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Growing the Dream

**DREAM HARVEST LANDS \$50M INVESTMENT TO
PRODUCE A FRESHER GREEN**

TOMLINSON TOUGH-ON-CRIME MEASURES SHOULD APPLY TO TAX EVADERS, TOO
INSIGHT HOMEBUYERS BEWARE: HIGHER INTEREST RATES COMING

SPOTLIGHT

By Al Lewis
CORRESPONDENT

An entrepreneur's dream often begins with a problem. For Zain Shaik, it was wilted lettuce.

Shaik grew up in Santa Monica, Calif., where the greens were always greener. When he moved to Houston in 2010, he found the packaged, pre-washed produce lacking. "I'd get home and I'd open the container and it was already steamy and slimy, and I'd say, 'What gives?'"

This simple question led him on a journey that wound through Las Vegas, a Britney Spears concert, and eventually a garage in suburban Houston. The answer to the problem of steamy, slimy greens, he realized, was straightforward: to deliver fresher produce, it had to be grown closer to the customers.

That simple solution inspired the launch of Dream Harvest, a company that uses hydroponics and a technique known as vertical farming to grow lettuce, kale, herbs and baby greens inside a low-slung industrial building in southwest Houston. Today, Dream Harvest, founded in 2015, delivers fresh produce to 46 Whole Foods locations in Texas, Oklahoma, Louisiana and Arkansas, as well as Sweetgreen stores across Texas.

More growth is on the way. The company recently raised a \$50 million investment from the private equity firm Orion Energy Partners, which has offices in New York and Houston. The capital will fund a new, 100,000-square foot growing facility in Southwest Houston and create 40 new jobs, more than doubling the workforce of 26.

The expansion is expected to be completed in about a year, and Shaik sees an open field to expand further. The company's primary competition comes from far-flung states, where nearly all

VERTICAL LEAP

\$50M investment offers new leaf on life for Houston vertical farming company



Marie D. De Jesús / Staff photographer

Zain Shaik is CEO of Dream Harvest, a hydroponic, vertical farm based in Houston.

leafy greens are grown outdoors. As the planet warms, Shaik said, traditional farming will be increasingly challenged by drought and extreme weather.

"If you look at climate change and its effects on water in California," he said, "it's getting really serious."

Career change

Shaik moved to Houston a decade ago for a reporting job at the Houston Chronicle. He covered community news, school boards, City Council, crime, courts, and energy before moving on to Bloomberg News. His stint at a newspaper - where headline

"Food security impacts every corner of the world."

David Cohen, CEO
of Fluence by OSRAM

writers can be fond of puns - may explain some of the labels on his products: "Kale-ing Me Softly," "You Butter Beleaf It," "Discovery Greens," and "Lettuce Remain Calm."

Reporting, he says, helped him develop the skills to research the market, the technology and the financing needed for his business. That included cold calling grocery stores, the way he once dialed up potential news sources, working his way to the decision-makers who might be interested in his produce.

"When you're a business reporter, you learn a lot about business," he said. "It was kind of like getting an MBA and not paying for it. You see all these case studies on the things companies did wrong and the things they did right."

The idea for Dream Harvest was born during a 2014 trip to Las Vegas, where Shaik and his **Dream Harvest continues on B9**

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friend, Harmeet Singh, would attend a Britney Spears concert. Amid the glitz and glamour of Vegas, they began talking lettuce.

“Everything we were eating was growing in California and shipped more than a thousand miles,” Shauk lamented.

Greens turned brown during distribution. A tremendous amount of food and energy was wasted for a not-so-fresh taste when produce was finally laid on the table. The legacy issues associated with traditional farming, including soil degradation, pesticide contamination and water and land usage, affronted Shauk’s environmental sensibilities.

Singh, a chemical engineer, had experience with hydroponics. They suspected that hydroponics, which grows plants in nutrient-rich water, would allow them to grow produce locally with a fresher delivery time.

They began growing in a suburban Houston-area garage. They discovered that advancing technologies such as LED lighting systems, bioengineering and wind-generated electricity meant greens could be locally and sustainably grown, with multiple harvests year-round in tightly controlled indoor environments.

Shauk and Singh say their indoor farming operation boasts 400 times the yield of an outdoor farm, using 95 percent less water and zero pesticides.

Not everything done right

Dream Harvest resides in what’s called the Controlled Environment Agriculture sector, and it’s proven to be a risky business. AppHarvest, a publicly traded indoor farming company based in Kentucky, has seen its stock plunge from over \$40 to less than \$4 over the past year after missing revenue forecasts.

Last fall, AeroFarms of Newark, N.J. – which boasts one of the largest indoor growing operations in the world – fell out of deal to go public through a spe-



Marie D. De Jesús / Staff photographer

Cristina Hernandez, a vertical farm assistant, harvests basil that will go to dozens of Whole Foods and Sweetgreen stores.

cial purpose acquisition company. Neither AeroFarms nor the SPAC would say why the deal fell through. AeroFarms Co-Founder and CEO David Rosenberg, said only that his company decided it was “not in the best interests of our shareholders.”

Agricultural technology, a related sector, has also seen its share of shaky companies. Stock of Boston-based Ginkgo Bioworks, which develops biopharmaceutical chemicals through genetic editing, has fallen from nearly \$16 in November to about \$6. The plunge came after Scorpion Capital, an activist investor that sells stocks short, issued a 175-page report accusing the company of “phantom revenue” and calling it a “hoax for the ages.”

By the numbers

Shauk said success or failure comes down to the data, just like any other business. And in vertical farming, it’s all about crop yields and transparency about

costs and revenues.

“Any investor who asks about our business, we just say, ‘We have the yields, and if you want to come check us, come check us,’” Shauk said. “We say, audit us any way you like. We have the weights (of crops) we say we have. We’ve done it repeatedly and we have a lot of data on it.”

Where other vertical farming companies have invested in robotics and advanced systems, Shauk said his company put most of its efforts into the science of perfecting the ideal growing environment, adjusting and readjusting more than 100 variables, including temperature, humidity, lighting and nutrients.

Dream Harvest’s key backer, Orion Energy Partners, invests in infrastructure subsectors, including renewable fuels and chemicals, energy efficiency, transportation, waste and recycling, sustainable power generation and midstream oil and gas production.

The firm likes Dream Harvest’s

Houston location, its market opportunity and it’s first-mover advantage in Texas, said Josh Shishkoff, a senior vice president at the firm. Dream Harvest is also positioned in a growing market as demand for fresh greens from grocery chains and other stores increases.

In some ways, Dream Harvest has marijuana to thank. The booming industry – 18 states have legalized recreational cannabis – has invested significantly in advancing lighting technology, resulting in greater efficiency and lower costs, Shishkoff said. Dream Harvest has made the most of those advances.

“They’re able to grow and maintain strong yields,” he said.

For humanity

Sci-fi films have long included backdrops with food growing inside spaceships and planetary colonies. But this might represent the future for Earth, where droughts and severe weather events are expected to intensify

with climate change.

That would pose a threat to traditional agriculture and food production as the global population grows larger and hungrier.

“Food security impacts every corner of the world,” said David Cohen, CEO of Fluence by OSRAM. “The ability to access fresh produce will become essential to the health and wellness of people everywhere.”

Cohen’s company, a leading global provider of LED systems, does the lighting for Dream Harvest. Cohen, meanwhile, keeps his hand on the pulse of the industry he supplies.

“By narrowing the food supply chain and leveraging a fully controlled environment, vertical farms deliver year-round, fresh vegetables to grocers from mere blocks away, increasing high-quality food access to underserved communities and even improving shelf-life,” he said. “Dream Harvest is achieving these innovations today.”