

Almond Leaf Scorch: Evaluation of Two Rootstocks on Tree Growth, Disease Impact, and Nut Quality

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Interpretive Summary:

Plot was established in 2004 and trees inoculated (once with bacterial culture in April 2005 or several times via shoot side-grafts in July & August 2005; July 2006). Almond trees have proven recalcitrant to becoming infected. For example, only 10 of 25 inoculated trees developed leaf scorch symptoms in 2006. Results of 2006 inoculations await further readings (August).

Objectives:

Compare trunk sizes, symptoms, and mean kernel wts of *X. fastidiosa* inoculated and healthy control trees of cvs. Peerless and Sonora propagated on peach and plum rootstocks and Nonpareil on peach.

Materials and Methods:

Test trees were planted in 2004 in a randomized complete block design with five replications each of Peerless and Sonora almonds on two rootstocks (total 40 trees) and Nonpareil on titan peach (10 trees). Twenty-five trees were inoculated (April 2005) with a cultured suspension of *X. fastidiosa* (20 ul of 10^8 CFUs/tree). Inoculum was placed in a drilled hole in the tree trunk, then wrapped with parafilm and held in place with budding rubber. As trees remind symptomless, side-grafts with disease shoots were done (July); trees with dead grafts were re-done (August). All side grafts were deemed live in September. Trees were scored and 10 exhibited leaf scorch symptoms. Thus, 15 trees were regrafted in July 2006; all grafted shoots were live 30 days later.

Trunk measurements were made in October 2005 and 2006. Nuts were harvested in September (2006), kernels shelled, dried, weight, and averaged per edible kernel.

Results and Discussion:

As the full compliment of trees is not diseased, progress of disease symptoms, trunk measurements and nut weight data are not available or meaningful at this time.

Recent Publications:

None.

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