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- **British Tomato Growers Conference**

The latest news, views and industry information from the LED plant growth lighting specialists

University of Bristol Case Study

The following case study was written by the Sustainability Department at the University of Bristol to highlight the benefits of replacing their sodium lamps with PhytoLux LEDs.



What

The rooftop Grodome in the new Life Sciences Building was equipped with high pressure sodium lamps for plant growth. These high energy use and high heat producing lamps were replaced by a low energy, low heat LED solution. The LED solution was not available when the facility was built but the technology is now advanced enough to use.



Where

Rooftop Grodome – Life Sciences Building. The unit provides plants for research and for student learning under strictly controlled conditions.

Why

Chris Jones, Sustainability Manager (Energy) and Tom Pitman, Greenhouse Manager, were interested to investigate the potential energy save of LED lighting when compared to traditional plant growth lights.

LED lighting panel research
PhytoLux and Unigro on track with an ideal LED plant growth solution for universities and research organisations.



This unique LED system is a thin profile, low energy panel with up to 14 wavelengths that are individually programmable. The panel has been designed in conjunction with Unigro, one of the UK's leading controlled environment companies supported by the Plant Sciences Department at the University of Oxford. The panel provides a fully controllable solution for university and research growth chambers and is an ideal plant growth lighting solution for universities and research organisations.

The panel will be launched at the CEUG (Controlled Environment User Group) conference at University College Dublin on 8th - 10th September 2015.

Details of the panel will also be available from our stand at the Four Oaks Trade Show.



United Kingdom Controlled Environment User Group

A comparison trial was set up and the results showed LED induced an excellent plant response, with an average energy save per lamp of **1100kWh** compared to traditional lighting. The decision was taken to replace the 77 sodium lights in the rooftop Grodome with low energy LED lights.

Results

The predicted **energy save per year of changing to LED lighting is 70%** and the predicted **carbon saving is 44 tonnes per year**. The payback is 2½ years on energy alone, not including lamp replacement and air conditioning savings.

LED lighting requires minimal maintenance and has a low heat output, meaning additional savings will be made on maintenance costs and substantial savings on air-conditioning. The saving on lamp replacement is expected to be **more than £3k** over the payback period.

State of the art LED plant growth lights ensure students and staff now have the most up to date facilities in this new building.



Who

Chris Jones, Sustainability Manager (Energy) PhytoLux Ltd (www.phytolux.com)

When

Lighting installed July 2015.



British Tomato Growers Conference

23-24 September 2015
Chesford Grange Hotel

Following the success of British Tomato Week 2015, the British Tomato Growers' Association is approaching this year's conference with even more energy and enthusiasm than usual. The team from PhytoLux will be attending the event and are looking forward to meeting you at the stand and answering any questions you may have about our product range.

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Come and meet us at the Four Oaks Trade Show in September



STAND C74a

8th and 9th
September
2015

PhytoLux will be exhibiting at the Four Oaks Trade Show in Cheshire on the 8th and 9th September 2015. Come and meet us if you would like to hear more about how we have been working with UK universities, research institutions and commercial growers. These collaborative partnerships have enabled us to develop our Attis range of LED lights to provide a complete solution to efficient, effective and economic plant growth lighting.

PhytoLux - helping your cash flow!

PhytoLux is in partnership with a number of lease financiers to offer customers a flexible financing solution to match their requirements and circumstances. Whilst an outright purchase is simple, it can impact short-term cash flow, undesirable if coinciding with heavy seasonal costs. The PhytoLux lease finance option allows for early adoption of LED technology without affecting business viability.

Contact us for more details:

enquiries@phytolux.com