



# Foundation Plant Services

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## Virus Status of Pinot noir FPS 23

This notice is to inform you that Pinot noir FPS 23 is likely to be infected with grapevine leafroll-associated virus 7 (GLRaV-7). Known as the 'Mariafeld clone', this Swiss selection is very popular with some grape growers and winemakers. At this time, FPS Pinot noir 23 remains registered in the California Grapevine Registration and Certification (R&C) Program. FPS is notifying customers to whom it has supplied Pinot noir 23 plant material of recent test results.

GLRaV-7 is a new virus that was found in 2000 in a vine in Albania that was showing characteristic leafroll symptoms. GLRaV-7 was named and partially characterized by a group of scientists in Italy who determined that it is a new virus in the family of Closteroviridae (the same family as other GLRaVs), but different from all other known viruses in the grapevine leafroll disease complex. In a limited survey performed by the same group of scientists in Italy, they found that, although this virus is not widespread in the vineyards, it was present in other countries including Albania, Greece, Hungary, Egypt and Italy. The virus has not been fully characterized yet and we do not have any information regarding its vector and natural spread in the field.

The RT-PCR detection methodology that has been developed for GLRaV-7 is being used by scientists and commercial laboratories. Antibodies also have been produced for use in ELISA for the detection of this virus, and are commercially available.

GLRaV-7 was first found in Pinot noir 23 vines from several California nurseries by a private laboratory using RT-PCR. The FPS lab re-tested these samples as well as 22 vines of Pinot Noir FPS 23 from the FPS Foundation Vineyard. Both the FPS vines and samples from older nursery sources tested positive for GLRaV-7, which suggests that this selection has always been infected with GLRaV-7. This was the first time a GLRaV-7 PCR test was used to check the FPS Pinot noir 23 vines. FPS has recently applied for funding to screen all Foundation vines with this and other new PCR tests.

When Pinot noir 23 was checked in 1998 using the official test for leafroll prescribed by the California R&C and federal grape importation programs (Cabernet Franc field index), the results were negative. This suggests that GLRaV-7 (or this strain of the virus) may be mild or non-symptomatic on Cabernet Franc. FPS will be conducting extensive field, lab and greenhouse tests over the next 2 years to find out more about the health status of this selection.

Drs. Adib Rowhani (UC Davis) and Jerry Uyemoto (USDA-ARS) are collaborating on research to determine the field effects of GLRaV-7. Dr. Uyemoto has preliminary evidence that some selections of Pinot noir are not compatible with the rootstock 110R; however, the rootstock incompatibility problem does not seem to be limited to a single selection (clone) of Pinot noir, so it may not be related to the presence of GLRaV-7 in Pinot Noir 23. Further research will help clarify this issue.

Tissue culture therapy will be used at FPS to produce a selection of Pinot noir FPS 23 free of GLRaV-7. When this new selection of the 'Mariafeld clone' is available (by about 2010), it will replace Pinot noir FPS 23 in the R&C Program.

Customers may continue to purchase material from existing Pinot noir FPS 23 mother vines if they are willing to assume any potential risk associated with its use. Customers who have purchased Pinot noir FPS 23 materials from FPS in the past are encouraged to share this information with their customers who may be affected.

Questions regarding this issue may be directed to Dr. Deborah Golino by email at [dagolino@ucdavis.edu](mailto:dagolino@ucdavis.edu) or by phone at (530) 754-8102.