

This is me and my mentor Jeremy Kreck. He was a great mentor and was very good at teaching me everything I needed to know. He taught me everything from the ground up and made it very easy to understand.



This is a picture from fertillzing. I would take the ATV around and apply Nitrogen to plants. To tell if the plant has a Nitrogen deficiency the leaves would be yellow instead of dark green. I would go through each block and find replants that were yellow and add the Urea to them. I would apply the fertilizer where the water hits the soil so the Nitrogen could absorb into the root system. Just after a couple of days I could see a noticeable difference, the yellow leaves were already turning a darker green color.

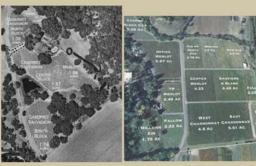
## Mill Creek Vineyards & Winery Healdsburg, California Molly Warren Summer 2015



Mill Creek Vineyards is a family run operation located in Healdsburg, California. The property is part of the Sonoma county Dry Creek Valley. My internship began May 12<sup>th</sup> and ended on July 27<sup>th</sup>. Vineyards were first planted in 1965 and the winery was established in 1974. The estate vineyard is approximately 60 acres and there is another location in the Alexander Valley with around 8 acres of grapes. I was involved in many aspects of winemaking and viticulture. Some of the projects I worked on this summer were pressure bombs, irrigation repairs, tasks in the winery and more because Jeremy needed a little extra help.



Overall this internship experience has given me a taste of what my future holds. I know that I want to be involved with both the viticulture and winemaking side of things because with this internship I got to play around in both aspects. You must be familiar with the grapes and their growth in order to harvest and produce successful wines. After talking with my mentor about all the different opportunities abroad, I would love to do an internship in New Zealand or Argentina. After I graduate from WSU, this is something that I would love to pursue.



These are ariel views of the two vineyards that the Kreck family owns and opperates. The one on the left is the Alexander Valley Vineyard and the right is the main vineyard in the Dry Creek Valley.



A couple of times a week I would work up in the winery. I cleaned and sanitized kegs and tanks with many different chemicals. I learned how to get up to barrels take samples from barrels to be sent into a lab for tests (far left) I also This is a skill! Will use for the rest of my life.



The majority of my internship consisted of irrigation. When I first arrived on the property I was taught how to repair leaks and holes in the drip line. Once I felt comfortable with the equipment and doing it on my own I would go around to each block and check for holes. I would also check that the emitters weren't clogged and that the correct emitter was in the correct block. Many of the holes come from deer wandering up from the creek at the edge of the property looking for water. As you can see in these two pictures above, a connector piece was inserted where the hole was and a new emitter needed to be



Bill Kreck, owns and operates a mobile bottling line where they go to smaller wineries that cannot afford their own bottling equipment. The vineyard crew helps on the bottling line and this summer I helped bottle the reds from Mill Creek and other bottles from wineries around Sonoma and the Dry Creek Valley.



The Pressure bomb measures the amount of water pressure inside the grape leaf. Nitrogen is the gas pumped into the chamber where a leaf is. The pressure will cause water to rush out of the stem. There is a pressure gauge and this will go up. Depending on how much stress the plant is on will determine the amount of pressure needed to force water out of the plant. The higher the number the more pressure needed to push water out of the plant, meaning there is less water in the plant and the higher amount of stress it is under. The microscope in my hand was what I used to look when the water was being forced out and the pressure gauge to the left was how I knew what number it was at.





I learned how to distinguish the difference between a vine with pierces disease and one without. One with it looks like the top in in the picture above, it will have dead/dying canes coming off the cordon. A healthy vine will have tall green canes, like the loover picture. One project I was in charge of was flagging all of the dead and dying ones with red tape and counting how many there were so replants could be ordered.