

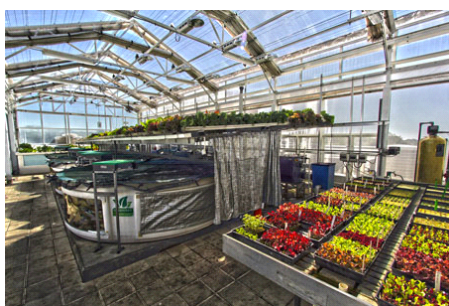
# GROWERTALKS

## GT in Brief

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### Something Fishy in the Greenhouse

*Chris Beytes*



Glance upward while strolling the main street of quaint Winter Garden, Florida, and you'll spot this rooftop greenhouse. It's operated by Pentair Aquatic Eco-Systems, a company that specializes in aquaculture (fish farming). This facility demonstrates the relatively new field of aquaponics (raising fish and vegetables/herbs in the same system).

Aquatic Eco-Systems didn't build the rooftop Cravo retractable-roof greenhouse. That was the brainchild of the late Dr. Bert Roper, a Central Florida agricultural pioneer and an inductee into both the Florida Agriculture Hall of Fame and Florida Citrus Hall of Fame. Dr. Roper has a long list of scientific and humanitarian works to his credit, including migrant worker health and organic orange production.

One of his many pet projects was urban agriculture, so about five years ago he constructed the Garden Building in downtown Winter Garden specifically to hold a greenhouse on top and a restaurant underneath. His goal was to research vegetable production in an urban environment for local consumption.

The building is still owned by the Roper family, but Aquatic Eco-Systems took over the project a couple of years ago by leasing the greenhouse and adding the six 1,500-gal. fish tanks and the water filtration and circulation system—which they own and operate. Ryan Chatterson is the 30-year-old facilities manager.

The deal with combining fish and plants is that aquaculture by itself results in lots of nitrate-filled wastewater. That's an environmental nuisance. But add hydroponics and utilize the fish waste to feed your plants, and it's a win-win: no runoff, and you're making your own fertilizer—you only have to add a few elements to the water for complete plant nutrition. And you have two crops to sell.

The idea isn't new, but serious commercial research into aquaponics has begun in earnest only in the last few years. Aquatic Eco-Systems uses Green Sky Farm to show off the technology to potential customers and the community at large. Says Ryan of aquaponics, "It's changing the game, but it's still in its infancy. I would say this is like hydroponics in the '70s." **GT**