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Arkansas Plant Health Clinic Newsletter

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Rose

Rose Mosaic Virus (RMV) is endemic in the rose trade. This virus does not kill the rose. RMV is a disease of roses caused by a virus complex. Prunus Necrotic Ringspot Virus (PNRSV), Apple Mosaic Virus (ApMV), and Arabis Mosaic Virus (ArMV) have been identified as components of the complex. These viruses may occur singly or together in a rose bush. This virus is not contagious in the field except for naturally occurring root grafts and cannot be passed plant to plant by insects or mites. Symptoms are extremely variable. Leaves may show bright yellow to white mosaic patterns, banding, or net-like patterns. Rose Mosaic Virus can also cause flower distortion, reduced flower size, reduced vigor, reduced winter hardiness, and a shortened lifespan. Most infected roses will be symptomless for at least part of the growing season. Symptoms often appear during periods of plant stress. Viruses are systemic. Once a rose has acquired the virus, it is always present whether there are visual symptoms or not. There is no cure for virus. However, since this virus does not spread from plant to plant in the garden, it is not critical to remove a rose infected with Rose Mosaic Virus.

Rose Mosaic Virus (RMV)-virus complex



Photo by Sherrie Smith, University of Arkansas
Cooperative Extension

Rose Mosaic Virus (RMV)-virus complex

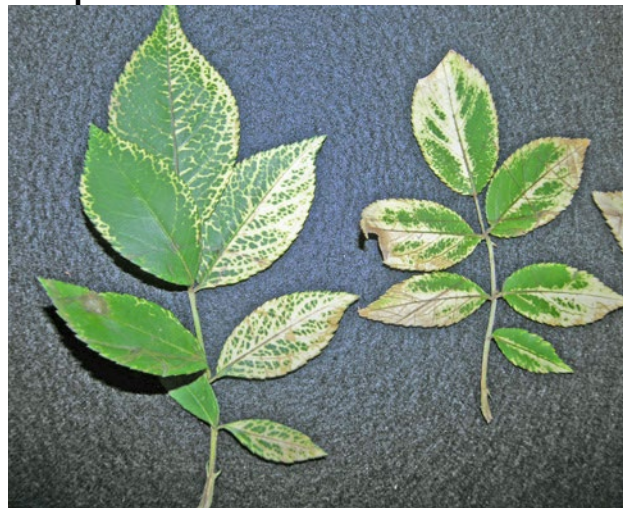


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Rose Mosaic Virus (RMV)-virus complex



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Elderberry

Tomato Ringspot Virus (ToRSV)

Elderberries are a versatile native plant grown as a large shrub or small tree. Their berries and flowers are used in wines, jellies, jams, cordials, and syrups. The leaves, seeds, twigs, and roots should not be ingested as they contain a cyanide producing glycoside. Additionally, elderberries provide valuable food and habitat for wildlife. Elderberries are also often grown as landscape plants, prized for their showy flowers and berries. They will grow in any good soil, from sandy to heavy loams, preferring a pH of 5.5 to 6.5. The most devastating disease of Elderberries is Tomato Ringspot Virus (ToRSV) which is spread by nematodes and by pollen. Anyone attempting to grow elderberries is advised to have their soil screened for nematodes before planting. Plants may have no outward symptoms or have yellow blotches or ringspots next to the main veins. Affected plants may never set fruit. The virus is not curable.

Elderberry Rust

Elderberry Rust, *Puccinia bolleyana*, causes thickened, discolored, hypertrophied (enlarged) areas on the stem, leaves, and petioles of elderberry. The spots (aecia) are crowded in orbicular groups and are bright orange yellow. The alternate host is a carex (sedge) species. Control of rust in Elderberry is difficult as most fungicides effective for rust are not labeled for elderberry. Pristine is labeled but will only provide suppression.



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Switch 62.5 WG, Elevate 50EDG, and Allegro 500F are labeled for other leaf diseases of elderberry, but not for control of rust. All carex in the vicinity should be removed if showing any rust symptoms. Infected twigs and leaves of elderberry may be pruned out and destroyed.

Elderberry Rust-*Puccinia bolleyana*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Elderberry Rust-*Puccinia bolleyana*



Photo by Micah Doubledee, University of Arkansas Cooperative Extension

Elderberry Rust hypertrophied stems-*Puccinia bolleyana*



Photo by Micah Doubledee, University of Arkansas Cooperative Extension

Blackberry

The Plant Health Clinic has received several complaints about discolored fruit in blackberries. White drupelet is a tan to white discoloration of individual drupelets on blackberry or raspberry fruits. This condition is caused by UV radiation and appears when there has been an abrupt increase in temperatures accompanied by a drop in

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humidity, especially when wind is also present. Hot, dry air allows more direct UV rays to reach the fruit. Most varieties of blackberry and raspberry are susceptible to White drupelet. However, Apache and Kiowa, and the Caroline red raspberry seem to get the disorder more frequently. While White drupelet does not make the fruit uneatable, it makes it unmarketable.

Blackberry White Drupelet-Abiotic



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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This bulletin from the Cooperative Extension Plant Health Clinic (Plant Disease Clinic) is an electronic update about diseases and other problems observed in our lab each month. Input from everybody interested in plants is welcome and appreciated.