# Almond Culture and Orchard Management

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## SUMMARY OF CURRENT PROJECT ACTIVITIES

The Almond Board provides small amounts of funding for farm advisors to conduct small research projects, including the following five almond-related efforts:

- **Increasing the Nonpareil Percentage: Pollenizer Arrangement and Bloom Timing** (Project Leader: Joseph H. Connell, UCCE) This trial explores whether increasing the Nonpareil percentage by planting Nonpareil in every row with pollenizers every two trees down the row can increase Nonpareil yield per acre, and also whether the mix of early blooming and mid-blooming pollenizers makes a difference. So far, yield improvement has been disappointing and harvesting is more complex.
- **The Impacts Delaying Pruning until Early Spring on Young Almond Trees** (Project Leader: Carolyn DeBuse, UCCE, Solano and Yolo counties) The purpose of this comparative experiment is to ascertain whether it would be effective to prune young almond trees in the usually dry early spring, when they are less likely to be exposed to the canker-causing pathogens that are prevalent in the wet dormant period when trees are traditionally pruned.
- **Salinity Tolerance of Six Almond Rootstocks** (Project Leader: David Doll, UCCE, Merced County) Salinity, including sodium toxicity, is a major problem facing the almond industry. No study has documented the long term effects of sodium exposure in almond. In 1989, a rootstock trial testing peach-almond hybrid and peach rootstocks was established to determine the effects of sodium on almond yields. The sodium source was the well water used for irrigation. Throughout the twenty years of the trial, the almond trees on peach rootstocks showed increasing leaf symptoms of sodium toxicity. After twenty years, trees on peach-almond hybrid rootstocks produced higher yields and lower leaf levels of sodium and chloride compared to trees on peach rootstock.
- **Exploring Ways of Suppressing the Tenlined June Beetle** (Project Leader: Elizabeth Fichtner, UCCE, Tulare County) Because Tenlined June beetle (TLJB) is more commonly a pest of almond in sandy soils, this project focuses on investigating the influence of soil water potential on suppression of the larvae. First, a technique was developed to measure TLJB metabolic activity in soils. Then the metabolic activity of TLJB larvae was measured in soils of varying matric potentials. The results illustrated that larvae are suppressed under higher matric potential conditions, suggesting that periods of high soil moisture are likely to suppress larvae and reduce root predation by the pest.
- **Increasing the Boron Level in Almond Trees in Sutter County—How Long Can It Last?** (Project Leader: Franz Niederholzer, Colusa/Sutter/Yuba Counties) This ongoing experiment is designed to answer whether fall or spring, soil or foliar applied boron increase boron levels in leaves or flowers, and yields. Foliar applied reached the flowers sooner and soil applications must go on before fall for any impact the following year. Yield impacts have been inconsistent.

**For More Details, Visit**

- Poster location 15,16, and 17, Exhibit A & B during the conference; or on the web (after January 2013) at www.almondboard.com/researchreports
- 2011.2012 Annual Report CD (11.HORT3.Niederholzer); or on the web (after January 2013) at www.almondboard.com/researchreports