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Cicada Killers

Cicada killers (*Sphecius speciosus*) are large wasps, about 2 inches long, with red-brown heads, black bodies and yellow banding on their abdomens. The size of these wasps can be distressing but they are unlikely to sting passers-by. Males establish and patrol an aerial territory where they attempt to mate with passing females. When a person or another cicada killer enters that territory, the male may approach in a way that seems aggressive. While this behavior is intimidating, the males are incapable of stinging and they only intend to harm other male cicada killers. They will leave when they realize you are not a threat or a potential mate. Females dig into soil or sand creating a burrow (1/4 – 1/2 inches in diameter) where they rear their young. Females sting and paralyze cicadas, which they carry back to the burrow to feed their young. Females may sting people but this typically only occurs if someone attempts to handle them or if they are stepped on.

Since these insects rarely sting and do not feed on plants, they seldom require control. In some cases, the digging behavior can cause aesthetic damage which may spur property managers to treat the wasps. Locations where bare soil or sand is available are preferred burrowing sites and large populations have the potential to cause significant aesthetic damage or become a nuisance.

Some locations where cicada killers can cause damage may include baseball diamonds, beach volleyball courts, sand traps in golf courses, playgrounds and areas with sparse turf.

When treatment is needed, chemical controls such as pyrethroids, carbaryl (Sevin Dust) or other pesticide labeled for cicada killers can be applied to the burrows. When the females are gone, the males will leave the area as well.

In areas such as playgrounds and playing fields, where children and athletes may be in contact with the treated area, non-chemical control methods are preferred. Cultural controls like mulching bare soil, encouraging dense turfgrass or planting ground-cover will make these sites less attractive to female wasps. In many cases, educating concerned home owners about cicada killers can encourage understanding and tolerance. (*Sarah Hughson*)

Goosegrass Gone Wild!

Timely, abundant rains combined with heat and humidity have contributed to the abundance of warm-season annual grassy weeds that we are seeing in Illinois lawns and landscapes. One particular grass that has benefitted from these growing conditions is Goosegrass (*Eleusine indica*). Recently I attended the Midwest Regional Turf Foundation Field Day at Purdue and the comment was

made that it was like goosegrass had gone wild this year. This comical note made me think that perhaps it is a good time to reacquaint ourselves with this “wild” weed.

Goosegrass is a good indicator of compacted soils. We typically find goosegrass in heavily trafficked areas. It does well in poorly drained conditions and prefers full sun.

The stems form a prostrate rosette with a silver or light-colored base. In fact, some refer to this grass as silver crabgrass. When not mowed, goosegrass can grow upright to two feet. The stems are smooth and flattened as the leaves are folded in the bud. The collar is broad and sparsely hairy. The leaves are dark green and up to 1/3 inch wide and 12 inches long. They are usually smooth and folded along midvein. The margins are rough. The ligule is membranous, unevenly toothed, cleft in the center and very short at less than 1/25 inch.

Goosegrass flowers appear in July to September. They occur as 2 to 10 finger-like spikes. Each spikelet resembles a zipper, with two rows of seeds. The roots are fibrous. Germination is generally about two to three weeks after that of crabgrass.

Some look-alike species include orchardgrass, which has a much larger ligule (up to 2/5 in.) and often a more upright growth habit. Crabgrass has a similar growth habit but the leaves are rolled in the bud, not folded (round stems, not flattened).

Appearance in turf often indicates the need for aeration. Attention should be paid to cultural practices and improving

turf density. In landscape beds, mulch can be used to prevent goosegrass germination. Existing plants can be removed by hand. Preventing seed production is key. In the spring, preemergent herbicides can be used. Oxadiazon is commonly used for goosegrass, but many are labeled for this weed. Postemergent herbicides for cool season turfgrass include: fenoxaprop, fluazifop, mesotrione, sulfentrazone, topramezone and MSMA (golf courses and sod farms only). More than one application may be needed on goosegrass that has tillered. For landscape beds, herbicides that are specific to killing grassy weeds such as fenoxaprop, fluazifop, and sethoxydim are recommended.

Be sure to read and follow all label directions. Products may be labeled for use on specific types of turfgrass or for certain areas only. (*Michelle Wiesbrook*)

Verticillium Wilt

Verticillium wilt is a common and serious disease that affects over 300 hosts, including woody and herbaceous plants. There are a number of species of plant pathogenic fungi in the *Verticillium* genus known to cause wilt disease, with different strains or pathotypes of the pathogen exhibiting definite host plant preferences. The fungus is capable of surviving in the soil for several years. Once inside the plant the fungus colonizes the vascular system, restricting water movement and leading to the decline and death of the host. The disease is most severe in Illinois during cool to warm weather, and less prevalent in hot weather.

Common susceptible woody hosts in Illinois include maple, ash, elm, redbud,

smoke trees, tulip trees, and oak trees in the red oak group. A common symptom in woody hosts is flagging, where the foliage on an individual branch suddenly wilts and dies. Often, the foliage on only one side of the tree or shrub wilts. An overall yellowing of the leaves may precede the wilting. Some hosts (such as ash) may defoliate while still green and without any yellowing or wilting. Symptoms are most often seen in Illinois starting in early July, though they may begin as early as March and continue through November.

Environmental factors influence the severity of symptoms. Woody plants under stress due to drought, nutrient deficiencies, or salt toxicities are more extensively invaded by the fungus. Hosts may decline and die rapidly within a few weeks of symptom development, or they may linger through many seasons getting progressively weaker due to branch dieback.

To confirm the presence of *Verticillium* wilt in a suspected host, a sample of a symptomatic branch (one showing yellowing or wilting leaves, but not completely dead) should be sent to a plant diagnostic laboratory. The branch should ideally be 8-10 inches long and approximately 1 inch in diameter. The University of Illinois Plant Clinic accepts samples of suspected *Verticillium* wilt.

Management recommendations for *Verticillium* wilt include improving host vigor and planting resistant varieties in areas known to be infested with the pathogen. If a tree or shrub begins to display symptoms of *Verticillium* wilt, pruning out the dead branches, watering and fertilizing as needed, and controlling other pests may delay disease progression. If a plant succumbs to *Verticillium*

wilt, it is highly recommended to plant a resistant or non-host species in that area. Fungicides have not been shown to be effective. (*Diane Plewa*)

Pachysandra Leaf and Stem Blight

When sited properly, Japanese pachysandra (*Pachysandra terminalis*) is considered to be a mostly trouble-free species. However, it occasionally will have problems with scales and a few fungal diseases. Leaf and stem blight is the most common diseases on pachysandra.

Common leaf and stem blight symptoms include:

- Tan leaf spots or blotches with dark brown borders. Concentric rings are often visible within the spots (Photo 1).
- Stems can also be infected resulting in dark brown, expanding cankers. The canker girdles the stem resulting in the death of tissues beyond the infection. Dead stems eventually become withered and shriveled (Photo 2)
- Under wet conditions of spring and early summer, pink to orange brown spore pustules are visible on the undersides of affected stems and leaves.

This disease is favored by a weakened or stressed host plant and is often seen on pachysandra damaged by winter injury. Other stresses, such as transplant shock, excess moisture, shearing, scorch from excess sunlight, or scale infestations can also increase a host's susceptibility to the disease. The plants in photo 2 were also infested with Oystershell Scale, likely contributing to the plants susceptibility.

Disease management should begin by removing and destroying all severely infected plant parts. The next step should focus on alleviating any known stresses and by controlling scales and other pests. Remove accumulated leaf debris that may hold moisture. Protect from excess sunlight or desiccating winter winds. Periodically thinning pachysandra beds will increase air circulation and allow plants to dry quickly. Chemical controls should be used as your last option. Fungicides can be used to prevent new infections. Products with the active ingredients chlorothalonil or mancozeb are labeled for homeowner use. Products with chlorothalonil, thiophanate-methyl, mancozeb and copper based active ingredients are labeled for use in Illinois by commercial applicators. (*Travis Cleveland*)

Slime Mold on Turfgrass

The recent weather has set up perfect conditions for slime molds on turfgrass. Warm, wet, overcast weather helps

slime molds to find their way onto turfgrass surfaces where they feed on microorganisms and other decaying organic matter. The primitive fungi can come in many colors from orange to white, blue or gray. The bright color can be seen in the early onset and then rapidly changes to dark patches.

Slime molds are unique in that they are not infectious and therefore do not harm the turf. They also remain for a short period of time, generally 1-2 weeks. Masses of spores can cover the leaf blade reducing photosynthesis but not long enough to kill the plant. Slime molds are seen most often in tall mowed lawns that have had a reoccurring problem of slime molds especially ones that are very dense with excess thatch.

Fungicides are not necessary for a typical lawn. Raking, mowing, or rinsing the affected areas with a strong stream of water will mechanically remove the fungus. Rinsing should only be attempted during periods of dry weather. Removing excess thatch will also help to reduce the risk for reinfection. (*Maria Turner*)