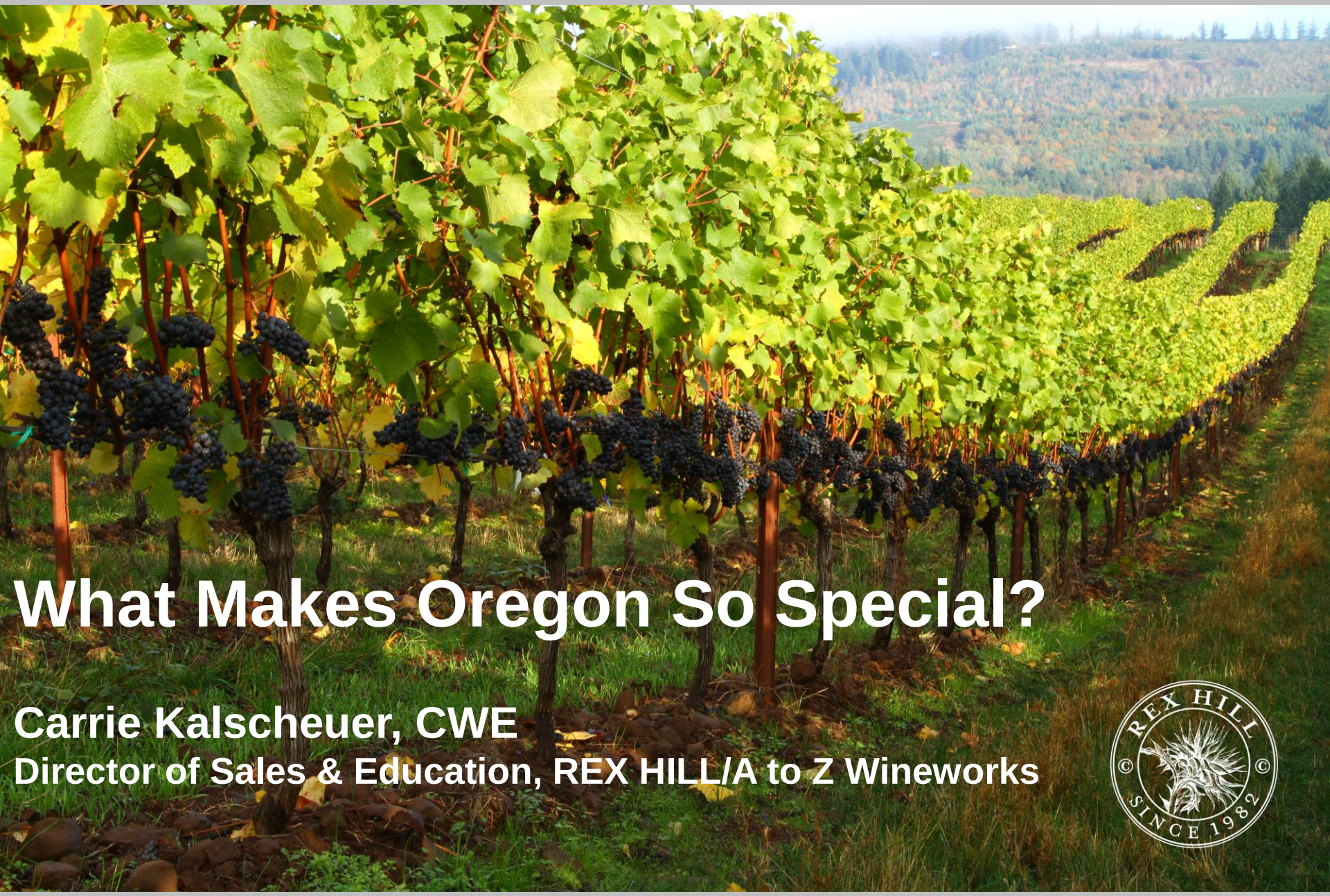
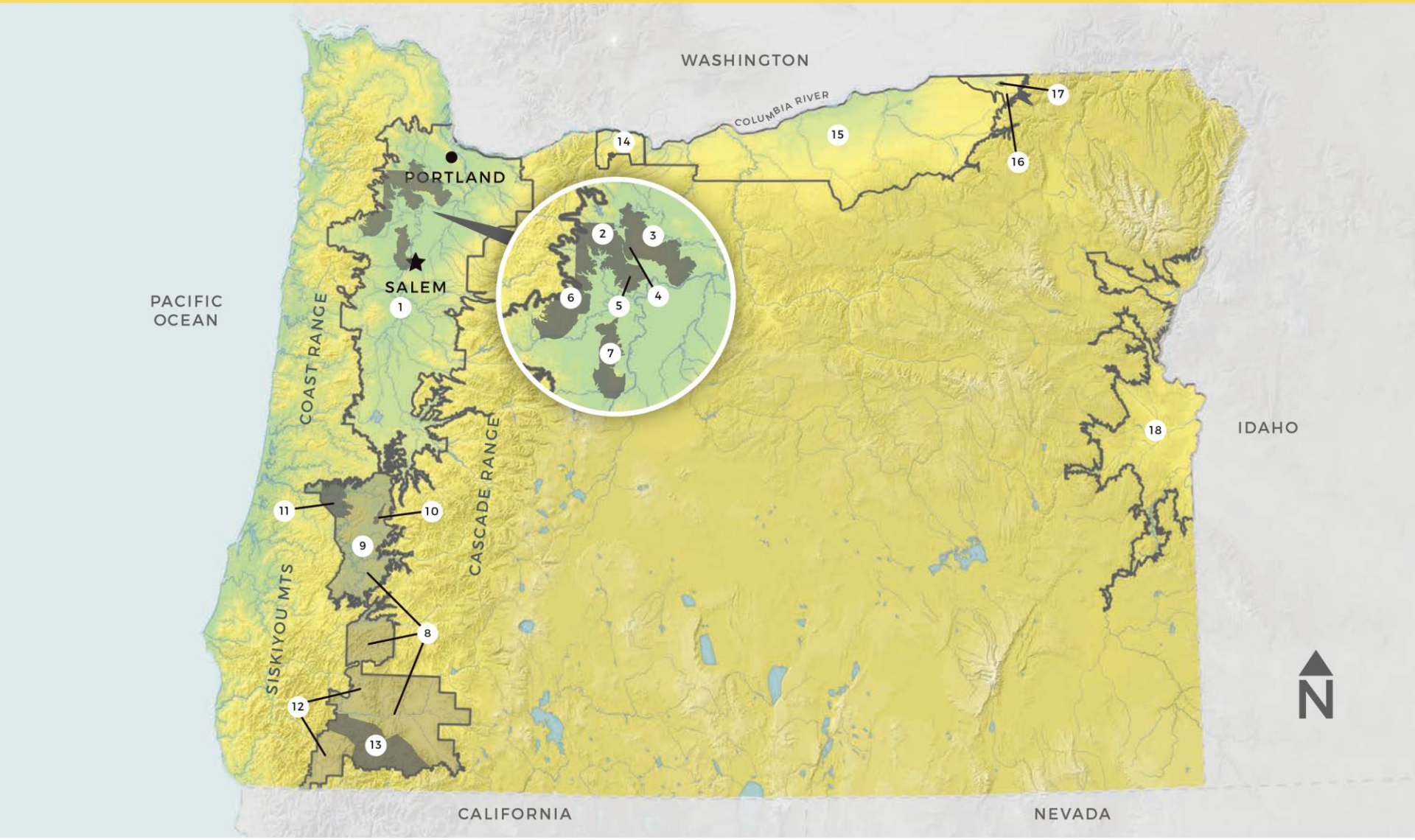


What Makes Oregon So Special?

Carrie Kalscheuer, CWE
Director of Sales & Education, REX HILL/A to Z Wineworks

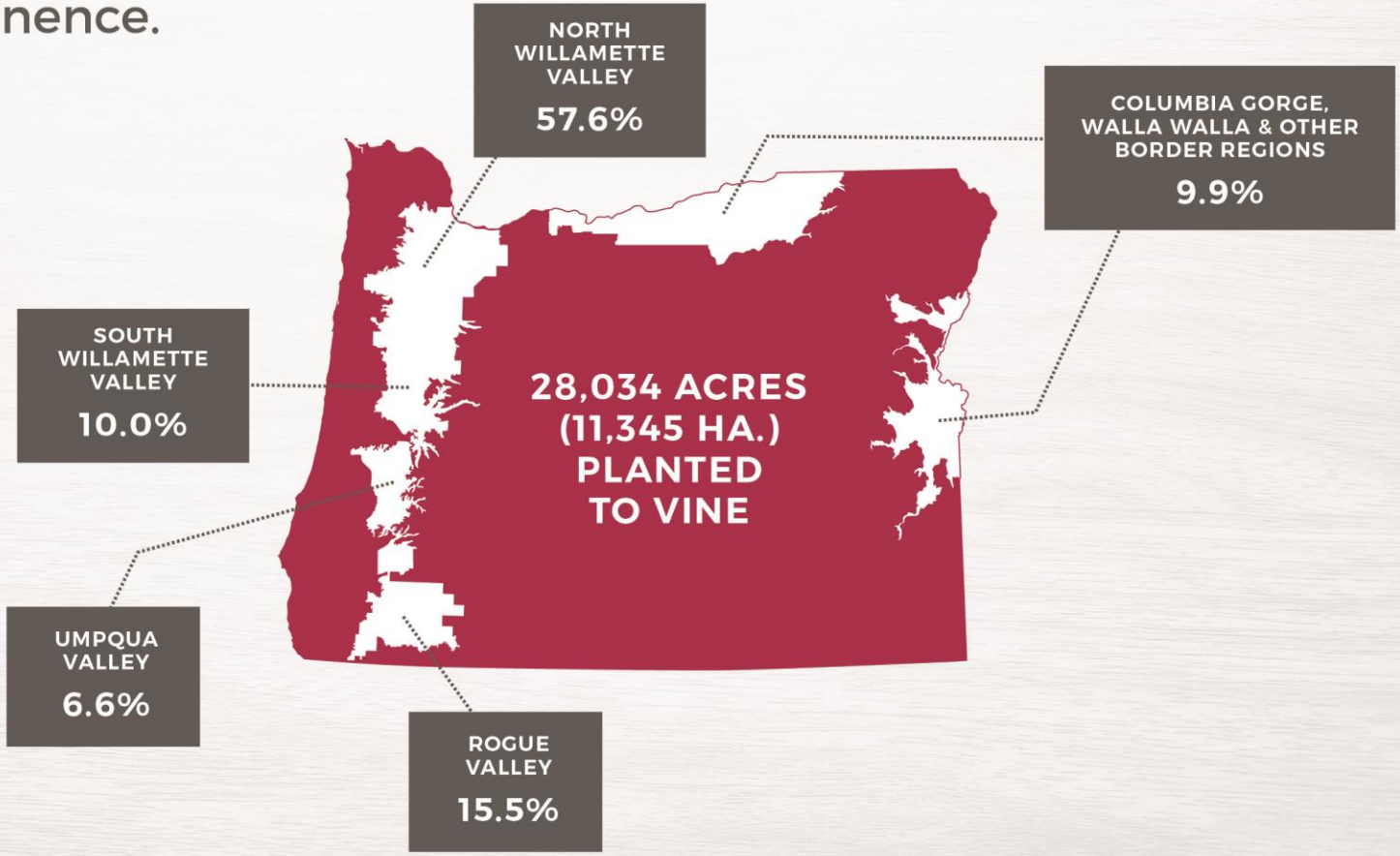


GROWING REGIONS OF OREGON

1. Willamette Valley
2. Yamhill-Carlton
3. Chehalem Mountains
4. Ribbon Ridge
5. Dundee Hills
6. McMinnville
7. Eola-Amity Hills
8. Southern Oregon
9. Umpqua Valley
10. Red Hill Douglas County
11. Elkton Oregon
12. Rogue Valley
13. Applegate Valley
14. Columbia Gorge
15. Columbia Valley
16. Walla Walla Valley
17. The Rocks District of Milton-Freewater
18. Snake River Valley

WINEGROWING THROUGHOUT OREGON

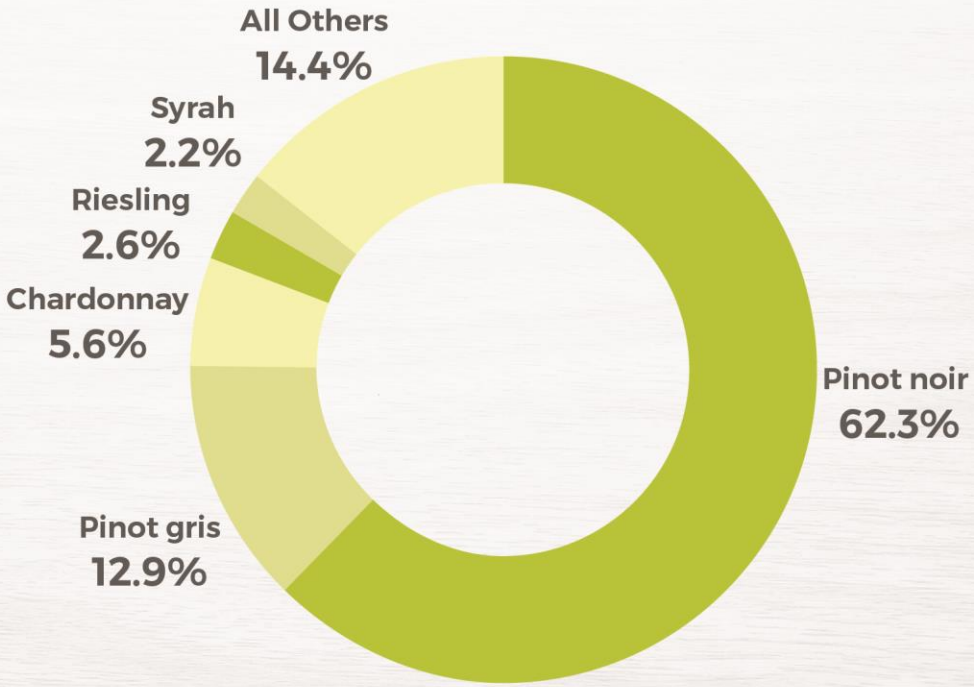
While Oregon's vineyards are concentrated in the northern Willamette Valley, other growing regions continue to gain prominence.



Source: 2015 Oregon Vineyard and Winery Census Report

OREGON'S TOP VARIETIES

Pinot noir is the predominant variety grown in Oregon; however, the state's diversity of geography and microclimates make it well-suited to many different varieties.

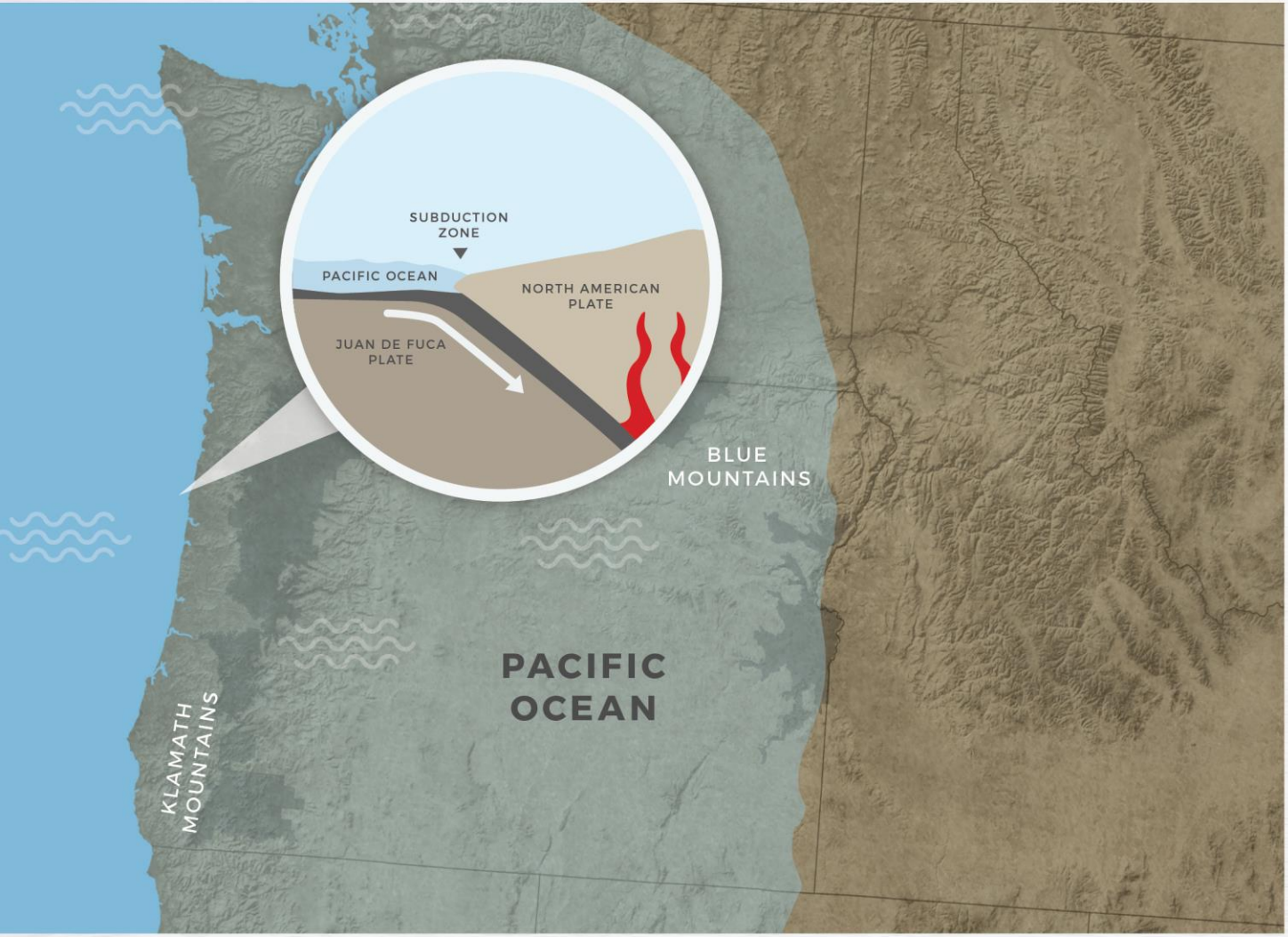


72 varieties of wine grapes are grown in Oregon

Source: 2015 Oregon Vineyard and Winery Census Report

SETTING THE SCENE

Oregon resides in the "Ring of Fire," an area in the basin of the Pacific Ocean that is home to 75% of the world's volcanoes and 90% of the world's earthquakes.



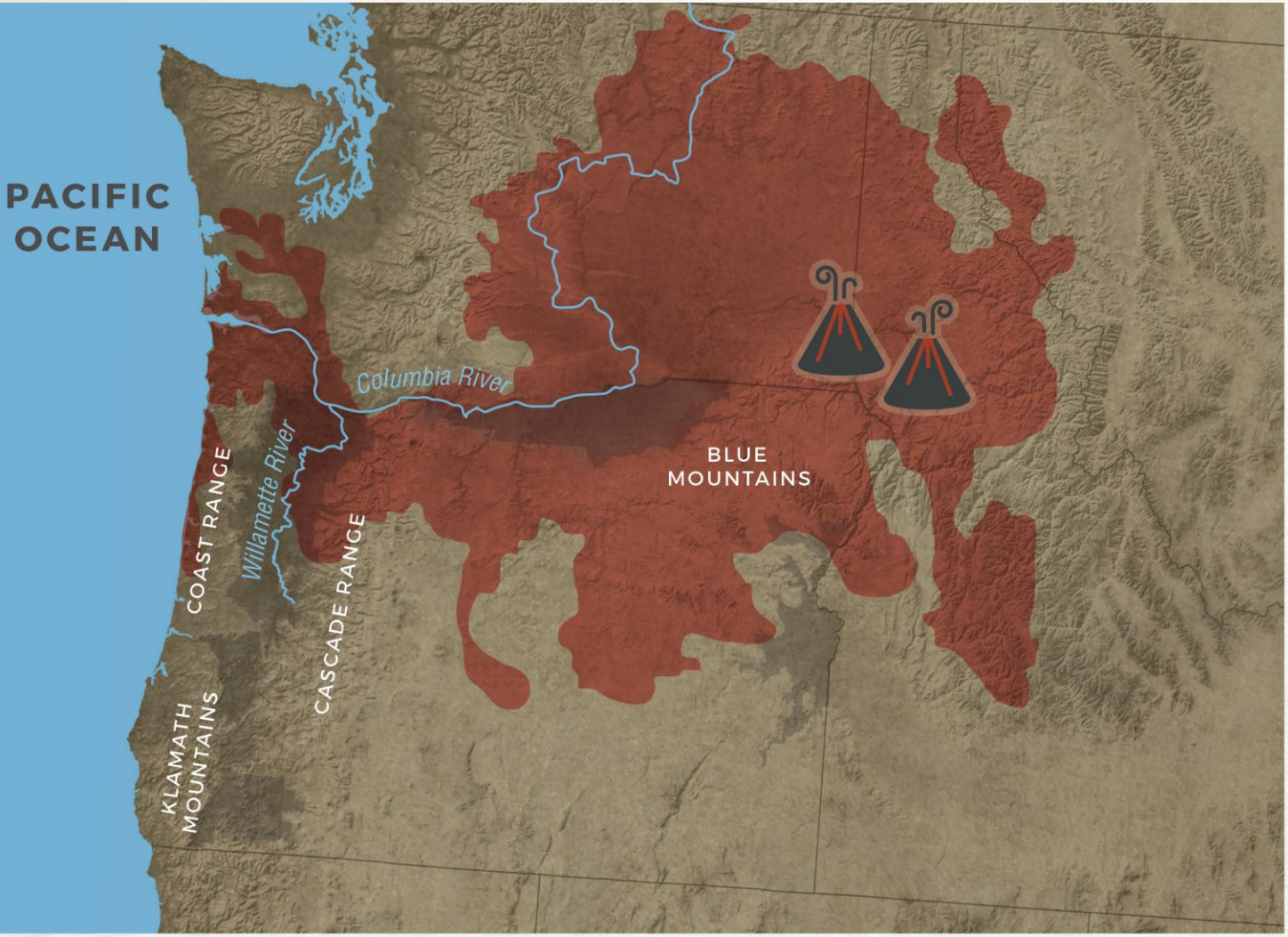
200 MILLION YEARS AGO

PACIFIC OCEAN COAST REACHES IDAHO

- The Juan de Fuca tectonic plate begins to gradually subduct under the North American tectonic plate
- Ocean islands and pieces of the ocean bottom are "stuck" onto the West Coast as accreted terrane, creating Oregon's oldest mountains and gradually adding land mass to what is now Oregon

MARINE SEDIMENTARY SOILS FORM

200 M | 175 M | 150 M | 125 M | 100 M | 75 M | 50 M | 25 M | TODAY



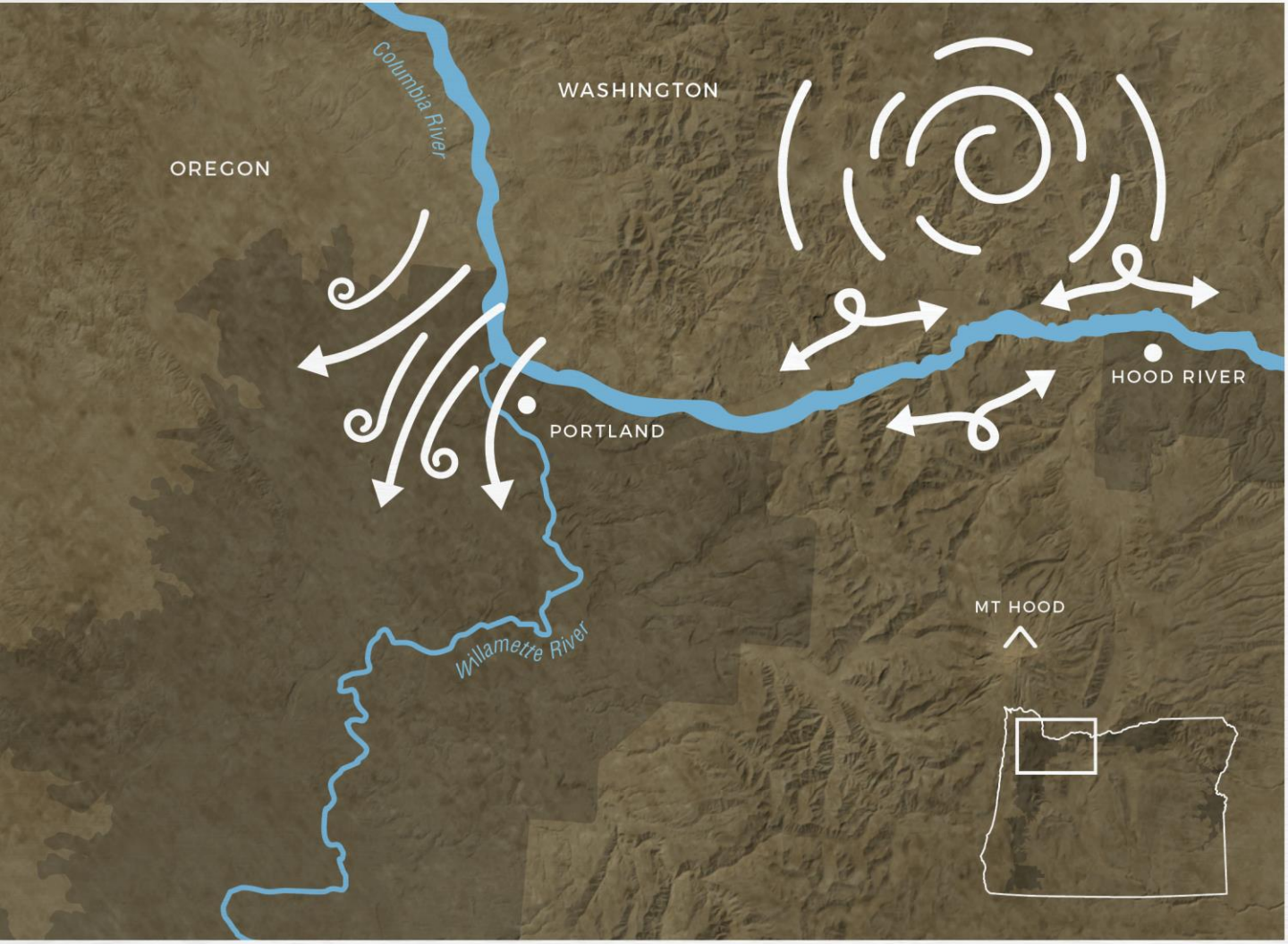
16-14 MILLION YEARS AGO

VOLCANOES CREATE COLUMBIA RIVER BASALT

- Multiple fissures create one of the largest volcanic events on earth between 17 and 6 million years ago, with 80% of activity occurring 16-14 million years ago
- Lava flows travel throughout northern Oregon
- Creates basalt bedrock in the Walla Walla Valley, Columbia Gorge and Willamette Valley winegrowing regions

CRATER LAKE NATIONAL PARK

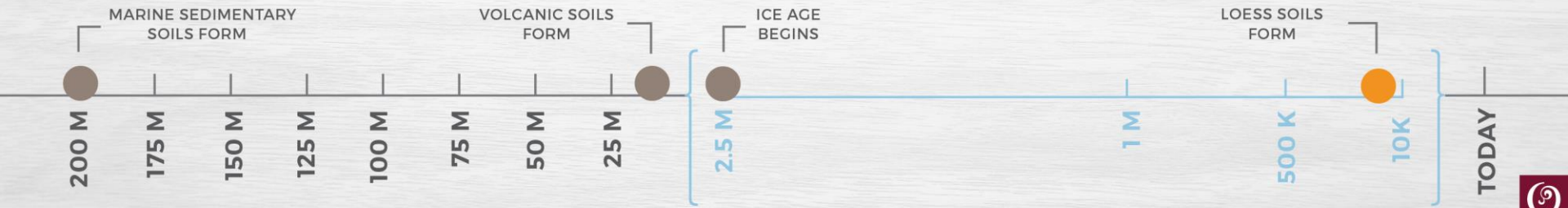
Image: Travel Oregon

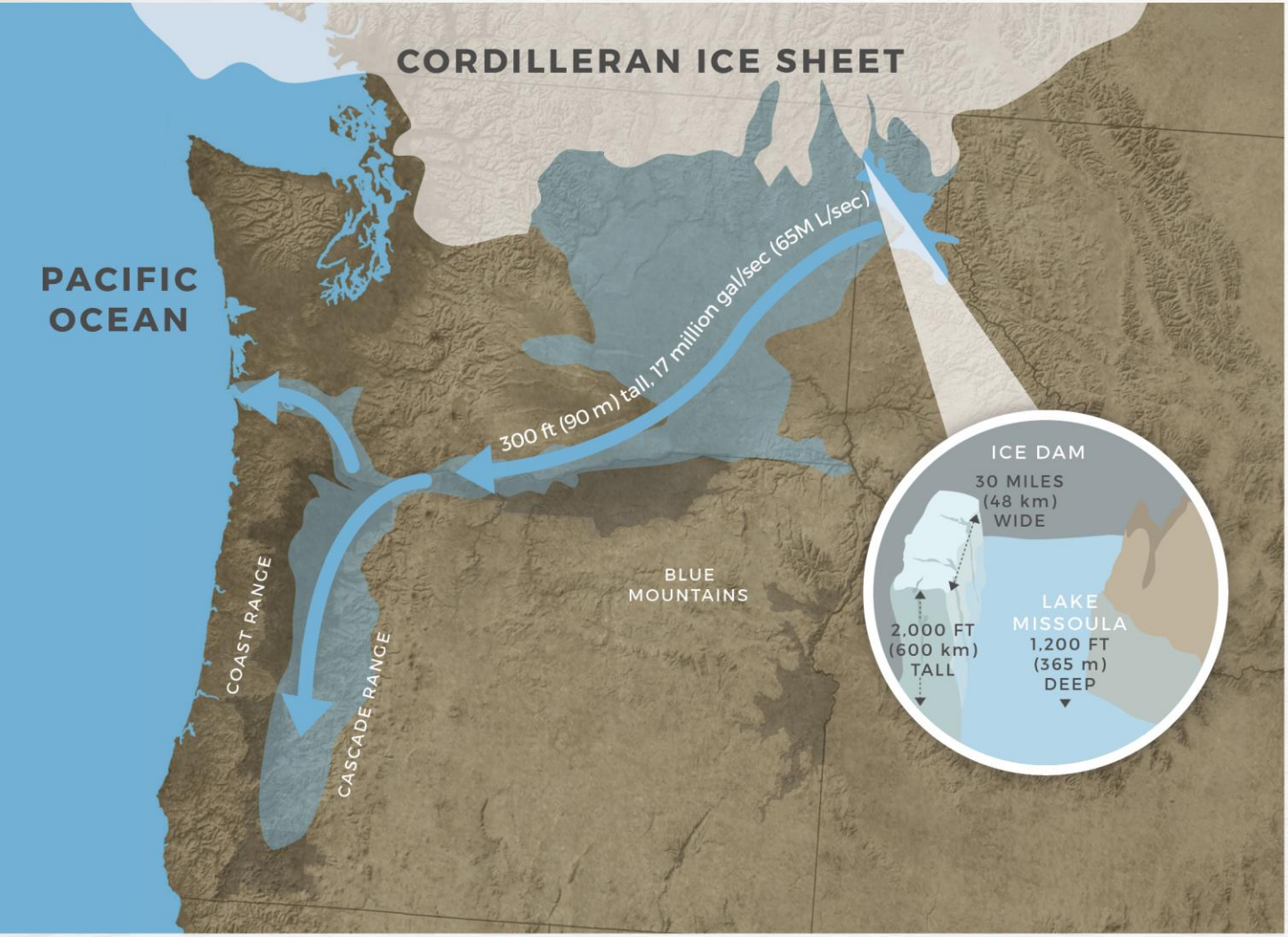


100,000-50,000 YEARS AGO

WIND BLOWS SILT FROM FLOOD PLAINS ONTO SURROUNDING SLOPES

- Ice Age creates a combination of weathered soil composed of rock ground down by glaciers
- This weathered soil, called loess, is fed into the streams and then blown onto the hillsides, especially at the northern end of the Willamette Valley



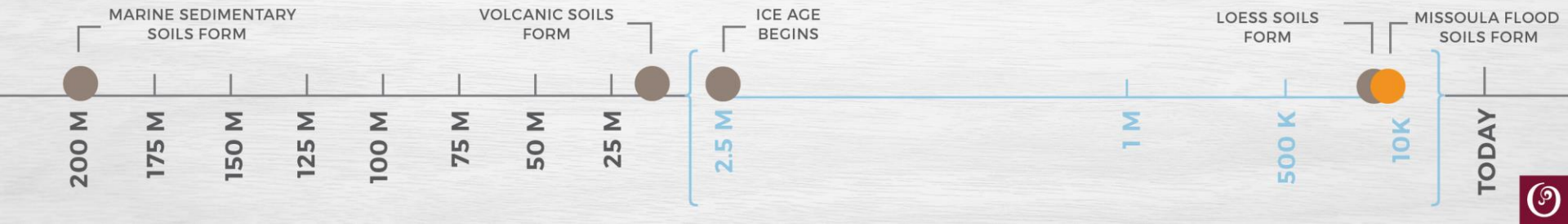


18,000-15,000 YEARS AGO

MISSOULA FLOODS

2,000 foot (600 m) high ice dam breaks 40+ times (about once every 50 years), causing a 300+ foot (90 m) wall of water that:

- Deepens and widens the Columbia Gorge
- Floods the Willamette and Columbia Valleys
- Deposits nutrient-rich loam on the Willamette Valley floor



Burlingame Canyon in Walla Walla: 32 Layers = 32 Floods

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Oregon Wine Board - 2016

Volcanic, Loess, Marine Sedimentary Soils

Image courtesy of Harry Peterson Nedry, Chehalem Winery

DUSTED VALLEY STONEY VINE VINEYARD

Image: Richard Duval Images

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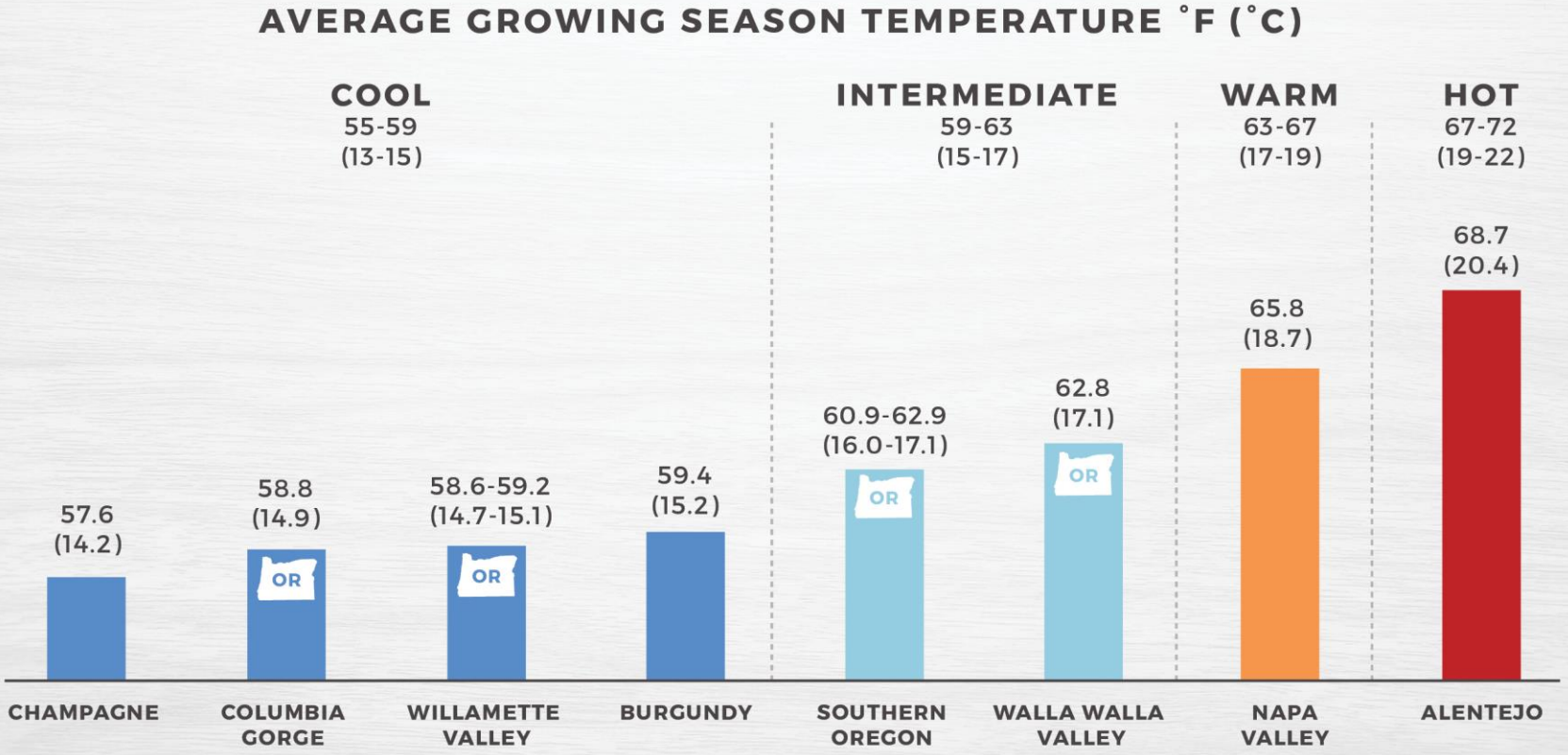
Oregon Wine Board - 2016

Deep Soil Horizons

Image courtesy of Harry Peterson-Nedry, Chehalem Winery

TEMPERATURE

Winegrowing regions can be divided into four climate types, based on growing season temperatures. Oregon's growing regions can all be classified as Cool or Intermediate.



Source: Jones, G.V., Reid, R., and Vilks, A. (2012). Climate, Grapes, and Wine: Structure and Suitability in a Variable and Changing Climate pp 109-133 in The Geography of Wine: Regions, Terrior, and Techniques, edited by P. Dougherty. Springer Press, 255 pp.

Oregon Wine Board

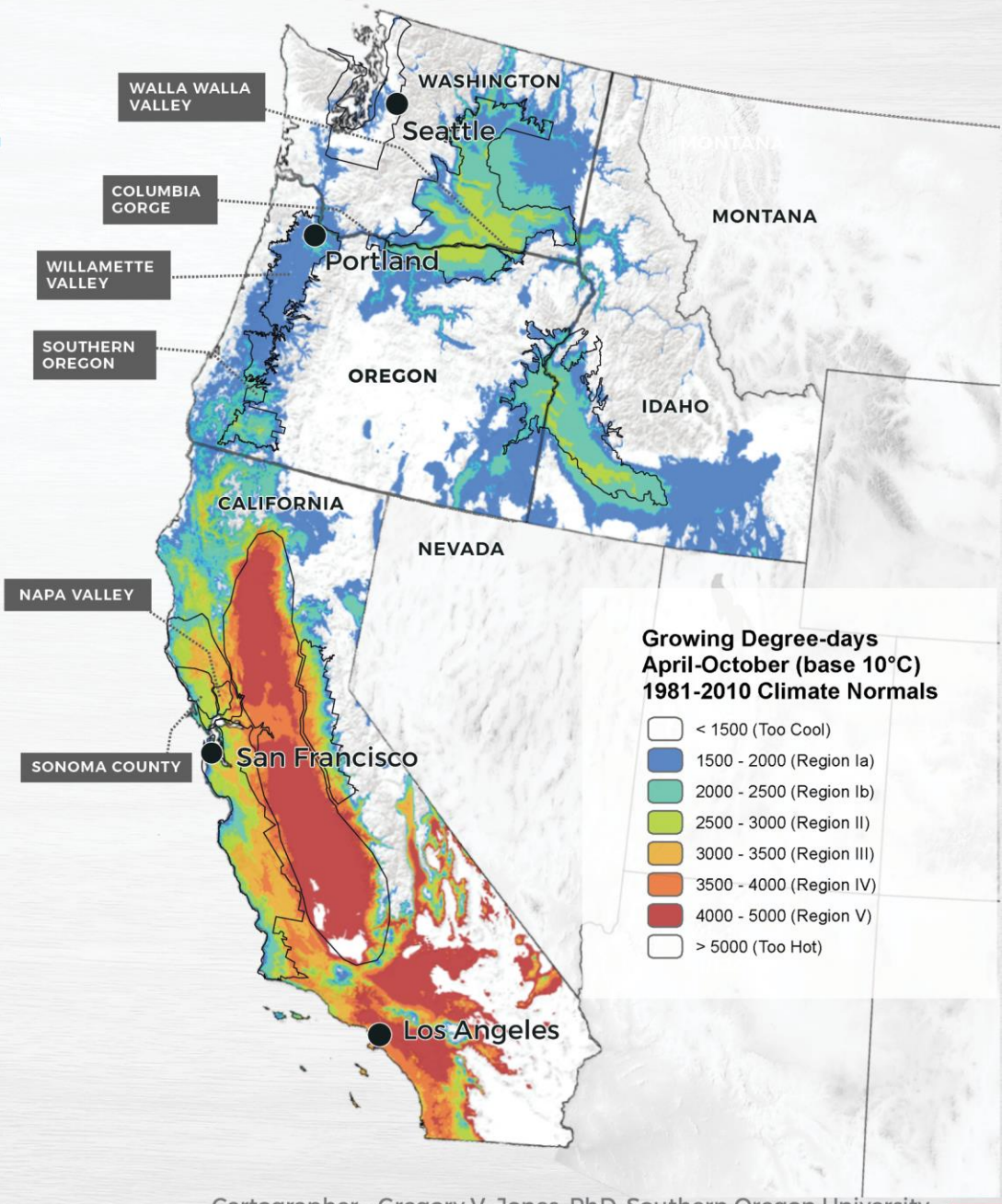
The ideal winegrowing climate allows grapes to achieve optimum sugar and acid levels naturally timed with flavor and tannin development to maximize a given style of wine and express vintage qualities.

– DR. GREG JONES

Professor of Environmental Science and Policy
at Southern Oregon University

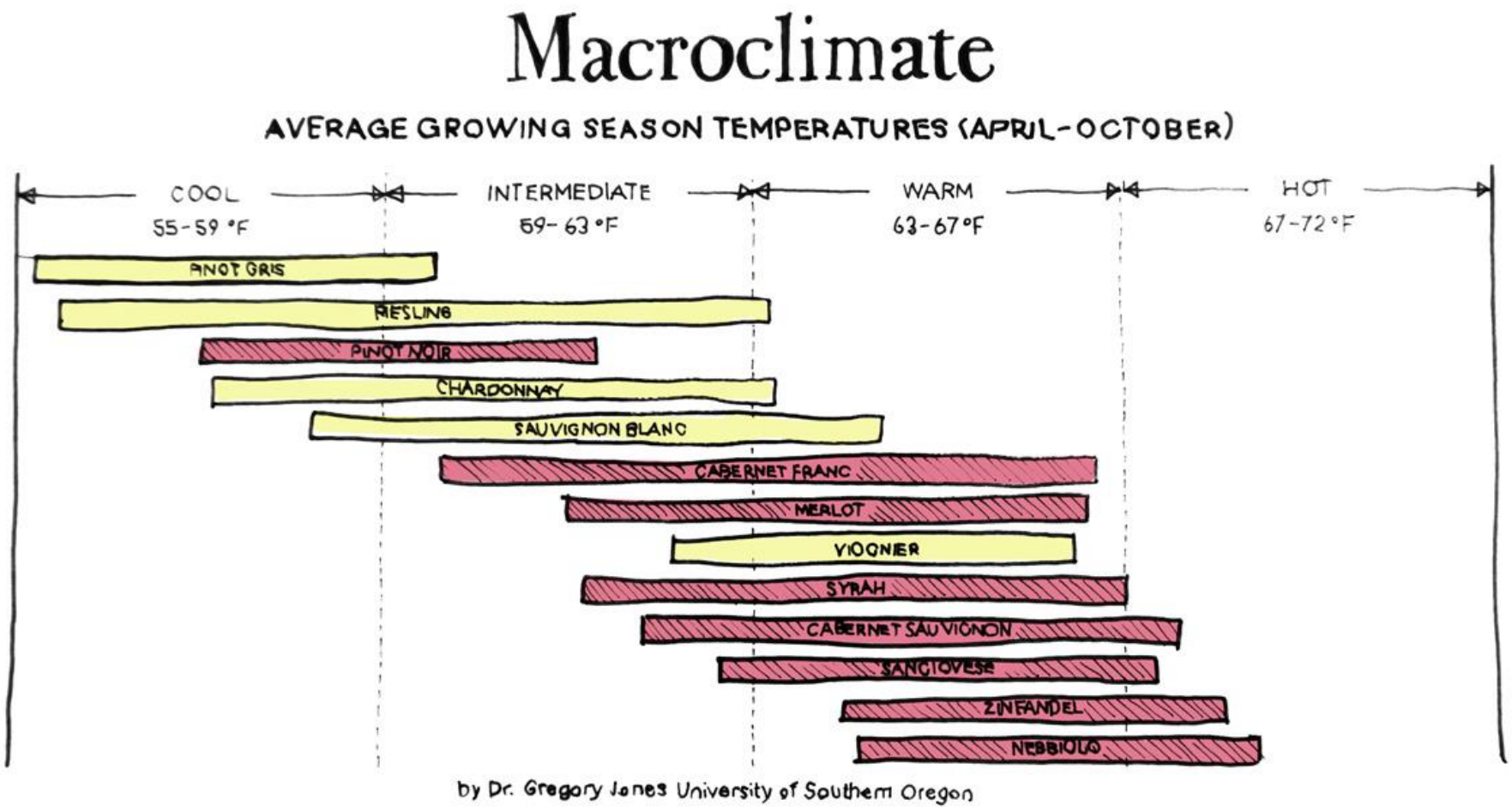
TEMPERATURE

Oregon's warm days during the growing season are tempered by significantly cooler nights — the diurnal temperature swing is often 30-40 ˚F (16.5-22 ˚C). This preserves the grapes' acidity, developing complex, balanced wines.



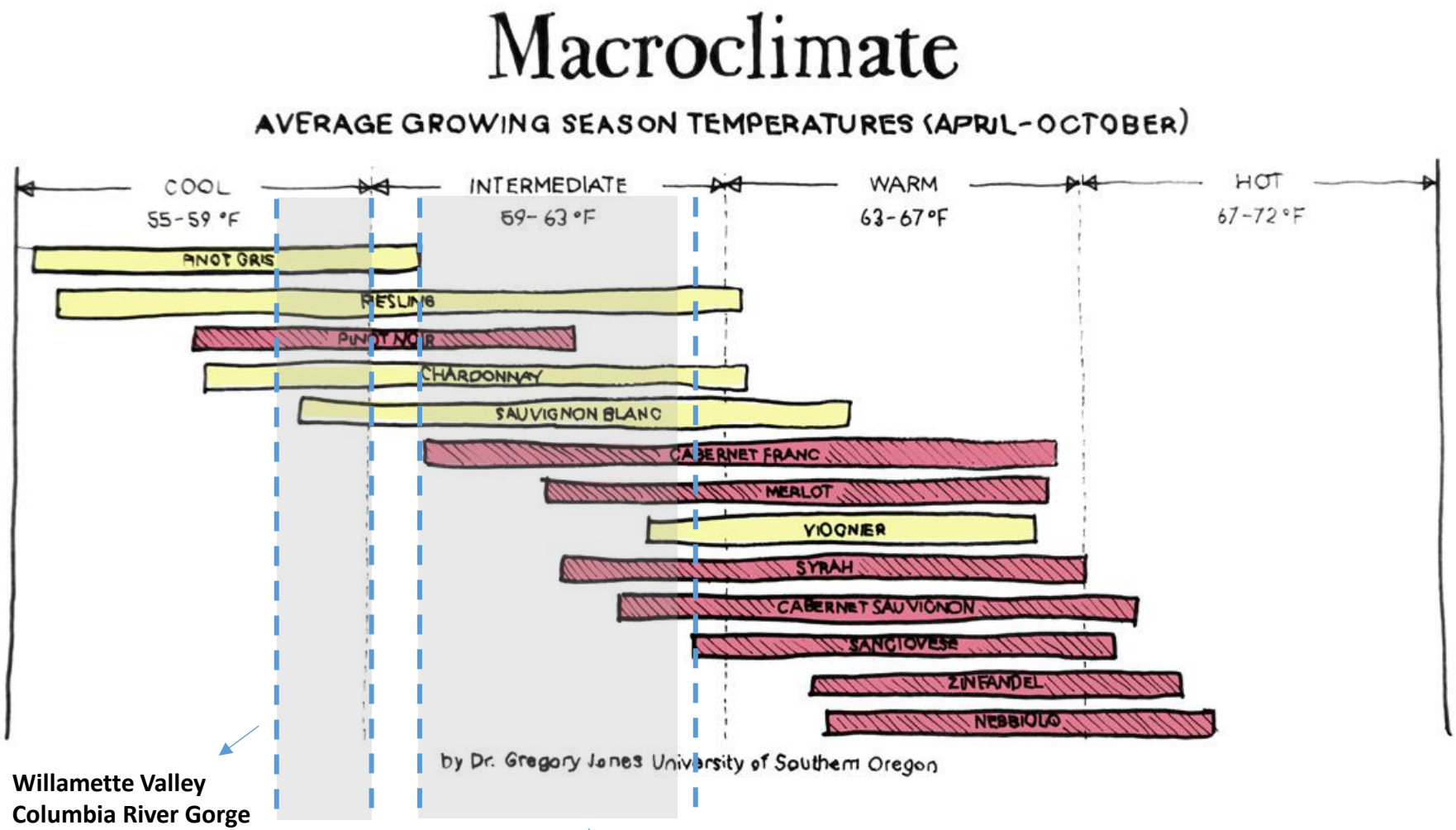
Cartographer - Gregory V. Jones, PhD. Southern Oregon University
Data - PRISM 1981-2010 Climate Normals

Macroclimate



Source: Wine Folly

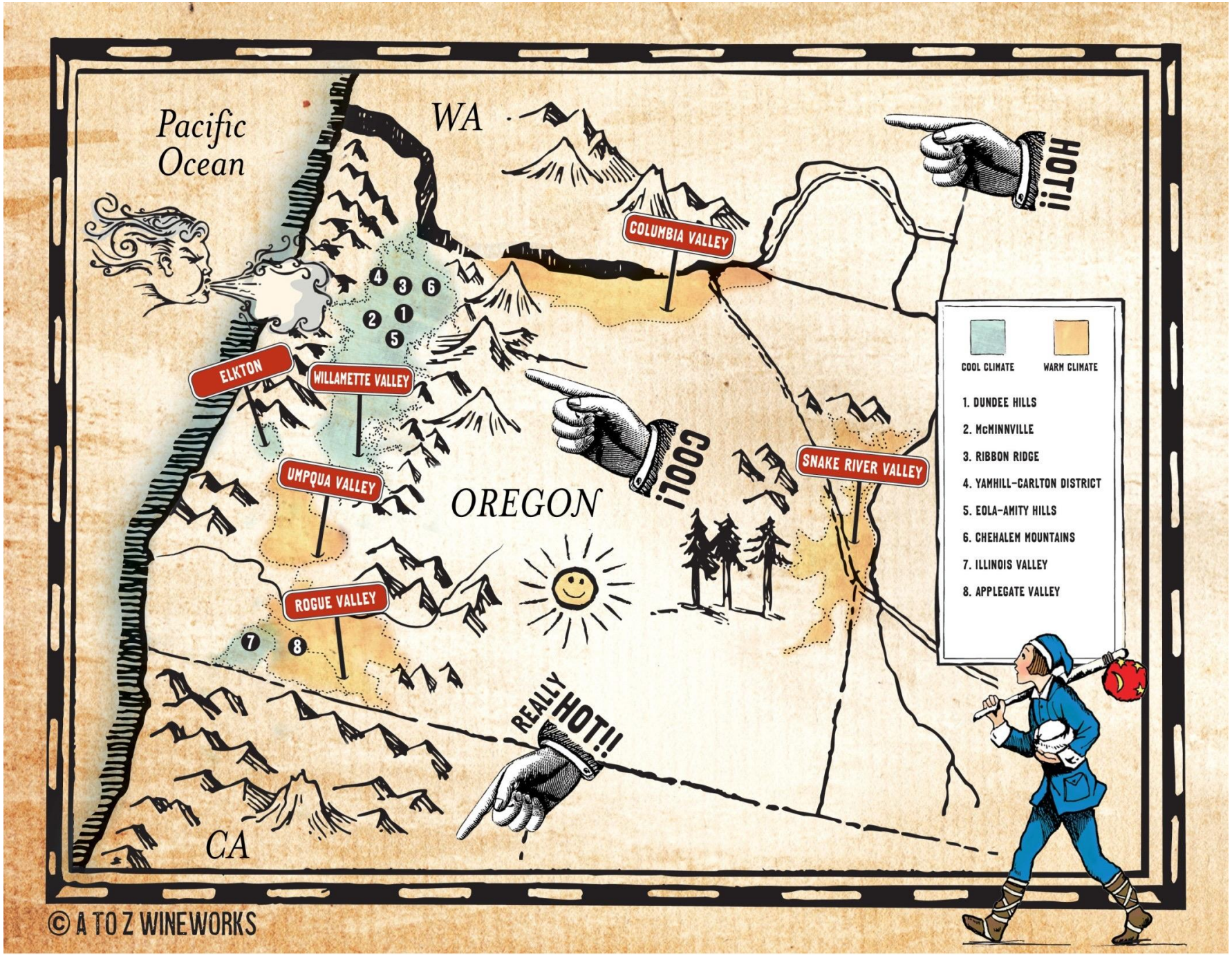
Macroclimate



Willamette Valley
Columbia River Gorge

Southern Oregon

Source: Wine Folly



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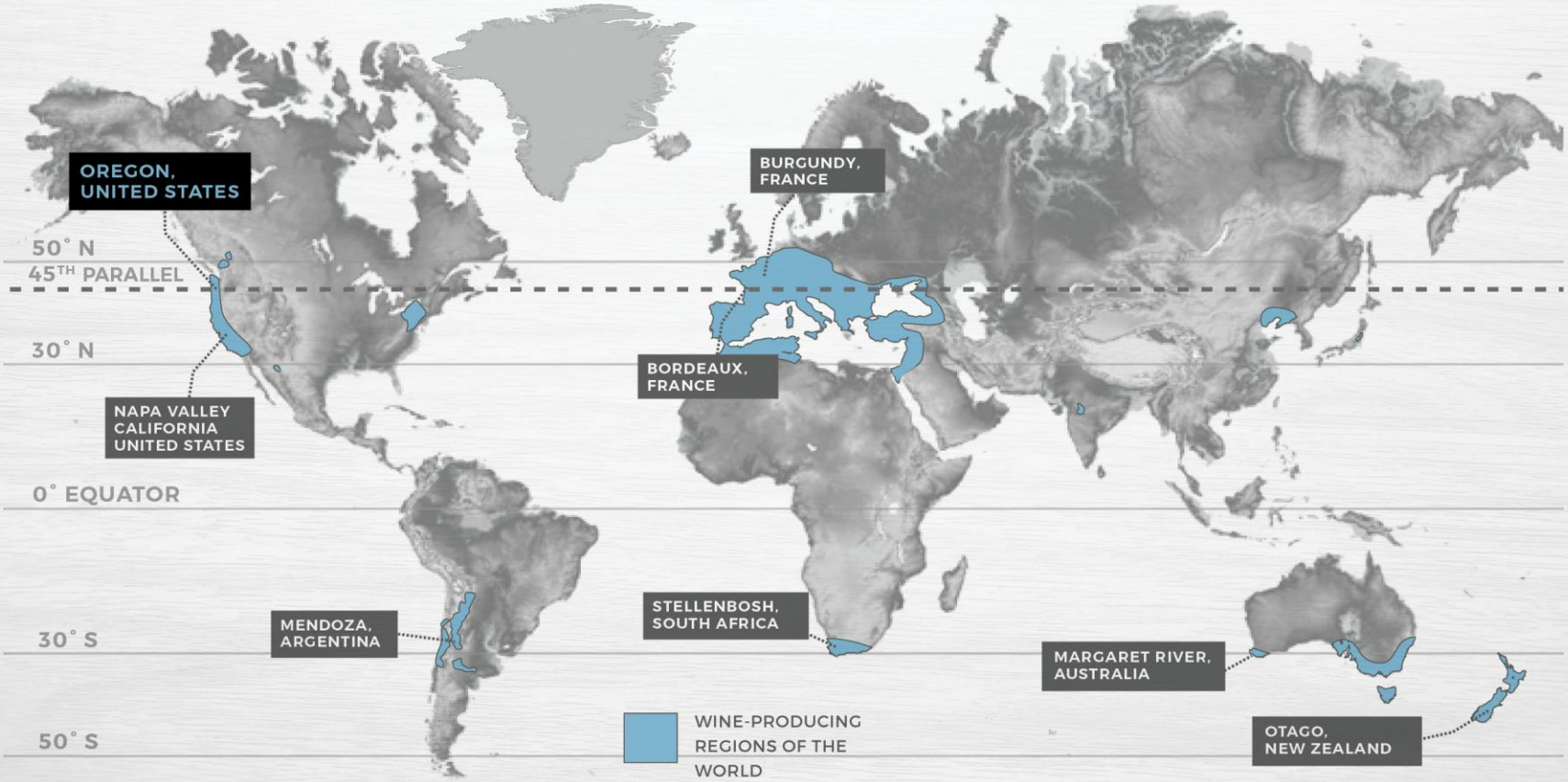
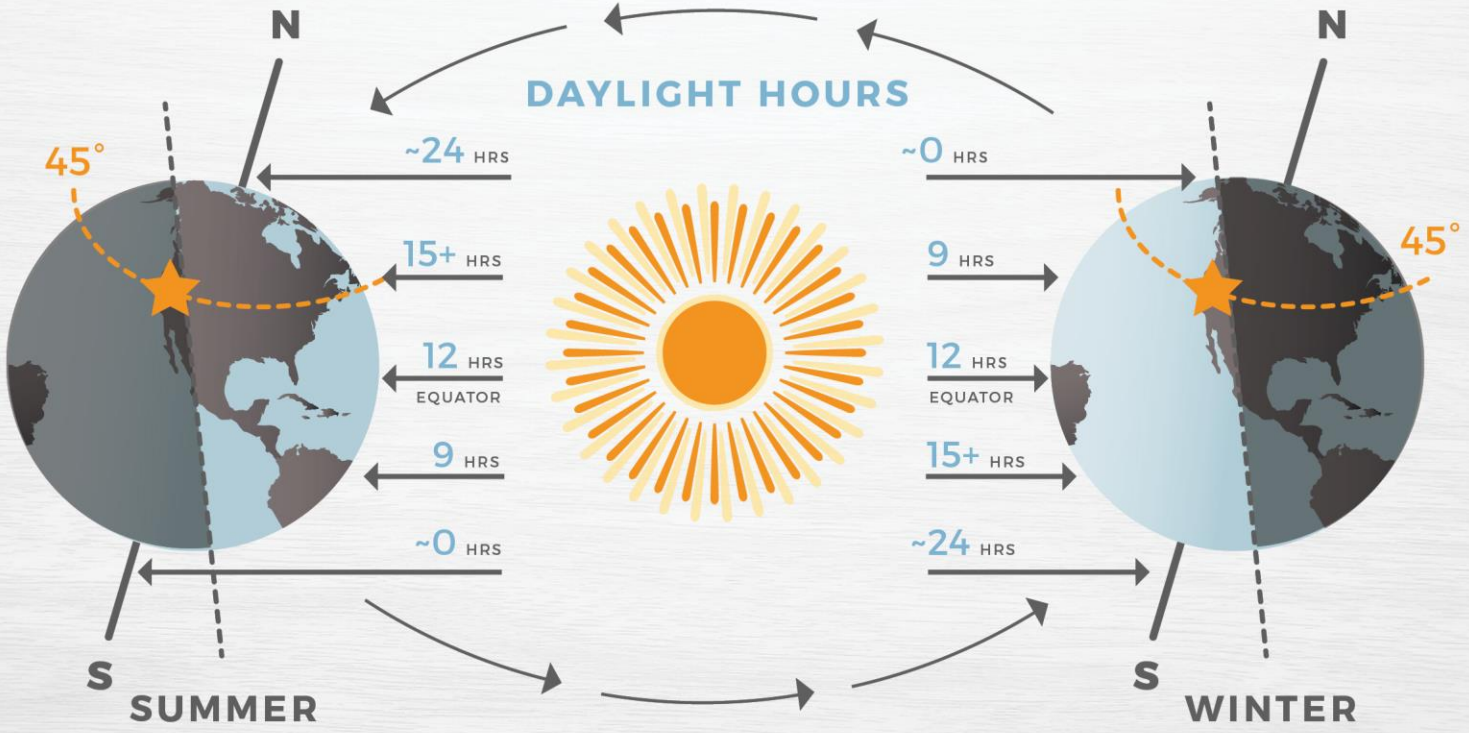
SUNSHINE

A region's latitude is the main factor in the amount of sunshine it receives during the growing season. Oregon is located within the 30-50° band of prime grapegrowing latitudes, at a northerly 42-46° N.



SUNSHINE IN OREGON

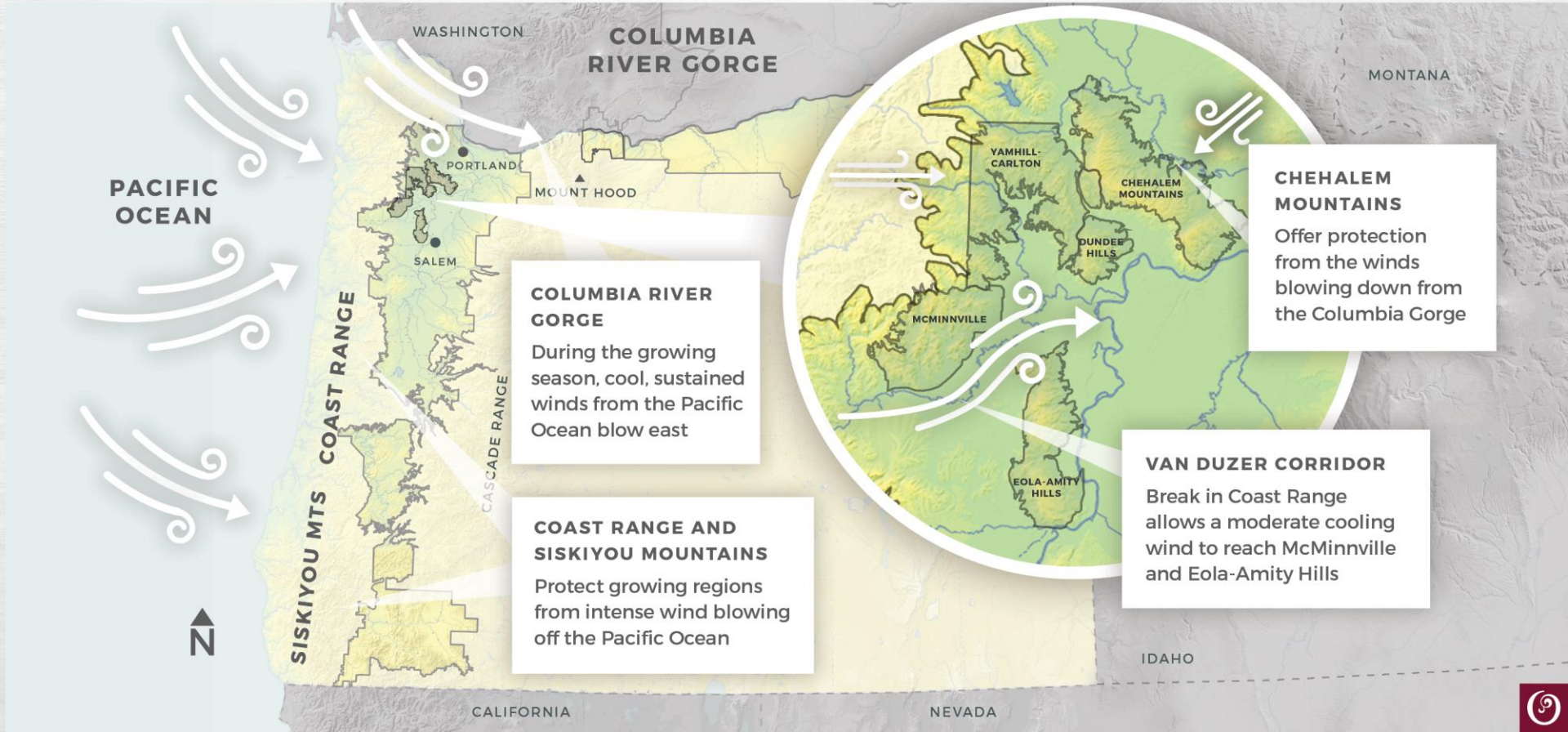
Oregon's relatively northern locale gives it long summer days with more than 15 hours of daylight. In a cooler growing region, this extended daylight is necessary to achieve full ripeness of the grapes.



Special thanks to A to Z Wineworks

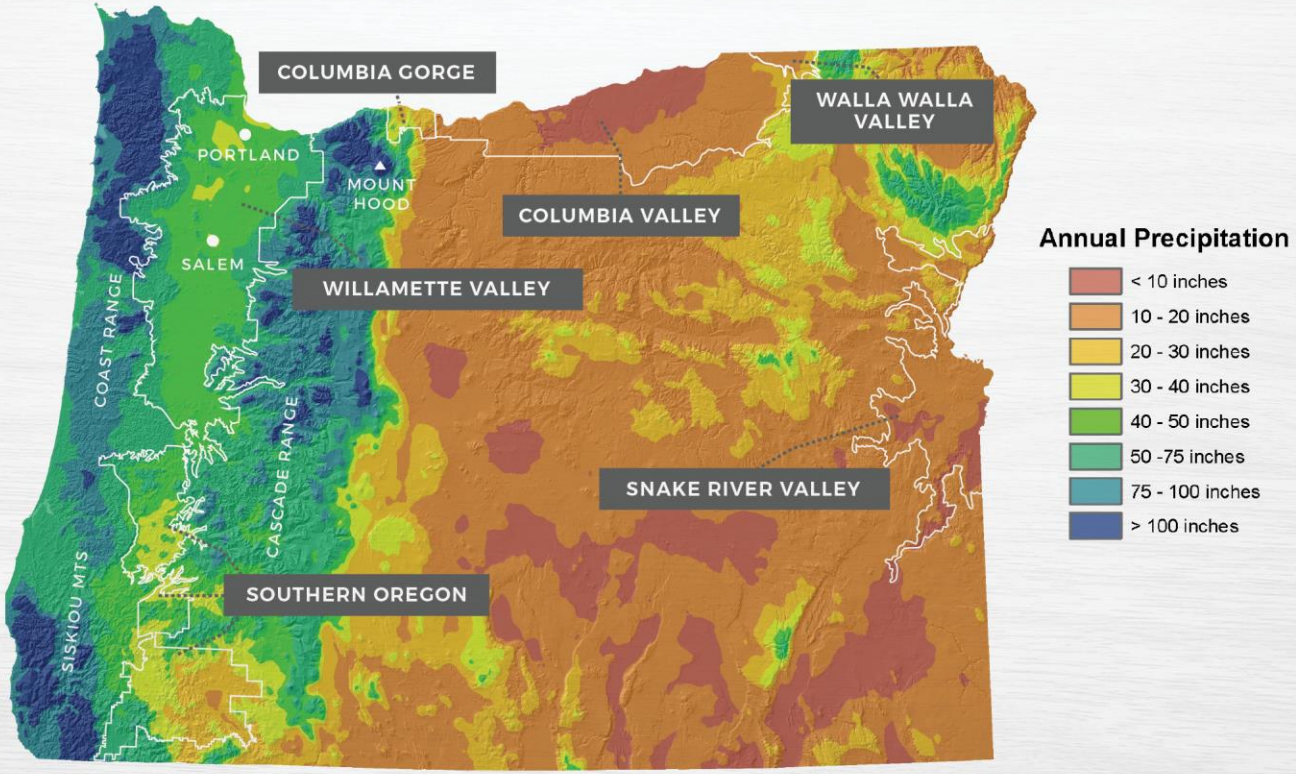
WIND IN OREGON

Oregon has two primary wind sources: the Pacific Ocean and the Columbia Gorge. Four major geological landforms influence the intensity of wind that reaches the winegrowing regions.



RAINFALL IN OREGON

Oregon has a reputation for being rainy, but even in the rainiest areas, precipitation is concentrated into the winter months – the growing seasons are typically dry. This ensures sufficient grapevine water stress during growing seasons.



Cartographer - Gregory V. Jones, PhD. Southern Oregon University
Data - PRISM 1981-2010 Climate Normals

OREGON WINEMAKERS FIERCELY PROTECT THE INTEGRITY OF THEIR LAND, THEIR WAY OF LIFE AND THEIR WINE.

In 1977, Oregon winemakers joined together to adopt stricter regulations than required federally by the TTB.

PLACE OF ORIGIN LABELING REGULATIONS

EVERY OREGON WINEGROWING REGION IS DISTINCT FROM ITS NEIGHBORS.

To preserve identity and create transparency, origin labeling is stricter in Oregon.

	FEDERAL (TTB)	OREGON
DECLARATION OF COUNTRY, STATE OR COUNTY	75% OF GRAPES MUST BE FROM PLACE NAMED	100% OF GRAPES MUST BE FROM OREGON
DECLARATION OF AMERICAN VITICULTURE AREA (AVA)	85% OF GRAPES MUST BE FROM AVA NAMED	95% OF GRAPES MUST BE FROM AVA NAMED

VARIETAL DECLARATION

OREGON SETS THE BAR HIGHER FOR QUALITY AND PURER VARIETAL EXPRESSION.

In Oregon, at least 90% of a wine must be made from the variety named on the label.

The 90% rule applies to Pinot noir, Pinot gris, Chardonnay, Pinot blanc and more than 50 other varieties grown in Oregon.

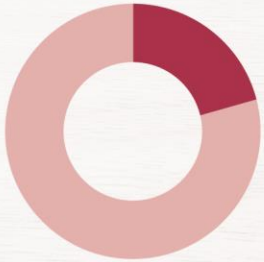
Special thanks to A to Z Wineworks

A COMMITMENT TO QUALITY

The attention and care given by Oregon's grapegrowers and winemakers from vine to bottle are reflected in their consistently high-quality wines.

1%

Oregon's share of domestic wine production



20%

Oregon's share of Wine Spectator's 90+ scores on domestic wine in 2015 and 2016

Sources: Wines and Vines, July 2016/Wine Spectator, February 2016 and 2017

OREGON'S ONGOING COMMITMENT TO SUSTAINABILITY

47%

47% of Oregon vineyards are certified sustainable, more than any other state in the U.S.

Standards of the following agencies have been adopted by many Oregon vineyards and wineries:

B Corporation
Deep Roots Coalition
Demeter Biodynamic
LIVE
Salmon-Safe
USDA Organic / Oregon Tilth

If Oregon is green, the Oregon wine industry is the glowing chartreuse of a vineyard in springtime.

– KATHERINE COLE

Voodoo Vintners: Oregon's Astonishing Biodynamic Winegrowers

A DRIVING FORCE FOR GOOD

As the Oregon wine industry grows, so does its impact on the economy and ability to give back to the community.

$ 3.35 B
Statewide economic impact

17.1 K
Wine-related jobs in Oregon

$ 11 M
Charitable donations made by Oregon wine businesses

$ 208 M
Wine-related tourism revenue

$ 527 M
Wages related to Oregon wine jobs

Source: The Economic Impact of Wine and Wine Grape Industries on the Oregon Economy, Full Glass Research, January 2015

ZIEGLER VINEYARDS

Image: Columbia Gorge Winegrowers Association, David Lloyd

Oregon's modern winemaking era recently passed the half century mark, and it's really just in the past two decades that its industry growth has accelerated... Oregon's grape growers and vintners have accomplished near miracles in a very short time.

– PAUL GREGUTT
Wine Enthusiast

January 2016

What's Next?

- Biodynamic Farming expands
- Climate Change pushes development of new rootstocks, pruning and trellising techniques
- Mechanization for hillside farming progresses
- Better designation and ranking of sites, AVAs

Jacob-Hart Estate Vineyard

Chehalem Mountains AVA

Pinot Noir clones: Pommard, Wadensville, 115, 667, 777, Mariafeld

Chardonnay clones: 76, 95, 96, 548, Wente, Mt Eden

Elevation: 300-430'

Soils: Basalt & Sedimentary base, 13 strata

Aspect: South, South East, South west, West, North

Plant density:1089 vines per acre

First planted: 1989, replanted 2001, 2007, 2012, 2013

Certification: LIVE, Organic and Biodynamic