

**RANDLE G. JOHNSON**  
*Consulting Winemaker, Hess Collection Winery*  
*Director of Winemaking, Bodega Colomé*

Randle Johnson, consulting winemaker, is directly involved with worldwide joint venture vineyards and brand development for The Hess Collection Winery and The Hess Collection New World Wines. As winemaker for Artezín brand wines from California and director of winemaking for Bodega Colomé in Argentina, Randle gets to experience two crushes every year, keeping him a very busy man.

Randle started as winemaker for The Hess Collection in 1983, when Donald Hess began to set aside a portion of the grapes from the Hess Vineyards for his own premium wine label. In the ensuing years, Randle has continued to hone and refine his winemaking style, working with the powerful fruit produced by the estate vineyards to create elegant wines of great complexity, depth and structure.

A native Californian, Randle attended the University of California at Davis, graduating with a M.S. in Viticulture in 1974. As a viticulturist for the original Souverain Winery in Rutherford, California, he gained first-hand knowledge of grape characteristics produced by the differing micro-climates found in the Napa Valley. Later, under the guidance of Souverain winemaker Phil Baxter, he learned the practical aspects of winemaking from the floor up, as assistant winemaker.

In 1977, an opportunity came along that he could not resist. Randle became the vineyard manager and cellar master for Mayacamas Vineyards, located 2,500 feet up on Mount Veeder in the western hills of Napa Valley. This experience fostered an intense interest in the unique attributes of mountain grapes. At Mayacamas, he experimented with different Mount Veeder vineyards, making several distinctive experimental wines.

After two years as winemaker at Stags' Leap Winery, Randle returned to Mount Veeder in 1983, joining the emerging winery of Donald Hess to produce exceptional wines from the mountain grapes of Mt. Veeder. In 1996, that vision went global with the establishment of an import company, The Hess Collection New World Wines. Randle currently concentrates his efforts on Artezín wines, Bodega Colomé, and specialized winemaking projects.

## **Summary**

High altitude grape growing and winemaking is certainly challenging. The sites themselves usually present several logistical issues. They are usually more remote than lower sites, and usually involve rugged or steep terrain. Infrastructure such as roads, electricity and water usually need to be installed in varying degrees.

Viticultural aspects are also more challenging. Soils are generally less fertile and rocks of varying sizes and quantities are usually involved. However, rocks and thin soils do not necessarily mean low vigor. Vines can grow in low fertility conditions and, if rocks will allow roots to penetrate, they will drive down to great depths. Some sites do have impermeable layers.

High altitude vineyards also provide a full spectrum of aspects and exposures. Wind is almost always present, and combined with exposure can determine row direction and trellis type. Solar radiation and UV light are more intense and are important factors, thus affecting canopy

management. High altitude vineyards generally have more extreme climates. Precipitation is generally higher than lower altitudes, but not always. Temperatures are usually cooler at night and thermal amplitudes are generally lower. Daytime high temps are highly variable and degree day accumulation is important for each variety to ensure not only "ripeness" but maturity of skins and seeds. Choice of rootstocks is also very important in determining vigor and maturation in high altitude vineyards.

To summarize the viticultural aspects of high elevation vineyards, a couple of key concepts apply. The first is amplification. High altitude usually amplifies some conditions, not necessarily all, depending on the site. For example, some sites have high rainfall, others are very windy, others have extreme temperatures. Elevation also amplifies mineral nutrition issues, solar radiation and rootstock effects. The second key concept is non-uniformity, or heterogeneity. High altitude sites rarely have uniform soil types, exposures or weather conditions. This results in vineyards that are heterogeneous, with varying maturation rates and this results in smaller blocks, smaller harvest units and multiple harvests in the same block.

Winemaking from high altitude vineyards is not quite as challenging as grape growing, but there are things that require vigilance. Checking maturation levels and harvesting uniform fruit is important. Grape tannins generally tend to be high in red varieties grown at altitude which can result in astringent wines, so it is incumbent on the winemaker to achieve tannin maturity at these sites. Generally, musts are lower in nitrogen from high elevation vineyards and yeast nutrition is very important. High elevation sites tend to produce high sugars while waiting for tannin maturity. Thus, fermentations can be longer and resulting alcohols will be higher, so keeping the yeasts fermenting to completion can be challenging. Tannin management during fermentation is also a concern of the winemaker, as well as pre and post fermentation macerations. Phenolic extraction is key, but should not be overdone.

Lastly, the marketplace. Will the marketplace and key gatekeepers accept and appreciate the challenges of high altitude winegrowing? Will the marketplace pay extra for these potentially more complex wines?