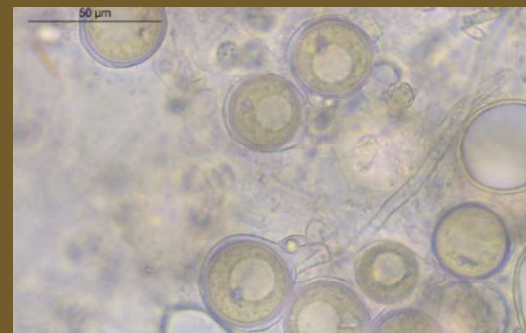


Phytophthora in public gardens: understanding pathways and mitigating risk (Phyto-gard)



Funding

Non-competitive funding mechanism. Each funder only pays for the participation of their own national researchers. Total funding € 161 800

Research consortium

DEFRA (GB), CFIA (CA), VUKOZ (CZ), SASA (GB), BPI (GR), UNICT (IT), AFSVSPP (SI)

Contact information

Project coordinator: Fryni Drizou
frynidrizou@rhs.org.uk; fdrizou@elgo.gr

Goals

Species of the oomycete *Phytophthora* cause devastating losses in trees and plants, with the global trade linked to the introduction of new species. Public gardens are a source of diverse plant collections but their role in spreading *Phytophthora* diseases is unclear. This project addressed this question by identifying *Phytophthoras* in gardens and supply nurseries by widespread sampling of potential pathways of infection.

Objectives

- (a) To determine the prevalence of *Phytophthora* spp. in plant collections, soil and water and identify potential sources of introduction into gardens from supply nurseries.
- (b) Raise awareness of *Phytophthora* high-risk areas with garden managers and suppliers.

Key outputs and results

- Strong evidence that public gardens are home to a wide range of *Phytophthoras*, found in plants, soil and water.
- Confirmation that incoming plant stock poses a high risk of introducing these pathogens.
- Some *Phytophthoras* are cosmopolitan and dominate the samples; some are country-specific.
- The range of *Phytophthora*-associated hosts is broader than perceived and our definition of risky hosts needs to be expanded.
- Mitigation of *Phytophthora* risk should consider the entire process from procurement, quarantine, planting and site management.