



Horticultural
Development
Company

New Project

SF 107

Optimising water, nitrogen and calcium inputs to maximise quality, flavour and shelf-life in soil-less strawberry production

Project Number: SF 107

Title: Optimising water, nitrogen and calcium inputs to maximise quality, flavour and shelf-life in soil-less strawberry production

Start and end dates: 1 April 2009 to 31 March 2012

Project Leader: Dr Mark Else, EMR

Project Co-ordinator: Mr John Atwood

Location: East Malling Research, Kent

Background and project objectives

The project aims to improve the economic sustainability of soil-less strawberry production by reducing water and nutrient inputs and manipulating the form of nitrogen nutrition to improve berry yields, flavour and shelf-life potential. Current recommendations for irrigation and fertigation in soil-less strawberry production are unsustainable. Novel irrigation scheduling strategies devised in Defra project HH3609TX will be used to deliver significant water savings with associated improvements in berry quality. Fertigation regimes will be tailored to optimise nutrient supply and fruit flavour under the improved irrigation strategies. The ratios of nitrogen supplied from two different chemical forms, nitrate and ammonium, will be manipulated to improve berry size, firmness, soluble solids content and shelf-life potential. Substantial improvements in water and nutrient use efficiencies and subsequent reductions in diffuse pollution will help growers to comply with legislation. A cost-benefit analysis will provide growers with management information for the future development of their industry.

Further information

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

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