



PHILIPS

Horticulture
LED Solutions

Case study
Kwekerij
Wim Peters

Someren, the Netherlands



Philips GreenPower LED interlighting and GreenPower 600 W HPS lamps

Tomatoes of the
very best quality
all year round

Without letting the production and investment costs rise too high



“

We were working on the basis of a saving on energy costs of approximately 1 euro per m², now that we have been using the system for a few months we are delighted to find that the savings are going to be even greater.”

Wim Peters, Director, Kwekerij Wim Peters



Background

Proprietor Wim Peters is the third generation of the Peters family to grow tomatoes. The business was originally based in Loosduinen, in the Zuid-Holland province, but in 2002 it moved to Someren in the Noord-Brabant province. Wim took over the business from his father and uncle in 2000. At the end of 2003 Kwekerij Wim Peters had a total surface area of 7.43 ha. In 2008 Wim acquired another business close by and now has an area covering some 16 hectares.

The challenge

For the past ten years Kwekerij Wim Peters BV has concentrated on growing plum tomatoes. Family-run businesses often have strong traditions, but Wim manages to combine a respect for experience gained in the past with a keen eye for present-day possibilities and opportunities. ‘Until now, in the winter it has not been possible to supply plum tomatoes that we have produced ourselves. We therefore had to import tomatoes from Spain. They are of a slightly lesser quality. This dip in the quality of our supply was putting the continuity of our sales at risk.’ Wim Peters

therefore made it his mission to set up the lighting and the climate in the greenhouses in such a way that his business would be able to supply its own tomatoes of the very best quality all year round, without, of course, letting the production and investment costs rise too high.

The solution

Working in close consultation with the specialists from Philips, Wim Peters opted for a combination of HPS lighting with Philips GreenPower 600 W lamps and Philips GreenPower LED interlighting. The HPS lighting provides heat and light and the LED modules provide exactly the right amount of interlighting for the tomatoes in the most efficient way. The LEDs were installed in the greenhouses in the fall of 2013. In total Wim has installed no less than twenty kilometers of LED lighting in these greenhouses. Due to the low height of the greenhouses at Kwekerij Peters BV, a solution with 4x 600 W HPS and a line of LED interlighting was chosen. This produces a better heat distribution at the top of the greenhouse. The light distribution is also better in this situation compared with a solution based on 1000 W

HPS. 'The hybrid system offers a perfect combination, giving us maximum control to create the best possible conditions for the plants,' says Wim Peters.

Benefits

The months prior to the first harvest at the start of 2014 were especially exciting. Wim Peters' investment of time and money in the latest technology has made him a real pioneer. And, with the first harvest now behind him, he is particularly pleased with the results achieved using LED interlighting in practice. The yield exceeded all expectations in terms of both volume and quality. The plum tomatoes could be harvested earlier than initially expected, and Wim concluded that he could even have started using the interlighting several weeks earlier. The grower has shown with the harvest this winter that it is possible to supply top-quality plum tomatoes from your own greenhouses all year round. Wim explains: 'We are able to control growth

perfectly throughout the entire year using the hybrid lighting system.' Another benefit was that, although Wim was working on the basis of a saving on energy costs of approximately 1 euro per square meter, now that he has been using the system for a few months he is delighted to find that the savings are going to be even greater.

The hybrid approach creates even more opportunities. Thanks to the interlighting, the solution delivers a good 10% more available grow light to the plant and this grow light is distributed over the entire length of the plant. As a result, the leaves in the center and at the bottom of the plant also contribute substantially to growth and production, thus helping the tomato plants to retain their vitality. In addition, the hybrid lighting solution produces some 12 watts per m². This means that Wim Peters does not need to use a growth tube. The grow light at the top, which is provided by HPS, can be switched separately from the LEDs in between the plants. This provides additional opportunities for controlling growth.

“

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Facts

Grower

Kwekerij Wim Peters

Sector

Fruit and vegetables

Crop

Plum tomatoes

Location

Someren, the Netherlands

Philips LED Horti partner

BE de Lier

Solution

Philips GreenPower LED interlighting and GreenPower 600 W HPS lamps

Benefits

All-year-round production of tomatoes on site and substantial energy savings



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