

Title The expression of rhysogene potential function of cultivar quince tree for different photoperiodism levels

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Abstract

The rooting stage is known as problematical sequence of micropropagation biotechnology of plants through in vitro cultures. Analysing the interaction cultivars Moldoveneti, Aurii and Aromate with rooting degree determined by experimental photoperiodism levels, we notice that the highest rhysogene was recorded at Aurii cultivar (82,5%), followed by Moldovenesti (76,0%) and Aromate (69,8%). For the rooting degree determined by experimental photoperiodism levels (16 hour and 14 hour), we notice that the influence of photoperiodism is limited for the researched cultivars. The 14-hour photoperiodism preceded by a 9-day dark treatment determined the best rooting capacity (79,3%), followed by the 16-hour photoperiodism preceded by a 9-day dark treatment (77,3%). After that the 16-hour photoperiodism and the 14-hour photoperiodism determined 73,3% and 74,3% rooting. Analysing the interaction cultivar x photoperiodism, it confirms that the potential rhysogene exists in the genetic dowry of each cultivar, is a strong genetic characteristic and produces effects irrespectively the photoperiodism level.