

Variety Identification Updates at FPS

by Susan Nelson-Kluk, FPS Grape Program Manager

ONE OF THE ADVANTAGES of the active FPS grape importation program is that it provides new selections of many varieties from known international sources that can be used as identification references. These new imports can be compared to older materials in the FPS collection relatively quickly using DNA marker analysis provided by Gerald Dangl, FPS Plant ID Lab Manager. This year, new imports from Italy, Spain and Portugal were compared to some older FPS materials. The results are described below.

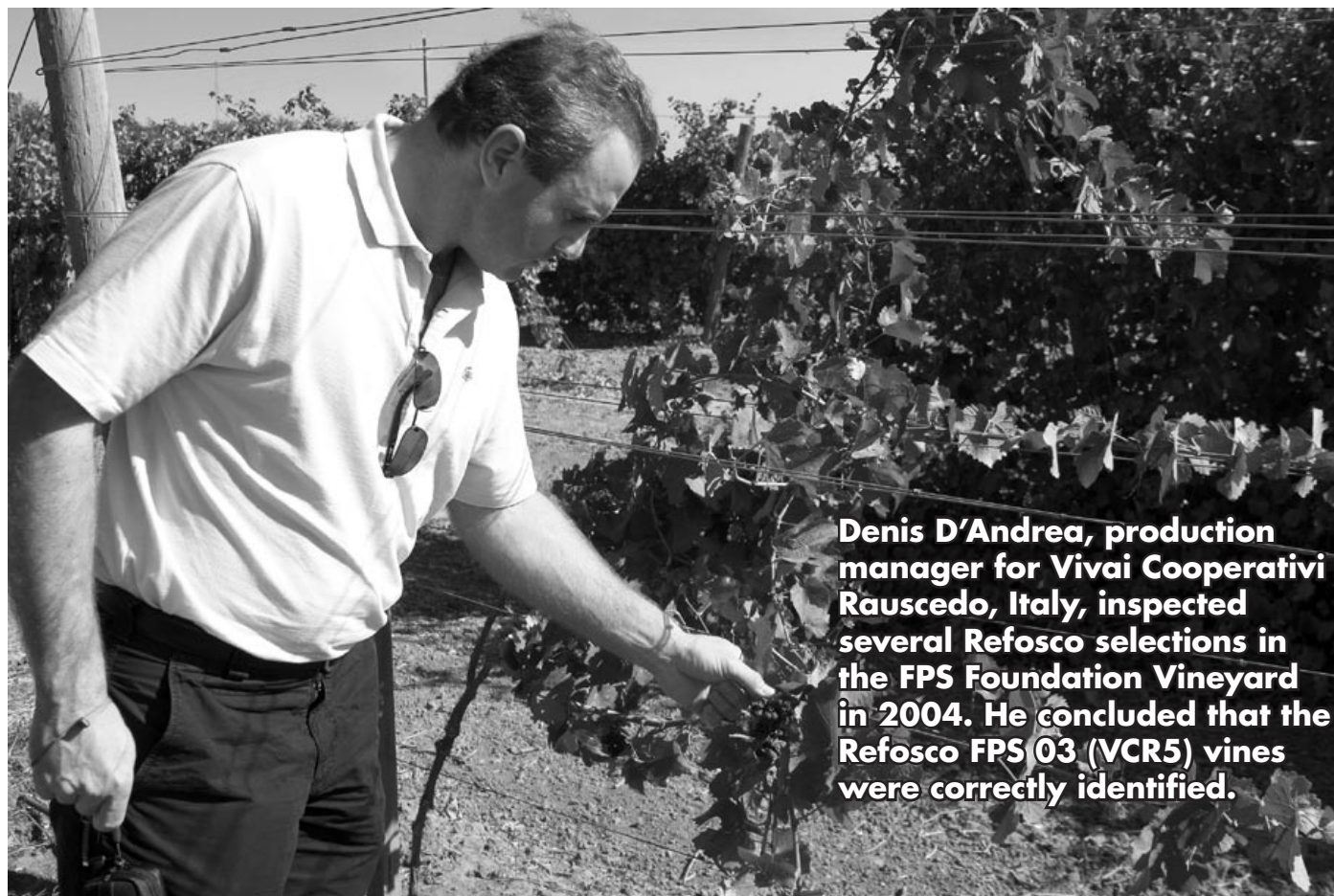
Refosco FPS 02 → Mondeuse FPS 01

Refosco FPS 02 was collected by Dr. Austin Goheen, USDA, ARS plant pathologist, out of the Jackson Vineyard in Amador County sometime before 1966. This vineyard was one of seven experimental vineyards established around California by UC Berkeley Professor Eugene W. Hilgard in the 1880s. In the 1990s French ampelographer Jean-Michel Boursiquot and Italian

ampelographer Anna Schneider both said that Refosco 02 looked like Mondeuse. At the time we did not have a reference for Refosco, and we thought that Refosco and Mondeuse might be synonyms.

A private selection of Refosco (VCR5/FPS 03) from the Rauscedo Nursery in Italy was recently planted in the foundation vineyard and the vines were professionally identified as true Refosco by Denis D'Andrea from Rauscedo during a visual inspection. He also inspected the Refosco FPS 02 vines and reported that they were not Refosco.

Gerald Dangl compared Refosco FPS 02 to Refosco FPS 03 using DNA marker analysis and found that they were different, which ruled out synonym concerns. FPS 02 matched a Mondeuse reference from Montpellier, so the name was changed to Mondeuse FPS 01. Refosco 03 did not match anything else in the database, so it will become the new reference for Refosco.



Denis D'Andrea, production manager for Vivai Cooperativi Rauscedo, Italy, inspected several Refosco selections in the FPS Foundation Vineyard in 2004. He concluded that the Refosco FPS 03 (VCR5) vines were correctly identified.

Valdepenas, Tempranillo, Tinta Roriz, and Valdepenas appear to be synonyms

Registered Valdepenas FPS 03 (from Jackson), Tempranillo FPS 02 & 03 (both from Spain) and Tinta Roriz FPS 01 (from Portugal) selections all match the same Tempranillo reference. There was speculation recently that a selection imported from Portugal in 2004 and labeled “Valdepenas” might be different from Valdepenas FPS 03 and more characteristic for the Valdepenas region of Spain. DNA analysis, however, showed that the new Valdepenas matched Valdepenas FPS 03, which supports the current practice of calling Valdepenas, Tempranillo, Tinta Roriz, and Valdepenas synonyms.

Airen, Alvarinho, Graciano, Parellada, Touriga Nacional, and Verdejo ID confirmed

Samples from a large collection of grape varieties imported in 2004 from the Portuguese Viveiros Plansel Nursery were compared and matched to the existing FPS selections listed below. This information supports earlier evidence showing the selections listed below are correctly identified.

- Airen FPS 01 imported from the AGRO Nursery, Spain in 1980
- Alvarinho FPS 01 imported from AGRO IDEIA, Portugal in 2000
- Graciano FPS 01 which came to FPS from a CA vineyard in 1998 and is reported to have originally come from the Spanish clone 103 from EIA Logrono Institute, Spain
- Parellada FPS 01 from Bodegas Torres, Spain in 1988
- Touriga Nacional FPS 01 imported from Portugal in 1981,
- Touriga Nacional FPS 02 imported from Portugal in 1981,
- Touriga Nacional FPS 03 imported from Portugal in 1939
- Touriga Nacional FPS 04 imported from Portugal in 1939 (originally identified as Alvarelhao 01)
- Verdejo FPS 01 imported from Castella Y Leon, Spain in 2000

Saint George FPS 18 ID confirmed and registered

A selection of Saint George rootstock imported from the University of Bari, Italy in 2000 was negative on all the field, herbaceous, ELISA and PCR tests, includ-

ing the tests for Rupestris Stem Pitting (RSP) using field and PCR tests. It was therefore planted in the FPS Foundation vineyard in 2004 and identified as Saint George FPS 18. This year DNA marker analysis was used to confirm the identity of all 4 of the Saint George FPS 18 vines. These vines will therefore advance to registered status for the 2005-06 dormant season. This is the first time FPS will offer Saint George material that tests negative for RSP.

Couderc 1616E misidentified?

A French selection of the rootstock Couderc 1616 came to FPS via the National Clonal Germplasm Repository in Geneva, New York in 1991. During a 1996 inspection, French ampelographer Jean-Michel Boursiquot said that it looked different from the “Davis selection” of 1616, more like the “European type.” Consequently, the selection was designated Couderc 1616E. This year Gerald Dangl compared 1616E to the other selections of 1616 at FPS, as well as a European reference. None of the profiles matched each other. Dr. Andy Walker had previously compared 3 different 1616 selections from France to the Davis selection using isozyme analysis; he found all 4 selections to be different. He concluded that Couderc 1616 is a collection of genotypes grouped under one name. The mismatch this year may support his conclusion or, perhaps, 1616E is an entirely different, unidentified rootstock. More French DNA references are needed to make a determination. Couderc 1616E FPS 01 will therefore be designated “hold” in the FPS collection until the uncertainties about its correct identity are resolved.

Oppenheim #4 FPS 17 → Teleki 5C FPS 11

Oppenheim #4 FPS 17 planted at BKS C 4.5 V9,11 matched Teleki 5C when it was checked using DNA analysis this year. The original material, labeled Oppenheim #4, came from the Grape Repository at the Centre for Plant Health of the Canadian Food Inspection Agency located at Saanichton, BC who reportedly acquired it from West Germany. The name of Oppenheim #4 FPS 17 has therefore been changed to Teleki 5C FPS 11. DNA profiles for Oppenheim #4 FPS 9, 11, 13, 14, and 16 all matched, thus confirming their identity as Oppenheim #4 (SO4).

Grape growers and nurseries may also use the services of the FPS Plant ID Lab to check the identity of their vines. Information about the different types of services and associated costs is available on the web at: <http://fps.ucdavis.edu/Grape/DNAIDTestingCustomerInfo.pdf> or by contacting Gerald Dangl at 530-752-7540. 