

Living Lettuce

By Judy Newton and Bobbi Espinoza

What did Dominic Uccellini do when he wasn't happy with his mundane desk job? He learned about aeroponics, a specialization of hydroponics (growing without soil) and, said, "I can do that!" So, he developed a system to grow plants from sprouting to seedlings to maturing to eating, all in a Baltimore garage, just blocks from the stadiums!

When we visited his "farm," he had the loading door rolled up so we could see the system by daylight. But, when he turned the LED lights on, the place resembled Times Square by night.



LED Lights the Lettuce Loves



Purple Haze

To accomplish this, he used his background in cell biology amazingly taught himself electrical engineering, wiring, and programming; designed then built shelves to hold the trays, pumps, circulators, and LED lights; snaked a system of air ducts around to keep the plants cool; hooked it all together with a computer he built; and, figured out how to outwit insects. He did that with a little help from Stanton Gill of Falcon Ridge Farm, another Olney Farmers Market farmer.



Dominic Shows Us His Ducts

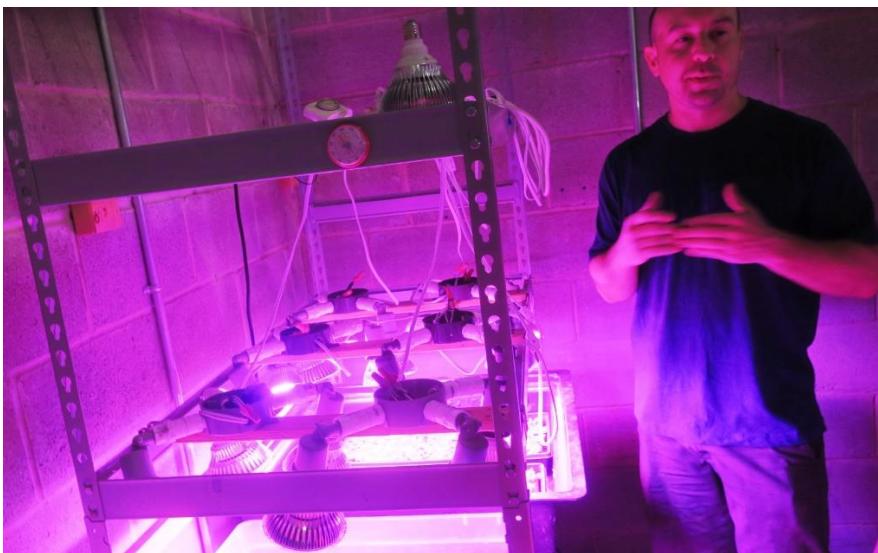


Thriving Lettuce, Ready to Harvest



Dominic Picks Basil

Aeroponics uses a high-pressure mist to bring crops to harvest in just six weeks after a two-week germination time. It's based on a process that was developed by NASA for growing produce in space. With a business started in his parent's basement, and now in a rented space with 17 shelves, or "levels" of plants, he plans to expand to a warehouse with 140 levels in January of next year.



The Seedling Levels



Your Roots Are Showing!

Meanwhile, his “proof of concept” is producing delicious lettuces and a small side crop of basil, which Dominic sells as a tasty pesto. In the past, he raised other herbs, but his limited space led him to concentrate on what he does best – lettuce.

For three years, he’s been refining his methods and equipment, and, selling his produce at farmers markets. He sells at two others in addition to Olney, but, he’s picky – he wants markets that are open year-round. “Olney’s crazy in winter, and there’s not much of a drop-off in summer,” he says.

The hardest part of the project was developing a consistent product. He had to stop selling to a Baltimore supermarket while he worked out a smooth production schedule. Besides his mother and niece, he employs only a few additional hands at peak harvest times.

He's proven that his system works. Now he looks forward to scaling it up for his expanded space. Onward and upward to this new challenge!