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A Midwinter Oasis



Sustainable Local Foods brings year-round indoor growing to Indy's east side

By Shawndra Miller

»Inside a dark warehouse, a long row of potted basil sits under intensely bright LED lights. The glare contrasts sharply with the building's general gloom, but soon the entire space will be clean and bright, teeming with hydroponic-fed crops.

Welcome to the future of state-of-the-art urban farming.

Sustainable Local Foods, a for-profit company originating in Toledo, Ohio, has opened its first hydroponic farm in Indianapolis. Founder Jim Bloom, an Ohio native and soon-to-be-Hoosier, partnered with Englewood Community Development Corp. in obtaining an Urban Agriculture Grant from the city of Indianapolis to purchase the building on South Rural Street. His team has been cleaning and renovating the 61,000-square-foot warehouse, readying it for its new role as a food-producing center.

Hydroponics allows for year-round growing under controlled climate conditions.
Envisioning the facility as a midwinter oasis of green, Bloom says, "Come February, when it's 20 below outside, this will be the place to be."

Though the interior's walls and windows appear to be an impenetrable shade of black now, in short order that will all change, Bloom says. He points to the clerestories, covered over by a previous owner, which will soon allow natural light into the building again. "One of the things we'll be in the process of doing," he says, "is sandblasting all the grit, sucking that up, and painting everything white so it will all reflect that natural light."



(http://farm-

indiana.hnedigital.com/wp-content/uploads/sites/8/2015/10/IMG 9886.png)

When all is said and done, the cavernous space will fill with rows and rows of basil, leafy greens and microgreens. It's a big step up for a warehouse once used variously as an automotive shop and a storehouse for forgotten office furniture and car parts.

Indeed, part of Sustainable Local Foods' mission is to help bolster urban neighborhoods by turning underused buildings into community assets.

Bloom, whose background is not agriculture but vocational rehabilitation, started this initiative in Toledo with a goal of job creation. He is committed to offering employment to people who have trouble finding it, such as veterans, ex-offenders and residents lacking reliable transportation.

So not only will the building's new life help the community, and not only will countless pounds of produce be grown close to where it is consumed, a dozen or so new jobs will be created. A triple win.

Especially since Bloom plans to partner with hospitals and schools, as well as local restaurants, to put freshly harvested vegetables on the menu. In that way the most vulnerable among the population — children growing up in food deserts, people with medical issues — will have access to nutrition they might not otherwise receive. Produce also will be sold at area Kroger stores.

The facility will offer students at The Crossing, an alternative high school housed in the other side of the building, a chance to take part in daily operations. The school's job training program will partner with Sustainable Local Foods in creating opportunities for its 40 students.

The bottom line? Bloom says it's about filling a critical need. "We really believe it's essential for communities to have fresh produce," he says. "Local food is not just a fad, but an economic need and a public health need." In an era of increasingly erratic weather patterns, produce recalls and food insecurity, he says, indoor farms like these offer a sensible solution.

He expects the near-eastside site to be fully operational by March and will start the first hiring phase in November.

And this location is just the starting point. There's potential for many more Sustainable Local Foods operations all over town. Bloom envisions a half-dozen growing facilities, each averaging 30,000 to 40,000 square feet of space. For every 10,000-square-foot unit, five full-time growers will be needed.

For now, at this startup site, basil plants in perlite-filled buckets hook into the demonstration system in two long rows. Full-spectrum lighting turns the leaves a bluish shade. A temporary white tent over the entire system protects the plants during the renovations.

Just as the building itself is in the midst of major repurposing, some items found on site are being upcycled as well. Pallet racking, for example, will become convertible growing units. Each will hold four tiers of plants in one vertical space, effectively quadrupling the square footage of each 80-by-20-foot corridor.

The LED lights overhead are 85 percent more efficient than the typical growers' lights and are even programmable. Each receives a "light recipe" based on the crop's needs and adjusts depending on the amount of natural light reaching the plants.

Ashley Stark, who started with the company in Toledo, works on site with the small crew that's begun converting the dark space into an airy haven. She notes that the basil plants originated in Toledo and were transported here mainly to give organic certifiers and others a preview of what's to come. The plants are near the end of their life cycle. After the final harvest, a new crop will be transplanted from the nursery, a small side room where tiny basil seedlings are emerging in neat rows.

"It doesn't look like much now," she says, indicating the line of buckets holding basil, "but when we were in full swing in Toledo, we were getting a hundred pounds a week, per system."

Pipes stretch across the floor and feed the plant roots a precise mix of potassium, phosphorus, nitrogen, magnesium and the like. The pipes connect to vats at the far end of the corridor. A complex web of wires and pipes links the system together through a "Fertroller." This machine allows the team to track electrical conductivity, pH and temperature of the substances.

It's a high-tech setup, and growing crops this way gives greater control over many elements. But hydroponic growing also means a much higher sensitivity to any disruption. "If something happens and (the Fertroller) is not pumping water," Stark says, "it's drastic. And it's a lot more sensitive to the light. No

manmade light will ever compare to the sun." This means that proper height and spacing of the light fixtures are critical.

Obviously there's no need for irrigation when the roots are bathed in a nutrient solution, and weeding is a thing of the past, too. But Mitch Roper, who's on the team of growers, says farming this way is actually quite similar to farming in the field. Just as in any farming operation, the ultimate goal is plant health. "The main difference," he says, "is instead of using soil and the nutrients that occur naturally in soil, and water to carry those nutrients, we're actually giving them nutrients directly through these emitters."

What doesn't change with growing indoors? Pests and diseases, unfortunately. "We have the same fusarium worries, spider mites, things like that," Stark says. "Everything you would see outside, you can get inside."

Sustainable Local Foods uses organic inputs, including the occasional pesticide needed to get rid of insects. (Scouting for pests and disease is one of the key tasks of a grower and requires climbing on a scissor lift to inspect the upper reaches of the farm.)

Regardless of whether the concern is food safety, food miles or any other rationale for eating locally, Roper says hydroponics offers an answer. As a resident of the neighborhood, he is well-acquainted with some of the issues facing would-be urban farmers. "We live in an area where we can't even safely grow leafy greens in the soil," he says. "So this is a viable way for us to farm in a neighborhood where the soil is toxic."

Then there's the (formerly) limited season of local produce.

"One of the coolest things about hydroponics," he says, "is it really allows you to have your guilty pleasure of, 'I want tomatoes in the winter,' and you can get actual fresh-off-the-

vine tomatoes that are local, out of season, because they're inside your perfect growing area." He looks forward to the day that neighborhood eateries and grocery chains carry Sustainable Local Foods produce. "Our stuff's going to truly be local, like grown around the block." **MORE INFO** Why Hydroponics? »Aside from protection from the vagaries of weather, there are many advantages to growing food in a hydroponic system. »Lower water usage. »Higher yields. »Higher essential oil content of certain herbs, like basil. »Year-round growing. »Consistent yields. »Efficient use of space through vertical growing. For more information, visit sustainablelocalfoods.com (http://www.sustainablelocalfoods.com). G+1 0 Like 17 Tweet PREVIOUS STORY **NEXT STORY** True Colors **Manufacturing** <u>Methane</u> (http://www.farmindiana.com/2015/10/26/10 indiana.com colors/) methane/)











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