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AGROTECHNOLOGY OF GROWING MALVA (*MALVA L.*) IN THE FIELD

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АННОТАЦИЯ

The article is devoted to the agricultural technology of growing mallow (Malva l.) in the field. Growing mallow is a simple process. Regular moderate watering, loosening the soil and weeding, timely removal of wilted flowers are mandatory requirements in caring for mallow.

KEY WORDS: ***roots, buds, leaves, sprouts, seedlings, pests, fertilizers, leaves.***

INTRODUCTION

Medicinal plants are widely used in the treatment of various human diseases, both in scientific medicine and in folk medicine. Medicinal raw materials are various parts of the plant - buds, leaves, flowers and inflorescences, fruits and seeds, roots, rhizomes and bulbs, bark containing medicinal substances.

The therapeutic effect of many types of medicinal plants currently used in scientific and folk medicine is associated with the presence of various biologically active substances in them, which, when they enter the body of animals and humans, exhibit physiologically active properties and have a healing effect. They are called active substances, have a diverse composition and belong to different classes of chemical compounds. Despite the rapid development of synthetic chemistry and the fact that many drugs are obtained chemically, currently up to 40% of medicinal preparations are obtained from herbs.

The wealth of inexhaustible and diverse plants of the Republic of Uzbekistan is a great resource for obtaining medicines.

In this regard, in order to create a unified base for scientific research on the cultivation and processing of medicinal plants conducted in the regions of the republic, the Decree of the President of the Republic of Uzbekistan was adopted, dated November 26, 2020 No. PP-4901 "On measures to expand the headquarters of scientific research on the cultivation and processing of medicinal plants, the development of their seed production.

METHODS AND MATERIALS

Research on the development of agricultural technology of mallow (Malva l.) was carried out in the field on the territory of the experimental site of the Faculty of Biology of Karakalpak State University. General botanical methods are used. The purpose of the study was to develop an agrotechnology for growing mallow seeds in the field.

RESEARCH RESULTS

Research on the development of agricultural technology of mallow (Malva l.) was carried out in the field conditions of the experimental site of the Faculty of Biology, which is located on the territory of the Khojeli district of the Republic of Karakalpakstan. For the successful cultivation of medicinal plants, appropriate zoning was observed, areas with appropriate weather and soil conditions were selected, where there are optimal opportunities to meet the requirements of the respective plant species for climatic factors and soil.

Growing mallow (Malva l.) is a simple process, since mallow is a non-capricious plant. Regular moderate watering, especially in dry summers, loosening the soil

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and weeding, timely removal of wilted flowers are mandatory requirements for caring for mallow.

Mallow seeds (Malva l.) were planted without prior soil preparation in May. The mallow seeds were embedded in the treated softened soil to a depth of 2 cm. A distance of 5–10 cm was maintained between the bushes. Seeds were watered 2 times a week. A day later, young sprouts began to appear. Seedlings appeared 12-14 days after planting.

The optimum temperature for seeds was +8+10°C and for sprouts +18+20°C. Mallow is a short-day plant. The first 40-60 days after planting developed very slowly. Then growth accelerated. Mass flowering was observed after 65-70 days. The duration of the growing season was 110-140 days. (Fig. 1).

Fig. 1. Young sprout of mallow *(Malva l.)*

During the period of plant growth, the size of the button leaves was measured and its growth was observed up to 10 cm in width (Fig. 2).

Fig.2 Leaves of young mallow (*Malva l.*)

It was established that mallow flowers were located one flower at a time in leaf axils or in a panicle at the tips of branches and 20-25 flowers opened. Flowering lasts almost all summer. Pruning of withered flowers was carried out in a timely and regular manner (Fig. 3).

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Fig. 3. Blooming mallow *(Malva l.)*

Mallow does not require mandatory feeding, but responded well to all types of fertilizers. A little compost or a weak dosage of nitrogen fertilizers were applied to the beds at intervals of several weeks. Powdery mildew is the main pest.

CONCLUSION

The results thus obtained show that mallow seeds germinate well without prior preparation. Seedlings appear 12-14 days after planting. The optimum temperature is +8+10°C for seeds and +18+20°C for sprouts. Short day plant. The first 40-60 days after planting develops very slowly. Then growth picks up. Mass flowering is observed after 65-70 days. The duration of the growing season is 110-140 days. When planting in humus and sand in greenhouse conditions, a germination rate of 35% was determined.

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