

MESSENGER-INQUIRER



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HORTICULTURE EDUCATION
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Two Broods of Periodical Cicadas to Emerge in Late April
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They are coming back after feeding on tree roots underground! The periodical cicada Brood 13 and Brood 19 are due to emerge soon. The emergence of these two broods at the same time last took place when Thomas Jefferson was president. What impact will they have in Kentucky?

Brood 13 and Brood 19 have spent 17 and 13 years respectively underground. Brood 13 is located mainly in Illinois but also in Indiana, Wisconsin, and Iowa and last emerged in 2007. Brood 19, also called the “Great Southern Brood”, last emerged in 2011 in several southern states. In Kentucky, it was primarily in the Purchase and Pennyryle Regions. This does not mean that our area will not see them.

Every year we hear the annual, also referred to as dog-day, cicadas in the summer, which do not come out in large numbers like the periodical cicadas. The two cicadas look different too. The periodical cicadas have red eyes and clear wings with orange veins. The annual cicadas have green to black eyes and green veins in clear wings. The periodical cicadas are 1.5 inches

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long and annual cicadas are larger at 2 to 2.5 inches long. The periodical cicadas appear April to June while the annual cicadas appear July to September.

The life cycle of the periodical cicadas will begin around late April or early May with their emergence. It takes about 3 weeks for all of them to come out. They emerge from the ground as mature juveniles and attach themselves to an upright surface. The back splits on the nymphal skin and the adult comes out leaving an empty brown skin behind. The adult rests there for several hours until their bodies and wings have expanded and are dry and hard.

The millions of periodical cicadas emerging are visually striking. In addition, the sounds they make can be deafening. The males fly to high branches in the sun and sing together in choruses to attract females. The male uses specialized structures on his abdomen to make the sound. After a couple of days, they mate. The male dies after mating. The female looks for places to lay her eggs and then dies.

The periodical cicadas do not bite or sting according to Dr. Jonathan Larson, entomologist with the University of Kentucky Cooperative Extension Service. However, they cause damage to trees.

The females usually prefer to lay eggs on oak, hickory, apple, peach, and pear trees. They first slit the bark of pencil-sized twigs and then insert a row of eggs into the wound. Eggs hatch in six to ten weeks. Nymphs fall to the ground and burrow down to the root system where they stay for the next 17 or 13 years depending on the brood. They feed on the sap of tree roots with their piercing-sucking mouth parts.

Periodical cicadas can cause physical damage to small trees if too many lay eggs in their

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twigs. Such damage can cause the breaking of peripheral twigs referred to as “flagging”.

Because this damage can easily destroy the current year’s growth, increased pruning is required to get rid of damaged areas. This type of damage is most significant on newly planted or young trees.

Mature trees, however, usually survive even dense emergences of cicadas without apparent distress. Their presence in a tree does not mean that damage has occurred. This can be difficult to believe in the month or so following a large emergence when many deciduous trees turn brown due to the breakage and death of peripheral twigs. As serious as it may appear, such damage is apparently minor and reduces the current year’s growth.

Because egg-laying is the real danger from these insects, consider protecting young trees and shrubs when the first male singing is heard. A week or so after emergence, females are ready to lay eggs. The young and small trees can be covered with a protective netting with holes smaller than bird netting or cheesecloth. Be sure to secure the covering around the trunk to prevent cicadas from climbing up to the limbs. This covering stays on for the next four to six weeks towards the end of June or until egg-laying is complete. The netting or cheesecloth is used because it allows light to reach the leaves of the plant.

In addition, pruning the twigs out with the egg slits prevents cicada nymphs from feeding on the roots of young trees. This must be done within three weeks after the end of egg laying. Even though time consuming, this may be an alternative when considering the production life and long-term value of backyard fruit trees especially. Vigor reduction of small trees can occur by large numbers of nymphs feeding over several years.

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In 2025, Brood 14, which covers most of Kentucky east of the Purchase Region, will emerge. Some of Brood 14 may emerge early and appear in 2024, so we may see some periodical cicadas here. If you would like to participate in a periodical cicada citizen science project, download the app “Cicada Safari” to submit photos of cicadas you find to help update maps with new and better information about the broods.

For more information about Brood 13 and Brood 19 of the periodical cicadas, contact the Daviess County Cooperative Extension Service at 270-685-8480 or annette.heisdorffer@uky.edu.

Annette’s Tip:

Periodical cicadas are sometimes mistakenly called locusts. Early settlers made incorrect assumptions that these insects, which come out in hordes overnight, were the locusts referred to in plagues of locusts, but these insects are not related.

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