

Title Citrus fruit abscission induced by methyl-jasmonate.
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Abstract

Methyl jasmonate (MJ) was tested as a potential abscission chemical to enhance mechanical harvest of 'Hamlin' and 'Valencia' orange (*Citrus sinensis*). In field experiments in Florida, a solution of 1, 5, 10, 20, or 100 mM MJ was applied either as a stem wrap to individual fruit or as a spray to entire trees or canopy sectors. Solutions of 10, 20 and 100 mM MJ resulted in significant and consistent reduction of fruit detachment force and caused fruit drop within 7 to 10 days. Fruit loosening was preceded by an increase in the internal ethylene concentration of fruit similar to that of other experimental abscission compounds. While concentrations of 10 mM and less caused no or negligible phytotoxicity, solutions exceeding 10 mM MJ induced unacceptable levels of leaf abscission.