

Ciel Du Cheval

Red Mountain AVA, Benton City, WA

Kade Casciato

Fall Semester 2014



Vineyard Facts:

- ◆ First planting was in 1975. The most recent planting was in 2005.
- ◆ A total of 120 acres, 102 acres under cultivation, 3 acres uncultivated, 15 acres used by buildings, roads, and other infrastructure.
- ◆ Farmed in 36 separate blocks with an average size of 2.84 acres.
- ◆ Varieties farmed include Barbera, Cabernet Franc, Cabernet Sauvignon, Cunoise, Grenache, Merlot, Mourvèdre, Nebbiolo, Petit Verdot, Pinot Gris, Roussanne, Sangiovese, Syrah, and Viognier.
- ◆ Row orientation, plant spacing, training methods, and irrigation plans are unique for each block.
- ◆ All cultivation is mechanical. No herbicides are used.
- ◆ An extensive system of monitors is used to determine the water status of the soil and to monitor weather.
- ◆ All grapes are harvested by hand to ensure gentle handling of the fruit.

Vineyard Principles:

Ciel adheres to a core set of principles that drive the vineyard's success while ensuring that it remains a responsible part of the community. These principles include:

- ◆ **Employee Safety.** No goal is worth taking risks with the employees' health or lives. We take the time to ensure that all employees receive regular safety training, and to ensure all risks are managed appropriately.
- ◆ **Earth Friendly.** Ciel avoids taking actions that can harm the environment. As a result, Ciel does not use herbicides and uses practices such as dust control that minimize impact on our neighbors.
- ◆ **Soil Conservation.** Soil is a crucial element in the terroir of Ciel. Preserving the soil's essential characteristics is the single most important step in the vineyard's sustainability. Ciel carefully plans all operations that may affect the soil to ensure that the soil remains true to its original nature.
- ◆ **Innovation.** Revealing the terroir of the place requires a willingness to take calculated risks and try new things. Changing the irrigation practices, varieties grown, training methods, and other processes, improve our understanding of the place and the grapes it can produce.
- ◆ **Education and Research.** Ciel supports the local academic community by providing materials for training, participating in cooperative education, and supporting research efforts.



Typical Daily Work



An important job was collecting cluster samples. These samples were used to assess and adjust crop loads for the upcoming harvest. The number of clusters per vine and the average weight per cluster was recorded for future accuracy.

Labeling and staging harvest bins in the field was critical to ensure the correct blocks and rows were being harvested. Once bins were weighed they were loaded and shipped out.

Tractors are the primary method for applying sprays to the vineyard, pulling trailers and lifting full MacroBins®. The tractors are also used for all the field cultivation, including hilling and tilling, weed cultivation and reseeding cover crop.

One of my responsibilities was to design and install new irrigation systems to tie into the new Kennewick Irrigation District system on Red Mountain. This included new filters.

Organizing, moving, and tracking harvest bins takes a lot of logistical planning. New for the 2014 harvest season was Ciel's new computer system that prints labels, tracks bins and automatically computes all valuable information.

Other duties included monitoring irrigation, vine nutrition status. I monitored for insect vectors and grape vine diseases and set up pheromone and mating disruption traps. I sampled berries and monitored all aspects of berry growth and development. I also became familiar with most of the farm equipment and implements. I worked on developing spray schedules for several different pathogens, and was able to start learning new computer programming software.

Summary

By working in this local viticulture internship, I have gained valuable knowledge and skills. The amount of time spent in a real viticulture atmosphere has helped me close the gap between the classroom coursework and the real world. The knowledge and skills gained during this internship will become desirable when applying for future jobs. This internship has pushed me to learn new skills and improve my scientific literacy by applying research knowledge to multidisciplinary and multi-institutional collaborations to gain a real world perspective in the viticulture discipline. I was able to use biological, biochemical, physiological, chemical and virology principals to help grow and maintain a steady dynamic vineyard.

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