

ABCALSFinalReport06/23/05

Title: Almond leaf scorch: Evaluation of two rootstocks on tree growth, disease impact and nut quality

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Plot location: University of California, Department of Plant Pathology, Armstrong Tract, Davis CA

Year 2004. Orchard trees of almond cultivars, Peerless and Sonora on rootstocks Nemaguard peach and Marianna 2624 and Nonpareil on Titan peach were planted April 1. Pairs of trees were arranged in a randomized complete block design with five replications.

After transplanting, tree trunks were painted white, irrigation water applied and fertilized. Thereafter the trees were pruned to remove unwanted growth.

Year 2005 thru June 23. On April 19, 2005, premarked trees received treatments, i.e. bacterial or water. A culture suspension of *X. fastidiosa* (20 ul of 10^8 CFUs/tree) was pipetted into a hole drilled at the base of the trees. Control trees received 20 ul of distilled water. Test trees are being monitored for symptom development. All test trees have thus far remained asymptomatic.

Milestones. During summer 2005 and if trees remain asymptomatic, these will be reinoculated. Assays will be performed on selected symptomatic trees to confirm presence of the pathogen. Measure trunk circumferences ca. 30 cm above soil line in mid-September and statistically analyze data.

Year 2006. Monitor trees for symptom development. Measure and analyze trunk circumferences.

Years 2007 - 2009. Continue to monitor trees for disease development. Cover nuts with protective netting against crows. Harvest nuts, evaluate kernels and analyze kernel weight data. Also, measure and analyze trunk circumferences.