

VIRGINIA COOPERATIVE EXTENSION SERVICE

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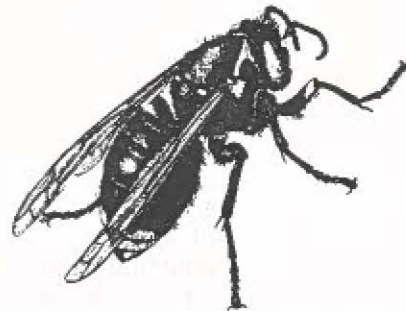


INSECT NOTES

CICADA KILLERS AND GIANT HORNETS

There are a few species of stinging Hymenoptera--yellowjackets, hornets, wasps--that make themselves pests this time of year. The most common of these insects in the fall are cicada killers and giant European hornets. These two are very large "hornets or wasps", look very threatening, and are common around houses. All that adds up to first class pest status!

Cicada killer. This is a large wasp (1 1/2-1 3/4 inches long) that is dark brown to black and with yellow or orange markings on the thorax and abdomen. They are solitary wasps, they do not build large nests. They can be very numerous in turfgrass or bare soil locations, such as a yard, baseball field, or around a swimming pool. The female *cicada killer* burrows into the soil a short distance, perhaps 2-3 inches, to prepare a small nest. Then she flies off in search of a cicada--those large green insects making noise in the trees in August! The cicada killer wasp will grab a cicada, sting it so that it is subdued but not dead, then carry it back to the burrow it has made in the ground. Once the cicada has been placed in



the burrow, the wasp will lay one or two eggs on it, then try to replace the soil in the burrow. The egg will hatch and the wasp larva will feed on the cicada. A new cicada wasp will emerge in the fall or the following spring. Amazing stuff, isn't it!

Control. These insects are usually very intent on their mission of capturing and burying cicadas, and they are rarely involved in stinging humans. Their pest status usually comes from their presence (sometimes in numbers) in a lawn or bare soil area. Chemical control can be achieved by spraying the soil they are burrowing in with *carbaryl* (*Sevin*), *diazinon* (*Spectracide*), or *chlorpyrifos* (*Dursban*).

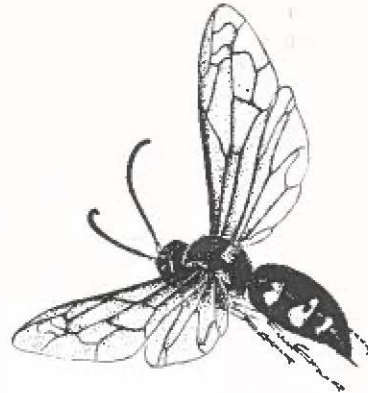
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Giant European hornet. These insects do build large nests, usually in decaying logs or standing trees, and sometimes in the ground. They can be a serious pests in the early fall in some areas. The giant European hornet is a large (1 3/4 inch), robust hornet. It has yellow and brown markings. This insect was introduced into the U.S. from Europe, and it occurs primarily in the eastern seaboard states.

Giant European hornets are powerful, agile insects that prey on other (live) insects. Their prey includes butterflies, moths, caterpillars, flies, bees, volkwagens, and other wasps. They will also visit flowers for the nectar. They are often encountered at outdoor lights at night--preying on other insects attracted to the lights. Although they are very large and seem aggressive, giant hornets are not prone to attacking an stinging man.

The size of the giant European hornet colony increases during the summer, there may be several hundred individuals in the nest at the end of the season. Nests decline in the fall, and males and females are produced at this time. The nests are used for only one season.

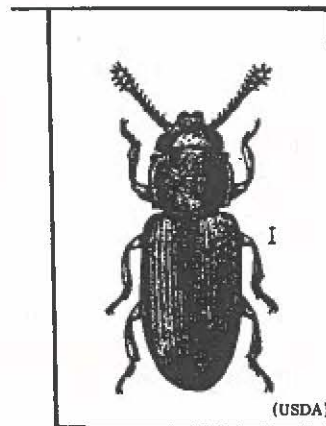


Control. Locating the nest is probably the most efficient way of eliminating these pests. However, finding the nest may be difficult, and they may not be close to the areas that the hornets are visiting. Aerosol sprays can be used to kill individual hornets, but this will usually not do much to eliminating the entire nest. There are specially designed areosols for treating wasp and hornet nests. Remember to wear protective clothing, and to treat the nest at night.

FOREIGN GRAIN BEETLES

In the late summer and early fall there is usually an "outbreak" of foreign grain beetles. These small (1/10 inch), brown beetles, with small, clubbed antennae are often reported as occurring in new houses or apartment buildings--and usually in great numbers! They are also reported outdoors, and indoors in older houses. The "outbreak" lasts about two weeks, and then the beetles are gone--just as quickly as they came.

We have little or no idea what they feed on, or why they seem to be attracted to new buildings. They do not seem to infest houses. They are not usually reported at other times of the year in houses. There is

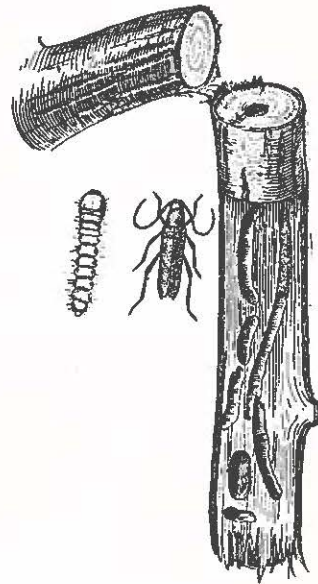


some research data that indicates that these beetles feed on or are attracted to moldy flour or meal, and especially moldy cocoa beans. So, watch those moldy beans! Homeowners and apartment residents often want suggestions on control measures for the invaders. If control is necessary--a rare case!--a common aerosol will do fine; liquid sprays of *diazinon* (*Spectracide*) or *chlorpyrifos* (*Dursban*) can be used outdoors.

FIREWOOD AND WOOD-INFESTING INSECTS.

Remember a few of the basic and important facts about firewood and wood-infesting insects in the house:

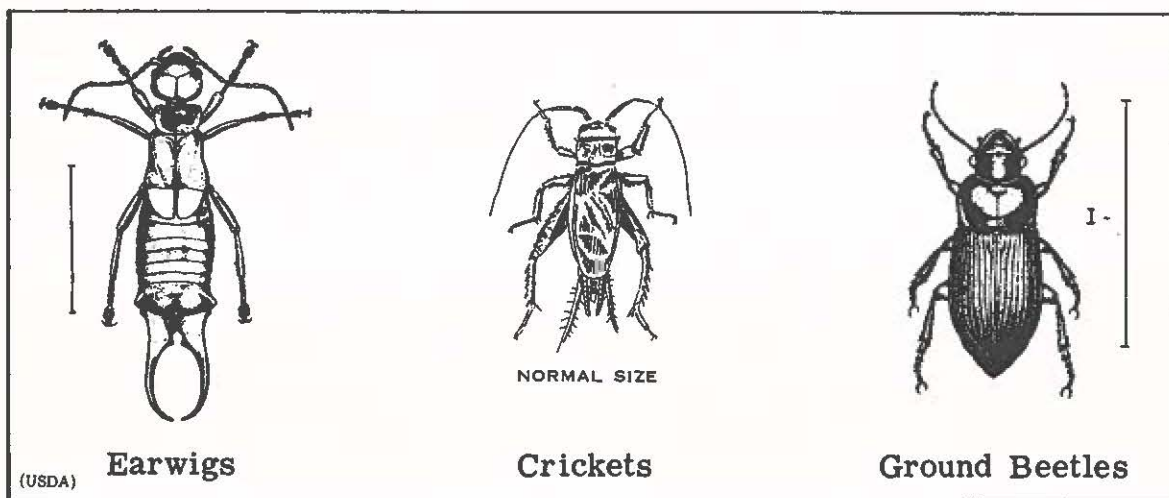
- [] the beetles that infest firewood will not/can not infest structural wood;
- [] carpenter ants encountered in firewood brought into the house will not leave, more the nest, and infest the house;
- [] termites found in firewood brought into the house will not move the nest into the couch in the living room.



The beetles that infest and feed on pine and oak firewood require a fairly high wood-moisture content to survive--firewood has that high moisture content. Structural wood is much too dry for firewood insects to feed in. The beetles that infest firewood normal have a 2 yr life cycle, and the adults prefer to lay eggs under bark of standing dead or down trees--not the kind of wood in houses! Carpenter ants nest in moisture damaged wood; they are not likely to

pack up the entire nest and find a place in the house that is going to fit their nesting requirements. Termites nest in the soil and move from there to feed on wood. The termites encountered in logs are only a part of the colony, and not able to re-establish a colony in the house.

OCCASIONAL HOUSEHOLD INVADERS IN OCTOBER



Termiticides 1988

Trade Name Manufacturer Common Name Use Classification Concentration Applied	Insecticide Group Mixing directions Gal. conc/ gals water	% Active Ingredient in concentrate A.I./gal of conc.	Toxicity of Concentrate mg/kg LD50 Dermal (Rabbit)	Comments Years 100% effective under slab in USDA tests in Mississippi
Dursban TC Dow Chemical chlorpyrifos General use 1.0%	Organophosphate 2 gal. in 98	42.8 4 lbs.	930 (F) 1265 (M)	Longest established residual at the labelled rate in USDA tests. 12+ at 1%
Pryfon 6 Mobay isofenphos Restricted use 0.75%	Organophosphate 1 gal. in 96	65.0 6 lbs.	1701 (F) 900 (M)	Not tested by USDA at .75% 12+ at 1.0%, 5 at .5%
Tribute Velsicol fenvaterate General use 0.5 - 1.0%	Synthetic pyrethroid 2 gal/98=.5% 4 gal/96=1.0%	24.5 2 lbs.	less than 2000	Labelled for overall soil treatment in crawl spaces. 7 at .5%
Dragnet FT FMC Corp. permethrin General use 0.5 - 1.0%	Synthetic pyrethroid 1.25 gal/98.75=.5% 2.5 gal/97.5=1.0%	36.8 3.2 lbs.	less than 2000	Class C oncogen 5 at .5%, 5 at 1.0%
Torpedo ICI Americas permethrin Restricted use 0.5 - 1.0%	Synthetic pyrethroid 2 gal/98=.5%	25.6 2 lbs.	less than 3784	Class C oncogen 5 at .5%, 5 at 1.0%
Demon TC ICI Americas cypermethrin General use 0.25%	Synthetic pyrethroid 1 gal. in 99	25.3 2 lbs.	less than 2000	Also labelled for a variety of outdoor pests including cluster flies. 3 at .25%