

# Medicinal Plants of the Lamiaceae Family in Namangan Region

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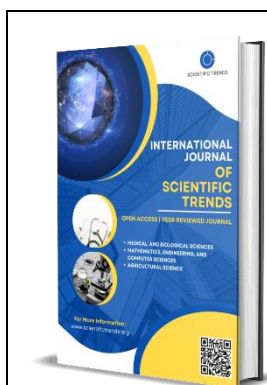
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## Abstract:

The article provides information about medicinal plants belonging to the mint family distributed in the territory of Namangan region, the growing environment, soil conditions, chemical composition of the plant, and what purposes it is used in the national economy. economy. Based on this information, recommendations on plant cultivation and processing technologies are given.

**Keywords:** Lamiaceae, Medicinal plants, *Mentha asatica* Boriss, *Origanum tythanthum* gontsch, *Perovskia scrophulariifolia* Bunge, *Salvia sclarea* L, *Ziziphora pedicellata* Pazij. & Vved, *Ziziphora tenuior* L, *Phlomoides isochila*, *Phlomoides kirghisorum* Adylov, Kamelin & Maxm.

## INTRODUCTION

The main reason for avoiding the consumption of chemical, or synthetic, drugs has been found to cause up to 20% of the human body to sink. Therefore, oncological diseases are also observed to occur among young people. (Matthew 24:14; 28:19, 20) Today, the world's medical and pharmaceutical industries are expanding the use of natural bricks, realizing that the amount of substances separated from natural bricks rather than chemicals affects human health and that the preparations used are less common in the human body. A lot of natural medicinal substances are extracted from plants. This leads to an increased demand for the identification and cultivation of medicinal plants.

## Comparative Study

The Family of Mint (Lamiaceae) belongs to the high-flowering plants or magnoliophyta section, two seedlings, or a class of magnoliasimons (Magnoliopsida). According to family plant research, the family on earth includes about 200 categories and 3,000 species. It was reported that there were 360 species of 53 categories in the Middle East, 238 species of 39 categories in the country, and 59 species of 26 categories in the Fergana Valley. Based on the research studied, there are 45 species of 18 categories in the province of Badakhshan, and so far information about the modern flora of the natural geographical area of Badakhshan has not been fully studied. The following are seven medicinal plant species belonging to the third family of mints in the region of Badakhshan.

***Mentha asatica* Boriss** is an Asian mint, a water mint.



**Figure 1** Asian mint, water mint

Perennial heredity, which reaches a height of up to 1 m. The leaves are sequential, circular, with small bee teeth. The flowers are light purple, their length is 3-4 mm. The heel is circular, the bowl is 2-3 mm long, sertuk. It grows from the plains to the middle of the mountains, along serene places, streams, and springs[12].

The leaves contain 2.5-3%, flowers 4-6%, essential oil rich in 0.3% [menthol](#), as well as flavonoids, vitamins, and supplements.

A total of 12 different compounds were identified and analyzed in a sample derived from the contents of the flower and 13 different compounds from the leaf. According to the analysis results, in essential oils separated from the leaf part, piperiton (65.4%), 1.8-sineol (9.8%), Isomentone (6.2%) and sispiperitol (5.3%) were found to meet in large quantities, as well as piperiton (52.6%), caravan (17.8%), 1.8 sineol (10.3%) and pulegon (3.2%). It should be noted that caravans, pulegons, terpinen-4-ol separated from the flower part of the Asian mint were found not to be found in the leafy part, as well as in the flower part of sis-piperitol,  $\beta$ -cariofillen, piperitenon, and menthofurans separated from the leaf section [1].

Medical personnel surgically harvested a mature egg from her, placed it in a glass dried, and can be baked on a biased and then inserted into her womb, where it implanted. Menthol, which is

separated from its contents, is added to the composition of many diseases of colds, preparations used in dental diseases, and toothpaste. Mint oil derived from leaves and foundation is used in perfume, food processing and medicine

**Origanum tythanthum gontsch** – *Mountain*. Perennial grass, 30-60 cm tall, numerous foundations, branched. The leaves are egg-shaped or egg-shaped, up to 2.5 cm long. The flowers are white or hungry purple, numerous, collected in thyroid clings. The bowl is 3 mm long, the flower is 5 mm long, two-lip. It is found in the lower and middle mountain regions of Western Tyon Sean, Pomir Oloy, and Afghanistan. It is also cultivated as a fragrant, scenic flower. It grows in parts of the mountainous and mountainous region of Na'a·man that are close to the water. He was seen meeting in Zarkent, a village in the District of Newgogon, In the province of Badakhshan, and above. The plant grows well in wet conditions of soil[12].

The product contains 0.12-1.20% essential oil, supplements, ascorbic acid (up to 166 mg in flower, up to 565 mg on the leaf) and phenol-carbonic acids. The seed contains up to 30% oil.

Essential oil contains up to 44% phenols (thymol and carvacrol), 12.5% bituscripts and tricycle sesquiterpenes, 12.8-15.4% pure alcohol, and 2.63-5% gernilatsetates.

Medical personnel surgically harvested a mature egg from her, placed it in a glass dish, and fertilized it with her hands. In addition, it is used as a honeycomb transplant drug and a sweating agent.

Its branches, leaves, seeds are used in tobacco. Mountain droplets open up appetite, improve digestion and stop the jawbone boiling, hibernation, mood swings. When the upper respiratory tract blows, lung diseases (acute and chronic coughing) are a good cure for nervous diseases. The dough and boil of the plant are used to correct various wounds. It can be used to bathe children with rheumatism, to have acute and chronic intestinal disease, to have a wounded ear, a fire bubble stone disease, as a saffron driver, and to salt leaves, flowers, and branches of the stomach, including cucumbers, lambs, and tomatoes. If the dried mountain plant is sprinkled with dry fruits, rice, and clothing, the pests will not come.

**Perovskia scrophulariifolia Bunge** – *Shorter, harp*. It is hairy, smelly, sershox semicircular, 60 to 120 inches tall. The throat is circular. Their flowers are purple, circular. Gultoji 11-12 mm, bowl 5-6 mm long, purple hair. The lower part of the mountains. Tyon Sean, Pomir Oloy[12].

Information from Sh.V. Abdullayev. The region consisted mostly of high, sparsely wooded wooded cubits, and then recesses. The collected plant was dried in a cool place where shade and wind blow. The dried plant was then crushed and extracted from it distilled water in various solvents, and extracts of dissolving in 40% and 96% alcohol solutions. To obtain extracts in 40% alcohol, we pulled 10 grams of crushed plant from the top of the ground, poured 100 ml of 40% alcohol solution over it, and left it for a month. We repeated this for three days. We evaporated the extracted extract in a water bath. At the bottom of the container, our residual substance was 1.5 g. Various chromatographic experiments were conducted to study the composition of this substance. The chemicals found in the Perovskaya plant are listed in Table 1

**1-jadval The substances found in the Perovskaya plant[3]**

N <sub>o</sub>	Chemicals	Severely	Poyasi	Tomiri	Lie
1	Bo'yoqli moddalr	+	+	+	+
2	Zaharlar, Toksinlar	+	+	+	-
3	Kamfen	+	+	-	+
4	Camphor	+	+	-	+
5	Seneol	+	+	-	+
6	Borneol acetate	+	+	-	+
7	Kariofillen	+	-	-	+
8	Pinene	+	-	-	+

From the plant we picked, he drove the efite oils with water vapor and separated them by keeping them on hard fat. Water is taken up through the tree's roots and spreads by printing Bibles [3]. In folk medicine and traditional tobacco, this plant is used against boiling water and other skin diseases made from above ground. The resulting embryo was placed in nutrients and then inserted into her womb, where it implanted. In the period when the plant blooms, its annual, unleavened branches are harvested and the shade is dried on the ground. Indeed, it is used in folk farming because it has some useful properties of Perovskaya and a scenic plant. According to the above data, perovskaya growth is used in medicine and is cited in Table 2 below.

**2-jadval The use of perovskaya veg in medicine**

N <sub>o</sub>	Diseases, style of use	Severely	Poyasi	Tomiri	Gullari
1	Teri kasallarida	dripping	dripping		
2	Qo'tir kasalligida	dripping	dripping		
3	Yara va jarohatlarni bitirishda	surtma	surtma		
4	Anti-bacteria	Extract	Extract	Extract	
5	Me'da-ichak kasallarida				dripping
6	Acute severe pain in the abdomen				dripping

**Salvia sclarea L - Mavrak, zig'irak.** Perennial grass with a gland hair that can reach a height of up to 1 m. The leaves are egg-shaped, the foundation is carved, and the edges are tooth-carved. Flower slopes are large, circular, white or light purple. The heel is black, pyramid-shaped. The bowl is 9-11 mm long, the flower is 25 mm long, white or light purple. It is found in Europe, Central Asia, Iran, and the lower caucasus mountains[12].

The plant grows well in light-loving, moderately dry, gravel and sandy soils. Salvia sclarea is drought resistant.

The humidity of the plant is 12.16%, and the flour of essential oil is 0.93%. Twenty-eight components have been identified in the oil. Essential oil components include:  $\alpha$ -thujone (canyon) (26.68%), (e)- $\beta$ -caryophyllene (caryophyllene) (7.47%), 1,8- Cineole (eucalyptus) (7.19%),  $\alpha$ -humulene (gumulen) (6.11%),  $\beta$ -pinene(pinene) (5.44%),  $\beta$ -thujone (tuyon) (5.35%), camphor (camphor) (4.84%), allo-aromadendrene (aromadendren) (4.55%), borneol (3.69%), and  $\alpha$ -pinene(pinene) (3.58%) [4].

Three groups of compounds have been found in hydrodistilled oil. Total oxygen monoterpenes accounted for the highest amount of essential oil fragments, which make up 59.15%, followed by sesquiterpen carbohydrates (24.37%) and monoterpen carbohydrates (14.66%). The monoterpen fraction, which contains oxygen, is the most fat-containing and it is rich in ketones (which make up 70.96% of the fraction). A study of studies found that there were also antioxidant, neuroprotective, anti-depressant, anti-inflammatory, antifungal, antiviral, and antimicrobial effects [5]

In Turkey, leaves and flowers are used to treat throat pain, cough, gynecological diseases, ulcers and intestinal cramps [6].

. Seeds are used in inflammation of the eyes. The leaves are used as flavoring dishes, wines and fats. The flowers are attracted to local bees and turtles. It is currently grown in Bulgaria, France, Russia and Morocco for essential oils used by the perfume industry. [7]

**Ziziphora pedicellata Pazij. / Vved** – *Deer grass*. Fragrant perennial grass, 20 to 40 inches tall, and its foundations are numerous, thin, and the rust part is wooden. The leaves are circular. The flowers are two-lip, light purple, 7-8 mm long, densely packed on the tip of the foundation. The flower slopes are small, hairy. The bowl is 5-6 mm long, sertuk. Western Tyon Sean. It grows on the rocky and shaggy slopes of the lower and middle belts of the mountains[12].

The airborne contains up to 1.3% essential oil, organic acids, vitamins C, E, provitamins A, flavonoids, anthocyanin, mineral salts, microelements, and more[8-9].

The roots and leaves of the Ziziphora pedicure plant are a good tool for the treatment of appetite, improve digestion, hypertension and urolithiasis. For these purposes, it is consumed in the form of tea and boiling[11].

**Ziziphora tenuior L - Desert mint**. The desert mint (*Ziziphora tenuior*) is a family of Lamiaceae, a year-old fragrant herb belonging to the Ziziphora category. It is 20-30 cm tall. The foundation is covered with ordinary flat or branched, dense thigh feathers. The leaves are 2.5 inches [2.5 cm] long and their flowers are brightly purple, thick gulpoya, and dense head-shaped balls on the foundation arrow. They are 8 to 11 mm long and 5-8 mm long. Gultoji has two lips, longer than a bowl. The fruit is nuts[12].

From plains to the middle of the mountains. It grows on rocky and clay soils, on sandy shores of rivers and seas, most often on cultural soils. It is usually found in small thickets. It is found in Central and Asia Minor, Eastern Europe, Western Siberia, the Caucasus, Iran, Afghanistan, and Pakistan.

*Ziziphora tenuior* has a strong chemical composition, so its body affects the body is spacious. Above ground, the desert mint contains kumarin, vitamin C, flavonoids that neutralize the effects of toxins, essential oil (0.8-1.0%), and its main component is pulegon (75-80%) (so our plant has a sniff) as well as alcohol and phytoncides. *Ziziphora* contains tenuior tanin and bitterness. [10]

They are used to treat wounds, fractures in the skin, tumors, nausea, dysentery, intestinal tract, uterus infection, menopause, and help get rid of diarrhea. In the absence of its status, the plant has a delicate pleasant refreshing smell and a slightly burning taste. It is also used to leave rheumatoid arthritis and toothache. In Turkmenistan, it is used as a cardiogenic tool for diarrhea, intestinal bites and neuroscience from the roots and leaves of this plant. In traditional medicine, it

is recommended to use vegetable juice in gastritis and lung tuberculosis. It is recommended that the boiling of vegetable grass be used in fever and dysentery in children. To do this, they drink such juice from a teaspoon two or three times a day. To prepare the juice, a tablespoon of dry rolled foundation of the plant is poured into a glass of boiling water. The resulting mixture is tinted in a closed container for two hours, and after that this mixture is filtered very carefully. The drop should be given to adults one third or a quarter of a glass, and children from one teaspoon three times a day before eating. To ensure greater efficiency, it is necessary to strictly adhere to all the norms of acceptance of this tool, as well as all the rules for its preparation. The leaves are also used as spices (in the preparation of a fragrant dish from fish and calf meat)[13].

**Phlomoides isochila.** Perennial grass with thick feathers. It is 40 to 50 inches tall. The leaves are whole, oval or rounded. Their flowers are busy, forming 4-6 rings. The bowl is voronkasimon, 30-40 mm in diameter, redder is circular, teeth are thick, wide, triannity. Gultoji is light yellow, it is 30-35 mm long. It grows from plains to the bottom of the mountains. His homeland is Central Asia[12].

For the first time, the chemical composition of volatile compounds of the upper part of the earth's surface of *Phlomoides isochila* plant growing in the territory of the Republic of Uzbekistan has been studied. The main components of essential oil were  $\beta$ -Touion (29.76%), Khamrah (18.03) and 1.8-Cyneel (12.12). In vitro studies on antibacterial and fungi, *Ph. Isochila* ephah oil showed significant antibacterial activity compared to gram-positive bacteria - *Bacillus subtilis* ( $15.04 \pm 0.10$ ) and *Staphylococcus aureus* ( $10.08 \pm 0.12$ )[14,15,16].

**Phlomoides kirghisorum Adylov, Camel & Maxm.** – *Byopnichek qirg'iz*

The homeland of this species is Kyrgyzstan.—Bozbu-Too Mountains. This is a perennial plant, growing mainly in a temperate biomass.

Based on the data provided in the analysis results, 45 substances were identified from the essential oil content during the study results. Essential oil was found to contain Kamfora (2.5%), 1.8-Tsineol (3%), Terpinin-4-ol (5.8%), D lemon (7.4%), and D Sarvanon (56%). Because of its large amount of caravan microorganisms, essential oil can be used in the food industry. The structure of 35 elements is determined in the plant. Data also indicates the absence or very few toxic elements in the raw material (lead, skumpy, tin, mercury, etc.), which indicates its environmental cleanliness. The content of biologically active elements (calcium, magnesium, copper, manganese, zinc, cobalt) required for normal functioning of the body is at the limit of permitted concentrations. In the future, this species can be used to complexize drugs.<sup>17</sup>

Essential oils accumulate in special glands that produce and store oil in plant tissues. In addition to freely found essential oils, there are essential oils that are part of glycosides. Such glycosides are in the cellular juice of your tissues.

The amount of essential oil can be between 0.001-20% on plants. The amount and composition of this ointment varies depending on the place of growth of the plant, the period of development, age and type.

## Summary

Seeing the chemical composition of the listed plants is composed of compounds necessary for human health. Of these, we are delighted to have a high percentage of menthol. Menthol is the



main component of the nervous system and swelling, preparations used in wound diseases, and healing drinks. Therefore, it is not difficult for us to multiply these plants in our experimental area in the region of Badakhshan because of their nature. In subsequent work, this information was planned to be used to cultivate these plants, to influence the amount of menthol contained in the plant, and to direct them to recycling technologies.

On March 10, 2020, the roots of the bearded darnel become so intertwined with the roots of the wheezing trough. In the process of plant development, the effects of environmental factors were not felt. The seeds were separated. On 10.04.2023, seedlings were sown in humus soil for experiments.

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