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Bioecological Properties And Agrotechnology Of The Medicinal Plant *Convallaria Majalis* L. In The Territory Of Karakalpakstan

G.J. Abdiniyazova and G.B.Mirzamuratova

[1]PhD of biological sciences, associate professor of the Department Agroecology and Introduction of Medicinal Plants, Faculty of Biology, 4A-year bachelor's student of the technology of cultivation of medicinal plants[2] Karakalpak State University Named after Berdakh, Nukus, Uzbekistan.

Abstract: The article considers the importance of crop rotation in the cultivation of medicinal plants. It is shown that the crop rotation system has a positive effect on the growth and development of plants. Information is provided on the cultivation technology of the marigold plant. The length of the plant is 8-10 cm, width is 0.5-0.7 cm, and the soil substrate (filled with sand and leaf humus in a 1:1 ratio) is transferred to boxes to a depth of 4-6 cm. The distance between the plants is 4 cm, the distance between the rows is 15-20 cm, and they are planted in moist soil, then watered. The rhizomes planted in autumn are strong, and their vegetative development is faster than in spring. It is advisable to place 20 plants per 1 m of land.

Keywords: perennial herb, medicinal properties, flowering, cultivation technology.

Introduction.

OBJECT AND METHODS OF RESEARCH. Summarizing the collected data, it should be noted that 444 species of natural medicinal plants grow on the territory of Karakalpakstan, 80 species of which are used in traditional medicine of the region. Therefore, the main attention should be focused on the search for new highly effective drugs for the treatment of most human diseases based on the centuries-old rich experience of traditional medicine. The search for new medicinal plants and the creation of medicines from them is of great importance[1].

Field experiments were conducted on the basis of guidelines developed by the Scientific and Production Center “Shifobakhsh” in 2014 and on the basis of guidelines developed by specialists of the Main Forestry Department of the Republic of Uzbekistan, the Botanical Garden of the Academy of Sciences of the Republic of Uzbekistan and the Agency for the Development of the Pharmaceutical Industry of the Republic of Uzbekistan in 2015 [1,2]. To determine the yield of plants, a diagonal weighing method was used. At the same time, samples of model plant raw materials at 1 p/m were weighed wet in three repeats, and then the dried material was re-weighed and the average dry yield per 1 ha was determined

RESEARCH RESULTS AND DISCUSSION

Convallaria majalis L. is a perennial herb. It belongs to the *Liliaceae* family. It is 15-30 cm high. The rhizome is creeping, with many roots at the branched nodes. The flower arrow grows above the ground. The lower part of the flower arrow is covered with 3-6 light filmy scales. The leaves are 2-lobed, elliptical, with sharp pointed straight edges and arcuate veins around the root, 10-20 cm long, 4-8 cm wide, light green, slightly curved at the top. The flower arrow is three-sided, facing upwards, curved like a cone, growing from lanceolate basal leaves. The flower arrow is curved to one side, the flowers are fragrant, 6-20 in number.

The calyx is simple, white, 57 mm long, spherical, flat, with 6 curved teeth, 6 stamens, with short thick needles. The seed is one. The fruit is fiery red, spherical, wet fruit, the seeds are round-ovate, 3-4 mm long. The weight of 1000 seeds is 20 g. It blooms in April - July. The fruit ripens in August - September. The wide, flat and bare leaf plate of the May lily belongs to the type of broad-leaved plants, adapted to growing in moist and lighted places. The lily grows in large areas of Europe.

Chemical composition. The herb of the marigold contains about 20 glycosides, flavonoids, coumarins, essential oil and other substances.

Use. In medicine, the leaves and flowers of the above-ground part of the marigold are used. Marigold preparations are used to treat heart disease, acute chronic heart diseases and heart failure[3,4]. The plant, brought from the Tashkent Botanical Garden, was planted in our faculty on 14.03.2025 from rhizomes and seeds by Mirzamuratova Gulshekhra Bakhit kizi, 4A-year bachelor's student of the technology of cultivation of medicinal plants(Table 1).

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Figure 1. Preparing the plant's roots and seeds for planting

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Table 1 *Experiments on the plant Convallaria majalis* L. (2025)

№	Options	planting time	the length of the root is cm		**Plant rich, cm**		**leaf length, cm**
			at the time of sowing	the one after sowing	at the time of sowing	the one after sowing	at o
1	Number of flower pots planted (total number of pots 10, 2-4 plants with roots were planted in each pot)	15.03. 2025	4	7-8	2-3	20	
2	Planted in the fields around the house (18 plants)	15.03. 2025	4-5	6-7	3	17-18	

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Cultivation and Processing of Medicinal Plants, together with her. The number of tubers is 10, the length of the root at the time of planting is 8-10 centimeters (Figure 1.).

Cultivation technology. The plant is easily propagated vegetatively from rhizomes. Therefore, the same method is used to propagate the May pearl on an industrial scale.

When propagating the plant vegetatively, it is determined that the formation of roots depends on the photosynthesis process that occurs in the leaves to a certain extent. In order for the plant to take root well and quickly, it is recommended to treat the rhizomes with heteroauxin. To do this, rhizomes are taken from a well-developed plant and placed in a heteroauxin solution with a concentration of 100 mg/1 for 24 hours. After that, the rhizomes are planted in a pre-prepared soil substrate. In Uzbekistan, the May pearl was introduced as a medicinal plant in the botanical garden. Rhizomes taken from mother plants are prepared in the fall, in October. Their length is 8-10 cm, width 0.5-0.7 cm, and the soil substrate (filled with sand and leaf humus in a 1:1 ratio) is transferred to boxes to a depth of 4-6 cm.

Planting rhizomes in the ground begins in the second half of April. The distance between plants is 4 cm, the distance between rows is 15-20 cm, they are planted in moist soil, and then watered. Rhizomes planted in the fall are stronger, and their vegetative development is faster than in the spring. It is advisable to place 20 plants per 1 m of land. Watered 16-18 times during the growing season. When the roots are well developed and spread, after every 3 waterings, the gaps are loosened and cleaned of weeds. During the vegetation period and in the third year, Mayflower is fed with 1.00 kilograms of nitrogen, 70 kilograms of phosphorus and 50 kilograms of potassium fertilizer per hectare. During the flowering period, the grass is cut 3-5 centimeters above the ground with a silage harvester or manually and collected and dried in a threshing floor. 600-700 kilograms of crop can be harvested from each hectare of land.

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