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Tomato spotted wilt virus (TSWV) on Lobelia, Montauk Daisy, Osteospermum, and Hybrid Pericallis

This spring we've seen a number of plants with TSWV including lobelia, Montauk daisy, osteospermum, and hybrid pericallis. Symptoms included chlorotic mottling and spotting.

Tomato spotted wilt virus (TSWV) along with its close relative *Impatiens necrotic spot virus* (INSV) are two viruses that are frequently found in greenhouse crops. Both viruses, which are classified as tospoviruses, infect a large number of greenhouse-grown ornamental and vegetable crops as well as various greenhouse weeds. Both viruses are vectored by thrips.

These viruses have overlapping and large host ranges. While they can cause similar symptoms in general, you should not assume that symptoms of TSWV on a particular plant will appear similar to symptoms of INSV on that plant. Historically, INSV has been found more often in greenhouse ornamental crops and TSWV has been found more often in vegetable crops, though both viruses can infect both ornamental and vegetable crops. Always consider that either virus (or both viruses) could be infecting your flower or vegetable crops.

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Symptoms of TSWV on Montauk Daisy. Photo courtesy of Margery Daughtrey.

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Symptoms of TSWV on hybrid pericallis. Photo courtesy of Margery Daughtrey.

To confirm suspected infection by TSWV you can call an extension specialist or send a sample to a diagnostic lab or service. You can also use an in-house diagnostic kit (one example: ImmunoStrips®, Agdia, Inc., www.agdia.com). Know that test kits are specific only to the virus or viruses for which the kit is designed. (For example, if a plant with symptoms was infected with TSWV and you used a test kit for INSV, the test result would be negative.)

Some tips on managing TSWV:

- Be sure to scout regularly and get a diagnosis as soon as possible.
- It is important to manage the thrips vector, especially if either TSWV or INSV has been found in your greenhouse. See this week's e-Gro Alert on thrips, written by Dan Gilrein: http://www.e-gro.org/pdf/2016_528.pdf
- Prevent spread and seasonal carryover of virus and thrips by always practicing good sanitation.

Read other e-Gro Alerts on TSWV:

Calla lily: http://www.e-gro.org/pdf/336.pdf

Vinca: http://www.e-gro.org/pdf/349.pdf

New Guinea impatiens: http://www.e-gro.org/pdf/2015_425.pdf

Symptoms of TSWV on lobelia.

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Symptoms of TSWV on osteospermum. Photos courtesy of Lynn Hyatt.