Rhode Island State Report – 2024 Keiddy Urrea-Morawicki, Lisa Tewksbury

RI Plant Diagnostic Lab/ IPM update-

- We had a wet April and early summer, making pesticide applications difficult for growers and ideal for disease.
- It was a bad year for apple scab. One grower lost apples from apple scab and other foliar diseases, most likely because he wasn't up on his fungicide applications.
- Fire blight was seen only on a homeowner crabapple, no commercial orchards.
- Also saw bitter rot, black rot or frogeye, and possibly Alternaria leaf blight (as either a primary pathogen or possibly a secondary pathogen after black rot).
- Heather visited a poorly managed orchard and saw Marssonina.
- In an unmanaged orchard Heather Faubert and Keiddy Urrea-Morawicki identified what they think was thread blight (Corticium stevensii). The signs are silvery rhizomorphs and white to tan sclerotia that overwinter. There isn't much information on this disease, and it only seems to be present in poorly managed orchards.

(https://apples.extension.org/thread-blight-of-apple/)

University.

Figure 1. Leaves killed by the Figure 2. Leaves killed by the thread blight fungus. Photo: thread blight fungus and healthy Alan R. Biggs, West Virginia leaves nearby. Photo: Alan. R. Biggs, West Virginia University.





Figure 3. Silvery rhizomorphs, or "threads." and round sclerotia of the thread blight pathogen on an apple twig. Photo: Alan R. Biggs, West Virginia University.

Figure 4. Closer view of figure 3. Photo: Alan R. Biggs, West Virginia University.





- Peaches peach leaf curl, brown rot and regular insects on peach
- Small Fruits Keiddy saw some mummy berry and regular blueberry insects.
- The Biocontrol lab was funded to begin rearing *Ganaspis brasiliensis* for management of SWD. Adults were released once we had found SWD pupae in collected berries. We released in 5 sites in RI Two commercial orchards, URI's East Farm orchard and two small private small farms. We also collected parasitic wasps from infested berries and have identified both *Ganaspis brasiliensis* and *Leptolinia japonica* from the collections. We are still collecting and analyzing the data.
- Harlequin bug was found in RI for the first time in 2024 on kale in three locations. They feed on brassicas mostly but have been found on peach, pear, grapes and raspberries.

Harlequin Bug on Kale in RI – Is it new? (Distributed by RIAgNotes)

A potential new pest, the harlequin bug, was identified at two farms in Rhode Island in 2024. In both cases they were found on kale and in one case there were many adults and one egg mass on the kale leaves (see photos). This insect is native to Mexico and Central America and moved into the US in the 1800's. The harlequin bug is a serious pest of plants in the family Brassicaceae (cabbage, kale, broccoli, mustard, etc.) in the south. This is potentially another example of southern insects gradually able to adapt to northern areas as our climate changes. Only 5 other harlequin bugs have been reported on iNaturalist since 2019, in Newport and Providence counties, so it is relatively new to us.

The harlequin bug is in the stink bug family, and it feeds on plants with its sucking mouthparts, causing plants to wilt. After this feeding damage, broccoli and cauliflower may also fail to form flower heads, and large infestations can kill plants. It only has one generation per year in our area and overwinters in the adult stage in the soil or in crop debris. You can handpick all the life stages and put them in soapy water to kill them. Be on the lookout for this insect on wild Brassicaceae also, such as pigweeds and lambsquarters. Please email me or David Weisberger to let us know if you have seen this pest and let us know if you are seeing damage. This will help us to provide another update on the status of this pest in RI.



Harlequin bug adult (left) and eggs (middle) collected on Kale in North Kingstown, RI in Sept. 2024. Photos credit: Lexi Johnson, URI Biocontrol Lab. Harlequin bug nymphs that hatched from the eggs collected in North Kingstown (right). Photo credit: Dana Terrill, URI Biocontrol Lab.

Sources of Information:

iNaturalist (Murgantia histrionica): https://www.inaturalist.org/taxa/56756-Murgantia-histrionica

Murgantia histrionica, Harlequin Bug (Hemiptera: Pentatomidae)

Arjun Khadka, Huval, Forest, Carlton, Christopher E.: https://www.lsuagcenter.com/articles/page1669654643474

Social Media Post by URI Cooperative Extension Education Center:

