

Accreditation to Improve Restoration Program Shows Promise for Pathogen Prevention¹

Susan J. Frankel,² Tedmund J. Swiecki,³ Elizabeth A. Bernhardt,³
Diana Benner,⁴ Cheryl Blomquist,⁵ and Suzanne Rooney-Latham⁵

Abstract

In 2018, we launched a pilot project, “Accreditation to Improve Restoration and Native Plant Nursery Stock Cleanliness (AIR)” to explore whether an audit-based accreditation program could be used to increase confidence that restoration and native plant nursery stock are not infected with *Phytophthora* species. Due to capacity and cost limitations, we accepted eleven nurseries in the greater San Francisco Bay Area in the initial phase. Each participating nursery completes a self-assessment to confirm that they are producing plants with the practices outlined in the Phytophthoras in Native Habitats Work Group best management practices for restoration nursery stock (BMPs) (see http://www.suddenoakdeath.org/wp-content/uploads/2016/04/Restoration.Nsy_.Guidelines.final_.092216.pdf). These practices require the growers to dedicate a significant amount of time and attention to phytosanitation throughout their operations.

The nursery self-assessment covers all aspects of production divided into twelve categories including layout, water source, growth media (soil), propagation and sanitation. The assessment form is a shared online document that includes both nursery-supplied data and the auditors’ responses and risk ratings as well as test results. After the self-assessment is completed, the audit team visits the facilities to check for BMP compliance and assess risk pathways associated with the nursery’s infrastructure. The auditors also conduct limited testing of nursery stock for the presence of *Phytophthora* using a standardized irrigation leachate baiting method unless equivalent third-party test results are available.

The audit process helps nurseries validate their existing practices and identify areas for improvement. In general, restoration nurseries that adopted the Nursery *Phytophthora* BMPs in

¹ A version of the paper was presented at the Seventh Sudden Oak Death Science and Management Symposium, June 25-27, 2019, San Francisco, California.

² USDA Forest Service, Pacific Southwest Research Station, Albany, CA 94710.

³ Phytosphere Research, Vacaville, CA 95687.

⁴ The Watershed Nursery, Richmond, CA 94804.

⁵ California Department of Food and Agriculture, Sacramento, CA 95832.

Corresponding author: S. Frankel, susan.frankel@usda.gov.

2016 or earlier and had results from internal and/or third-party pathogen testing, showed good BMP compliance. Feedback from periodic testing is critical for identifying and correcting problems before they can spread. Nursery audits have provided insights into both the variety of challenges faced by different nurseries as well as the approaches that can be used to implement the BMPs. Feedback from the audit process have also been used to make AIR program improvements and identify research data gaps. For the program to be more widely adopted, a consistent source of financial support and an organization to act as the auditor need to be identified.