The 2016 Charles Krug harvest season in the Napa Valley
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Introduction
I spent my Fall 2015 co-op cycle at Charles Krug winery. This is the oldest winery in Napa, California, and it produces wines for the Charles Krug label, as well as CK Mondavi wines. I worked as a laboratory technician, and I also spent time in the Quality Control department of the winery. My role throughout the winery was to obtain samples from tanks, barrels containing aging wines, conducted cold and heat stability on wines, measured sulphur dioxide levels of the wines, and much more. These responsibilities amplified during the harvest season, which, in Napa, is roughly from August to late October. During this fast paced portion of the year, I also worked directly with the winemakers to inoculate crushed grapes with yeast.

Figure 1. This is a photo of crushed Sauvignon Blanc grapes on the first day of harvest. The juice would later be moved to a steel tank for fermentation.

Activity
Throughout my coop, my responsibilities changed and progressed from the pre-harvest, harvest, and post harvest season. In the beginning of my co-op, my responsibilities included sampling from tanks and aging barrels for routine chemical analysis. When grapes samples from the vineyards started to arrive, we would check the Brix and pH levels to check if they were ready to harvest. Once they were ready, the winery would crush the grapes and we would later inoculate the juice with yeast. During this time, we worked closely with the winemakers to ensure that there were enough nutrients in the ferments for the yeast to survive, and to make sure that none of them became “stuck” ferments. I also had the opportunity to work in the Quality Control laboratory. My responsibilities included data collection from the bottling line to ensure top quality of the product. Bottling samples were plated and read to ensure no microbial contamination of the final packaged product.

Outcomes
During my time at Charles Krug, I was able to be involved in the process of making Cabernet Sauvignon, Cabernet Franc, Merlot, Pinot Noir, Chardonnay, and Sauvignon Blanc wine varietals. It was especially interesting to be able to taste the finished 2015 Sauvignon Blanc wines, and discuss how the different yeast strains used affected the aromatics of the wine in different ways. I also learned the difference between producing smaller quantities of wine through the Charles Krug label, as well as much larger quantities through the CK Mondavi label. Working in the Quality Control laboratory was also an important lesson in getting a full understanding of the winemaking process.

Reflection
This type of co-op is in a different field from my Behavioral Neuroscience major, but my major still provided a strong background in Organic Chemistry and Molecular biology to help me thrive in this new environment. My experience at Charles Krug was unforgettable, and I had the opportunity to obtain hands-on experience out in the vineyards, working down in the cellar, and in the lab with the Enologist. I was also able to improve my Spanish skills with many of the cellar workers, and often served as a translator between the winemakers and the cellar hands. Communication was important because lab and the cellar work closely together and the cellar hands’ adjustments in sulphur dioxide and other fining chemicals were determined by the results we obtained in the lab. I developed a good idea as to how wine is created, from when the grapes are picked, to when the finished product is bottled and shipped. I hope to continue and move forward in this field as an Enologist myself.

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