



College of Agriculture, Food and Environment
Cooperative Extension Service

Plant Pathology,
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Common Problems of Common Trees

— An Index —

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INTRODUCTION

Trees are an important part of landscapes and woodlands. However, trees may experience a wide range of issues including disease, insects, and abiotic disorders. This publication includes the most frequently observed problems of common trees in Kentucky listed in alphabetical order (not necessarily in order of importance). Contact a local County Extension Agent for assistance with diagnosing and managing these and other problems.

Host	Diseases	Insects	Abiotic	Other Lesser Problems
Arborvitae <i>Thuja</i>	<ul style="list-style-type: none"> ▪ Fungal cankers (Botryosphaeria, Cytospora, Seiridium, etc.) ▪ Pestalotiopsis needle & tip blight ▪ Phytophthora root rot 	<ul style="list-style-type: none"> ▪ Bagworm 	<ul style="list-style-type: none"> ▪ Winter drying 	<ul style="list-style-type: none"> ▪ Kabatina tip blight ▪ Minute juniper scale ▪ Phomopsis tip blight ▪ Spider mites



GYMNOSPORANGIUM (CEDAR-HAWTHORN) RUST



JAPANESE BEETLE



LEAF SCORCH DUE TO ENVIRONMENTAL STRESS (DROUGHT)

Host	Diseases	Insects	Abiotic	Other Lesser Problems
Ash <i>Fraxinus</i>	<ul style="list-style-type: none"> ▪ Anthracnose ▪ Ash heart rot 	<ul style="list-style-type: none"> ▪ Ash flower gall ▪ Emerald ash borer 		<ul style="list-style-type: none"> ▪ Aphids ▪ Ash leaf spot ▪ Botryosphaeria canker ▪ Cercospora leaf blight
Cherry (flowering) <i>Prunus</i>	<ul style="list-style-type: none"> ▪ Bacterial canker ▪ Black knot ▪ Shothole (Blumeriella leaf spot) 	<ul style="list-style-type: none"> ▪ Eastern tent caterpillar ▪ Japanese beetle 		<ul style="list-style-type: none"> ▪ Bacterial leaf spot ▪ Brown marmorated stink bug ▪ Cankerworms ▪ Lecanium scale ▪ Peachtree & lesser peachtree borer ▪ Perennial canker
Cherry laurel <i>Prunus</i>	<ul style="list-style-type: none"> ▪ Bacterial leaf spot ▪ Phytophthora root rot 	<ul style="list-style-type: none"> ▪ Eastern tent caterpillar ▪ Shothole borers ▪ Spider mites 	<ul style="list-style-type: none"> ▪ Cold injury 	<ul style="list-style-type: none"> ▪ Botryosphaeria canker/twig blight ▪ Peachtree borer
Crabapple <i>Malus</i>	<ul style="list-style-type: none"> ▪ Apple scab ▪ Botryosphaeria (frogeye) leaf spot ▪ Fire blight 	<ul style="list-style-type: none"> ▪ Eastern tent caterpillar ▪ Fall webworm 		<ul style="list-style-type: none"> ▪ Gymnosporangium rusts (cedar-apple rust, cedar-hawthorn rust) ▪ Japanese beetle
Cypress (Leyland, False) <i>Chamaecyparis</i>	<ul style="list-style-type: none"> ▪ Phytophthora root rot ▪ Seiridium canker 	<ul style="list-style-type: none"> ▪ Bagworm ▪ Juniper scale 	<ul style="list-style-type: none"> ▪ Cold injury ▪ Winter drying 	<ul style="list-style-type: none"> ▪ Botryosphaeria canker ▪ Spider mites
Dogwood <i>Cornus</i>	<ul style="list-style-type: none"> ▪ Dogwood (Septoria) leaf spot ▪ Powdery mildew ▪ Spot anthracnose 	<ul style="list-style-type: none"> ▪ Dogwood borer ▪ Oystershell scale 	<ul style="list-style-type: none"> ▪ Heat stress ▪ High pH ▪ Wet feet / heavy soil 	<ul style="list-style-type: none"> ▪ Aphids ▪ Dogwood anthracnose ▪ Dogwood sawflies ▪ Various scale insects
Elm <i>Ulmus</i>	<ul style="list-style-type: none"> ▪ Dutch elm disease ▪ Elm yellows 	<ul style="list-style-type: none"> ▪ Elm bark beetles (multiple species) ▪ European elm flea weevil ▪ Japanese beetle 		<ul style="list-style-type: none"> ▪ Anthracnose ▪ Bacterial leaf scorch ▪ Black spot ▪ Botryosphaeria canker
Hawthorn <i>Crataegus</i>	<ul style="list-style-type: none"> ▪ Gymnosporangium rusts (cedar-hawthorn rust, cedar-quince rust) 	<ul style="list-style-type: none"> ▪ Fall webworm ▪ Hawthorn lacebug ▪ Hawthorn leaf miner 		<ul style="list-style-type: none"> ▪ Entomosporium leaf spot ▪ Fire blight ▪ Leaf miners
Hemlock <i>Tsuga</i>		<ul style="list-style-type: none"> ▪ Elongate hemlock scale ▪ Hemlock woolly adelgid 	<ul style="list-style-type: none"> ▪ Heat stress ▪ High soil pH ▪ Wet feet / heavy soil 	<ul style="list-style-type: none"> ▪ Phytophthora root rot ▪ Rosellinia blight ▪ Spider mites
Hickory & Pecan <i>Carya</i>	<ul style="list-style-type: none"> ▪ Anthracnose 	<ul style="list-style-type: none"> ▪ Fall webworm ▪ Redhumped caterpillar ▪ Stink bugs 		<ul style="list-style-type: none"> ▪ Downy leaf spot ▪ Gnomonia leaf spot ▪ Pecan scab ▪ Pecan weevil ▪ Petiole borer ▪ Phylloxera ▪ Twig girdlers

Host	Diseases	Insects	Abiotic	Other Lesser Problems
Holly <i>Ilex</i>	<ul style="list-style-type: none"> ▪ Black root rot 	<ul style="list-style-type: none"> ▪ Cottony camellia scale ▪ Holly leafminers 	<ul style="list-style-type: none"> ▪ Wet feet ▪ Winter drying 	<ul style="list-style-type: none"> ▪ Black vine weevil ▪ Holly pit scale ▪ Holly scale ▪ Phytophthora root rot ▪ Pythium root rot ▪ Southern red mite
Juniper <i>Juniperus</i>	<ul style="list-style-type: none"> ▪ Gymnosporangium rusts (cedar-apple rust, cedar-quince rust) ▪ Kabatina twig blight ▪ Phomopsis tip blight 	<ul style="list-style-type: none"> ▪ Bagworm 		<ul style="list-style-type: none"> ▪ Botryosphaeria canker ▪ Minute juniper scale ▪ Spruce spider mite ▪ Phytophthora root rot
Locust (Black & Honey) <i>Gleditsia</i>	<ul style="list-style-type: none"> ▪ Cracked cap polypore 	<ul style="list-style-type: none"> ▪ Locust leafminer ▪ Locust borer 		<ul style="list-style-type: none"> ▪ Cercospora leaf spot ▪ Powdery mildew ▪ Scale insect ▪ Spider mites ▪ Thyronectria canker ▪ Verticillium wilt
Magnolia <i>Magnolia</i>		<ul style="list-style-type: none"> ▪ Magnolia scale ▪ Oleander scale ▪ Yellow poplar weevil 	<ul style="list-style-type: none"> ▪ Winter injury (southern magnolia) 	<ul style="list-style-type: none"> ▪ Botryosphaeria canker ▪ Phomopsis leaf spot ▪ Powdery mildew ▪ Thrips ▪ Verticillium wilt
Maple <i>Acer</i>	<ul style="list-style-type: none"> ▪ Anthracnose ▪ Bacterial leaf scorch ▪ Eutypella canker ▪ Maple leaf blister ▪ Nectria canker ▪ Tar spot ▪ Verticillium wilt 	<ul style="list-style-type: none"> ▪ Fall webworm ▪ Gloomy scale ▪ Maple gall makers 	<ul style="list-style-type: none"> ▪ Sunscald (trunk injury) 	<ul style="list-style-type: none"> ▪ Cankerworms ▪ Cottony maple scale ▪ Flatheaded appletree borer ▪ Green striped maple worm ▪ Maple petiole borer ▪ Oystershell scale ▪ Phyllosticta leaf spot ▪ Pigeon tremex ▪ Potato leafhopper
Oak <i>Quercus</i>	<ul style="list-style-type: none"> ▪ Bacterial leaf scorch ▪ Hypoxylon (Biscogniauxia) canker ▪ Root rots (Armillaria root rot, Ganoderma root rot, oak bracket fungus) ▪ Tubakia (Actinopelte) spot 	<ul style="list-style-type: none"> ▪ Oak galls (horned oak gall, gouty oak gall, oak apple gall, jumping oak gall) ▪ Oak shothole borer ▪ Skeletonizers (shingle oak skeletonizer) 	<ul style="list-style-type: none"> ▪ Chlorosis ▪ Herbicide damage ▪ Oak decline 	<ul style="list-style-type: none"> ▪ Anthracnose ▪ Fall webworm ▪ Kermes scale ▪ Oak lecanium scale ▪ Obscure scale ▪ Oak wilt disease is present in nearby states & sudden oak death occurs on the west coast, but neither disease is an issue in KY as of this printing.
Pear (Flowering) <i>Pyrus calleryana</i>	<ul style="list-style-type: none"> ▪ Fire blight 	<ul style="list-style-type: none"> ▪ Eastern tent caterpillar ▪ Fall webworm ▪ Thrips 		<ul style="list-style-type: none"> ▪ Gymnosporangium rusts (cedar-apple rust, cedar-quince rust) ▪ Highly invasive in KY; avoid planting new trees & remove seedlings to prevent spread.

Host	Diseases	Insects	Abiotic	Other Lesser Problems
Pine <i>Pinus</i>	<ul style="list-style-type: none"> ▪ Diplodia tip blight ▪ Dothistroma needle blight 	<ul style="list-style-type: none"> ▪ Pine sawflies 	<ul style="list-style-type: none"> ▪ White pine decline / environmental stress¹ 	<ul style="list-style-type: none"> ▪ Needle scale ▪ Phytophthora root rot (plantings in wet sites) ▪ Southern pine beetle ▪ White pine root decline ▪ Zimmerman pine moth
Redbud <i>Cercis</i>	<ul style="list-style-type: none"> ▪ Verticillium wilt 	<ul style="list-style-type: none"> ▪ Brown marmorated stink bug 	<ul style="list-style-type: none"> ▪ Herbicide damage 	<ul style="list-style-type: none"> ▪ Anthracnose ▪ Botryosphaeria canker ▪ Cercospora leaf spot ▪ Eriophyid mite ▪ Spider mite
Sassafras <i>Sassafras</i>	<ul style="list-style-type: none"> ▪ Armillaria root rot ▪ Laurel wilt 	<ul style="list-style-type: none"> ▪ Ambrosia beetle 		<ul style="list-style-type: none"> ▪ Nectria canker
Spruce <i>Picea</i>	<ul style="list-style-type: none"> ▪ Dothistroma needle blight ▪ Phytophthora root rot ▪ Rhizosphaera needle 	<ul style="list-style-type: none"> ▪ Spruce spider mite 	<ul style="list-style-type: none"> ▪ Drought stress ▪ Heat stress ▪ Wet feet 	<ul style="list-style-type: none"> ▪ Cytospora canker ▪ Environmental stress¹ ▪ Gall makers ▪ Pine needle scale ▪ Winter drying
Sycamore <i>Platanus</i>	<ul style="list-style-type: none"> ▪ Anthracnose 	<ul style="list-style-type: none"> ▪ Lacebug 		<ul style="list-style-type: none"> ▪ Bacterial leaf scorch ▪ Powdery mildew
Tulip tree/Yellow poplar <i>Liriodendron</i>	<ul style="list-style-type: none"> ▪ Verticillium wilt 	<ul style="list-style-type: none"> ▪ Tuliptree scale ▪ Yellow poplar weevil 	<ul style="list-style-type: none"> ▪ Abiotic leaf scorch 	<ul style="list-style-type: none"> ▪ Powdery mildew
Walnut <i>Juglans</i>	<ul style="list-style-type: none"> ▪ Walnut blight 	<ul style="list-style-type: none"> ▪ Fall webworm 	<ul style="list-style-type: none"> ▪ Soil conditions (pH, moisture) 	<ul style="list-style-type: none"> ▪ Anthracnose ▪ Armillaria root rot ▪ Phytophthora root rot ▪ Thousand cankers disease is present in neighboring states; as of this printing, it has not been detected in KY.
Potential Problems that could affect all tree species	<ul style="list-style-type: none"> ▪ Fungal tip dieback & canker diseases enhanced by stress ▪ Root & heart rots 	<ul style="list-style-type: none"> ▪ Bagworm ▪ Caterpillars (yellow necked caterpillars, tussock moths, etc.) ▪ Cicada damage ▪ Fall webworm ▪ Japanese beetle ▪ Scales 	<ul style="list-style-type: none"> ▪ Environmental stress¹ ▪ Improper planting practices² ▪ Transplant shock 	<ul style="list-style-type: none"> ▪ Winter damage; frost & freeze injury

¹ Environmental stresses can include drought, wet soil, weather extremes, etc.

² Improper planting practices can include unfavorable planting site, inadequate site preparation, incorrect planting depth (either too deep or too shallow), planting hole too small, etc.

ADDITIONAL RESOURCES

- Department of Entomology Website
<https://entomology.ca.uky.edu/landscape>
- Department of Forestry and Natural Resources Website
<https://forestry.ca.uky.edu/extension-home>
- Department of Horticulture Website
<https://www.uky.edu/hort/home-horticulture>
- Department of Plant Pathology Website
<http://plantpathology.ca.uky.edu/extension/publications>
- Tree Health Website
<https://tree-health.ca.uky.edu/>

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