

F.Y.I:

Five New PD-Resistant Winegrape Varieties Chosen for Release

Certified Commercial Nurseries Have First Access to Propagate

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University of California, Davis (UCD) Department of Viticulture and Enology professor and geneticist Dr. Andy Walker announced that five new Pierce's Disease (PD)-resistant wine grape varieties produced under his PD resistance breeding program have been chosen as the first selections for release. These new selections will soon be available in limited quantities to certified commercial grapevine nurseries participating in the California Department of Food & Agriculture (CDFA) Grapevine Registration and Certification Program.

The five releases include three red wine grape selections and two white wine grape selections that have repeatedly shown strong resistance to PD in greenhouse and field trials, and have shown high fruit quality and high wine quality across several vintages and in wine tastings. These five releases, and planned future releases, are the results of a multi-year research and breeding project funded through the CDFA Pierce's Disease and Glassy-Winged Sharpshooter Board.

Walker provided information about the five varieties and began informing certified nurseries that dormant cuttings, and plants from green-cuttings, of these selections will be available this year from UCD Foundation Plant Services (FPS). The nurseries will have to propagate and multiply the plants they receive to provide quantities for commercial scale plantings. This process is expected to take three years, with the possibility of limited materials available for grape growers in two years, but it will be dependent upon industry demand.

Walker is traditionally-breeding winegrape varieties of *Vitis vinifera* with native American *Vitis* species that carry PD-resistance genes. **The new releases carry a PD-resistant gene from *Vitis arizonica*.** Walker uses traditional breeding methods that involve the backcrossing through several generations of vine crosses to progressively increase the *V. vinifera* parentage and characteristics to as high as 97 percent within the final resulting cross. Each generation carries resistance genes.

Wines have been produced in recent years from field trials of these cultivars and evaluated by UCD staff and wine industry representatives at several tastings. In addition to UCD campus field trials, field trials with PD-resistant cultivars are being conducted in Napa Valley, Sonoma County, and Temecula in California; and Texas and Alabama. A Florida field trial began in 2016.

Since 2013, Walker has advanced 19 PD-resistant cultivars to FPS to begin the certification and release process. These include both 94 percent and 97 percent *V. vinifera* parentage varieties. Five additional 97 percent *V. vinifera* selections will likely be released within the next two years.

An issue in producing varietal wine from a PD-resistant cultivar is what to label it and how to market it to consumers, as it will be unable to bear a commonly recognized *V. vinifera* name (such as Chardonnay, Zinfandel, etc.). Walker is working with colleagues to create a name for each variety that will be approved before the first plant material is sold by nurseries. The five varieties are also going through a patent process.

In California, Walker believes these cultivars will be planted at sites where PD pressure is high, such as North Coast riparian areas or in Southern California locations where GWSS populations exist. They could be used at levels of 25% or less in other varietal wines, or as components of non-varietal red or white blends. Walker believes PD-resistant cultivars will be highly sought and accepted for commercial use in the

Southeast US where growers are generally limited to growing currently available PD-resistant hybrids that do not have *V. vinifera* wine quality.

The five varieties (with their current breeding program index numbers) and information provided by Walker are described below.

07355-075—50 percent Petite Sirah, 25 percent Cabernet Sauvignon: This red wine grape makes wines with characteristics of both Cabernet Sauvignon and Petite Sirah. Commercial scale wines have been made from established test plots along the Napa River. This selection is early to break dormancy, bloom and ripen. It produces relatively large berries, with well-filled clusters of medium size. It has tested to be highly PD-resistant and has a 94% *V. vinifera* level. It has ranked highly at numerous tastings of both Davis and Napa grown fruit. **Tasting descriptions include: dark red-purple in color, bright red fruit, raspberry, cherry, ripe, tannic and elegant rather than dense.**

09331-047—50 percent Zinfandel, 25 percent Petite Sirah, 12.5 percent Cabernet Sauvignon: A red wine grape, highly PD-resistant with 97 percent *V. vinifera*. Commercial scale wines have been made from established field trials near the Napa River and from Temecula. Blooms relatively late but ripens mid-season. Medium-sized berries and large well-filled clusters. It is spur fruitful but typically has only one cluster per shoot and is more productive with cane pruning. **Tasting comments include: medium dark red with purple, berry pie, cassis, black olive, herbal, dried hay, coffee, vegetal like Cabernet Sauvignon, licorice, round, moderate tannins, and soft finish.**

09356-235—50 percent Sylvaner, 12.5 percent Cabernet Sauvignon, 12.5 percent Carignane, 12.5 percent Chardonnay: A red wine grape, highly PD-resistant with 97% *V. vinifera*. Mid-season bloom and ripening period. Highly productive with relatively large berries and loose clusters. **Tasting comments include: dark red purple color, complex fruit with herbs and earth, plum, big wine, dense, rich middle, tannic yet balanced. Winemakers believe it has great blending potential with Cabernet Sauvignon and has high levels of high quality tannin.**

09314-102—62.5 percent Cabernet Sauvignon, 12.5 percent Carignane, 12.5 percent Chardonnay: A white wine grape highly PD-resistant with 97% *V. vinifera*. Field tested in Temecula, Sonoma and along the Napa River. Blooms and ripens early. Highly productive with small to medium berries and relatively large clusters. **Wines are reminiscent of Sauvignon Blanc and tasting comments include: light straw to clear color, citrus, lime, tropical, gooseberry, golden delicious apple flavor, bright fruit, slightly bitter, and textured.**

09338-016—62.5 percent Cabernet Sauvignon, 12.5 percent Chardonnay, 12.5 percent Carignane: A white wine grape highly PD-resistant with 97 percent *V. vinifera*. Field trials planted only in Davis to date. It has small berries, small compact clusters and blooms relatively late but ripens mid-season. The vine has medium productivity. Wines made from Davis-grown fruit have rated well and **tasting comments include: light straw-gold color, floral aromas, apple-melon, lychee, pineapple, green apple, juicy, harmonious, and well-balanced.**