

The Southwest Wine Center (SWC) at Yavapai College was established to fulfill the education and workforce development needs of a thriving Arizona wine industry. Sustainability and consideration for our planet's ecology led the vision for this project, as interrelated facets of wine-based agriculture and production further prove their potential to become prominent economic drivers throughout the state. SWC is designed to provide leadership to a burgeoning, high economic return industry, while advancing the understanding and appreciation of growing a low water-use, climate-appropriate, agricultural crop with nominal environmental impact.

The SWC's role is to catalyze knowledge discovery and information sharing - *a true industry incubator*. Simultaneously, SWC creates opportunities for industry collaboration, fosters entrepreneurship, and assists the wine industry in meeting employment demands with educated, highly-skilled professionals.

History:

A decade ago, industry and community stakeholders began work with Yavapai College to develop the vision of the Southwest Wine Center. A feasibility study measured needs and desires against operational considerations and the financial realities of the project. Academic degree and certificate programs, a teaching winery, student-run vineyards, a knowledge repository, and an incubator for economic development were the main components developed. A reflection of the long-term sustainability, mission, and values of Yavapai College and the Southwest Wine Center helped establish these elements. The Verde Valley Wine Consortium, Arizona Winegrowers Association, Town of Clarkdale, City of Cottonwood, and Yavapai County are just a few of the entities who provided meaningful input during the planning process.

Meetings with local stakeholders helped integrate the vision with community development plans alongside strong architectural support from Boxwood Architects of Seattle, WA. Re-use of materials and natural resources became the hallmark of these planning sessions. Designed to have net-zero water pull on groundwater sources, and a reduction of construction waste through the use of existing materials was incorporated - a true example of adaptive re-use. Good stewardship of community resources has been elemental to the Southwest Wine Center since its inception.

In concept and practice, the Southwest Wine Center is an industry-scale replicable model of a working farm-winery. An advisory committee of wine professionals plus current and former students meet annually with Yavapai College. These meetings provide input on curriculum, facilities, and the changing needs of the industry. The committee has defined educational outreach to the entire state as a top priority. The initial curriculum was developed and launched in 2009. Feedback from industry and students has allowed the program to evolve and strengthen over time.

Innovation is at our core:

We are the only program of its kind in Arizona. The Southwest Wine Center supports an industry which is uniquely Arizona and provides value added to the local, regional, and state economies.

The academic program provides high quality, hands-on instruction in both Viticulture (science of grape growing) and Enology (science of winemaking), as the Southwest Wine Center immerses students in real-world experiences which cannot be duplicated in a classroom setting alone.

The Center's approach to class scheduling and the affordability of the program is intentionally designed to make the academic program attainable for working adults across the state.

Water consumed by wine grapes can be a small fraction compared to traditional, thirsty commodity crops such as corn and alfalfa. The SWC focuses on developing best practices to push these water savings even further.

Our 13-acre teaching vineyard employs water conserving drip-irrigation system that utilizes grade A+ effluent water delivered through a public/private partnership between Yavapai College and the City of Cottonwood.

Our teaching winery is a shining example of adaptive reuse. Housed in a formally underutilized building on campus, the winery is a teaching model of sustainability for the industry and designed to LEED standards (smart building controls, use of natural daylight, low energy requirements, and rainwater catchment).

Quick facts:

1. One hundred four (104) students from across Arizona were enrolled in viticulture and enology classes at Yavapai College in the fall of 2018.
2. Program graduates are working in the local wine industry across the state, with most students placed in meaningful internships or otherwise working in the industry while meeting academic milestones.
3. Graduates have planted vineyards in each of the three main growing regions in Arizona: Sonoita, Willcox, and the Verde Valley. Forbes recently published an industry advisory naming Arizona as a new "investment destination." (online, June 26, 2019)
4. The SWC serves as an educational resource for the 110 wineries in Arizona, demonstrating to entrepreneurs how to integrate sustainability into their vineyard cultural practices.

5. Wine grapes at maturity require 1 to 1.5 acre-feet of water per year. In comparison, tree nuts require approximately 4-5 acre-feet per year and alfalfa consumes 6+ acre-feet per year.
6. Over the last decade, the Arizona wine and grape industry has flourished providing significant tax revenue to state and local governments. Planted acreage of this specialty crop has doubled, bringing with it an annual economic impact of \$56 million to rural communities. The number of farm winery licenses skyrocketed from 20 in 2006 to 110 today.
7. The wine industry and related agritourism has helped to revitalize local business districts, spur job creation, and launch wine-related business opportunities across a broad spectrum of the regional economy. 2019 marked the second year of the Southwest Wine Center's state-wide Emerging Winemakers competition.
8. Use of reclaimed, Grade A+ effluent water made available to the vineyards through Yavapai College's collaboration with the City of Cottonwood has reduced demand on groundwater in the Verde River watershed.
9. The combination teaching-winery/tasting room design literally avoided tons of waste through adaptive reuse of an old structure. High-efficiency design standards will minimize energy and water consumption into the foreseeable future.
10. Vineyard data is collected and shared with the University of Arizona as a benchmark, gauging the potential effects of climate change on agriculture.