

25. Washington State

Washington, in the extreme north-west of the mainland United States, is second only to California in the volume of wine produced from *V. vinifera*. The majority of its vineyards are located within the boundaries of the Columbia Valley AVA in the eastern part of the state. Here, the Cascade Mountains block the wet Pacific weather and create dry, warm conditions. A smaller number of vineyards and wineries are located to the west of the Cascade Mountains, in the cooler, wetter climate of Puget Sound AVA and in the Columbia Gorge AVA.

Washington's first grapes were planted at Fort Vancouver by the Hudson's Bay Company in 1825, the beginning of a concerted effort to cultivate wine grapes in the state. As early as 1854, hybrid varieties had arrived in nurseries in the Puget Sound region and, by 1860, wine grapes were growing in the Walla Walla Valley. There are 20 AVAs in Washington State with a further one in the process of approval.

Large-scale irrigation, from meltwater off the Cascade Mountains, began in eastern Washington in 1903, unlocking the dormant potential of the land and its sunny yet arid climate. Immigrants from Italy and Germany planted homeland varieties in the Yakima and Columbia Valleys and wine grape acreage expanded rapidly with the first annual Columbia River Valley Grape Carnival held in 1910.

Five years after Prohibition was repealed, there were already over 40 wineries across the state but the first commercial-scale plantings didn't begin until the 1960s. Perhaps the biggest leap forward came when, in 1969, the Washington legislature passed House Bill 100, ending over thirty years of protectionism and allowing the import of wines from outside the state, notably California and overseas.

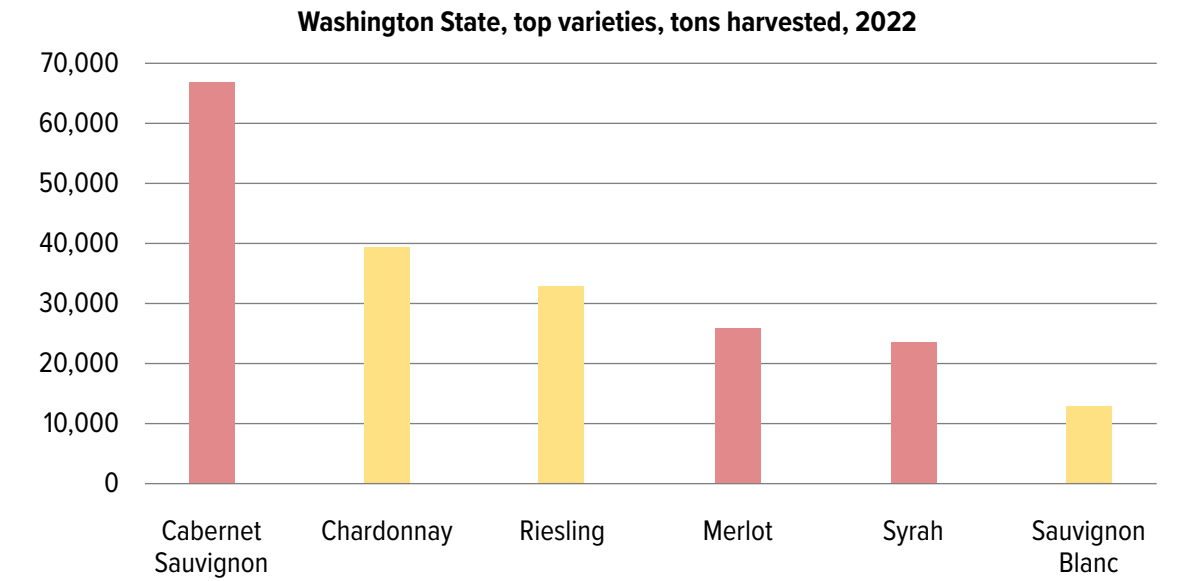
Faced with such an economic threat, the industry quickly needed to improve and was aided by advice from the legendary Californian winemaker André Tchelistcheff, who was already advising Ste. Michelle Vintners on producing premium wines from *V. vinifera*. This company, founded in 1934, became Chateau Ste. Michelle in 1976 and now accounts for well over half of the state's production. Other significant producers include Quilceda Creek.

GRAPE VARIETIES, WINEMAKING AND WINE STYLES

Washington grows a wide range of grape varieties (more than 80 different varieties are planted), without one being particularly dominant. It produces slightly more black grapes (58 per cent of weight harvested) than white.

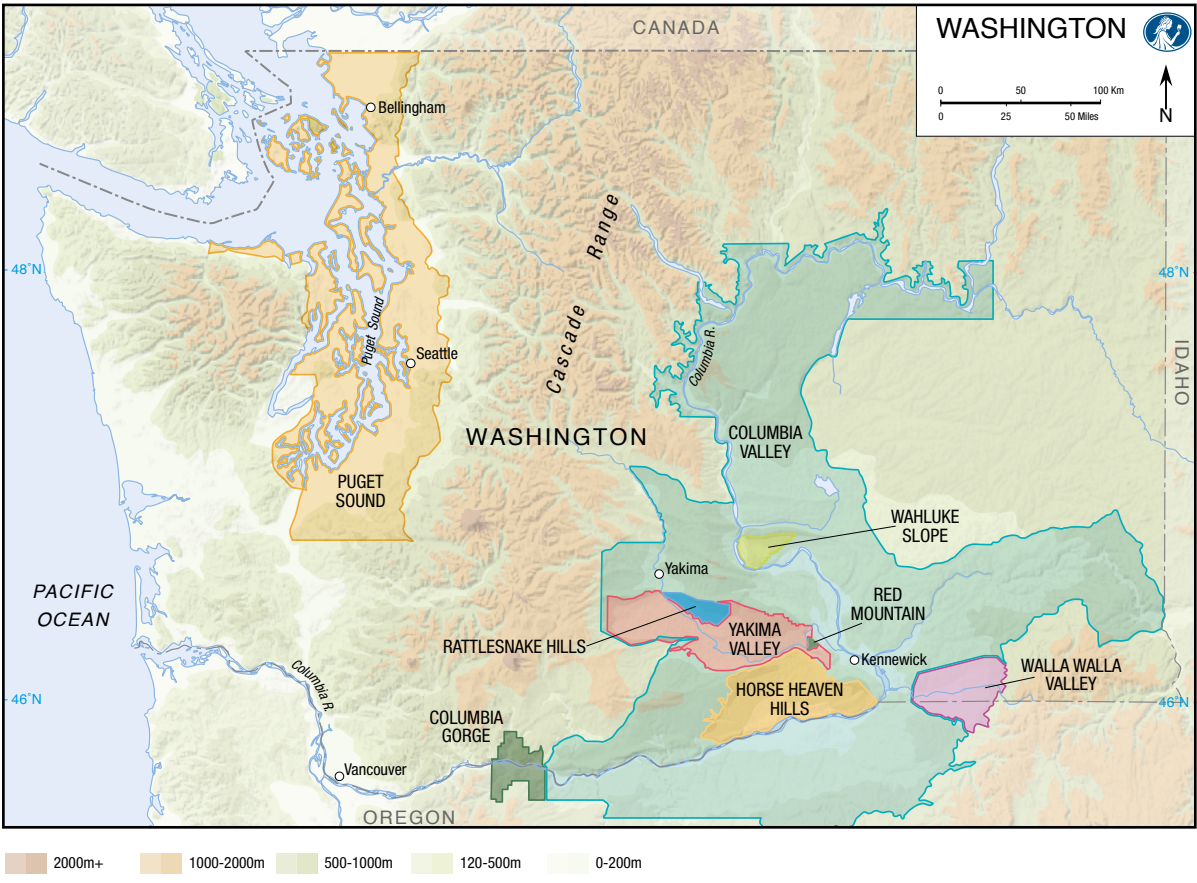
Warm, sunny, dry conditions throughout most of the grape growing regions, yet with cold nights lead to wines with ripe fruit flavours and sometimes high alcohol but often with medium (+) to high acidity. The wines often have high proportions of new oak, though a number of producers are using older or larger oak vessels, particularly for Syrah. A proportion of whole bunch fermentation or stem inclusion may also be used for Syrah.

Riesling was the most planted variety but gradually plantings are decreasing. The general style is off dry, with around 10–15 g/L residual sugar. In recent years, there has been the confidence to experiment more with drier styles and with sweeter styles, either botrytised or made like an ice wine. Although cool fermentation in stainless steel is standard practice, producers use a variety of additional techniques including skin contact, ambient yeast, lees ageing and/or old oak vessels.



Source: Washington Wine Commission¹

25.1. Wine Regions



COLUMBIA VALLEY AVA

Columbia Valley AVA is a very large cross-border AVA that covers approximately one third of Washington State (spanning 3.5 million ha in Washington, 4.5 million ha in total). Within its boundaries are 99 per cent of Washington’s vineyard plantings.² It encompasses several

smaller AVAs of which Yakima Valley, Red Mountain, Horse Heaven Hills, Wahluke Slope, Rattlesnake Hills and Walla Walla Valley have the largest plantings. Although many vineyards fall within a sub-AVA, the Columbia Valley AVA can be used by producers who either have vineyards outside of a sub-AVA or wish to blend across different sub-AVAs.

The shelter provided by the Cascade Range creates an arid desert-like area which receives around 150–250 mm of rainfall per annum. The climate is continental with hot summers, rapid cooling in the autumn and cold winters. With a latitude of around 45–48°N, daylight hours during the growing season are long – on average one hour longer each day than many California vineyards. Sugar accumulates rapidly in the grapes during the summer but much cooler autumn temperatures allow flavours and tannins to develop as sugar accumulation slows. High diurnal range helps to retain acidity. Given the hot summer temperatures, climate change is a concern and grape growers are beginning to look for cooler sites.

The complex soils of basalt bedrock with sandy, silty loess and alluvial topsoils are a result of several cycles of Missoula flood events, volcanic activity, and glacial movement. In south-central Washington, a number of ridges (anticlines) can be found where the bedrock rises towards the surface creating sloped sites with variations in aspect and altitude. Many of the sub-AVAs are based on these topographical features. The soils are free draining and low in nutrients. With such little rainfall, irrigation is essential in the vast majority of sites. Water is sourced from the Columbia River and its tributaries, together with deep underground aquifers. Drip irrigation is most common, with some using overhead spraying.

Low phylloxera risk due to sandy soils provide the potential for growers to plant vines on their own roots. Low disease and pest pressure, due to the arid conditions and very cold winters, reduces use of pesticides in many areas. Frosts and winter freeze are the main hazards, with vineyards planted on slopes less at risk due to the drainage of cold air.

Cabernet Sauvignon is the most planted grape variety, followed by Chardonnay, Riesling, Merlot, and Syrah.



Basalt bedrock, Walla Walla Valley

Yakima Valley AVA

The Yakima Valley AVA is Washington's oldest appellation. It is also the largest sub-appellation in the Columbia Valley AVA, and, with over 7,600 ha under vine, it supplies over one-third of the state's production.³ Yakima's general climate and soils are the same as that of the wider Columbia Valley. However, spread over a large area, it includes a number of cooler sites most suited to white varieties, and warmer sites more suited to black varieties. The most planted variety is Chardonnay, followed by Cabernet Sauvignon, Merlot, Syrah, and Riesling. Frosts and winter freeze can be hazardous in valley floor sites and, for this reason, many vineyards are planted on slopes.

The area encompasses four sub-AVAs – Red Mountain, Rattlesnake Hills, Snipes Mountain and Candy Mountain (small, not discussed further), which all have vineyards on elevated ridges that enable air drainage and reduce freeze and frost events.

Red Mountain AVA

This AVA is in the east of Yakima Valley and has the largest plantings of these sub-AVAs. It is a relatively small AVA, but one of the most densely planted areas in the state. Vines are planted on a south-west facing slope and the climate is amongst the warmest in Washington. The soils are poor in nutrients and this, together with careful irrigation, produces low yields of concentrated fruit. Black grape varieties dominate, particularly Cabernet



A vineyard at springtime in Red Mountain

Sauvignon, and produce ripe, full-bodied wines, often with high levels of alcohol. However, a large diurnal range helps to retain acidity.

Rattlesnake Hills AVA

This AVA also has sizable plantings. Vineyards are located on the south-facing slopes of the Rattlesnake Hills at higher altitudes than much of the surrounding land in Yakima, and temperatures here are more temperate. Riesling is the most planted grape, followed by Merlot and Cabernet Sauvignon.

Horse Heaven Hills AVA

Horse Heaven Hills AVA sits between the Yakima Valley AVA to the north, and the Columbia River and Washington-Oregon border to the south. With 6,100 ha planted to grapes, it represents 25 per cent of Washington's total grape production.⁴

Black grapes, especially Cabernet Sauvignon, Merlot and Syrah, comprise about two thirds of vines planted. Chardonnay and Riesling are the most planted white grapes. With many vineyards planted on south facing slopes, conditions are warm and sunny and lead to ripe, full-bodied red wines, often with high alcohol levels. White wines also tend to show ripe fruit (e.g. stone fruit in Riesling). The sloped topography together with the Columbia River at

the southern border of the AVA both cause strong winds, which protects the vines from spring and autumn frosts, extending the potential growing season, and further reduces disease pressure.

Wahluke Slope AVA

Wahluke Slope, broadly in the centre of the Columbia Valley AVA, has some of the warmest and driest conditions in the state. There are currently 3,600 ha under vine.⁵ All the vineyards sit on a gentle south-facing slope maximizing sun exposure. Due to the warm conditions the AVA mainly produces red wines, particularly Cabernet Sauvignon, Merlot and Syrah. Soils are sandy and free-draining and water availability to the vine is almost entirely controlled through irrigation. The sloped landscape and proximity to the Columbia River ensures adequate air flow, reducing risk of frost and winter freeze.

Walla Walla Valley AVA

The Walla Walla Valley AVA is the fastest growing AVA. It is a multistate AVA located in southeast Washington, with almost half of its area in Oregon. On the Washington side, 675 ha are planted to grapes, and over 100 wineries are located in the area.⁶ Many vineyards are located in the northeast corner of the AVA in the Blue Mountain foothills. With altitudes up to 600 m, the eastern side of the appellation is cooler and wetter compared to the warmer, drier western side. The differences in climate within the AVA allow a wide range of varieties to ripen. The topography of the land, however, does not permit cool air to drain properly from the Blue Mountain foothills and so spring and autumn frosts can be a risk.

While the area supports a range of Italian, Spanish, and Rhône varieties, the most planted are Cabernet Sauvignon, Merlot, Syrah, Cabernet Franc and Malbec, as well as Chardonnay, Viognier and Semillon. The region has a wine growers alliance dedicated to sustainable practices called Vinea.



Cabernet Sauvignon vines in Walla Walla Valley

AVAS OUTSIDE COLUMBIA VALLEY

Columbia Gorge AVA

See [Wine Regions](#) in Oregon.

Puget Sound AVA

Located in the northwest corner of Washington, Puget Sound is the only AVA west of the Cascade Mountain range. Its boundaries are large, as it runs along the Pacific Ocean, from Canada down to Olympia but only around 50 ha are planted to grapes.⁷

Overall, the climate is classified as cool, with mild and dry summers and mild, relatively wet winters, receiving up to 1,500 mm of rain per year. Although crosses created for cool climates predominate (Madeleine Angevine, Müller-Thurgau, Siegerrebe), Pinot Gris and Pinot Noir are also grown.

25.2. Wine Business

Washington State is the second largest wine producer in the USA, with a yearly volume of approximately 1.5 million hL.⁸ Over the last 40 years, Washington wine has evolved from growing mostly Riesling to now producing a range of Bordeaux and Rhône varieties, alongside white varieties. From 10 wineries in 1975 and approximately 200 in 2000, today there are over 1,000 wineries.⁹ The area under vine has doubled since 2000 to over 23,000 hectares. Production is dominated by one large company, Ste. Michelle Wine Estates, which sells approximately 74 million L annually.¹⁰

Most of Washington's production is sold in state, with only the largest wineries and more iconic labels receiving nationwide distribution. Exports account for only a very small percentage of production, with mature markets being Canada, the UK and Japan. Cellar door is an important route to market and many producers located in eastern Washington have cellar door facilities, office or winery facilities close to Seattle to be nearer to customers.

References (all websites retrieved June 2023)

- 1 [Washington Wine Commission press kit 2022](#), Washington State Wine
- 2 [Columbia Valley](#), Washington State Wine
- 3 [Yakima Valley](#), Washington State Wine
- 4 [Horse Heaven Hills](#), Washington State Wine
- 5 [Wahluke Slope](#), Washington State Wine
- 6 Walla Walla Valley, Washington State Wine
- 7 Puget Sound, Washington State Wine
- 8 [Washington Wine Commission Press Kit 2021](#), WA Wine
- 9 As above
- 10 [WBM 50 Largest Wineries](#), Wine Business Monthly (Feb 2021), p. 34