

**RELAÇÃO ENTRE EXPRESSÃO DE SINTOMAS E INFECÇÃO VIRAL EM VIDEIRAS  
CV. CABERNET SAUVIGNON  
RELATIONSHIP BETWEEN SYMPTOM EXPRESSION AND VIRAL INFECTION IN  
GRAPEVINES CV. CABERNET SAUVIGNON**

**THOR VINÍCIUS MARTINS FAJARDO <sup>1</sup>; ÍCARO DA RÉ <sup>2</sup>; GIULIANO ELIAS PEREIRA <sup>3</sup>;  
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**Resumo:**

Cultivars of *Vitis vinifera* (wine grape) are usually more sensitive to viruses compared to cvs. of *V. labrusca* (common grape) and hybrids that are tolerant to viruses. However, in both genotypes, viruses can significantly affect fruit quality and production. The spread of viruses occurs with the use of infected propagating materials and dispersion by vectors such as mealybugs (pseudococcids) of the *Pseudococcus* and *Planococcus* genera, capable of transmitting grapevine leafroll-associated virus 3 (GLRaV-3), grapevine virus A (GVA) and grapevine virus B (GVB). The objective of this work was to relate symptom expression with viral infections in grapevines. Two hundred and ten samples of cv. Cabernet Sauvignon (*V. vinifera*) were collected in three commercial vineyards in the municipalities of Bento Gonçalves (2) and Pinto Bandeira (1), Rio Grande do Sul state, Brazil. Thirty samples of symptomatic vines and 40 of asymptomatic plants per vineyard were collected. Typical symptoms at different intensities of leafroll and rugose wood complex, two of the major diseases of grapevines, were observed in the samples in February 2021, such as leafroll and reddening of leaves with green veins or dark red leaf spots with abnormal leaf texture. The samples were indexed by RT-qPCR for three viruses, according to previously reported protocols (Dubiel et al. Trop. Plant Pathol. 38:158-165, 2013). The collected samples of grapevine cv. Cab. Sauvignon from commercial vineyards were indexed for the presence of viruses, revealing incidences of 24.3-38.6% (GLRaV-3), 7.1-30% (GVA) and 12.8-45.7% (GVB). Mean incidences of 50.5%, 27.6%, 17.1% and 4.8% were also observed in samples, respectively, healthy with respect to assessed viruses, and with single, double and triple infections. The average incidence of viral infection in symptomatic plants was 52.2% (GLRaV-3), 26.7% (GVA) and 42.2% (GVB) and, in asymptomatic plants, 13.3% (GLRaV-3), 7.5% (GVA) and 21.7% (GVB). Even in the case of very sensitive genotypes to viral infection, asymptomatic plants can be infected by viruses. The sampled vineyards showed a significant incidence of single or multiple viral infections. This highlights the importance of indexing to determine the phytosanitary condition of vines. Visual assessment of health is not completely recommended, as it is not reliable.

**Palavras-chave:** Indexing; Diagnosis; *Vitis*; Ampelovirus; Vitivirus

**Apoio**

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