Periodical Cicadas
Identification, Biology and Management

Periodical cicadas, or the so-called seventeen-year locust, are native to the eastern half of North America and exist nowhere else in the world. Cicadas have one of the longest life cycles of any insect, lasting between thirteen and seventeen years. Adult cicadas emerge from the soil in tremendous numbers, and males fill the air with the droning of their mating calls. Although these insects are mistakenly thought to cause large crop losses, the cicada actually produces no noticeable plant injury through its feeding.

Woody plants, however, can be severely damaged through the egg-laying habits of the female cicada. More than eighty species of trees and shrubs are used by cicadas for egg laying. Oak, apple, hickory, dogwood and members of the rose family are among the preferred species. Females insert a saw-like ovipositor into the bark and wood of twigs and cut a pocket into which eggs are deposited. One female may produce as many as thirty-five bark punctures. Repeated attacks can girdle twigs and may kill small trees and shrubs. The wounds also provide an entrance for disease causing organisms.

DESCRIPTION: The term locust, frequently applied to cicadas, is a misnomer. Locusts are actually a type of grasshopper, such as the migratory locust, which occasionally causes crop destruction in Egypt and other areas of the Mideast. The periodical cicada is a robust, heavy bodied insect, approximately 1.5 inches long. The body is mostly black with clear, membranous wings and large red, conspicuous compound eyes.

LIFE CYCLE: Adult cicadas begin to appear in spring or early summer. Adults live for only a few weeks, during which time they mate and lay eggs in twigs of trees and shrubs. Eggs hatch into immatures, drop to the soil, and burrow down eighteen to twenty-four inches. The nymphs attach to tree roots and feed by withdrawing sap. The immatures continue to develop within the soil for the next thirteen to seventeen years, although broods of cicadas exist nearly every year. At the end of the period, the nearly mature nymphs emerge from the soil and immediately transform to adults.

CONTROL: Limited success is achieved with chemical control and requires frequent (weekly) applications of a contact insecticide during the period in which the insect is active. In areas were peak emergence is expected, it is wise to delay spring pruning until after damage can be assessed. At this time, twigs and branches weakened or killed by the periodical cicada may be pruned out. Fertilization will increase plant vigor and help offset the debilitating effects from the twig and branch dieback.