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Root exudates from citrus plants subjected to abiotic stress conditions

have a positive effect on rhizobacteria

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Abstract

Plants are constantly releasing root exudates to the rhizosphere. These compounds are

responsible for different (positive or negative) interactions with other organisms,

including plants, fungi or bacteria. In this work, the effect of root exudates obtained from

in vitro cultured citrus plants on two rhizobacteria (Pseudomonas putida KT2440 and

Novosphingobium sp. HR1a) was evaluated. Root exudates were obtained from two citrus

genotypes differing in their sensitivity to salt and heat stress and differentially affected

the growth of both rhizobacteria. Root exudates from salt-stressed plants of C.

macrophylla (salt tolerant) induced an increase in bacterial growth higher than that

obtained from Carrizo citrange exudates (salt sensitive). Root exudates from heat-stressed

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