## **5 Need to Know Facts about Japanese Beetles**

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It is that time of year again when the sun is high, the air is warm, and the Japanese beetles arrive in droves to eat all of the plants you bought this year! This relatively new Nebraskan pest can vex many a gardener but luckily there are strategies to deal with it. To best use those strategies though, it is best to understand this pest a little better.

### 5. This beetle isn't from around here

As the name might imply, the Japanese beetle is supposed to be over in Japan, not here in North America. Unfortunately, back in 1912 there was shipment of Japanese iris bulbs sent to New Jersey that harbored some grubs or beetles. With no natural enemies, diseases, or competition, the Japanese beetle was able to establish itself quite easily in the states. From this initial infestation the beetle has steadily moved across the continent, with an established range now from the east coast to Nebraska, north to Canada and south to Alabama.



#### 4. The Japanese beetle is a double whammy

We don't deal with too many insects that are pests their entire lives, but the Japanese beetle is one of them. As an adult it feeds on over 300 different kinds of plants including roses, linden trees, soybeans, grapes, and more. The adult has sharp chewing mouthparts and it uses them to eat leaves, flowers, and fruit. Leaf tissues will be skeletonized, only the vascular portions of the leaf are left behind in a doily-like pattern. Flowers will appear finely shredded as if blasted with sand and fruits will be chewed into and hollowed out. As immature grubs these insects are turf pests, causing damage in lawns as well as sports fields and golf courses. They feed on turf roots and make turf brown and roll up like a carpet.



## 3. Their life cycle is easy to predict

Adults emerge from the ground and begin feeding on plants in June and July. Activity is most intense over a 4 to 6 week period beginning in late June. During this time females are also laying eggs in the soil which will hatch into turf damaging grubs. The white grubs are active feeders through the summer and reach full size by August or September. They overwinter as grubs and will feed again in the spring before turning into adults.



## 2. You can plan your landscape around them

Despite their voracious appetite, there are some plants that the Japanese beetle doesn't seem to care for. If you are designing a new landscape or renovating your current one you can make plant choices to help ensure you don't deal with the beetle in the future. Some of their favorite food plants that you should avoid include Japanese and Norway maples, roses, English/American elms, and cherry/plum/peach trees. Instead of those try to plant things like boxelders, sweetgums, various oaks, hollies, or tulip trees.



#### 1. There are ways to protect your plants

You may already have some of those attractive plants though and want to know if you can keep them protected. Organically, you can simply pluck beetles from plants and put them in soapy water to kill them or place a fine mesh net over plants like roses. Two organic sprays, Neem and Pyola, can protect plants but usually not beyond 3-7 days. Chemically, adults can be controlled with pyrethroid products like Tempo and Bayer Advanced Lawn & Garden Multi-Insect Killer (cyfluthrin) or Ortho Bug B Gone (bifenthrin). Sevin (carbaryl) is another option. These all provide about 2 weeks of protection for foliage and flowers after a thorough treatment. Since some of these insecticides can also affect pollinators try to spray only in the evening and after flowers are gone from trees. Be sure to **follow label instructions explicitly** to avoid harming pollinators.

As a final bit of advice, I recommend <u>not</u> using the Japanese beetle traps you often find for sale in big box stores. These can trap some beetles but often just end up inviting thousands of beetles to your yard to feast on your garden and lawn.

If you are worried about the white grub stage, these are normally kept in check by a variety of natural enemies like ants, parasitoid wasps, and disease. When they do become a problem, insecticides, applied at the right time of year, can be very helpful in controlling them. GrubEx (active ingredient: chlorantraniliprole; Scott's Turf) applied in mid-June to mid-July can eliminate populations of young white grubs. If dealing with an advanced infestation later in the year, products like Bayer Advanced Complete Insect Killer for Soil and Turf (active ingredient: imidacloprid; Bayer) can control > 50% of the grubs.