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THE IMPORTANCE OF SOME SPECIES BELONGING TO THE MAGNOLIAIDAE FAMILY IN GREENHOUSE AND PROPAGATION METHODS

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Abstract: In this article, scientific and practical work was carried out on the bioecology and cultivation methods of some species of the magnolia (Magnoliaceae) family, and the results were analyzed.

Key words:M.grandiflora, M.cobus, M.sulanja, M.tripetala.

Magnolia (Magnolia L.) is a tree and shrub belonging to the Magnolia genus (Magnoliophyta), Magnoliopsida class, Magnoliaidae class, Magnolia family (Magnoliales) [Takhtadjyan, 1987].

There are evergreen and deciduous species of this plant, which are mainly distributed in tropical and subtropical regions of Southeast and North America. The leaves are simple, the bark of the stem is filled with essential oil, there are cells, the flowers are simple, solitary, pollinated by insects.

Some types of magnolia are grown in Uzbekistan as ornamental plants. The results of the acclimatization of magnolias in Uzbekistan depend on the choice of optimal methods of their cultivation, reproduction and cultivation. An important aspect of this plant's acclimatization process is growing magnolia from locally sourced seeds. Magnolia seeds of M. grandiflora, M. cobus and M. sulanja ripen in mid-October.

At this time, it is collected and placed in a harder container with sand, which is stored in this sand until March at a temperature of 5°C. The study of stratification conditions shows the need for low-temperature processing. For example, when placed in a thermostat with a temperature of +22°C

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to +24°C for cultivation, the seeds did not grow for 18 months, and only a short-term exposure to low (0-+4°C) temperature brought them out of dormancy.

If the seeds are in a humid chamber with a temperature of +22°C to +25°C for a month or more, catching them in a cold temperature of +4 - 6°C for 30-40 days will bring them out of dormancy.

Since magnolia seeds lose their ability to grow quickly when they dry out, it is optimal to store them during the winter season in warm soil with a temperature of 4-6°C, in a mixture of moss and sand, or in sand.

In March, the seeds are taken from the sand, soaked in water, thoroughly washed and prepared for planting. For planting, mix fresh black soil, humus rich in fertilizers and a little sand and put them in special pots, sow the seeds one by one and keep them at a room temperature of +25°C and water them for 15-20 days, depending on the conditions.

In 2012, we observed some species belonging to the magnolia family. The rate of seed germination in the experiment was 90% in M. grandiflora, 70% in M. cobus, 90% in M. sulanja, and 10% in M. tripetala.

Lawns or seedlings grown from magnolia seeds are kept in the nursery (nursery) for 3-4 years, after which they are transplanted to a permanent place. In the first year, seedlings grown from seeds and rooted cuttings require light shade, as they are very sensitive to direct sunlight. The most favorable period for transplanting to a permanent place is the first decade of April-May, the period of active spring development. It is necessary to choose a place that does not touch the wind for planting.

Since magnolias are demanding on fertile and moist soil, it is necessary to choose a suitable planting site for them. When planting a 3-4-year-old seedling, a place with a depth of 60x60 cm is optimal. Applying organic fertilizers during planting is important. The soil must be fresh, therefore, in the first year, it is necessary to ensure constant irrigation of crops. Areas with high humidity, carbonate and saline soil are not suitable for growing magnolias. Natively grown deciduous magnolia seedlings will overwinter satisfactorily in open soil uncovered. Damage to seedlings and even small seedlings will cause additional branching, so it is necessary to prune them until they are transplanted to a permanent place. For several years, at the end of March, magnolia bushes and trees are pruned. 3-5-year-old seedlings are pruned 2-3 times a year. Boiled tar is immediately applied to the cut. When pruning, dry, bent, withered branches are removed.

In recent years, introducing scientists have been creating stemless forms of magnolia M.stellata and M.sulanja. In this case, the removal of excess branches at the end of the plant ensures good growth and a beautiful appearance of the plant. The cut heals quickly and no plant diseases related to cutting are observed during the adaptation period. As a rule, it is considered sufficient that the branches of the tree-like magnolia are bushed 2-3 times in early spring, to bring the appearance of a tree [Murzova R.M. 1974].

Bushy magnolias require a long time to care. When replanting magnolia, it does not cause difficulties if the agrotechnical period is observed. Care must be taken with the root system and watering when replanting. In the Kiev Botanical Garden, magnolias of all ages, from cuttings, one-year-old seeds and 3-6-year-old seedlings, and large plants, which died when experimented with, were extremely rare. and a high result was achieved. Death is due to non-observance of planting agrotechnics, i.e. almost destruction of the root system, drying of planting material, violation of

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irrigation, etc. It was discovered in the experiment of transplanting two 20-year-old M.stellata plants from a place of flower cultivation to a permanent place, that is, to a magnolia garden, in the Central Republican Botanical Garden in Kyiv.

The plants were stunted because they were weakened and damaged by chlorosis. Shrubs with a height of 1.8 m and a crown diameter of up to 2 meters are dug up together with the earth's rhizosphere, and the root system is treated. (temporarily dry small roots and ends are cut off) very thickened crown (the crowning part of the tree trunk) is cut and cleaned.

When cuttings of stems and roots were treated with a mixture of activated carbon and gardenia, replanting in large plants was successful, as a result, they were not damaged by chlorosis. It has a lot of flowering, good flowering and seeding. Magnolia 6-8-year-old specimens of M. sulanja and M. cobus species were successfully replanted. The experience of cutting and replanting magnolia shows that it can easily form and become decorative under the conditions of adaptation.

Breeding of some magnolia species in the conditions of acclimatization in Uzbekistan ends in the second half of October, and some (Magnolia sulanja) in early November. The branches become woody near autumn. All acclimatized magnolias are in dormancy in October, dormancy consists of two phases: Organic (deep) and forced. The period of deep dormancy of woody plants in Russia's medium climate begins at the end of autumn and ends in November and December.

When plants go into a period of forced dormancy, and to bring them out of this state, a small short-term effect of active high temperature is enough. During this period, acclimatization of magnolias is of great importance in their life, adaptation to adverse conditions has occurred in the process of long-term development, and their winter resistance depends on the duration of the deep rest period. [Khvarskaya R.M. 1968]

The passage of the rest period is important in heat-loving exotic plants. The leaves growing in the extreme conditions, which are being acclimatized to unbearable winter conditions, will fall off and partially depend on the continuous temperature changes in Uzbekistan. When determining the duration of budding of magnolia during the rest period, the leaf is removed. Attention is paid to bud development in skeletal branches of magnolia. The result of the experiment conducted in Kiev shows that magnolia M. stelsata, M. cobus and M. sulanja, when the leaves were removed in July, the reproduction was renewed after one month.

This indicates that they have entered a state of rest. Thus, at the end of August, at the beginning of September, the buds of acclimatized magnolias enter the state of rest, the state of rest is connected with the physiological activity of the plant. In autumn, it ensures growth and fruit ripening. As a result of the laboratory conducted by the method of branch cutting, the deep dormancy period of M. stellsata in the state where the cut branches are placed in water at a temperature of 15-20°C is from the end of October to the middle of November, and ends in December in M. sulanja magnolia. This is evidenced by the spreading of buds on magnolia branches cut at different times.

As soon as the leaves fall, magnolia M.stellata and M.cobus budded in 50 and 65 days, and M.sulanja in 73 days. In November, magnolia M.stellata and M.cobus were observed to open in 20-30 days, M.sulanja in 40-50 days. At the end of December, seedlings of all magnolias, that is, M.stellata, M.cobus, M.sulanja, started to grow to the height of the shoot on the 25th-60th day. In January, magnolias that are being acclimatized and shed their leaves will go from organic dormancy to forced dormancy. During the period of forced dormancy, magnolias in East Asian countries, i.e. in us, require 15-20 days for bud opening, and up to 30 days for northern magnolias.

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Magnolias are resistant to low temperatures. After the severe frosts of January and February, they are in a state of forced rest. In experimental conditions, under the influence of high temperature, bud awakening is delayed from 15-20 days to 25-30 days, this situation is a biological defense of magnolias with strong temperature changes.

It follows that as a result of conducting scientific research on M. grandiflora, which we are acclimatizing, if we grow this plant in our territory from a young age, it will adapt to our environment and the growth process will give the expected result.

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