



PHILIPS

Horticulture
LED Solutions

Case study
GrowUp Urban Farms

London, United Kingdom



Philips GreenPower LED production module

Local produce for London's restaurants **from GrowUp Urban Farms**

The Good Egg restaurant uses GrowUp's salad greens because they have an amazing flavor... And it's always the same



“

We use it **because it's got an amazing flavor,** really peppery, mustardy”

Chef Joel Braham, The Good Egg restaurant



Background

GrowUp Urban Farms was founded in 2013 by Kate Hofman and Tom Webster to build sustainable commercial urban farms growing food for local markets. They are committed to feeding people in cities in a way that is positive for communities and the environment; today and in the future. GrowUp reduces the environmental impact of agriculture by converting unused space into highly productive urban farms that grow produce. Using aquaponics, vertical growing technologies and protected cropping, the company can produce a year-round harvest of fresh, leafy vegetables and fish. GrowUp has built London's first commercial aquaponics urban farm in an unused warehouse in East London's industrial area. This farm can produce around 20,000 kilograms of sustainable salads and herbs and 4,000 kilograms of fish each year.

The challenge

The founders realized that if they wanted to build a farm that was commercially viable in a city where space is so important like London, they had to be able to grow up as well as use the space around them. Co-founder Kate Hofman says, “The only way to make that work was to grow indoors and we had to look for a lighting solution that would help us produce the best quality produce.” “We met with Philips because we were looking for a solution and a company that could really fit into the integration of this whole farm. We wanted someone who understood that it wasn't just about the technology, it was about fitting everything together. And we needed a solution that we knew was going to perform well enough to help us get the yields that we wanted and the quality of the produce.”

The solution

CambridgeHOK, Philips certified Horti LED partner, has worked intensively with GrowUp on the lighting design and building management systems for GrowUp's farm. Hofman and her business partner visited Philips GrowWise Center and received advice from the Philips vertical farm plant specialist on how to optimize their results. In the grow room of 250 square meters, 10 growing layers have been installed to create over 750 square meters of total growing area. Tailored light recipes are used to grow the baby leaf salads, herbs and micro greens. Hofman says, "With the lighting we get really good color across the leaf, really good shape, and a really strong and solid product." Everything is delivered to local customers within 12 hours after harvest. According to Chef Joel Braham at The Good Egg in Stoke Newington, London loves GrowUp's salad greens. "We use it because it's got an amazing flavor; really peppery, mustardy.... It doesn't matter what time of year we get the salad, even in the middle of the winter, it's always the same. To find a salad producer that's ten miles down the road in the middle of London is brilliant."

Benefits

Hofman says, "Using LED lighting offers a number of benefits for growing sustainable food. When we control what light the plants are receiving, we have more overall control over their growth. This means plants germinate quicker, their roots grow faster and we get bigger yields." LEDs run at cooler temperatures than other horticultural lamps. This means they can be placed closer to the plant ensuring its leaves are receiving a uniform amount and quality of light which encourages homogenous growth.

"Importantly for us, LED lighting is also highly energy efficient. In terms of energy usage LED lighting systems can use reportedly 85% less energy than traditional methods. The use of LEDs rather than fluorescent lamps, for example, helps us to further lower our energy consumption. Growing with lights also allow us to use our space more economically, as we can grow our produce vertically in layers rather than having to expose all our plants to the sun," says Hofman.



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Kate Hofman, Co-founder, GrowUp Urban Farms



Facts

Horticulturalist / grower

GrowUp Urban Farms

Segment

City Farms

Crop

Baby leaf salad, micro greens, herbs

Location

London, UK

Solution

Philips GreenPower LED production module

Philips LED Horti Partner

CambridgeHOK

Results

Plants germinate quicker, roots grow faster, and yields have increased. Energy consumption has been reduced and space is used more economically.



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