

The Philips logo is displayed in a white rounded rectangle in the top left corner of the page. It consists of the word "PHILIPS" in a bold, blue, sans-serif font.

Horticulture
LED Solutions

Case study
Walters Gardens

Zeeland, MI

Philips GreenPower toplighting module

The **right light solution**
for faster finish times,
healthier plugs, and
more compact growth

“Several crops finished as much as two weeks faster compared to the same crops growing under HPS.”



“

With Phillips LED fixtures we have experienced greatly reduced crop times with an **increase in overall plant quality while using less energy.**”

Troy Shumaker, Chief Financial Officer



Background

Established in 1946, Walters Gardens has grown from a farm of less than five acres to a multi-million dollar corporation with more than 200 employees, over 1,500 acres, and 500,000 square feet of greenhouse space. Shipping more than 18 million perennial liners annually to independent garden centers, wholesale growers, landscapers, and municipalities across the United States and Canada, Walters Gardens is a market leader in the perennial industry driving operational excellence through the implementation of innovative technologies.

Jeremy Windemuller, the trial manager at Walters Gardens, has a true passion for growing perennials and improving growing practices. A 13-year employee of Walters Gardens, he is responsible for testing new products received from the hybridizing labs and trialing new varieties. Windemuller was named to *Greenhouse Management* magazine's Generation Next Class of 2015.

The challenge

In August 2014, Walters Gardens connected with the Philips Horticulture LED team to discuss conducting a trial on various cultivars including coreopsis, echinacea, heuchera, lavender, sedum, and more. In addition to enhancing the quality of their perennial liner production particularly during winter production, Windemuller was interested in finding alternatives to help manage finish times to ensure timely delivery of plants for industry trade shows while reducing overall crop loss rates.



The solution

Walters Gardens pursued a trial with Philips GreenPower LED toplighting as a means of evaluating and comparing plant performance under LED versus high pressure sodium fixtures. Walters Gardens was also interested in assessing the impact of LED on energy costs through a winter trial as well as any attributed potential savings in operational and labor costs.

Windemuller and Troy Shumaker, Walters Gardens' Chief Financial Officer, worked with Philips Plant Specialist, Dr. Abhay Thosar, and Philips Application Engineer, Rachelle Winningham, to develop a precise light solution for the trial. After several on-site visits and a thorough assessment of the greenhouse and growing conditions, Dr. Thosar collaborated with Windemuller to set up the trial beginning by week two with light spectrum of DR/B MB and a light-level target of 80 micromoles.

“

Dianthus and hibiscus **finished as much as two weeks faster** under LEDs compared to the same crops grown under HPS.”

Jeremy Windemuller, Trial Manager

Benefits

With the toplighting trial, Windemuller noted numerous improvements with multiple perennials including:

Finish times reduced by as much as 10-14 days

- *Dianthus*
- *Hibiscus*

Better survival percentage and consistent growth of plants throughout plug tray

- *Agastache*
- *Heuchera*
- *Echinacea*
- *Hibiscus*

Better or more lateral/basal branching improving the look of the crop without manual shearing or use of PGRs

- *Heuchera*
- *Sedum*
- *Lavandula*

Faster and better rooting coupled with compact plant growth

- *Agastache*
- *Hibiscus*
- *Dianthus*
- *Leucanthemum*
- *Gypsophila*
- *Perovskia*

Increase in flowering percentage with an appealing appearance

- *Coreopsis*
- *Nepeta*

Prominent leaf coloration—desirable for certain cultivars

- *Sedum*

In addition, Shumaker noted the slim profile and the module's quiet operation as being positive attributes of the Philips LED toplighting module. And the energy savings, as Shumaker noted, “are just icing on the cake.”

As the next step in the development and application of energy-efficient LED lighting for greenhouses, Philips toplighting offers growers the right light solution for faster finish times, healthier plugs, and more compact growth.



Agastache Peachie Keen



Coreopsis Red Chiffon

Facts

Grower

Walters Gardens

Location

Zeeland, Michigan USA

Sector

Ornamental, perennial, potted, bedding, and holiday plants

Crop

Winter production of various cultivars

Solution

Philips GreenPower LED toplighting module

Philips LED Horti Partner

Fred C. Gloeckner

Results

- 10-14 day faster finish times for select cultivars
- Increased survival percentage in plug trays



© 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 70085
06/2015
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)