



16 - 17 November 2023

ASPECTS CONCERNING THE PRODUCTION OF SEEDLINGS OF *LIGUSTRUM VULGARE* BY CUTTINGS

authors:

Paul CIMPEAN; Nicolae ONISIE; Conf. Dr. Alina TRUTA; Sef Lucr. Dr. Iulia ARION

Abstract: The purpose of this research paper was to provide an overview of the production of seedlings of *Ligustrum vulgare* with the help of the method of cuttings on various edaphic substrates. Through the studies carried out within this work, we have highlighted the performance of cuttings in the species of *Ligustrum vulgare* (dogwood) on different variants of substrate. These variants are composed of: sand and perlite; peat with sand and perlite, and the last being only sand. Two categories of diameters were used to carry out the study, namely one comprising cuttings with a diameter of less than 3 mm and the other comprising cuttings with a diameter greater than 3 mm. In turn, these cuttings are planted both with the help of the rooting stimulating solution, Razormin, and simple. Following these experiments, the percentage of cuttings caught, the number of roots formed, the average length of the root, the height and the number of leaves formed were followed.

• Introduction

Since their appearance, forests have played a crucial role in human life, constituting one of the main sources of food. At the same time, the forest has had a particularly important role in the development of human society as the primary source of energy and shelter. For the modern human, the forest can be considered a place for relaxation, recreation, or even therapy.

• Material and method

Through the studies carried out within this work, we have highlighted the performance of cuttings in the species of *Ligustrum vulgare* (dogwood) on different variants of substrate. These variants are composed of: sand and perlite; peat with sand and perlite, and the last being only sand. Two categories of diameters were used to carry out the study, namely one comprising cuttings with a diameter of less than 3 mm and the other comprising cuttings with a diameter greater than 3 mm. In turn, these cuttings are planted both with the help of the rooting stimulating solution, Razormin, and simple (Tab. 1).

SPECIES	SUBSTRATE VARIANT	TYPE OF TREATMENT	SIZE OF CUTTINGS	NUMEBER OF CUTTINGS
<i>LIGUSTM VULGARE</i>	Sand(80%)+ Perlite(20%)	Treated with Razormin	Dim.<3 mm	90
			Dim.>3 mm	90
		Untreated	Dim.<3 mm	90
			Dim.>3 mm	90
	Peat(33,3%)+ Perlite(33,3%)+ Sand(33,3%)	Treated with Razormin	Dim.<3 mm	90
			Dim.>3 mm	90
		Untreated	Dim.<3 mm	90
			Dim.>3 mm	90
	Sand(100%)	Treated with Razormin	Dim.<3 mm	90
			Dim.>3 mm	90
		Untreated	Dim.<3 mm	90
			Dim.>3 mm	90

Table 1. The edaphic substrate and cuttings category

• Results and discussions

The seedlings of *Ligustrum vulgare* are commonly used in urban green spaces. They are particularly valuable ornamental shrubs. The analysis of the influence of cutting diameter on the number of roots shows that larger cuttings had a significantly superior impact on the number of roots per cutting.

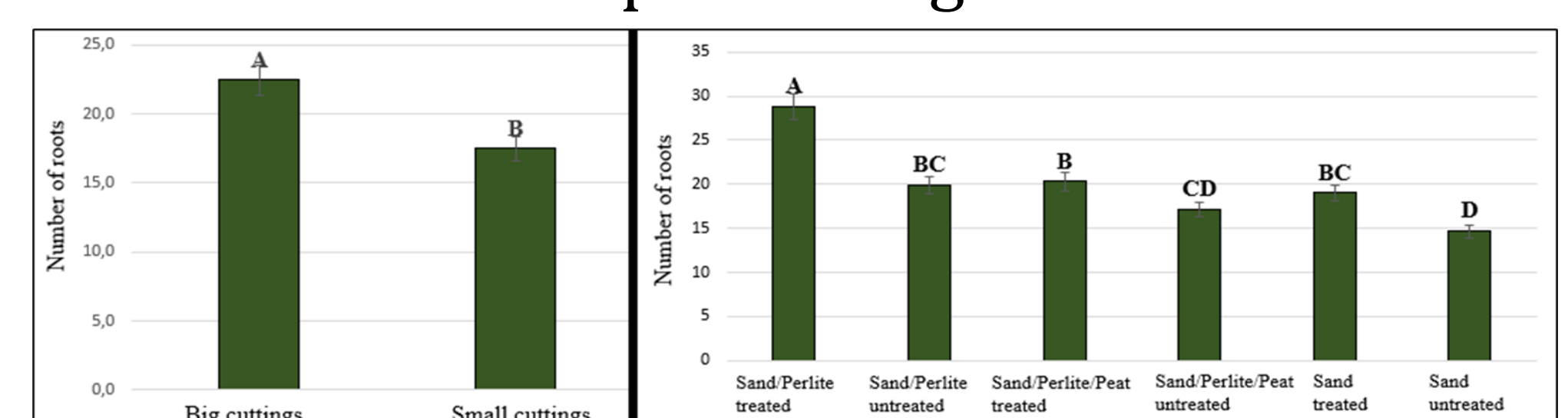


Fig. 1. Results regarding number of roots per cutting

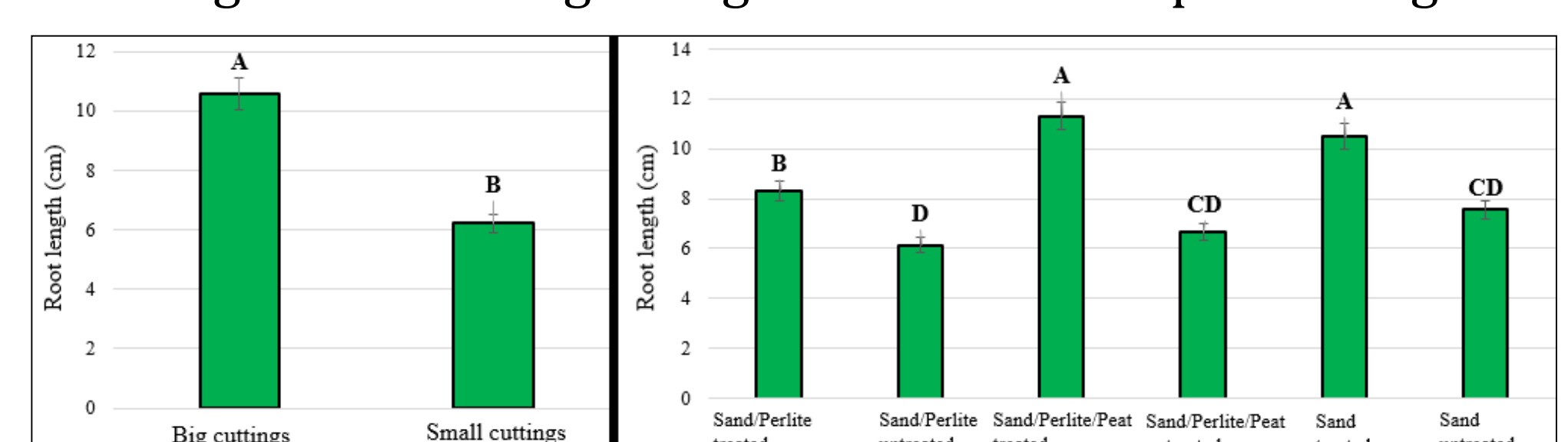


Fig. 2. Results regarding root length

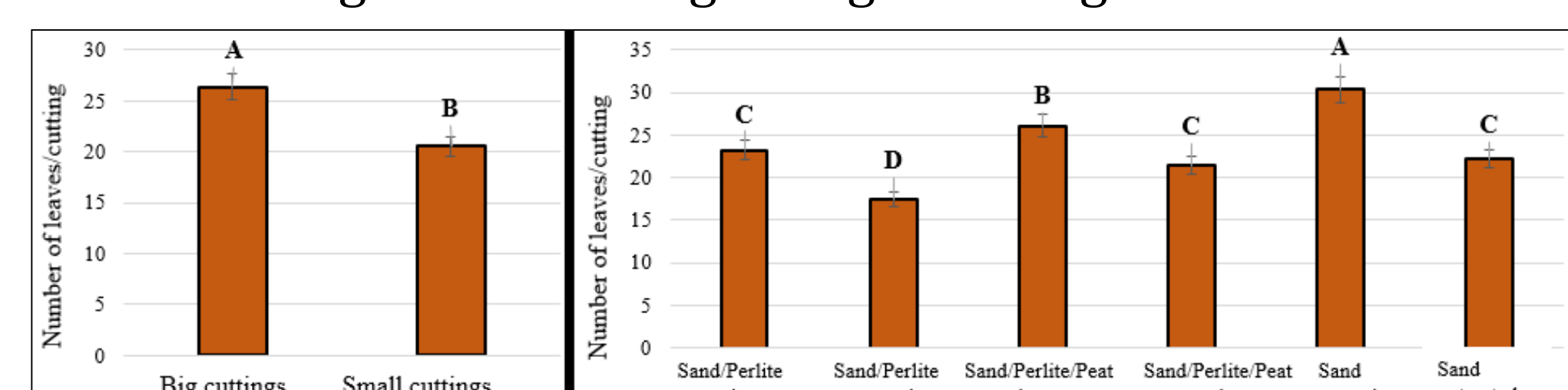


Fig. 3. Results regarding number of leaves per cutting

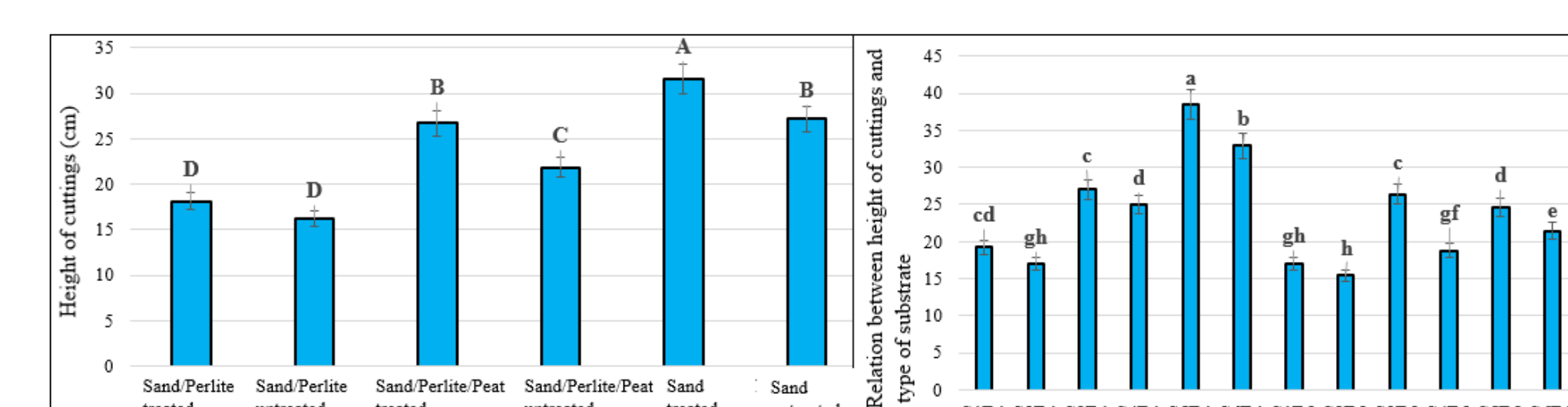


Fig. 4. Results regarding height of the cuttings

• Conclusions

Based on the findings, according to observations and statistical calculations, it is recommended in production to propagate seedlings of *Ligustrum vulgare* through cuttings. This will lead to obtaining a high percentage of healthy seedlings with strong growth vigor in a relatively short period.