

# Hydroponic Tomatoes

**I**f one imagines an Amish-farming scene, what typically comes to mind is a horse drawn plow and other traditional means of cultivating and harvesting crops from serene farmland. Such a typical farm view is not what one experiences at Daniel and Irene Yoder's hydroponic tomato greenhouse in Pleasant Valley, an Amish community near Oakland, Maryland. Instead of tilling the soil to cultivate tomatoes, Mr. Yoder carefully calculates the amount of water and nutrients his tomato plants receive each day in a soil free environment. The cultivation of plants in nutrient solutions and without the use of soil is called hydroponics and Mr. Yoder is the only local farmer producing tomatoes in this manner. His efforts began seven years ago after attending a two-day workshop in Ohio directed toward the study of hydroponics. It was explained that a primary advantage of growing crops without soil is that many of the diseases tomatoes are susceptible to are soil borne. Mr. Yoder's tomatoes are grown in a greenhouse specifically designed to channel water into plastic containers and to maintain proper humidity levels.

A key to success is having at least 180 hours of sunlight per month to make tomatoes mature properly. Artificial light sources may be used to supplement the sun and enable the plants to be grown year round but Mr. Yoder explained that using artificial light would not be economically feasible in Garrett County. Tomatoes are harvested from April to October and they are marketed locally. While hundreds of tomato plants keep Mr. Yoder busy, he also



*Daniel Yoder ties tomato vines up as they reach for the roof top. Grown in water with nutrients added and pollinated by bees kept in hives within the greenhouse, the tomatoes grow fast and juicy.*



operates other business more typical of the Amish landscape in Pleasant Valley; a small dairy, a large raspberry patch, and a tractor tire repair business.

*To visit the farm and purchase tomatoes, take U.S. Route 219 south from Oakland, about 3 miles, and look for Pleasant Valley Road. Follow the tomato signs to the greenhouse at 2108 Pleasant Valley Road. Open May through August, 10 am to 3 pm. Tours and information are available.*

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