

Grow More in Less Space

by Lucy Beebe Tobias

In Ocala, Kenne and Bill Wells grow bushels of vegetables, herbs and fruits on a tiny piece of land. And they do it hydroponically. Rows of PVC poles hold 24 pots on a pole, all bursting with produce. The strawberries, especially, are amazing - big, sweet, succulent. Don't get me started on their strawberries...it is hard to stop.

Last year, their first as Sugar Tree Farms, the couple grew enough to supply a farm store from fall through spring. They also offered a "farm to family" membership, where subscribers received weekly boxes of crops being harvested. All of this from a quarter of an acre! They are living the mantra, "buy local, eat healthy," and doing it vertically.

"The thing I like best about hydroponics is - no dirt!" says Kenne. The couple used to run a nursery and don't care to see dirt or weeds again.

"That got me excited, the no-dirt part," says Kenne. "Plus no weeds, maximum use of space and water conservation."

Bill adds, "Plants have very basic priorities - water, fertilizer, nutrients, lots of sunlight and shade when



photo by Lucy Beebe Tobias

Kenne and Bill Wells grow an impressive amount of produce at Sugar Tree Farms.

needed, plus protection from cold." All of these needs are met in a hydroponic system.

Putting weed cloth on the ground cuts down on weeds and pests. A shade cover forms a canopy. Water, powered by a simple pond pump, is provided at intervals. The no-dirt part is continued in the containers - coconut fiber provides the pot media.

"The coconut fibers have no nutritional value," says Bill. "They are used to hold the plants. We feed them (organic) fertilizer in a water solution. We are only feeding the plant."

Is this radical idea of growing plants and flowers vertically and hydroponically more expensive? "We use about one-tenth the water as land gardens," says Bill.

At their farm market, you can also purchase a vertical garden kit multiple tower - a growing system made for the backyard gardener. The basic kit is \$429.95 and can be expanded with multiple poles. It is best to call ahead and talk about your needs. When not too busy, Bill gladly walks visitors through the hydroponic

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Rachelle Roper of Feed the Need Garden goes hydroponic.

system and how it works.

In Belleview, Rachelle Roper, founder of Feed the Need Garden, has many raised beds of vegetables and a long track record of helping nursing homes, schools and other venues set up their own vegetable gardens to become sustainable.

But on this special Tuesday morning something radical is happening in her front yard. Brian Donnelly, a partner in Sun State Organics of Ocala, plus his crew, are laying down a long line of PVC pipes – the start of a hydroponic system.

“There are 25 poles, the system is 84 feet long and 40 inches wide,” Brian notes. “All together it is 300 square feet with 500 pots. Say 2 to 3 heads of lettuce in each pot, you can grow from 500 to 1500 heads of lettuce. Most systems have a start and end cycle – this one regulates delivery and it is so flexible, (with) continuous adjustable cycling. It uses 90% less water, energy and space than a land system.”

All the pots are made out of black geo textile material, a breathable woven fabric that hangs with hooks. “This means the roots are air pruned,” Brian says. “That forces second and third stage growth, making plants much bigger.” In a conventional pot system, the roots curl around and take over the inside of the pot.

At the end of the long row of hydroponics, a small distance away, is a single pole, to show what a backyard gardener with limited

space can do; Rachelle easily hangs the pots as one of the crew connects the timer to the bottom. Rubber tubing and probes are inserted into each pot for water delivery. For media, she uses soil from her compost bed. Food produced by the hydroponic system is both pesticide free and organic.

The hydroponic system was made possible when Feed the Need Garden won a \$10,000 grant from Aveeno’s “Be an Active Natural” challenge. Sun State Organics sells this hydroponic system in a variety of configurations, including one made to accommodate people in wheelchairs. All the parts can be motorized or worked manually.

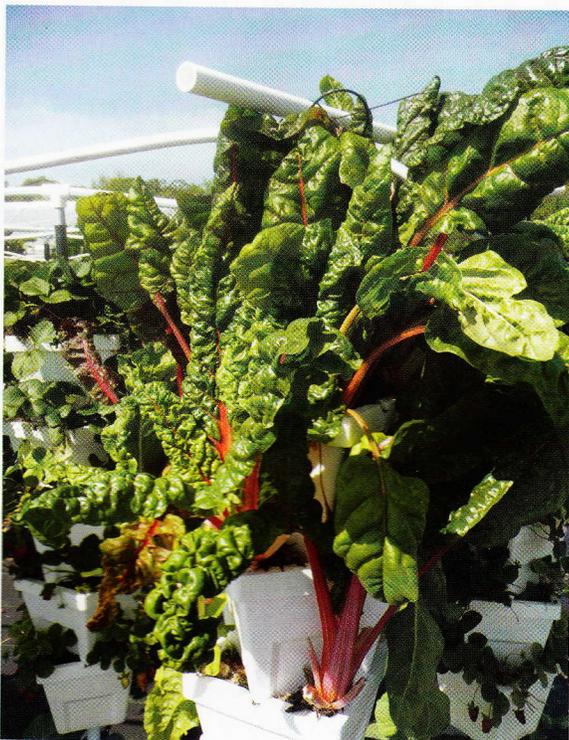
Rachelle will be Sun State Organics’ first non-profit dealer. A portion of her sales of the hydroponic system will go to Feed the Need Garden.

In addition to traditional and hydroponic gardening, Rachelle has also started aquaponics. I confess to having a part in this, as she has my fish, old bathtub, pumps and filters. Aquaponics is the marriage of fish farming and raising plants in water. The wonderful “fishy” water gives continuous fertilizer. In my Ocala backyard I had a hot tub with tilapia and goldfish, plus floating rafts of plants.

What a joy to go outside and pick Swiss chard, basil and the best red lettuce ever. I’d do a system like that again in a heartbeat in my new home, but this time go vertical – say one pole of pots sitting in a tub that has fish.

Is this too far out? No, I think it is the wave of the future. Gardening in water, using fish,

photo by Lucy Beebe Tobias



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Lucy Beebe Tobias is a writing coach and the author of Florida Gardens Gone Wild and 50 Great Walks in Florida. Learn more on www.LucyTobias.com.

Resources

Hydroponics

Sugar Tree Farms

435 NE 63rd St.

Ocala, FL 34479

(352)843-7908

www.sugartree-farms.com

Feed the Need Garden

11821 SE 84th Terrace

Belleview, FL 34420

(352)572-7843

www.feedtheneedgarden.com

Sun State Organics

8903 W Anthony Road

Ocala, FL 34479

(352)620-8444

www.sunstateorganics.com

Aquaponics

Aquaponic Gardening: A Step-By-Step Guide to Raising Vegetables and Fish Together by Sylvia Bernstein

Magazine article: "Honey, Why Are Those Fish Swimming in Our Garden?" by Emily Main, www.rodale.com/aquaponic-system

www.theaquaponicssource.com - choose "community," then "groups" to find "Florida Aquaponics"

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