Propagation by cuttings of acerola plant clones in commercial substrate and sand

Maurício Dominguez Nasser*, Giovanna Alencar Lundgren**, e-mail: mdnasser@apta.sp.gov.br.

1 Agency Paulista Agribusiness Technology (APTA)- Alta Paulista Regional Research Pole, Adamantina, São Paulo, Brazil. ** Federal University of Paraíba (UFPB), João Pessoa, Paraíba, Brazil.

Since the 1990s, the cultivation of acerola (*Malpighia emarginata* Sessé and Mociño ex DC.) has been an option for income generation and for the establishment of man in the field. The fruit conquered the consumer market by the high content of ascorbic acid. The mastery of the propagation method is fundamental for both professionals working with genetic improvement, as well as for the producer and the industry, to ensure the formation of uniform and quality acerola plantations. The objective of this study was to evaluate the propagation of acerola plant clones by cutting using sand substrates and Carolina® commercial substrate in the municipality of Adamantina, SP. The experiment was installed in the Agency Paulista Agribusiness Technology (APTA) experimental nursery in Adamantina-SP. The treatments were five acerola plant clones: 1-Olivier, 2-Frutacor (BRS 238), 3-Cherry (BRS236), 4-Mirandópolis and 5-Okinawa, being packaged in two types of substrates: washed sand and Carolina® commercial substrate. In a humid chamber, the stakes were buried one third of their length on the substrates. The experimental design was a completely randomized and factorial scheme with 5 clones and 2 substrates, totaling 10 treatments and 4 replicates. After 60 days of planting, the following variables were evaluated: percentage of rooted cuttings, number of primary roots, and length of the largest root in cm. The data were submitted to analysis of variance by the F test, and the means were compared by the Tukey test at 5% probability. It was observed that the acerola plant clones did not show significant differences in the length of the largest root in the Carolina® substrate and sand, except for the Frutacor clone that resulted in a longer root length on the Carolina® substrate. The Olivier and Frutacor treatments presented a more vigorous root than Cherry, Mirandopolis and Okinawa on the Carolina® substrate. It is not recommended to propagate acerola plant by cuttings to the Okinawa clone. In addition to sand, the Carolina® substrate can be used for propagation of acerola plant by the cutting method.

Key words: *Malpighia emarginata* Sessé e Mociño ex DC., seedling production, tropical fruticulture.