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Abscisic Acid (ABA) Andmethyl Jasmonate (MeJA) Applications Increases Cracking Tolerance and Fruit Quality on Sweet Cherry Fruit (Cv. Bing)

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Rain induced fruit cracking is an important problem in sweet cherry industry, causing loss up the 90%. Recent studies have suggested that a primary cause of fruit cracking could be the increase in fruit surface area during fruit development in the absence of deposition of cuticle membrane (CM) deposition. Abscisic Acid (ABA) and Methyl Jasmonate (MeJA) are phytohormones associated with stress tolerance, cuticle wax biosynthesis and fruit ripening. The objective of this research was to evaluate the effects of exogenous ABA plus MeJA applications on several quality parameters of sweet cherry fruits (cv. Bing). The application of theses hormones at different fruit development stages increased differentially the fruit cracking tolerance and fruit color at the ripening stage, affecting the soluble solids content, malic acid concentration and fruit cuticle resistance.

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Biography:

Camilo Gutiérrez-Jara is a food engineer (Universidad delBío-bío, Chillán, Chile, 2013). Actually, he is a candidate to food engineering doctor (Universidad delBío-bío, Chillán, Chile, 2015). In this doctorate, his thesis is “Application of phytohormones and emulsified coatings to improve cracking tolerance of sweet cherry fruits”. The first thesis approach considers the application of phytohormones abscisic acid and methyl jasmonate(together and separately) in sweet cherry fruits. The second approach focus in the application of nano-emulsified edible coating alginate-based and soybean oil, in sweet cherry fruits. He is currently beginning to develop the second approach with the Dr. Ricardo Villalobos-Carvajal direction.