EFFECT OF AGROTECHNICAL MEASURES ON IMPROVING THE QUALITY OF RAW MATERIALS OF MEDICINAL CALENDULA OFFICINALIS L

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Abstract. It is known to everyone that in today's era of globalization, industry, technology, urban planning, and environmental protection are in a very difficult situation in all regions. Drought, that is, drinking and irrigation water, groundwater is sharply decreasing. At the time of such environmental problems, methods of proper control of agrotechnical activities of the Calendula Officinalis L. plant, which germinates and does not lose its medicinal properties even under unique conditions, are presented.

Key words: Phytopreparation, stomatitis, skin ulcer, caleflon preparation, gastritis, technique, fertilization, agrotechnics.

INTRODUCTION.

Plants are living natural chemical laboratories with complex structures and the ability to create complex organic substances or compounds from simple inorganic substances. Dried herb, shoot, root, rhizome, tuber, bulb, bark, leaf, flower, bud, fruit (seed), stem, juice, pulp, stone, essential oil, etc. of medicinal plants are used as medicine. The effect of medicinal plants on the body depends on the amount of chemical compounds in its composition. Because various diseases occur due to the damage of cells in the human body. In such cases, there is a need for useful compounds contained in medicinal plants. These compounds accumulate in different amounts in different parts of the plant. The period of high effectiveness and quality of the drug corresponds to the time of the beginning of their flowering and seeding period.

That is why a program of developing a number of new laws on their correct use in the cultivation of medicinal plants was implemented. In particular: in accordance with the decision of the President of the Republic of Uzbekistan No. [121]PQ-4901 dated November 26, 2020, the chemical and pharmaceutical scientific research institute of Uzbekistan under the Ministry of Health conducted a separate analysis on the types of prepared medicinal plant raw materials, providing analytical passports and providing practical assistance.

Tashkent State Agrarian University plans to train bachelors, masters, scientific staff in the field of medicinal plants, and attach specialists for conducting scientific research to the Center.

MAIN PART

Medicinal calendula - Calendula Officinalis L. belongs to the Asteraceae (Compositae) family. It is an annual herb growing 30-50 (sometimes 60) cm tall. Calendula Officinalis L. medicinal phytopreparation of the plant product, ointment and capsule are used in the treatment of various wounds on the skin, complications of burns, gargling the mouth and throat in stomatitis, mouth ulcers, angina and other sore throat diseases, as well as , it is used in the treatment of gastritis, gastric and duodenal ulcers and liver diseases.

Caleflon drug is used as an anti-inflammatory and wound-healing agent in gastric and duodenal ulcers and in the treatment of gastritis. The product is also part of the drugs used in some cancers

In the different soil and climate conditions of our country, the most optimal options for the cultivation of medicinal calendula Calendula Officinalis L have certainly been selected. In order to improve the development of carnations, to produce high-quality and abundant flowers, it is necessary to fertilize them, determine the timing of watering precisely and correctly, and destroy harmful insects and weeds. it will be necessary to pay attention to the fight against it.

In the autumn, before plowing the land where cloves are planted, 20-30 tons of local fertilizer and phosphorus fertilizer, giving 70% of the annual norm, are plowed

[121] Decision No. N-PQ-3861 of the President of the Republic of Uzbekistan dated July 17, 2018 on measures to further improve the activities of the Institute of Botany of the Academy of Sciences of the Republic of Uzbekistan.

to a depth of 25-30 cm. Carnations are planted in late autumn or early spring. Before planting carnation seeds in early spring, the land is leveled, cleaned of weeds, and when the soil temperature is 20-22°C, the seeds are planted 2-3 cm deep, and 10-12 kg of seeds are used per hectare.

The seeds are sown at 60 cm spacing with the help of planting equipment and the seeds can germinate after 7-8 days. Carnation care begins with the formation of the first seedling. After the marigold sprouts, the beds are planted and planted, and 1-2 plants are left in each nest at a distance of 15-20 cm between the rows. It is cleaned of weeds in the row. Tractor cultivators can also be used between the rows. The first feeding of plants begins after the sprouting of grass, with 30 kg of nitrogen and phosphorus fertilizers per hectare. Since Calendula Officinalis L is very demanding on nutrients, the second feeding starts at the time of plant growth and giving 40 kg of nitrogen and 30 kg of potassium fertilizer per hectare gives good results.

Feeding is recommended before each watering. After watering, the inter-rows of the marigold are softened and weeded. If the carnation is well cared for during the growing season (fertilizing, watering, pest and disease control), the flowers will bloom from May until late fall (before the cold). Its flower during vegetation

It can be picked 15-20 times. The yield of harvested cauliflowers can be 10-18 centners per hectare and even more.

Harvesting of carnation starts from the beginning of flowering. First of all, the newly opened flowers are picked by hand. Due to the frequent opening of flower baskets, they are picked every 3 days, 4-5 days in the evening. In order not to overheat and spoil the quality of the flowers picked from the plant, they should not be stored in baskets and bundles for more than 3-4 hours. The period of storage of the product in dry warehouses should not exceed 24 months

CONCLUSION

In short, before planting the Calendula Officinalis L plant, it is advisable to plow it to a depth of 25-30 cm, giving 70% of the annual rate of local fertilizer and phosphorus fertilizer in autumn. It is effective to give 30 kg of nitrogenous and

phosphoric fertilizers per hectare after the first feeding of plants after the grass has sprouted.

If the above recommendations are implemented in time, it will be possible to pick its flower 15-20 times during the growing season. The harvested product is dried in special dryers (SPK), air dryers (VPT-400, 600) up to 40-45°C, the dried product is stored for 4-6 days in 20 kg bags made of special paper without pressing. If the product is stored in dry warehouses for no more than 24 months, it is ensured that its biologically active substances are fully preserved.

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