

PHILIPS

Horticulture
LED Solutions

Case study
Gediflora

Oostnieuwkerke, Belgium



Philips GreenPower LED flowering lamp

High-quality cuttings
and **energy savings**

“We think that the payback period of 18 months is really phenomenal.”



“

The LED lamps accord with **our vision of sustainability.**”

Elien Pieters, Managing Director, Gediflora



Background

Gediflora is a family business specializing in breeding and propagating cushion chrysanthemums. The adventure started in 1952, when Georges Pieters switched from growing lettuce and tomatoes to growing and propagating pot chrysanthemums. Thirty years later his son Dirk took over the management of the firm. He decided to focus entirely on breeding and propagation and in 1991 he put his first varieties on the market. As a result of the improved product range, the chrysanthemum underwent a metamorphosis from a ‘cemetery plant’ to a beautiful, stylish blooming pot plant for the living-room and garden. Over thirty years later the third generation is ready. Daughter Elien Pieters and her husband David Daenens have managed Gediflora since 2013. The company is a leader in breeding pot chrysanthemums and markets its varieties under the name of ‘Belgian Mums’. Gediflora now has 3 hectares of greenhouses and 14 hectares of trial and production fields. A third of this area is fitted out specifically for breeding operations. As well as the cuttings grown in Belgium, much

of the production takes place in the southern hemisphere, in Brazil. These cuttings are flown to Europe twice a week by refrigerated transport. Rooting takes place at the company’s own nursery in Oostnieuwkerke. Gediflora has an extensive dealer network in Europe and exports plant material to the USA, Japan and South Korea.

The challenge

The breeding company uses cyclic lighting above the mother plants to stimulate vegetative growth and combat budding in the cuttings. Since 1 September 2012 the sale of a large number of types of incandescent lamps has been banned throughout the European Union. This meant that Gediflora had to go in search of a different type of lighting. Energy-saving lamps proved not to be a good alternative for this, since budding still occurs. The company, in conjunction with Proefstation (testing station) Destelbergen, therefore conducted trials with energy-saving lamps and LED lamps. They examined light intensity, lighting time and lighting



duration. It quickly became clear that the far red light provided by Philips GreenPower LED DR/W/FR flowering lamps was needed to keep the mother plants completely vegetative. Trials with other color combinations without far red produced significantly greater budding in the same installation.

The solution

Finding the right method of cyclic lighting in mother plant cultivation requires a careful approach. After three years of testing at the test station and on its own farm, in June 2014 Gediflora decided to install 800 Philips GreenPower LED DR/W/FR flowering lamps. The initial cultivation results indicate that the new lamps are similar to the old cyclic lighting with incandescent lamps. So a solution has been found for eliminating unwanted budding, which could not be achieved with fluorescent lamps.

Benefits

Gediflora was looking for a good replacement for incandescent lamps and found an equivalent alternative by opting for LED lamps. The energy consumption of LED lamps is as much as 60% lower than incandescent lamps. This energy reduction accords with Gediflora's vision of sustainability. The company uses residual heat from a neighboring firm, recycles water and fertilizers, and has installed solar panels. The use of LED lamps is a natural addition to these measures. Despite the higher cost of purchase, the company will be able to recoup the investment within 18 months.

“

Knowledge doesn't just arrive. **We've spent three years doing the research.**”



Facts

Horticulturalist / grower

Gediflora

Sector

Ornamental plant cultivation

Crop

Chrysanthemums

Location

Oostnieuwkerke, Belgium

Solution

Philips GreenPower LED flowering lamp

Philips LED Horti Partner

Mais

Objective

Preventing chrysanthemums from budding



© 2015 Royal Philips N.V. All rights reserved. Philips reserves the right to make changes in specifications and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication.

Document order number: 3222 635 70007
02/2015
Data subject to change

For more information about
Philips horticulture LED Solutions visit:
www.philips.com/horti

Write us an e-mail:
horti.info@philips.com

Or tweet us:
[@PhilipsHorti](https://twitter.com/PhilipsHorti)