

Rogue Valley AVA Vineyard Characteristics

This report represents an update of the vineyards in the Rogue Valley AVA of Southern Oregon. During the summer of 2000 a GPS field survey and grower survey was conducted to assess the characteristics of vineyards in the AVA (Jones and Light, 2001). While the report from the 2000 work covered vineyard locations, topographic characteristics, planted acreage, varieties/clones, vineyard management practices, grapevine phenology, and overall historical and future development, this update only covers vineyard acreage and topographical characteristics. To do this update numerous growers were consulted to tabulate a list of new vineyards or changes in existing vineyards. From this list all vineyard blocks were digitized from a late summer 2009 aerial image of the region. Roughly half of the new sites were visited to confirm block configuration and status of planting or development. All blocks or vineyards that were planted or prepped for planting in the spring of 2010 were included in the update.

This update finds that there are now 164 individual vineyards in the Rogue Valley AVA (Table 1 and Figure 1). This is an increase of 84 vineyards over the 2000 survey. Acreage has grown to 2309, an increase of 1012 acres, with the mean size of the vineyards declining some due to slightly smaller than average vineyards being put in, however the median size of 5.9 acres is similar to what was surveyed in 2000. The size distribution of vineyards in the region is somewhat similar to that observed in 2000; however there has been a slightly larger growth of the number of vineyards between 15 to 60 acres (Table 2). Of note is that some of the changes documented here could have been from an incomplete survey in 2000, however at the time a similar assessment of plantings was done that likely captured 95% or more of what was planted then.

Table 1 – Comparison of vineyard area in the Rogue Valley AVA from 2000 to 2010.

Statistic	2000	2010	Change
Count	80	164	+84
Sum (acres)	1297	2309	+1012
Mean (acres)	16.4	13.8	-2.6
Median (acres)	6.1	5.9	-0.2
Standard Deviation (acres)	31.9	22.9	-9.0
Maximum (acres)	188.9	214.5	+25.6
Minimum (acres)	< 1.0	< 1.0	NA

Table 2 – Size distribution for all vineyards in the Rogue Valley AVA.

Acres	Number of Vineyards 2000	Number of Vineyards 2010	Change
0-5	36	74	+38
5-15	22	45	+23
15-30	12	27	+15
30-60	6	15	+9
60+	4	6	+2

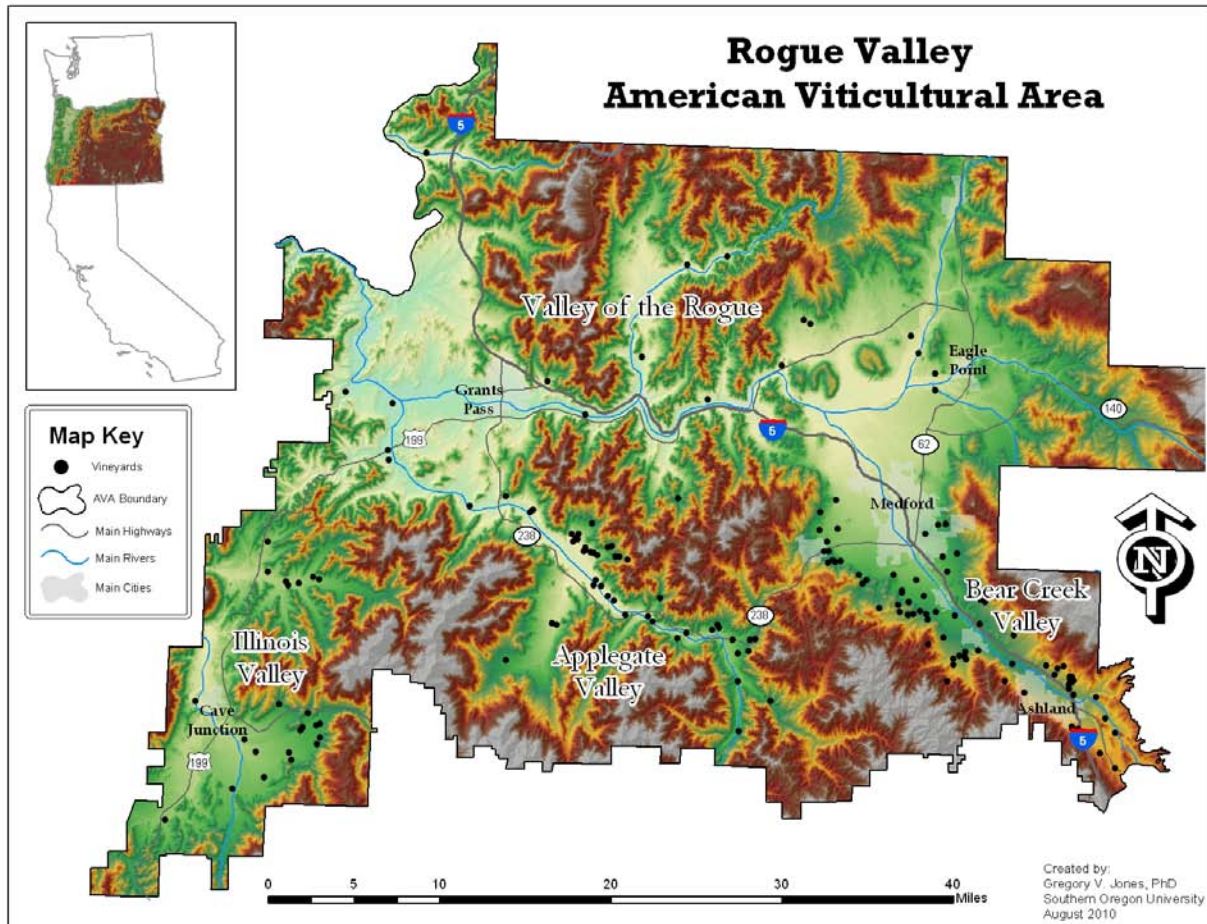


Figure 1 – Map of the Rogue Valley AVA showing the 164 vineyards as surveyed during the summer of 2010.

Examining the vineyards by sub-region¹ finds that the Bear Creek Valley has the highest number of vineyards at 76, representing 824 acres with a median size of 4.7 acres (Table 3). The Applegate Valley AVA has 505 acres planted to 50 vineyards with a median size of 5.2 acres. The

¹ For ease of description, the sub-regions have been designated as the Applegate Valley (an AVA itself), the Bear Creek Valley (Ashland to Rogue River), the Illinois Valley (from the southern AVA boundary near O’Brien to the Applegate Valley AVA boundary north of Selma), and the Valley of the Rogue (from Eagle Point across to Gold Hill, along the Rogue River, to west and north of Grants Pass).

Illinois Valley has 23 vineyards planted to 542 acres with the largest median size of 19.6 acres. The Valley of the Rogue has 435 acres planted to 15 vineyards with a median size of 9.5 acres (Table 3) but a larger range from the smallest to largest vineyard of any region.

Table 3 – Vineyard statistics for individual sub-regions in the Rogue Valley AVA.

Sub-Region	Number	Total Acres	Median Size
Applegate Valley	50	505	5.2
Bear Creek Valley	76	824	4.7
Illinois Valley	23	542	19.6
Valley of the Rogue	15	435	9.5

Combining the vineyard coordinate information with a USGS digital elevation model (10 m resolution) reveals the topographical characteristics for vineyards in the region. The average elevation across the entire region is 1592 feet with a standard deviation across all vineyards of 333 feet (Table 4). Vineyards are found from a minimum elevation of 866 feet along the Rogue River just west of Grants Pass to a maximum elevation of 2510 feet at a site just south of Talent. The 1644 ft in elevation range of vineyards in the region is likely one of the highest ranges in planting elevations in AVAs across the western US (Jones et al. 2010). Summarized for each region, elevations are highest in the Bear Creek Valley averaging 1847 feet, followed by the Illinois Valley at 1471 feet, the Applegate Valley at 1398 feet, and the Valley of the Rogue at 1198 feet (Table 4).

Summarizing the vineyard slopes finds that they average 10.1° across all vineyards in the AVA, but that the majority varies from gradual slopes of near 1° to nearly 20° (standard deviation of 9.1°). Although the maximum average vineyard slope is just over 20°, a few vineyards have some zones planted on slopes of 30° or higher (Table 4). Averaged across the sub-regions, the slopes of vineyards are on average steeper in the Bear Creek Valley (13.6°), to near 9° on average in the Applegate and Valley of the Rogue sub-regions, and near 3° on average in the Illinois Valley (Table 4). Vineyards in the area are planted on aspects (dominant slope direction) that range from NNE to WNW, averaging roughly SSE and varying generally from SE to SW. By region, average vineyard aspects tend to be more southerly in the Applegate Valley, SSE in the Bear Creek and Valley of the Rogue sub-regions, and ESE in the Illinois.

Table 4 – Descriptive statistics for topographical variables of elevation, slope, and aspect derived from a digital elevation model for all vineyards in the Rogue Valley AVA and sub-regions.

Variable/Statistic	Entire Region	Applegate Valley	Bear Creek Valley	Illinois Valley	Valley of the Rogue
Elevation (feet)*					
Mean	1592	1398	1847	1471	1198
Median	1590	1399	1846	1469	1196
Standard Deviation	333	245	264	94.1	139
Maximum	2510	2103	2510	1746	1457
Minimum	866	866	1342	1263	870
Range	1644	1237	1168	483	587
Slope (degrees)*					
Median	10.1	9.4	13.6	2.5	9.1
Standard Deviation	9.1	6.2	7.1	4.4	5.1
Maximum	20.7	17.4	20.7	15.7	19.8
Minimum	Flat	Flat	Flat	Flat	Flat
Aspect (direction)*					
Median	144°, SSE	174°, SSE	146°, SSE	104°, ESE	142°, SSE
Common Range	NNE-WNW	ESE-WSW	ENE-SSW	NNE-SSE	NNE-SSW

*Note that the values given are first summarized for each vineyard (not shown) and then for the AVA or sub-region (an average of an average). To derive slope in percent, take the Tangent of the degree value and multiply the number by 100. The ‘common range’ is the slope aspect that represents the most common range across all blocks and vineyards.

The number of vineyards and acreage presented here are estimated from the best available information on the locations of vineyards planted in the region. The USDA Agricultural Statistics Vineyard and Winery report for 2009 (www.nass.usda.gov) has the region planted to 1984 acres on 113 vineyards. The differences can largely be attributed to new plantings that have not been incorporated into the statewide statistics or small vineyards that have never been adequately counted. While this update has not assessed the varieties that these vineyards are planted to, previous work in the winter of 2010 with the Rogue Valley Winegrowers Association (RWVA) membership has shown that over 40 varieties are planted in the region with red and white varieties being an estimated 72 and 28 percent of the acreage, respectively. For red varieties, Merlot, Cabernet Sauvignon, Pinot Noir, Syrah, and Cabernet Franc were estimated to be planted the most. The estimated most commonly planted white varieties are Pinot Gris, Chardonnay, Viognier, Riesling, and Gewürztraminer.

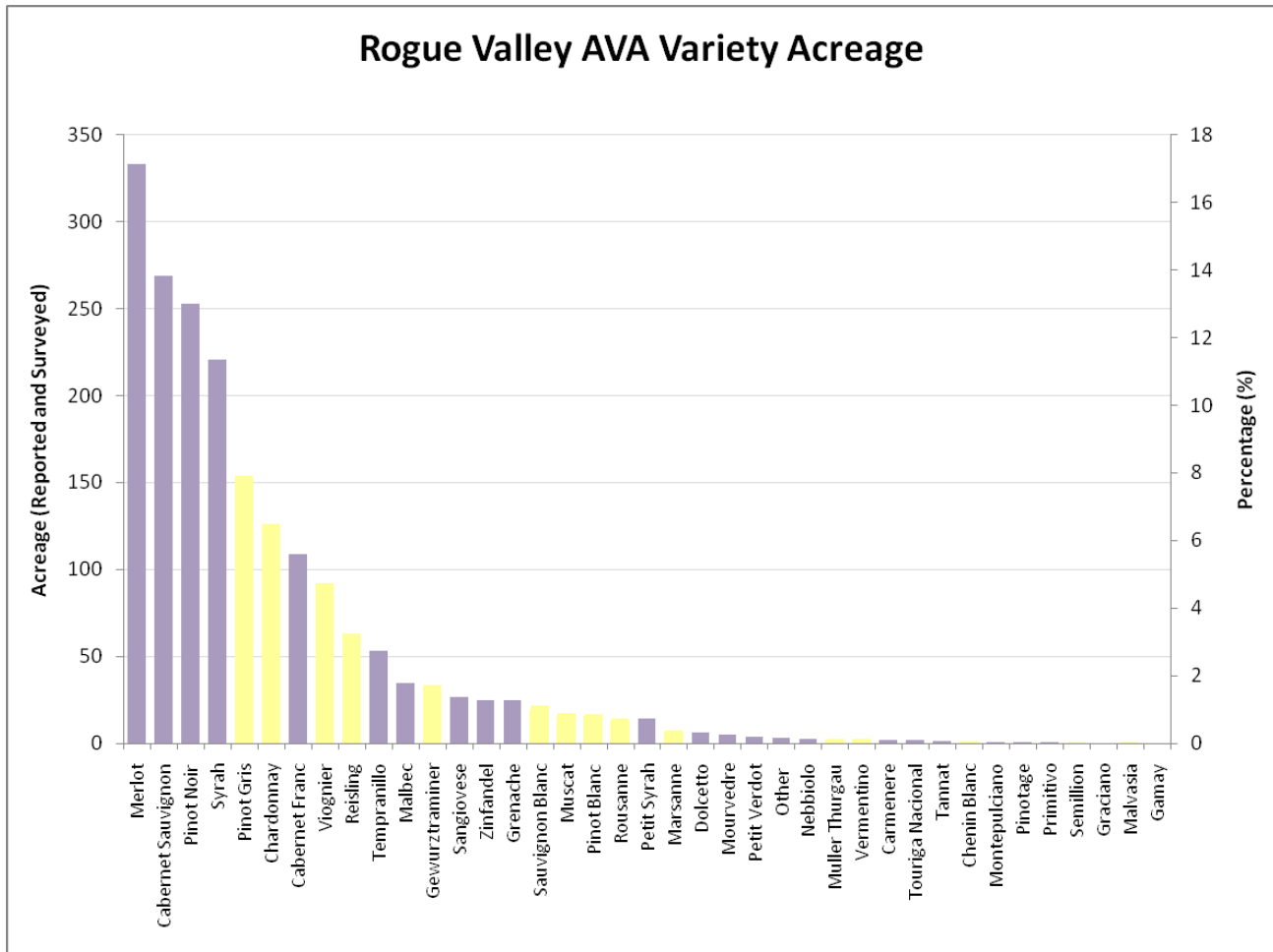


Figure 2 – Rogue Valley Winegrower Association member and grower surveyed variety acreage as of the winter of 2010.

References:

Jones, G. V. and Light, S. (2001). Site Characteristics of Vineyards in the Rogue and Applegate Valley American Viticultural Areas. Open Report to the Oregon Wine Advisory Board and the Rogue Chapter of the Oregon Winegrape Growers Association. 55 pp.

Jones, G.V, Duff, A.A., Hall, A., and J. Myers. (2010). Spatial analysis of climate in winegrape growing regions in the western United States. American Journal of Enology and Viticulture, 61:313-326.

Gregory V. Jones, PhD
 Department of Environmental Studies
 Southern Oregon University
 1250 Siskiyou Blvd
 Ashland, OR 97520
 541-552-6758
 gjones@sou.edu

