



FPS GRAPE PROGRAM NEWSLETTER

NOVEMBER 2005

UC DAVIS

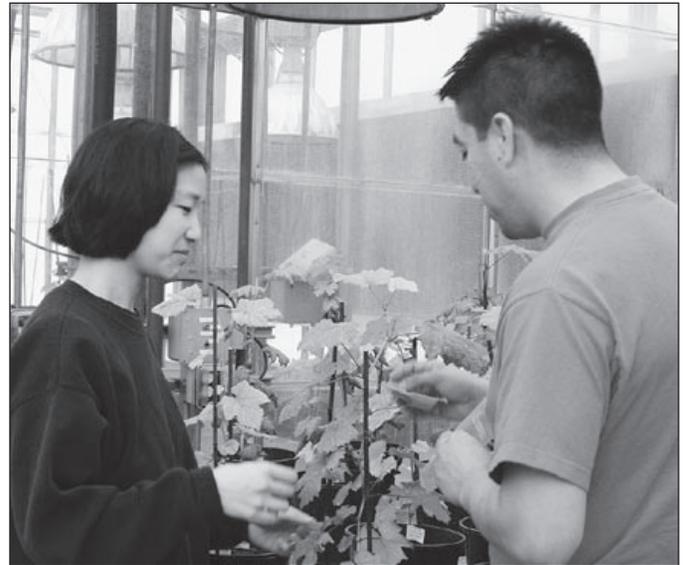
New Grape Selections Available from FPS

by Susan Nelson-Kluk, FPS Grape Program Manager

FPS WILL BE OFFERING dormant hardwood cuttings for over 700 registered wine, table, raisin, juice, canning, and rootstock selections in the 2005–06 dormant season. The updated list of registered selections is available from the FPS office or on the Web at: <http://fps.ucdavis.edu/Grape/FPSRegGrapeSel2005.pdf>. Forty-seven selections that were newly advanced to registered status in 2005 are underlined on the list. Dormant cuttings in short supply will be allocated among those whose orders are confirmed by December 1, 2005.

This year 14 new public and 3 private selections were planted in the foundation block and released for propagation by FPS for the first time. Most of the new materials are Italian varieties, including two ancient white wine varieties (**Coda di Volpe** and **Falanghina**) that were imported in 2000 from the Mastroberardino Winery. Another white Italian wine variety, **Fiano** FPS 01, came from the UC Hopland Vineyard collection in 1998. Two selections of **Sangiovese** were planted this year. One came from the Pepi Winery in 1996 where it was called the Bob Jr. clone (FPS 23) and another (FPS 24) was made using tissue culture from a selection that originally came from Pavia, Italy in the early 1970s, but more recently came from the old foundation vineyard selection FPS 03. A selection imported from Torino in 1993 will probably be the first true **Cortese** (FPS 02) in the foundation vineyard. Cortese FPS 01 was abandoned in the early 1990s because the fruit color was wrong (black instead of white). Early DNA ID testing results for FPS 02 match Cortese references from Italy, so we are optimistic that future visual inspections will confirm the identity of FPS 02. Three new private Italian clones from the Rauscedo nursery were also released this year: **Montepulciano** FPS 04 (VCR 461), **Nebbiolo** FPS 11 (VCR 430), and **Teroldego** FPS 02 (VCR 133 SMA). They will be exclusively distributed in the USA by the Novavine Grapevine Nursery.

continued on page 2



Lori Leong and **Jorge Jimenez**, FPS staff research associates, sample and test quarantined grapevines for virus using several laboratory and biological techniques. See the story about our importation and clean stock services on page 6 for more details.

INSIDE:

- 2 Upcoming Meetings
- 3 Autumn King and Scarlet Royal
- 4 Less-known Varieties of Châteauneuf-du-Pape at FPS
- 6 FPS Custom Importation and Clean Stock Services
- 8 Grapevine Clonal Selections from Castilla Y León
- 12 Variety Identification Updates at FPS
- 14 Assigning the "Correct" Grape Variety Name
- 17 Proposal for a National Clean Plant Network
- 18 The National Grape and Wine Initiative
- 19 Q-37 Revision Underway

New Materials... continued from page 1

Three of the selections released this year came from Portugal, including two selections from the Agro Ideia Nursery in 2000: **Arinto** FPS 01 (high acid white wine variety) and **Touriga Nacional** FPS 05 (red port and table wine variety). Also released this year is a selection of the obscure variety **Donzillinho** (FPS 02) which was imported from Portugal in 1981 by Dr. Harold Olmo, Emeritus Professor of Viticulture and Enology, UC Davis.

Thanks to the special attention of California winegrape grower Thomas Meager, the German variety **Kerner** (high acid, frost resistant white wine variety) was resurrected out of the old FPS collection and qualified for the foundation block this year as Kerner FPS 01.

California materials released this year include a **Merlot** selection from the Niebaum Vineyards donated by Larry Hyde in 2002 and released as Merlot FPS 27. Another selection originally from Larkmead, California and more recently from Petite Sirah FPS 01 (in the old Foundation vineyard) was released as **Durif** FPS 01 because Petite Sirah FPS 01 matched Durif using DNA ID testing.

New materials are only available as Provisional status mist-propagated plants. Plants will be propagated after orders are received and supplied in about six to nine months. Disease testing for these selections was completed in the fall of 2004. After the vines in the foundation vineyard set fruit (in about 2 years), visual inspections will be conducted to check for variety correctness. Vines that are professionally identified will be advanced to California Foundation Stock status. All new Provisional status selections available from FPS are shown on the *New Materials Available from FPS in the 2005-06 Season* list. This information is also available from the FPS office and Web site at <http://fps.ucdavis.edu/Grape/FPSGrapeNewMat2005.pdf>. 

Upcoming Meetings

2005 FPS Annual Meeting will be held November 9 at the Buehler Alumni and Visitors Center, UC Davis. For reservations or information, contact the FPS office by phone: (530) 752-3590 or email: fps@ucdavis.edu

Current Issues in Vineyard Health, UC Davis Extension class to be held November 16, 2005 in Davis. More information is provided on the Web at www.extension.ucdavis.edu

2006 Unified Wine and Grape Symposium to be held January 24–26 at the Sacramento Convention Center, 1400 J Street, Sacramento, California. For more information, go to <http://www.unifiedsymposium.org>

International Cool Climate Symposium on Viticulture and Oenology to be held February 6–10, 2006 in Christchurch, New Zealand. The theme is "Winegrowing for the Future." For further information, go to <http://www.iccs2006.org.nz>

Varietal Winegrape Production Short Course, a three-day viticulture short course will be held February 28 through March 2, 2006 at UC Davis. Information is on the web at www.extension.ucdavis.edu

Terroir 2006: A Dialogue Between Earth Scientists and Winemakers will be hosted by the Robert Mondavi Institute for Wine and Food Science, UC Davis March 19–22, 2006. More information is available at <http://terroir2006.ucdavis.edu>.

Variety Focus: Pinot Noir University Extension class April 7, 2005 in Freeborn Hall, UC Davis. Viticultural aspects, origins, clonal selection and performance, terroir. Guest speakers and wine tasting. Information will be available at <http://universityextension.ucdavis.edu>

57th Annual Meeting of the American Society for Enology and Viticulture (ASEV) to be held June 28–29, 2006 at the Sacramento Convention Center, 1400 J Street, Sacramento, California. Details are available at <http://www.asev.org>

New USDA Table Grape Varieties: Autumn King and Scarlet Royal

THE AGRICULTURAL RESEARCH SERVICE, United States Department of Agriculture, announced the release for propagation of two new *Vitis vinifera* L. table grape cultivars on July 13, 2005: Autumn King and Scarlet Royal.

Autumn King (formerly tested as C10) is a white seedless grape that ripens late and has very large berries with a sweet neutral flavor. It is the result of a cross A61-20 X B99-131 made in 1993. A61-20 and B99-131 are complex hybrids whose parents include Agadia, Blackrose, Calmeria, Cardinal, Divizich Early, Italia, Maraville, Muscat Hamburg, Muscat of Alexandria, Perlette, Sultanina, and Tafafihi Ahmur. The original vine was planted in 1994 in cooperation with California State University, Fresno, and selected in 1996 by David W. Ramming and Ronald Tarailo. Autumn King has been tested in the San Joaquin Valley of California.

Autumn King is a late-season variety that ripens about eight weeks after Thompson Seedless, about the third week of October in Fresno. By this time it has reached 18.6 % soluble solids and 0.31 mg acid / 100 ml juice. The clusters are medium in size (0.5 Kg or 1.1 pounds) and length. They are conical to cylindrical and are medium to well-filled. The natural berry is cylindrical to ovoid in shape and averages 9.8 grams. Berries from girdled vines treated with 2.5 to 5 ppm gibberellic acid at bloom (GA) averaged 11.5 grams, 25 mm in diameter, and 35 mm in length. Autumn King is sensitive to GA applied at berry set which has reduced fruitfulness the following year making production below commercial levels. Therefore GA application during berry set is not recommended. The flavor is sweet and neutral. The skin of Autumn King is medium in thickness and adheres to the flesh. The berries contain 2 to 3 aborted seeds, which are small and not noticeable when eaten. The flesh is meaty in texture and medium in firmness.

Autumn King blooms about 7 days after Thompson Seedless and is medium in vigor. Production has averaged 17 Kg (38 pounds) per vine when head trained and pruned to 5-6 canes and grown on a "Y" trellis. In cold storage trials the firmness remained good even after 2 months. No surface or internal browning was noticed throughout the cold storage period. Postharvest berry attachment was good and much less shatter occurred than in Thompson Seedless.

Scarlet Royal is a new red seedless table grape cultivar, formerly tested as B1. This red seedless grape ripens in the mid-season and has large, sweet, firm berries with a neutral flavor. Scarlet Royal resulted from the cross C33-30 X C51-63 made in 1992. Embryos were recovered and plants produced from C33-30, a seedless selection, by using embryo rescue procedures. C33-30 and C51-63 are complex hybrids whose parents include Blackrose, Calmeria, Cardinal, Crimson Seedless, Divizich Early, Italia, Maraville, Muscat of Alexandria, Sultanina, and Tafafihi Ahmur. The original vine was planted in 1993

continued on page 5



Autumn King

Scarlet Royal



Less-known Varieties of Châteauneuf-du-Pape are Being Indexed by FPS

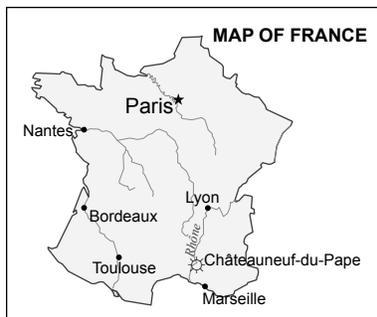
by Robert Haas, General Partner, Tablas Creek Vineyard, Paso Robles

Vaccarèse, Terret Noir, Muscardin, Cinsault, Picardin, Clairette, and Bourboulenc are not exactly household names in the *lingua franca* of American viticulturalists and wine makers. Lovers of Châteauneuf-du-Pape's wines are probably familiar with the more widely planted varieties of the appellation. Syrah, Grenache Noir and Mourvèdre are relatively well known outside the Rhône area as well, having been grown with success in California, Australia and South Africa. The more common whites, particularly Roussanne and Grenache Blanc, are also well known to Rhône enthusiasts. However, of the fourteen* AOC-approved Châteauneuf-du-Pape varieties, many remain virtually unknown outside of their own region.

Thanks to a cooperative effort undertaken by Foundation Plant Services (FPS), UC Davis, and the General Partners of Tablas Creek Vineyard in Paso Robles, Robert Haas and the Perrin family, virus-tested selections of these varieties will soon become available to American grape growers. The Perrins are also owners of Château de Beaucastel in Châteauneuf-du-Pape whose vineyards are the source of the new varieties. The new selections will be available through FPS as public varieties. This means that for the first time the United States will have all fourteen Châteauneuf-du-Pape varieties available, as virus-tested planting stock screened through authorized U.S. grape quarantine programs.

In 2004, cuttings were collected from the best performing vines growing in "sélection massale" vineyards of Château de Beaucastel and shipped to FPS, UC Davis. Work is in progress at FPS to attempt to qualify the selections for release from U.S. Federal and California State quarantine using field, herbaceous, ELISA and PCR tests for virus (see page 7 for a complete list of tests), as well as bactericide, fungicide and hot water dip treatments. Microshoot-tip tissue culture will be used to eliminate virus from infected selections before release.

The Federal plant quarantine is a shield that provides critical protection from economically important exotic pests and pathogens, including virus diseases, that can reduce fruit color, delay ripening, reduce yields, cause rootstock/scion incompatibility problems, and



even kill vines. Safe processing of these varieties through quarantine for the unrestricted FPS public collection should also help to discourage dangerous suitcase (illegal) imports that have carried devastating exotic pests and diseases into U.S. vineyards in the past. For example, vine mealybug is believed to have come into California

on illegally-imported grapevines. And, although legally imported, the glassy winged sharpshooter (vector of Pierce's disease) came to California on ornamental nursery stock that was carrying this pest. Respect for our federal and state quarantine laws will help reduce the chance of new epidemics. For more information about grape importation services available to the public, please go to the FPS website at: <http://fps.ucdavis.edu/Grape/GrapeImpProgFacil.html>.

Two to ten years are required to complete the testing and treatment process for new imports, depending on the health of the original material received. Three years after these materials are released from quarantine, they will be added to the public FPS collection and distributed for planting and propagation without restriction. Early test results indicate that Muscardin, Vaccarèse, Terret Noir and Bourboulenc might be released from quarantine as soon as 2006. We already know that tissue culture will be needed to clean up Clairette blanche, Picardin, and Cinsaut, so the soonest they could be released will be 2009.

Many of these less-known varieties were widely grown in France in times before phylloxera. When vineyards were replanted after the scourge, many varieties were abandoned for ones that were more productive and easier to graft. To be sure, it is not possible to predict the quality and style of wines that will come from the less-known varieties of Châteauneuf-du-Pape when

planted here. However, some that are hard to fully ripen in France because they tend toward low sugars and high acid will be interesting to plant in our warmer viticultural areas where the opposite problems (high sugar and low acid) are more common.

More specifically, Muscardin, Terret Noir, Cinsault, and Vaccarèse are possible sources for floral character, freshness and acid to blend with wines from varieties that tend toward high alcohol levels, such as Grenache Noir, Syrah, and Petite Sirah**. Bourboulenc, and Picardin could do the same for Viognier**, Roussanne, Grenache Blanc, and other white Rhône varieties that tend toward high sugars. Clairette may have some possibilities for making sweet wines or good fresh, dry wines in very cool growing areas.

Other authors have described these blending possibilities, including the noted French ampelographer, Galet, who says, "For the wines of the Midi made from Carignan and Grenache, the use of a percentage of Cinsault allows one to obtain products more simple and harmonious by tempering the alcoholic excesses of Grenache [Noir]" and "Separate vinification [of Muscardin] in Châteauneuf-du-Pape gave wines distinguished by their often floral bouquet and a stunning sappy freshness, making the variety a particularly interesting element in blending."

Jancis Robinson writes about the "useful" high acidity in Picardin. Bourboulenc is a late budder, according to Viala and Vermorel in *Ampelographie*, making it a good variety to plant in areas with spring frost problems.

Other characteristics of these varieties will hopefully appear after we gain experience by growing them under local conditions. Most importantly, it is desirable to continue importing and testing varieties so we can discover new possibilities for our young industry and stop the marketers from dictating the same-old, same-old varieties and styles forever and ever. 🍇

* Bourboulenc, Cinsault, Clairette, Counoise, Grenache Blanc, Grenache Noir, Mourvedre, Muscardin, Picardin, Picpoul Blanc, Roussanne, Syrah, Terret Noir, Vaccarèse.

** Not a Châteauneuf-du-Pape grape, but a popular Rhône variety in California.

USDA Introductions... continued from page 3
in cooperation with California State University, Fresno, and selected in 1995 by David W. Ramming and Ronald Tarailo. Scarlet Royal has been tested in the San Joaquin Valley of California.

Scarlet Royal is a mid-season variety which ripens between Flame Seedless and Crimson seedless. Its fruit had reached 16.7 % soluble solids and a 22:1 sugar/acid ratio by July 20, 2004 with the application of 1 pint per acre Ethrel and pulling leaves. Scarlet Royal continues to mature on the vine and by August 15 had reached 22.0 % soluble solids and 0.55 mg acid / 100 ml juice without Ethrel. The clusters are large in size (0.8 Kg or 1.8 pounds) and length. They are conical in shape and are medium to well-filled. The natural berry is oval in shape and averages 5.8 grams. Berries from girdled vines treated with 2.5 ppm gibberellic acid (GA) at bloom and 20 ppm GA at berry set averaged 8.3 grams, 22 mm in diameter, and 33 mm in length. The flavor is sweet and neutral. The skin of Scarlet Royal is medium to thick and adheres to the flesh. The flesh texture is firm and meaty. The berries contain 3 to 4 aborted seeds, which are small and not noticeable when eaten. The fruit retained its firmness during two months of cold storage. The berry attachment to the pedicel is very good and very little postharvest shatter occurs. The rachis is tough with a woody peduncle.

Scarlet Royal blooms about 3 to 4 days after Ruby Seedless and is medium in vigor. Production has averaged 27 Kg (60 pounds) per vine when trained to quadrilateral cordons, pruned to 2 bud spurs and grown on a "Y" trellis. The 20 ppm GA size spray applied in 2003 reduced cluster counts in 2004 by 10 to 38%, leaving 48 to 64 clusters, which is still commercially acceptable.

Autumn King and Scarlet Royal were indexed for virus by Foundation Plant Services, University of California, Davis. All tests required to qualify for the California Grapevine Registration and Certification Program were negative. A U.S. Patent application is pending for both varieties. Both varieties are exclusively licensed to the California Table Grape Commission, which will make them widely available through sublicensing agreements. Inquiries regarding availability of Autumn King and/or Scarlet Royal should be addressed to Ross Jones, ross@freshcaliforniagrapes.com, California Table Grape Commission, 392 W. Fallbrook, Suite 101, Fresno, CA 93711-6150 or David W. Ramming, dramming@fresno.ars.usda.gov, USDA, Agricultural Research Service, Crop Diseases, Pests and Genetics Research Unit, 9611 South Riverbend Avenue, Parlier, CA 93648. It is requested that appropriate recognition be made if this germplasm contributes to the development of a new breeding line or cultivar. 🍇

FPS Custom Importation and Clean Stock Services

by Susan Nelson-Kluk, FPS Grape Program Manager

FPS HAS NOW BEEN OFFERING testing and treatment services for foreign and domestic grape selections for over 10 years, and demand for these services has remained strong (Figure 1). Most of the new introductions (about 59%) are for quarantine testing from foreign sources including France, Spain, Portugal, Italy, Germany, Switzerland, Austria, Iran, Croatia, Hungary, Greece, Turkmenistan, Israel, South Africa, Argentina, Chile, New Zealand, and Australia. The remainder have come from U.S. grape breeders, winemakers, and grape growers.

Most new introductions are checked for virus using over 30 field, herbaceous, ELISA and PCR tests (Figure 2). In addition, bactericide, fungicide and hot water (72 hours at 82°F) dips are used to treat foreign cuttings upon arrival at FPS. Microshoot-tip tissue culture is used to eliminate virus by regenerating a plant from a 0.5 mm shoot tip in sterile culture. Most of the time the process is successful, but the tissue culture plants must still be tested for all the viruses that were found in the original material. It takes about two years to conduct all the virus tests, and it also takes about two years to produce a plant from tissue culture that is big enough to test for virus, so customers often contract with FPS to start making tissue culture plants right away if they suspect the original material might be infected with virus. That way if disease is found there is a tissue culture plant ready for testing as soon as results for the original material are finished. This can shorten the time a selection is kept in quarantine by a couple of years.

The testing and treatment regime used at FPS exceeds the standards required to qualify grape materials for release from U.S. Federal and California state quarantine, as well as the virus testing required by the California Grapevine Registration and Certification Program. Selections that pass all the tests are released from quarantine, and customers may choose to have mother vines planted in the FPS Foundation block, where they become sources of Foundation stock for the California Registration and Certification Program. Keeping mother vines in the foundation block is

beneficial because they serve as sources of foundation stock that 1) nursery participants can use to produce California-certified planting stock; 2) can be shipped into foreign countries where the quarantine retention periods are sometimes shorter for foundation stock; and 3) serve as a backup source of virus-tested stock if private industry materials are lost or become infected.

Many customers have chosen to pay premium prices (up to \$6500/selection for the treatment and testing and \$150/year to maintain private mother vines in the foundation block) in order to retain exclusive control over propagation rights for their varieties. In fact, 51% of selections introduced by FPS over the last 10 years have been designated proprietary. These fees make up a major part of the funding for the importation program. Others have generously donated valuable selections for the public collection and have given permission for FPS to distribute their materials for propagation without restriction. The California Fruit Tree, Nut Tree and Grapevine Improvement Advisory Board has provided funds for treating and testing some of the public material, including the popular collection of heritage clones.

More information about the grape treatment, testing and maintenance services available from FPS is on the web at <http://fps.ucdavis.edu/Grape/grapecustom.html>

Figure 1. Foreign and Domestic Grape Selections Introduced by FPS Over 10 Years

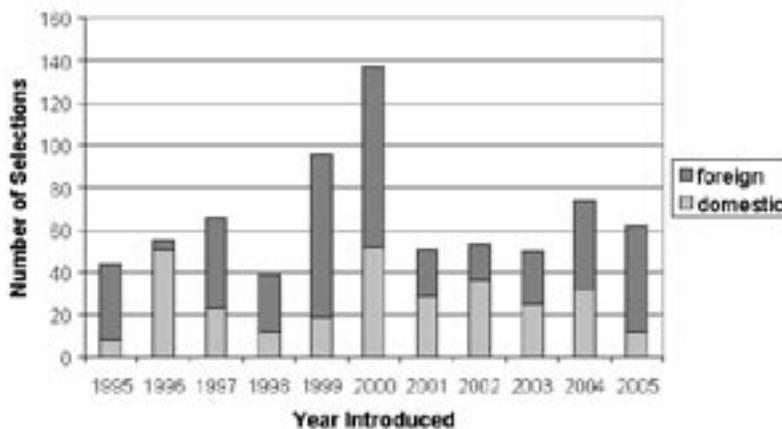


Figure 2.

Test procedures used for detecting viruses and target diseases in grape selections entering the Foundation vineyard at Foundation Plant Services

Field biological indicator tests

- Cabernet franc leaf symptoms for grapevine leafroll disease *
- LN33 stem symptoms for corky bark disease *
- St. George leaf symptoms for grapevine fanleaf disease and other NEPO virus diseases, grapevine fleck disease and asteroid mosaic disease *
- St. George stem symptoms for grapevine rupestris stem pitting disease *
- Kober 5BB stem symptoms for Kober stem grooving disease

Herbaceous tests

- Chenopodium quinoa* for detection of NEPO viruses and other mechanically-transmitted agents *
- Chenopodium amaranticolor* for detection of NEPO viruses and other mechanically-transmitted agents
- Cucumis sativa* ‘National Pickling’ for detection of NEPO viruses and other mechanically-transmitted agents
- Nicotiana clevelandii* for detection of NEPO viruses and other mechanically-transmitted agents

ELISA tests to detect:

- Arabis mosaic virus*
- Grapevine fleck virus*
- Grapevine fanleaf virus*
- Grapevine leafroll-associated virus Type 1, 2, 3 and 4*
- Tomato ringspot virus*

PCR tests to detect:

- Arabis mosaic virus*
- Grapevine fleck virus*
- Grapevine fanleaf virus*
- Grapevine leafroll-associated virus Type 1, 2, 2 RG, 3, 4, 5, 7 and 9*
- Grapevine virus A, B and D*
- Grapevine rupestris stem pitting-associated virus*
- Tomato ringspot virus*

* Indicates tests required by the California Department of Food and Agriculture (CDFA) Grapevine Registration and Certification Program. At present, only biological indicator tests are mandated. CDFA may require laboratory tests as warranted.

Grapevine Clonal Selections from Castilla Y León, Spain Now Available from FPS

by Jesus Yuste, Instituto Tecnológico Agrario de Castilla y León (ITACyL), Valladolid, Spain

Castilla y León, with about 80,000 hectares of grape growing area, is one of the most prestigious quality wine producing regions in Spain.

This region has several protected zones named ‘VCPRD’ (wines of quality produced at region determined) by the Office International de la Vigne et du Vin (O.I.V), which are similar to Apellations of Origin in the U.S. The names of the zones in Castilla y León are: Bierzo, Cigales, Ribera del Duero, Rueda and Toro; Arlanza, Arribes, Cebreros, Sierra de Salamanca, Tierra del Vino de Zamora and Tierra de León y Valles de Benavente. The high quality of the wines from Castilla y León is mainly due to the native grapevine varieties used for wine production.

Historical development and objectives

A Sanitary and Clonal Selection Program for native grapevine varieties in Castilla y León was started by the *Instituto Tecnológico Agrario of Castilla y León (ITACyL)* in 1990 (Yuste *et al.* 1998). The main objective of the program is to select virus-free clones that are true to variety and produce high quality wines (Rubio *et al.* 2000). Presently, the law in Spain requires that grapevine vegetal material should be free of the following viruses: fanleaf (Rubio *et al.* 1996), leafroll (Rubio *et al.* 1997) and fleck (Rubio *et al.* 1998) in order

to label the vegetal material “Certified” by the Spanish Office of Vegetal Varieties (O.E.V.V.).

Varieties and zones

The varieties included in the Selection Program are shown in Table 1. The production zones where the selections are being developed are shown in Figure 1:

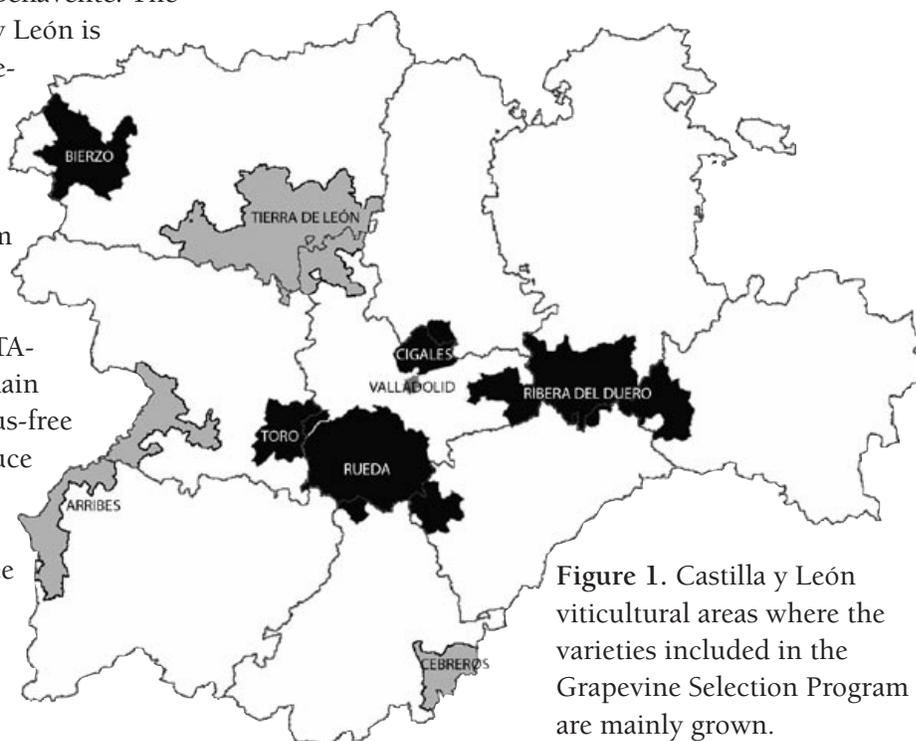


Figure 1. Castilla y León viticultural areas where the varieties included in the Grapevine Selection Program are mainly grown.

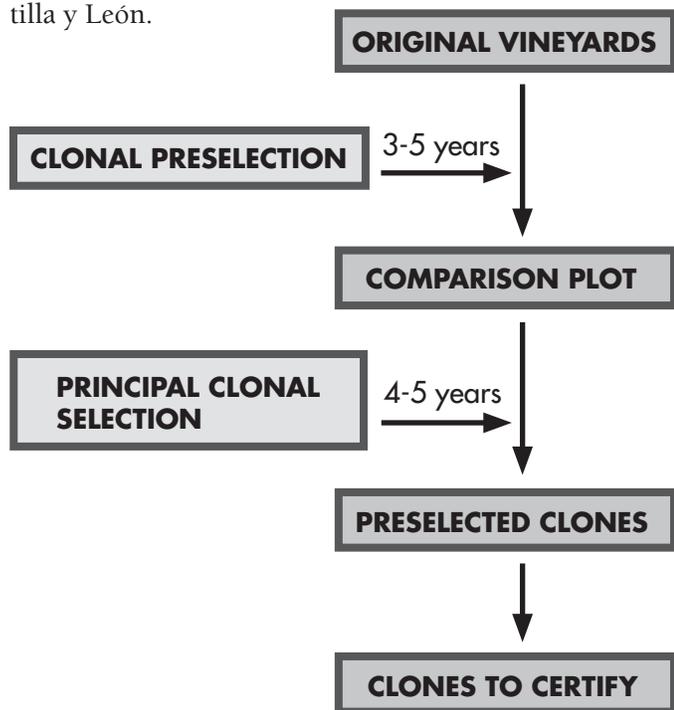
Table 1:

VARIETY	PRODUCTION ZONE
Albillo Mayor	D.O. Cigales and D.O. Ribera del Duero
Albillo Real	Cebreros
Garnacha tinta	Cebreros and D.O. Cigales
Garnacha roja	D.O. Cigales
Juan García	Arribes del Duero
Mencía	D.O. Bierzo
Prieto Picudo	Tierra de León
Tempranillo	D.O. Cigales, D.O. Ribera de Duero (Tinta del Pais) and D.O. Toro (Tinta de Toro)
Verdejo	D.O. Rueda

Stages of the Clonal Selection Program

The clonal selection process is accomplished over many years in several stages (Pérez-Hugalde *et al.* 1997). The first stage, “Clonal Pre-Selection,” is carried out in the original vineyards, and the second stage, “Principal Clonal Selection,” occurs in a “Comparison Plot,” as shown in Figure 2.

Figure 2. Grapevine Clonal Selection Program at Castilla y León.



Pre-Selection Stage

The pre-selection stage begins with the selection of vineyard plots and vines within vineyards for each studied variety in the area of Castilla y León where they are mostly grown. The vineyards are chosen to get as much geographical dispersion as possible in order to maximize the genetic variability. Selected vines are generally more than 50 years old because their age is recognized as an indication of adaptability and permanence (Judez *et al.* 1995).

The marked vines are studied in order to select those that are representative of the varietal characters, produce the best quality grapes, and have an adequate yield. The sanitary status is evaluated using ELISA serology tests.

Data from the original vineyards is used to pre-select a number of vines (potential clones) for each variety, to be planted in a Comparison Plot and characterized in

the second stage of the Selection Program.

Principal Selection Stage

In the Comparison Plot, vines are grown under uniform horticultural and environmental conditions, and evaluated over several years with attention to their agronomic, sanitary, enologic and organoleptic aspects. This data is used to do a final characterization or “homologation” of each clone with respect to the variety as a whole and make a definitive selection of the best clones (Pérez-Hugalde *et al.* 2004).

Parameters of evaluation

SANITARY: Field indexing is used to test for Fanleaf (GFLV), Leafroll (GLRaV) and Fleck (GFkV). These tests are carried out at the CRIDA (Center of Regional Research and Development for Agriculture) Station in Murcia, the Official Center for the sanitary certification.

AGRONOMIC: Phenology development, grape yield, cluster size, cluster morphology (compactness), berry size, vegetative development, shoot vigor, fungi tolerance (powdery mildew, downy mildew, botrytis, etc.) data is collected for each clone.

ENOLOGIC: Fruit ripening and wine making is studied in order to measure the components of must (sugar concentration, total acidity, pH, polyphenols, etc...). Monoclonal microvinification is used to make wine from each clone.

ORGANOLEPTIC: Tasting panels are used to evaluate wine from each clone for color, aroma, flavor and harmony.

Varieties and clones

Several clones have now been selected and certified for each of the native varieties in the Selection Programme by the Department of Viticulture and Enology at the ITACyL institution under the auspices of the Government of Castilla y León. In 2000 ITACyL sent nine of these clones (see Table 2) to FPS, UC Davis for quarantine testing.

Prospective use in the U.S. through an FPS-ITACyL Agreement

In 2005 an Agreement of Collaboration was made between ITACyL and FPS which allows FPS to distribute the ITACyL clones shown in Table 1 to the public. Future plans are underway to send additional clones of interest to the U.S. vine and wine industry from ITACyL to FPS.

Table 2: Nine clones ITACyL sent to FPS in 2000

Variety name	FPS selection #	Reg status @ FPS	ITACyL clone #	Fruit color	Characteristics
Albillo Mayor	01	R	CL-30	white	Medium-low productivity, high alcoholic degree, aromatic.
Albillo Real	01	R	CL-35	white	Low productivity, good early maturation, aromatic
Garnacha gris	none yet	Q	CL-33	red	High grape yield, medium maturity, good acidity, freshness (synonym = Garnacha roja)
Garnacha tinta	01	R	CL-52	red	High production, good maturation, optimum acidity and body
Juan García	01	R	CL-21	red	High grape yield, careful management, aromatic.
Prieto Picudo	01	R	CL-116	red	Moderate grape yield, long pruning, good alcoholic degree and acidity.
Tempranillo	05	R	CL-242	red	Medium production, good maturation, aromatic, bodied, perfect balance. (synonym = Tinta del País)
Tempranillo	11	R	CL-292	red	Moderate grape yield, good maturation, bodied, well balanced. (synonym = Tinta de Toro)
Verdejo	01	R	CL-4	white	Low productivity, cane and spur pruning, balanced, aromatic with bitter flavour, high quality

Key: CL = Castilla y León (not "clone"); R = Registered in California Grapevine Registration and Certification Program; Q = still in quarantine and not available for distribution.

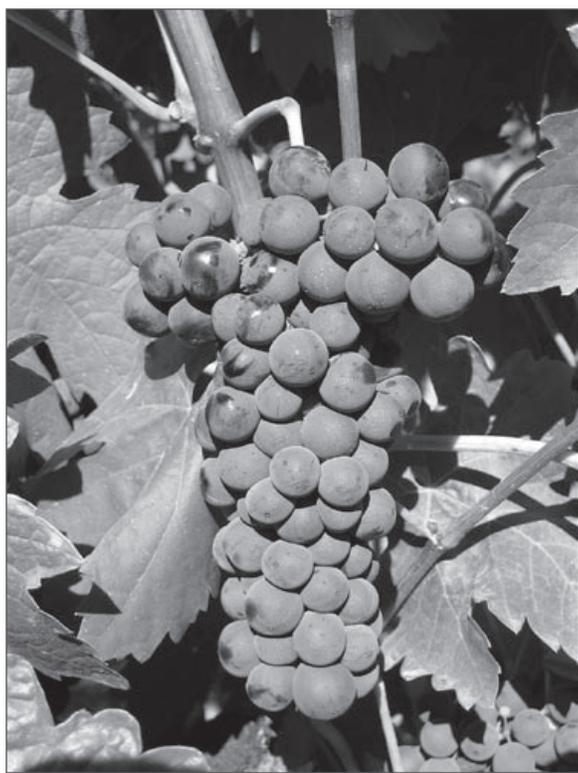
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ITaCyL clones, clockwise from top left: Garnacha tinta CL-52; Prieto Picudo CL-116; Tempranillo CL-292; Tempranillo CL-242 and Verdejo CL-4.

photos courtesy of Jesus Yuste



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. 

Assigning the “Correct” Grape Variety Name

by Susan Nelson-Kluk, FPS Grape Program Manager, UC Davis

FPS HAS RECEIVED MANY REQUESTS OVER THE YEARS to “fix” all of the names of the FPS grape selections. This is an understandable request, given all the problems misidentified grape materials can cause nurseries, grape growers and winemakers. In fact, we have been working diligently to assign the most accurate names to FPS grape materials using all the resources available. However, the process is not as straightforward as one would hope. Fundamental shifts in grape variety naming philosophy have occurred because the industry is becoming more global. Assigning “correct” names to grape materials is a little like aiming at a moving target as the amount of variety ID data expands and the reasons for choosing specific synonyms change.

ID Data

Our confidence in grape identification is often a matter of degree based on several kinds of information. Visual inspection of the vines by an ampelographer (grape variety expert) is the oldest method. The credentials of the ampelographer and their range of expertise are important to consider when using their reports. For example, the opinion of an Italian ampelographer would be considered more authoritative than a French ampelographer if the name of an Italian variety is being discussed. In general, contemporary ampelographers reporting on FPS materials have been very humble and have shown great sensitivity to the complexities of this work. The ampelographers themselves are the first to qualify their opinions when they are unsure of the identity of a vine, and recommend that we consult with someone more familiar with the variety in question. FPS foundation mother vines are often inspected multiple times by more than one ampelographer. Each comment regarding a vine’s identity is logged into the FPS database. The more reports that agree, the higher our confidence in the conclusion.

Source documentation is another way to get an idea of how accurately a selection is named. Selections from unknown sources or from sources with incomplete records (such as selections from the Jackson Vineyard) tend to be misidentified more often. Materials that originate from well-established reputable sources usually come labeled with the correct variety name.

DNA analysis is an extremely useful new tool for variety identification. Advantages of the DNA technique include the ability to store DNA profiles for hundreds of local varieties in a database and share DNA variety profiles internationally. DNA profiles from vines of unknown identity can be compared to many references to search for a meaningful match. DNA analysis can also be used to compare vines with the same name from several different sources. If they match, the profile can be used as a reference with a fairly high degree of confidence (again, the more sources that match, the higher the confidence).

Choosing Between Synonyms

Sometimes records, ampelographers, and/or DNA testing results suggest more than one name that could be considered correct. In these cases other factors must be considered when selecting a name.

When customers pay FPS to import a selection, the name preferred by the customer is used when more than one name is correct. For example, the French names Cot and Nielluccio are used to identify ENTAV INRA® clones of those varieties instead of Malbec and Sangiovese because Cot and Nielluccio are preferred by this FPS client, and all four names are well documented and correct.

We usually keep the names that are assigned to selections when they are imported/collected if the names are correct synonyms. For example, we use the name “Shiraz” to identify a selection of Syrah that came to FPS from Australia labeled “Shiraz”. DNA tests have shown that Shiraz and Syrah are the same variety, but Shiraz is the name used in Australia and has achieved its own recognition in the wine trade. Since we also use the name Syrah to identify selections of this variety that came from France, both names appear on the list of registered grape selections available from FPS.

At FPS, when more than one name is correct but one name is more informative, the more informative name is used. For instance, we use “Durif (Petite Sirah) FPS 03” to identify a registered FPS selection that was originally called Petite Sirah in California. DNA evidence has shown that the name Petite Sirah is associated with three completely different varieties (Durif, Petite Sirah

and Peloursin) so it is not an exact name designation. We therefore use Durif as the prime name and show Petite Sirah as a synonym.

Some grape names are unique to California such as Early Burgundy, Grey Riesling, Napa Gamay, Sauvignon vert, and White Riesling. We continue to use these names or recognize them as synonyms at FPS because there is a long tradition of wines with these names being produced in California. However, if these names are phased out of the California wine industry, they will gradually disappear from our lists as well.

Names approved by the TTB

Wine grape names must be coordinated with the Federal Alcohol and Tobacco Tax and Trade Bureau (TTB) because the TTB dictates the names approved for use on USA wine labels. A new list of names approved for use by the TTB is on the web at: <http://www.ttb.gov/alcohol/info/faq/wine.htm> (scroll down to question “W9: What grape names are approved as type designations for American wines?”). All of the names on the “approved” and “approved pending formal rulemaking” lists may be used as of 7/21/05. Updated lists of approved grape names will be more formally published

in the Federal Regulations within the next year. Names that appear on the approved list for the first time include: Biancolella, Erbaluce, Forastera, Lagrein, Montepulciano, Negro Amaro, Nero d’Avola, Peloursin, and Rondinella.

Due to the success of the FPS grape importation program, many new wine grape varieties have recently moved or will soon be moving into commercial production. Until now, new names have been submitted to the TTB for approval on an individual basis by wineries. We propose to work closely with TTB and initiate a policy of regular review of FPS Registered selections for possible approval of new variety names for wine labels. Variety names we plan to submit for TTB approval next year include: Cilieggiolo, Cot, Greco di Tufo, Grenache noir, Moscato Giallo and Nielluccio. Others interested in adding new names to the approved list may contact the Regulations and Rulings Division at (202) 927-8210 for information about the process.

Name changes made at FPS over last 6 years

A list of all the name changes made by FPS over the last 6 years is shown in Table 1 along with the reason the names were changed. 

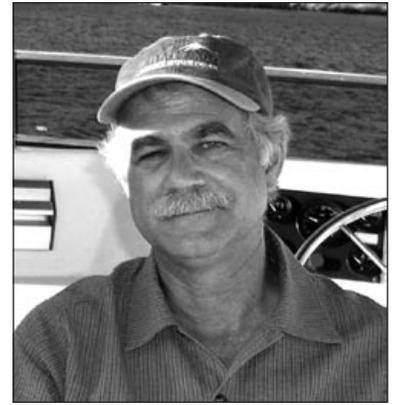
Table 1: Grape names changed at FPS 1997-2005

Original name used at FPS	New name assigned	Year changed	Reason for change
Cabernet Franc 02	Carmenere FPS 01	1997	original ID was wrong
Sauvignon Musque S1f	Sauvignon blanc (musque) FPS 27	2002	DNA matched Sauvignon blanc
Grenache FPS 01A	Grenache noir FPS 01A	2002	to distinguish Grenache noir from red and grey forms of Grenache
Grenache FPS 03	Grenache noir FPS 03	2002	
Grenache FPS 04	Grenache noir FPS 04	2002	
Touriga FPS 01	Touriga Nacional FPS 03	2002	more accurate ID for selection
Touriga FPS 02	Touriga Nacional FPS 02	2002	more accurate ID for selection
Alvarelhao FPS 02	Touriga Nacional FPS 04	2002	original ID was wrong
Roussane	Viognier FPS 02	2002	original ID was wrong
Roussane	Viognier FPS 03	2002	original ID was wrong
Roussane	Viognier FPS 04	2002	original ID was wrong
Black Malvoisie FPS 02	Cinsaut FPS 02	2003	Cinsaut is better recognized internationally & is the TTB approved prime name
Bastardo FPS 01	Trousseau FPS 10	2003	Trousseau is better recognized internationally and Bastardo was phased out by the TTB

Original name used at FPS	New name assigned	Year changed	Reason for change
French Colombard FPS 01	Colombard FPS 01	2003	Colombard is better recognized internationally & is the TTB approved prime name
French Colombard FPS 03	Colombard FPS 03	2003	
Gray Riesling FPS 01	Trousseau gris FPS 01	2003	TTB is phasing out the name Grey Riesling
Gray Riesling FPS 02	Trousseau gris FPS 02	2003	
Gray Riesling FPS 03	Trousseau gris FPS 03	2003	
Gray Riesling FPS 04	Trousseau gris FPS 04	2003	
Gray Riesling FPS 05	Trousseau gris FPS 05	2003	
Grignolino FPS 02	Arneis FPS 03	2003	original ID was wrong
Malvasia Nera FPS 01	Tempranillo FPS 07	2003	original ID was wrong
Mataro FPS 01	Mourvedre FPS 04	2003	Mourvedre is better recognized internationally & is the prime name approved by the TTB
Mataro FPS 03	Mourvedre FPS 03	2003	
Napa Gamay FPS 01	Valdiguie FPS 04	2003	Valdiguie is better recognized internationally & is the prime name approved by the TTB
Napa Gamay FPS 02	Valdiguie FPS 02	2003	
Napa Gamay FPS 03	Valdiguie FPS 03	2003	
Pinot Saint George FPS 01	Negrette FPS 06	2003	Negrette is better recognized internationally & is the TTB approved prime name
Pinot Saint George FPS 02	Negrette FPS 02	2003	
Pinot Saint George FPS 04	Negrette FPS 04	2003	
Pinot Saint George FPS 05	Negrette FPS 05	2003	
Petite Sirah FPS 03	Durif FPS 03	2003	Durif identifies this selection more accurately
White Riesling FPS 02	Riesling FPS 17	2003	Riesling is better recognized internationally & is the TTB approved prime name
White Riesling FPS 04	Riesling FPS 04	2003	
White Riesling FPS 09	Riesling FPS 09	2003	
White Riesling FPS 10	Riesling FPS 10	2003	
White Riesling FPS 12	Riesling FPS 12	2003	
White Riesling FPS 16	Riesling FPS 16	2003	
Nebbiolo Fino FPS 02	Nebbiolo FPS 09	2004	Simplify name because ID is the same by DNA & Nebbiolo is name approved by TTB
Nebbiolo Lampia FPS 01	Nebbiolo FPS 10	2004	
Nebbiolo Michet FPS S1	Nebbiolo FPS <# not yet assigned>	2004	
Riesling Italico FPS 02	Riesling FPS 18	2004	original ID was wrong
Riesling Italico FPS 03	Riesling FPS 19	2004	original ID was wrong
Refosco FPS 02	Mondeuse FPS 01	2005	original ID was wrong
Oppenheim #4 FPS 17	Teleki 5C FPS 11	2005	original ID was wrong

Proposal for a National Clean Plant Network

by Robert Woolley, Owner and General Manager of Production, Dave Wilson Nursery



CREATION OF A NATIONAL CLEAN PLANT NETWORK (NCPN) to provide ongoing federal support for clean plant services has been proposed to the Cooperative State Research, Education and Extension Service (CSREES), USDA by the nurseries and growers who are served by clean plant programs for horticultural crops.

Current programs such as FPS and the National Regional Support Project (NRSP5), Washington State University, Prosser, will serve as the foundation for the network. New regional facilities are proposed to serve the Midwest, South and Northeast. Ongoing federal support is needed because the existing programs are not able to address nationwide clean stock needs, the FPS grape program has been running at a loss since the planting boom of the 1990s, and funding of the NRSP-5 is scheduled to be dramatically reduced in the near future. NRSP-5 has been supported by funds earmarked for research, but now, clean plant programs are considered to be service activities that should not receive research monies.

Efforts are underway to obtain federal funding for CSREES to use to support the clean stock effort. We hope that the existing and new Clean Plant Network programs will be maintained and improved with these funds. Supporters of this effort have developed the following commentary:

Benefits of clean plant programs

Healthy planting stock is key to the cost-effective production of horticultural crops such as fruit trees, nut trees, and grapevines because healthy planting stock is easier to propagate, requires fewer chemical inputs, produces higher crop yields and better crop quality than common planting stock. Healthy planting stock is necessary for U.S. agriculture to remain internationally competitive and economically viable. The most efficient approach to producing healthy planting stock is through programs which screen valuable plant selections for viruses and other diseases which can be spread by contaminated plant stock. In addition, quarantine services provided by clean stock programs reduce the chance of introduction of exotic pests that can be difficult and costly to control.

Background

Clean planting stock programs use disease detection, pathogen elimination techniques, and isolation strategies to produce, maintain, and propagate healthy planting stock. The technology used to create healthy planting stock is becoming faster, more accurate, and more expensive. U.S. programs must use state-of-the-art technology to stay competitive in the global market. It takes many years to establish healthy live plant collections that are the core of clean stock programs. Program continuity is critical because these collections must be continually protected from infection, monitored for disease, farmed, and documented. It could take decades of work to recover from disruptions in funding for a single year because of the risk to these collections.

Solution

Create a National Clean Plant Network (NCPN). Develop sustained national funding for clean planting stock programs for key horticultural crops. Provide funding to established centers that have the expertise, facilities, and climate necessary to efficiently produce, maintain, and distribute healthy planting stock for fruit trees, nut trees, and grapevines. Form an advisory committee that includes industry representatives and researchers from throughout the country to communicate priorities to the NCPN.

Impact

The NCPN will increase the availability of quality plants for planting for grapevine, fruit tree, and nut tree growers. Access to new varieties, rootstocks, and clones from both domestic and international producers will be improved. The risks associated with the introduction of exotic pests will be reduced. The productivity and competitiveness of these valuable specialty crops will be enhanced. Healthy planting stock helps assure the security of the country's food supply and maintain a supply of high quality, low cost products for consumers. 🍇

The National Grape and Wine Initiative^{1,2}

by Cliff Ohmart, director of research and integrated pest management at the Lodi-Woodbridge Winegrape Commission

THE NATIONAL GRAPE AND WINE INITIATIVE (NGWI) is one of the most significant developments for the U.S. grape and wine industry in a very long time. As an active participant in the program, I would like to present an in-depth history of the program and describe some of the recent developments.

In August of 2003 a group of about 20 concerned wine industry leaders in California and UC Davis viticulture and enology researchers felt it was time to meet to discuss the erosion of financial support for viticulture and enology research and extension while competition in the industry steadily increased. They adopted the name the Wine Growers Critical Research Investment Initiative (WCRII), which would eventually evolve into NGWI. WCRII quickly recognized that even though California dominates the U.S. grape and wine industry, much more could be accomplished if they joined forces with the grape and wine industries in other states. One of the major reasons to do so is because the growth of the wine industry in the U.S. in the last 30 years has been nothing short of phenomenal. The number of wineries has increased 649% and the farmgate value of grapes now ranks 5th in the U.S. If you include the value added from wine, then it moves to third, only behind corn and soybeans.³

Furthermore, the congressional wine caucus has grown quite large through the hard work of wine and grape grower organizations such as Wine America, Wine Institute, California Association of Winegrape Growers and others. It appeared to WCRII that the time was right to seriously explore leveraging the grape and wine industry's position to enhance funding for research and extension.

WCRII invited 35 key grape and wine industry leaders and stakeholders from around the U.S. to a brainstorming session in Chicago in May of 2004. They gave the meeting the title of National Grape and Wine Research and Extension Strategy Session (NGWRESS) and the attendees were given the task of developing vi-

sion and mission statements as well as a set of desired outcomes for the strategy.

During the meeting, two programs were featured as case studies of commodity groups that developed strategies for dealing with the same issues facing the U.S. grape and wine industry. One program was developed by the U.S. tree fruit industry; the other was the research and extension program funded by a public/private partnership between the Australian wine industry and their federal government.

I briefly described the Australian program in my column entitled "Research and Extension at a Crossroads?" in the March 2004 issue of *Wines & Vines*. The Australian model is truly inspirational. Government and industry jointly fund a cohesive Australian Grape and Wine Research and Development Council with about \$11 million (U.S.) spent on research investments each year as part of an overall grape research commitment of about \$25 million (U.S.). It was clear to all those in attendance that the Australian program was a very impressive model from which much could be learned.

Governance of the grape and wine initiative was also discussed at the meeting, and many were attracted to the idea of approaching the American Vineyard Foundation (AVF) with the proposal that it serve as a temporary umbrella under which NGWI could exist as it develops its strategies and funding sources. AVF is a California corporation formed in 1978 by the American Society for Enology and Viticulture (ASEV) as a vehicle for raising funds for research in viticulture and enology. Funding for AVF comes from donations by California growers and wineries and therefore the board membership consists only of California wine industry leaders. If AVF were to oversee the NGWI, its Board would need to change its representation to reflect the national scope of the initiative. AVF has been approached with this suggestion and is giving it serious consideration.



¹ I want to thank Mark Chien, Cooperative Extension, Penn State University, Bill Nelson, Wine America, and Karen Ross, California Association of Winegrape Growers for information used in this article.

² A slightly different version of this article was originally published in the July, 2005 issue of *Wines & Vines* magazine. It is reprinted here with permission.

³ Mark Chien, Cooperative Extension, Penn State University

As the Chicago meeting progressed, excitement grew as attendees realized the power of the entire U.S. grape and wine industry approaching funding sources with a united front and developing national research priorities. It also was clear the critical role played by successful extension of research results to the end users, whether they are growers, wine makers or marketers, and that the erosion of support for extension was reaching a crisis stage.

Furthermore, there was a general feeling that a large amount of research results have never been published. The group resolved that extension must be emphasized in all research programs and given adequate financial support. Subcommittees were formed to pursue important tasks such as identifying regional research priorities in viticulture and enology and beginning to consolidate them where possible into national priorities, summarizing funding for viticulture and enology research and extension throughout the U.S., and identifying ways to improve extension programs.

A second meeting of NGWRESS was held in conjunction with the annual meeting of ASEV in San Diego in June of 2004. The subcommittees formed at the Chicago meeting gave reports on their progress and a decision was made to organize an even larger meeting to develop true consensus and buy-in from the U.S. grape and wine industry. A list of key industry, academic and government people was developed and all were invited to a meeting in Chicago in November of 2004. Seventy five people met at this meeting to finalize the NGWI vision and mission statements and identify top-level strategies for research and extension in viticulture and enology. All facets of the grape and wine industry are involved, including table grapes, winegrapes, raisins, process grapes, and wine producers.

NGWI's vision statement is: *By 2020, the American grape and wine industry will triple its economic impact, from \$50 billion annually to \$150 billion, by aggressively pursuing increased market share, becoming the undisputed world leader in consumer value and sustainability, and contributing to improved quality of life in rural communities.*

NGWI's mission statement is: *To achieve our vision, we will assure outcome based funding to deliver innovative, prioritized, collaborative research, technology development, extension and education. Leadership and funding will be provided through creative public-private partnerships among government, academic, nonprofit and private sector partners accountable for research, development and adoption of business, environmental and socially responsible best practices in the American grape and wine industry.*

continued on page 20

Q-37 Revision Underway

by Robert Woolley, Owner and General Manager of Production, Dave Wilson Nursery

USDA's Animal and Plant Health Inspection Service (APHIS) has initiated a revision of Quarantine 37, the federal statute that governs the importation of certain propagative plant materials into the United States. On December 10, 2004, APHIS promulgated an Advanced Notice of Proposed Rulemaking (ANPR) under Docket No. 03-069-1 in the Federal Register prompting comments by the California Department of Food and Agriculture, the California Association of Nurseries and Garden Centers and, jointly, the Society of American Florists and the American Nursery and Landscape Association.

As a followup to the ANPR, APHIS conducted a workshop in May, 2005 to evaluate criteria to be used in conjunction with the proposed new plant import category "Plant Taxa Excluded Pending Pest Risk Analysis." Although narrow in scope, the workshop addressed what may become a very important category for the regulation of plant materials. Under international agreements entered into by the United States, such as the International Plant Protection Convention, the World Trade Organization's Agreement on the Application of Sanitary and Phytosanitary Measures and the North American Free Trade Agreement, countries are prohibited from excluding plant materials without proper justification.

Plant material must be infected with a pest of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being "officially controlled" to justify quarantine controls. Although certification programs that reduce the amount of planting stock infected with many economically important pests such as grapevine leafroll, fanleaf and corky bark exist in the USA, these programs are voluntary and so do not constitute "official control" according to the international agreements. The existing US Federal quarantine regulations that prohibit the release of foreign propagation stock infected with uncontrolled endemic pests do not, therefore, comply with the international agreements and could be called unfair trade practices.

It may be acceptable to exclude plant materials for a period of time, however, until a pest risk analysis is completed. The workshop did not yield a consensus of opinion, and technical issues were raised about the legality (under trade treaties) of some of the measures that were proposed. 

NGWI... continued from page 19

The four top-level strategies are:

- Understanding and Improving Quality
- Consumer Value, Health and Nutrition
- Production Efficiency
- Sustainable Practices

Breakout groups for each of these strategies were formed and they developed objectives to meet the top-level strategies and action plans to meet the objectives. Action plans were divided into short-, medium-, and long-term, and budgets were developed that would be required to carry out these action plans. Great progress was made at the November meeting by the breakout groups, and the work has continued via conference calls.

While the Australian model is inspirational, it cannot be directly applied in the U.S. Research in the U.S. is much more fragmented than it is in Australia. Recognizing these differences NGWI, using the strategies and action plans developed by the NGWI subcommittees, has chosen to proceed with developing a more firm and secure funding base with multiple tactics. First, NGWI has obtained pledges from the Agricultural Research Service (USDA-ARS) and Cooperative State Research Education and Extension Service (USDA-CSREES) to provide money to defray NGWI administrative expenses. Second, NGWI is currently assessing federal, state, and industry resources for grape research. To this end, USDA-ARS held a symposium in St. Louis in July 2005 to give the grape

industry an overview of ARS' current and anticipated research on grapes and grape products. This provided an opportunity to continue developing a national priority for grape and wine research and identify gaps in knowledge. Third, several initiatives are underway to initiate new or increased government funding for grape research.

Finally, NGWI is facilitating the harmonization of government and industry strategic plans. That is because the industry priority list being developed by NGWI has much in common with USDA, ARS and CSREES strategic plans. As part of the process of refining industry priorities, NGWI will work at emphasizing the resonance between agency plans and the needs of the grape industry.

Although NGWI is still in the formative stages, it has already made considerable progress. It is critical for the future success of the U.S. grape and wine industry that the current challenges of global competition and erosion of research and extension be dealt with effectively. If you get the opportunity to participate in NGWI, I strongly urge you to take advantage of it. For more information on NGWI visit www.ngwi.org or contact someone in the following organizations: Wine America (www.wineamerica.org), California Association of Winegrape Growers (www.cawg.org), Wine Institute (www.wineinstitute.org), American Vineyard Foundation (www.avf.org), or your state grape organization. 🍇



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