



MASTERING THE SCIENCE OF WINE

UT Tyler Grad Heads Winning Team at Texas Winery

MICHAEL MCCLENDON prefers to taste wine in the afternoon sunrises on the veranda overlooking the vineyards.

He has left his goggles and white coat in the laboratory but remains in scientific mode, with his notebook, checklist and pen in hand. He tilts his wine glass, gently swirls the deep red liquid, takes a sip, and swishes it in his mouth to absorb all the flavors.

"You want to taste in a fairly comfortable setting, because that's where most people are going to be drinking or enjoying wine," McClendon said.

McClendon finds his daily tasting exercise doubly satisfying, because the wine is the fruit of his scientific labor. As enologist and winemaker at Kiepersol Enterprises, the largest estate-grown winery in the state of Texas, he has played an integral role in the company's award-winning wines.

"A lot of times, I have to really sit back in appreciation and awe," said McClendon, who graduated from The University of Texas at Tyler in

2009 with a bachelor of science degree in biology and minors in chemistry and Spanish. "I'm fortunate to be where I am."

FROM INTERN TO WINEMAKER

Kiepersol Enterprises, about a 15-mile drive south of Tyler, produces red and white wines exclusively from European varieties of grapes grown onsite in the estate's 61 acres of vineyards.

The winery's doors opened to McClendon in 2008 when he received a phone call from the biology department's then chair. The winery was hiring its first laboratory intern to help during the summer harvest season, and wanted a student versed in scientific language to set up and run its lab.

"I'm thinking, 'There's a winery in Tyler?' I had very little experience with wine before coming into it," McClendon recalled. "My parents didn't drink, and it wasn't really something I was exposed to."

But he was open to learning about a new field and eager to get real-world experience.

"I helped them get through the summertime and really enjoyed it," he said.

During his senior year, he continued working there part-time as a lab technician, using every chance available to learn about the industry and science of wine. Upon graduating, he was promoted to enologist, and two years later, the company bestowed upon him the additional title of winemaker.

As the enologist, he oversees the science portion of the wine-production process and, as one of two winemakers, he is involved in the blending and tasting of wines to achieve desired style. The labels for which McClendon formulates wines are Kiepersol Estates, Barrel 33, Bridge Mengsel, Bridge Sweet Mengsel and KE Bushman's Vitzin.

McClendon leads the company's wine production team and thus oversees the work of the cellar master, the barrel room master, the production engineer and three lab techs.

He appreciates the scientific nature and variety of his work.

"We all wear multiple hats and, actually, it's what makes it enjoyable for me," he said. "I love science and that's what drew me here, but I get to experience other sides of the industry."

Tasting wine is part of McClendon's daily routine.

"We're farm-based, and there's an old adage that the best fertilizer is the farmer's footprint," he said. "So understanding my product and being out in the winery tasting the wine – knowing what the wine is like,

knowing how it's progressing – that's one of the best tools that I could have."

Wine tasting is a responsibility shared by others, too, at the winery because of the importance of understanding how wines are perceived by different people, he said. He approaches tasting with pure professionalism, pointing out that it does not mean drinking, but rather swishing the wine around in the mouth and spitting it back out to prevent alcohol absorption.

"You basically just want to get a feel for the wine," he said. He also oversees quality control, which means making sure the wine is in the middle of the spectrum, at one end of which the fluid is grape juice and at the other end is balsamic vinegar. Additionally, he researches fermentation processes, develops new wine blends, fine-tunes production techniques, and promotes the company's wines by speaking at public and private events.

"We really want people to understand wine more, so they can feel more comfortable about drinking wine, enjoying wine and making selections," he said.

PUTTING TEXAS ON THE MAP

McClendon's public speaking also is aimed at changing people's views about Texas wines.

"It's kind of an uphill battle in the state of Texas. Everybody thinks about fine wine and they think California, Australia, Bordeaux, Burgundy," he said.

"We want to change people's ideas and

views and bring the wine to them, and let them taste it and see for themselves that this is the real deal."

To help bolster the state's wine industry, he networks within groups such as the Texas Wine and Grape Growers Association and even provides consultation to other Texas wineries.

"It's not a competition. If the Texas wine industry as a whole does well, then we all do well," he said. "... There's still silver bullets in the old belt, but for the most part we're very open and forthcoming with our information and knowledge."

SUCCESS IN THE WINE INDUSTRY STARTS WITH SCIENTIFIC KNOWLEDGE, AND MCCLENDON CREDITS UT TYLER FOR GIVING THAT TO HIM.

Inspired by the challenge, he is seeing some success, he said: "Texas is becoming a new wine-centric area."

The proof is in the press, where Kiepersol's wines are ranking among California wines.

Last year, their Kiepersol Estates 2008 Cabernet Sauvignon made the "21 Wines to Watch" international list by the American Wine Society in the spring issue of its *Wine Journal*. The wine was the only cabernet and the only Texas wine on the list, dominated by Californian and European wines.

"That was a big deal for us," said McClendon, who helped develop that wine

including courses in biochemistry, microbiology and cell biology, have been directly relevant to his work at the winery, as have some courses he thought he would never again use, such as plant morphology.

"I just took them because it was part of the degree program, but I've utilized some of that in going out to the vineyard and inspecting fruits and plants and just having a good understanding of what's going on from the vineyard perspective," he said.

His college studies also taught him to interpret data in scholarly journals, run a laboratory and conduct trials – skills he

enology through researching a grapevine insect over the past 15 years.

McClendon's field is "very competitive," Bextine said.

"Doing well in a rigorous science program really contributed to his success," Bextine said, along with McClendon's sociable personality, communication skills and technical abilities.

Durrett agreed: "Wine making is truly where science and art come together. Without his biology and chemistry studies, he simply wouldn't be where he is."

DEVOTED TO THE SCIENCE OF WINE

Thinking back on the past five years, McClendon speaks gratefully about the opportunities the winery has given to him.

One of the most valuable was working with a world-renowned microbiologist in the wine industry, whom the owners of Kiepersol hired to spend a week giving McClendon advanced technical training, enabling him to become the winery's own onsite resource.

"Because she was very scientifically oriented ... they always said that she and I spoke the same language," he said.

Another memorable experience was two winters ago, when the winery sent him and three other employees to Santiago, Chile, to tour wine regions during the southern hemisphere's summertime. They visited large wineries, shared experiences with the local wine professionals and made lifelong friends.

"We basically went to work, but it felt like a vacation because it was so awesome," he said.

McClendon plans to become a certified specialist of wine through the Society of Wine Educators, and do more traveling, starting with trips to Napa Valley in California and to wineries in Spain.

Further down the road, he might also return to school for a master's degree in enology to pursue more research-oriented work.

For now, however, he's perfectly content continuing his scientific inquiry into the art and mastery of winemaking, with days dotted by afternoon tastings on the veranda.

"I would never have imagined it to be like this or to be a part of anything like this," he said. "It's so much fun. Like I say, it's always something different, and I learn something new just about every single day." ■

from his first harvest season at the winery.

Last spring, Kiepersol Enterprises also won its first gold medals at the international Dallas Morning News and TexSom Wine Competition. Their winning wines were that 2008 Cabernet Sauvignon and another that McClendon helped formulate, Kiepersol's 2010 Stainless Syrah.

Kiepersol proprietor and winemaker Marnelle Durrett said of McClendon, "He has definitely had a positive impact on our wine."

THE FIRST INGREDIENT: KNOWLEDGE

Success in the wine industry starts with scientific knowledge, and McClendon credits UT Tyler for giving that to him.

His biology and chemistry coursework,

uses everyday.

"It is no question, his scientific background is why we sought him out," Durrett said.

Even so, when he came on board as their first-ever intern, she figured he would need more instruction than he did.

"When we talked about sulfur dioxide numbers and doing titrations for titratable acidity in wine, he just got it the first time," she said.

And Durrett has learned from him, "We were three days into working together, and he was explaining all the carbon bonds in wine to me," she said.

Dr. Blake Bextine, UT Tyler associate professor of biology who taught McClendon's cell biology class, has become familiar with

