



PHILIPS

Horticulture
LED Solutions

Case study
Welroy Fruit
Wellen, Belgium



GreenPower LED toplighting

Strawberries ahead of the rest

Our December strawberries taste as sweet as summer grown strawberries



“

LED has the potential to get our Sonata strawberries to market 3 weeks earlier.”

Frank Royen, Co-owner



Background

Welroy Fruit is a family company in every sense. Brothers Frank and Jurgen Royen began running it in 2005, and Frank's son Sven joined them in 2014. Today the entire family puts their heart and soul into making the daily operations run smoothly and productively. Strawberries are their most important crop, which are produced from March through December. Other fruits include raspberries, apples and pears. They are committed to growing practices that are both eco-friendly and efficient. Welroy Fruit uses beneficial insects for pest control, energy efficient technologies and strict climate control methods. They continue to invest in new sustainable solutions like LED grow lighting. The company is GlobalG.A.P. (Good Agricultural Practice) certified, which ensures that its products meet stringent global standards for food safety and traceability.

The challenge

Welroy Fruit is a mid-size company that sells about 200-250 tons of strawberries a year. March is a key month for them. After a long cold winter, consumers are eager to get fresh sweet strawberries that signal the start of spring. In this period, Welroy Fruit sells about 60% of their strawberries to local markets – via outdoor farmer's markets, local supermarkets and fruit vending machines – for a higher margin than the crops sold in the fruit auctions to retailers. But the competition among Belgian strawberry growers is fierce because they all come to market at the same time. To get a jump on the crowd, Welroy Fruit looked at using LED lighting in its two greenhouses which span 5000 square meters. Their aim is to get the Sonata variety of strawberries to the more profitable local markets earlier, and to grow sweeter strawberries than are usually available early in the spring.

The solution

The company evaluated high pressure sodium (HPS) and LED grow light options for their existing greenhouses together with Philips Lighting, their horticultural partner, Agrolux, and advisors from the Delphy agricultural institute. “Usually HPS lighting would be the most economical option for our size of greenhouses, but calculations showed it was more economical to install a full LED grow light system. We preferred that, because HPS grow lights produce less sweet tasting strawberries and would require the installation of a costly Combined Heat and Power (CHP) system,” says Frank Royen, co-owner Welroy Fruit.

In summer 2017, Agrolux installed a full LED system with Philips GreenPower LED toplighting for their two greenhouses. Jurgen Royen, co-owner Welroy Fruit: “We are very happy with the support we received from all of the parties in this project. They helped us pick the most economical and effective system for our situation.”

“
It was more advantageous
for us to install a full
LED system than an HPS
system”

Benefits

The first crops were planted in the two greenhouses in fall 2017 for the December harvest. “We began harvesting the first fruit grown under LED in December and it has surpassed our expectations so far,” says Frank Royen. “The strawberries taste sweeter and each plant has a full cluster of fruit. The plants are also healthier, with fewer yellow leaves. Our ultimate goal with LED is to get consistent production and LED is helping us do that.”

All eyes are now focused on the crop for the critical month of March. Jurgen Royen: “We are competing in a very difficult market. If we can bring our fruit to market three weeks earlier, that will give us a huge advantage and will help us further build our local customer base.”



Philips GreenPower LED toplighting



Facts

Horticulturalist/grower

Welroy Fruit

Segment

Fruit

Crop

Strawberries

Location

Wellen, Belgium

Solution

GreenPower LED toplighting

Philips LED Horti Partner

Agrolux

Results

Sweeter tasting strawberries, healthier plants with fewer yellow leaves



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