



## Japanese Beetles

Trees and Shrubs



**Above:** Feeding damage starts at the top and outermost foliage, working their way inward and downward. **Above, right:** Japanese beetle adults are large with metallic green heads and copper brown wing covers.

### What is a Japanese beetle?

The Japanese beetle, *Popilia japonica*, is native to Japan, but was first found in New Jersey in 1916. Common in every state east of the Mississippi, these insects have spread as far west as California. Japanese beetle adults are gregarious, hanging out in groups and attracting each other using pheromones. Japanese beetle infestations can defoliate an entire tree in days.



### Biology

Japanese beetles are skeletonizers, which means they eat the leaf tissue leaving only the veins behind. They also feed on both flowers and fruit. Japanese beetles begin feeding on the outermost foliage first, working their way inward towards the trunk and down towards the ground. In heavy infestations the entire tree can be affected, turning all leaves brown. Some leaves may fall off before they are completely skeletonized.

### Susceptible Trees

Japanese beetles attack over 400 different species of trees and shrubs.

### Signs and Symptoms

- Large amounts of brown, chewed, skeletonized leaves.
- Some leaves may fall off before they are completely skeletonized.
- Trees may appear scorched, as if by fire, from a distance.



**Bottom photos, top:** Japanese beetle adults are relatively large with a metallic green head and copper brown wing covers. **Bottom left:** Japanese beetles are gregarious. **Bottom right:** Japanese beetle adults are large with metallic green heads and copper brown wing covers.

# Japanese Beetles Treatment Strategies



**Photo, above:** Xytect™ is applied as a soil drench around the base of your tree.



## DIY Shopping List

### Option 1:

**Application Type – Soil drench,  
Soil injection**

**DIY Product/Equipment Needed**

- Xytect™
- Measuring or diameter tape
- Gloves
- Soil Drench: Bucket or watering can
- Soil Injection: HTI Soil Injection Kit



### Option 2:

**Application Type – Soil injection**

**DIY Product/Equipment Needed**

- Lepitect™
- Measuring or diameter tape
- Soil Injection: HTI Soil Injection Kit



### Option 3:

**Application Type – Foliar Spray**

**DIY Product/Equipment Needed**

- Up-Star® Gold
- Hand pump sprayer with wand
- Gloves/Safety glasses



## Japanese Beetle Treatment Strategies

Unfortunately, no treatment will prevent Japanese beetles from visiting your yard, because presence of beetles on a plant attracts more beetles. Hand picking the first Japanese beetle adults to arrive on a property and dropping them into a container of soapy water can be effective when populations are low.

**Japanese beetle traps actually attract them from other areas, making the population in your yard higher, but once they are present they prefer their food source to the pheromones in the traps.**

## Protecting Individual Trees and Plants

Soil applied systemic insecticides such as Xytect™ and Lepitect™ are very effective and work from the inside of the plant. They are applied to the soil at the base of the tree and are taken up by the root system. A contact insecticides, such as Up-Star® Gold, can be sprayed and is very effective as long as even coverage of the foliage is achieved.

Lepitect™ is applied to the soil and will provide a quick knockdown (within 3 days). It has a residual of 30 days, so Lepitect™ can be applied as soon as beetles are visible. You may have to apply a second time (one month later) to maintain control.

Xytect™ is applied to the soil and has a long residual (1 year); however, it usually will take 30 – 60 days for the product to reach the leaves. Professional arborists will often apply Xytect™ in the fall of the year for control the next season. Spring applications are also very effective. Xytect™ applications also work well in addition to Lepitect™. Once the Lepitect™ has worn off, the Xytect™ will be in the leaves and provide protection.

