

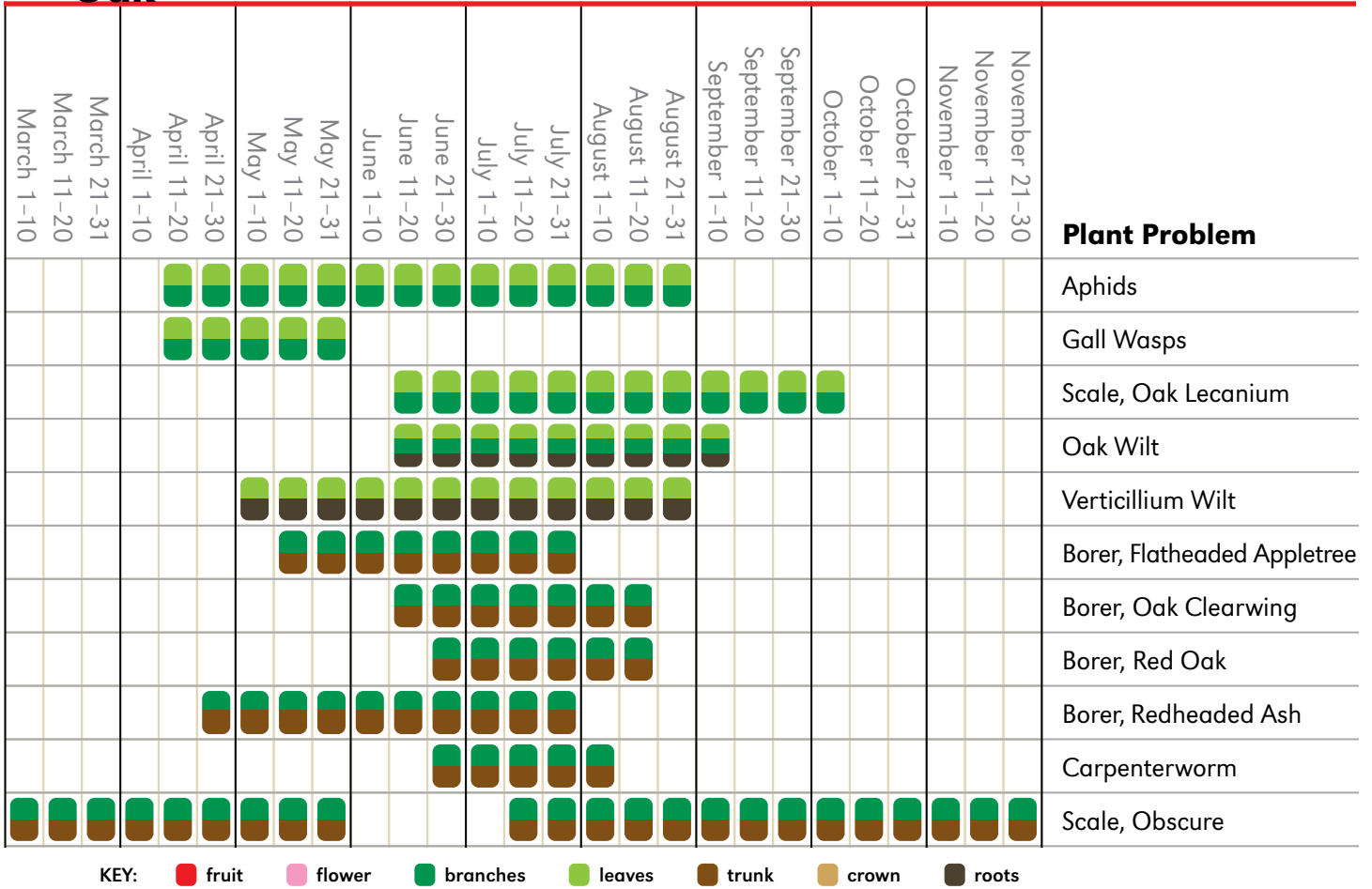
# Oak



Plant Problem	November 21-30	November 11-20	November 1-10	October 21-31	October 11-20	October 1-10	September 21-30	September 11-20	September 1-10	August 21-31	August 11-20	August 1-10	July 21-31	July 11-20	July 1-10	June 21-30	June 11-20	June 1-10	May 21-31	May 11-20	May 1-10	April 21-30	April 11-20	April 1-10	March 21-31	March 11-20	March 1-10
Aphid, Giant Bark																											
Scale, Oak Kermes																											
Twig Girdler Borer (Flatheaded)																											
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Twig Pruner Borer																											
Anthracnose																											
Bagworm																											
Cankerworms, Spring & Fall																											
Lace Bug, Oak																											
Leafroller, Fruittree																											
Linden Looper																											
Oak Leaf Blister																											
Sawfly, Scarlet Oak																											
Webworm, Fall																											
Yellownecked Caterpillar																											

KEY: ■ fruit ■ flower ■ branches ■ leaves ■ trunk ■ crown ■ roots

# Oak



## Plant Problem

## Signs/Symptoms

## Treatment

*Aphid, Giant Bark*



Large, one-quarter inch long, gray-brown, spotted, long-legged aphids in dense colonies on new twigs; many winged. Heavily infested branches may be stressed or wilted.

These aphids have many hosts and are most evident in late summer. Older established trees tolerate them well, but monitor newly planted trees. For severe infestations, dislodge aphids with a strong spray of water, or treat with a contact insecticide.

## Plant Problem

## Signs/Symptoms

## Treatment

### *Scale, Oak Kermes*



Pale brown, hemispherical scales appear as large growths attached to leaf midribs and twigs. Leaves become stressed, yellow, or withered, and honey-dew secretions are evident.

Apply an insecticide, insecticidal soap or horticultural oil spray in early summer when newly hatched nymphs (“crawlers”) have emerged from beneath adult female scales. A dormant oil spray before bud-break helps control overwintering nymphs.

### *Twig Girdler Borer (Flatheaded)*



Terminal foliage of trees by mid summer randomly turns brown. Examination of twigs reveals spiral tunneling around each just beneath the bark. A long, flattened, jointed larva is inside.

Symptoms occur every other year, and a generation takes two years. To protect trees, treat foliage with an insecticide in May and June the second year when adults have emerged and are feeding on foliage. A systemic insecticide as a soil drench could be applied each spring.

### *Twig Girdler Borer (Roundheaded)*



In late summer, twigs with about one-half inch in diameter are found on the ground. They are cleanly cut around the outside as if by a saw blade, but rough at the center where they break.

Gather and destroy severed twigs, as they contain eggs of this nuisance longhorned beetle pest. In cases where significant damage occurs annually and disfigures growth of young trees, spray with a residual insecticide when beetle activity is first detected.

### *Twig Pruner Borer*



Larger twigs break off and fall to the ground in late summer. Inspection shows the twig is cleanly cut from within by a mature larva. Bark remains on the cut when the twig breaks.

Gather and destroy broken twigs, as they contain mature larvae. This species attacks only dead or severely weakened trees, so there is little justification for insecticidal control. A related species, the oak twig pruner, attacks healthy red oaks and should be monitored.

### *Anthracnose*



Leaf symptoms range from large areas of browning especially along leaf margins and veins to scattered small necrotic lesions. Leaves have a scorched appearance. Twig dieback; premature defoliation.

Sanitation. Prune out affected areas.

# Oak

## Plant Problem

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### *Bagworm*



Early in the season the bags are quite small and foliage appears desiccated and riddled with small holes. In late summer, bags are large, and severe defoliation occurs around them.

Remove the previous year's bags on the host before May 1. Treat larvae while bags are small, before July 1. Use *Bt* or appropriate insecticides to conserve natural enemies. Later in the season, treat hosts with thorough coverage, but effectiveness may be poor.

### *Cankerworms, Spring and Fall*



Ragged holes in leaves; only veins may remain. These "inchworms" are greenish, brown or black and move in a looping fashion. Some may hang from silken threads when disturbed.

Healthy trees tolerate considerable defoliation; treat only if severe and when cankerworms are abundant and small. Microbial insecticides are effective and safe alternatives to chemical insecticides, especially in situations where drift is a concern.

### *Lace Bug, Oak*



Whitish-yellow flecks first appear on upper surfaces of leaves; eventually leaves become yellow or bronzy-brown. Leaf undersides with small, flattened, lacey bugs and tarry fecal spots.

The brownish nymphs cannot fly and are more easily controlled. A strong stream of slightly soapy water from a hose-end sprayer will dislodge and kill many. Other options include a spray oil, insecticidal soap, conventional insecticide, or systemic insecticide.

### *Leafroller, Fruittree*



Buds with holes, webbing and frass. Leaves rolled together with webbing and skeletonized or devoured. These green worms with shiny black heads wriggle violently when disturbed.

Rarely justifiable to control, as infestations tend to be spotty, and healthy trees tolerate even extensive defoliation. Should control be warranted, make several applications of a microbial insecticide, such as a product containing *Bt* or spinosad.

### *Linden Looper*



Ragged holes in leaves; only veins may remain. These "inchworms" are yellow with 10 dark wavy lines along the top half of the body. They move in a looping fashion.

Healthy trees tolerate considerable defoliation; treat only if severe and when loopers are abundant and small. Microbial insecticides are effective when applied with thorough coverage and repeated; otherwise, apply a chemical insecticide according to label directions.

## Plant Problem

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## Treatment

### *Oak Leaf Blister*



Yellow, blister-like, circular raised areas on the upper leaf surface; gray depressions on the lower leaf surface. Blisters eventually turn a reddish-brown with pale yellow margins.

Sanitation. Apply foliar fungicide during bud swell and repeat according to label instructions.

### *Sawfly, Scarlet Oak*



Leaves are partially or completely skeletonized. The slug-like, slimy, greenish sawfly larvae are swollen in front and appear to have no legs. They often feed in groups.

Two generations; most severe injury occurs in late summer, but is more unsightly than detrimental. Slug sawfly larvae can easily be dislodged from foliage by a strong spray of water or killed with an application of carbaryl or a desiccating/abrasive powder.

### *Webworm, Fall*



A nest of webbing covers several leaves initially, then later envelops entire branches as caterpillars grow. Fuzzy, yellowish or brown caterpillars feed on leaves inside webbing.

Rake out nests, or dislodge with a powerful jet of soapy water from a power washer. Apply a microbial insecticide to control young caterpillars in small nests; larger nests are almost impenetrable with insecticidal sprays. Damage is more unsightly than serious.

### *Yellownecked Caterpillar*



Caterpillars have narrow, black and white stripes along the body and an orange-yellow "neck" behind the head. They feed in groups and raise their bodies up when disturbed.

Infestations are seldom serious, however, small trees and entire branches can be defoliated. Young caterpillars can be controlled with a microbial insecticide, a horticultural oil or an insecticidal soap. Do not treat mature caterpillars, as they soon cease feeding.

### *Aphids*



Leaves are yellow or become wilted; new growth is stunted. Abundant, sticky and glossy honeydew is secreted by aphids. Lady beetles and other natural enemies may be present.

Treat if aphid damage is evident; otherwise, allow natural enemies to work. Dislodge early colonies with a strong spray of mild, soapy water. Control with a spray oil, insecticidal soap or insecticide. Apply a systemic insecticide early to realize benefit.

# Oak

## Plant Problem

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## Treatment

### *Gall Wasps*



Spherical, bullet-like, warty or irregular growths, large and small, often develop on leaves, stems or twigs in the spring. Some are green and soft, while others are hard and woody.

Most galls in oaks are harmless, although they can be so numerous that they are unsightly and cause distorted or stunted growth. Young trees can become disfigured, such as with rough bullet gall on bur oak twigs. But there is no practical treatment method for controlling galls.

### *Scale, Oak Lecanium*



Brown hemispherical scales are clustered on twigs in late spring to early summer. Foliage in areas of infestation is yellow, and branches may die back. Sticky honeydew covers foliage.

Apply an insecticide, insecticidal soap or horticultural oil spray in early summer when newly hatched nymphs (“crawlers”) have emerged from beneath adult female scales. A dormant oil spray before bud-break helps control overwintering nymphs.

### *Oak Wilt*



Subtle off-green color shift in the upper tree crown; leaves wilt from the top of the crown downward; individual leaves discolor and have a “bronzed” appearance; discoloration progresses around the leaf margins from the tip to the base; leaves cast rapidly; defoliation occurs within a few weeks for red oaks; disease progresses slower in white oaks; tree death.

Remove infected tree. Avoid tree wounding.

### *Verticillium Wilt*



Leaves turn yellow at the margins; margins eventually turn brown and dry. Sudden wilting of leaves. Typically only one side of the tree wilts. The wood is chocolate-brown in bands, streaks or flecks. Tree death.

Sanitation. Avoid root injury. Avoid water stress. Replace with non-susceptible host.

### *Borer, Flatheaded Appletree*



Loose bark with shallow, serpentine tunnels beneath, packed tightly with fine sawdust. Oval exit holes evident on trunk and branches. Tree is stressed or with dead branches.

Monitor trees for exit holes beginning in May and through the summer. Keep especially younger trees healthy, with regular watering, if needed. Treat the trunk and major branches of infested trees with an insecticide, and treat regularly thereafter as per label directions.

## Plant Problem

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## Treatment

### *Borer, Oak Clearwing*



Circular holes at the base of the trunk with accumulations of sawdust-like frass. Bark may be blistered or swollen. Young trees can be easily killed. Moths closely resemble hornets.

Look for fresh emergence holes in July, with possible pupal skins hanging out. Adult moths are active in sunny afternoons and can be monitored with pheromone traps. Apply a residual insecticide or borer spray to trunks from July to September to prevent reinfestation.

### *Borer, Red Oak (Roundheaded)*



Clean, oval exit holes through the bark and accumulations of sawdust at bases of trees or in branch crotches. Vertical scars (cracks devoid of bark) are evident. Tree health suffers.

Adults are large, mottled brown longhorned beetles, active at night in July and August. One generation takes two years. First-year signs are small, wet spots on bark with oozing. Apply a residual insecticide or borer spray to trunks from July into August to prevent reinfestation.

### *Borer, Redheaded Ash*



Clean, round exit holes through bark on trunk and main branches of larger trees; young trees have vertical tunnels in trunk. Tree hosts are stressed and may have dead branches.

Since adults have an extended period of emergence from May to August, insecticidal sprays to prevent reinfestation must be applied regularly through this period. This beetle is attracted to stressed and dying trees, so be sure to assure optimal health of trees.

### *Carpenterworm*



Large, weepy, circular, exit holes usually at base of tree and in main branches. When adults emerge, pupal skins often protrude from holes. Some branches may be dead or stressed.

Since each carpenterworm maintains an open hole to the outside of the tree, inject an insecticide, or a slurry containing parasitic nematodes, or kill with a stiff wire. Apply a borer spray to the bark throughout the period of adult activity to prevent reinfestation.

### *Scale, Obscure*



Circular, dark, dirty scales cluster and overlap each other on young branches and twigs and blend in with bark. Heavy infestations kill nursery trees and cause branch dieback.

Prune out heavily infested branches, as appropriate. Dormant-season oil sprays are not as effective as treating newly hatched nymphs ("crawlers") in July. Monitor to detect crawlers and apply an oil spray, insecticidal soap or insecticide.