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INFLUENCE OF SOILLESS MEDIA ON ROOTING AND GROWTH CHARACTERS OF "DIFFICULT TO ROOT" DAMASK ROSE (ROSA DAMASCENA MILL.) CUTTINGS

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Traditionally, Damask Rose plant is propagated by cutting, grafting or layering. Propagation of this species by cutting is associated with various problems such as prolonged production time and low rate of adventitious root formation. Due to high cost of peat media, it would be necessary to find an alternative medium. Rice hull, tea waste and leaf compost, as organic compounds are available in huge loads in North of Iran. The objective of this study was to evaluate the rooting response of Damask rose cutting in various soilless medium considering rooting and growth rate. This experiment was carried out in a completely randomized design with 3 replications and 12 treatment levels in research greenhouse at Department of Horticultural Sciences, Tarbiat Modares University, Tehran, Iran in 2016. Data revealed that among growing substrates, sand + rice hull had the best effect on most of the parameters like, days to sprouting, sprouting percentage, number and length of roots, shoot number and shoot height as well as fresh and dry weight of root was affected by media. Leaf mould compost affected the promoting of cuttings growth, while tea compost treatment had unfavorable effect on rooting and growth parameters. In brief, rice hull and leaf compost could be used in rooting damask rose cuttings, considering *sustainability* and economic aspects.

Keywords: Damask rose, Rice hull, Compost, Waste compounds