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ABSCISIC ACID: A POTENTIAL TOOL FOR IMPROVING THE COLOR OF TABLE GRAPES

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In warm climates, poor color is a common problem that decreases the value of red grapes. The inhibitory effect of high temperatures on grape color is related to a deficiency in endogenous abscisic acid (ABA), and exogenous application of ABA can improve color. A recent breakthrough in ABA synthesis may reduce its cost, thus enabling growers to use ABA on grapes. Therefore, we evaluated the effect of ABA (0, 75, 150, or 300 ppm) or ethephon (250 ppm) applied at veraison, one month post-veraison, or two months post veraison, on 'Crimson Seedless' grapes (*Vitis vinifera* L.) harvested between August and October. Application time and plant growth regulator (PGR) treatments interacted to affect color and firmness but had few other effects. Applied at veraison, ABA and Ethrel treatments increased red skin color compared to the non-treated fruit; 150 and 300 ppm ABA were equally effective and both were better than Ethrel. Applied a month after veraison, 150 and 300 ppm ABA still improved color but neither treatment was superior to Ethrel. Applied two months after veraison, neither PGR was effective. The PGR treatments that enhanced color also caused softening.