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Alternanthera Mosaic Virus (AltMV)

Alternanthera mosaic virus (AltMV) has been reported on Celosia this spring. Watch your plants for virus symptoms including mosaic, mottling, distorted leaves, and leaf spots.

This spring, we've seen reports of *Alternanthera mosaic virus* (AltMV) on Celosia. Here's a quick review, so you can be on the lookout for it.

AltMV was first identified in 1999 on the weed *Alternanthera pungens*. Since then various ornamentals have been reported as hosts, including Celosia, Portulaca, Salvia, Torenia, Phlox, Angelonia, Thunbergia, Scutellaria, Crossandra, Helichrysum, and Nandina. In addition, the following plants were successfully inoculated in host range studies: tomato, faba bean, sunflower, zinnia, watermelon, cucumber, and blackeyed peas. This virus is a relatively new disease problem

Symptoms of *Alternanthera mosaic virus* (AltMV) on celosia (Margery Daughtrey, Cornell University)



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Distorted leaf margins on Portulaca, a result of *Alternanthera mosaic virus* (AltMV)

and its host range is not yet well defined. You should keep an eye on all of your plants, especially if you know that AltMV has been found elsewhere in your greenhouse.

Watch for slight mosaic patterns or mottling (light-colored or yellowed irregular patterns or patches on the leaf); these symptoms might be faint and not very distinct. You may also see distorted leaves, where the leaves appear narrower than normal or strap-like and/or have distorted leaf margins. Leaf spotting and flecking, stunt, and plant death can also be observed. Symptoms will likely be different on different hosts, and in some hosts symptoms are not obvious and can be very difficult to observe. Seek the assistance of a diagnostic lab to confirm the diagnosis of suspected plants.

This virus can be easily spread by workers handling or



Alternanthera mosaic virus (AltMV) symptoms on Phlox paniculata
(Tom Creswell, Purdue University, Bugwood.org)

pruning infected plants prior to handling healthy plants, or even by an infected plant leaf rubbing a healthy plant. This virus is not known to be spread by insects or mites.

There is no cure, and this virus can be easily spread to many different plants. Therefore, if the virus is identified, all infected plants should be disposed of using extreme care so that you do not spread it to healthy plants. Be sure that infected plants are not handled prior to handling healthy plants, and bag and remove the plants from the greenhouse area and dispose of them. It is a good idea to disinfest pots, tools, and benches that may have become contaminated. Use a 0.5% sodium hypochlorite solution (1:9 solution of regular household bleach) or another labeled product. Always read the label and also consider plant safety and worker safety.

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