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March 3, 2015

To: Pistachio Growers

From: Robert H. Beede, UCCE Farm Advisor, Emeritus

Re: Pistachio Bushy Top Syndrome

Dear Pistachio Growers:

The University of California Cooperative Extension farm advisors for pistachios realize and appreciate your frustration with the lack of information and guidance on Best Management Practices for the Pistachio Bushy Top Syndrome (PBTS) affecting UCB-1 clonal rootstock produced by one nursery. The magnitude and seriousness of the problem limited UC staff from making a lot of statements about the problem, since there was no science to base them upon. The cause of the syndrome was also up for debate until just this past January, when Dr. Jennifer Randall, New Mexico State University, and lead scientist, completed Koch's postulates for *Rhodococcus fascians*, bacterial infection associated up until now with herbaceous plants. Koch's postulates involves recovery of a pathogen from affected plants found in the field, then infecting clean plants under laboratory controlled conditions to prevent any other contaminate. One then has to wait weeks or even a few months for any symptoms to develop, and if they do, the pathogen that was originally inoculated into the plant has to be recovered, and the symptoms have to match those observed in the field plants from which the pathogen was originally found.

This process is absolutely necessary in order to make a scientific claim with a high degree of certainty. Obviously, the seriousness of the problem presently faced by the affected nursery, the affected growers, and the pistachio industry also required it. Unfortunately, this process took more time than anticipated, such that growers had to make a decision about the fate of affected plants in the field. Thus, many of you had to make "gut decisions" about whether or not it was in your best interests to remove the symptomatic plants. As an Emeritus farm advisor, I can assure you that your UC farm advisors were as frustrated about this dilemma as you were! The University of California REQUIRES farm advisors to be as factual as possible concerning the information they disseminate. So, believe me, they did the best they could, given the lack of scientific data available early on, and the knowledge that affected growers were struggling with difficult financial decisions.

With that said, I am alerting you to a just-released webpage produced by your California Pistachio Research Board, which provides the latest information concerning PBTS. Research is in progress on answering the important questions of transmission by implements and soil. We will keep you posted of any new information regarding this serious problem. UC thanks Dr. Bob Klein, for taking the leadership as a neutral party in summarizing the current data base.

Sincerely,

Robert H. Beede
UCCE Farm Advisor, Emeritus
<http://www.calpistachioresearch.org/PBTS.html>