

## **Production and Management Strategies for New Mandarins in California**

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The main project objectives in 2004-2005 were to study compatibility and seediness among mandarins. In 2004-2005 we generated more information about compatibility/seediness among mandarins especially the compatibility and seediness issues with the triploid mandarins (Shasta Gold, Tahoe Gold and Yosemite Gold). The results from the 2004 hand cross-pollination at the UC Lindcove Research and Extension Center (LREC) are shown in Table 1.

The third-year results showed that the triploid seedless Yosemite Gold mandarin could cause limited seeds (2.59% fruit set), average 4.33 seeds per fruit in 2004 crosses with Fina Sodea Clementine and 2.94% fruit set, averaged 4.33 seeds per fruit. Shasta Gold and Tahoe Gold caused 2.94% fruit set (averaged 2.33 seed per fruit) and 4.59% fruit set (averaged 5 seeds per fruit) in Afourer mandarin in 2004 crosses. Yosemite Gold caused 1.71% fruit set with average 0.5 seeds per fruit in cross with Nules Clementine mandarin in 2004.

Based on the 2003 and 2004 results, it is safe to conclude that the triploid seedless mandarins (Shasta Gold, Tahoe Gold and Yosemite Gold) could cause limited number of seeds in diploid mandarins such as Fina Sodea, Nules or Afourer mandarin, but the problem is not severe enough to deserve special consideration.

More hand cross-pollination between new mandarins and existing citrus cultivars completed in spring 2005 at LREC and the crosses we made are shown in Table 2. We are interested in the issue of stimulated parthenocarpy for enhancement of mandarin production. Spring 2005 turned out to be very similar to the season of 2003. Most likely due to the lack of chilling accumulation in winter 2004-2005, the flowering of Nules Clementine mandarin was severely affected. The bloom was severely delayed, and it was difficult to find enough flowers at one time to make all the necessary crosses. Fruit of Nules and Fina Sodea are usually harvested in December, and fruit of Afourer are harvested in January.

Contact Citrus Research Board for tables.