Blueberry scorch virus

a. Virus/pathogen name, including accepted acronyms and synonyms

   Blueberry scorch virus, BlScV; Sheep pen hill disease

b. Host range, including resistance or tolerance within the crop hosts, alternate hosts *Vaccinium* spp. reported in *V. corymbosum*, (northern highbush blueberry), V. macrocarpon (cranberry), *V. membranaceum*, (black huckleberry)

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

   Symptoms in blueberry vary depending on virus strain and cultivar from asymptomatic to severe blighting of flowers, young leaves and twig dieback. In addition to these symptoms, leaves of infected bushes on some cultivars (e.g. Stanley) may show marginal chlorosis or a red line pattern in late summer and fall. The blighted flowers often fall off soon after symptom expression, but can remain on the bush throughout the season and through the next dormant season. Plants with severe blighting bear little or no fruit and take on a scorched appearance. Virus infections can be latent for many years, depending on cultivar, and severity of expression can vary from year to year. Affected bushes of some cultivars can be productive for many years, whereas others decline quickly over a few years and eventually die. This variation in symptom expression has made field diagnosis difficult and growers are reluctant to remove infected bushes that still bear fruit. Cultivars Legacy and Liberty remain symptomless or show mild chlorosis. The symptoms can be easily confused with those caused by blueberry shock virus, frost damage, botrytis blossom blight or Pseudomonas blight. A laboratory diagnosis is highly recommended to confirm the presence of BlScV before implementing management strategies. BlScV was symptomless in cranberry and black huckleberry, however, symptom expression has not been studied in depth in these hosts and could vary by cultivar or clone.

d. Geographic distribution: BlScV has been detected in the U.S. (Connecticut, Massachusetts, Michigan, New Jersey, New York, Oregon, Washington), Canada (British Columbia), The Netherlands, Italy, and Germany. The presence of the virus in Italy is in flux given what was originally labeled as BlScV was actually blueberry virus S

e. Means of spread: BlScV is transmitted inefficiently in a non-persistent manner by several aphid species

f. Recognized diagnostic tests with cited references:

   BlScV can be detected readily by ELISA, RT-PCR or qRT-PCR
   ELISA, (Martin and Bristow 1988); Villamor et al., 2026

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

Leaf tissue collected from late May through early September in the northern hemisphere is ideal tissue for sampling. The youngest but fully expanded leaves provide optimal tissue for sampling

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h. Management strategies for the pathogen and the vector(s) of the pathogen
BlScV usually spreads slowly in the field due to the inefficient nature of the virus transmission by aphids. At low levels of infection, detection combined with plant removal can greatly limit the rate of virus spread. The most important control measure is to start with BlScV-free planting stock, also if planting adjacent to other blueberries or cranberries it is advisable to test these adjacent plants for BlScV infection prior to planting to determine if they pose a risk of virus infection in the planned planting.

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