

UCD plows ahead, but lags on organic ag major

By Edie Lau – Bee Science Writer
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For the first time this fall, a university in the United States is offering a major in organic agriculture.

It's not at the University of California, Davis, one of the nation's foremost agricultural schools, nor is it anywhere in California, the top state in certified organic cropland.

The program is at Washington State University, which is leading a movement among agricultural schools to put organic farming in the curriculum. The trend reflects rising consumer demand for food grown without the use of synthetic pesticides and synthetic fertilizers, antibiotics, hormones or genetic engineering.

Washington State is one of at least three universities expected soon to start programs specifically focused on organic agriculture.

Colorado State University is offering an interdisciplinary program in organic food and fiber production.

Michigan State University is giving final review to a proposal for a 1 1/2-year certificate program in organic farming.

The University of Guelph in Ontario, Canada, had the jump on everyone on the continent. In fall 2005, it was the first university in

North America to offer an organic agriculture major.

"Face it, organic food and beverages are 2 percent of the market," said John Reganold, a soil scientist at Washington State University who conceived his school's organics major. "It's here, and it's growing."

Most estimates peg the growth at 20 percent a year for more than a decade.

Supermarket companies such as Safeway now offer their own store-brand organics. Wal-Mart pledged that it would put 400 organic food items on its shelves by summer.

California farmers are doing their part to meet the demand. The latest U.S. Department of Agriculture figures show that California in 2003 had 177,000 acres of certified organic cropland, more than any other state. It also had 16,000 certified organic dairy cows, leading all states but Wisconsin.

California universities are responding to the trend, but not swiftly.

At UC Davis, a proposal dating to 2002 to create an undergraduate major in sustainable agriculture is under review. Neal Van Alfen, dean of the College of Agricultural and Environmental Sciences, said such a major is at least a year off.

"In the UC system, the process of developing a whole new curriculum is a laborious and time-consuming process," Van Alfen said.

The UC Davis major proposal differs from Washington State's in that the field of study is "sustainable" agriculture rather than "organic." The distinction is often a point of controversy.

To some ears, "organic" still connotes a fringe philosophy with hippie sensibilities and is interpreted as a rebuke to conventional farming. Others fear the term is being co-opted by big corporations with a history of industrial-style farming and selling highly processed foods.

Van Alfen maintains that "sustainable agriculture" is a broader term that puts a priority on environmentally friendly practices and examines sociological aspects of farming. Under the USDA certification program, "organic" is defined by a set of farming practices.

It does not speak to the question of, for example, whether the food was produced locally or shipped from abroad, grown on a small family farm or by an agribusiness giant.

"I would say that there are practices in organic agriculture that are unsustainable," Van Alfen said. "For instance, one of the practices is that you don't use artificial

fertilizers, you use natural manures. But ... if you overuse it, that's not sustainable, either. The nitrates in manure are a problem, too."

Advocates of teaching organic agriculture favor the term because it has a discrete definition; "sustainable" does not.

At the University of Guelph, crop scientist E. Ann Clark said by e-mail: "I was strongly against the word 'sustainable' because it has been co-opted by everyone to mean whatever they want it to mean."

A similar discussion arose briefly at Washington State. Reganold recalled a colleague saying, "You don't want to have an organic agriculture major, you want to have a sustainable agriculture major."

"No, no, no," Reganold replied. "I want an organic agriculture major. It's specific, it's gaining ground, it's a movement, and we would be the first ones."

Washington State's undergraduate major evolved out of years of faculty research. Fifty to 60 faculty members have experience studying organic systems, among them Reganold, who stumbled upon his first such project 20 years ago.

A UC Davis alumnus with an interest in farmland preservation,

Reganold studied two farms, one organic, one conventional, in a fertile but highly erosion-prone region along the Washington-Idaho border.

Reganold and colleagues discovered that the organic farmland was eroding at less than half the rate of the conventional farm.

Between his work and that of his colleagues, Reganold said, the administration became "used to hearing 'organics.' "

Washington State is an exception.

Historically, the organic farming community has felt largely ignored by the nation's big agricultural universities, also known as land-grant institutions.

John Biernbaum, a professor at Michigan State who helped put together his school's proposal for a certificate program, said one point of tension relates to genetic engineering.

"There's a lot of nervousness about the fact that organic does not allow genetically modified organisms, and the land grant universities have invested heavily in that," Biernbaum said.

UC Davis is among those with a heavy investment in biotechnology.

Davis was, after all, the birthplace of the nation's first genetically engineered crop, the Flavr Savr tomato in 1994.

Mark Lipson, policy program director of the Organic Farming Research Foundation in Santa Cruz, said that while most organics advocates are not interested in genetically engineered organisms, they welcome other applications of molecular biology, such as gene-based tools to speed and improve traditional plant breeding.

"We need all the rocket science," Lipson said. " ... That's why UC really matters."

Damian Parr, a UC Davis doctoral student in agricultural education, said it's no surprise that heavyweight agricultural universities such as UC Davis would deliberate long and hard before changing course.

Said Parr: "It takes a lot to shift a world view."

About the Writer

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