



European Hornet

Eric Day, Department of Entomology, Virginia Tech



European hornet and damage. Photos by John Weidhaas

Plants Attacked: Lilac, boxwood, Viburnum, fruit trees, birch, willow, poplar, Ligustrum, Rhododendron, dogwood and other trees and shrubs.

Description of Damage: The most conspicuous damage is due to the premature browning of leaves on individual branches in August and September. European hornets girdle smaller twigs and gnaw holes in the bark of larger branches. The hornets chew off the bark in order to feed on the sap that flows from the wound. Some of the bark fibers may be used for nest construction. Often the portion of the twig above the girdled area dies. Usually before the twig dies it tries to regrow, causing an abnormal swelling above the wound. Although injury becomes most noticeable in the fall, European hornets may have been removing bark and collecting sap for a month or more.

Identification: The European hornet is a stout hornet approximately 1-inch long. The color of the head and thorax is dark reddish brown with deep yellow and brown black markings on the abdomen. The markings on the abdomen are similar to the markings found on yellow jackets. The European hornet resembles the cicada killer wasp but is more robust and has more hair on the thorax and abdomen (but is not as hairy as a bee). Hymenoptera, Vespidae: *Vespa crabro germana*

Life History: Damage is most extensive in late summer and early fall when large colonies have developed. The hornets build their nests in protected areas such as hollow trees, hollow posts, partitions in sheds, barns, porches, and attics. Mature nests generally consist of 6-8 horizontal combs, without the papery covering associated with many other hornets' nests. Nests can be very large, up to 2-3 feet in length, 20 inches in diameter and may contain 800-1000 workers although most in Virginia are much smaller. Nests are annual and die out in winter. These hornets have a large stinger and large poison sac and the sting can be painful, but they do not appear to be particularly aggressive or vicious.

Control: There is no known insecticidal control for use on host plants. Attempt to locate the nest by following the hornet in its flight to and from the nest. Wear protective clothing and destroy the nest at night by placing an insecticidal dust into the nest entrance, although even at night it is still possible to get stung. European hornets fly at night and are attracted to lights and windows.

Remarks: European hornets abandon their nest at the end of the year. A single queen starts a new nest in the spring and this nest is at first small and has few workers. The limited number of twigs and branches that are damaged in the spring usually go unnoticed. By the end of the summer when many workers are active the damage is more prevalent and easy to spot, especially since girdled areas are highly attractive to other foragers, such as flies and sap beetles, which come to the wounds to collect sap, sometimes in great numbers. The Japanese Hornet does not occur in Virginia or North America, but because images on the Internet of the Japanese hornet are similar to the European hornet, the Japanese hornet is incorrectly reported for locations in the United States.