



The El Dorado AVA spans a range of Elevations from 1,200ft on the Western edge, to 3,500ft on the Eastern side, some of the highest elevation vineyards in California.

WHAT MAKES EL DORADO UNIQUE?

All El Dorado vineyards are in a mountain setting at elevations above the valley and coastal fog belts. At elevations way above other California wine regions, we should, in fact, be considered an Alpine wine region. The mountainous topography imparts complexity and variety to our growing conditions that are not found in valley settings. A number of critical aspects— elevation, complex topography, rich geology, and lack of fog, make the El Dorado Appellation unique and impart a special character to our grapes – fresh and bright flavors from over seventy white and red varieties.

California's Gold Rush began in El Dorado County 1848 with James Marshall's discovery of gold at Sutter's Mill, on the South Fork of the American River in Coloma. As legions of people flocked to California to claim their fortunes, the region's winemaking industry was born.

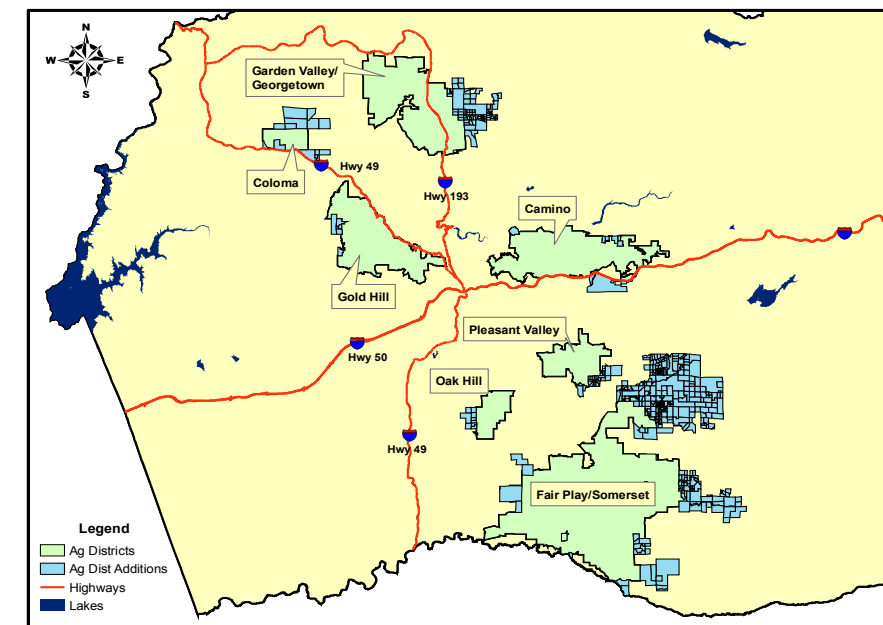
By 1870, El Dorado County was among the largest wine producers in the state, trailing only Los Angeles and Sonoma counties. The local wine industry flourished until just after the turn of the century when there were approximately 2,000 acres of vines in the county. Between 1920 and 1960, following the introduction of prohibition, viticulture virtually disappeared from the county. It wasn't until the late 1960s that winegrowing made a resurgence. As the nation's thirst for wine grew after the repeal of prohibition, a handful of pioneering producers ventured into El Dorado County, where it became apparent that both the climate and soil were ideally suited for the production of high-quality wines. The El Dorado A.V.A. was established in 1983 and has since grown to encompass over 2,000 acres of grapes, 70+ wineries, and 80 different grape varieties.



El Dorado County has a proud history as the home of the California gold rush.

The region is spread out over a handful of agricultural areas, running North to South

along a band of elevation that is cooler than the valley below, but warm enough to avoid Spring and Fall frost.



The primary ag districts in El Dorado County

All El Dorado vineyards are in a mountain setting at elevations high above the valley and coastal fog belt, ranging from 1,200ft-3,500ft. The result of the elevation is a climate that in terms of growing degree days is like Mid-Valley Napa (figure 1), but with several key distinctions driven by the unique geography of the region.

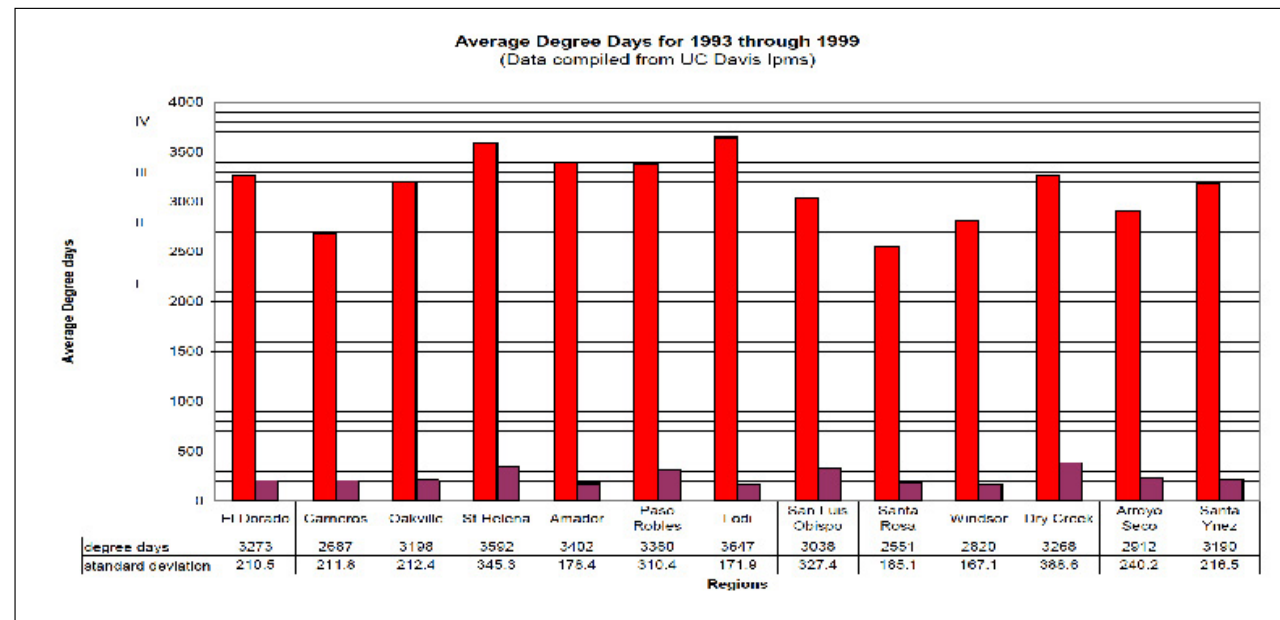
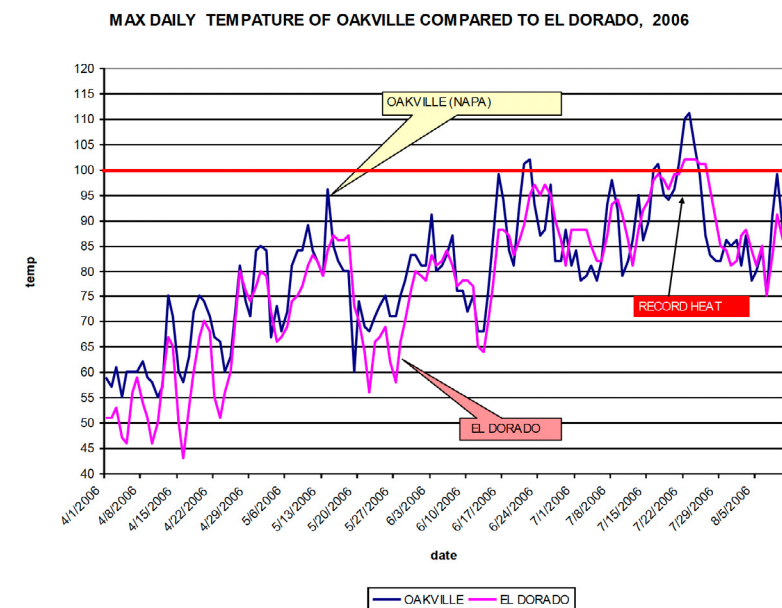


Figure 1. A comparison of growing degree days across California AVAs (David Jones, LCW/UC Berkeley)

At between 1,200ft-3,500ft, elevation is one of the defining features of the region. As air hits the Sierra Nevada Mountains it is forced to rise through orographic uplift. As the air rises, the adiabatic process causes cooling at a rate of around 4 degrees Fahrenheit per 1000ft of elevation gain. As a result, ambient air temperatures in the region are between 10-15 degrees cooler than the Central Valley below. During the growing season, the elevation and the resulting cool air, play a key role in limiting elevated temperatures during extreme heat spikes. For example, on September 1st of 2017, when St. Helena reached a daytime maximum temperature of 110 degrees Fahrenheit, the daytime maximum temperature in El Dorado at an elevation of 2,700ft was 103 degrees Fahrenheit. This trend hold true year after years, wher the maximum temperature in Napa is almost always higher than the maximum temperature in El Dorado. This is true on a given day and over the growing season. Extremely high temperatures have a detrimental impact



on wine quality, so our cooler maximum temperature ensures our wines retain flavor compounds.

The elevation also means ambient air temperatures remain cooler later into the spring compared to other locations in California, leading to 2-4 week delays in budbreak. Later budbreak mean harvest is pushed later into the fall compared to other regions, allowing much of the regions ripening to take place during the cooler months of September and October, rather than the mid-season heat. This pattern of ripening produces grapes that reach phenolic maturity without excessive sugar, losing too much acidity, or sacrificing freshness and vibrancy in the wine.

El Dorado is further distinguished from other regions by the intensity and quantity of sunlight during the growing season. The Pacific breeze that carries fog across Coastal wine regions does not generally reach the AVA. As a result, El Dorado experiences a greater number of hours of sunshine during the growing season. Sunlight is critical in the development of proanthocyanidins, anthocyanins and flavonols in berries. Additional hours of sunlight, particularly during cooler morning period when the risk of sunburn and dehydration are lower, lead to greater color concentration phenolic compounds in our wines (1).

Higher elevation also leads to higher UV radiation and sunlight intensity. UV radiation generally increases by 3%-4% every 1000ft, which means that at 3,000ft UV radiation is around 10% greater compared to sea level. UV radiation represents an environmental signal, modulating the accumulation of secondary metabolites in the skin of ripening berries. As a result, increased UV radiation leads to the greater biosynthesis and accumulation of anthocyanins, flavonols, and other phenolic compounds compared to lower elevation locations. Increased exposure to UV radiation also leads to lower berry size, and a higher ratio of skin to juice in red wine (2). This combination of hours and intensity of sunshine leads to ripening conditions unique to El Dorado, and are critical in shaping the character of the wine.

The complex topography of El Dorado further distinguishes the region as a location for a diversity of premium grapes. As the sun sets, cool air from the Sierra Nevada settles in low lying pockets, creating areas of cold night-time air surrounded by relatively warmer hillside and hilltop sites. In contrast, hillsides and hilltops experience lower daytime temperatures and narrower diurnal variations. The result is a rich patchwork of microclimates across the county that can support a tremendous diversity of grapes, all capable of premium expressions. Figure 2 demonstrates the magnitude to which air settling patterns can impact low temperatures in the region, with hillside and hilltop sites remaining 30 degrees warmer on one particularly cool November evening.

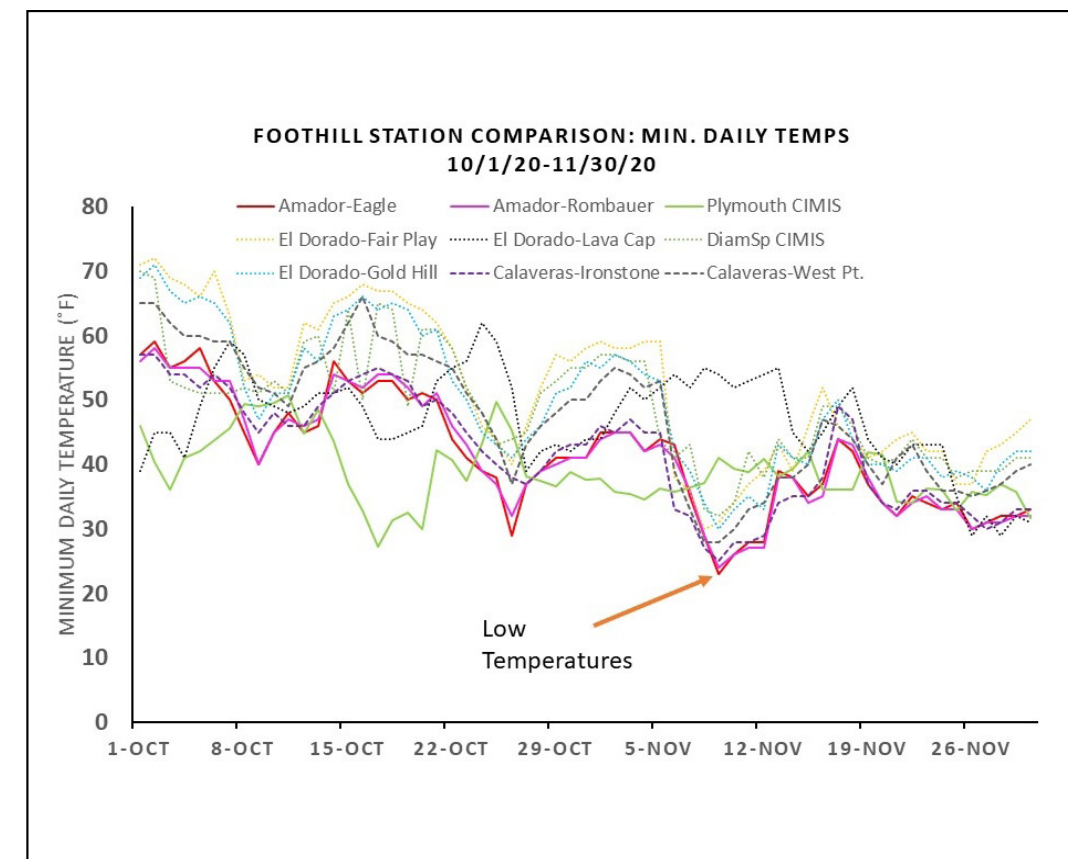


Figure 2. Low temperatures at different Sierra Foothill's vineyard sites from October-November