

Do you have Raspberry Viruses?

A concern for raspberry & blackberry producers in Nova Scotia.

Introduction & Symptoms

Two raspberry viruses were found in several commercial raspberry operations during the 2014 growing season and growers should be on the look-out for this new virus problem. The two viruses, Rubus Yellow Net Virus (RYNV) and Raspberry Leaf Mottle Virus (RLMV) are individually symptomatic and collectively symptomatic, causing reduced yields, smaller leaves and berries, and chlorotic foliage (Fig.1).

Spread

RYNV and RLMV are transmitted by the large raspberry aphid (*Amphorophora agathonica*) and not surprisingly this aphid has been confirmed in Nova Scotia. It is found on cultivated red raspberry, blackberry and wild *Rubus* species.

The large raspberry aphid is a large, light to dark green aphid, 2.5 – 4.5 mm long, with very long antennae and legs, often dropping from the raspberry leaf when disturbed (Fig.2). It overwinters as eggs which often begin to hatch at bud break. Peak population is reported to occur just before harvest and some areas report a single flight while others report two. Flight patterns have not been studied previously in Nova Scotia but monitoring began in the 2015 growing season.

RYNV and RLMV are semi-persistent which means that continuous feeding for a few hours by the aphid is generally required for transmission. The viruses are not transmitted to young aphids, nor are they transmitted by contact among plants, or by pollen. However, infection levels can increase rapidly with up to 100% infection of plants after as few as five seasons.

Management

Management of RYNV and RLMV involves removing infected bushes when first observed; an application of an appropriate insecticide before removal is prudent to prevent any aphids from scattering to healthy plants nearby. Individual plants can be replanted if the stand is high yielding and if the disease incidence is low. However, plantings with declining production and significant levels of disease should be removed outright and replanted with clean stock. Isolation from other plantings is also desirable if possible. Lastly, the large raspberry aphid must be managed effectively to minimize new infections and this is best done by careful monitoring for population build-up in the spring and for the high risk flight period(s) with application of appropriate insecticides as necessary.

Perennia management schedules are regularly updated. Producers are advised to check them for up to date pest information.



Figure 1

“Two raspberry viruses were found in several commercial raspberry operations during the 2014 growing season and growers should be on the look-out for this new virus problem.”



Figure 2

For more information, contact:

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