

Commercial Flower Growers of Wisconsin
2014 Summer Field Day

TMV and CMV and TRV, Oh My!
Plant Viruses in the Garden

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Plant Viruses in the Garden

- **Pathogens**
 - Many, with more discovered all the time
 - Wide-range
 - Tobacco mosaic virus (TMV)
 - Cucumber mosaic virus (CMV)
 - Impatiens necrotic spot virus (INSV)
 - Tomato spotted wilt virus (TSWV)
 - Tobacco rattle virus (TRV)

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Plant Viruses in the Garden

- **Pathogens**
 - Narrow-range
 - Cymbidium mosaic virus (CyMV)
 - Odontoglossum ringspot virus (ORSV)
 - Hosta virus X (HVX)

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Plant Viruses in the Garden

- **Transmission**
 - Touch (TMV)
 - Mechanical (HVX)
 - Insect
 - Aphids (CMV)
 - Thrips (INSV, TSWV)
 - Nematode (TRV)

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Plant Viruses in the Garden

- **Transmission**
 - Propagation
 - Plant division (HVX, TRV)
 - Tissue culture
 - Grafting
 - Pollen
 - Seed





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- **Control**
 - Start with clean materials
 - Inspect plants prior to purchase for viral symptoms
 - Test for viruses prior to purchase
[Agdia, Inc. (www.agdia.com)]

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- **Control**
 - DO NOT smoke around plants
 - Wash hands regularly, particularly after smoking
 - Control insects
 - Keep weeds under control
 - Remove and destroy infected plants/debris

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- **Control**
 - Disinfect tools, pots, bench tops, etc.
 - 1% Sodium dodecyl sulfate (sodium lauryl sulfate) + 1% Alconox® (2½ Tbsp + 2¾ Tbsp/gal)
 - 20% low fat dry milk (Carnation®) + 0.1% polysorbate 20 (9½ cups + ¾ tsp/gal)
 - Trisodium phosphate (14 dry oz/gal)
 - Alcohol dip followed by flaming
 - No chemical treatments for plants are available

Commercial Flower Growers of Wisconsin Where to Go for Help

Plant Disease Diagnostics Clinic
Department of Plant Pathology
University of Wisconsin-Madison
1630 Linden Drive

Madison, WI 53706-1598
(608) 262-2863

pddc@plantpath.wisc.edu
<http://pddc.wisc.edu>

Follow the clinic on Twitter @UWPDDC