering phase of the plant lasts 35-45 days. Absinthium is treated 5-6 times during the growing season.

It is necessary to start the first feeding with 25 kg of nitrogen and potassium fertilizers per hectare after the grass has sprouted.

The second feeding is carried out by giving 30 kg of nitrogen and 20 kg of phosphorus fertilizer per hectare during the period of pruning. This accelerates the growth and development of the plant.

The last feeding is completed by giving 30 kg of nitrogen and 25 kg of potash fertilizer to the plant during flowering. When feeding the plant, it is recommended to add fertilizers to the soil at a depth of 10-12 cm. Wormwood feeding should be done before watering. During the season, it is recommended to water the plant 5-6 times in the first year. If agrotechnical activities are carried out at a high level, it will be possible to get 8-10 centners of quality raw material and up to 2 centners of seeds per hectare.

Product preparation. Before the plant blooms, and during the flowering period, only the root leaves are prepared. When it blooms, it is cut 25-30 cm long from the end of the stem. The collected products are dried in the shade and in attics where the air enters

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