Understanding the Disposal and Utilization Options for Sudden Oak Death - Diseased Wood

John Shelly, University of California Cooperative Extension Advisor, UC Richmond Field Station, Building 478, 1301 South 46th Street, Richmond, CA 94804; (510) 231-9414, john.shelly@nature.berkeley.edu; Ramnik Singh, Post Graduate Researcher, University of California, Richmond Field Station; Christine Langford, Staff Research Associate, University of California, Richmond Field Station; Tad Mason, Forester, TSS Consultants, Rancho Cordova, CA

Removing trees inflicted with the Sudden Oak Death (SOD) disease is often necessary because of hazard issues or homeowner/landowner desires. An alternative to disposal of this material is to find acceptable uses for this diseased material. A series of studies are being conducted to help understand the risk of spreading the SOD diseased wood through disposal and utilization activities. Two yards are set up for the collection of wood suspected of being infected with SOD, one in Marin County and one in Santa Cruz County. More than 600 tons of woody, SOD host material has been processed through the collection yards, most from the removal of hazard trees. This material was converted into fuel for biomass power plants, firewood, and lumber. The studies included in this project include periodic monitoring for \textit{P. ramorum} spores during various stages of the processing and transportation by sampling the host material delivered to the sites and also monitoring the host vegetation growing in and around the collection yards.

The sampling yielded a small number of positive cultures of \textit{P. ramorum} isolated from a variety of the unprocessed and processed materials at the collection yards (delivered chips, firewood, and grinder dust from a hammer milling operation). Of the chip samples, 1 of 45 at the Marin yard and 1 of 21 at the Santa Cruz yard produced positive cultures of \textit{P. ramorum}. Eight of 76 samples of freshly split firewood and one of 30 samples of 6-month air dried firewood at the Marin yard also tested positive for \textit{P. ramorum}. Grinder dust from the processing of diseased material into power plant fuel tested positive in 4 of 26 samples at the Marin yard and 1 of 11 samples in the Santa Cruz yard. In addition, one of 3 rainwater runoff samples from the Marin yard tested positive. Firewood and runoff rainwater were not sampled at the Santa Cruz yard. The sampling results of the host vegetation growing in and around the collection yards confirmed the presence of \textit{P. ramorum} at each site before operations began but continued sampling has not revealed any significant increase to date in \textit{P. ramorum} activity.

This early data suggests that although viable \textit{P. ramorum} spores can be isolated from various stages of processing at the collection yards, no evidence has been gathered to date to support the hypothesis that the collection, sorting, and processing activities in the collection yards influences infestation levels in host vegetation growing in and around the sites.

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