

Garden Update

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Japanese Beetles

If it were a simple matter of having outdoor spaces populated by plants Japanese beetles (JB) do not like to eat, we'd have less feeding damage to our favorite plants. At 300 plus plant species they feed on, however, that quickly becomes a tall order. Typically, in the first year JB are found in an area, the amount of feeding damage is relatively low. In the second and third years of infestation, however, their numbers are so high that it feels like an invasion!

The immature stage of the JB is a white grub, feeding on the roots of sports turf and lawns. When their numbers are high, roots will be detached from the soil and the lawn will roll up much like a carpet. Raccoons and skunks like to feed on the grubs, so if the lawn has significant damage from wildlife, it can mean there are lots of grubs. Managing JB grub numbers is through products containing the active ingredient chlorantraniliprole in late June/early July. If you missed this treatment window, products containing the active ingredient imidacloprid will be the best option, though not as effective when grubs are smaller. Since imidacloprid is a systemic, make sure nothing is in flower when applying it to the lawn, which includes white clover. Milky spore products are ineffective at managing grub numbers.

If you treat the lawn for grubs with the expectation of not having JB adults feeding on your roses, be prepared to be disappointed because Japanese beetles can fly in from other areas. The presence of JB is noticeable because of the lacy appearance leaves have from beetles feeding between leaf veins. Their saliva contains a toxin that causes the hole edges to brown. From a distance, this gives the appearance of trees browning from the top down as feeding moves downward.

Collecting JB in the evening, around 7:00 pm, lowers their numbers, giving plants a reprieve from further feeding. This is because leaves damaged by beetles emit a pheromone that attracts more beetles. Dropping collected beetles into a bucket of soapy water kills them and provides satisfaction to the gardener! Fine netting and floating row covers act as a physical barrier to JB and protect plants in flower when an insecticide application can endanger pollinators.

Where JB numbers are too high to make hand-collecting them practical, spraying organic products directly on beetles (Neem oil, insecticidal soaps, or Pyola) provide about 3-7 days of control. For control lasting about two weeks, pyrethroid products (bifenthrin, cyfluthrin) and carbaryl (Sevin) can be used. To protect pollinators, spray products in the evening hours when bee foraging has slowed or wait to make applications when plants are not in flower. Japanese beetle traps are not recommended because the attractants embedded in traps are so effective that higher numbers of JB are present, overwhelming traps and making for larger amounts of feeding damage to nearby plants than if traps were not there.

The good news in all of this is twofold. First, the feeding by Japanese beetles causes more cosmetic damage than tree death. Secondly, in parts of the country where Japanese beetles are well-established, birds and other predators are feasting on them. Until then, if renovating an existing landscape or installing a new one, steer clear of their absolute favorites and opt for something less attractive to them:

| Favorite Plants for JB Dining | Plants Not Favored by JB |
|--|--|
| American linden, grape, basil, rose, Siberian elm, American elm, birch, fruit trees, soybeans, string beans, Japanese maple, raspberry | Oak, holly, sweetgum, geranium, chrysanthemum, boxwood, clematis, lilac, redbud, yew, daylily, spruce, fir, pine |