



Australian Grapevine Yellows

Candidatus Phytoplasma australiense

This pathogen is present in New Zealand and Australia. The disease spreads from plant to plant through the saliva of leafhoppers which feed on host plants. It is unknown at this time which species of insect is responsible for the spread of this disease. Host plants include grape, potato, flax, and other agricultural plants and ornamentals. All of the plants show leaf loss and damage but with some slight variations depending on the host plant. The disease can remain dormant in infected plants for seasons without showing signs of symptoms.



Infected grape leaves. Photo by Peter Magarey



Healthy and diseased fruit comparison. Photo by J.K. Uyemoto

Description and Damage:

Symptoms on grapevines include yellow coloration and downward curled leaves that will fall prematurely. In red varieties, reddening may be seen more so than yellowing. Leaves can overlap one another on affected shoots and the shoots are stunted and become woody. Abortion of flowering bunches early in the season can be seen as well as grape bunches shriveling and falling. Infected stems can be seen with a bluish hue. Later in the season, infected stems tend to be green and rubbery.

Impact:

This disease can cause a large impact to economically important food and ornamental crops. It has been reported that vineyard losses can be as high as 13% if infected. The pathogen has found a new host in the potato plant. If this disease is able to spread and overtake the potato industry as well, many farmers will receive a large loss. It is able to spread throughout different crops as well as native plants and weeds. Some crops will show no symptoms or can go through a period of remission when the symptoms disappear and then reappear after seasons of no symptoms.

Photos:

Magarey, Peter. [Australian Grapevine Yellows](http://www.winetitles.com/diagnosis/details.asp?view=113). Disease Diagnosis: Identifying Diseases, Pests, and Disorders of Grapevine in Australia & New Zealand. Photo: Infected grape leaves. April 2015. <http://www.winetitles.com/diagnosis/details.asp?view=113>

Uyemoto, J.K. [Grapevine Phytoplasma Diseases](http://www.agf.gov.bc.ca/cropprot/grapeipm/phytoplasma.htm). Ministry of Agriculture. Photo: Healthy and diseased fruit comparison. September 2014. April 2015. <http://www.agf.gov.bc.ca/cropprot/grapeipm/phytoplasma.htm>

Information: Cooperative Agricultural Pest Survey. [Grape Commodity-based Survey](https://caps.ceris.purdue.edu/node/596). April 2015. <https://caps.ceris.purdue.edu/node/596>