




COMMUNICATION UPDATE

TO:	Mayor and Members City Council
DATE:	June 16, 2023
SUBJECT:	Oak Wilt Confirmed in Canada (ES23012) (City Wide)
WARD(S) AFFECTED:	City Wide
SUBMITTED BY:	Cynthia Graham Director, Environmental Services Public Works Department
SIGNATURE:	

Oak wilt (*Bretziella fagacearum*) is a vascular disease of Oak Trees that City Staff, in partnership with the Canadian Food Inspection Agency, have been monitoring since 2019. Though cases of oak wilt had been confirmed in neighbouring cities in the United States, there had been no confirmed cases in Canada until recently. In June 2023, the presence of oak wilt was confirmed by the Canadian Food Inspection Agency in Niagara Falls, Ontario. This is the first known case of this vascular disease of oak trees (*Quercus spp.*) in Canada. This update is intended to provide Council with an overview of the information the Forestry and Horticulture section has received from the Canadian Food Inspection Agency and staff's response plan.

Oak wilt is caused by the fungus *Bretziella fagacearum*, which develops and spreads through the sapwood of the infected tree restricting the movement of water and nutrients. Without access to water and nutrients, the leaves begin to wilt and drop. Oak wilt can kill an oak tree of any age and size in as little as 2 – 6 weeks following the onset of initial symptoms, most infected trees will not survive beyond the growing season.

Oak wilt attacks several species of oaks with varying rates of progression across species. Red, Black and Pin oaks tend to succumb to the disease more quickly than White, Burr, Chinkapin and Swamp oaks.

Oak wilt spreads in two ways; underground through connected root systems or by beetles carrying fungal spores to pruning wounds or damaged bark. Although pruning trees is beneficial, this mode of transmission can be minimized by avoiding pruning during the growing season (March – September) when the beetles are active. Due to

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

SUBJECT: First Case of Oak Wilt Confirmed in Niagara Falls (ES23012) (City Wide) - Page 2 of 3

the presence of oak wilt in nearby states, in 2019, Forestry staff implemented a protocol in which oaks on public property were only pruned outside of the growing season, except where a hazardous situation meant the work could not be delayed, to ensure the likelihood of infection was lessened as the beetles are dormant.

Symptoms of oak wilt include sudden leaf wilting and premature leaf drop beginning at the top of the crown, brown veins in the leaves mixed with normal green tissue and vertical cracking in the bark. Oak wilt symptoms can be mistaken for drought stress (e.g., browning of leaves, leaf drop at end of branches, wilting). It is important to note that the presence of symptoms may vary and not all symptoms will appear at once.

Although the origin of oak wilt is unknown, the fungus is believed to have been present in North America since the early 1900s. Oak wilt has now been confirmed in 24 U.S. states. The closest confirmed case of oak wilt before it arrived in Canada was Belle Isle, Michigan, less than 1 km away from the shores of Windsor, Ontario.

Based on the City's inventory of public trees, there are an estimated 10,663 oak trees in the right of way, parks, and cemeteries. This number includes Oaks inventoried within public open spaces; however, the open space inventory data was collected to identify hazardous trees and does not represent the total number of trees within the area. In addition, the city does not have an inventory of Oaks on private lands or public lands including golf courses and facilities, therefore the overall impact of oak wilt on trees within areas outside of the public right of way, parks, and cemeteries is not known. Forestry Staff are working to collaborate with CityLab to develop an inventory of publicly owned woodlots which will aid in being better prepared for the management of oak wilt and other future pests and diseases.

To prevent the spread of oak wilt, it is recommended that residents refrain from pruning oak trees from March – October and from moving firewood or other tree material (branches, bark, twigs, leaves etc) from property to property. Communication staff will be coordinating with Forestry staff to engage through social media to inform the public as well as provide information on an ongoing basis.

Summary and Next Steps

Forestry Staff and arborists have received oak wilt identification training. Environmental Services Staff will also receive training from the Project Manager of Forest Health on the signs and symptoms of oak wilt and best practices for management and reporting protocols. Forestry Staff will ensure that all contracted arborists understand all oak wilt protocols and the signs and symptoms, and ask that all project managers ensure the same is done for projects completed within their areas.

SUBJECT: First Case of Oak Wilt Confirmed in Niagara Falls (ES23012) (City Wide) - Page 3 of 3

Forestry Staff are currently working to develop an oak wilt management strategy based on the guidelines identified in the [Oak Wilt Response Framework for Canada](https://inspection.canada.ca/plant-health/invasive-species/plant-diseases/oak-wilt/response-framework/eng/1563898431188/1563898479048#a1) published by the Government of Canada;

<https://inspection.canada.ca/plant-health/invasive-species/plant-diseases/oak-wilt/response-framework/eng/1563898431188/1563898479048#a1>

This management strategy will also be informed by the lessons learned from the City of Hamilton Emerald Ash Borer management plan. Staff will provide any necessary updates to Council regarding oak wilt management including additional resources that are required as the management strategy is developed.

Forestry Staff appreciate the help that residents, Staff and Council can offer by being on the lookout for oak wilt. Information on what to look for and whom to contact if you suspect oak wilt can be found on the City's invasive species website.

<https://www.hamilton.ca/home-neighbourhood/house-home/gardens-trees/invasive-species>

Suspected cases of oak wilt should be reported to the Canadian Food Inspection Agency (905-572-2201).

For more information, please contact Robyn Pollard, Manager of Forestry and Horticulture, at (905) 546-2424 extension 3919.

APPENDICES AND SCHEDULES ATTACHED

N/A