

HC activate coordinated regulation of ABA metabolism and macromolecules catabolism in grape buds

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Abstract

We formerly proposed, and supported, a working model of the biochemical cascade that is initiated by hydrogen cyanamide (HC) and regulate grape bud dormancy release. In this model transient energy crisis results in reprogramming, which under aerobic environmental conditions mimics the hypoxia response, affects ethylene and abscisic acid (ABA) metabolism and/or signaling, leading to activation of catabolic pathways required to supply energy from alternative sources, removal of ABA repression and reactivation of shoot apical meristem growth. In the current opportunity, we will share our recent findings regarding coordinated regulation of ABA metabolism and activation of macromolecules catabolism.