Blackberry virus S

- Virus/pathogen name, including accepted acronyms and synonyms

  Blackberry virus S is an RNA virus of the *Tymoviridae* family, *Marafivirus* genus. BlVS has been used in publications, however the ICTV accepted acronym is BVS.

- Host range, including resistance or tolerance within the crop hosts, alternate hosts

  BVS has been found in native, wild and cultivated blackberry plants (Khadgi, 2015; Sabanadzovic and Ghanem-Sabanadzovic, 2009). Mechanical transmission to a number of herbaceous hosts has been carried out, however, these have all been unsuccessful (Sabanadzovic and Ghanem-Sabanadzovic, 2009).

- Symptoms on crop host including varietal differences with images of symptoms when available

  Infected blackberry show symptoms which range from general leaf chlorosis and ring spots to BYVD symptoms of mottling/yellowing of veins (Sabanadzovic and Ghanem-Sabanadzovic, 2009). All samples contained a mixed infection with BVS and at least one other virus species, therefore it is currently unknown whether BVS has a role in symptom development.

- Geographic distribution:

  BVS has only been identified in the USA. It has been found in Mississippi, Arkansas, North and South Carolina, Georgia, and Florida, and also from blackberry wild germplasm from the Great Smoky Mountains National Park (Khadgi, 2015; Sabanadzovic and Ghanem-Sabanadzovic, 2009).

- Means of spread:
  The vector that transmits BVS is currently unknown. However, some marafivirus species are transmitted by leafhoppers, suggesting these could be a potential vector for BVS.

- Recognized diagnostic tests with cited references:
  A RT-PCR test with primers designed to a region of the coat protein is used to detect BVS (Sabanadzovic and Ghanem-Sabanadzovic, 2009)

- Sampling recommendations for each pathogen including timing and tissue to be sampled

- Management strategies for the pathogen and the vector(s) of the pathogen
  Given the lack of knowledge on the epidemiology of the virus the use of certified virus-tested planting material is highly recommended as the virus may be distributed in infected planting material and be asymptomatic.

References

Khadgi, A., 2015. Blackberry Virosome: A Micro and Macro Approach. University of Arkansas.

Sabanadzovic, S., Ghanem-Sabanadzovic, N.A., 2009. Identification and molecular characterization of a marafivirus in Rubus spp. Archives of virology 154, 1729-1735. https://doi.org/10.1007/s00705-009-0510-x

Sabanadzovic, S. and Abou Ghanem-Sabanadzovic, N., 2009. Identification and molecular characterization of a marafivirus in Rubus spp. *Archives of virology*, *154*(11), pp.1729-1735.

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Date of last update: August 2020