

Bioecological Properties of *Lavandula Angustifolia* Mill

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Abstract: the article talks about the history of lavender research, morphological indicators, the structure of flowers and seeds, and the ritual of daily flowering of seeds in the conditions of the Surkhandarya region.

Keywords: lavender, flower, pollen, seed, leaf, seed, hollyhock, inflorescence, ether, fruit.

Essential oil is found in large quantities in all species of the *Lavandula* genus. The category's narrow-leaved (*Lavandula angustifolia* Mill) type is distinguished from other types by its high essential oil content.

When a lavender plantation is established, the vegetation of the plant can be from spring to autumn. But it is observed that seedlings planted in autumn produce more flowers next year. If we pay attention to the history of the study of the plant, in the 18th century Carl Linnaeus classified lavender into four types. From 25 to 39 types of lavender were found in nature by the 20th century. In 1691-1771, Scottish botanist Philip Miller first identified narrow-leaved lavender (*Lavandula angustifolia* Mill) by its scientific name. In 1826, Swiss botanist Frederic Charles Jean de Guingins - Lassaraz described 12 types of lavender. In 1937, the botanist Chaytor described 28 species of the *Lavandula* genus, including a new section, in his monograph, bringing their total number to five sections. [2,3].

The flowers of lavender are spike-like, and in the conditions of the Surkhandarya region, it was found that one plant has from 41 to 750 and even more than 1000 flowers. The inflorescence has 4-12 spikes, located opposite each other. Each inflorescence has 6 to 21 flowers. The petals are dark purple, funnel-shaped, and double-lipped. After pollination and fertilization, the flower is shed. The androecium is attached to the upper part of 4 petals. The seed has 4 cells (Fig. 1). The flowers do not bloom at the same time, first the flowers in the lower parts of the spike bloom first, and the flowers in the upper part last.

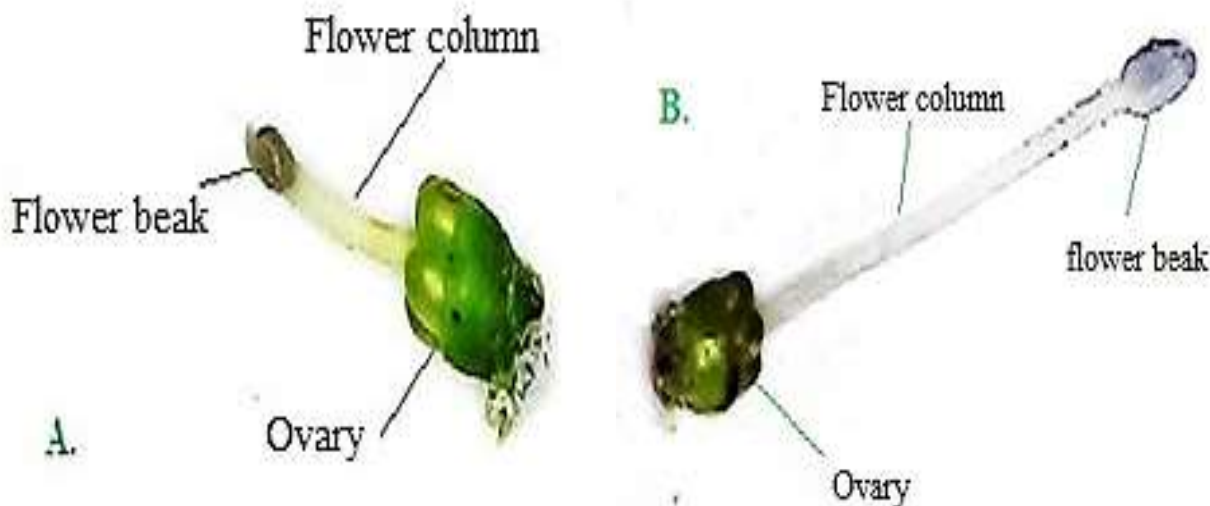


Figure 1. The structure of lavender genetic. A- state of an unopened flower, B- state of a now opened flower

The daily flowering period of lavender was determined by the soil and climatic conditions of the Surkhandarya region. To determine the diurnal flowering cycle, all the opened flowers of the isolated module plants were plucked in the evening, and observations were made from 6:00 am on the day of the experiment. Opened flowers were counted every two hours. Counted flowers were plucked each time to avoid confusion in subsequent calculations.

Daily flowering was observed in the first and second year flowering plants. All of *Lavandula angustifolia* Mill planted in thermal climates have entered the generative period in the first year. One-year vegetative shoots form 29 spikes in the first bush, 21 spikes in the second bush, and 12 spikes in the third bush. In two-year vegetative shoots, 125 spikes were formed in the first bush, 165 in the second bush, and 98 in the third bush. During the first vegetation period, the flowering phase began in early May.

During flowering, after pollination and fertilization, each flower produces a dark brown dry nut with 4 seeds. The seeds are smooth, small, elongated or oval in shape, 1.8-2 mm, and the weight of 1000 seeds is 1.0-1.2 g [1]. (Figure 3).



Figure 3. *Lavandula angustifolia* Mill. A - fertile appearance of seeds, B - length, C- 1000 seed mass, D – the appearance of buds and flowers

In summary, lavender - *Lavandula angustifolia* Mill. It is distinguished by the large amount of essential oil in its flowers and leaves. It is more effective to grow seedlings by treating with phytohormones using cuttings than to propagate the plant from seeds.

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