



Agriculture & Horticulture
DEVELOPMENT BOARD



New Project

PO 010

LED Lighting for Horticultural
Applications – Establishing the
Economics of Current Hardware
Offerings

Project Number:	PO 010
Project Title:	LED Lighting for Horticultural Applications – Establishing the Economics of Current Hardware Offerings
Project Leader:	Chris Plackett
Contractor:	FEC Services Ltd
Industry Representative:	Alan Davis (PO Panel Chair)
Start Date:	23/04/2012
End Date:	08/06/2012
Project Cost:	£3,550

SUBJECT TO CONTRACT

Project Summary:

The costs of using the currently available LED technology will be compared to those for conventional lighting technology.

Three specific applications of LED will be analysed and compared. These are;

- Day-length control lighting
- Multilayer lighting (e.g. germination, growing rooms, cutting establishment etc)
- Inter-crop lighting

The financial returns from improvements in crop production needed to justify the move to LED lighting will be quantified.

Project results will be presented in a simple factsheet format with one factsheet for each of the 3 applications. The factsheets will clearly show the calculation methodology so that growers can use the project results to make cost comparisons that are specific to their own circumstances.

Aims & Objectives:

a. Project aim:

To establish the economics of the LED lighting solutions that are currently available to growers

b. Project objectives:

i. To provide growers with an economic analysis of the LED lighting solutions that are currently commercially available and to compare the costs with the established best practice lighting technologies

ii. To deliver an economic analysis framework that growers can use to determine the cost effectiveness of LED solutions as and when new developments are forthcoming

Benefits to industry

De-mystify the cost / benefit relationships for the current generation of LED lighting equipment so that growers can establish whether it is worth investing in the technology at the moment. The work will help growers avoid making poor investment decisions that ultimately have no financial benefit to their businesses.

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