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One for the vine



By all accounts, the latest releases of Cabernet Sauvignon (1994 vintage) from California are quite spectacular. 'Remarkably supple', 'assertively oaky', 'deep, silky nose', and 'suave and smooth on the palate' are just a few of the accolades¹ being lavished on the latest bottlings from the Napa Valley and beyond. Cabernet Sauvignon is the second most widely cultivated wine in the world, covering more than 400,000 acres and bottled by some 6,000 different producers; about 25 per cent of the world's production comes from France, 10 percent from the United States. But while doubtless taking some time to savour the robust symmetry and structural punch of the new releases, Carole Meredith and James Bowers, at the University of California at Davis, have also been investigating the origins of the popular varietal, which have mystified viticulturists since the grape took root in Bordeaux a few hundred years ago.

Using DNA fingerprinting methods, Bowers and Meredith compared the Cabernet Sauvignon alleles at 30 different microsatellite markers with 50 other cultivars of *Vitis vinifera* to trace the grape's heritage (see pages 4 and 84). There were only two consistent matches — all the other cultivars showed at least three discrepancies. Together with likelihood analyses, Bowers and Meredith come to the surprising conclusion that Cabernet Sauvignon is the progeny of the spicy red, Cabernet franc, and the zesty white, Sauvignon blanc. This work appears to be the first successful DNA analysis of the heritage of an ancient cultivar, and the results are likely to surprise the French and other vinophiles, who might have expected a more exclusive heritage for the noble Cabernet Sauvignon grape. While these findings probably won't harm the reputation of the 'king of red wines', similar analyses may have an effect on other popular wines. Meredith has found that another powerful California red, Petite Sirah, whose image has been suffering slightly, is not homogeneous but actually composed of at least three different varieties, two of which are related to the French grapes, Durif and Peloursin. In other research, she is seeking the elusive European counterpart to the most widely planted red in the United States, the smooth, rich Zinfandel. One suspects that this application of DNA fingerprinting might win a few converts along the way.



1. Frantz, M. *Washington Post* E9, 2 April (1997).