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Biology Of Crocus Sativus L. In Termiz

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ABSTRACT

This article observed the generative phase of the saffron plant grown in Termez conditions. Based on the data obtained, the daily and seasonal flowering dynamics of the plant were constructed.

KEYWORDS

Introduction, phenophases, seasonal flowering, daily flowering.

INTRODUCTION

Today, the problems of human health and its protection remain one of the most pressing issues in our country. In this regard, special attention is paid in our country to improve the production and cultivation of valuable plant raw materials that retain their beneficial properties for human health. Such promising plants include *Crocus sativus* L. - saffron. At

present, the development of optimal methods of cultivation of *Crocus sativus* L. in the conditions of Termez, the organization of industrial plantations, the improvement of ways to produce quality raw materials are the scientific and practical importance. The study of the flowering stage during the vegetation of the introduced plants and the process that

takes place at this stage allows them to be biologically and ecologically described or ecointruductive analysis [3,4,5].

LITERETURE VIEW

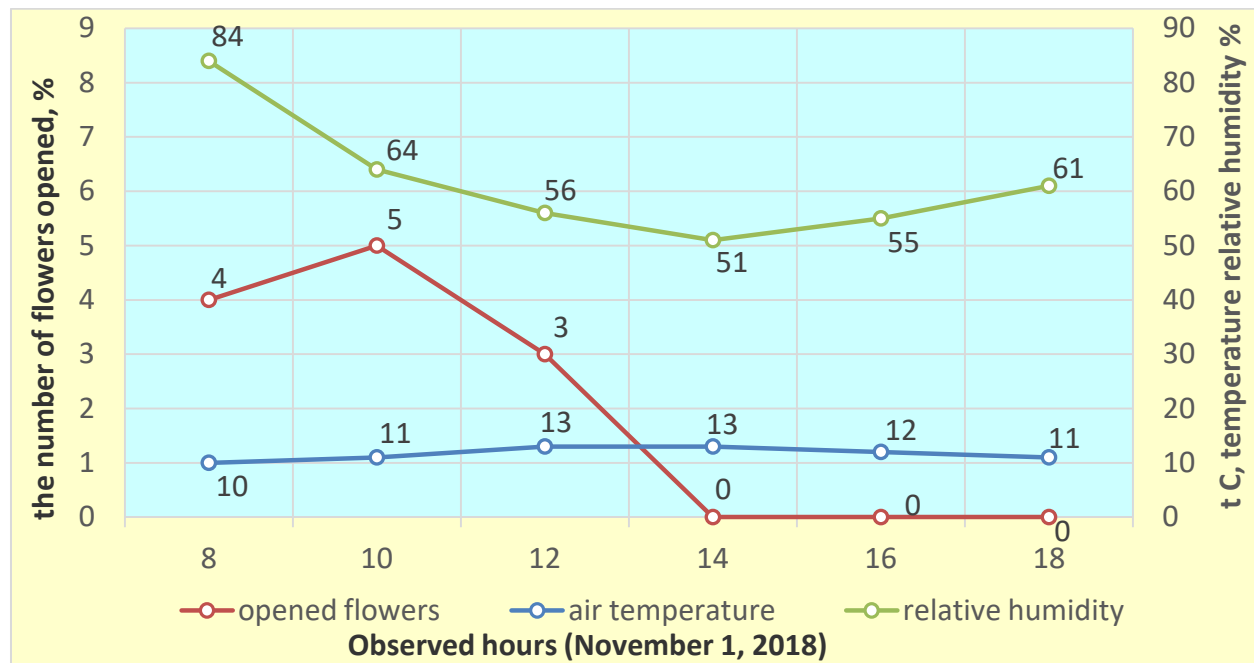
The flower of the genus *Crocus sativus* is actinomorphic - straight, symmetrical, very beautiful bright purple, with elongated parallel black veins. The reverse ovate-edged or rounded part is bent, the two-leafed primary flower stalk is formed at the base of the nodule, which is covered by a long cylindrical tube of the corolla (a part of a flower that has a Latin origin name little crown) . The length of the tube of the corolla leaves depends on the planting depth of the bulb [2,7]. According to A. Askerov (1934), when the tubers were planted at a depth of 5 cm in the conditions of Apsheron, the curved part of the corolla leaves was 3.1 cm long and 1.6 cm wide, and the upground part of the corolla tube was 3 cm. When the bulbs were planted at a depth of 15–20 cm, the length of the corolla was much longer (3.4 cm in length and 1.4 cm in width) and the length of the tube was 3.4 cm. The total length of the corolla tube varies depending on the planting depth of the bulbs i.e. from 6 cm to 12 cm. The number of pollinators is three, straight, opposite the outer side of the corolla . The powdery threads are white, loose at the top, and the bottom is joined by the corolla tube. The pollen grains are yellow, the main part is axillary, two-celled, longitudinally cracked. The seeds are 3-celled, separated from each other, the third part is funnel-shaped and 1.5-2 cm long [1]. The flowering phase is the most basic phase, which is a system that combines the interdependence of all phenophases and the

adaptation of the plant to the new environment.

Due to the fact that our experiments were conducted in 2018-2020, and the generative phase was observed in our experiments in 2018-2019, we focused in detail on the indicators of daily and seasonal flowering dynamics of sown saffron plant in the first year. The object of study was the data on the duration of the flowering phase of the species *C. sativus*.

In 2018, the daily flowering dynamics of the *C. sativus* plant planted in Termez conditions were studied. The beginning of flowering (29.10.) At 8: 00-9: 00 in the morning the air temperature was 10oC, the relative humidity was 71%, when the illumination was 10500 lux, 1 flower opened in 1 stem. From 10:00 to 13:00 the air temperature was 15oC, the humidity was 51%, the illumination was 86000-90000 lux, and 1 flower bloomed on 1 plant stem. From 14:00 to 18:00 no opening of flowers was observed in the plants. Thus, the opening of 2 flowers was observed for 1 day.

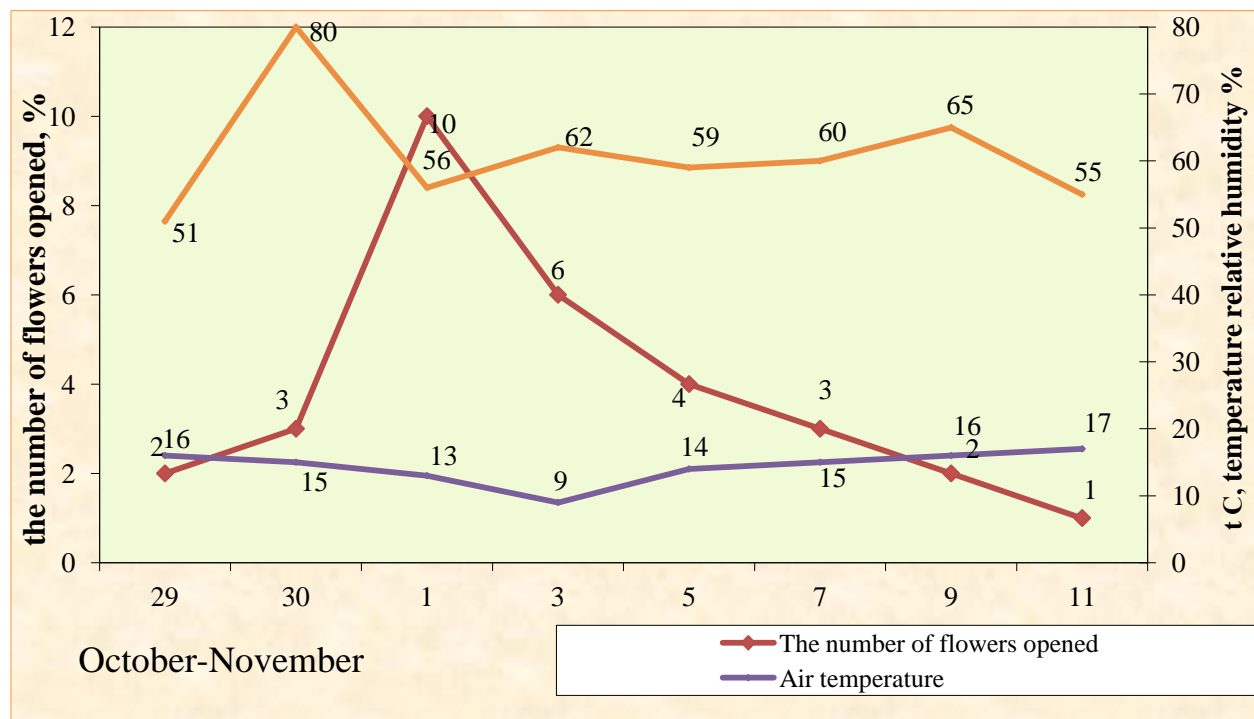
During the general flowering period (01.11.) The situation was as follows: at 8:00 a.m., when the air temperature was 10-12oC, the relative humidity was 84%, and the illumination level was 18,000 lux, 1 flower bloomed on 4 stems. From 9:00 to 12:00, when the air temperature was 13oC, relative humidity was 56%, and the illumination was 45000-95000 lux, 2 flowers bloomed on 3 stems. No opening of plant buds was observed from 13:00 to 18:00. During the total flowering period of the plant, the total number of flowers opened in 1 day was 10.



Daily flowering dynamics of *Crocus sativus* L. species

When we observed the final flowering period (11.11.2018), at 8:00 in the morning, 1 flower bloomed on 1 stem, at which time the air temperature was 17°C, relative humidity was

85%, and illumination was 10,000 lux. During the remaining hours, no blooms were observed on the plant, and only 1 flower was found to bloom during the day.



Seasonal flowering dynamics of *Crocus sativus* L. Species

CONCLUSION

In conclusion, the fact that the plant has entered the generative phase from the first year, fully undergoes the process of flowering, shows that it is fully adapted to the conditions of introduction. This, in turn, indicates the possibility of growing and cultivating *S. sativus* in Termez. The virginil period of *C. sativus* lasted 8-9 months, the generative period lasted 12-14 days, and the total vegetation period lasted one season *C. sativus* - 215-220 days. The process of flowering in Termez depends on weather conditions, it was found that the decrease in air temperature, the increase in relative humidity, the average number of flowers opened. The maximum number of flowers opened during the day ranged from 8:00 to 11:00. At the same time, the air temperature for *C. sativus* was 13-15°C and the relative humidity was 50-56%.

C. sativus is a sterile plant that do not produce seeds, so tubers are used for propagation. Timing and rate of planting tubers, planting depth, row spacing, plant care, weeding, proper organization of agro-technological measures ensure high yields from the plant. *C. sativus* can be used for landscaping, given the fact that it blooms in autumn, the duration of flowering of a single flower is 4 days, high visibility during the period of generation and vegetation.

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