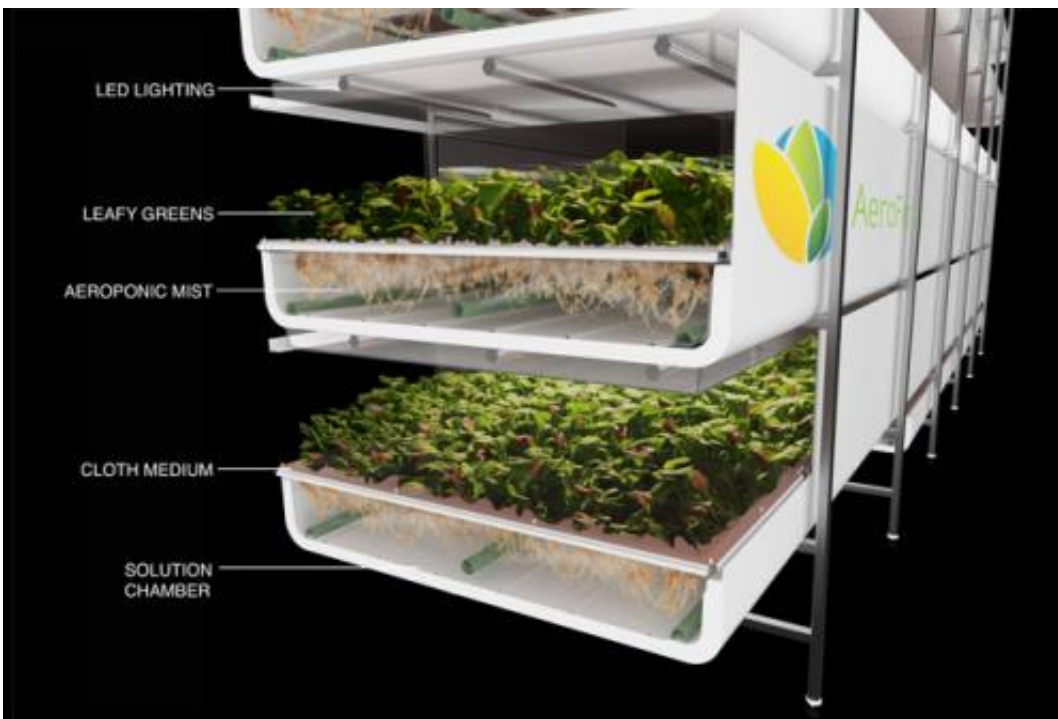


Vertical farming will produce edible greens in Newark

March 13 2015, by Nancy Owano



Welcome to your grocery-getting, cooking and eating future. You will want to get more familiar with phrases such as "vertical farming" and "controlled agriculture" to grasp what may be a growing force in how we produce and get our food. Dickson Despommier, Ph.D, respected Columbia professor of microbiology and public health and best teacher award-winner, has a website called The Vertical Farm and he has

conveyed his belief that the world would be a much better place if we had vertical farming.

He calls attention to the fact that New York City people eat food that would take the state of [Virginia](#) in land mass to grow. "We have to find another way to [farm](#)."

Vertical farming is seen as a sane way to handle farming. Vertical farming is described as a way of cultivating plant life in a "skyscraper" greenhouse or just on vertically inclined surfaces. Another easy way of defining it is food production in cities in multi-story greenhouses. One such champion, AeroFarms, is making news this month with their plans in Newark, New Jersey. Earlier this month, RBH Group and investment partners Goldman Sachs Urban Investment Group, Prudential Financial, and AeroFarms, with the City of Newark and New Jersey Economic Development Authority, announced the closing of a \$30 million project to redevelop a former industrial site into what they said was the world's largest indoor [vertical farm](#) and global [corporate headquarters](#) for AeroFarms.

This will involve a 69,000 square foot space; the first phase of the project is to open later this year. They are building a corporate headquarters and indoor vertical farm for [leafy greens](#) and herbs. According to the *Archinect* report, "When completed, AeroFarms will have the capacity to grow up to 2 million pounds per year of baby leafy greens and herbs in an environmentally controlled, [safe](#), and sanitary facility."

Founded in 2004, AeroFarms has been on a [mission](#) to build, own and operate farms that grow safe and healthy food in a sustainable way. "Our passion is great-tasting food and sharing our harvest." Ed Harwood, a former professor at Cornell University, serves as [chief technology officer](#) His study areas have ranged from microbiology to animal science

to dairy science and artificial intelligence. The technology involves the use of aeroponics and LEDs. Their process takes up less space and resources than traditional farming. They said they can grow many different baby leafy greens, herbs, and micro greens, harvested at peak for flavor and nutritional value.



AeroFarms points to the advantage of their technique, using over 95% less water and having no weather issues, with each day offering optimal plant conditions. This involves a totally protected growing environment without sun or soil, fully controlled farming, with sensors all over the farming systems and program logic controls for constant updates of what's going on in the farm, feeding into a software system.

Their technology also involves spraying a mist of a high-nutrient solution over the crops. Instead of soil, said Lucy Wang in *Inhabitat*, a permeable microfleece [cloth](#) is stretched across modular and stackable planters. This is a sustainable process, she said, using recycled water and zero pesticides and zero fertilizers. Wang said that monitoring equipment will regulate the amount of carbon dioxide the plants receive, as well as the color wavelength and intensity of the overhead LEDs.

FreshFruitPortal.com, a site for importers, exporters, growers and suppliers, said on Thursday that some 22 short-stemmed [leafy](#) greens will initially be grown at the high-tech site and that the produce will be sold to retailers and the food service sector.

More information: aerofarms.com/

© 2015 Tech Xplore

Citation: Vertical farming will produce edible greens in Newark (2015, March 13) retrieved 16 April 2024 from

<https://techxplore.com/news/2015-03-vertical-farming-edible-greens-newark.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--