



Diseases that Threaten Trees in Western New York

Disease	Trees Affected	Cause	Symptoms	When Detected	Preventative Treatments
Oak Wilt	Red Oak group (more susceptible), White Oak group	Fungus spread by sap beetles and interconnected roots with nearby oaks	Wilting leaves starting at tree top, leaf death, rapid decline in red oaks, slower in white oaks	Has killed trees south of Rochester and recently detected in Niagara on the Lake, Ont.	Fungicide vaccinations for high valued trees. Avoid pruning in spring or summer. Treat wounds with latex paint.
Needle Cast	Spruce, Firs	Fungus	Needle discoloration, tiny black fruiting bodies, potential branch dieback	Long time and common infection in WNY	Fungicide vaccinations in spring when new needles are half-elongated
Emerald Ash Borer	All native ash species (White, Green, Black, Blue Ash)	Invasive beetle from Asia	Canopy dieback, yellowing/browning leaves, S-shaped larval galleries under bark, bark splits	Detected in Cattaraugus County in 2009. Since then, has killed most of the ash trees in WNY	Systemic insecticide vaccinations, quarantine ash wood movement, early detection traps
Spotted Lanternfly	Apple, Grapes, Maple	Not a disease, but an insect infestation	Wilting and yellowing of leaves, honeydew secretion, branch dieback	Central NY state and spreading toward WNY	Insecticide vaccinations, removal of tree of heaven host plant, tree banding
Beech Bark Disease	American Beech	Beech scale insect and Neonectria fungi complex	Bark cankers, yellowing wilting leaves, branch dieback, rough bark texture	First detected in NY in 1930s, widespread	Annual preventative insecticide vaccinations for high valued trees. But once infected, there is no cure.
Beech Leaf Disease	American Beech	Non-native nematode. A tiny worm-like parasite.	Dark green bands between leaf veins, thickened and puckered leaves, loss of leaves	Chautauqua County in 2018	No known preventative or cure. Research ongoing.
Anthracnose	Sycamore, Oak, Maple, Dogwood, Ash	Various fungal species	Leaf spots, twig dieback, defoliation, most severe in wet springs	Long-established, annual occurrence	Fungicide vaccinations for high valued trees. Prune infected branches, improve air circulation, proper sanitation
Cedar-Apple Rust	Eastern Red Cedar, Apple, Crabapple	Fungus	Yellow spots on apple leaves, orange galls on cedar, premature fruit drop	Long-established, annual occurrence	Fungicide vaccinations during wet period. Remove galls from cedars, plant resistant varieties, host separation
Leaf Blight	Various deciduous trees	Multiple fungi	Brown leaf spots, premature defoliation, twig dieback	Annual occurrence, worse in wet years	Fungicide vaccinations for high valued trees, prune dead branches, improve drainage, fall leaf cleanup
Powdery Mildew	Maple, Oak, Lilac, Dogwood, many others	Multiple fungi	White powdery coating on leaves, stunted growth, leaf distortion	Annual occurrence, peak in late summer	Fungicide vaccinations and treatments, improve air circulation, avoid overhead watering, plant resistant varieties
Fire Blight	Apple, Pear, Mountain Ash, Serviceberry	Bacterium	Blackened, wilted shoots resembling fire damage, cankers, oozing bacteria	Long-established, spreads during bloom	Prune infected branches, copper-based bactericides, avoid high nitrogen fertilization, plant resistant varieties
Chestnut Blight	American Chestnut	Fungus	Sunken cankers on trunk/branches, wilting foliage, tree death	Detected in Erie County	Very limited success in preventative and therapeutic treatments. 4 Billion infected trees have died in the U.S.
Bacterial Leaf Scorch	Oak, Maple, Elm, Sycamore	Bacterium vectored by leafhoppers	Marginal leaf browning, premature defoliation, branch dieback	Detected in NY in 1990s, spreading	No effective preventative or cure. Remove infected trees, control leafhopper vectors, maintain tree health, proper irrigation
Diplodia Tip Blight	Austrian Pine, Scots Pine, other pines	Fungus	Stunted/killed new shoots, brown needle tips, black fruiting bodies on cones	Common in stressed pines, annual occurrence	Fungicide treatments in spring, prune infected shoots, reduce tree stress, avoid overhead irrigation
Dutch Elm Disease	American Elm, Rock Elm, Slippery Elm	Fungus spread by European Elm Bark Beetle	Wilting and yellowing leaves turning brown, branch dieback from top down, eventual tree death	First detected in NY in 1940s, ongoing	Remove infected trees, prune diseased branches, fungicide injections, avoid wounding trees