# Strawberry Necrotic Shock Virus

a. Virus/pathogen name, including accepted acronyms and synonyms
*Strawberry necrotic shock virus*, SNSV– Genus *Ilarvirus*, Family *Bromoviridae*

- AKA Black raspberry latent virus Converse and Lister, 1969
- Tobacco streak virus Jones and Mayo, 1975; Stenger et al., 1987

Strawberry necrotic shock was first introduced in 1962 as a new agent infecting strawberry. Because of the cross reactivity with antisera against tobacco streak virus, it was assumed to be a stain of the latter until 2004 when it was proven to be a distinct virus. Since then the virus has been verified to infect strawberry and Rubus species but not blueberry

b. Host range, including resistance or tolerance within the crop hosts, alternate hosts
Fragaria spp., *Rubus occidentalis* - *laboratory hosts should include those commonly used for identification of ilarvirus subgroup 1 but no such experiments have been performed*

c. Symptoms on crop host including varietal differences with images of symptoms when available
The virus does not cause symptoms in modern strawberry cultivars but causes necrosis on emerging leaves of *Fragaria vesca*.

d. Geographic distribution: SVNV has been detected in all strawberry and blackberry producing areas in the U.S. as well as the Philippines, Mexico, China, and Australia.

Means of spread: SPaV is transmitted efficiently by **t**he greenhouse whitefly **(***Trialeurodes vaporariorum*) the banded-wing whitefly (*T. abutilonea*). Mechanical inoculations and seed transmission studies did not yield any positive plants.

e. Recognized diagnostic tests with cited references:
SPaV can be detected readily by RT-PCR (Tzanetakis et al., 2004). The antiserum developed by Tzanetakis et al. (2004) is not commercially available

f. Sampling recommendations for each pathogen including timing and tissue to be sampled
Leaf tissue collected in early season is ideal for sampling. Sampling during the hot summer months is discouraged as virus titer drops significantly during this period. Fully mature leaves are needed for optimal SPaV detection.

g. Management strategies for the pathogen and the vector(s) of the pathogen
SPaV is widespread in the United States and the whitefly vectors are present in production fields. The most important control measure is to start with SPaV-free planting stock, also if planting adjacent to alternative hosts it is advisable to test these adjacent plants for the virus prior to planting to determine if they pose a risk of SPaV infection in the planned planting.

i. References

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