Japanese Beetles

Hardin County – Japanese beetles are active in our area. These beetles are easily recognized by their relatively large size, about a half inch in length, and showy colors. The fore wings, also called hard-wing coverings, are bronze to coppery-brown in color. The head and the middle part of the body are a metallic green.

Japanese beetles are voracious leaf feeders. They have been known to feed on 350 plant species. Their favorite plants include rose, hollyhock, hibiscus, linden, maple, viburnum, grape, raspberry, apple, and cherry.

The Japanese beetle was accidentally introduced into the United States on horticultural nursery stock in 1916 in New Jersey. It has continued to expand its range to every state east of the Mississippi River, except for Florida. In recent years, significant populations have begun to appear west of the Mississippi. Japanese beetles have four developmental stages: egg, larva, pupa, and adult. The larvae are a greyish-white in color, one inch in length, and appear as a curved or C-shaped grub.

Grubs live in the soil feeding on plant roots of grasses, shrubs and ornamental plants. Dead spots can form in lawns if populations are large enough. Adults like moist soils to lay eggs; so yards, gardens and mulched area are ideal egg laying sites. Grubs do not move far from their hatching spot.

Adults will emerge from the soil in late June to mid-July. These beetles will feed on outer leaves, flowers, and over-ripe and wounded fruit. The beetles will eat the tissue between veins leaving only the major veins, often described as a skeletonized leaf.

Japanese beetles prefer plants with broad leaves. Even though they generally do not feed on leaves of field and sweet corn, they will eat the silks. The silks may be completely devoured if the populations are large enough on a given ear, which may interfere with pollination.

Japanese beetles also feed on soybean, but the damage is seldom severe enough to justify an insecticide. However, homes that are near soybean plants often have more problems since the beetles can easily move from fields to nearby trees and gardens.
Japanese beetles are most active in the afternoon and full sun. Besides eating, they will also mate during this time and lay eggs. Grassy areas are their preferred egg-laying site. Eggs will be laid 2 to 4 inches deep in the soil and hatch in about two weeks. Eggs and larvae need moist conditions to survive. Egg and larval populations can be greatly diminished if a long dry spell occurs in mid-July.

Newly hatched grubs will grow quickly and will move to 1 to 2 inches below the soil surface by the time they reach their maximum length. Grubs will move deeper in dry soils. As soil temperatures cool in the fall, they will move 4 to 6 inches from the surface to overwinter, but have the capacity to move deeper to get below the soil freeze line.

The grubs will become inactive once the soil temperature reaches 50°F. The grubs will become active again in the spring when the soil temperatures rise above 50 degrees. At this time, they will move back closer to the soil surface and feed for 3 to 5 weeks. After this feeding period, they will pupate and begin to emerge as adults in late June.

Control options for Japanese beetles can be as easy as removal by hand if populations are low. The removal of the first beetles that arrive in an area will often reduce populations. These early beetles act as scouts and inform other beetles of good feeding areas.

Japanese beetle traps generally are not an effective control method. The pheromone bait used in these traps may actually bring more beetles to an area than are captured in the trap. Many insecticides are effective in controlling Japanese beetles. Retail products vary by name, but the active ingredients should be cyfluthrin, bifenthrin, deltamethrin, lambda cyhalothrin, esfenvalerate, permethrin, and carbaryl.

Pyrethroid products, such as permethrin and bifenthrin, should be effective for 2 to 3 weeks. Carbaryl (Sevin) provides protection for about 10 to 14 days. Neem oil and products containing spinosad are organic insecticide options. Whatever product is selected, it must have Japanese beetle control listed on the label. Read and follow all label directions. Do not apply insecticide at a higher rate than listed on the label.

Japanese beetle activity will continue through July and early August. The beetles survive about 30 to 45 days after emergence. Several control methods may be used depending on population levels and the specie of plant under attack.

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