

## INTERNATIONAL COUNCIL FOR THE STUDY OF VIRUS AND VIRUS-LIKE DISEASES OF THE GRAPEVINE

## RECOMMENDATION

The International Council for the Study of Virus and Virus-like Diseases of the Grapevine (ICVG) recognizes over 75 infectious agents (viruses, viroids, and phytoplasmas) affecting grapevine. These pathogens are graft-transmissible and many can be highly detrimental, having a negative impact on plant vigor and longevity, as well as on fruit quality and quantity.

Infected propagation material is the primary means for the spread of graft-transmissible diseases among countries and within viticultural regions. Therefore, all efforts should be made to improve its sanitary condition. Certification is a powerful and effective strategy to control these graft-transmissible agents and promote the quality, profitability and sustainability of vineyard production.

Certified grapevines are derived from pathogen tested, clean and clonally selected nursery stocks. The certification process makes provisions to identify clean stocks, prevent and detect subsequent infection of nursery plants by regulated pathogens and pests, ensure clonal integrity, and permit traceability of the certified grapevines to the originally selected and tested stocks.

High standards are paramount for certification to be efficient, as inadequate standards have repeatedly resulted in disease problems for growers and nurserymen. Certified nursery stocks should test negative for the most damaging diseases/pathogens to be eligible to move between regulated areas under the control of individual National Plant Protection Organizations. The agents that should be controlled by certification programs are those associated with infectious degeneration and decline (nepoviruses), leafroll disease and all associated viruses (grapevine leafroll-associated viruses 1, 2, 3, 4 and 7), rugose wood and some of the associated vitiviruses (grapevine virus A and grapevine virus B), and phytoplasmas (flavescence dorée, bois noir, and grapevine yellows). In the future, the fast advancing diagnostic technologies will make it possible to exclude additional disease causing viruses from certified stocks, including other viruses associated with the rugose wood disease, marafiviruses and maculaviruses associated with energing diseases. Until that time, a moratorium will be established for these viruses.

As efforts are made to harmonize grapevine certification protocols across countries or viticulture regions, while preserving genetic resources that are part of the world viticultural heritage, high standards are essential to ensure that no viticultural area is compromised by the introduction and spread of graft-transmissible diseases.