

Problem: 17 Year Periodical Cicada - *Magicicada cassini* and *Magicicada septendecim*



Hosts: Over 270 species of plants serve as hosts though the most preferred plants include maple, hickory, hawthorn, apple, peach, cherry, and pear. Pine and spruce trees are not damaged.

Description: Periodical cicadas show up every 17 years in Kansas with 1998 being the year of emergence. In the southern part of their range, these insects emerge every 13 years. The year of emergence varies with location. For example, a brood of periodical cicadas emerged in 1995 in Maryland, Virginia, and portions of Pennsylvania, West Virginia and North Carolina. Since our last year of emergence was 1998, our next will be 2015. However, there are always some cicadas that emerge 4 years early. Therefore, we will see a partial emergence in 2011.

The bodies of periodical cicadas are basically black but the basal portions of the wing veins are distinctly orange and the eyes are reddish/orangish. No other species of cicada in Kansas fits this description. Cicadas do not sting or bite.

Life History: In May and June of the emergence year, matured nymphs will emerge from the ground and climb onto trees, bushes and other upright structures. After securing a good foothold, a split will form at the head end of each nymph, and the adult will emerge. Female cicadas will use their ovipositors to insert eggs beneath the bark of twigs and branches on a wide variety of trees and shrubs. Eggs will hatch in seven to eight weeks, and the nymphs will drop to the ground, burrowing as deep as 24 inches into the ground until they find suitable roots upon which to feed. Although fully grown by seven to eight years later, the nymphs remain underground and continue feeding for an additional nine to 10 years.

Bodies of the newly emerged periodical cicadas will be soft and white in color. Within a few hours, the cuticle will harden and darken and the orange coloration appears. These cicadas will mate within a week of their emergence, and females will begin their egg-laying activities seven to 10 days after emergence. Eggs will hatch in seven to eight weeks, followed by the nymphs burrowing into the soil to begin their 17 year developmental cycle leading to their reappearance in the year 2015.

Male cicadas "sing" in order to attract females. The females are silent. During the 3-4 week period following the emergence of periodical cicadas, there will be a din of noise made by the male cicadas. Singing begins at dawn and increases in intensity as daytime temperatures rise. During evening hours, singing ceases.

Damage: Only slight plant damage occurs from the feeding activities of adult cicadas which utilize their mouthparts to pierce twigs for sap withdrawal. Rather, the major damage results from the egg laying activities of the females. Selecting twigs and branches up to 7/8 inch in diameter, females use their saw-like ovipositors to split the bark and splinter the sapwood to deposit 2 to 4 dozen eggs per site. This damage is severe enough that twigs will wither and die resulting in a symptom known as "flagging." An individual female can repeat this process until they have laid up to 600 eggs. Larger, established trees may show significant flagging, but they will withstand the damage. On the other hand, smaller trees may be severely injured or killed.

Recommendations: Small trees can be protected with nylon mesh or cheesecloth draped over the plant during the egg laying period. Start when the males start singing and continue until all singing stops. Be sure the mesh is no larger than 1/4 inch. Tie the mesh to the trunk so that the cicadas can come up into the tree from underneath.

If the above is impractical, consider chemical controls. Carbaryl (Sevin) and esfenvalerate (Asana) are labeled for periodical cicada control. Sevin should be applied every week.

References:

1. [Periodical Cicadas in Missouri](#), University of Missouri Extension, G7259

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