Biochemical reactions in mechanically damaged peaches treated with CaCl₂ at the site of the injury.

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Abstract

Fruits of peaches cv. Biuti were pierced with a 2-mm diameter metal spike at 4 equidistant points on the circumference and treated with water or CaCl₂. Wounding increased activity of phenylalanine ammonia-lyase, polyphenoloxidase [catechol oxidase] and peroxidase, and lignin synthesis in cell walls. Application of CaCl₂ at the site of injury increased the concentration of bound Ca in cell walls, delayed the peaks in enzyme activity, stimulated synthesis of neutral sugars, and reduced the degree of esterification of cell wall pectins.