

PHILIPS

Horticulture

City Farming

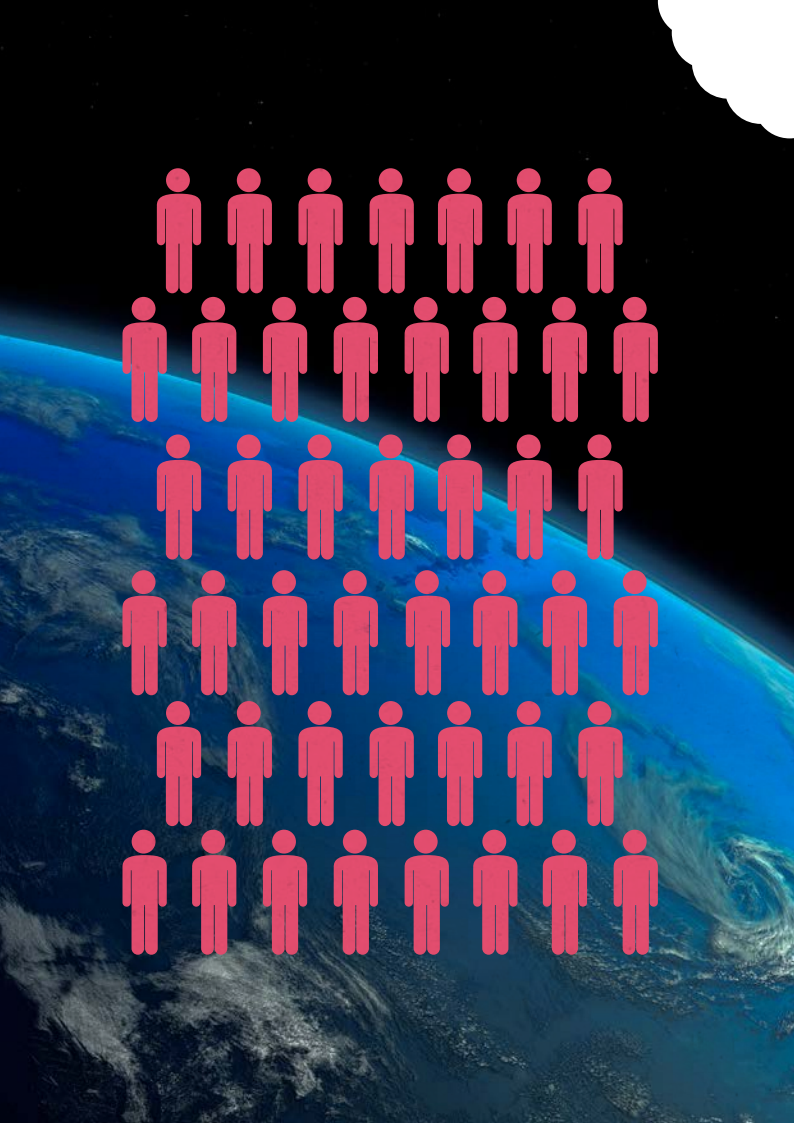
Taste the new **green**

Produce that is fresh, healthy and safe



How do we **feed** tomorrow's cities?

Where will we find the
resources to grow local
produce that's fresh, healthy
and safe for tomorrow's cities?





6.4 billion

city dwellers projected in 2050

60% of bagged salad

in the UK is lost between farm and fork

100 liters of water

to produce 1 kilogram of lettuce in an open field,
compared to just 1.5 liters of water in a City Farm

People

demand fresh,
local, pesticide-free food



80% of the millennials want to know more about how their food is grown

80% of the earth's arable land is already farmed

2,569 kilometers is the average distance for vegetables to be transported in the US from farm to fork

1 City Farm can feed 50,000 people

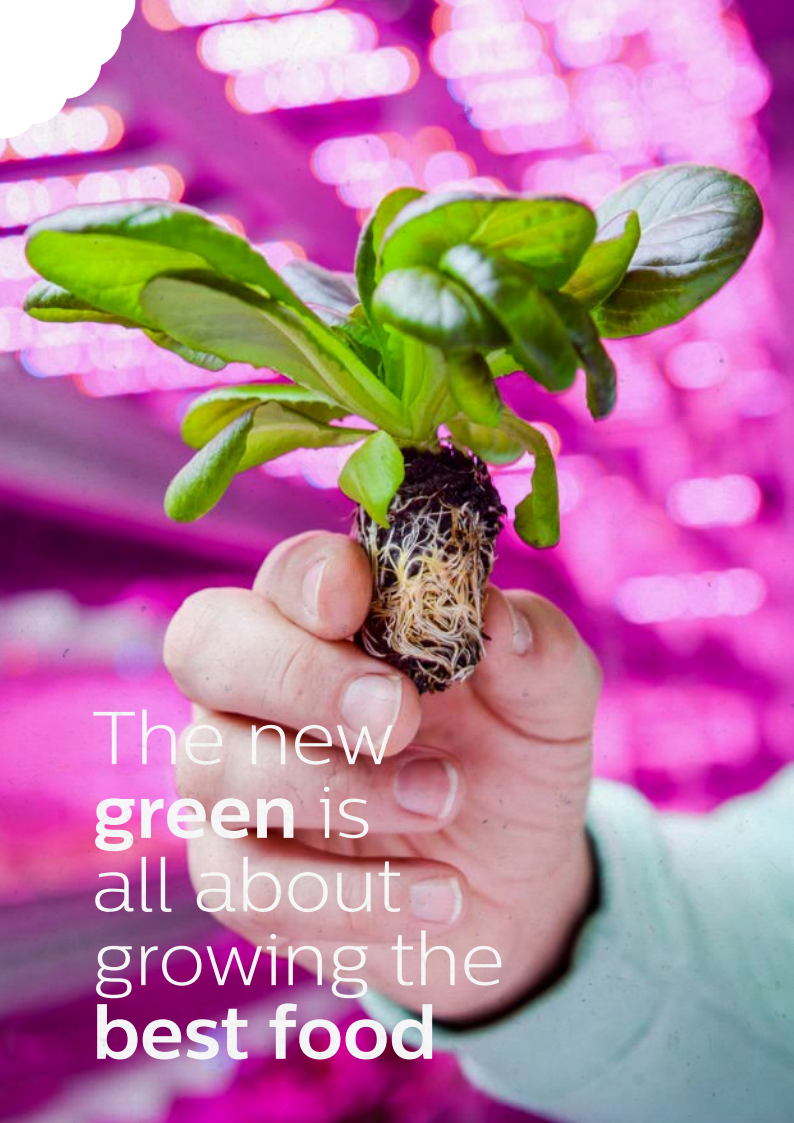


Growing the new green

City Farming makes it possible to grow tasty and healthy food virtually anywhere, regardless of the weather or season. Local production ensures freshness while substantially reducing waste because a minimum amount of transport (in some cases none at all) is involved. What's more, this is achieved using a fraction of the water and land area associated with conventional farming.

Philips is the best partner for City Farm lighting solutions, addressing the growing demand for healthy, sustainable and affordable food.





The new
green is
all about
growing the
best food

A **City Farm** is a **sustainable, reliable indoor vertical farming** facility. Crops are grown indoors in multi-layer systems. A City Farm can produce **high-quality vegetables, herbs and fruits** all year round - anywhere.

Growing conditions are **carefully controlled** using tailored **growth recipes**. They provide everything to grow high quality plants: the right light recipe, the ideal temperature, amount of water, CO₂ and the best substrates.

This farming method leads to **higher yields, less waste**, consistently great taste and **maximum nutrition**.

The recipe for healthy food

Red lettuce



Basil



Our light recipe knowledge has been developed over many years of cooperation with growers, universities and research sites to enhance growth. A light recipe indicates the light spectrum, intensity, illumination moment, uniformity and positioning of the LED light to get the best results. These light recipes are the base for our growth recipes.

Strawberries



Growing food where it is consumed

Indoor growing systems based on LED lighting can **maximize plant photosynthesis**, while **minimizing energy** use, for the most **delicious and nutritious** vegetables grown in a sustainable manner. **Growing crops vertically** makes it possible to pack more plants per acre than would be possible with a field farm, which means **more harvests per year**. And there is little waste produced, less agricultural run-off and **minimal greenhouse gasses** because the food is grown where it is consumed.

Left:
Udo van Slooten,
General Manager
Horticulture LED Solutions

Right:
Gus van der Feltz,
Global Director
City Farming Solutions



A photograph showing a person in a red shirt looking at a tomato plant. The plant is growing under a large, circular, red Philips LED grow light. The background is a modern, brightly lit indoor space, likely a greenhouse or a controlled environment for indoor farming. The text "Creating food of the future" is overlaid on the right side of the image.

Creating food of the future

City Farming is a natural and logical domain for Philips to participate in. With 75+ years' experience in horticulture we know how to grow plants more effectively. Not just by providing the ideal lighting, but also through the expertise of our in-house plant specialists, our collaboration with research centers, universities, certified Philips Horticulture LED Partners and growers worldwide.



Our holistic approach provides growers and city farmers with everything they need to achieve remarkable results, over and over again.

Our collaborations are pushing the boundaries. Together with Wageningen UR we have already increased the amount of vitamin C in tomatoes using LEDs. And grown new varieties. Who knows what other foods we can create for the future.

Leading the new era of farming

Uriah's Urban
Farms
Tampa, USA



Green Sense
Farms,
Portage, USA



Stockbridge
Technology Centre,
Yorkshire, UK



Philips City
Farming Research
Facility HTC7,
Eindhoven,
The Netherlands



Innovative City Farming facilities around the globe have been established in partnership with Philips. Based on our decades of experience in horticultural lighting, plant biology, technical and research capabilities.



BrightBox,
Venlo,
The Netherlands



Delicious,
Beesel,
The Netherlands



Sustenir
Agriculture,
Singapore



Osaka Prefecture
University,
Osaka,
Japan

Grown with Philips City Farming



Sustainable

Grown next door
using fewer resources
and food miles



Fresher and tastier

How nature intended

Healthier

Pesticide
free food

Efficient

Not affected by weather
or insects. Strictly controlled
growing conditions



Grow the **future** with us

Philips Horticulture LED Solutions

© 2015 Koninklijke Philips N.V. All rights reserved. Philips Horticulture 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.

www.philips.com/cityfarm
horti.info@philips.com

@PhilipsHorti (Twitter)