

POTYVIRUS FOUND ON WANDERING JEW IN GREENHOUSES

During regular annual commercial greenhouse inspections in south central Kansas, two varieties of Wandering Jew (*Tradescantia*) were found to be infected with a potyvirus. This particular potyvirus is likely to have been a virus called *Tradescantia Mosaic Virus*. It is characterized by mottling and distortion of the leaves on the plant, as well as stunting of the overall plant (Fig. 1). These plants began growth in North Carolina and were shipped to Kansas to continue their growth.

Potyriviruses are a genus of plant pathogenic viruses spread non-persistently by aphids; the insects can only transmit them to healthy plants for a very short time (minutes to a few hours) after feeding from an infected plant. They comprise at least 147 viruses, currently the largest genus of plant pathogenic viruses (~30% of known plant pathogenic viruses), and can affect hundreds of hosts. Some have very narrow host ranges, and others can affect up to 30 plant families. The most common symptom of a potyvirus is a mosaic of light and dark colors on leaves, typically on younger leaves.



Figure 1: Two varieties of Wandering Jew were found to be affected. They showed symptoms of distortion, mosaic, and mottling of the leaves.

CANNA YELLOW MOTTLE VIRUS FOUND IN SEVERAL VARIETIES OF CANNA

Spring inspections of commercial greenhouse inspections also yielded another plant virus find: *Canna Yellow Mottle Virus* in cannas. Cannas are increasing in popularity as centerpieces of mixed planters as

well as individually grown plants. Traditionally, they are tuber-propagated, but seed-propagated and tissue culture varieties are also available. The virus has been found in both seed- and tuber-propagated varieties during the inspections, but tissue-cultured varieties have been clean. This virus can be seed-transmitted from mother plant to daughter plant. It may also be spread via tuber propagation or mechanical methods. Unlike other canna viruses such as Bean Yellow Mosaic Virus, Cucumber Mosaic Virus, and Canna Yellow Streak Virus, which are transmitted by aphids, there is no known insect vector for Canna Yellow Mottle Virus. Symptoms consist of yellow mosaic, mottling, and chlorosis or necrosis of veins in the leaves (Fig. 2). Canna Yellow Mottle Virus is only known to infect one other host: flowering ginger.

There is no cure for this disease, and no chemical can be applied to control it. The best methods of control are to watch newly planted canna plants for early signs of disease and remove any diseased plants. Do not compost the plants but throw them directly in the trash. When using tools such as clippers or shovels, sterilize between plants and after use. Tissue-cultured plants are typically virus-indexed and are therefore fairly reliably virus-free, so another method of control is to only purchase canna that were grown from tissue culture.

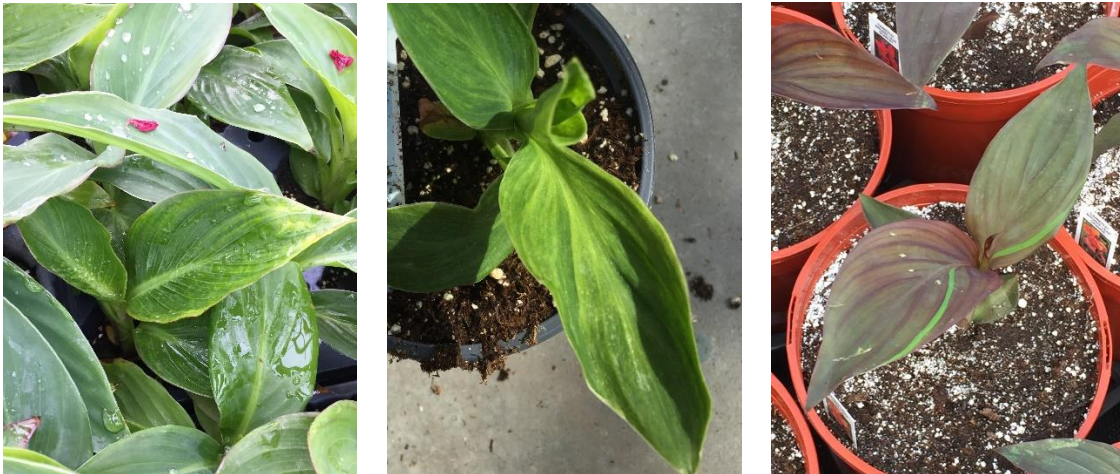


Figure 2: Symptoms of Canna Yellow Mottle Virus include leaf mottling, mosaic, and discoloration in the leaves.

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Our mission is to:

- Exclude or control harmful insects, plant diseases, and weeds;
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