

## CLIMATOLOGICAL DIVERSITY WITHIN THE RUSSIAN RIVER APPELLATION

In the Russian River Appellation, it is the interplay between the cold marine air coming off the Pacific, and the coastal hills that partially block that air, which creates both the uniqueness of the appellation and the huge climatological diversity within it.

The climate of a particular vineyard is influenced by its proximity to the ocean, what conduits there are to funnel the cold air into that vineyard, its elevation with respect to the marine layer, and its aspect to the sun and prevailing winds. Where the coastal range is unbroken, or the vineyard site is above the usual marine layer and out of the prevailing winds, a vineyard can be quite close to the coast and still be fairly warm. Conversely, a low-lying vineyard several miles from the water, but with a direct conduit to it, can be extremely cold.

The two major channels for cold air in our appellation are the Russian River itself to the north, and the Petaluma Wind Gap to the south. The Petaluma Wind Gap (or Estero Gap) is a break in the coastal hills running from Bodega Bay toward Sebastopol, about ten miles south of the mouth of the river. Generally, the further south, west, and the lower you go in the appellation, the colder it gets. In just a 2-mile radius, there can easily be a month difference in harvest date for the same variety due to the variations in these climatic factors.

Within the recognized boundaries of the Russian River AVA, people who know the area well often separate it into at least five separate sub-regions:

The first is the north-south stretch along the Russian River between Forestville and Healdsburg, often called the **Middle Reach**. The Middle Reach starts just upstream of a bend in the river which goes around a ridge called Guilder Ridge. The flow of fog is somewhat slowed here, and the area gets warmer as you head north. It is also warmer as you go up the hills on either side of the river, as it is a long way west to the coast at this point.

The second area, **Santa Rosa Plain**, encompasses the gently rolling country of the eastern swath of the appellation. This area also gets warmer as you go north, while its southern end, though fairly inland, can be quite cool as the coastal fog which has been broken up by the hills to the west reforms over the plain.

The third subappellation is the north-south row of hills on the western edge of the Santa Rosa Plain, to the west of the Laguna de Santa Rosa, called **Laguna Ridge**. This ridge has areas of clay soils which give unique character to some if its vineyards.

The fourth, and an official AVA in its own right, is the **Green Valley**, a valley delineated by Laguna Ridge on the east, Stoetz (or Occidental Ridge) to the west, the river to the north, and the Petaluma Wind Gap to the south. The bottom of the Green Valley is extremely cool as it gets fog both from the river to the north, and the wind gap to the south. Up the hills to the west, harvest comes quite a bit earlier as the fog burns sooner each day, and the soils are shallower.

The fifth, and until now very sparsely planted area, is the western edge of the appellation, essentially from Freestone to Guerneville. This is an extremely varied area of complex ridges, redwood groves and some river bottom. The Freestone area is seeing a lot of planting currently. It is very cool, as it is just north of the wind gap and open to the ocean, but still low enough (about 400 to 800 ft.) to generally be in the marine layer.

Along with the great variations in weather, there may also be different soil types and/or depths within each area, imparting further characteristic differences. As winegrowers, we try hard to characterize and utilize the unique personalities within our diverse appellation. We are clearly only just beginning.