

# TERROIR

Livermore Valley is a spectacular place to grow and make wine. Influenced by a variety of well-drained soils, the relative high altitude of the valley and daily, maritime breezes in the summer, the region's grapes yield deeply colored elegant red wines. With complex fruit character, structured tannins and a long pleasant finish, they hold the promise of aging for many years in the bottle. Livermore Valley's white wines are equally well balanced, with subtle yet complex aromas and flavors and a firm rounded impression on the palate. This is the taste of Livermore Valley's "terroir" and the reason winegrowers have farmed the valley for generations.

A French term, "terroir" expresses a sense of place—the way local conditions of land, climate, culture and technique create attributes specific to a region. Terroir may also be defined as a "partnership between person, plant and environment." Livermore Valley's

unique orientation and coastal location are expressed across various microclimates. that allow skillful vintners across the region to successfully grow and produce a wide range of quality red and white wines.

## GEOGRAPHY

The Livermore Valley American Viticultural Area is an oval bowl approximately 25 miles long and 18 miles wide. The region encompasses 259,000 acres, of which approximately 4000 acres are devoted to vineyards. Livermore Valley is uniquely oriented west-to-east and located just 35 miles east of the San Francisco Bay.

There are seven cities in this geographic bowl: Danville, San Ramon, Dublin, Pleasanton, Sunol, Livermore and the eastern edge of Castro Valley.

The Livermore Valley floor is higher than the valleys located to the north of the San Francisco Bay. Starting at 340 feet on the west side of the valley, the elevation rises to 1000 feet on the eastern side, making it a true mountain valley.



## SOILS

Livermore Valley has a variety of well-drained soils. Though the composition of the soil varies in the amounts of loam and sand, gravel is the key component in many of the region's vineyards. Gravel is present in the vineyard soil of some of the greatest wine properties around the world. This soil type reduces the vines' vigor and increases flavor concentration in the grapes.

## CLIMATE

Livermore Valley's climate is directly influenced by cool air from the Pacific Ocean. During the summer, a daily maritime breeze originates over California's cool coastal waters and flows inland, giving the Livermore Valley a temperate climate. The low water temperature in the Pacific Ocean is due to:

- A cold water current coming from the north that flows parallel to the coasts of Oregon and California.
- Upwelling, a phenomenon that causes colder water from the ocean's depth to rise to the surface.

The California current and upwelling combine to create a third factor in the climate along northern California coast: fog. In the early hours, on warm summer days, fog moves inland to cool the coastal valleys. This daily marine influence benefits the vineyards of Livermore Valley.

## CLIMATE CONTINUED

There are several wine regions in the San Francisco Bay Area, but Livermore Valley is unique in three ways:

- It is the only coastal valley directly east of the San Francisco Bay. Close proximity to the bay allows the cool air to quickly flow into the valley.
- It is oriented west to east, while most other valleys in California lie on a north/south axis. Livermore Valley's west-east positioning allows it to receive the full benefit of daily maritime breezes that flow inland from the Pacific Ocean.
- The valley floor of the region is higher than many coastal valleys in California. The elevation enhances the temperate effect of the maritime climate because temperatures decrease as elevation increases.

The daily temperature variation in Livermore Valley favors wine quality because it maintains balance between vine photosynthesis during the day and respiration at night. Livermore Valley grapes develop sugar, color, aroma and flavor while maintaining natural acids that are vital to a well-balanced wine.

A typical summer day in Livermore Valley Wine Country:

- Temperatures in the coastal valleys are usually similar to the ocean and bay temperatures. After the sun has been up for a few hours, a significant warm-up occurs in the Central Valley, triggering the daily maritime breeze.
- As the inland temperature increases, the rising air causes an atmospheric low pressure.
- This low pressure pulls the colder air mass from above the ocean and bay inland to replace the warmer air in the Central Valley.
- The effect of this ocean breeze is a faster cool down – known by locals as “natural air conditioning” – in the Livermore Valley than occurs in regions not situated directly east of the San Francisco Bay.
- The maritime breeze typically continues to flow east at night, reducing the valley temperature even further.

*“The coldest winter I ever spent was a summer in San Francisco.”*

Mark Twain's famous words refer directly to a Mediterranean climate, a type of climate that is known worldwide to be favorable for the production of fine wines.

