

Field research with the abscission agent CMNP as an aid to mechanical harvesting of sweet orange

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Acta Horticulturae 965: 97-100. 2012.

Abstract

Field research over the last several years has demonstrated that CMNP will provide significant loosening of sweet oranges for the processing industry in Florida and serve as an excellent aid for harvesting with current mechanical harvesting equipment. CMNP has been shown to provide consistent loosening throughout the entire harvesting period without causing phytotoxicity, defoliation or loosening of the newly developing crop of late season 'Valencia'. CMNP is a contact loosening agent that requires complete mature fruit coverage. Loosening by CMNP is temperature responsive but can be managed by scheduling CMNP applications and harvest for maximum efficacy. Canopy architecture will need to be managed and harvested with machines with complementary designs to maximize removal and minimize the requirement for labor to glean remaining fruit from the tree. The technical issues that remain with adopting CMNP by the commercial sweet orange industry in Florida are considered manageable, and it is anticipated that it will be readily adopted by the industry once available.