

# New Project

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## FV 395

Strategies for broccoli management to improve quality and extend storage life.

<b>Project Number:</b>	FV 395
<b>Title:</b>	Strategies for broccoli management to improve quality and extend storage life.
<b>Start and end dates:</b>	1st April 2011 to 30th November 2013
<b>Project Leader:</b>	Dr Richard Colgan, University of Greenwich at Medway
<b>Industry Representative:</b>	Gavin Willerton
<b>Location:</b>	Main site: Marshalls Additional sites: Jim Mount Centre
<b>HDC Cost:</b>	£95,274

### **Project Summary:**

The aim of this project is to define strategies for pre and post-harvest management of broccoli to improve quality and extend storage life. The outputs of the project will enable the industry to reduce waste and crop losses both in the field and post-harvest. It is estimated that these losses presently cost the industry more than £6 million and more than £3 million respectively. The strategies to be tested include technologies to reduce the concentrations of ethylene in packhouses and store rooms, the use of the ethylene antagonist SmartFresh™ (1-MCP) and the use of pre-harvest chemical treatments to manipulate ethylene production and response by broccoli heads. In addition the project will investigate the use of chlorophyll fluorescence to assess maturity and shelf-life of broccoli at harvest and thereby to improve the consistency of the harvested crop.

### **Aims & Objectives:**

(i) Project aim(s):

To define strategies for broccoli pre- and post-harvest management to improve quality and extend storage life.

(ii) Project objective(s):

To evaluate the potential to improve quality and to extend storage/shelf-life through

- The management of ethylene concentrations in packhouses and store rooms
- The use of post-harvest treatments with SmartFresh™ (1-MCP).
- The use of pre-harvest chemical treatments to manipulate ethylene production and response.
- To define a protocol to use chlorophyll fluorescence to assess maturity and shelf-life of broccoli at harvest and thereby to improve the consistency of the harvested crop.

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