



## Hydro machine goes round and round

By Dan Simon

A day spent going around in circles can be a waste of time. It turns out, though, if you're a head of lettuce, it's not a bad way to grow.

Gary LaPoint and his daughter, Angie, are discovering that truth as they watch their hydroponically grown lettuce sell out faster than they can grow it in their Winona, Minn., grocery store.

"Our customers are very excited to see the machine," Gary LaPoint told the Growing Edge. "They'll walk by and go, 'Wow!' They just can't believe their eyes. I know that we will get people coming in off the street to see the machine."

The LaPoints are using three Omega Garden machines to raise romaine lettuce and some herbs. These machines rotate the lettuce around the light source, reducing the amount of floor space needed to produce a crop.

### New to Hydroponics

The LaPoints, who knew nothing about hydroponics-growing before buying the Omega machines, spent about a year experimenting with them. They just harvested and sold their first crop.

"We had a whole lot of compliments on the produce we brought out last time," Angie LaPoint said. "People are asking when are we going to have more."

She said the hydroponically grown lettuce lasts longer than the produce shipped in from suppliers. Her customers tell her it tastes better too.

The lettuce commands a premium price for the region, \$1.98 a head. LaPoint said she was surprised that all 125 heads of lettuce sold so quickly at that price.

### Public Display

The family is even making room in the store so the machines can be run in view of the customers. Since reception to the first

crop of lettuce has been so positive, they figure people will be interested in seeing the machines at work.

"When the lettuce was ready we moved the machine out," Gary said. "We put a sign up and it sold. We haven't had them out on the floor long enough to tell if they pull people in, but it will come to that. Many people came back the next week and wanted to know where the machine went."

The LaPoints plan to have the machines out in the public area of their grocery store during harvest periods. Otherwise, they'll stay out of sight. One machine grows romaine,

one grows leaf lettuce and one grows fresh herbs. "We're going to let people harvest their own basil and lettuce," Angie said.

### Omega Machine

The Omega Garden machines are based on a cylindrical configuration designed to maximize growing area and exposure to the system's specially cooled halide conversion bulbs, said inventor Ted Marchildon.

"We've got the advantage of the cylinder, which gives us a greater surface area," Marchildon said. "We can grow on all sides of the light. The cylinder has three times the surface area of the floor it's on."



The LaPoints are currently using three Omega Gardens machines to grow lettuce and herbs for their Minnesota grocery store.

The system uses cooled bulbs that let the plants grow much closer to the lights than they would in a conventional or lateral-growing system. This proximity to the grow lights means the plants derive much more benefit from the light. Their movement through the machines' rotations provides other benefits.

"The plants are constantly working against gravity during the rotation, so we get very strong stems," Marchildon said.

The LaPoints use Flora Grow, Micro and Flora Bloom and purified water in their growing set-up. The plants get about 18 hours of artificial light a day from the system's two 600-watt lamps. Special sensors measure temperatures to make sure the lettuce doesn't get "cooked" in case the air-cooling system malfunctions. The Omega Grow machines offer a fairly simple feeding solution.

"The nice thing about this," Marchildon said, "is you've got close to 50 square feet of growing area but only a couple of feet of tubing. As the thing floods, it's one rotation and every thing floods so it couldn't be simpler."

The machines the LaPoints operate have a 48-inch diameter and are about 56 inches long and 68 inches high. While several different types of growing media will work in these machines, the LaPoints are using rock-wool. Marchildon said some interesting possibilities were being raised by using minimal medium propagation plugs. His company is experimenting with different variations.

### Trying Hydroponics

For the LaPoints, this technology has offered them both a challenge and a way to set themselves apart from their competition.

Winona is a small community of 27,000 people, about 50 miles southeast of St. Paul, Minn. The LaPoints were running your basic neighborhood grocery store when the senior LaPoint decided he wanted to expand. "I'm not sure where he got the idea," Angie said. "He knew he was going to expand, and he knew he wanted to do something different.

"He wanted to try growing hydroponically, so my sister went on the Internet. She did some research and found the Omega machines. We ordered it off the Internet."

No one in the family had any experience with hydroponics growing before this. Angie says that led to a rather steep learning curve at first, but now they're over the hump.

"We were pretty much doing trial and error," she said. "I tried a few different types of lettuce and herbs and didn't really know much about what I was doing. Then I found out about the Growing Edge website and found information there. Then I ordered a bunch of books from you. It's been a great resource."

Gary said it started with his vision of people being able to come in to his store and pick fresh vegetables. "I thought it would be a neat idea," he said.

### Maintenance

Angie, who handles the day-to-day operation, says she spends a couple of hours each day keeping the system running. Once a week she has to clean the machines, which takes a couple of hours depending on how big the plants are.

"It gives me a whole lot of work," she said, "just keeping an eye on the food and learning a lot. I can't believe how much there is to know about hydroponics, so when I'm not working on the machines, I'm usually reading books on hydroponics. It's not like you can take a day off from the plants growing, so I'm here on weekends too, but it's exciting

While her dad would someday like to grow tomatoes, Angie says the plan for right now is lettuce, herbs and more lettuce.

"So many people have commented on the lettuce that we've decided to stay with that for a while before we experiment with more crops," she said. Now that their first commercial harvest was a success, Angie is next working on seeing just how much capacity one of the machines is capable of.

"We're trying to fit as much as we can," she said. "One machine now has 96 plants. We'll see how well they fit once they get big."

Gary LaPoint is optimistic that his \$12,000 investment in the Omega Garden machines will prove to be profitable. He ultimately hopes to add enough of the machines to be able to offer a fresh crop to his customers each week.

"It will probably take five or six machines to do that," he said. "It takes about five to six weeks to grow a crop. We're just learning right now, but what we'd like to do is have enough machines so we can stagger the crops.

"It hasn't been too bad so far. Basically it's pretty simple. The hardest part is getting the plant food right and knowing how much to feed. That, and keeping the water clean and keeping an eye on them everyday."

### Sources

Omega Gardens: 1-(877) 962-3278  
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