

The company that is developing what it claims to be the world's biggest indoor vertical farm says it will take farming to a new level of precision and performance, and has larger projects planned both for the U.S. and abroad. 

AeroFarms recently made a **[US\\$30 million deal](#)** with several companies, investors and government entities to develop the farm in Newark, New Jersey, which will also serve as AeroFarms' headquarters.

The agreement was made with RBH Group, the Goldman Sachs Urban Investment Group, Prudential Financial Inc., the City of Newark and the New Jersey Economic Development Authority (NJEDA).

AeroFarms has previously established eight other farming systems, including some in the U.S. cities of Seattle, Chicago and Ithaca, and two in the Middle East.

"This is of course the biggest and it's to enable local food production at scale, so there is tremendous automation in the pre-growing and the post-growing," the company's CEO David Rosenberg told [www.freshfruitportal.com](http://www.freshfruitportal.com).

"The harvesting, the cleaning of the growth medium, the packaging, and the feeding, and the automation makes the economics work."

Some 22 short-stemmed leafy greens will initially be grown at the high-tech site, with an emphasis on staples like spinach, kale and arugula. The company has grown more than 200 crops since 2004, Rosenberg said.

"It's taken a lot of time and iteration of perfecting and optimizing not just yield, but the taste, texture, and nutrition density," he said.

"This is fully controlled agriculture, where for example we put in all of the minerals and nutrients individually. We have sensors all over the farming systems and we have PLCs - which are program logic controls - that give constant updates of what's going on in the farm and that feeds right into a software system.

"We also control the spectrum of light, temperature, humidity, PH levels, CO2 - it's really taking farming to a whole other level of precision and performance, and this is using non-GMO seeds."

Rosenberg also highlighted how the system would use around 95% less water than traditional methods as the crops would be grown aeroponically. He added that no

pesticides, herbicides or fungicides would be used.

"So we're looking at we can minimize the operating expense, but at the same time how can we optimize the customer experience," he said.

"That's where agri-data science meets engineering, meets horticulture. We've got 10 years of experience doing that. So we're great on the technology side and we're great on the farming side."

Production is expected to begin in October this year, with the first sales due for January 2016.

While the company is focused on local food production, some retailers were reportedly hoping to take the produce to the wider U.S. market, but Rosenberg said AeroFarms was still deciding if it wanted to do that.



An artist's impression of AeroFarms' corporate headquarters.

Photo: RBH

The produce will be sold to both retailers and the food service sector.

As well as the vertical farm's high precision and environmentally friendly practices, Rosenberg said there was also a strong focus on food safety and traceability that was in part made possible due to the project's scale.

"You need the food traceability. Just our food processing alone, we're spending US\$2 million dollars on the automation of packaging and harvesting and so forth, and that brings down our unit economics and increases our ability to bring food safety to another level," he said.

"And it's not just high-tech stuff - some of it's just bringing in the right expertise. We have an on-site food safety professional and farm managers."

The AeroFarms head also mentioned several other projects were also being planned both for the U.S. and various locations worldwide.

"We actually have three other projects that are bigger in our pipeline in the United States, and we have three additional ones that we're working toward internationally. One in the GCC [Gulf States], one in Asia and one on the Africa continent," Rosenberg said.

"The reason why we're investing heavily in software and program logic controls is so we can



scale up and go worldwide."

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