

Expression of genes related to the response of water stress in stone fruits

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In order to understand drought response in stone fruits, physiological and molecular data of three *Prunus* hybrid rootstocks were studied. Plant material included the almond x peach hybrid (*P. amygdalus* x *P. persica*) ‘Garnem’ and two descendents ‘P.2175’ x ‘Garnem’-3 and ‘P.2175’ x ‘Garnem’-9 (*P. cerasifera* x [*P. amygdalus* x *P. persica*]). Data were taken under well-watered, drought conditions and a subsequent re-watering period. For each sample time, two set of roots and phloem were taken for each genotype. Physiological responses were monitored through transpiration and leaf water potential showing significant differences along the experiment and among the genotypes. Gene expression analysis of two genes coding for proteins related to ABA pathway and abiotic stress, a dehydrin (*ppa005514m*) and A20/AN21 zinc finger (*ppa012373m*), showed higher expression in root tissue than in phloem. The transcript level was differently expressed under drought and recovery treatment, showing a regulatory response to water stress in *Prunus* genotypes.