

Cornell University Expands Wine Studies, Facilities

New Undergraduate Major and Student Winery Added

By Richard Leahy - East Coast editor

As a land grant university, New York's Cornell University has a century-long tradition of research and teaching that has made significant contributions to the region's grape and wine industries. They include the introduction of new cultivars to extension and research programs, which not only help the industry in New York state, but also around the world. For example, the late Nelson Shaulis, viticulturist at Cornell's research station in Geneva, N.Y., revolutionized viticulture by introducing the GDC (Geneva Double Curtain) divided canopy training system, and the mechanical grape harvester.



Food science department intern Erica Sloma decants wine at Cornell University's new teaching winery, in Ithaca, N.Y.
Photo: Robert Barker

Cornell's academic mission includes research, extension and teaching in viticulture and enology. While its graduate programs are well-known, and extension work helpful to the industry throughout the East (as with the recently published "Guide to Sustainable Viticulture in New York"), the New York

AT A GLANCE

- New York's Cornell University has added a new four-year undergraduate major in viticulture and enology.
- To complement the new program, the university opened a teaching winery.
- The goal of the program is to educate students to work in the local wine and grape industries.
- Though the course will cover a variety of climates and grape varieties, it focuses on cold-climate viticulture and winemaking.

wine industry has long sought an undergraduate major in viticulture and enology at Cornell. Now, it has one.

THE CASE FOR A V&E MAJOR

Since the 1990s, Cornell faculty members have discussed with industry representatives how to formalize such a program. After much behind-the-scenes work, in May 2008, a new undergraduate major in viticulture and enology was approved by the state, and in spring 2009, a small winery at the Ithaca campus (behind the orchard sales building) was completed, dedicated to student winemaking.

One of the primary people responsible for the new undergraduate major is Susan Henry, the Ronald P. Lynch Dean of Agriculture and Life Sciences at Cornell. In an interview, she explained the importance and relevance of the new program and the student winery for Cornell, its students and the wine and grape industry of New York state.

Henry came to Cornell in July 2000, having been recruited to her current position from Carnegie Mellon University, where she was Dean of Science. She is a geneticist by training, with a Ph.D. from UC



Dean Susan Henry cuts a grapevine, officially opening Cornell's new teaching winery. Photo: Craig Cramer

Berkeley, and a research background specializing in yeast and yeast metabolism (specifically, the wine yeast *Saccharomyces cerevisiae*).

When Henry arrived at Cornell, she heard "almost immediately"

from wine and grape industry members about curriculum to support cold-climate enology and viticulture training. "The local industry and suppliers have been very vocal in suggesting and pressuring the formation of an under-

graduate program to complement the research and extension programs and have been very supportive of our efforts," Henry said.

Art Hunt, proprietor of Hunt Country Vineyards in the Finger Lakes region, began urging Cornell to develop a four-year program eight or nine years ago. He noted that (at the time) there were more than 1,500 wineries east of the Rockies, with no four-year viticulture and enology programs available to them. (Being state schools, UC Davis and Fresno in California were essentially closed to students from other states). "Many people starting wineries were finding there were few qualified people available to work in their wineries and vineyards," Hunt said.

Henry points out that many Cornell alumni in the New York wine industry also pressed for the

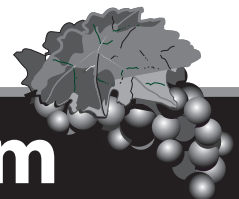


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program, including Fred Frank, Peter Saltonstall, John Dyson and many others.

OVERCOMING THE OBSTACLES

In a state with a multi-billion-dollar deficit, establishing funding for a new program was a big

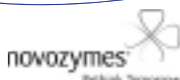
issue, yet Henry explains that the critical issue was recruiting top faculty for the program.

With the lack of funding, Henry commended Cornell's Horticulture, Food Science and Food Science Technology departments for being "very unselfish in dedicating or re-directing resources and personnel to build the wine and

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CORNELL VIEN STATS

- Currently there are 17 students enrolled in the VIEN major.
 - Eight students received their diplomas in May 2009.
 - Cornell expects to have 10 incoming students this fall.
 - A dozen faculty from six Cornell departments and the USDA-ARS lab in Geneva teach undergraduate VIEN courses.
 - In addition to 3 acres of hybrid winegrapes, Cornell has 6 acres of vinifera grapes at the horticulture research farm near Lansing, N.Y.
- Compiled by Ian Merwin and Kari Richards

grape program." For example, Ian Merwin in the Horticulture Department on the Ithaca campus, who previously focused on apples, has added a new focus on grapes.

The department was also able to hire new faculty, including Anna Katharine Mansfield, Ramón Mira de Orduña Heindinger, Gavin Sacks, Justine Vanden Heuvel and Chris Gerling. Associate Dean Tom Burr, a plant pathologist who works on grapevine diseases, has been important in supporting the program, Henry said.

The facilities for teaching are an ongoing challenge; research facilities are in Geneva (the north end of Seneca Lake), yet Cornell's main campus and undergraduate students are in Ithaca (south of Cayuga Lake). "There was lots of debate on where to put the new winery and how to organize it," Henry said. "The faculty worked hard consulting with the industry, getting Cornell to approve it at the Orchards (on the Ithaca campus). The Horticulture Department in Ithaca was generous in allowing our use of the site for this purpose."

IMPACT FOR THE N.Y. INDUSTRY

In May 2008, the New York State Education Department approved the new viticulture and enology major for undergraduates. Prior to that, in 2003-2004, there was a transition where students got concentrations in enology if they focused on food science, or in viticulture if they focused on plant science. Since 2004, eight undergraduates have completed viticulture and enology concentrations and are now working in the industry.

Henry is confident the major will benefit local industry, which contributed to construction and equipping the new winery. "I feel very strongly that the whole state of New York will benefit," she said. "The wine industry is such a strong engine for economic growth. Research and extension

will grow along with this new teaching program, and this will ultimately be a huge driver for the upstate economy in the agricultural sector. This new educational program will provide support for all of New York's winemaking regions, through the multiplier effect of the wine industry in the local economy."

Henry also pointed out the implications for retaining young New Yorkers in the local industry: "Many of them are excited about the wine and grape industry and we expect that this program will help keep them here. We also hope it will enable local winemaking families to retain their sons and daughters instead of sending them elsewhere to be educated."

Hunt added, "Cornell has to keep looking ahead in order to position itself to address future needs for education in an ever-changing world. The enology and

viticulture program is structured to accomplish that."

NEW TEACHING WINERY OPENED

On April 1, 2009, Cornell's teaching winery opened next to the Cornell orchards. "The desire to build this teaching winery was already in the air when I arrived in 2000, so it's taken the better part of a decade," Henry said. "Having a space that is dedicated to teaching and (outfitted) with winemaking equipment equivalent to facilities our graduates will use in industry settings, will prepare them for real-life situations in the field...you can't learn winemaking without doing it."

The winery is 2,400 square feet and features an epoxy-treated floor with a central slit drain for maximum hygiene, two ample walk-in cold rooms for storing

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Cornell's 2,400-square-foot teaching winery includes two high-tech WinePods (shown beneath far-left window). Photo: Robert Barker

lots of wine, and a laboratory. In addition to standard processing equipment, there are presses for small-lot batches and two WinePods (self-contained computerized winemaking devices featured in V&WM's January/February issue).

One of the most valuable pieces of equipment for a teaching

winery is a microscope linked to a large overhead flat-screen monitor, so that a room full of students can simultaneously view yeasts and other microbes in action while the instructor points to the screen with a laser pointer. This is much less time-consuming than having a line of students wait for their turn to squint through scope lenses.

Kathy Arnink is an instructor at the winery and was involved in its planning. She teaches and advises students in the new program, including coordinating industry internships. Course work will cover a range of climates and grape varieties, yet the program

will focus on cool-climate viticulture and enology issues.

The new winery is adjacent to the 3-acre Ithaca research vineyard, planted to a variety of hybrids. Arnink said that the 2008-2009 term was the first full year that undergraduates could major in the new program. There are now 17 students enrolled in the major, many from New York and adjacent states, but some from the West Coast and even Brazil. However, she cautions that the program should remain small, due to the need to allocate more staff and resources as it grows – the ideal target is 60 students. One planned course is in organic viticulture, in which students will grow organic grapes in the research vineyard and make wine using organic guidelines. ■

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