

Not even a deep freeze can stop garden pests like Japanese beetles and pirate bugs

BY Joe Dejka / World-Herald News Service, January 2, 2018



Sorry gardeners, this brief arctic chill won't halt the Japanese beetle invasion, entomologists say. Nor will it sink the nasty pirate bug populations.

The little creeps that devastated roses, linden trees and grapes last summer — and spoiled outdoor gatherings — are just too well adapted to Midwest winters.

“Bottom line is zero, below zero, doesn't make much difference to insect populations,” said Donald Lewis, professor of entomology at Iowa State University.

However, dramatic swings of temperature, if experienced this winter, could blunt the spread of the tiny terrors, but only temporarily.

Unfortunately, swings like that can be hard on plants, too.

Last summer, the swarming beetles were worse than ever in Nebraska.

The quarter-inch bugs, identified by their green head and five white tufts of hair on each side of their abdomen, are known to target as many as 300 species of plants. In downtown Omaha last summer, they stripped linden trees of leaves, leaving ugly skeletons lining the streets. Beautiful rose blooms became fast food for the critters, as beetles wedged between the petals and gnawed away.

Those offending adults are gone now.

They laid eggs that hatched into grubs that are now 6 inches deep in the ground, protected from the cold air, Lewis said.

Even when the ground freezes, he said, the grubs are protected from ice formation by a small amount of antifreeze in their bodies.

Some grubs die every year, but enough of them survive winter to start the life cycle again, he said.

Snow on the ground just provides the bugs an extra layer of insulation.

The best weather pattern to make a dent in their populations would be dramatic swings in temperature.

“In general, what would reduce overwintering populations the best is if it got really, really cold, and then suddenly got really, really warm, like 40 degrees or 50 degrees, but then it went freezing again,” Lewis said.

During the winter of 2013-14, a combination of a dry fall and prolonged soil freezing significantly lowered the population of Japanese beetles in the summer of 2014, he said. But it didn’t last.

“By the summer of 2015, they were back, and by the summers of 2016 and 2017, we had large numbers again,” Lewis said.

As for pirate bugs, they overwinter in leaf litter and go into a resting state in which they resist freezing and death, said Jody Green, an entomologist for the University of Nebraska at Lincoln Extension.

Green agreed that the type of weather that kills off pest populations in large numbers is usually a drastic temperature drop or events that don’t allow insects to adjust.

Oftentimes, though, predators and beneficial insects will suffer, too, she said.

“I don’t think this cold now will guarantee (that) Japanese beetles or pirate bugs will be lessened,” she said.