



Horticultural  
Development  
Company

# New Project

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## HNS 181

Survey, detection and diagnosis of Phytophthora root rot and other causes of die-back in conifers.

- Project Number:** HNS 181
- Title:** Survey, detection and diagnosis of *Phytophthora* root rot and other causes of die-back in conifers.
- Start and end dates:** 01 April 2010 to 31 March 2011
- Project Leader:** Erika F. Wedgwood
- Project Co-ordinator:** Roger Ward
- Location:**
- Golden Grove Nursery, Wigtoft, Boston, Lincs, PE20 2PU (R. Ward). Development of protocols for growers on home-made leaf bait production and the initial sampling of tissue for LFD on a commercial nursery - possibly
  - Foresite Diagnostics Ltd, Sand Hutton, York, YO41 1LZ (P. Meakin) PDplus testing of LFD strips.
  - The Royal Horticultural Society, Dept Plant Pathology, Wisley, Woking, Surrey GU23 6QB (G. Denton) for PCR testing of whole plants and plant clinic survey.
  - Fera, Sand Hutton, York YO41 1LZ (P. Beales) Plant clinic survey.
  - ADAS Boxworth, Cambridge CB23 4NN (E. Wedgwood) for plant testing.

**Background and project objectives:** Conifer dieback is a common, sometimes very damaging disease on many UK nurseries. Dieback symptoms can be caused indirectly by various species of *Phytophthora* and other root-infecting fungi, especially species of *Pythium*, *Thielaviopsis*, *Rhizoctonia* and *Fusarium*. Direct fungal or pest attack can also result in dieback. Information on the relative importance of different causes is lacking.

This project aims to identify the common causes of root rot and dieback on UK nurseries through grower surveys and on-site and laboratory diagnosis, including the determination of the species of *Phytophthora* from on-site lateral flow devices (LFDs) using the PDplus molecular diagnosis service. Additionally, the occurrence and location of *Phytophthora* and *Pythium* spp. in water on nurseries will be monitored using bait tissues and LFDs.

Further information

Email the HDC office ([hdc@hdc.org.uk](mailto:hdc@hdc.org.uk)), quoting your HDC number, alternatively contact the HDC at the address below.

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