

Gardens of delight

A pioneer of soil-free farming has taken root in Central Florida, still passionate about gardening.

By **SHERRY BOAS**
SPECIAL TO THE SENTINEL

SUMMERFIELD — Some people never stray far from their original dreams, and Tim Carpenter, one of 11 children, always dreamed of working with plants. As a 13-year-old, he and his father grew more than enough vegetables in a 1-acre garden to satisfy the needs of his large family.

"That was my first truck garden," says Carpenter, 63, who moved to Florida at the age of 5 from McRae, Ga., where his father had been a sharecropper. "It was a truck garden without the truck because I was too young to drive."

From selling homegrown lettuce and tomatoes at a roadside stand in Dade City, Carpenter went on to become a pioneer of greenhouse and hydroponic farming. Today he is a patented inventor, researcher and consultant who travels extensively educating others about the very passion for farming he has been cultivating in his own life for five decades.

Hydroponics is simply gardening without soil.

PLEASE SEE **HYDROPONICS, G3**



PHOTOS BY BOBBY COKER/ORLANDO SENTINEL

Who needs soil? Not Tim and Barbara Carpenter's plump strawberries (above) or dianthus (large photo).

**This article was in the
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It's a rather crude scan of the original newspaper article, however it should be readable enough. If you want to get the original, it should be possible to purchase it on the Orlando Sentinel web site.

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His growing towers have earned recognition

HYDROPONICS FROM G1

Plants grow in containers with the roots supported by a substance like perlite, vermiculite or ground coconut fiber. Through misting and drip systems, the plants are fed nutrient-enriched water, resulting in rapid growth and higher crop yields.

A chance meeting in 1958 with Ben Silverman, one of Florida's first hydroponic tomato growers, was instrumental in influencing the course of the young farmer's career.

Silverman offered the high school senior a part-time job that turned into a three-year apprenticeship. During that time Carpenter learned how to run Silverman's hydroponic operation. Back then, his day began at 6 a.m. checking the tomatoes before classes started. After school he worked at a second job in the evenings.

"Ben said I had to go to college or I couldn't work for him. I was the only one of my parents' 11 kids who ever did finish col-

lege," says the St. Petersburg Junior College graduate.

A stint in the Army took Carpenter to Colorado where he continued his education, earning a degree in applied chemistry from Colorado State University with a minor in horticulture and business. Later he attended the Acme School for Greenhouse Cooling. Colorado was also where he launched two of his plant-related businesses, Chem-Gro, a fertilizer company, and Hydro-Gardens, a greenhouse supply company.

"By then I was married to Barbara, who I had met back at Tarpon Springs High School, and had set up the fertilizer company in our garage. I was working my regular job as lab manager for Holly Sugar during the day. At night I worked out of the garage, packaging up fertilizers I had formulated for the special needs of hydroponic growers," says Carpenter.

The fertilizer business grew rapidly, but the unheated garage in which he found himself spending more time was a chil-

ly place to be during those long Colorado winters.

"I had to work fast to keep warm," he recalls.

Carpenter soon moved out of his home workshop and into a new warehouse. He proceeded to set up and run Colorado's first hydroponic tomato greenhouse operation in 1972.

In 1996 the Carpenters decided to return to Florida. Tim sold Hydro-Gardens and moved back to Central Florida, taking root first in Kissimmee and, eventually, in south Marion County. He and Barbara live on 12 acres fronting busy U.S. Highway 441. Their home is more of a research and development center for hydroponic growing than a residence.

Along the highway is the office and demonstration gardens where Carpenter's patented Verti-Gro hydroponic system yields bountiful displays of sweet red strawberries, curly-leafed kale, and lush mounds of parsley, spinach, lettuce and basil. All are growing in plastic foam containers stacked five-

high in vertical towers.

"Our house is in the back of the property just a short walk to the office, so most of our gardens are here where they are not only easy for us to tend but able to be observed by people who come for weekend seminars," says Barbara, who helps lead workshops on high density hydroponic farming.

Carpenter's growing towers have been recognized internationally. Carpenter has helped set up between 10 and 15 commercial greenhouses in Central Florida where growers use the system to produce abundant harvests of strawberries, herbs, salad vegetables and other crops.

His systems are also in place at University of Florida research centers in Live Oak and Apopka, and at the Seminole County jail in Sanford.

Though near retirement age, Carpenter shows no signs of slowing down. He travels the country, lecturing and helping growers build greenhouses and set up Verti-Gro operations. He

MORE INFORMATION

● Urban Farming Workshop 2002 will be next Saturday at the Seminole County Extension Auditorium, 250 W. County Home Road, Sanford. The program, from 8 a.m. to 1:30 p.m., will include a presentation on hydroponics from 8:30 to 9:15. Richard Tyson, commercial horticulturist for Seminole County, will teach how to set up the basic systems. Tim Carpenter will display his Verti-Gro system. Topics include high-value fruit crops for small farms, opportunities in aquaculture

and low-toxic bio-rational pest control. Cost is \$5. Details: 407-665-5554.

● Gardening Without Soil will be from 9 a.m. to noon May 4 at the Agricultural Center, 30205 State Road 19, Tavares. Carpenter and Tyson will be speaking on hydroponic methods in the free program. Details: 352-343-4101.

● To learn more about the Verti-Gro system, call 1-800-955-6757, e-mail: info@vertigro.com or visit www.vertigro.com.

works with kids through programs like Earth Rangers and Florida Agriculture in the Classroom.

At home when not writing or researching, he and Barbara lead tours of their demonstration gardens. No matter how busy this energetic grandfather is, he never tires of educating others — especially children — about plants.

"Tim still works nonstop to learn, improve and teach hydroponic growing and has dedi-

cated his life to the field," says his wife of 37 years.

"He is committed to informing and assisting schools in the use of hydroponic, vertical growing because he feels this may be a way for the American family to include agriculture in their daily lives. He strongly believes in sharing his knowledge and truly loves working with plants and inventing new systems. I believe that is why he is so successful in what he does."