WASHINGTON WINE 101
WASHINGTON STATE WINE

Washington State is the second-largest wine region in the United States, cultivating over 80 grape varieties. Washington’s growers & vintners work in tandem to produce a combination of old world & new world styles.
WASHINGTON STATE WINE COMMISSION

WHAT ARE WE
- WSDA Commodity Commission Est. 1987
- Marketing, Education, Viticulture & Enology Research

WHO ARE WE
- 13-member industry-appointed board
- 10-12 staff: marketing, communications and research

FUNDING
- $6.0M Annual Budget
- 100% industry funded
- Wine: $0.08/gallon
- Grapes: $12/ton
Showing the world how great we are.

MARKETING & EDUCATION
- 100+ domestic and international programs & events each year
- Educational seminars and opportunities for wine trade
- Robust media relations
- Inbound tours & hosting
- Top notch social media program

RESEARCH
- WSU Wine Science Center
- WAVE: WA Advancements in Viticulture & Enology
- World-class V&E research
World-class wine research program

- Washington’s wine industry allocates 25% of its budget to support a groundbreaking viticulture and enology research program, along with the state-of-the-art WSU Wine Science Center.
- Research priorities are 100% industry driven, and results are available to every winery and vineyard in the state.
- Outreach is a major priority, to ensure farmers and winemakers have the most updated information to make even better wine and grow even better fruit.
Washington wine is available in 100+ countries
OVERVIEW
A COLLABORATION OF INGENUITY, HARD WORK AND PASSION.

Washington’s vineyards and wineries are often spread across hundreds of miles. Because of this grape growers and vintners must work in tandem.

Our region is one of shared endeavors.
WINE WITH CHARACTER(S).

We have biostatisticians and scientists, professional snowboarders and quarterbacks, cattle ranch hands and geologists, bartenders and English teachers, masters of wine and aeronautical engineers, oceanographers and actors, and so many more.
WASHINGTON WINE TIMELINE

1825
First Grapes Planted
Washington’s first grapes are planted at Fort Vancouver by the Hudson’s Bay Company.

1914
Important vineyards spring up,
in the Yakima Valley—most notably the vineyards of W.B. Bridgman of Sunnyside.

1933
Dr. Walter Clore,
“The Father of Washington Wine,” begins trials of grape varieties in eastern Washington to determine what would grow where and under what conditions. Later, he works closely with WSU scientist Chas Nagel to make research wines.

1903
Large-scale irrigation,
fueled by runoff from the melting snow-caps of the Cascade Mountains, begins in eastern Washington.
1960
Commercial vineyards are planted in Washington.

1962
Associated Vintners is established, later becoming Columbia Winery.

1967
Ste. Michelle Vintners is established.
Now known as Chateau Ste. Michelle, it is Washington’s largest winery.

1970
10 wineries

1983
Yakima Valley AVA is established as Washington’s first American Viticultural Area (AVA).
1998: Taste Washington takes place in Seattle for the first time, later becoming the nation’s largest single-region food and wine festival.

2001: 100 wineries milestone

2015: Wine Science Center

2019: 1,000 wineries
Wineries: 1,070+
Growers: 400+
Tons Produced: 240,000
Acres Planted: 60,000+

Ninety percent of Washington state’s wineries are small, family-owned wineries who make fewer than 5,000 cases a year.

Annual In-state Economic Impact: $8+ Billion
Annual Wine Production: 17+ Million Cases
A BRIEF HISTORY OF EXPLOSIVE GROWTH

LICENSED WINERIES

- Washington State adds 4 new wineries per month, on average

NUMBER OF WINERIES

0 200 400 600 800 1000 1200

A BRIEF HISTORY OF EXPLOSIVE GROWTH

WINE GRAPE ACREAGE GROWTH

1993  11,100 acres :: 4,492 hectares
1997  17,000 acres :: 6,880 hectares
1999  24,000 acres :: 9,712 hectares
2002  28,000 acres :: 11,331 hectares
2003  29,000 acres :: 11,736 hectares
2004  30,000 acres :: 12,140 hectares
2005  30,000 acres :: 12,140 hectares
2006  31,000 acres :: 12,545 hectares
2007  31,000 acres :: 12,545 hectares
2008  34,000 acres :: 13,759 hectares
2009  40,000 acres :: 16,187 hectares
2010  43,000 acres :: 17,401 hectares
2011  43,000 acres :: 17,401 hectares
2012  50,000 acres :: 20,234 hectares
2013  55,000 acres :: 22,257 hectares
2016  59,000 acres :: 23,876 hectares
2019  60,000 acres :: 24,281 hectares
2020  60,000 acres :: 24,281 hectares
DIVERSITY: 2022 HARVEST

240,000 TONS HARVESTED

**REDS** 136,870 TONS

**WHITE** 103,130 TONS

**GRAPE VARIETIES**

- Cabernet Franc – 3,025
- Malbec – 3,980
- Sangiovese – 1,695
- Grenache Noir – 2,020
- Petit Verdot – 1,110
- Pinot Noir – 2,860
- Mourvedre – 1,425
- Other Red Varieties – 4,515
- Gewurztraminer – 2,055
- Viognier – 1,800
- Semillon – 525
- Chenin Blanc – 420
- Other White Varieties – 2,625
- Pinot Gris – 10,540
- Sauvignon Blanc – 12,800
- Riesling – 32,915
- Chardonnay – 39,450
- Syrah – 23,470
- Merlot – 25,755
- Cabernet Sauvignon – 50,865
SUMMARY

- Collaboration is key to success
- Young region, rich history
- Small family-owned wineries
- Room to grow!
WASHINGTON’S AVAs
ter·roir
/terˈwär/
noun
1. the complete natural environment in which a particular wine is produced, including factors such as the soil, topography, and climate.
2. the characteristic taste and flavor imparted to a wine by the environment in which it is produced.
WASHINGTON HAS 20 UNIQUE GROWING REGIONS.

Each AVA possesses a unique combination of climate, topography and soils that define the aromas and flavors of locally grown grapes and the wines crafted from them.
COLUMBIA VALLEY

Encompassing more than a quarter of the state, the Columbia Valley is by far Washington’s largest growing region at nearly 11 million acres. Almost all of Washington’s other growing regions are sub-appellations of the Columbia Valley.

**DESIGNATED:** 1984

**ACREAGE:**
- Total acreage: 11,308,636 (4,576,442 hectares)
- WA acreage: 8,748,949 (3,540,574 hectares)
- Total vineyard acreage: 60,079 (24,313 hectares)
- WA vineyard acreage: 59,234 (23,971 hectares)

**TOP VARIETIES:** Cabernet Sauvignon, Chardonnay, Merlot, Riesling, Syrah

**ANNUAL PRECIPITATION:**
- Average 6-8 inches, wide range throughout
Columbia Valley
WASHINGTON AVAs

YAKIMA VALLEY

Washington State’s first federally-recognized AVA, Yakima Valley has more than one quarter of Washington’s total planted acreage. Yakima Valley is one of Washington’s most diverse growing regions.

DESIGNATED: 1983

ACREAGE:
Total Acreage: 708,710 (286,804 hectares)
Vineyard Acreage: 18,924 (7,658 hectares)

TOP VARIETIES: Chardonnay, Riesling, Merlot, Cabernet Sauvignon, Syrah

ANNUAL PRECIPITATION:
Average 8 inches
WALLA WALLA VALLEY

The Walla Walla Valley is home to some of Washington’s oldest wineries and has the highest concentration of wineries in the state.

DESIGNATED: 1984

VINEYARDS:
Total acreage: 319,427 (129,267 hectares)
WA acreage: 220,799 (89,354 hectares)
Total vineyard acreage: 2,933 (1,186 hectares)
WA vineyard acreage: 1,672 (676 hectares)

TOP VARIETIES: Cabernet Sauvignon, Merlot, Syrah

ANNUAL PRECIPITATION: Range 7-22 inches
Walla Walla Valley
Puget Sound

Washington’s only appellation located west of the Cascade crest, Puget Sound is unique for Washington in that it has a maritime climate. The appellation enjoys long, mild and dry summers, but gets enough rainfall to grow grapes without irrigation, unlike most growing regions east of the crest.

**Designated:** 1995

**Acreage:**
- Total acreage: 2,918,765 (1,181,182 hectares)
- Vineyard acreage: 104 (42 hectares)

**Top Varieties:** Madeleine Angevine, Siegerebbe, Muller-Thurgau, Pinot Gris, Pinot Noir

**Annual Precipitation:** Range 15-60 inches
RED MOUNTAIN

At 4,040 acres, Red Mountain is one of Washington’s smallest and typically its warmest appellation, where growing season daytime temperatures average 90 degrees, gets only 5 inches (127 mm) of rain each year. It is dedicated almost exclusively to red wine grapes and produces some of the state’s most sought-after grapes.

**DESIGNATED:** 2001

**ACREAGE:**
- Total acreage: 4,538 (1,836 hectares)
- Vineyard acreage: 2,382 (963 hectares)

**TOP VARIETIES:** Cabernet Sauvignon, Merlot, Syrah

**ANNUAL PRECIPITATION:**
- Average 5 inches
The Columbia Gorge is the state’s westernmost appellation east of the Cascade Mountains. A shared appellation with Oregon, the Columbia Gorge has very dry regions to the east as well as areas to the west that receive so much rain they are able to dry farm.

**DESIGNATED:** 2004

**ACREAGE:**
- Total acreage: 186,610 (75,518 Hectares)
- WA acreage: 66,604 (26,953 Hectares)
- Total vineyard acreage: 950 (384 Hectares)
- WA vineyard acreage: 372 (151 Hectares)

**TOP VARIETIES:** Pinot Noir, Chardonnay, Pinot Gris, Riesling

**ANNUAL PRECIPITATION:**
Range 10-36 inches
The Horse Heaven Hills is home to over one quarter of Washington’s planted acreage. It is a warm region, but with consistent winds that allow a wide variety of grapes to ripen successfully.

**DESIGNATED:** 2005

**ACREAGE:**
- Total acreage: 576,603 (233,342 hectares)
- Vineyard acreage: 17,082 (6,912 hectares)

**TOP VARIETIES:** Cabernet Sauvignon, Merlot, Chardonnay, Riesling, Syrah

**ANNUAL PRECIPITATION:** Average 9 inches
The Wahluke Slope is a large alluvial fan that stretches down to the Columbia River. It is known for its gentle grade and consistency of aspect. It is a dry, very warm site near the center of the larger Columbia Valley AVA.

**Designated:** 2006

**Acreage:**
- Total acreage: 80,490 (32,573 hectares)
- Vineyard acreage: 9,277 (3,754 hectares)

**Top Varieties:** Cabernet Sauvignon, Merlot, Chardonnay

**Annual Precipitation:**
- Average 6 inches
The Rattlesnake Hills AVA is located along the north-central edge of the Yakima Valley appellation. The high elevation of the Yakima Ridge to the north of the Rattlesnake Hills protects the area from winter freezes that can affect other areas of the state.

**DESIGNATED:** 2006

**ACREAGE:**
- Total acreage: 74,380 (30,100 hectares)
- Vineyard acreage: 1,832 (741 hectares)

**TOP VARIETIES:** Merlot, Riesling, Cabernet Sauvignon, Syrah

**ANNUAL PRECIPITATION:**
- Range 6-12 inches
This AVA wraps around the tourist-popular Lake Chelan. The lake has a moderating effect on summer and winter temperatures, which along with its more northern location allows it to excel at cooler climate grapes. The appellation also has a granitic bedrock, compared to the basalt bedrock of the rest of the Columbia Valley.

**DESIGNATED**: 2009

**ACREAGE**:
- Total acreage: 24,114 (9,758 hectares)
- Vineyard acreage: 301 (121 hectares)

**TOP VARIETIES**: Syrah, Pinot Noir, Chardonnay, Pinot Gris, Merlot

**ANNUAL PRECIPITATION**: Average 12 inches
Snipes Mountain is an anticline of the Yakima Fold belt, elevated from its surroundings and containing unique soils from the ancestral riverbed of the Columbia River. It contains some of the state’s oldest grape vines.

**DESIGNATED:** 2009

**ACREAGE:**
- Total acreage: 4,005 (1,620 hectares)
- Vineyard acreage: 859 (347 hectares)

**TOP VARIETIES:** Cabernet Sauvignon, Merlot, Chardonnay

**ANNUAL PRECIPITATION:**
- Average 7 inches
Naches Heights is an extremely young growing region, with its first vinifera plantings in 2002. The AVA sits on a volcanic plateau and all of the vines planted in the appellation are biodynamic or organically farmed.

**DESIGNATED:** 2011

**ACREAGE:**
- Total acreage: 13,165 (5,327 hectares)
- Vineyard acreage: 45 (18 hectares)

**TOP VARIETIES:** Chardonnay and Cabernet Sauvignon

**ANNUAL PRECIPITATION:**
- Range 10-13 inches
Named after a series of 35 lakes that dot the area, the Ancient Lakes more northerly location contributes to large diurnal swings and cooler fall temperatures that help lock in acidity. The area is dominated by white varieties.

**DESIGNATED:** 2012

**ACREAGE:**
- Total acreage: 162,762 (65,867 hectares)
- Vineyard acreage: 1,596 (646 hectares)

**TOP VARIETIES:** Riesling and Chardonnay

**ANNUAL PRECIPITATION:** Average 6 inches
The Lewis-Clark Valley AVA’s soil is comprised of decomposing perennial grasses and grass roots with capacity to hold water. The region has good planting areas that are easy to develop and contains air drainage characteristics that are ideal for wine grapes.

**DESIGNATED**: 2016

**VINEYARDS**:
- Total acreage: 306,650 (124,096 Hectares)
- WA acreage: 85,238 (34,494 Hectares)
- Total vineyard acreage: 100 (40 Hectares)
- WA vineyard acreage: 9 (4 Hectares)

**VARIETIES**: Chardonnay, Pinot Noir, Merlot

**ANNUAL PRECIPITATION**: 16 inches
ROYAL SLOPE

Royal Slope is comprised mostly of south-facing slopes, highly regarded in the Pacific Northwest because of the northerly latitude. There are more than 20 different varieties planted within the appellation.

**DESIGNATED:** 2020

**ACREAGE:**
Total acreage: 156,389 (63,288 hectares)
Vineyard acreage: 1,900 (768 hectares)

**TOP VARIETIES:** Cabernet Sauvignon, Syrah, Chardonnay

**ANNUAL PRECIPITATION:**
Average 6-8 inches
CANDY MOUNTAIN

Candy Mountain is Washington’s smallest appellation. There are currently 110 acres of vineyards, almost all of which are red varieties. It’s located on a very warm, isolated mountain with excellent cold air drainage that rises above lower elevation plains.

DESIGNATED: 2020

ACREAGE:
Total acreage: 815 (330 hectares)
Vineyard acreage: 110 (44 hectares)

TOP VARIETIES: Cabernet Sauvignon, Merlot, Syrah, Sangiovese

ANNUAL PRECIPITATION:
Average 5 inches
THE BURN OF COLUMBIA VALLEY

Located west of the Horse Heaven Hills, The Burn of Columbia Valley experiences a long growing season, slightly more precipitation compared to other regions, and notable impacts from wind coming up from the Columbia Gorge. There are approximately 1,500 acres of wine grapes currently planted, and Cabernet Sauvignon is the majority variety.

**DESIGNATED:** 2021

**ACREAGE:**
Total acreage: 16,870 (6,827 hectares)
Vineyard acreage: 1,500 (607 hectares)

**TOP VARIETIES:** Cabernet Sauvignon, Chardonnay

**ANNUAL PRECIPITATION:**
Average 8-9 inches
The Burn of Columbia Valley
WHITE BLUFFS

Nearly one out of every 10 wineries in Washington sources wine grapes from the White Bluffs AVA. Located in the middle of the Columbia Valley, several vineyards within the AVA are 40+ years old. White Bluffs encompasses two plateaus that rise above the surrounding plains, and the added elevation protects the vines from cold air on the valley floor to extend the growing season.

DESIGNATED: 2021

ACREAGE:
Total acreage: 93,738 (37,934 hectares)
Vineyard acreage: 1,127 (456 hectares)

TOP VARIETIES: Cabernet Sauvignon, Merlot, Syrah, Riesling, Sauvignon Blanc

ANNUAL PRECIPITATION:
Average 6-8 inches
GOOSE GAP

Goose Gap and the adjoining Goose Mountain create a rough triangle between Candy Mountain, Red Mountain and Badger Mountain. The orientation of Goose Mountain is east to west, whereas almost all nearby hills are northwest to southeast. Vineyards are dominantly planted on north and northeast slopes as opposed to nearby vineyards on south or southwest slopes, which leads to less solar radiation and later ripening.

**DESIGNATED:** 2021

**ACREAGE:**
- Total acreage: 8,129 (3,289 hectares)
- Vineyard acreage: 1,800 acres (728 hectares)

**TOP VARIETIES:** Cabernet Sauvignon, Merlot, Syrah, Chardonnay

**ANNUAL PRECIPITATION:** Average 6-8 inches
Located between Chelan and Wenatchee, Rocky Reach is unique from almost all other appellations in the Columbia Valley in that it has predominantly granitic bedrock, a feature it shares with only Lake Chelan. It is located at low elevations within the valley, making it considerably warmer with a longer growing season relative to the surrounding mountains and plateaus.

**DESIGNATED:** 2022

**ACREAGE:**
- Total acreage: 32,333 (13,084 hectares)
- Vineyard acreage: 117 (47 hectares)

**TOP VARIETY:** Cabernet Sauvignon
• 20 AVAs
• 60,000+ acres of wine grapes
• Top varieties: Cabernet Sauvignon, Chardonnay, Merlot, Riesling, Syrah
CLIMATE
WASHINGTON WAS DESTINED TO BE WORLD-CLASS WINE COUNTRY

Washington’s northern basis offers up a growing season that sees up to 17 hours of sunlight a day. Couple that with cool nights that help maintain the natural acidity of the grapes and you’ve got a grape growing haven.
PERFECT CLIMATE FOR GROWING WINE GRAPES

Washington state shares the same latitude as other famous wine regions in Europe—46° North.

What’s so special about the 46° parallel?
The 46° parallel is the sweet spot for growing grapes—at that angle to the sun our region receives the most amount of sunlight during the growing season.
PEAK GROWING PERIOD

Nearly 55 additional hours of daylight compared to Napa Valley*

* Difference in daylight March 19th – June 21st

Source: U.S. Naval Observatory
AVERAGE GROWING DEGREE DAYS

Growing Degrees

Source: WSU Ag Weather Net
MEAN TEMPERATURE BY REGION (2013-2017)

- Columbia Valley
- Bordeaux
- Napa Valley

- July
- August
- September
- October

RAPID COOLING GOING INTO HARVEST
**DIURNAL RANGE**

**Diurnal range** is the difference between day and night temperatures in the vineyard; the gap between the hottest temperature and the coolest.

Warm days and cool nights help maintain the natural acidity of the grapes.

A large diurnal range can help grapes to ripen in a more balanced way. Warmer daytime temperatures help to foster sugar development, but cool nights can help to preserve aromas, freshness and acidity.

**Washington State** has some of the most dramatic daily temperature fluctuations of any wine region, ranging from 35°F to as much as 47°F* between day and night temperatures.

*5-Year average Mean & average Max Diurnal shift, July*
SIGNIFICANT & BENEFICIAL TEMPERATURE CHANGES

Warm Daytime Temps + Chilly Nighttime Temps = Ripeness of phenolics & acidity

The Columbia Valley is protected from wet weather systems by two major mountain ranges, the Olympics and the Cascades, creating the perfect climate for wine in the warm and dry eastern part of the state.
AVERAGE ANNUAL RAINFALL

BORDEAUX REGION
22.7 in
57.7 cm

NAPA VALLEY
17.2 in
43.7 cm

COLUMBIA VALLEY
7 in
17.8 cm

Source: Weather Underground
HEAT MAP

3 climatic indicators to give a macro view of viticulture regions:

- Dryness Index
- Thermal Index
- Cool Night Index

Huglin Index (Base 10°C, Apr-Sep)

Source: Huglin Index
SUMMARY

- 46° parallel
- Rain shadow effect & 17 hours of sunlight
- Large diurnal shift = more balanced grapes
GEOLOGY
What makes the Pacific Northwest landscape unique?

**Lava Flows**
Basalt foundation

**Floods**
Glacial Slackwater Deposits

**Winds**
Loess

**Soils**
Free draining, Nutrient Poor
Region rich with volcanic history

Basalt foundation for entire Columbia Valley
When the ice shelf broke, it caused massive flooding.

Based on original artwork by Wine Folly
The Missoula Floods transformed the Pacific Northwest landscape.

Geologists estimate that the cycle of flooding and reformation of the Missoula Lake lasted an average of 55 years and that the floods occurred several times over the 2,000-year period between 15,000 and 13,000 years ago.
The floods deposited nutrients all over eastern Washington up to 1,200 feet (366 meters) above sea level.

**SOIL DEPOSITS**

Walla Walla

**WALLULA GAP**

Bottleneck that backed up floodwaters.

Based on original artwork by Wine Folly.
Loess soil

Loess is a soil type ideal for growing wine grapes, as it is porous and well-draining. The composition of the soil is also a good source of minerals that grape vines need to thrive.

- Wind-deposited fine sand and silt derived from ice-age flood deposits
- Consistency of powdered sugar
- Very low water-holding potential
SOIL PROFILE

- Wind-deposited fine sand and silt derived from ice-age flood deposits
- Volcanic ash derived from cascade range volcanoes
- Wind-deposited fine sand and silt derived from ice-age flood deposits
  - Granite erratic from melted iceberg transported by ice-age floods
- Medium sand deposited by ice-age floods
- Coarse sand deposited by ice-age floods
- Gravel deposited by ice-age floods
- Weathered basalt, contains iron oxide and clay
- Basalt bedrock, 15 million years old

Source: Kevin Pogue, PHD
The Columbia River

- Fourth largest river, by volume, in the US
- Largest flowing into the Pacific Ocean
- Drainage basin of the Columbia River and its tributaries is roughly the size of France, covering seven US states
LOW PEST

Washington vineyards are sustainable by nature.

- Winter freeze kills many pests
- Arid temps, low humidity and wind help control development of fungal diseases (less need for spray)
- Fewer pests allows for planting on natural rootstock
- Less need for spraying and pesticides
Our terroir and quality of fruit makes for superior wine.

- DRY CLIMATE
- ABUNDANT SUNLIGHT
- DIURNAL SHIFT
- LEAN SOILS
- AVAILABILITY OF WATER
- LOW DISEASE AND PEST PRESSURE
- PERSISTENT WIND
- COLD WINTERS
NEW WORLD FRUIT WITH OLD WORLD STRUCTURE AND ACIDITY.

Washington’s wines exhibit that spirit of integration, combining the vibrant fruit character expected of American wine with the defined structure typical of the Old World.
SUMMARY

- Volcanoes & lava flows created a basalt foundation
- The Missoula Floods transformed our landscape & deposited rich soils
- Columbia River = tremendous water source
- Washington vineyards are sustainable by nature
WA WINE STORIES
History made us, and now, we're making history.

#WAwine
#WAwine

If there’s one thing we’ve got, it’s character.
Nobody tastes like us because nobody looks like us.

#WAwine
Washington wine is sustainable by nature.

#WAwine
#WAwine

We’re the best of both worlds.
The Washington wine way?
Rising tide floats all boats.

#WAwine
Connect with WA Wine.

Website: washingtonwine.org  
Contact: info@washingtonwine.org