



# Local Enhancement & Appreciation of Forests

Improving city life one tree at a time

## Common Diseases and Treatments

PEST	TREE SPECIES AFFECTED	WHAT IS IT?	PREVENTION	CONTROL	FURTHER INFORMATION
<b>Anthracnose</b>	ashes, oaks, maples, basswood, dogwoods	A fungal disease causing discolouration of leaves and possibly defoliation. Anthracnose does not cause permanent damage, but can weaken the tree.	Do not overhead water, i.e. water with sprinkler; ensure adequate air circulation around leaves and stems; plant in well-drained soil and mulch and water in dry conditions	Rake up leaves and prune out dead and dying branches, a source for re-infection in the following season and remove from site; can be included with city-collected yard waste	<a href="#">University of Minnesota Extension</a>  <a href="#">City of Toronto</a> (ash, oak, and sycamore anthracnose)
<b>Blight Diseases</b>	serviceberry, basswood, pines	A fungal or bacterial disease affecting flowers, leaves, and shoots causing young growth to turn black or brown and curl up.	Avoid overfeeding and severe pruning	<ul style="list-style-type: none"> <li>In summer, remove limbs, cutting well outside infected area (6-12) and dispose</li> <li>For severely infected trees, contact a certified arborist</li> </ul>	<a href="#">City of Toronto</a> (fire blight, eastern filbert blight)  <a href="#">Tree Canada</a> (chestnut blight)  <a href="#">City of Vaughan</a> (Diplodia tip blight)
<b>Canker</b>	cherries, ashes, redbud, white pine, oaks, maples, basswood, spruce	Fungal diseases where the infected wood swells and cracks open. A thickened callus may form around the infected area. Can cause branch dieback.	<ul style="list-style-type: none"> <li>Avoid wounding trees</li> <li>protect trunks from sunscald</li> <li>prevent drought and flooding</li> </ul>	<ul style="list-style-type: none"> <li>Remove cankerous tissue in dry weather and prune away infected areas</li> <li>Make sure to clean tools between cuts to prevent spread of disease</li> </ul>	<a href="#">Cornell University</a>
<b>Downey Mildew</b>	viburnums	A fungal disease visible by a lightly coloured growth on underside of leaf and angular spots of dead tissue between leaf veins	Avoid overhead irrigation in spring	Rake leaves in autumn and remove from site	<a href="#">Pennsylvania State University Extension</a>



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<b>Galls</b>	maples, oaks, cherries, basswood	Certain bacteria, fungi, insects, and viruses induce the development of swollen plant tissue. Severely infected leaves are distorted.	Attract predatory birds and other beneficial organisms to your yard - these will depend on which insect or mite is causing the problem	<ul style="list-style-type: none"> <li>The majority of galls are cosmetic in nature and do not cause significant damage to the tree - tolerate them, don't spray</li> <li>Determine which type of gall to determine action</li> <li>For oaks and pines, prune out and destroy galls when they occur</li> </ul>	<a href="#">City of Toronto</a>
<b>Needlecast</b>	pinus and spruces	A fungal disease of conifers. Most trees recover the following year, producing new, healthy growth.	<ul style="list-style-type: none"> <li>Plant trees where there is good air circulation</li> <li>Protect young trees from winter frost and winds</li> </ul>	<ul style="list-style-type: none"> <li>Prune off damaged tips</li> <li>Rake up dropped needles and remove from site</li> </ul>	<a href="#">Pennsylvania State University Extension</a>
<b>Powdery Mildew</b>	hackberry, serviceberry, viburnums, oaks, maples, tulip tree	A fungal disease which leaves a powdery covering on infected leaves. Many fungi cause this disease most can only infect one or a few plant species.	Provide good soil drainage and air circulation	<ul style="list-style-type: none"> <li>Spray with garlic spray</li> <li>Remove plant parts that show symptoms and dispose</li> </ul>	<a href="#">City of Toronto</a>
<b>Sooty Mold</b>	tulip tree, nannyberry, maple, alder, birch, dogwood, basswood	This is not a pathogen, but merely fungal growth on honeydew secreted by aphids higher up on tree which has dripped onto the lower leaves		Control aphids with mild soap spray	<a href="#">University of California</a>



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<b>Wilt</b>	maples, redbud, oaks	A fungal tree disease which plugs the water conducting vessels and greatly reduces the flow of water up the stem of the tree.	<ul style="list-style-type: none"> <li>• Provide adequate watering and composting</li> <li>• Do not plant another tree of same species in the infected soil</li> </ul>	<ul style="list-style-type: none"> <li>• Prune out diseased branches</li> <li>• Feed diseased tree with a high nitrogen fertilizer like bone meal</li> <li>• Where there are multiple trees of same species in close proximity and one is infected, contact a certified arborist to control spread of disease</li> </ul>	City of Toronto: <a href="#">Verticillium wilt</a> <a href="#">Oak wilt</a>
<b>Fire Blight</b>	serviceberry	Sudden wilting and death of branch tips. Bark appears shriveled and blossoms wilt, turn black, and hang on the twig.	Do not fertilize with high nitrogen fertilizer	<ul style="list-style-type: none"> <li>• Prune out and remove infected woods</li> <li>• Disinfect tools between cuts</li> </ul>	<a href="#">City of Toronto</a>
<b>Leaf Spot</b>	serviceberry, tulip tree, ashes, hackberry	General term for fungal diseases caused by a number of different pathogens for which spotting on leaves is the predominate symptom. Anthranose and tar spot are examples of leaf spot disease.	<ul style="list-style-type: none"> <li>• Do not overhead water - use a hose, not a sprinkler; reduce humidity between plants by providing adequate space between plants and by pruning lower branches</li> <li>• Reduce humidity between plants by providing adequate space between plants and by pruning lower branches</li> <li>• Use mulch under trees</li> </ul>	Remove and dispose of spotted leaves on plants that have fallen	<a href="#">Missouri Botanical Garden</a>



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<b>Leaf Blister</b>	oaks	A fungal disease of oaks that appears as yellow-white blisters up to 1/2" in diameter on upper leaf surface, with corresponding yellowish brown depression on leaf undersides. Numerous spots will cause leaf to fall prematurely, but does not seriously affect tree health.	Maintain plant vigour	Collect fallen leaves and remove from site	<a href="#">Natural Resources Canada</a>
<b>Rust Diseases</b>	ashes, oaks, serviceberries, pines	A fungal disease that causes leaves to become distorted and twigs to swell. Powdery yellow-orange spots may be present on undersides of leaves. Life cycle of fungus requires evergreens as alternative host.	Do not plant both hosts near each other, i.e. do not plant serviceberry near juniper	<ul style="list-style-type: none"> <li>• Keep tree well watered and increase soil organic matter</li> <li>• Rake up leaves and fallen branches in fall and remove from site</li> <li>• Hand pick or prune out galls on evergreens before they swell</li> </ul>	<a href="#">City of Toronto</a> (pear trellis rust)  <a href="#">University of Maryland Extension</a> (cedar-apple rust, quince rust, hawthorn rust)