

GROWERTALKS

Under an Acre

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For the Love of Food

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Entrepreneur Jeff Bednar's career into horticulture began from an interest not in plants, but food.

"I was born with a connective tissue disorder, and so I began to look more at my diet and my family's—both what we were eating and where it was coming from," said Jeff. His goal was to find clean, chemical-free produce that was grown locally. Unable to find the fresh produce that he was looking for, Jeff and his wife Lee, decided to grow their own.

They began with a few raised beds, but in drought-prone, hot Texas, it was a challenge to provide the amount of water that the plants needed to thrive. Growing outdoors simply wasn't sustainable, so the research continued, with both Jeff and Lee actively looking for a viable solution.

The turning point came shortly after Jeff's birthday with Lee's gift of a countertop hydroponic kit. Jeff tried out a seed pod and was thrilled with the fresh produce it grew. However, if they wanted to feed their entire family, the system needed to be much bigger.

Jeff wanted to find a method that would be both financially and environmentally sustainable. Hydroponics was in the right direction, but it still required the application of fertilizer. The solution was aquaponics.

"We wanted to work in a method of farming that used a lot less water and had no run off," said Jeff. "Aquaponics, which uses 95% less water than traditional methods, was an obvious solution."

Wanting to start off small, the initial plan was to build a greenhouse on their subdivision property that would house the aquaponic system. However, the housing legislation in their area mandated that the greenhouse structure not exceed 7-ft. tall. This would be a challenge for Jeff, who stands at 6 ft. 6-in.

So Jeff and Lee began to look for a property that would become both their home and the site of the new growing operation. The property they chose was in Lucas, Texas, just a mile from their old house and Jeff's parents' house.

“It was a 2.6-acre property that included a nursery and greenhouse, both which were in desperate need of repair. As soon as I saw it, I envisioned filling the structures with food,” said Jeff. Profound Microgreens was born.

With a background in real estate and business, Jeff had a lot to learn about growing, so he delved into researching commercial aquaponics and its viability for the local community.

“Once I decided about the direction that I was going, I learned that there was a lot more to learn,” he said. The Internet was an incredibly valuable resource, with Jeff spending hours on YouTube, taking online courses and joining Facebook groups to learn more about aquaponics and running a growing operation.

“I remember one of the first aquaponics farms I saw in person,” said Jeff. “Everything was flowing and it was a sea of green. It was at that moment that something clicked. I thought that there are other people out there who want to have fresh, sustainable foods.”

Despite the amount of time devoted online, Jeff knew that nothing replaced a hands-on experience. Wanting to start off slowly, Profound Microgreens began with a small-scale test garden to test out a variety of produce and learn how to run the system.

“We built the smallest system that we could while ensuring that we could get some products out to the market,” said Jeff. The system allowed Jeff and Lee to experiment with hundreds of varieties of plants. Through these experiments, they found that the steady stream of nitrogen provided from aquaponics makes it an ideal system for leafy greens.

Throughout the entire journey, Jeff remained connected to both the online and surrounding grower community. It was through the pooled knowledge of these growers that Profound Microgreens learned best practices and solutions for common problems, like reducing the cost of labor and pest management, while, his local master gardener programs connected to a pool of individuals who shared a common vision. In fact, the interns that work at Profound Microgreens are usually found through connections from this program, volunteering their time to simply be part of the process of bringing healthy food to their community.

“We have one volunteer who comes for 30 hours a week and another who dedicates two full days each week,” said Jeff. “The most fun and surprising part about all of this is how passionate people are about their food.”

Currently, Profound Microgreens services restaurants, chefs, CSA clients and the local farmers markets. “The one thing that is interesting is each sector of the community is coming to us for a different reason—chefs want fresh food, farmers markets want organic and others are looking for local,” said Jeff. “To approach each of these markets successfully, you need a unique sales pitch.” Marketing is a vital part of the operation, which is why he’s an advocate for business programs like Nick Burton’s State of the Soil program.

Profound Microgreens is in a continuous state of expansion, with Jeff sharing that it feels like each month brings on another project. The current project is revitalizing the 8,000-sq. ft. greenhouse structure to expand into the larger market. This expansion will include a commercial kitchen, which will allow them to offer more

value-added products, like prepared salad mixes.

“Once we get our big greenhouse up and running, we can add on additional clients like Whole Foods, who recently approached us,” said Jeff.

The larger structure will include a decoupled aquaponic system, opening the doors to using organic pesticides products like neem oils. One of the biggest challenges with aquaponics, shared Jeff, is dealing with the pests.

“Lee has a keen eye for identifying the pests, which has helped us stay on top of pest management,” said Jeff. In traditional aquaponic systems, pest management is often done by hand or through the introduction of beneficial insects, like praying mantis, to help control the pest population. Due to the direct contact with the fish, even organic pesticides cannot be used, as they will seep into the water, harming the fish.

“The decoupled system is the best of both worlds; you can take advantage of the best parts of the fish, their waste and their hydroponic grow beds, and still use products like neem oil to help control pests,” said Jeff. Once the new greenhouse is up and running, Jeff will use the smaller one to experiment with new crops and continue to explore the untapped potential in a variety of growing systems.

Over the last two years, there’s been several highlights, but perhaps the most impactful one was watching their daughters’ relationship with food change. Like many children, his two daughters (ages 6 and 8) weren’t salad lovers. However, being immersed in this experience has brought forth a new understanding of science, including biodiversity and exploring a variety of foods.

Now, Lily and Josephine are proudly growing their own plot of vegetables, making salads and are even using the herbs to make mint tea. Profound Microgreens has made an impact by providing sustainable food for his family and the entire community. **GT**

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