

For this Pest, Your Garden is an All-You-Can-Eat Buffet, Free of Charge!

Each June, somewhere between the second and third week of the month, a certain insect pest makes its ignominious appearance. Its multicolored, metallic-like body will shimmer with vibrant shades of green, purple, and orange. If I must admit, it's a rather fascinating and attractive-looking insect, but that's as far as I'll go with the compliments for this pestilent, perennial visitor.



Justin Stefanski,
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For those of you who have not seen this insect in your garden, I strongly suggest calling an optometrist pronto. You may not have seen them, but I guarantee they've seen you. Chances are, if you go outside right now and scour around long enough, you'll find one. They come without warning and usually en masse. It's as if you put a sign out in your garden that reads, "All-You-Can-Eat Garden Buffet, Free of Charge." To the dismay of our poor, defenseless garden plants, these pests are all too willing to partake in this horticultural smorgasbord. They tell all their friends, family, and neighbors about this irresistible deal too. Before you know it, your garden is overrun with shimmering bugs, meandering silently and gorging themselves on your most prized plants.

At this point, I know the suspense is probably too much to handle, and all you want is for me to name this mystery munching metallic monster. Wait no more, Japanese beetles are their name. *Popillia japonica* to be exact, if you're into the geeky scientific name game like I am. Why, you ask, are they called Japanese beetles? You guessed it, they originated in Japan and were first reported in the U.S. near Riverton, New Jersey, back in 1916. They most likely arrived as stowaways on imported ornamental plants or as eggs and larvae in the soil of shipped plant material. In Japan, they are not a serious threat, as populations are kept in check by natural predators. Unfortunately for us in "The Good Ol' USA," they found ideal conditions and with no natural predators, they now feast gluttonously on our garden plants with utter impunity. They're currently found in over 30 states.

Spending most of their lives underground as grubs, the mature beetles emerge in mid to late June here in Tennessee, plus or minus a week or so depending on the weather and soil temperatures. After emerging, females lay their eggs in wet, grassy areas, pastures, and garden beds. Each female can lay upwards of 50 eggs, and will do so in various locations. The grubs hatch

about two weeks later and primarily feed on the roots of grasses or other small plants, remaining in the soil until they reach adulthood the following June. Once they emerge as full-grown adults, they live for around 30 to 45 days, spending their brief adult lives feeding ravenously, finding a mate, and you can use your imagination for the rest of the story.

The list of their favorite food choices is extensive and have been known to munch away at over 300 different plant species. Odds are good that almost all of us have at least one (if not many) of those species in our yards right now. They are particularly huge fans of roses, hibiscus (both perennial and annual), grapes, ornamental crabapple and cherry trees, Japanese maples, and a host of vegetables such as corn, beans, squash, and cucumbers. They are not picky eaters and will often feed on foliage, flowers, and even the fruit of plants. The most common sign of feeding damage is on foliage, where they consume the leafy tissue between the veins, leaving behind a skeleton-like appearance. This is called “skeletonizing”, a rather appropriate name, given the eerie look of leaf veins with no soft tissue between them. While their feeding rarely kills a plant outright, the damage can still be problematic. Affected plants become more susceptible to disease or other insect pests due to the stress caused by heavy feeding. Additionally, when foliage is consumed, the plant’s ability to photosynthesize is reduced, which can stunt growth and reduce vigor. From a purely aesthetic standpoint, heavily infested plants look downright dreadful after being fed on.

Usually, when I see Japanese beetles in my home landscape, I choose to do nothing at all. I’ve never been keen on spraying and don’t have the heart to squash them. Anytime I kill an insect, I am overcome with the irrational fear that I will be re-incarnated as a ‘bad’ bug somewhere in a garden owned by a merciless bug smasher. Intrusive thoughts aside, my plants always recover once the beetles disappear in late July, and I don’t lose a wink of sleep over it. However, I’m keenly aware that many of you wake up and choose violence when it comes to dealing with garden pests, and I won’t hold that against you one bit! If you do go on the warpath against them, there are several strategies you can employ:

1. Hand removal – The most effective (and, might I add, slightly sadistic) method is to pick them off by hand and either squash them or drop them into a bucket of soapy water. Do this in the early morning or near dusk when they’re less active and easier to catch.
2. Spraying – If spraying is more your speed, insecticidal soaps, neem oil, or pyrethroid-based insecticides can be used. However, research shows that spraying is typically less effective than hand removal.
3. Grub control – Treat lawn areas for grubs with soil-applied insecticides in late summer or early fall to reduce the number of emerging beetles next year.
4. Avoid traps! – Never, under any circumstances, use Japanese beetle traps. These only serve to attract every adult beetle within 25 miles to your yard. That said, I have no qualms with you placing traps in your annoying neighbor’s yard, please do so if you feel compelled!

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At the end of the day, it's not a question of if but rather when these little buggers will arrive. I saw my first adult Japanese beetles this past weekend, so be ready and stay vigilant, because the free buffet known as your garden is now open for business. If you're like me, you just learn to live with them. But if you take damage to your garden plants personally and want to fight back, then follow the steps 1-3 above. Good luck and Godspeed my gardening friends.

For questions or comments, please feel free to reach me at the UT/TSU Rutherford County Extension office. Our main office line is 615-898-7710 and my email is jski@utk.edu. Additionally, please check us out on the web at Rutherford.tennessee.edu to learn more about upcoming classes and all other Extension programming activities that we offer.

Happy Gardening!



(Adult Japanese beetles on pawpaw tree, photo J. Stefanski)



(‘Skeletonized’ foliage resulting from Japanese beetle feeding damage, photo J. Stefanski)