

Growing's a Business at Bidwell

This school is serious about training students for work with plants, and hydroponics helps get the job done

On the north side of Pittsburgh, the Drew Mathieson Center for Horticultural and Agricultural Technology has for the past three years served as a training ground for young adults just starting out and older adults starting over.

Training in hydroponics is a key component of the horticulture technology program, one of eight training programs offered at Bidwell Training Center, which specializes in re-training unemployed and underemployed adults to help them get their lives back on track.

Students in the six-month horticulture program receive hands-on training in the plant sciences including hydroponics, said Gary Baranowski, Director of Horticulture Technology at the school.

Bill Strickland, president and CEO of Manchester Bidwell Corp., also happens to be a devoted gardener and big fan of orchids, especially Phalaenopsis orchids.

He jump-started the horticulture technology program a few years ago with a group of high school graduates interested in pursuing careers in the plant sciences.

The Drew Mathieson Center on the school's campus consists of gutter-connected, high-tech greenhouses with integrated classroom and lab space. The greenhouse range was built through the generosity and with the support of several major Pittsburgh corporations. Most of the equipment needed to outfit the hydroponics area was purchased from CropKing.



Photo by Jason Matukaitis

Above: Bidwell students Jason Shutzman and Brittany Heiser pick tomatoes in the hydroponic greenhouse.
Below: Bidwell student Jason Shutzman performs tissue culture with African violets under a laminar flow hood.



Photo by Jason Matukaitis

Photo by Jason Matukaitis



Rear view of the Drew Mathieson Center for Horticultural Technology on Pittsburgh's north side.

IN THE CLASSROOM



Photo by Jason Matukaitis



Photo by Jason Shutzman

Left: Joe Bires performs daily maintenance in the student lab at Bidwell. Above: Student Jason Matukaitis prepares young tomato plants for transfer to Dutch buckets. Right: Tomatoes are started in 4-inch Grodan rockwool blocks. Once root bound, the blocks are set on Dutch buckets filled with perlite.



Photo by Jason Matukaitis

In addition to hands-on work in the greenhouse, horticulture students take classes in greenhouse operations, among others.

Students use hydroponics technology to raise two types of tomatoes—'Trust' beefsteak and 'Dasher' cherry tomatoes. The beefsteak tomatoes begin as grafted plants from Ontario Growers and are placed into the system in either rockwool slabs or in Dutch buckets filled with perlite or a comparable growing medium. Cherry tomatoes are raised from seed supplied by CropKing, American Hydroponics and Johnny's Selected Seeds.

Seed is planted into 1-inch-square rockwool germination cells before being transplanted to larger 4-inch rockwool blocks that sit atop perlite. The tomato plants receive their water and nutrients through a drip-irrigation system. The drip timer is set to deliver nutrient solution four minutes every half hour over 12 hours, daily. The drip solution is made up of a Hydro-Gro

mix along with calcium nitrate and potassium nitrate.

About 1,700 square feet of greenhouse space is devoted to growing hydroponic tomatoes, with production stretching over 10 months. Students harvest 150-270 pounds of tomatoes a week, with most sold to local restaurants and the culinary school at Bidwell. In addition to growing hydroponic tomatoes, students also raise orchids, including Phalaenopsis orchids, a favorite of students and staff. Phalaenopsis orchids are received as bare root stock and grown in 5- or 6-inch pots in either a bark mix or sphagnum moss. Bidwell produces and sells 18,000-20,000 orchids a year. Orchids are sold to wholesale buyers including florists grocery stores and several big box stores in the region.

Other specialty cash crops are being piloted including amaryllis hydrangeas, calla lilies, stephanotis and roses. Proceeds are folded back into the educational program.

Bidwell got its start in the 1970s. In 1972, Bill Strickland took charge of Bidwell. Strickland began with dreams of economic development for the people living in Manchester, an economically depressed section of Pittsburgh. Years earlier Manchester was in the hub of a thriving community known as Old Allegheny, but years of social, political and economic change took its toll on the neighborhood.

Bidwell started out primarily as a school devoted mostly to blue-collar African-American men looking to gain skills that would help them in the job market. Today, Bidwell's students are a diverse group and range in age from 18 to 65. The majority of Bidwell's funding comes from the state of Pennsylvania and other granting bodies including local Pittsburgh foundations. Students pay no tuition. The only requirements are that they have a high school diploma or equivalent, be a Pennsylvania resident, and go through the admissions process.

Beside horticultural technology, Bidwell offers programs in culinary arts, pharmacy tech, chemical laboratory tech, office technology, and medical claims processing.

Bidwell officials report good results with placing horticulture students in "green" industry careers after they graduate. Upon graduation the seeds of success are sown in green industry job opportunities. They may begin in florist shops, nurseries, on golf courses or with landscape companies—opportunities that can help change their lives for the better. 🌿

John Schmitz covers agriculture including hydroponics from the Willamette Valley, Ore.

Resources

- Bidwell Training Center
www.bidwell-training.org
- Crop King
cropping.com
- Johnny's Selected Seeds
www.johnnyseeds.com
- American Hydroponics
www.amhydro.com



Photo by Jason Matukaitis

Above: Students at Bidwell grow 18,000-20,000 orchids a year, including Vanda orchids pictured here. Orchids are sold to wholesale buyers, and the proceeds go to fund Bidwell's horticulture program. Below: Dosatron automatic fertilizer proportioner supplies nutrients via drip line irrigation for four minutes every half hour.



Photo by Jason Matukaitis



Photo by Jason Matukaitis

Sue Arlott shines orchid leaves in preparation for a sale.

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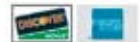
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