

May 10 meeting at Oswego Hills Winery featured Scott Burns in a talk about “Terroir” of wine

Scott Burns is Professor Emeritus of Geology and Past-Chair of the Dept. of Geology at Portland State University where he just finished his 28th year of teaching. He was also Associate Dean of the College of Liberal Arts and Sciences at P.S.U. from 1997-1999. He has been teaching for 48 years, with past positions in Switzerland, New Zealand, Washington, Colorado and Louisiana.



Scott Burns (Dibblee)

Scott’s talk was entitled “The Dynamic Terroir of the Willamette Valley: The Relationship Between Geology, Soil, Climate and Wine”. Scott began by explaining that Terroir is a French term that is over 400 years old and was used to describe why wines of one area tasted different from wines of another area,

even though they were the same variety. It is the “taste of the place”. It is determined by the geology, soil, climate and soil biota.

One of the greatest places in the world to taste differences in terroir is the Willamette Valley (wine region of the year for the whole world for 2017 – Wine Enthusiast). The valley grows primarily cool climate grapes like pinot noir, pinot gris, chardonnay, riesling, Muller-Thurgau, and gewurtztraminer. Terroir is best expressed in cool climate grapes like the thin skinned red grape, pinot noir.

There are four main geological units, three of which are the main wine producing soils: volcanic soils (Columbia River Basalts and the Jory Soil), marine sediments (sandstones and shales and the Willakenzie Soil), volcanic soils with old silt mixed in

(Laurelwood Soil) and the lesser used Missoula Flood deposits (Woodburn Soil). The same winemaker can produce three different wines in the same year with similar clones if different soils are used.

Scott’s talk began by describing what “Terroir” is in terms of a vineyard: bedrock geology, including soil texture, structure, depth, drainage, color, age; orientation of slope and elevation; and gave examples of other things that have terroir (coffee, hops, maple syrup, cheeses). He then compared grape-growing areas around the world by growing season and maturity climate. He gave an historical overview of Oregon’s wine from 1961 through 2016, which showed nearly 85 thousand tons of grapes grown, about 60% being Pinot Noir. He provided statistics about winery production in the US, in which Oregon ranks third in the country. The number of Oregon wineries has increased nearly 15x its numbers in 1990 and ranks 4th in the nation in wine production.

Scott then discussed the 16 viticultural areas of Oregon especially as they relate to the geology of the various areas. He credited student Kat Barnard PhD for analysis of macronutrients phosphorus, potassium, calcium, magnesium, and sulfur, and micronutrients iron, cobalt, manganese, sodium, and trace elements Al, Cl, Cu, Mo, Ni, and Zn, as well as heavy metals As, Sr, Va, Cr, Se, I, Hg, Cd, and Pb.

Scott concluded his talk by providing factors that influence Terroir—including geology/soil: Willamette Valley controls vigor by old soils; Southern Oregon and Eastern Washington control vigor through irrigation; Willamette Valley—cool climate grapes (Pinots, German wines, Chardonnay)—keep off of Missoula Flood deposits; Eastern Washington and Eastern Oregon—warm climate grapes like Merlot, Cabernet, Syrah—on Missoula Flood deposits.

Scott ended by saying “Ask questions when tasting: year, clones, soil?”