

How Do We Know if Plants in Our Nursery Have *Phytophthora*? Detection Methods and an Integrated Approach to Monitoring¹

Christa Conforti²

Abstract

A *Phytophthora cactorum*-infected nursery crop of *Ceanothus thyrsiflorus* was used to evaluate three *Phytophthora* monitoring methods. The *Phytophthora* detection level of three non-destructive sampling methods was quantified and compared to the detection level of destructive sampling. Non-destructive methods were (a) composite soil/root samples, pear-baited, (b) effluent samples, pear-baited, and (c) Agdia ImmunoStrip tests run on root samples. Time and expense of each method were also tracked. The baited soil/root sample method was the least labor intensive and most cost-effective method to test a large number of plants at our nursery. It also allows for species-level identification of *Phytophthora*, and has no risk of false positives. But detection level was 60%, so we have decided to combine it with destructive sampling, for an integrated monitoring approach.

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² Presidio Trust, San Francisco, CA 94129.

Corresponding author: CConforti@presidiotrust.gov.