



White Grubs

Species include masked chafers (*Cyclocephala* spp.), true white grubs (*Phyllophaga* spp.), and Japanese beetle (*Popillia japonica*). The larvae are C-shaped white grubs up to 1" long. Masked chafer adults are 1/2" long, stout, tan June beetles. True white grub adults are usually 1" long, stout, brownish May beetles. Japanese beetles are stout, 3/8" to 1/2" long, metallic green beetles with coppery wing covers. Grubs feed on grass roots, causing dieback and browning of turf, usually in late summer to early fall. Heavily damaged turf can be pulled back like a carpet as a result of many roots having been eaten by these insects. Masked chafer adults do not feed. True white grub and Japanese beetle adults feed on the leaves of several tree species. Adults lay fewer eggs in unwatered turf or under trees.

Scout irrigated turf in early August by cutting through the turf and pulling it back. Ten or more grubs per square foot will cause turf damage and require insecticide treatment.



DISEASES



Anthracnose

Symptoms vary depending on the host and pathogen. Trees often infected are ash, dogwood, elm, maple, oak, sycamore, and walnut. Many fruits, vegetables, herbaceous plants, and turf are also susceptible. Small, round to irregular, tan to dark brown or black spots can enlarge to blotches that encompass mid-ribs and veins. On trees (except sycamore, oak, and dogwood), anthracnose is mostly confined to the leaves. Severe defoliation may trigger new leaves to emerge. Sunken depressions may develop on tomatoes, melons, and other fruits of vegetables. Follow good sanitation methods.

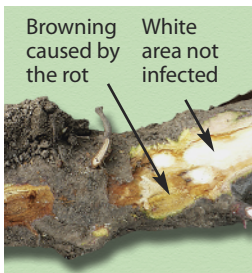
Fertilize severely defoliated trees. Grow resistant plants when possible. Fungicides may be used for turf, flowers, fruit, or vegetable crops, but their use is not recommended for anthracnose on most trees.



Verticillium Wilt

Can affect more than 300 plants. Commonly infects maple, redbud, smoketree, magnolia, ash, and some flowers and vegetables in Illinois. Leaves wilt and turn brown. Brown discoloration of the sapwood is an indicator. Vascular discoloration is rare in ash.

Grow plants adapted to the growing site. Resistant varieties and species are available for some plants. After removing infected plants, wait three years before growing a susceptible plant in the same area.



Root Rots

Hosts include small fruits, vegetables, flowers, woody plants, and all seedlings. Symptoms vary. Plants may be stunted or low in vigor, grow slowly, or wilt easily on a warm day. The foliage may turn yellow to brown and fall prematurely, usually starting with bottom leaves and moving up the plant. Roots may show a reddish brown, dry or fibrous rot, or roots will be dark brown to black and appear wet or slimy. Many noninfectious conditions can be confused with root rots.

Plant only healthy plants. Be certain soil drainage and site conditions are ideal for plant growth. Remove badly infected plants.

Top 12 Lawn & Garden Pests



UNIVERSITY OF ILLINOIS EXTENSION

For additional information on pest identification and management, please contact your local University of Illinois Extension office at web.extension.illinois.edu.

The authors, Michelle Wiesbrook, Phil Nixon, and Jim Schuster, are Extension Specialists in the Department of Crop Sciences at the University of Illinois at Urbana-Champaign.

Funding for this publication was made possible by the US EPA.

WEEDS



Dandelion (*Taraxacum officinale*)

This cool-season perennial reproduces by seeds and broken taproot pieces. Dandelions emerge above a long, sturdy taproot to form basal rosettes of narrow, deeply lobed (teeth point toward the leaf base) leaves. These leaves are 2" to 10" long and up to 2-1/2" wide. The flowers are bright yellow and up to 2" wide and are borne singly on hollow, smooth stalks that can grow up to 20" tall. The flowers become round, grayish white puffballs of wind-dispersed seeds. The flowering period is from early spring through late fall. Leaves, flower stalks, and taproot exude a milky juice when cut.

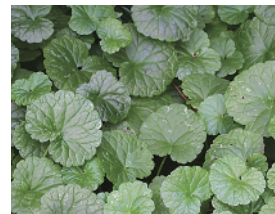
Maintain turf density and health using proper culture; mow often to remove seed heads before seed maturation; and mechanically pull, removing as much taproot as possible. Apply postemergence herbicides during periods of active growth from mid-spring to early summer and/or mid- to late autumn; pre-emergence herbicides should be applied before seed germination.



Ground Ivy (Creeping Charlie) (*Glechoma hederacea*)

This perennial mint spreads by seeds and creeping stems that can root at the nodes. The stems are square, can grow up to 2-1/2' long, and occasionally ascend. The leaves are round or kidney shaped with rounded, toothed margins; 1/2" to 1-1/2" in diameter; medium to dark green; smooth or hairy; and opposite on long petioles. They emit a strong minty odor when crushed. The flowers occur from April to June. They are small, purplish blue, funnel shaped, and clustered in the leaf axils. This patch-forming weed normally occurs in shaded sites with poorly drained, fertile soils. It can spread into sunny areas.

Maintain turf density and health through proper culture, and alter the turf environment by reducing soil moisture and shade. In landscape beds, mechanical removal may be effective. Apply post-emergence herbicides in mid-spring to early summer and/or mid- to late autumn when it is actively growing. Ground ivy is difficult to control and has been used as ground cover in shady areas.





Large Crabgrass (*Digitaria sanguinalis*)

This warm-season annual grass emerges from seed mid-spring through summer. The stems are often purplish tinged, can root at the nodes, and can ascend to more than 3' but usually form a mat. The leaves are pale blue-green, hairy on both sides, flat, sharply pointed, 1/4" to 2/5" wide, and 2" to 6" long with margins that may be rough. Seed heads are purplish spikes clustered at the top of stems in August and September. Large crabgrass can be found in most moist, fertile, sunny lawns where turf is thin or mowed too short. It will tolerate hot, dry, compacted soils after establishment and may spread aggressively to crowd out desirable grasses. Smooth crabgrass (*D. ischaemum*) is very similar but generally smaller and has fewer hairs on the leaves.

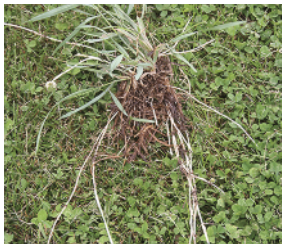
Maintain turf density and health through proper culture; avoid spring cultivation, short mowing, summer fertilization, and light, frequent irrigation. Crabgrass can be hand pulled or mechanically removed. Apply preemergence herbicides before germination when soil temperatures stabilize at 55°F for several consecutive days; post-emergence herbicides should be applied when the weeds are small.



Quackgrass (*Elytrigia repens*/Agropyron repens)

This coarse-textured, cool-season perennial grass can grow up to 4' tall. It spreads aggressively by seeds and long-lived, slender, white rhizomes with sharp tips. The blades are flat, dull green to light blue-green, and taper to a pointed tip. Blades grow 1/8" to 1/2" wide and 3" to 12" long. On the upper surface, the blades are smooth to rough and may be sparsely hairy; on the lower surface, they are smooth. The leaves have a very short (1/32"), membranous ligule and clawlike, slender auricles that clasp the stem. The seed heads are 2" to 6"-long spikes that occur from late May to September. Quackgrass thrives in well-drained soils with slightly acidic pH and favors thin, droughty lawns.

Maintain turf density and health through proper culture; low mowing and fertility maintenance may decrease population. Apply herbicides when actively growing; selective herbicides are currently unavailable for lawns. In gardens, cultivation yields poor control due to the rhizomes.



Tall Fescue (*Festuca arundinacea*)

This cool-season perennial reproduces by seeds and enlarges by tillering. Tall fescue is a clumpy, coarse, bunch-type grass that develops a deep, fibrous root system. The leaves are flat, thick, dark green, and up to 1/2" wide. The upper surface has distinctive veins, the margins are rough, and the tip is sharp pointed. The collar region is whitish and broad, with short, blunt auricles. Flowers of tall fescue are panicles that grow up to 12" long. They occur in late spring or early summer. Tall fescue is often grown as a turfgrass species, but it can become a weed when mixed in with finer-textured, slower-growing species. It tolerates a wide variety of growing conditions.

Maintain turf density and health through proper culture. Apply selective and nonselective postemergence herbicides from late spring through early summer and again from mid- to late autumn during periods of active growth.



INSECTS



Bagworm (*Thyridopteryx ephemeraeformis*)

Each caterpillar lives in a silk tent up to 1-1/2" long that is covered with pieces of brown foliage. Adult males are black, 1/2" long, heavy-bodied moths with clear wings. Adult females are caterpillar-like and stay in the tent (bag). The caterpillars feed on the foliage of arborvitae, eastern red cedar, juniper, spruce, oak, honeylocust, and many other trees and shrubs. Feeding occurs first at the top of the plant in mid- to late June. Fully grown larvae stop feeding in late summer. Defoliated conifers will die; deciduous plants will regrow leaves. Eggs overwinter in the bags made by the females.

Remove and destroy the bags between September and the following mid-June to eliminate the eggs. Handpick and destroy the caterpillar-containing bags. Bacterial and other insecticides are effective against younger, smaller caterpillars in late June.



Japanese Beetle (*Popillia japonica*)

The adult is a stout, 3/8" to 1/2"-long, metallic green beetle with coppery wing covers. The larva is a C-shaped white grub up to 1" long. Adults eat holes and window-feed on the leaves of rose, linden, crabapple, birch, and other trees and shrubs. Grubs feed on grass roots, causing dieback and browning of turf.

Handpick the adult beetles. When disturbed in late afternoon, they will drop easily from the leaves. If you hold a jar containing soapy water or rubbing alcohol beneath them, they will fall into it and be killed. Insecticides are effective against the beetles but usually require retreatment every two weeks. Treat only obviously damaged plants in the landscape; Japanese beetles are unlikely to harm the health of established plants. Plant less-susceptible ornamentals such as red maple, winged euonymus, ash, lilac, dogwood, mock orange, forsythia, yellow poplar, and conifers. Because adults can fly half a mile or more, larval control is unlikely to reduce adult beetle damage. Beetle traps attract more beetles to the yard and result in more damage than not using them.



Emerald Ash Borer (*Agrilus planipennis*)

The adult is metallic green, about 1/3" to 1/2" long. The larva is 1" to 1-1/4" long, slender, whitish, and flattened. Larvae feed in the cambium between the bark and the wood, creating girdling, winding tunnels. They attack only ash trees (*Fraxinus*). Adults emerge in spring, leaving D-shaped, 1/8" exit holes. Woodpecker damage on trunk may signal infestation. Attacked trees have a thin canopy then develop water sprouts, followed by basal suckers, and ending in tree death.

Control by removing infested trees or treating with systemic insecticide. Preventive treatment is not recommended more than 15 miles from infested areas. If you believe that emerald ash borer is new to your area, report infestations to your local University Extension or Department of Agriculture office so that populations can be tracked.

