Strawberry Polerovirus

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

   Strawberry polerovirus 1 (SPV-1), genus *Polerovirus,* family *Luteoviridae*
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b. Host range, including resistance or tolerance within the crop hosts, alternate hosts

   The virus was discovered using high throughput sequencing in plants exhibiting severe decline symptoms in eastern Canada (Xiang et al., 2015). Declining plants were coinfected with strawberry mild yellow edge virus (SMYEV) and SPV-1, and in some cases SMYEV, strawberry mottle virus and SPV-1.

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

   Plants singly infected with SPV-1 did not exhibit symptoms. There is no information whether SPV-1 causes symptoms in virus indicator plants commonly used for strawberry virus bioassays. Strawberry plants infected with only SMYEV and SPV-1, based on high throughput sequencing, exhibited decline symptoms, suggesting that SPV-1 contributes to decline symptoms in mixed infections (Xiang et al., 2015).

d. Geographic distribution:
   SPV-1 has been reported in Canada (Xiang et al., 2015), the United States (Thekke-Veetil T. et al., 2016), Argentina (Luciani et al., 2016). Expected to be distributed globally

e. Means of spread:
   SPV-1 is transmitted through vegetative propagation. Being in the genus *Polerovirus*, it is likely to be aphid transmitted in the field, but this has not been demonstrated under controlled conditions.

f. Recognized diagnostic tests with cited references:
   SPV-1 can be detected by RT-PCR (Xiang et al., 2015; Theekke-Veetil et al., 2016).

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

   Fully expanded leaves should be used for detection as the virus is presumed to be phloem-limited. Three leaves per plant should be used for detection by RT-PCR.

h. Management strategies for the pathogen and the vector(s) of the pathogen
   The use of virus-indexed planting stock is the most critical step in virus management. Avoid planting adjacent to older strawberry fields since they likely are a source of inoculum and potential vectors. In annual production systems, viruses are less importance especially in areas where there is a strawberry free period between production cycles.

Luciani C.E., Celli M.G., Merino M.C., Perotto M.C., Pozzi E., Conci V.C. 2016. First report of strawberry polerovirus 1 in Argentina. Plant Disease 100:1510.

Thekke-Veetil T., Tzanetakis, I.E. 2016. First Report of Strawberry polerovirus-1 in strawberry in the United States. Plant Disease 100:867. doi: 10.1094/PDIS-09-15-1044-PDN.

Xiang, Y., Bernardy, M., Bhagwat, B., Wiersma, P. A., DeYoung, R. and Bouthillier, M. 2015. The complete genome sequence of a new polerovirus in strawberry plants from eastern Canada showing strawberry decline symptoms. Archives Virology 160:553-556.

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