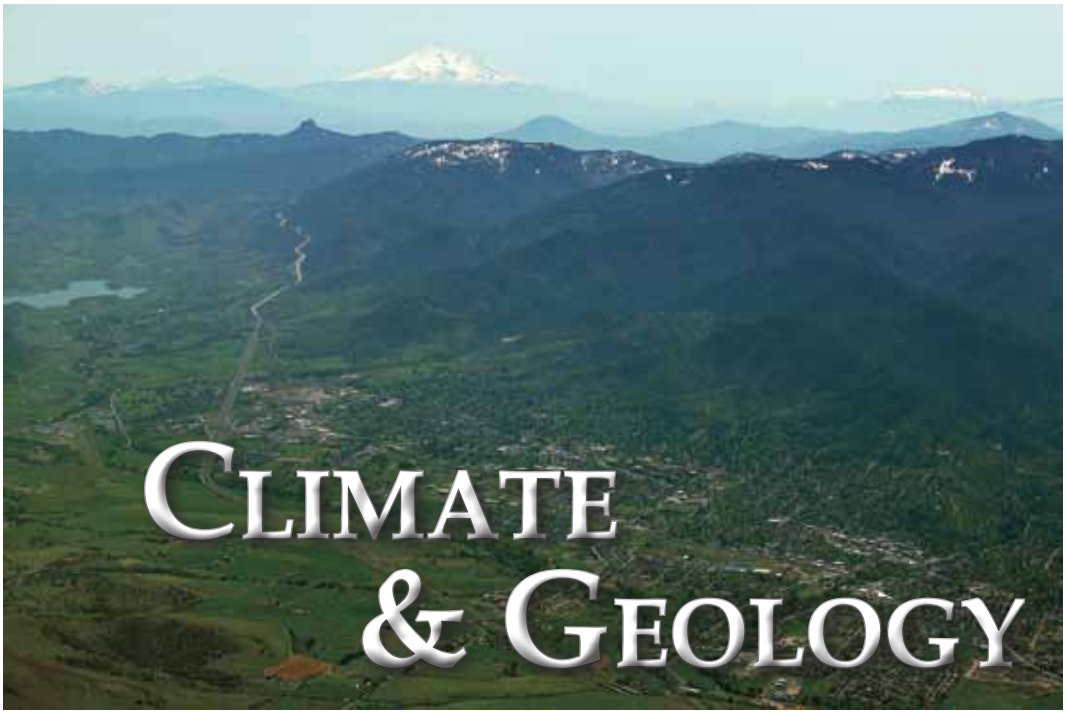


Climate & Geology

Long before the Cascade mountains rose above the surface of the sea, when its waters washed the foot of the Rocky mountains, the Siskiyou mountains stood, an island in this vast waste of waters. It had volcanoes then that flashed their flames skyward; a beacon light to a shipless sea. This island was very extensive and extended to the Sacramento Valley on the south, comprising what is now called the Wooly Bully mountains, Scotts mountains and the Siskiyous. This cluster of mountains is termed by the U. S. Geological Department, "The Klamath Group," and is described as an old Cretaceous island. Ashland is situated directly on the shore line and this shore is easily traced for fifty miles each way. The records of its history are found in the sand stone that laps up on the foot of the island. The great sand stone cliffs in sight on the north side of Bear creek contain shells of fish and animals that were once denizens of the deep, and are long since extinct. Even near Siskiyou station, four thousand feet above sea level, are cliffs of sand stone filled with trigonia, trilobit, amonite, oyster and many other shells that never lived outside of the ocean. Standing on the summit of Ashland Butte then nothing but ocean could have been discerned within the limits of vision.

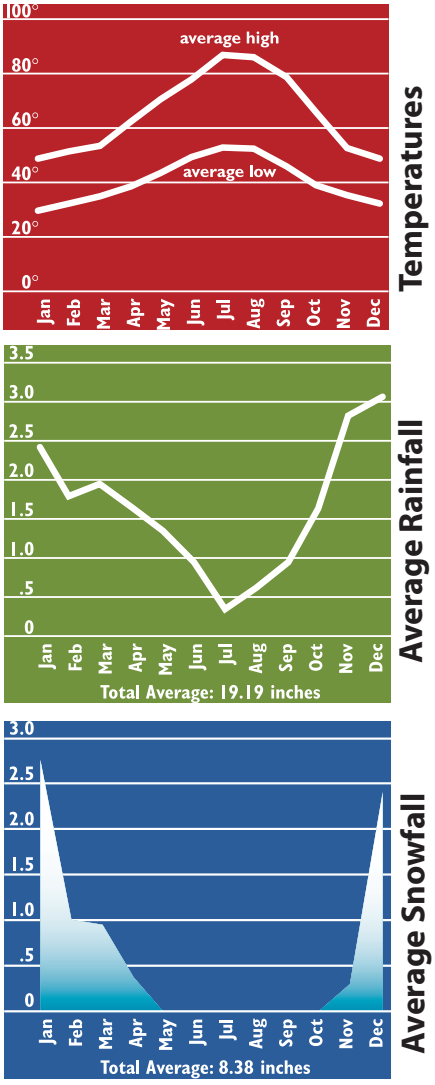
The great sand stone cliffs that are picturesque sights of the mountain side north of town, stand on a bed of conglomerate that shows at least fifty feet in depth. Some of these boulders are large and some are small, but all are cemented together and have been rounded by stream action and not by beach action. The rocky tract of Rogue River Valley known as "the desert," is made so by the disintegration of other cemented boulder cliffs. The Siskiyou mountains were not formed like the Cascades. The existence of an old river bed coursing southwesterly through central eastern Oregon, is easily traceable to near the foot of the Cascade mountains on the east side and there, apparently being cut off by the uplift of that range, together with other evidence suggests it as the probable source of these great boulder beds, and that it had its mouth in a great delta where the Rogue River valley now is.

-- C. B. WATSON. *Ashland Daily Tidings*, December 2, 1907.
C.B.Watson was President of the Ashland Commercial Club (forerunner of the Ashland Chamber of Commerce.)

Climate

Ashland is 15 miles north of the California border on Interstate 5 at the south end of the Rogue Valley, about 2,000 feet above sea level. Mt. Ashland, part of the Siskiyou Mountain Range, rises above us to the south, 7,500 feet high, and the Cascade Range lies about 30 miles to the east. Ashland is 365 miles north of San Francisco and 285 miles south of Portland. Although the climate is fairly mild, there are four distinct seasons.

Despite Oregon's reputation for rain, Ashland averages only 19 inches per year, plus 10 inches of snow. In USDA Zone 7, it has a growing season of 170 days starting April 30. Ashland's climate is ideal for gardening, and is especially conducive to growing roses and vegetables such as vine-ripened tomatoes.



Southern Oregon AVA Landscape and Climate Overview - Greg Jones, Ph.D.

From a climate perspective, the Southern Oregon American Viticultural Area (AVA) offers the most diverse growing conditions in Oregon and arguably in the United States. Heat accumulation varies from cool climate suitability in the northern Umpqua Valley and Illinois Valley to intermediate values in the central Umpqua Valley and Applegate Valley to warm climate suitability in the Bear Creek and Rogue River region. The Umpqua Valley AVA in general has longer frost-free periods (180-220 days) and milder growing seasons, experiencing precipitation values that average 30 to 60 inches from south to north. The Rogue Valley AVA has the higher elevations, that along with their general north-south tending valleys, and their proximity to the Pacific Ocean and intervening topographical barriers create a climate transect of wetter and cooler conditions in the western parts of the region to the warmer and drier eastern areas. Precipitation varies from 12-25 inches in most of the vineyard areas in the Rogue, declining in amount from west to east (all of the Southern Oregon AVA experiences less than 15 percent of the total precipitation occurring during the growing season of April through October). The frost-free growing season is shorter in the Rogue Valley AVA (145-185 days) due to higher elevations that bring later and earlier frost potential in the spring and fall, respectively.

The Southern Oregon American Viticultural Area (AVA) consists of the Applegate, Rogue and Umpqua Valley sub-AVAs that are some of the many winegrape producing regions found within the intermountain valleys along the west coast of the United States. The landscape of the Southern Oregon AVA is extremely diverse, coming from the joining of three mountain ranges of varying ages and structure: the Klamath and Siskiyou Mountains to the southwest to southeast, the Coastal Range to the west, and the Cascades to the east and north. The Klamath Mountains extend through the south and southwestern portion of the AVA and consist of complex folded and faulted igneous and metamorphic rocks that are the oldest in the region. The Cascade Mountains to the east consist of the younger High Cascades and the older, more deeply eroded Western Cascades that make up the eastern boundary of the AVA. The region is protected from the ocean largely by the Coastal Mountains, which are composed of mostly oceanic sedimentary rocks and volcanic islands that were accreted to the landscape over the last 50 million years. The Rogue Valley AVA is drained mainly by the Rogue River and its major tributaries; the Applegate River, the Illinois River, and Bear Creek, while the Umpqua Valley AVA is drained by hundreds of smaller tributaries of the North and South Umpqua Rivers.

The agricultural landscape of the Southern Oregon AVA is mostly comprised of valley lowlands with some isolated hills, stream terraces or benches, and footslopes of alluvial fans scattered by hilltops and ridges. Vineyards in the region are found on flat to very steep slopes (up to 40% or more) that are distributed along isolated hills, stream terraces or benches, and at the foot of alluvial fans. Elevations of potential and existing vineyard sites range from approximately 200-300 ft in the northwestern portion of the Umpqua Valley AVA to 2500 ft and possibly higher in the Bear Creek Valley of the Rogue Valley AVA. Most current vineyards are planted to ~600 ft in the Umpqua Valley AVA and ~1500 ft in the Rogue Valley AVA.

1. Photo courtesy **Ledger David Cellars & Marc Salvatore** **2.** Photo courtesy **Weisinger's of Ashland Winery & Vineyard**
3. Photo courtesy **Valley View Winery** **4.** Photo provided by **Kriselle Cellars**

From the diverse geology of the region comes a widely varying mix of metamorphic, sedimentary, and volcanic derived soils. The lower elevations of the valleys are mostly deep alluvial material or heavy clays while the hillside and bench locations have mixed alluvial, silt, or clay structures. Complex faulting, especially in the western portion of the Rogue Valley AVA and southern portion of the Umpqua Valley AVA, can produce large variations in soil types over areas the size of a vineyard. Drainage and moisture-holding capacity vary greatly by soil type, and while most soils in the region do retain water into the growing season, available water for irrigation during mid to late summer growth is generally needed. Soil fertility is generally sufficient for winegrape production but varies greatly over the region with issues generally related to either imbalances of nitrogen, calcium, potassium, phosphorous, magnesium, boron, or zinc. Soil pH also varies from region to region (roughly from 4.5 to 7.0) and is mostly due to differences in climate and parent rock material. In general, the soils in the northern and western portions of the Southern Oregon AVA are slightly more acidic than those of the south as a result of more rainfall and greater leaching potential.

Excerpted from numerous articles written by Greg Jones, including "Oregon Viticulture"

Gregory V. Jones is a professor and research climatologist in the Department of Environmental Studies at Southern Oregon University who specializes in the study of climate structure and suitability for viticulture, and how climate variability and change influence grapevine growth, wine production and quality. He holds a BA and Ph.D. from the University of Virginia in Environmental Sciences. He conducts applied research for the grape and wine industry in Oregon and has given hundreds of international, national, and regional presentations on climate and wine-related research. He is the author of numerous book chapters, including being a contributing author to the 2008 Nobel Peace Prize winning Intergovernmental Panel on Climate Change Report, and other reports and articles on wine economics, grapevine phenology, site assessment methods for viticulture, climatological assessments of viticultural potential, and climate change. He was recently named to Decanter Magazine's 2009 Power List representing the top 50 most influential people in the world of wine and the Oregon Wine Press's 2009 Wine Person of the Year, and has been in the top 100 most influential people in the US wine industry in 2012 and 2013 (intowine.com).

Moderate climate, access to a water source and fertile land drew early pioneers to this special place creating not only a perfect place to establish their homes but allowed for abundant growing conditions to supply produce for their families and fledging businesses. Many of those early settlers brought with them seeds that produced the first orchards and by 1860, small orchards existed throughout the valley expanding through the years to include apples, pears, cherries, peaches, prunes and almonds. In the 1870's, farmers grew wheat, grasses and corn and raised cattle and sheep. With the arrival of the railroad in 1884, became the opportunity to ship crops throughout the country.

The first wine in Oregon was produced in 1858 by photographer and horticulturist, Peter Britt (the namesake for Jacksonville's Britt Festival). He named his vineyard, Valley View and produced wine under that label until his death in 1906. Of course, prohibition followed and the fledgling wine industry was gone in Southern Oregon replaced by orchards until the later half of the twentieth century .

According to excerpts taken from an article written by M.J. Daspit; author of Rogue Valley Wine (Arcadia Publishing, 2011) *"Interest in wine grape growing did not revive in the Rogue Valley until 1967 when horticulturalist Porter Lombard planted an experimental vineyard at the OSU Southern Oregon Experiment Station in Central Point. Lombard, acknowledged as the father of the modern Rogue Valley wine industry, not only demonstrated that wine varietals would flourish here, but also provided grape vine cuttings and consultations to local farmers willing to try viticulture. Following experimentation came education. Dick Troon proposed a course on viticulture which was offered by Rogue Community College in 1972. After attending the course, Frank Wisnovsky, Roger and Barrie Layne and Troon put in the earliest modern vineyards in the Applegate Valley. Dunbar Carpenter and John Ousterhout followed suit near Medford."*

The first modern winery in the Rogue Valley was established in 1972 by the Wisnovsky family with the restoration of the Valley View name for their vineyard and winery planted in the beautiful Applegate Valley just nine miles from Jacksonville.

The rugged mountain valleys and diverse climates allow for a wide variety of intensely flavored wine grapes to be grown. The cooler areas of Southern Oregon produce wonderful Pinot Noir, Pinot Gris, Riesling, Sauvignon Blanc, Chardonnay, and Gewürztraminer while the warmer, more arid regions ripen big reds such as Cabernet Sauvignon, Cabernet Franc, Tempranillo, Merlot, Malbec, Dolcetto, Zinfandel, Grenache and Syrah. Many other unique varieties such as Albarino, Pinot Blanc, Gruner Veltliner, Marsanne, Rousanne, Baco Noir, Marachel Foch, Mourvedre, Semillon, Petite Sirah and Viognier are also grown. Source: Southern Oregon Winery Association, 2013. Currently, there are 92 wineries throughout Southern Oregon and in the Rogue Valley, there are 1,800 acres of vineyards and 200 growers on the agricultural landscape producing over 70 varietals making Southern Oregon one of the most diverse winegrowing regions in the world.

1. Photo by **Rich Carlson** **2.** Photo by **Fred Stockwell, 3., 4.** & **5.** Photos courtesy **City of Ashland**