Bridgeton may welcome high-tech lettuce farm

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BRIDGETON - An Israeli technology firm hoping to revolutionize lettuce farming with automated greenhouses plans to build its first U.S. facility in Bridgeton.

By next summer, OrganiTech Ltd. hopes to bring one of its robotic greenhouses online inside the Florida Avenue Industrial Park, company founder and CEO Lior Hessel said by phone from Israel on Tuesday.

"We wanted to come do a project in New Jersey - there's a good market for leafy vegetables there, and particularly on the East Coast - and we were introduced to the opportunities in Bridgeton," Hessel said. "You take the food innovation center of Rutgers, the Enterprise and Empowerment Zones and the support of the city and Bridgeton is as good a place as any."

OrganiTech has reached a verbal agreement with city officials to purchase a two- to five-acre parcel inside the industrial park that is to be anchored by Rutgers University's proposed food business incubator site, Hessel said.

Mayor Michael Pirolli could not be reached for comment Tuesday. But he has expressed support for the OrganiTech initiative in the past, and Hessel praised his commitment to technological innovation in Bridgeton.

OrganiTech already has three greenhouses in Israel, one in Germany and another under construction in Ireland. Several others are planned for Singapore and Canada.

But the Bridgeton location would be the Haifa, Israel-based, company's first foray into the American market.

From the outside, the OrganiTech facility will look like a run-of-the-mill greenhouse. From the inside, it will look more like a manufacturing plant.

"The system doesn't actually need a farmer to run it," said Hessel. "It needs an operator."

The entire cultivation process is automated. Leafy greens float on Styrofoam trays atop pools of liquid nutrients while computer software guides robotic equipment.

No pesticides are used in the farming process, and because the plants are grown in a sterile solution, there's no need to wash the lettuce before packaging or eating it, Hessel said. The process, he said, could increase shelf life by as much as five times.

Peter Furey, executive director of the New Jersey Farm Bureau, said this type of greenhouse technology is not necessarily new, but making it cost-effective might be.

"What they do inside greenhouses now is pretty amazing," Furey said. But "as far as the competition with field growers, these (hydroponics) things are pretty expensive. The price of lettuce doesn't necessarily justify that."

But as Hessel sees it, the New Jersey leafy greens market is ripe for the picking.

Driven by skyrocketing oil and labor prices, transportation costs in the United States have nearly doubled in the past three years, Hessel said.

Most of the leafy greens consumed in the United States are grown in Mexico or on the West Coast,
Hessel said. California alone accounts for as much as 85 percent of U.S. domestic lettuce production, according to the California Lettuce Research Board Web site.

"The whole of the East Coast can't produce even 5 or 10 percent of what they need in the area," Hessel said. "That creates a real supply problem."

Hessel said the automated greenhouses - which can produce year-round - can reduce labor costs, increase output and ultimately give New Jersey farmers and distributors more traction in a competitive market.

"It's another great way of keeping our agriculture local in New Jersey," said Andrea Yonah, executive director of the New Jersey-Israel Commission, an arm of the state Department of Commerce. The commission put Hessel in touch with officials at Rutgers University's Food Innovation Research Extension, which sold Hessel on the Bridgeton site.

Extension Director Lou Cooperhouse said the agency will help OrganiTech with research and development as well as marketing while the company sets up a working greenhouse in Bridgeton.

The Food Innovation Research Extension hopes to build a 23,000-square-foot business incubator facility at the Florida Avenue Industrial Park off Route 49 in Bridgeton.

The agency already has secured $5.4 million in funding for the $8.8 million facility, said Director Lou Cooperhouse. He said he hopes to make up the difference by selling naming rights. Construction could begin as early as next spring.

"We might have our first graduate there before we even get there ourselves," Cooperhouse said.

Meanwhile, Cooperhouse said OrganiTech is not the only company interested in proximity to the extension's planned incubator. So far, he said, he has heard from about 100 other companies.

OrganiTech's Bridgeton location could create about a dozen jobs, Hessel said. But if the technology takes hold, he said, it could mean hundreds of highly skilled, better-paying jobs across the country.

Hessel, a graduate of the famed Technion-Israel Institute of Technology, cut his teeth on microchips before turning his attention to agriculture. He founded OrganiTech in 1999.

So far the company has invested more than $7 million in developing the GrowTech technology, Hessel said.

"I used to build machines that produced silicon chips," Hessel said with a chuckle. "And now I'm building machines that grow lettuce."

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