

STUDY ON THE SPREAD OF THE SPECIES PASSIFLORA COERULEA(THE PASSION FLOWER) AND THE USE OF THIS IN MEDICINE

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Abstract

Passion flower is a voluble plant cultivated for its pleasantly smelling, solitary flowers, stellated with a diameter of 5-9 cm colored in gray-green-whitish numerous filaments purple at the base, white at the middle and blue towards the tip.

The flowers last only one day, but this shortcoming is compensated by the abundance of flowers that appear daily during the mounts of May through October.

It originates from the tropical and equatorial area of the globe. In areas with adverse climatic conditions (when the minimum temperature drops in winter below the plant resistance limit) it is cultivated in vegetation pots with free maintenance during the hot period of the year and with introduction into protected spaces (apartments) during the cold season.

In our areapassion flower is scarce both as an ornamental medicinal plant and one of economic utility (edible fruits. This situation can also be attributed to the lack of planting material as a consequence of the low yield to multiplication.

Key words:passifloracoerulea, cuttings.

INTRODUCTION

The experiences regarding the propagation of passion flowering plants were carried out between 2017 and 2019 in the greenhouse of Sântandrei, Bihor.

The working hypothesis was that by using a cheap and easily obtainable substrate, by providing a favorable microclimate, through uniform and effective shading, performance can be achieved.

Passion flower infusion (leafy plant branches) is recommended for the treatment of insomnia. The tincture is used in the treatment of anxiety and nervous agitation, and the fruit for insomnia, nervous disorders and weight loss.

The infusion is prepared from a teaspoon of dried plant over which it is poured a cup of boiling water and left for fifteen minutes.

Passiflora is contraindicated for pregnant women, breastfeeding women and children under the age of two.

MATERIAL AND METHODS

For propagation, cuttings with a length of 8-12 cm were harvested, which were rooted in three different periods in two types of substrates (table 1)

Table 1

Experimental data on rooting cuttings of *Passiflora coerulea*
(medium values 2017-2019)

Variants	Rooted cuttings		\pm Δ	The meaning of the difference
	Number	%		
V1 – cuttings put to root in sand in May	130	100	-	-
V2 – cuttings put to root in sand in July	145	112	15	*
V3 - cuttings put to root in sand in September	168	129	38	***
V4 – cuttings put to root in 50 % peat + beech sawdust in May	146	112	16	*
V5 – cuttings rooted in 50 % peat + beech sawdust in July	159	122	29	**
V6 – cuttings rooted in 50 % peat + beech sawdust in September	175	135	45	***

The cuttings were rooted at a distance of 5 x 5 cm and a depth of 6 cm, properly settling the substrate to remove the air spaces in the rooting area. During the rooting period the temperature ranged from 18-25⁰ C in air and 18-21⁰ C in substrate and humidity between 70-80% in air and 60-65% in substrate.

The light was directed by covering the cuttings with a green net.

After rooting the cuttings were planted in pots with a diameter of 12 cm, in celery soil 40%, peat 30%, food 10, leaf soil 10%, sand 10%.

For the differentiation of the variants, observations and determinations were made regarding the duration of the rooting period, the proportion of the rooted cuttings, the number of roots.

RESULTS AND DISSCUTIONS

The rooting period of the cuttings was on average 137 days on variant 1, 119 days on variant 2, 109 days on variant 3, 101 days on variant 4, 93 days on variant 5 and 83 days on variant 6.

The buds that took root in September took root in a greater proportion than those in July and May.

The number of rooted cuttings of the 200 rooted cuttings in each variant had average values of 17 pieces in variant 6 (cuttings rooted in 50 peat + beech sawdust in September), 168 pieces in variant 3 (cuttings put in rooted) in September), 159 pieces in variant 5 (cuttings rooted in 50 peat +

beech sawdust in July), 146 pieces in variant 4 (cuttings put in rooted in 50 peat + beech sawdust in May), 145 pieces in the variant 2 (cuttings rooted in sand in July) and 130 (cuttings rooted in sand in May) in the control variant.

The differences analyzed statistically are very significant between variant 6 (cuttings rooted in 50 peat + sawdust beech in September), variant 3 (cuttings rooted in sand in September) and variant 1, the witness (cuttings put to root in the sand in May).

Distinctly significant differences are found between variant 5 (cuttings put to the root in 50 peat + beech sawdust in July) and variant 1 the witness (cuttings rooted in sand in May) and significant between variant 4 (cuttings rooted in 50 peat + sawdust in May), variant 2 (cuttings rooted in sand in July) and variant 1 control (cuttings put it in the sand in May).

CONCLUSION

Passion flower is a very valuable medicinal and ornamental plant, quite scarce in our area, situation that is due to the lack of planting material.

The rooting time of the cuttings was 112-135 days.

The best variant both in terms of the number of rooted cuttings as well as the number of roots on the cuttings and their length and thickness was the variant 6 with cuttings rooted in September in 50% peat and 50 % beech sawdust.

Increasing the rate of multiplication by cuttings of the *Passiflora coerulea* species (passion flower) can be stimulated by using the appropriate substrate and the appropriate period (time) for cuttings.

The method elaborated in the nursery of Sântandrei (Oradea) can contribute to the extension in culture of this very valuable plant.

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