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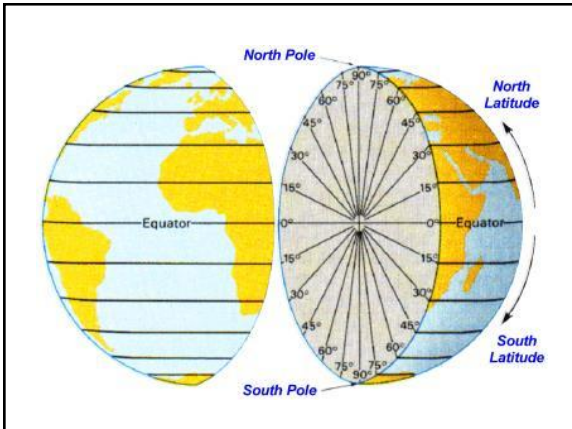
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Latitude

The geographic coordinate that specifies north/south position

The angular distance of a place north or south of the equator

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Higher Latitudes		Lower Latitudes
Closer to the poles		Closer to the equator
Cooler climates		Warmer climates
Cooler summer nights		Hot summer nights
Longer summer days		Longer winter days
Frost/freeze risks		Messes with winter dormancy
Includes the temperate zones		Includes the tropics

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Vinifera loves...

30°-50°

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Elevation

Vertical distance above sea level

High elevation vineyard is an undefined term

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Altitude

The vertical distance between an object and the Earth's surface



VS

Elevation

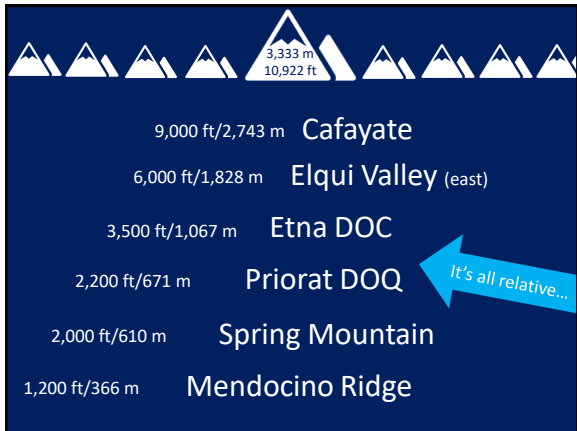
The vertical distance between an object and the standard mean sea level



**YOUR
DICTIONARY**

Graphic via: <https://www.yourdictionary.com/>

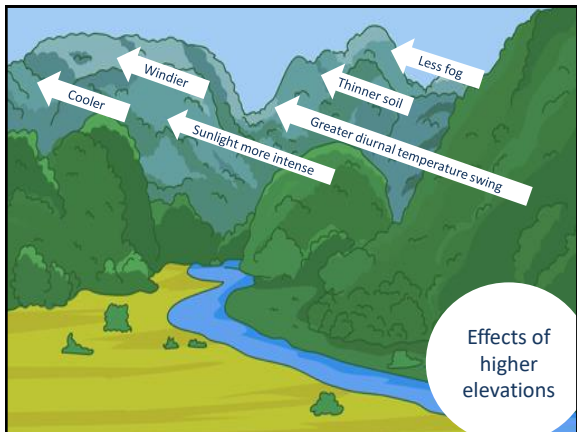
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Aspect

The compass direction that a slope faces

Slopes that face the equator intercept the most sun

In the Northern Hemisphere, a south-facing slope gets the most sun

In the Southern Hemisphere, a north-facing slope gets the most sun

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The Santa Monica Mountains of California (Northern Hemisphere)

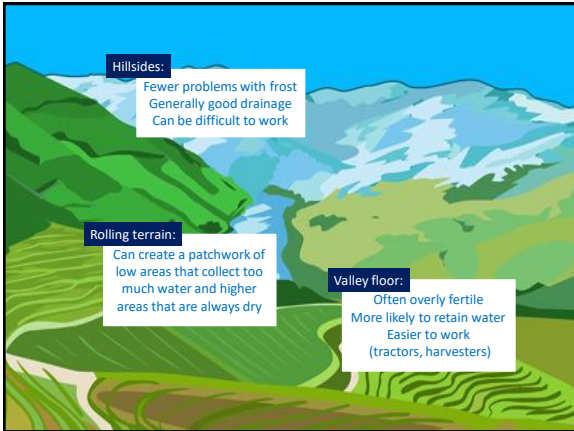


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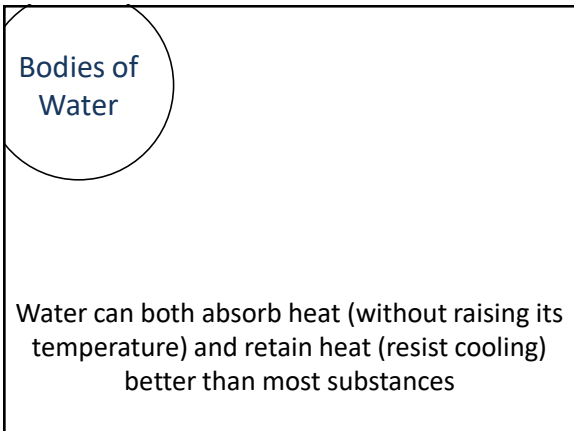
Topography

The shape, height, and depth of the physical features of a region

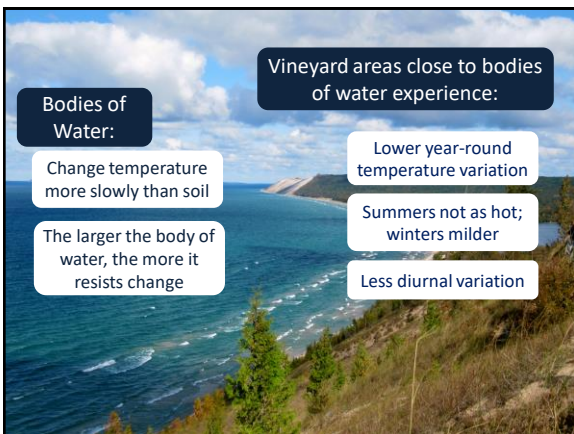
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Rías...



Benches...



Slopes...



and Scarps



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Rías, Benches, Slopes, and Scarps

Which is:

An area with a sudden change in elevation?

Referred to as a "côte"?

An estuary?

An area with a gentle incline?

A body of water where a river flows into the sea?

A strip of level ground land bounded by steeper slopes above and below it?

The face of a cliff ?

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Rías

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Rías

A ría is a type of estuary

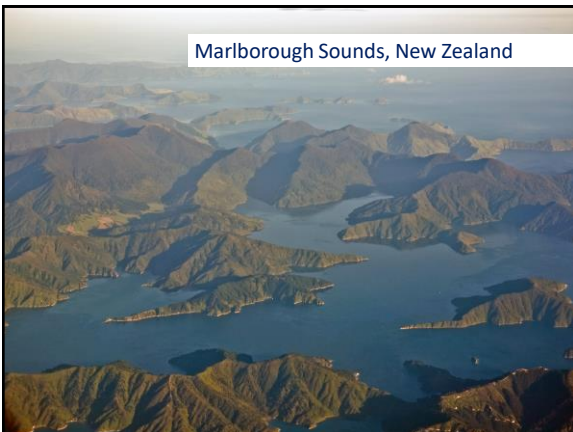
An estuary is a partially enclosed body of water located where a river or stream flows into the sea

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The Georges River in Sydney, Australia

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Marlborough Sounds, New Zealand

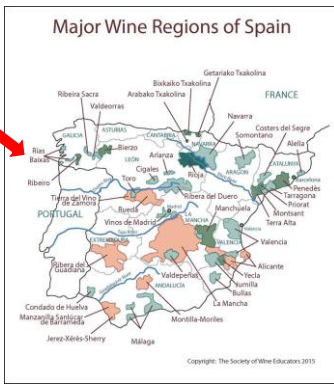
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Vigo (Rías Baixas, Spain)



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Major Wine Regions of Spain

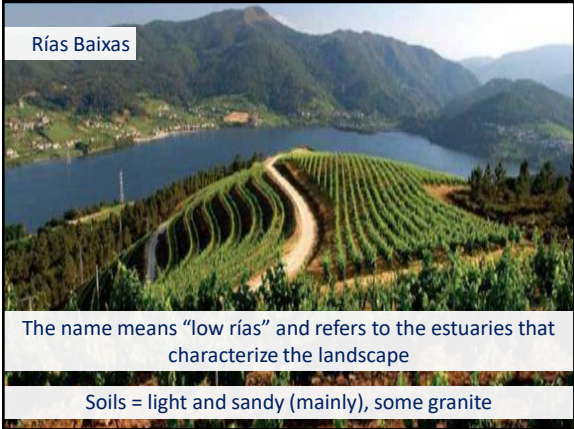


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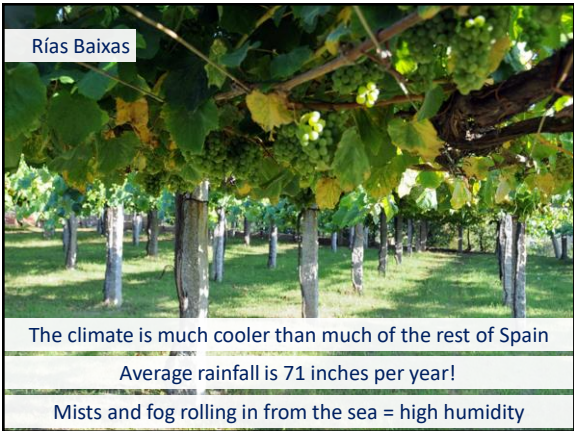


Map via: <http://www.demaisonselections.com/galicia.html>

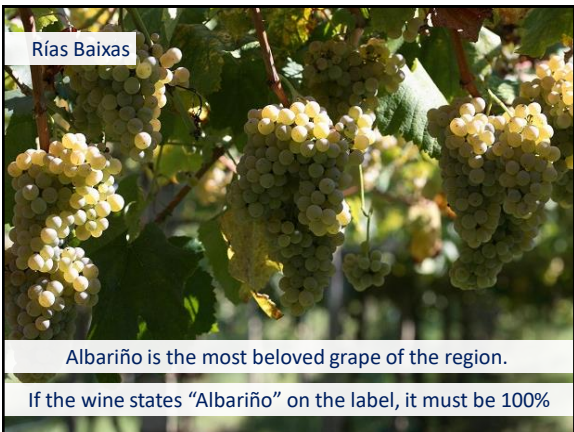
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Scarps

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Scarps

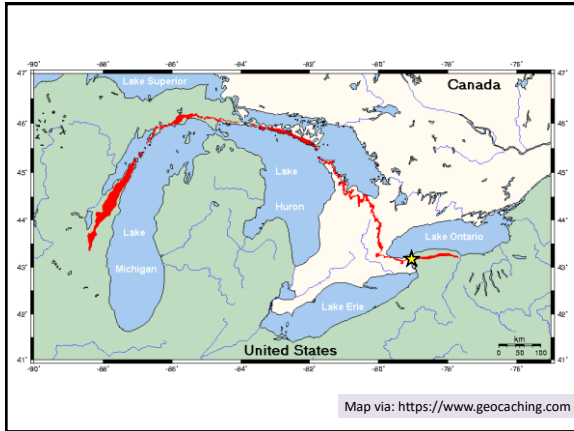
A *scarp* is the cliff-face of an escarpment

An *escarpment* is an area of the earth where the elevation changes suddenly

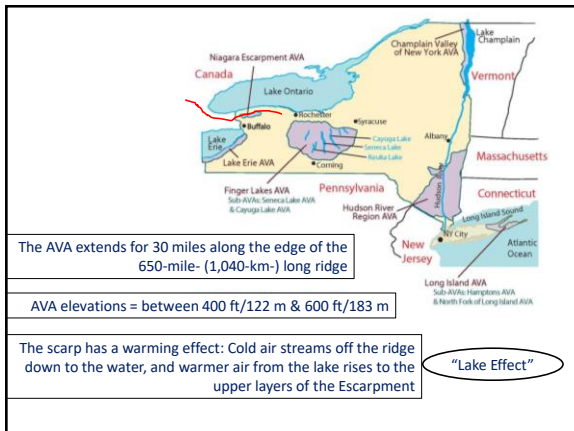
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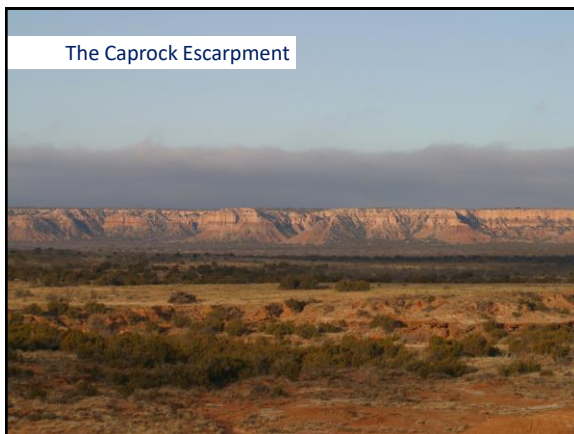
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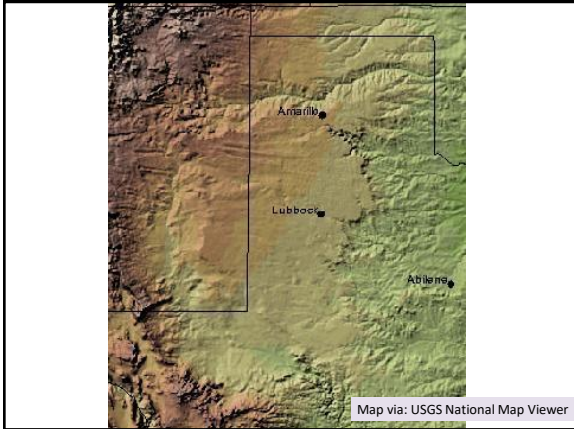
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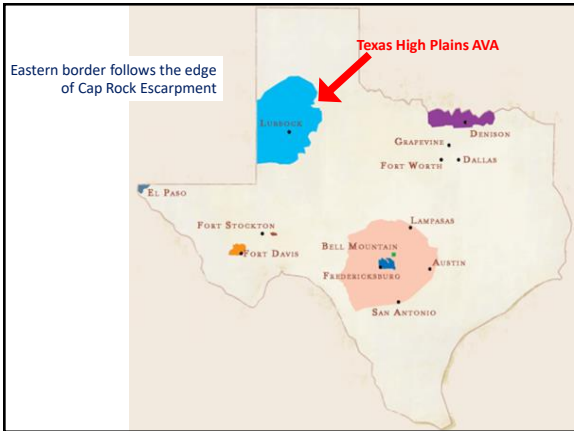
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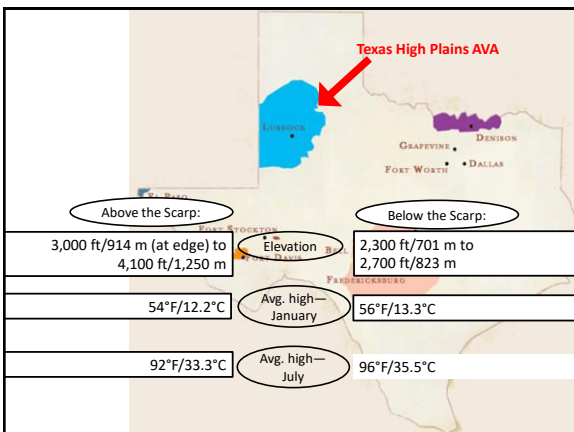
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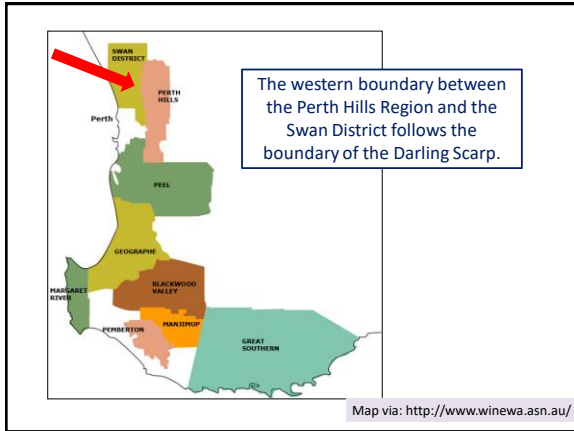
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Swan District: Below the Scarp:		Perth Hills Atop the Scarp:
Sea level to 150 ft/46 m	Elevation	1,000 ft/305 m to 1,400 ft/427 m
Warm-to-hot Mediterranean	Climate	Warm days/cold nights
76°F/24.4°C	Avg. January Temp	73°F/22.8°C
Coast: Sand/limestone Valleys: Red loam/alluvial Hills: Sand over clay	Soil	Gravelly loam
	Harvest Dates	10 days to 2 weeks later than the Swan District!

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Slopes

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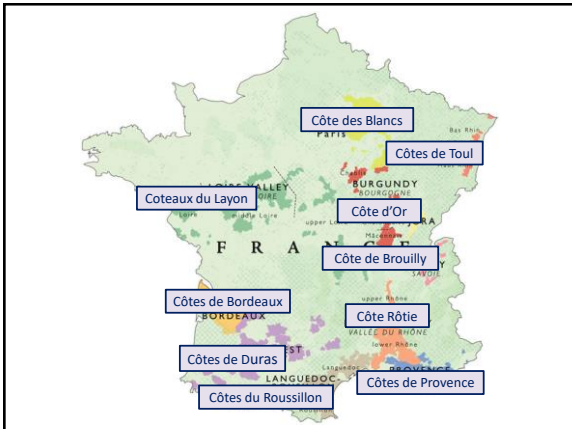
Slopes

An inclined piece of ground

In geography, the term is often used to refer to foothills

The French say *Côte*

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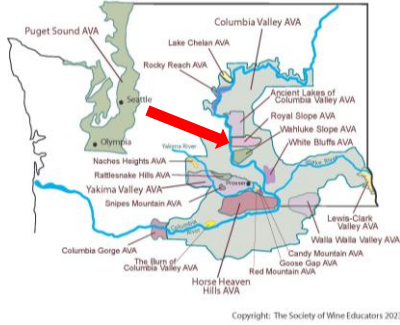


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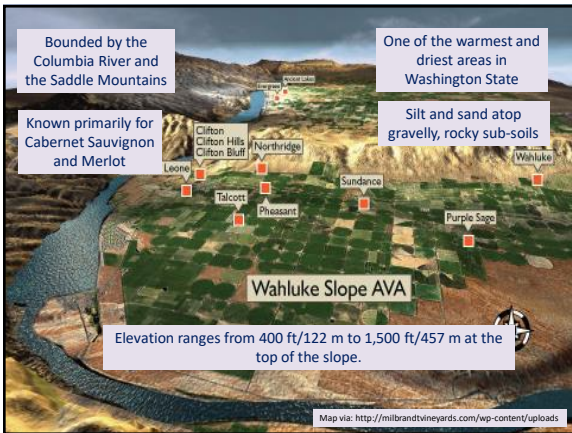
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AVAs of Washington State



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Map via: <http://mlibrandvineyards.com/wp-content/uploads>

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Benches

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And an erosion landform.



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A bench is a long, narrow strip of relatively level land bounded by distinctly steeper slopes above and below it

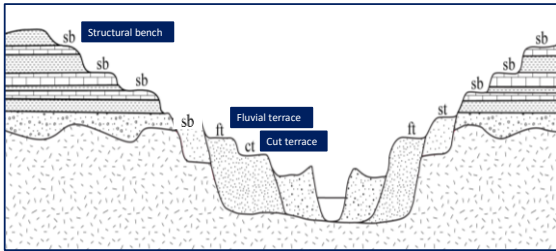
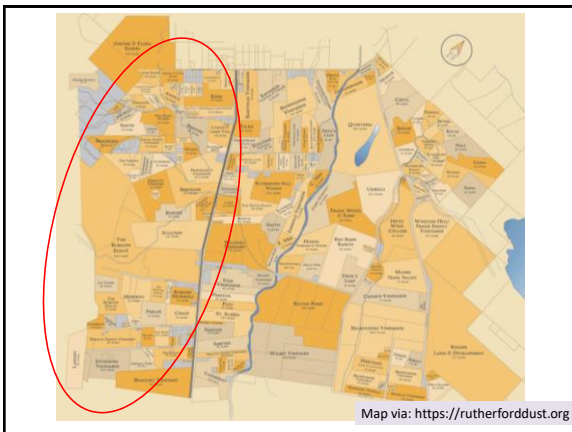


Image by Cristellaria, via Wikimedia Commons

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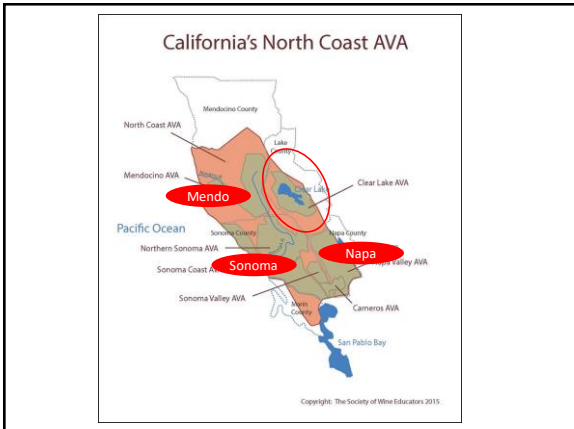


Map via: <https://rutherforddust.org>

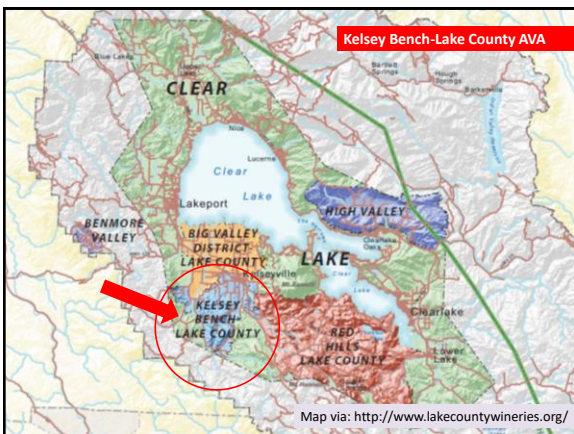
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Kelsey Bench–Lake County AVA
 Short Hills Bench–VQA Ontario
 Twenty-Mile Bench–VQA Ontario
 St. David's Bench–VQA Ontario
 Beamsville Bench–QA Ontario
 Golden Mile Bench–VQA BC
 Naramata Bench–VQA BC
 Skaha Bench–VQA BC

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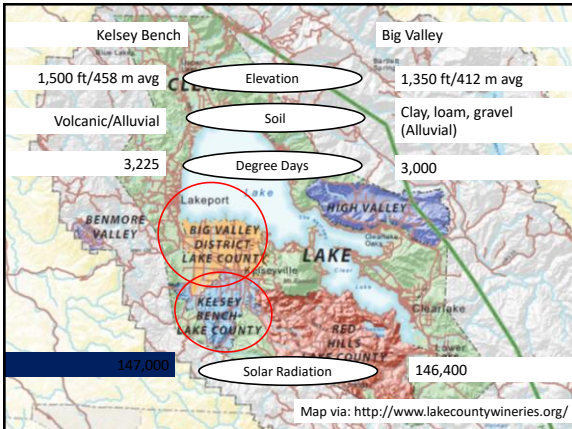
The Kelsey Bench AVA area is based on a pyroclastic lava flow.

Elevation: 1,450 ft/442 m to 1,600 ft/488 m



It is a transitional “bench” between the alluvial flood plain below and the surrounding volcanic mountains.

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Rías... **Benches...**



Slopes... **and Scarps**



Thank you for joining us!

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References/for further information

- Discover Rias Baixas Wines: <http://www.riasbaixaswines.com/>
- High Plains Winegrowers: <http://highplainswinegrowers.org/>
- Lake County Winegrape Commission:
<http://www.lakecountywinegrape.org>
- National Geographic "Teaching Resources" Website:
<http://education.nationalgeographic.com/education/teaching-resources>
- New York Wines:
<http://www.newyorkwines.org/Regions/NiagaraEscarpment>
- Robinson, Jancis and Hugh Johnson. *The World Atlas of Wine 7th edition*. Mitchell Beazley, London: 2013
- Society of Wine Educators, *Certified Specialist of Wine Study Guide, 2017*
- Washington State Wine Commission: <http://www.washingtonwine.org/>
- Wikipedia (list of landforms):
http://en.wikipedia.org/wiki/List_of_landforms
- Wilson, James E. *Terroir: The Role of Geology, Climate, and Culture in the Making of French Wine*. University of California Press, 1999.
- Wines of Western Australia: <http://www.winewa.asn.au/>
