

Grapevine yellows could become a problem in vineyards if it were introduced to Wisconsin. DATCP's pest survey team is currently conducting a survey for this for disease. If you see grapevines that show the disease symptoms described here, please contact us.

Target Diseases: Australian grapevine yellows, Boir noir (Stolbur), and Flavescence dorre on grapevine.

Causal Agents: 'Candidatus Phytoplasma australiense', 'Candidatus P. solani', and 'Candidatus P. vitis', bacteria-like organisms.

Plant Parts Affected: Stem, shoots, leaves, flowers, fruits.

Symptoms on grape vine: Premature color change. In white varieties leaves turn yellow and in red varieties the leaves turn red. Early leaf drop, aborted flowers, aborted fruits, shriveled fruits. Yellow leaves, downward curled leaves and necrotic patches on leaves. Stunted and unglified shoots, blueish colored stems.

Hosts: Fruits: Apple, blackberry, blueberry, cherry, strawberry. **Vegetables:** Bean, carrot, chickpea, corn, eggplant, tomato, mung bean, pea, pepper, potato, pumpkin, sugar beet. **Cover Crops:** Alfalfa, clover, red clover. **Weeds:** Bindweed, chicory, jimson weed, Johnson grass, stinging nettle.

Vectors: Leafhoppers, planthoppers, psyllids, root grafts, and parasitic plants. The leafhopper *Scaphoideus titanus*, that can vector Flavescence doree, has been found previously in Wisconsin (Chuche, 2014)

If you find symptoms of Grapevine Yellows on grape please contact:

DATCP - Plant Industry Laboratory
2601 Agriculture Dr., Suite 150
Madison WI 53718
Phone: 608-224-4600
Email sam.fieweger@wisconsin.gov.

To send a sample, please collect all portions of the plant showing symptoms. Multiple samples from the same plant increases likelihood of detecting a phytoplasma. Keep samples COOL but not frozen and ship overnight.

You can also call us to coordinate a pickup/drop-off.

Remember to note your contact information on the sample bag.

Sources:

Julien Chuche, Denis Thiéry. Biology and ecology of the Flavescence dorée vector *Scaphoideus titanus*: a review. *Agronomy for Sustainable Development*, Springer Verlag/EDP Sciences/INRA, 2014, 34 (2), pp.381-403. <10.1007/s13593-014-0208-7>. <hal—1234829>
Mackesy, D., and Sullivan, M. 2015 CPHST Pest Datasheet for 'Candidatus Phytoplasma solani'. USDA-APHIS-PPQ-CPHST.
Mackesy, D., and Sullivan, M. 2013 CPHST Pest Datasheet for 'Candidatus Phytoplasma vitis'. USDA-APHIS-PPQ-CPHST.
Ontario Ministry of Agriculture Food & Rural Affairs. (2009, March 19). *Grapevine yellows*. Retrieved from <http://www.omafra.gov.on.ca/IPM/english/grapes/index.html>
Sullivan, M., and Mackesy, D. 2013 CPHST Pest Datasheet for 'Candidatus Phystoplasma australiense'. USDA-APHIS-PPQ-CPSHT.



Fig 1. General symptoms of phytoplasma in grape.
From: C. Marzachi, Institute for Sustainable Plant Protection,
CNR