

## Yard and Garden – 08-22-2015 - Ted Griess / Extension Horticulture Assistant

They're here! In June of 2013, I wrote about a destructive alien insect that originated from Japan and was first found in southern New Jersey around 1916. In that article, I also referenced correspondence that I had received from Julie C. Van Meter, Entomology Program Manager and State Entomologist for the Nebraska Department of Agriculture (NDA) informing me this insect pest had already been discovered in twelve counties of Nebraska: Buffalo, Cass, Dakota, Dodge, Douglas, Hall, Hamilton, Lancaster, Saline, Sarpy, Saunders, and Washington. This insect pest is *Popillia japonica Newman*, more commonly known as the Japanese beetle (JB).



Having received her alarming news, I immediately responded back to Ms. Van Meter. I informed her that over my many years with Extension in Buffalo County, I had yet to encounter the Japanese beetle. She quickly responded, and I quote, *"We called Buffalo County infested in December, 2012, based on trapping results from the last few years. The numbers weren't nearly what we see in Omaha but did indicate an overwintering population, so it may be a few years until homeowners really start to see an impact. When and if you do get a specimen sent to you, I'd appreciate knowing about it."*

This past week, I contacted Ms. Van Meter indicating that I had received positive proof they're here. Once again, I'm writing about this highly destructive plant pest. (NOTE: the Japanese beetle is not the same as the Emerald Ash Borer, another alien insect pest, yet to be found in Nebraska. If and when found, I can assure you the media will be inundated with news about this Asian invasion.)

Japanese beetles are an annual white grub species with a life cycle similar to the masked chafer beetle, commonly called the June bug. Japanese beetle adults are about 1/3 to 1/2 inch long and about 1/4 inch wide. Adult beetles have a metallic green thorax and head and copper brown wing covers which do not cover the tip of the abdomen. On each side of the abdomen are five tufts of white hair, with an additional pair of white tufts on the top of the last abdominal segment. They are an attractive-looking beetle, but that's where any good qualities end.

Unlike the June beetle, the adult Japanese beetle is a voracious feeder of flowers and the foliage of numerous plant species. Adults scrape away the surface leaf tissue, leaving the veins and mid-ribs intact, producing a skeletonized appearance.

During the adult feeding period, females intermittently leave plants, burrow about three inches into the soil of turfgrass and lay a few eggs. This cycle repeats until the female has laid forty to sixty eggs. By midsummer, the eggs hatch, and the young larvae begin to feed ravenously on grass roots. The grubs grow to approximately an inch in length and appear curled. In late autumn, the grubs burrow deeply into the soil and remain inactive through the winter. In early spring, the grubs return to the root area of turf and feed until late spring, at which time they

pupate. In about two weeks, the pupae become adult beetles, emerge from the ground, mate, and begin feeding voraciously on ornamental plants.

The grubs are best controlled when they are small and actively feeding near the surface of the soil. Applying imidacloprid (Merit) or halofenozide in late June or July provides sufficient residual activity to kill the new grub populations as they come to the soil surface. When grubs are large, such as in late fall or early spring, trichlorfon (Dylox) and carbaryl (Sevin) work best. The key to good control is to make an even application and water in thoroughly.

Pesticide applications of carbaryl (Sevin), permethrin, bifenthrin or acephate work well destroying adults. With heavy infestations, additional applications may be needed. As with all chemicals, always follow the directions on the label.

They're here! Be on the lookout. For more information regarding the Japanese beetle go to the following website:

[http://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/jb/index.shtml](http://www.aphis.usda.gov/plant_health/plant_pest_info/jb/index.shtml)