24. Oregon

Oregon is situated in the Pacific Northwest and is the fourth largest wine producing state in the US. It is bordered by Washington to its north and California to its south but has a more marginal climate than either, a factor that may in the longer term be seen as beneficial.

Although wine had been made in Oregon with varying success for a century before, often from fruit other than grapes, the first modern vineyards were established in the 1960s, somewhat south of most of today's Oregon vineyards. These plantings brought the state to the attention of others, primarily David Lett who, in 1966, planted five ha of Pinot Noir in the Dundee Hills, now an AVA in the northern Willamette Valley. Many planters who quickly followed in his footsteps had learnt their trade in California but were searching for more appropriate sites to make Burgundian style wines.

In 1979, Oregon's potential became obvious when, in the Wine Olympics blind tasting organised by Gault-Millau, Lett's 1975 Eyrie Vineyards Reserve Pinot Noir was awarded tenth place against other Pinot Noirs from around the world. The Burgundy winemaker Robert Drouhin, of Maison Joseph Drouhin, organized a re-match, at which the 1975 Eyrie Vineyards took second place to Drouhin's 1959 Chambolle-Musigny. Still, the impressive showing from Eyrie Vineyards led later to Drouhin purchasing land in Oregon and establishing a winery, Domaine Drouhin Oregon, in the Willamette Valley that continues to be run by the family. A number of other Burgundian winemakers have since followed.

The complex geology and topography of the vineyard areas (totalling 16,000 ha) have led to the formation of 19 AVAs wholly within the state and four across borders.¹

Unlike California and Washington, the industry in Oregon is dominated by smaller, familyowned businesses. The recent expansion in the number of wineries has been remarkable, increasing over five-fold in the last twenty years.²

24.1. The Growing Environment and Grape Growing CLIMATE

Most of Oregon's wine regions are situated in the western part of the state, just inland from the Pacific Ocean. The Coast Range provides some, but not total, protection from Pacific influences. In general, the wine regions have a cool to moderate climate; a combination of being located at 42–46°N in latitude (very roughly equivalent to France's Mediterranean coast up to Mâcon) and the influence of cold ocean currents and winds from the Pacific Ocean. Long daylight hours in the summer and autumn aid grape ripening.

SOILS

Free-draining marine sedimentary, volcanic and loess soils are found in most of the growing areas. Many of the vineyard areas experience high levels of annual rainfall. However, this mainly falls in the winter, with little rainfall in the summer months. For example, Willamette Valley, the wettest region, gets just over 1,000 mm on average per year, of which only approximately 200 mm falls from April to September.

VINEYARD MANAGEMENT

The wind and dry summers reduce mildew and disease pressure, and enable sustainable grape growing practices. Oregon emphasizes sustainable, organic and biodynamic planting and production; 47 per cent of its vineyards are certified as sustainable, and around half of all Demeter Biodynamic vineyards in the US are found in the state.³ Other voluntary programmes include Oregon Tilth (organic certifier), Salmon-Safe, LIVE (Low Input Viticulture and Enology) Certified Sustainable and Deep Roots Coalition.

GRAPE VARIETIES

Oregon grows a wide variety of grapes, but by far the most planted is Pinot Noir, making up 60 per cent of plantings. Pinot Gris is the second most planted variety, but plantings are decreasing in favour of Chardonnay.





Source: Oregon Wine Board⁴

Clonal selection is important, especially for Pinot Noir and Chardonnay. The traditional Pinot Noir clones in Oregon were Wadenswil and Pommard. The introduction of Dijon clones in the late 1980s permitted increased clonal diversity, better enabling producers to choose clones that suited the climate and soils of their vineyard sites and the style of wine they wanted to make. Wadenswil, Pommard and Dijon clones are all used. Some producers use a selection, whereas others choose to make at least some of their wines from a single clone.

For Chardonnay, original clonal selections from California such as Wente and clone 108 proved difficult to ripen in the cooler Oregon climate. The introduction of earlier-ripening Dijon clones, again, has increased clonal diversity and the ability to better match clone to site and wine style. On the back of recent warm vintages, Dijon clones are now ripening a little too early in some sites and some producers are returning to California heritage selections.

24.2. Winemaking

The techniques used to make Pinot Noir vary by winemaker. In general, use of whole bunches has increased over the last few years. Some winemakers choose to use ambient yeasts and are experimenting with alternative fermentation and storage vessels, including amphorae. The

majority of wines are matured in oak vessels; the proportion of new oak utilised is decreasing. The wines generally have medium (+) acidity, medium tannins, and medium to high alcohol. Flavours range from red cherry and raspberry fruit to black cherry and plum. They can be good to outstanding in quality and are generally premium priced with some super-premium examples.

Pinot Gris is made in both dry and off-dry styles, with a current trend towards drier wines. Winemaking ranges from whole-bunch pressing and cool fermentation in stainless steel to create a fruity style, to use of skin contact, old barrels and lees contact to increase complexity and texture. The wines tend to be medium to full-bodied, with medium to medium (+) acidity and have pear, peach and melon fruit sometimes with a nutty or honeyed note. They are often good to very good in quality and mid-priced.



Whole bunches are increasingly used in Pinot Noir fermentation.

Oregon Chardonnay tends to have medium (+) acidity and body, with fruit flavours of lemon and peach. Chardonnay here is often made with whole bunch pressing followed by fermentation and maturation in oak, generally with a high proportion of old oak. Full malolactic conversion and lees contact are common, influencing flavour and texture. The lees are usually left without stirring to encourage low levels of reductive sulfur compounds to develop, giving smoky, struck match aromas. The wines tend to be good to very good and mid- to premium priced.

24.3. Wine Regions

In the northwest part of the state, Willamette Valley AVA has 11 nested- or sub-AVAs and contains 68 per cent of all the state's vineyards. The Southern Oregon AVA has five sub-AVAs and contains 25 per cent of all vineyards.⁵ Three multi-state appellations cross the Oregon-Washington border, namely Columbia Gorge, Columbia Valley and Walla Valley (with 1 sub-AVA), whilst the Snake River Valley AVA crosses Oregon and Idaho.

WILLAMETTE VALLEY AVA

The Willamette Valley AVA encompasses Portland and spreads south. It spans over 1.3 m ha, of which 11,000 ha are under vine, making it Oregon's largest AVA. Its diverse geographical features have led to the creation of sub-AVAs within the larger Willamette Valley AVA, and more than 700 wineries.⁶ Its proximity to Oregon's main cities provides easy access to tourists.

The Willamette Valley AVA is in the western part of Oregon, and only 80 kilometres (50 miles) from the Pacific Ocean. It is bordered on its west side by the Coast Range mountains, which provide some protection, but nevertheless various parts of the Willamette are affected by cold Pacific winds. The valley as a whole is one of the coolest and wettest areas in Oregon, but still benefits from warm, dry summers with long hours of sunshine (nearly two hours more than Napa in the summer). Diurnal range is high during the growing season. Air rises from the warm interior of central Oregon and causes cool coastal air to be pulled inland; this effect is particularly strong early in the day and in the early evening in the AVAs of Van Duzer Corridor,



Tualatin Hills, Eola-Amity Hills and, to a certain extent, McMinnville. A lack of humidity in the air over the dry growing season means that temperatures can rise and fall quickly.

Although summer months are dry, many producers in the Willamette Valley do not use irrigation. Legislation prevents all but the longest-established producers from using water from rivers and, in order to provide water for irrigation, producers would need to build ponds on their property to collect water in winter months. Many of Oregon's grape growers only own small plots of land (8–16 hectares)and irrigation would be expensive to install and maintain. Hence, where rainfall and water retention properties of the soil will allow, producers will dry farm.

A diverse range of soils are found in the area. Fertile loam soils are found on the valley floors (in sites up to around 60 m in altitude) left by floods in the Columbia Gorge that occurred several thousand years ago. These soils are most suited to Pinot Gris and, where Pinot Noir is grown, its vigour must be managed, for example, by large vine training systems such as Scott Henry. At higher altitudes, a mixture of marine sedimentary soils (e.g. sandstone), volcanic basalt and loess soils are found, which are generally lower in fertility. Here, smaller cordon-trained or replacement-cane pruned vines with VSP trellising are more common.

As stated, Willamette Valley AVA contains 11 sub-AVAs: Dundee Hills, Chehalem Mountains, Ribbon Ridge, Yamhill-Carlton District, Van Duzer Corridor, Eola-Amity Hills, McMinnville, Laurelwood District, Tualatin Hills, Lower Long Tom and Mount Pishah, Polk County. (The last two are the most recent and are not dealt with in more detail here.) In all of the sub-AVAs, and in Willamette Valley AVA in general, Pinot Noir is the dominant grape variety (generally making up between 60–80 per cent of the plantings), with Pinot Gris and Chardonnay also usually planted.

Dundee Hills AVA

The Dundee Hills AVA is perhaps the most well-known AVA in Willamette Valley. The AVA is made up of a series of volcanic hills running north to south with lateral ridges that run east to west. Vineyards start 60 m above the valley floor up to 325 m. This results in vineyards at higher altitudes than the rest of Willamette Valley, helping to retain acidity and lengthen the growing season. The temperature is warmer than other AVAs because it is buffered to the west by the Coast Range and to the north by the Chehalem Mountains, sheltering it from cold wet conditions, and enabling full fruit ripeness.



Harvest time in Dundee Hills

The area has the highest proportion of red iron-rich clay formed from volcanic basalt. The clay is important in retaining water during the dry summers (as there is little or no access to irrigation), avoiding vines shutting down, and ensuring grapes become fully ripe.

Chehalem Mountains AVA

Chehalem Mountains AVA is defined by a ridge in northern Willamette Valley. The valley includes several discrete spurs, mountains and ridges. Vineyards are planted between 60 and 305 m, with the highest point of the ridge at almost 500 m serving as a windbreak. The range in altitude, aspects and soil types (loess, volcanic basalt and sedimentary) creates a diversity of vineyard sites, and this is also seen in the wines. It has the most plantings of any sub-AVA and a large number of wineries, including some of the earliest, is located within the area.

Laurelwood District AVA

The Laurelwood District AVA, announced in 2020, is entirely within the Chehalem Mountains AVA and around a single soil series, Laurelwood windblown Loess. The AVA includes the highest altitude in the Willamette Valley, at 500 m. Elevation is important in the AVA as the higher the elevation the thinner the windblown loess Laurelwood topsoils.

Ribbon Ridge AVA

The Ribbon Ridge AVA is a small AVA in the Willamette Valley, being an island-like ridge that rises to around 200 m from the Chehalem Valley floor in the west of the Chehalem Mountain AVA. Vineyards are relatively low in elevation and protected from the wind by surrounding ranges creating a consistently warm dry growing area. The sedimentary soil is relatively deep but low in nutrients, which helps to control vine vigour. It also has moderate water-holding capacity which is much needed as water for irrigation is not readily available. All of these factors lead to concentrated ripe grapes.

Yamhill-Carlton District AVA

The Yamhill-Carlton AVA is a south-facing bowl containing a series of horseshoe-shaped eroded hills composed of ancient sedimentary soil. Pinot Noir is by far the most planted variety. Yamhill-Carlton District is in the north west of the Willamette Valley and sits in the foothills of the Coast Range, which forms a rain shadow over the entire area. The south-facing slopes (altitudes 60–300 m), warm free-draining sedimentary soils and sheltered nature of the AVA lead to wines with riper fruit flavours, fuller bodies and lower acidity levels than those of many other sub-AVAs.

Van Duzer Corridor AVA

The Van Duzer Corridor is towards the south west of the Willamette Valley. Here, a break in the Coast Range funnels in Pacific Ocean winds during the afternoon, cooling the vineyard in what would be the warmest time in the day. The wind has several effects. Early in the season,



Vineyards in Van Duzer Corridor

the winds can disrupt flowering and fruit set, and lead to lower yields. Later in the season, the winds can cause the vine leaf stomata to shut and slow ripening. The cooling nature of the wind also slows the ripening process, helping to retain acidity, slow sugar accumulation while flavours and aromas develop. It also reduces disease pressure. Soils are marine sediment loam and silt, shallow and well-draining.

Eola-Amity Hills AVA

Eola-Amity Hills AVA is a ridge of north to south hills of shallow rocky volcanic basalt over sedimentary soil. It is located east of the Van Duzer Corridor AVA and, as Van Duzer Corridor is a relatively low-lying area, many of the hillside vineyard sites of Eola-Amity (sitting at 75–250 metres) are influenced by the same cool ocean winds, leading to slower ripening. However, due to a range of aspects and altitudes within the AVA, there is greater variation in how much vineyards are affected by the winds, and hence there are some warmer, more sheltered sites.

McMinnville AVA

Located between the Yamhill-Carlton AVA to the north and Van Duzer Corridor AVA to the south, the McMinnville AVA is influenced by both areas with cool winds driven from the southwest and heat from the north. The soils are dominated by thin, rocky volcanic topsoils where vines can struggle to establish and reach water and nutrients. Some sites are protected by the Coast Range rain shadow, whereas areas to the south are more influenced by the cool winds from the Van Duzer Corridor.

Tualatin Hills AVA

This AVA is tucked into the northwesternmost corner of the Willamette Valley. The AVA is named for and principally defined by the watershed of the Tualatin River and is heavily impacted by the ocean just 39 kilometres (24 miles) to west. It is planted with a range of grape varieties and has the oldest own-rooted vines in the state still in full production. Soils are primarily Laurelwood windblown loess with basalt at the lower levels, resulting in late ripening grapes.

SOUTHERN OREGON AVA

The Southern Oregon AVA is Oregon's second largest growing region. It covers a large area just south of Willamette Valley down to the California border; within that area, 3,700 ha are planted.⁷

Its more southerly latitude means the area is warmer than the Willamette Valley, but cooling influences come from mountains (both the altitude of sites and cool air descending at night) and river valleys that channel cool breezes during the afternoon and evenings. This means that diurnal ranges in the region are high.

Similar to Willamette, the vast majority of the annual rainfall occurs in the winter and the growing season is dry. Soils are a mixture of marine sedimentary soils, volcanic soils (both with a high proportion of clay helping to retain water) and alluvial soils (which are more free-draining). The warmer climate and lower rainfall mean irrigation is essential here. Many growers in the area were ranchers in the past and hence are permitted to irrigate with river water. Those vineyards that are dry farmed are usually planted to Rhône varieties rather than Pinot Noir.



Irrigation installed in a vineyard in Umpqua Valley

Southern Oregon grows a wide range of grape varieties and is better able to ripen a range of black grape varieties than Willamette Valley. Although Pinot Noir is still the most planted variety, it is less dominant here than in Willamette Valley, making up just over 40 per cent of plantings. Pinot Gris is the second most planted variety, followed by Syrah and Cabernet Sauvignon.⁸

The Southern Oregon AVA encompasses the Umpqua Valley AVA (including the Elkton Oregon AVA and Red Hill Douglas County AVA) and the Rogue Valley AVA (including the Applegate Valley AVA).

Umpqua Valley AVA

The Umpqua Valley AVA is in the northern part of Southern Oregon. It sits at the confluence of two mountain ranges, the Coast Range and the Cascade Range. The Umpqua River and its many tributaries also flow through the region. Together, this creates a diverse range of vineyard sites with different altitudes (around 50–400 m), aspects and soils. The northern area, particularly the Elktron AVA, is relatively cool for Southern Oregon (though still slightly warmer than Willamette Valley) due to its northerly location and cool afternoon breezes that blow through the Umpqua River gorge. It mainly produces Pinot Noir and white varieties such as Pinot Gris, Gewürztraminer and Riesling. The central and southern areas of Umpqua Valley are warmer and produce red wines from Syrah, Merlot and Tempranillo.

Rogue Valley AVA

The Rogue Valley AVA is further south and encompasses the Applegate Valley sub-AVA. It is closest to the California border and has the warmest and driest conditions of all Oregon's growing areas. However, cooling influences can come from altitude (250 to almost 950 m)

provided by the Klamath Mountains and Cascade Range, and cool afternoon and evening breezes drawn in from the Pacific through the Illinois and Applegate river valleys. The warm temperatures mean a range of black grapes are grown, namely Merlot, Cabernet Sauvignon, Syrah, Tempranillo and Pinot Noir.

MULTISTATE APPELLATIONS

Multistate appellations extend into a contiguous state. Oregon has three multistate AVAs on its northern border that extend into Washington – Columbia Gorge, Columbia Valley, and Walla Walla Valley. On its eastern border, the Snake River Valley AVA extends into Idaho. They all account for a very small proportion of Oregon's vineyards; Walla Walla Valley AVA and then Columbia Gorge AVA are the largest.

Walla Walla Valley AVA

While the majority of the Walla Walla Valley AVA lies in Washington, about one-third of the AVA extends into eastern Oregon. Far from the coast, it has an arid continental climate with hot dry summers that enable black grapes to fully ripen. Nearly 40 per cent of its total production is Cabernet Sauvignon, with Merlot and Syrah the next most planted varieties.⁹ The Rocks District of Milton-Freewater sub-AVA is entirely within Oregon. It is located on a distinct area of basalt stones and graveled silt loam; the warmth radiated from the stones leads to extra ripeness in the grapes.

Columbia Gorge AVA

The Columbia Gorge AVA covers a 64-kilometre (40 mile) stretch along the Columbia River, which forms the border between Oregon and Washington. Regardless of whether the vineyards are located within Oregon or Washington, the western part of the AVA closest to the Pacific Ocean has a cooler, wetter climate whereas the eastern part of the AVA is warmer and drier. Cooling influences come from altitude (sites up to 600 m) and winds funneled by the gorge. Given the wide range of growing conditions, a number of varieties can be grown throughout the AVA. Burgundian and Alsatian varieties dominate the western part and Rhone and Iberian varieties the eastern part of the AVA.

Columbia Valley AVA

The vast majority of the acreage of this AVA is located in Washington State. Within Oregon, this AVA stretches from the eastern border of the Columbia Gorge AVA and includes the smaller AVA of Walla Walla Valley. For more details on the climate, grape varieties grown and styles of wine made see <u>Wine Regions</u> in Washington State.

24.4. Wine Laws and Wine Business

Origin labeling is stricter in Oregon than federal requirements by requiring 100 per cent of the grapes to be grown in Oregon and 95 per cent of the wine to be from the stated appellation. Wine produced in multi-state appellations may follow either state's labelling laws, but 100 per cent of the wine must come from these two states. If a variety is stated on the label, it must comprise a minimum of 90 per cent of the wine; the remaining 10 per cent does not need to be listed on the label. In contrast, California and federal regulations only require 75 per cent of

the named variety. Wine labelled as 'estate-bottled' must be made from 100 per cent of grapes that were grown in the winery's AVA and fully finished at the estate.

Oregon is the fourth largest producer of wine by volume, after California, Washington, and New York. The total production varies from year to year, and comprises 1.5–2 per cent of total US production.¹⁰ Most of the producers (75 per cent) are small family-owned wineries producing fewer than 5,000 cases per year.¹¹ Many wineries own their own land, with 52 per cent of wine made from estate-grown fruit. The last two decades has seen considerable growth, from 139 wineries in 2000 to 995 in 2020.¹² Some of this growth has come from investment from wine businesses in other states, such as California and Texas, or countries, such as France.

Just under a quarter of production is sold direct-to-consumer. A further 16 per cent is sold in state (via retail and hospitality) and around 60 per cent elsewhere in the US, with three per cent exported, half of which goes to Canada.¹³

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