



## Cicada Biology and Management

### Overview

Cicadas are large flying insects about one inch in length with transparent wings (Figure 1). They are known for their mating songs and produce one of the loudest sounds made by any insect. Two types of cicadas commonly exist in the Eastern United States: annual cicadas which emerge every year and periodical cicadas which emerge every 13 or 17 years. Periodical cicada emergences are geographically distinct with groups that emerge in the same area and year (13 or 17-year cycles) known as a brood. Cicadas pose no health threat to people or pets, although consumption of large numbers by pets should be avoided.

Figure 1. Adult cicada.  
Photo credit: Pennsylvania Department of Conservation and Natural Resources – Forestry, Bugwood.org.



### Life Cycle

- Periodical cicadas have synchronized life cycles, the majority of which is spent underground.
- During final molt of exoskeleton, immature cicadas (nymphs) construct tunnels and emerge from the soil.
- They molt into adults, leaving nymphal exoskeleton, often attached to a tree.
- Adults live between 2-6 weeks after emerging from the ground sometime around April-May and eventually climb into trees and shrubs to mate.
- Females deposit eggs in the thin terminal branches of trees and shrubs.
- Nymphs will hatch from eggs after 6 weeks and fall to the ground.
- Nymphs burrow into the soil and begin feeding on roots of trees and shrubs to restart their life cycle.

### Symptoms

- Cicadas have sucking mouthparts that they use to feed from the xylem of trees and shrubs but are not considered destructive pests.
- Periodical cicadas do not damage leaves, flowers, fruits, or garden produce but may damage newly planted or young trees. Damage does not come from adult feeding but rather female cicadas laying eggs in small twigs (Figure 2).
- The terminal tips of tree branches that are damaged by egg laying may turn brown as summer progresses (Figure 3).

Figure 2. Egg laying damage to a tree twig.  
Photo credit: Jim Baker, North Carolina State University, Bugwood.org.



## Management Solutions

- Control is not necessary on mature trees.
- If intending to plant trees or shrubs in a year when periodical cicadas emerge, consider delaying planting until fall when cicadas are absent.
- Protect young trees by covering them in mesh or netting with ¼-inch or smaller openings.
- Landscape ponds should be covered with screening or plastic mesh to prevent accumulation of cicadas.
- In extreme situations where symptoms and/or damage is not tolerable, bifenthrin (Talak™ 7.9% F) may be applied as needed according to label directions.

Figure 3. Tree branches damaged by cicada egg laying.  
Photo credit: Jim Occi, BugPics, Bugwood.org.

