

## 2,4-D INCREASES THE YIELD OF COMMERCIALY VALUABLE LARGE SIZE FRUIT OF CLEMENTINE MANDARIN

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Excessive fruit drop and small fruit size are two problems associated with the commercial production of seedless mandarins worldwide. These problems are solved in many mandarin-growing countries by one or more foliar-applications of GA<sub>3</sub> during flowering and fruit set. However, GA<sub>3</sub> has not proven to be a reliable strategy for increasing Clementine mandarin set or size in California. GA<sub>3</sub> (10 mg·L<sup>-1</sup>) applied at full bloom and 30 d after petal fall or as a single application 30 d after petal fall had no effect on the 2-year cumulative yield of commercially valuable large size fruit (transverse diameters 50.81 to 76.20 mm) or total yield compared to untreated control trees. In contrast, 2,4-D at 24 mg·L<sup>-1</sup>, but not 12 mg·L<sup>-1</sup>, applied 30 d after petal fall significantly increased the 2-year cumulative yield of mandarin fruit with transverse diameters > 50.81 mm ( $P < 0.0001$ ) and total yield ( $P < 0.0001$ ) per tree compared to untreated control trees and all other PGR treatments tested. PGR treatments had no effect on fruit quality, except 2,4-D (24 mg·L<sup>-1</sup>) significantly increased juice weight per fruit in year 1 ( $P < 0.0001$ ). The reliability of 2,4-D as a tool for increasing the value of the commercial mandarin crop in California is still under investigation.