



Horticultural  
Development  
Company

# New Project

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**FV 374**

Carrot: Investigating the  
Cause of Crown Rot in  
Organic Crops

**Project Number:** FV 374  
**Title:** Carrot: Investigating the Cause of Crown Rot in Organic Crops  
**Start and end dates:** 01/4/10 - 31/3/12  
**Project Leader:** Dr FJ Burnett  
**Project Co-ordinator:** TBA  
**Location:** Trial work is not proposed for this project.

**Background and project objectives:**

Crown rot occurs sporadically in organic carrot crops causing a slow moving rot progressing from the carrot crown, leaf death and secondary rotting. Where it occurs in organic carrot crops it is very damaging – yield losses in 2007 are estimated at £500, 000. In organic crops, outbreaks are currently treated with copper products but this option will be removed under EU directive 91/417. The aim of the current proposal is to identify the causal organism(s) with the further aim of then being able to develop a further proposal to test control measures effective on the causal agent. Attempts in the past to isolate a causal organism (or organisms) for crown rot have been inconclusive with a number of bacterial, viral and fungal pathogens and saprophytes identified. This project would collate results from previous outbreaks investigated by SAC, STC and ADAS. High risk weather patterns would be assessed for and the pathogens identified in these investigations catalogued. Outbreaks in the season of study will also be investigated. Pathogens identified will be cultured and re-inoculated onto carrots, singly and in combinations, to test if they induce symptoms. Additionally, molecular techniques will be used to screen samples for organisms that cannot be cultured by conventional means and this methodology represents a new opportunity to investigate this problem.

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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