Blueberry Red Ringspot Virus

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

Blueberry red ringspot virus (BRRSV)

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

BRRSV infects northern and southern highbush and rabbiteye blueberry as well as cranberry (Martin et al., 2012; Polashock and Hillman, 2017).

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

Symptoms include solid red or yellowish spotting primarily on the upper leaf surface. The spots can coalesce to form a blotching appearance. In some blueberry cultivars, red rings with green centers can appear on the one year old twigs. Reddish or purple colored rings can develop on fruit of some cultivars, but these are not obvious on ripe fruit and there is little impact on fruit quality in most cultivars. In 'Ozarkblue' the fruit is often distorted and quality is impacted. In cranberry, yellowish rings can be observed on the ripe fruit.

d. Geographic distribution:

In North America, BRRSV occurs primarily in the eastern U.S. and is rare along the west coast. BRRSV has been reported in Japan, Korea, Poland, Slovenia and the Czech Republic (Polashock and Hillman, 2017; Martin and Tzanetakis, 2018; Martin et al., 2012).

e. Means of spread:

The vector for this virus is unknown, but field spread has been observed in the eastern U.S., especially in the southeast (Martin and Tzanetakis, 2018; Polashock and Hillman, 2017).

f. Recognized diagnostic tests with cited references:

BRRSV can be detected by PCR that will detect a broad range of isolates including those from cranberry (Polashock et al., 2009).

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

Symptomatic tissues should be selected for testing, if no symptoms are present the youngest but fully expanded leaves are recommended.

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. In many locations BRRSV spreads slowly in the field. Therefore, if there is a low incidence of infection, roguing can be used to remove infected plants rather than removing the entire field. If doing

selective plant removal the strategy should be continued for several years, to allow recently infected plants to develop symptoms.

References

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