

## **Registration of 2,4-D for Fruit Size and Yield Increase of Mandarins and Mandarin Hybrids in California**

*Project Leader:*

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The overall goal of this project is to seek permanent registration of 2,4-D for fruit size increase of mandarins and mandarin hybrids in California. We like to provide a tool for citrus growers in California to increase fruit size of mandarins and mandarin hybrids and increase growers' return. We also like to collect two alternate bearing cycles (4 years) of data for Afourer mandarin at two locations and Minneola tangelo at one location.

Working with AMVAC and Cal EPA, I submitted efficacy data of 2,4-D for increasing fruit size and yield of Fina Sodea Clementine mandarins in March 2004. After 9 months + of communication, a 24(C) registration of "ALCO CitrusFix™" (2,4-D, Isopropyl Ester made by AMVAC Chemical Corp.) for fruit size and yield increases of mandarins and mandarin hybrids was granted by Cal EPA in December 29, 2004. Growers in California began using this application in spring 2005.

The second year harvests of Afourer mandarin and Minneola tangelo were completed in January and March 2005. Treatments for the third year were applied in late spring 2005. Harvests for the third season will be completed by March 2006. The project will be terminated after the March 2006 harvests. CRB decided not to continue the 4th year experiment.

The results of the second year Afourer mandarin harvest at S. Bakersfield are shown in Table 1. The results of the second year Afourer mandarin harvest at Orange Cove are shown in Table 2. For the March 7-10, 2005 harvest, the fruit were shipped to the UC Lindcove Research and Education Center packline, and the data presented in Table 2 were total number of fruit in each fruit in different fruit size classes (not the weight). The results of the second year Minneola tangelo harvest near Madera are shown in Table 3. Eight replications at the Madera site were lost due to grower size harvesting.

*Contact Citrus Research Board for tables.*