

An Alternative Terroir for Aromatic White Wines in the Columbia Basin

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Abstract:

Vineyards in the Columbia Basin, the largest viticultural region outside of California, are typically situated at elevations below 450 m in areas of low relief and low precipitation (< 25 cm). The selection of these sites was largely based on their relatively high average growing season temperatures and growing degree-day (GDD) values and the availability of irrigation water. Site and cultivar selection has been heavily influenced by a desire to mitigate frost and freeze damage and promote early ripening. To maximize survivability, even cool-climate cultivars with superior winter hardiness, such as Riesling and Gewurztraminer, have traditionally been planted in relatively warm sites. The most acclaimed wines from these cultivars are produced from vineyards in north-central Europe that have a very different terroir than the traditional viticultural regions of the Columbia Basin. The European sites feature long relatively cool growing seasons and low GDD values and are located on steep and often rocky south-facing slopes. These sites allow for the maximum development of flavor and aroma compounds while maintaining acidity. Sites more similar to the classic European Riesling and Gewurztraminer sites can be found in the Columbia Basin at elevations of 600 to 900 m in the foothills of the Cascade, Okanogan, and Blue Mountains. These sites are cooler, have steeper slopes, rockier soils, and are often unaffected by radiation freeze events that damage vineyards at lower elevations. The deeper and more consistent snowpacks at these sites also help to insulate the vines from winter freeze events.