

Inside the High-Tech Farm Growing Kale in An Old Paintball Arena

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A rendering of Aerofarms' new headquarters in Newark, New Jersey, which it says will be the largest indoor vertical farm in the world.

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David Rosenberg is trying to build an agricultural empire out of an old paintball arena in a blighted urban neighborhood about 45 minutes outside Manhattan.

Needless to say, Rosenberg, the chief executive of Aerofarms, an indoor farming startup growing organic leafy greens without sunlight or soil, has his work cut out for him.

But so far, the pieces seem to be falling into place.

Though limited, the current growing operation produces enough kale, watercress, arugula and other leafy greens to feed a few restaurants and ShopRite supermarkets in the area. Next month, the 12-year-old company is set to open its new 70,000-square-foot headquarters, just two blocks away. That project, which broke ground only two months ago, is transforming a former steel mill into the world's largest indoor vertical farm.

“Our mission is to build farms in cities all over the world,” Rosenberg recently told The Huffington Post. “We are very much building the infrastructure not to build one, two or three farms but to build 20, 30 or 50 farms.”

Indoors farming has long been touted as a way to address two major problems. The first is macro-level and lofty: How will we, the Earth’s 7.4 billion (and counting) humans, go about feeding ourselves in a changing world? The second is more immediate: How do you get fresh, healthy produce to people in urban food deserts, where diet-related conditions like diabetes and obesity run rampant?

The answers to those questions could be a gold mine. By 2050, the world’s population is projected to rise to between 9 billion and 10 billion people. Those numbers, coupled with income growth across the world, could result in more than a 70 percent increase in demand for food by that year, according to a report by the World Bank. Making matters worse, the unpredictable and increasingly extreme weather, droughts and flooding that come of climate change are expected to grow more intense in the coming decades, as greenhouse gas emissions continue to warm the planet.
