



JAPANESE BEETLE FACT SHEET

The Village of Lake in the Hills Public Works Department has had increased concerns from residents in regards to the numbers of Japanese Beetles in our area. We are informing them on how they can protect their landscape from this destructive pest. As the growing season is upon us, our residents will soon be seeking the supplies to help protect their landscapes from the Japanese Beetles. The following information will help your staff to educate your customers and provide them with the supplies necessary to accomplish their goals.

Late April to early May is when the first noticeable damage from Japanese beetle will begin. The grub form of this insect feeds on the roots of grass and shrubs. To naturally control grubs, keep soils dry and refrain from excessive watering, as grubs thrive best in moist soil. Since this is not always possible, chemical controls such as Merit (imidacloprid) and GrubEx (halofenozide) can be used. These are both good choices, since they stay persistent in the soil for two to three months and target the grubs' nervous systems, and quickly kills them. Both products have low toxicity to most living things, but are known to be highly toxic to bees and some aquatic life. A less toxic option is the introduction of the biological agent Milky Spore Disease. This product only targets grub populations. Once in the soil, the grubs ingest Milky Spore, where it then multiplies and spreads further into the soil. It can take two to three years for control to become established, but can last for as long as 20 years without any further application.

In late June to early July, the adult beetle will start to appear. They can be identified by their ¼ to ½ inch rounded, metallic green body with copper wings. The adults will cause the most visible damage, as they chew on leaf tissue, leaving a skeleton of a leaf behind. They prefer to feed on Linden, Birch, Japanese Maple, rose bushes, apple, and other fruits trees. However, they have been known to feed on as many as 350 different species of plants. Although they are capable of tremendous damage at this stage, they rarely kill mature plant life.

The numerous chemical controls available to kill the beetles include Sevin (carbaryl) and Bayer Advanced Garden Insect Killer (cyfluthrin). These kill the beetles only upon contact and must be reapplied every five to seven days as beetles reappear. These chemicals will also kill beneficial, non-target species making them useful only in smaller quantities. The insecticide Merit (imidacloprid) is also effective as a form of systemic control. The beetles will ingest the insecticide now within the leaves, killing them with no consequence to non-target species. This makes it a good alternative to contact insecticides.

There are non-chemical options to use when chemical shouldn't be used. These would include hand picking the beetles and placing them into a bucket of soapy water, or placing netting over plants to inhibit the beetles from getting to the leaves. An example of where this might be necessary is in a vegetable garden where chemical use would not be desirable.

Although they can be seen as late as September, the adults will have mostly died by mid-August having laid from 4 to 60 eggs each in the ground. The eggs will hatch into grubs which will feed on the roots of plants from July through October. The very best time to apply any of the grub controls is during the months of July and August when the grubs are actively feeding in this more immature stage. It can take up to 300 times the amount of chemical to kill the mature grubs in the spring as it would to kill the smaller ones in late summer.

***For further information contact Rob Caldwell, Village Arborist
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