

**BIOLOGY AND PROPAGATION METHODS OF THE
CAMELIA LANDSCREEN PLANT****Soliyev Nematjon Erkinovich**

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Abstract. *This article discusses the biology, agronomy and pest control measures of the camelia. In order to propagate camelia in vitro, it is first necessary to know its biology well. Since this plant has high ornamental value, even if its vegetative and generative organs were propagated in laboratory conditions and adapted in greenhouses, the number of ornamental plants would increase by one.*

Keywords: *camelia, biology, ecology, agrotechnology, vegetative, generative, pest, control, adaptation.*

Аннотация. *В этой статье рассматриваются биология, агрономия и меры борьбы с вредителями растения камелия. Для того чтобы размножить камелию in vitro, необходимо в первую очередь хорошо знать ее биологию. Поскольку это растение имеет высокую декоративную ценность, даже если бы его вегетативные и генеративные органы были размножены в лабораторных условиях и адаптированы в теплицах, количество декоративных растений увеличилось бы на одно.*

Ключевые слова: *камелия, биология, экология, агротехнология, вегетативный, генеративный, вредитель, борьба, адаптация.*

Camellia japonica is a flowering tree or shrub, usually 1.5 meters tall but occasionally 11 meters tall. Some cultivated varieties reach a height of 72 meters or more. Young branches are purplish brown, and older branches are grayish brown. The alternately arranged leathery leaves are dark green above, paler below, usually about 2.5–3 cm long. The base of the leaf is serrated

(pinnate), the edges are very finely serrated (yellow), and the tip is slightly pointed. In the wild, flowering occurs from January to March. The flowers appear along the branches, especially at the tips, and have very short stems. They occur singly or in pairs and are 2.5–6 cm long. There are about nine green bracteoles and sepals.

The fruit is a three-lobed (locular) globose capsule, each containing one or two large brown seeds 1–2 cm in diameter. Fruiting in the wild occurs in September–October.

The leaves of *C. japonica* are eaten by the caterpillars of some Lepidoptera, such as the engrailed (*Ectropis crepuscularia*). The Japanese white-eye (*Zosterops japonica*) pollinates *Camellia japonica*.



Figure 1. Flower, leaf, and seed of *Camellia japonica*.

There are two main effective ways to propagate camellia: by cuttings (branches) and by seeds. The most popular and fastest way is by cuttings.

1. Propagation by cuttings (The best method)

The best time for this method is July-August.

- Selection: Cut a semi-lignified (browning) branch 10-15 cm long from the top of the plant.
- Preparation: Remove the lower leaves, leaving 2-3 leaves at the top. To accelerate rooting, it is recommended to dip the cut in a growth stimulator such as "Kornevin".

- Planting: Plant the prepared cutting in a mixture of peat and sand (in a 1:1 ratio).

- Care: Cover the container with a plastic bag or glass jar and create a "greenhouse" environment. The temperature should be +20...+25°C and aired daily. Rooting takes 2-4 months.

2. Propagation from seeds

This method is more time-consuming and may not preserve the plant's parent varietal characteristics (flower shape, color).

- Sowing: Sow freshly harvested seeds immediately in moist soil.

- Conditions: Place in a warm and bright place. After the seeds germinate, transplant them into separate pots after they develop 2-3 leaves

Important recommendations:

- Soil: Camellia loves acidic soil (pH 4.5-5.5). It is advisable to use soil mixtures specifically for Azaleas or Camellias.

- Water: Use only soft (settled or rainwater) water for irrigation. Hard water can dry out the flower.

- Location: Choose a bright and cool place, protected from direct sunlight.

Research. Conducted in the laboratory of Namangan State Technical University. The prepared silver mixture medium was determined using a Ph meter in the laboratory.

To acidify the soil pH to 4.5-5.5, add organic matter (compost, peat) to the soil, use sulfate fertilizers (ammonium sulfate, potassium sulfate), but it is best to conduct a soil analysis, control the pH with special acidifying agents (for example, sulfur, aluminum sulfate) and plant plants suitable for the soil; pH meters or pH test kits are used to measure soil pH.

Methods for changing soil pH to 4.5-5.5 (acidification):

1. Peat Moss: Peat, when added to soil, increases its acidity (pH 3.5-4.5), which is useful for those who want a very acidic state.

Problem: If your soil's natural pH is 7.0 (neutral) or 8.0 (alkaline), it will take time and specific measures to bring it into the acidic range of 4.5-5.5.

Solution: First determine the pH of the soil (using a pH meter). Then, add one of the above substances to provide the ideal pH range of 4.5-5.5 for the desired plant (e.g. rhododendron, blueberry) and re-measure after a few weeks or months.

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