



# FOR IMMEDIATE RELEASE

## Good Bugs, Bad Bugs

### Do Not Be So Quick to Pull the Pesticide Trigger

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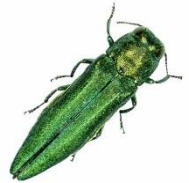
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We hear it all the time. Kill the bugs. Exterminate the bugs. Step on or stomp on the bugs. Did you know that 99% of insects are beneficial? There are good bugs (white hats) and bad bugs (black hats), and the vast majority of insects are white hats. That's right! An awful lot of insects are necessary for our ecosystems and plant communities. In fact, without insects, people could not exist.

Insects pollinate flowers which gives us seeds and fruits and are essential to plant reproduction. Yes, some flowers are pollinated without the help of insects, but in many cases, insects are needed to accomplish the task.

Yes, there are bad insects. Scale insects, mites, adelgids, lace bugs, and others suck the sap out of plants. Caterpillars and beetles eat leaves and can defoliate some plants. Emerald Ash Borers (pictured on the right), kill ash trees. Pine bark beetles kill pine trees. So, what do we do?



For years, the solution was for people to have their landscapes sprayed with pesticides several times per year. That is sometimes still done. The more people sprayed, it often seemed like more and more insect problems developed. Would it ever end? In the process, pesticides built up in the environment and threatened extinction to birds such as bald eagles.

Researchers looked at the escalating insect problems and discovered that insects were developing resistance to many of the pesticides that were applied frequently. What the researchers discovered was that most insects are good. Many are predatory. They do a much better job at controlling insect populations than many pesticide applications. Sometimes, the good guys just cannot do it by themselves. That is where targeted, limited pesticide applications, with different chemistries which do not cause harm to birds and animals, still reduce harmful pests.

So, who are the good guys?

Spiders spin webs and eat large quantities of insects. Entomologists even suggest not killing spiders in your house since they prey on so many bad insects.



Photo Credit National Geographic Kids

Cute little ladybug beetles are actually fierce predators which attack scales, aphids, and many other insects. Most appropriately, immature ladybug beetles look like fierce little dragons, minus the fire breathing.



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## *Good Bugs, Bad Bugs Continued*

Wasps and hornets are also fierce predators. Yes, they sting, and sometimes they choose to build their nests in inappropriate spots, but when left alone they prey on large numbers of insects. Assassin bugs do what their name implies, in a good way.



*Photo Credit National Geographic Kids*

Everybody is talking about the Monarch butterfly. Monarchs, as well as many other butterflies, start as caterpillars. While many of these caterpillars feed on various plants, they seldom feed in quantities to cause harm to their hosts. After all, harming your host would not be polite! Native insects have a give and take relationship (symbiotic or mutualistic) with native plants. Preserving the caterpillar stages of the butterfly life cycle gives us the mature butterflies and the perpetuation of the species.

Even flies, yes flies, are important pollinators as they are very important to many unique plant species like our native Paw Paw tree.

And let's not forget bees. Everyone knows the honeybee pictured on the right. Much has been written about threats to honeybee colonies. Interestingly, honeybees are non-native insects to North America, hailing from Europe. There are many, many native North American bees. Bumblebees and mason bees are common, among many, many others.



*Photo Credit Three Rivers Park District*

Then there are ants. Ants aerate the soil and improve drainage, improve soil chemistry, disperse seeds, and prey on pests. Yes, the tiny mighty ants do all of that!

So, the next time you see a bug, do not be too quick to kill it. It may be very necessary for you, your garden, and the health of the environment that includes your trees.

– END –

**ABOUT US:** The mission of the Ohio Chapter International Society of Arboriculture is to advance responsible tree care practices through research, technology, and education while promoting the benefits of trees. There are over 1,000 qualified tree experts in Ohio that have been designated by the International Society of Arboriculture (ISA) as certified arborists. To find an ISA Certified Arborist® in your area, visit us at [www.ohiochapterisa.org](http://www.ohiochapterisa.org).

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