Higher Learning UCSC Teaches Organic Techniques

by Terri Morgan

English master gardener Alan Chadwick began clearing a hillside on the University of California, Santa Cruz, campus in 1967 with the help of one main apprentice, John Powell. The sprawling 2-year-old campus, where buildings were still under construction, lacked a central quad, and school officials approved a garden plan to provide students a place to gather. Campus officials hired Chadwick to work with the students and provide guidance for the student garden project.

Later, students lent a helping hand in the transformation effort of the 3-acre site.

"Chadwick and the students selected a poison oak and redwood covered sloping 3-acre site with wonderful southern exposure," said Daniel Press, executive director of the farm program. "Now it's a little garden of Eden."

From the get-go, the emphasis was on growing crops organically, even though the word "organic" wasn't in the general lexicon at the time. Chadwick experimented with recycling garden waste through composting and using the resulting materials to build up the soil. He also used organic fertilizers, encouraged biological pest control by planting a variety of plants and implemented the French intensive practice of grouping plants close together in raised beds to produce maximum yields from small plots. Students enthusiastically embraced a variety of Chadwick's practices and conducted experiments looking for the best ways to grow food while preserving the environment.

Like the fruit trees that were planted on the original site, the farm has grown tremendously throughout the years. Today it includes a 25-acre site where apprentices grow more than 100 different varieties of fruits and vegetables. This is in addition to the original site, renamed the Alan Chadwick Garden, that includes an orchard of fruit trees. Several additional acres will be added to the farm in



Over the years more than 1,400 students have taken part in the Center for Agroecology & Sustainable Food Systems' apprenticeship program.

coming months, providing more room for research and educational projects.

Now known as the Center for Agroecology & Sustainable Food Systems, or CASFS, the farm has blossomed into an internationally recognized apprenticeship program that provides students with hands-on training in organic farming, gardening and marketing practices. The apprentice program, which began in the mid-1970s, also educates students about the social issues of sustainable agriculture and the challenges of building a socially just food system.

Over the years more than 1,400 graduates have taken part in the intensive, sixmonth program and have gone on to start farms and education programs throughout the United States and around the globe. Many are leaders in organic farming, urban agriculture and food policy. Others teach and run educational organic farming programs on a variety of college campuses, or operate community gardens and teach urban residents how to grow healthy foods.

"We're the mother ship of organic training and education," said Press.

Apprentices like Jessie Nichols live on the farm during the program and immerse themselves in organic agriculture to get practical experiences in the field. The emphasis is on hands-on learning. Students spend at least 700 hours in the field and 300 hours in the classroom. The combination is ideal for many of the students.

hotos by Abby Huetter

"I picked this program because it's an intensive experience and it draws on so many components of farming and social justice," Nichols said. The former environmental educator said she would like to teach young people about sustainable agriculture through practical farming experience after she completes the program.

Nichols is getting an opportunity to hone her teaching skills. The program serves 40 apprentices a year. In addition, a handful of exceptional students, like Nichols, return the following year to serve as mentors for the new apprentices.

Others, like Colin Hanowell, arrive with previous experience and a desire to further their understanding about organic farming.

"I came here because I was working on an organic farm, but I didn't have the science knowledge to take it to the next level," Hanowell said. Before coming to the program Hanowell worked at Fifth

The Alan Chadwick Archive Living Library Project

Mission Statement: To create a complete artistic, professional living libraryarchive, and public research website, thus sharing the horticultural vision, wisdom and legacy of Alan Chadwick, whom E.F. Schumacher (author of Small is Beautiful) called "the finest teacher of intensive horticultural, agricultural methods that I think the world possesses today."

The project is currently gathering all extant Alan Chadwick archival materials - taped lectures, lecture notes, photos, letters, video, audio tapes, garden logs, etc. In 2015, the group hopes to have a public website in place, thus sharing Chadwick's work, vision and legacy.

There have been two books of Chadwick's lectures published, a 7-CD set of his lectures, and a lecture and CD on bees. See the interim website at www. alanchadwick.net/Alan_Chadwick_Archive/Welcome.html.

If you have any Chadwick archival materials to contribute, please contact thealanchadwickarchive@gmail.com.

The Alan Chadwick Archive Project P.O. Box 804 Montreat, NC 28757

Crow Farm in nearby Pescadero, which was started by former CASFS apprentices.

The training begins in April, when apprentices move into tent cabins on the edge of the farm. The wooden and canvas cabins are luxurious compared to the original teepees that housed students in the early years. Work begins with immediately preparing the fields for planting. Five tons of compost is worked into each acre of the fields, according to Field Production Manager Liz Milazzo.

"The growing season is defined by the winter rains," Milazzo said. "We grow cover crops in the winter and start planting in April or May."

Forty different crops are grown each year, Milazzo estimates. Multiple varieties of the most popular crops are planted to extend the availability. The harvest season runs from June through November. About 55 percent of the crops are sold to Community Supported Agriculture customers. CSA members receive eight to 12 different types of produce in their weekly boxes. Milazzo estimates another 35 to 40 percent of the crops are sold through a market cart operated by the apprentices at



the main entrances onto the campus, with the rest intended for student dining halls.

As an educational program, crop sales provide 10 to 15 percent of the program's annual budget, with the university contributing another 15 percent. The rest comes from grants and fundraisers. Despite the constant need for fundraising, the focus during training is on education, and not on turning a profit.

"This is real life training in a supportive environment," said Martha Brown, senior editor for the CASFS. "If somebody kills a plant, we tell them not to worry. We focus on education first and production second."

The educational experience includes germinating seedlings in the solar greenhouse, mixing potting soil, sowing seeds and transplanting seedlings in the lath house and performing research in the lab. Other hands-on learning includes maintaining the farm's perennial garden, which produces fragrant flowers that are cut and sold by students, composting and planting, raising and harvesting a vast array of row crops.

Students also learn and work in the apple, pear and plum orchards and raise kiwis and 15 different varieties of blueberries. In addition to training future organic farmers, the CASFS site is also used by researchers looking to improve organic growing practices. Variety trials, cover crop studies, intercropping practices and



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soil fertility and nutrient management studies are also conducted on-site by researchers looking for ways to improve production for the commercial industry.

"It's an important research facility, where very applied, very practical work is conducted," Press said.

The farm also serves as an outdoor laboratory for students studying agroecology, environmental studies and other disciplines at UCSC. Younger students from the community also come to the farm to participate in garden-based science and nutritional education at the Life Lab Garden Classroom, which was opened on the farm in 2002. The program uses the farm as a living laboratory to teach elementary school students about botany, soil science, the importance of pollinators, and help them make the connection between what they eat and their health. Brown estimates 3,000 to 5,000 youngsters visit the Life Lab Garden Classroom each year.

In addition, dozens of high school students come to the farm to take part in a program designed to teach kids how to grow, cook and eat healthy organic foods. In addition to learning about organic farming practices and improving their health, students also develop job skills.

The farm also hosts public workshops and community events throughout the year. The site is busiest, however, between April and October when the apprentices are learning and working on-site.

While graduates of the program can be found throughout the organic food



Students help create nutrient-rich compost.

industry, many maintain close ties with the farm. Press recently hired former apprentice Darryl Wong to head the latest expansion project. Children of former apprentices have participated in the program. Former students, like Leslie Geathers who apprenticed at the farm in 2001, enjoy returning to the farm to take friends on a tour.

Some people, like Brown, don't want to leave. Brown, who has worked on the site for a quarter of a century, loves to come to work every morning.

"There's incredible energy at this place," Brown said. "The apprentices who come here are very interested in learning, and they know what they're going to do with the training. They are really out to

make a difference in the world, and are developing a skill set to apply to their careers."

Brown also loves the enthusiasm of the students and the dedicated staff members at the farm, which overlooks the Monterey Bay.

"It's more than just a paycheck," Brown said, as she led a visitor through the property. "Plus, I get to work in an incredibly beautiful setting."

For more information on the UC-Santa Cruz Center for Agroecology & Sustainable Food Systems visit casfs.ucsc.edu.

