

SMALL-SCALE SUCCESS

Market Farming in Suburbia

BY SHAWNDR A MILLER

You can see most of Daniel Garcia's farm from his kitchen table. Looking out over the backyard of his Lawrence, Indiana lot, which is sandwiched between two subdivisions, you can see wide rows of greens and row-covered beds that hint of the abundance found in Garcia's Gardens.

He talks about the importance of family while 15-month-old Florence climbs into his lap.

"I can have lunch with my kids almost every day," he says. Three-year-old Lula (Lourdes) swoops by in a superhero cape, while Gonzo the dog nudges elbows for attention.

Asked if she knew she was marrying a farmer, his wife Sarah says, "No." She helps out with marketing and deliveries, and her part-time social work job supports the family while the farm gets off the ground. In its second year, already the farm is more profitable as Garcia learns what sells and what doesn't, but he still currently reinvests every penny back into infrastructure and tools.

Garcia is no stranger to working the land. He grew up gardening with his Mexican-born father, who farmed with mules in the Zapotec region before coming to the United States to work in California's strawberry fields. Eventually he settled in northwest Indiana, where he met Garcia's mother and raised a family.

"We always had a garden every year," said Garcia. "And then when I was about 11 or 12, I went to go pick strawberries at a farm in Hagerstown, Indiana. I never thought I would come full circle."

As a shy kid, Garcia had trouble talking to people, but the enterprising

youth took on a paper route and a balloon animal business. At Purdue he studied molecular biology, working his way through school with construction, landscaping and laboratory jobs. These activities built the knowledge base that would fuel his future career choice.

"I didn't really understand it at the time, but I take all these experiences and try to apply them to farming. Like when you're making balloon animals, people aren't really buying the balloon – I mean they are, but they want the interaction. Just like in farmers' markets. You're selling produce, but people want the experience too."

Upon graduating, his degree took him into the corporate world, where he got a taste of cubicle life. He found it unsatisfying and eventually wound up in a laboratory, conducting seed research for a large agricultural company. The job took him to farms all over the state, in Canada and even in Copenhagen. He also worked on a committee addressing hunger in Indianapolis, and this brought him into contact with numerous urban farmers.

He felt drawn to intensive farming and began reading how-to books by Eliot Coleman, John Jeavons and Jean-Martin Fortier. He decided to put up a hoop house and start growing more of the family's food. At the time he was working with seed breeders



PHOTOS COURTESY OF SHAWNDR A MILLER

in the lab, but he says, "I was kind of secretly planning my escape."

He started an LLC, filed an application for a farmers' market and began planning. He would stay up late at night after work to plant seeds in an enclosed back porch, arranging the flats on shelves made out of two-by-fours, under shop lights. He was still laying the groundwork when his company laid off 5 percent of its workers, including Garcia. The timing was terrible, with Sarah five months pregnant and his gardens barely producing. It was the last week of April, and the farmers' market was set to begin the first of May. He took the plunge and loaded up his market offerings, which amounted to rhubarb, wild garlic and eggs.

"We sold out, and I made \$65. I was jumping for joy, but then reality

set in, and I realized we can't live off 65 bucks."

Still, he didn't want to go back to working in a lab.

"I figured, well, if I'm going to be working 60 hours I might as well be doing my own thing."

So far it's working out. He has expanded beyond farmers' markets into restaurants and health food/specialty grocery stores. The whole family tags along when he opens the back door to show off his work – even in November, when I visited, there is a lot to see. He points out baby beet greens, Hakurei turnips, tatsoi, arugula, parsley, dill, cilantro, spinach, radishes, carrots and more, some of it under white row covers.

About half an acre of the 1.6-acre lot is in production, and he is putting in more beds. He started a raspberry patch and a blueberry patch, as well as some 3,000 bulbs that he dug up and relocated to the front yard. "It's a free resource," the enterprising farmer says of the daffodils and tulips that blanketed the front beds in spring. "Maybe we'll sell cut flowers."

He uses leaf compost and mushroom compost in the vegetable beds.

"I use some blood meal and lime in my potting soil. Just really getting that compost worked into the soil before we plant – it heats up the soil. Once that microbial activity kicks in, you have heat from all that kinetic energy. That's what keeps the plant growing."

He plans each 50-foot-long, 30-inch-wide bed carefully, so he knows how many seeds and how much compost are needed. Light feeder crops get 3 cubic feet of compost per bed, which is about half a wheelbarrow full, and heavy feeders get double that. Garcia's science background leads him to talk in terms of controlling variables and standardizing practices. He adopts and adapts technology to track planting, transplanting, expenses and yields. In fact, at the Indiana Small Farm Conference, he will have a demonstration to share his methods for "hacking Google forms." He uses these forms on his phone to keep records in real time, right in the field.

He's learned through trial and error the types of produce that sell well and produce reliably in a small space.



Old Tractor, New Life

David Bradley enthusiasts are connecting online and sharing their tricks for adapting and modifying the old tractors.

"There are people out there who are more than willing to chat with you all day long," said Daniel Garcia. "They love it. It's like they're resurrecting history."

By networking online, Garcia obtained two 1940s-era David Bradley two-wheeled tractors – one that runs and a spare one for parts. His total cost was less than \$500.

He prizes the machine for its versatility and jokes that its old red frame (which he will likely remove) has an art deco "Rocketman" look. But it's no antique. It's a workhorse. "This is essentially a mechanical mule with tires."

The one-axle walk-behind tractor runs on a 3 hp engine, similar to a lawnmower, but it can operate farm implements like a cultivator, seeder and transplanter. It can even power a saw to cut firewood. In fact, implements are still being made for the walk-behind tractor, which aids many organic farmers in the quest to avoid chemical herbicides.

At Garcia's Gardens, the David Bradley is so far mainly used for cultivation and chopping weeds. He calls the post-war sickle bar mower attachment a "glorified hair trimmer" that will make his life easier this year. His mower's deck measures 54 inches wide, but with the 30-inch wide tractor, he can maneuver more easily to maintain the perimeter of his growing area.

Garcia is in the process of adapting a variety of cultivating implements for various purposes – finger weeder, stirrup hoes and a wire weeder. The finger weeder can catch weeds in thread stage rotating a disk with rubber fingers through the top layer of soil.

"Basically I'm just disturbing the top half inch of soil. That's how you cultivate without spraying. It takes a lot of time to weed, and this allows for me to manage more land without really much more (fuel) expense."

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He eschews corn and winter squash in favor of higher-yield items, and he no longer offers Mexican chili peppers at the farmers' markets – only to chefs. Where he lives in Indiana, the consumer market for spicy foods is limited.

"I had people convey their experience with spicy peppers the next week," he says. "I thought, 'I can't do that to people, they don't know what the heat level is.' So we've cut back on the peppers."

Late freezes and torrential rains have caused some losses, but he can usually find a way to stock his market table.

"When I had 900 head of lettuce die on me, I had to get creative." He plucked lemony sorrel and chickweed to sell as tender salad greens instead.

Garcia doesn't spray his crops, and he sticks to a low-till method. Until now he has eschewed mechanization beyond his used Troy-Bilt tiller, but he is excited about a two-wheel tractor that he purchased. It's a 1940s-era David Bradley walk-behind tractor with a 3 hp engine. Various attachments turn the geared machine into a snowplow, a cultivator, a cart and other indispensable tools. He has extended the wheel axle to accommodate his 30-inch beds.

Weeding by hand is time-intensive, and this labor-saving device – like the flame weeder he plans to buy this year – will allow him to put more land into production. He might convert the front yard to vegetable production. The lot is zoned for agricultural use.

Chefs like Toby Moreno of The Loft Restaurant in Zionsville, Indiana, will likely be pleased when he expands. Moreno says that Garcia's attentiveness and love of farming comes through in his produce. "You can really tell that there's a little more love, a little more thought put into it."

Moreno sources herbs like dill, scallions and cilantro from Garcia's Gardens. "Whatever we need, most of the time he has it."

In particular, he praises Garcia's heirloom tomatoes, green onions and fresh green coriander seeds. "Right now we're really big into his carrots."

Planting in an intensive way allows Garcia to maximize efficiency and minimize water use. After planting, he only needs to weed a few times before the canopy shades out weeds, and he can get a stellar yield out of the smallest space possible. The result, as Garcia rocks the broadfork and lifts a few bright carrots from the ground, is a candy-sweet treat.

"At the grocery store they kind of taste like petroleum." But winter carrots straight from the ground are a completely different vegetable. "The kids just eat them dirty. They don't care."

He takes the carrots through a basement door to the processing station and rinses them before passing them out, greens and all. Everyone stands in the sunshine and crunches appreciatively, even little Florence.

Garcia's produce is available at Fishers Winter Market, Billerica Park (9 a.m.-noon) Saturdays; restaurants like The Loft, Garden Table, FoxGardin in Fortville, Cerulean and Monon Food Co.; and Good Earth Natural Foods in Broad Ripple.

Carrot in hand, Garcia waxes philosophical about the role of small-scale farming in holding things together, from a historical perspective.

"A lot of civilizations have fallen because of agriculture," he says. "They've turned their arable land into deserts, and then people go hungry and riot. It's crazy how much our world depends on agriculture."

Though he's not growing staples in Garcia's Gardens, he claims a role in rebalancing a system gone awry. He expects to see more and more growing operations tucked into spaces like his lot, where his neighbors can look out their back windows right into his farm. In fact, he recently joined the Purdue Urban Farm Incubator Network, which works to nurture and link up beginning urban farmers in the state.

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