

## **Potential for Re-Infection of Finished Compost by *Phytophthora ramorum***

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A large amount of plant material, potentially infected with the quarantined pathogen *Phytophthora ramorum*, is brought into composting facilities in infected regions on a daily basis, and therefore may present an infection risk to users of finished compost coming from these facilities. This study seeks to explore the potential for infection of finished compost by this pathogen.

The survival rate of *P. ramorum* was assessed when introduced at high rates into composts of varying provenance and curing time, produced by both “turned windrow” and “forced air static pile” techniques. Survival in some compost media (provenance) was high and statistically indistinguishable from positive controls ( $P < 0.01$ ), while survival in other media was statistically indistinguishable from negative controls ( $P < 0.01$ ). The difference between positive and negative controls was large and highly significant ( $P < 0.01$ ). We found no significant differences in survival rates between compost processing techniques or curing time.

These results suggest that sources of fresh plant material should be isolated from curing and finished compost at facilities producing compost for commercial sale or transport out of quarantined areas. The source of variation by provenance will be explored.