

Kudzu Bug Control in Residential Areas: Frequently Asked Questions (FAQ)

The Kudzu bug is an invasive pest species from Asia and was first reported in Georgia in 2009. In late 2010 it spread to Alabama, and by the summer of 2014 it had been reported from all 67 counties in the state. Since its accidental introduction it has been confirmed in more than 14 Southeastern states. First considered a nuisance pest in residential areas, it is posing much greater threat than previously thought. In Asian countries, it has been a serious pest of soybean and vegetable beans. Here in the United States, it not only cause yield loss of soybeans, but also poses threats to international trade of agricultural products to Central America, and is an urban nuisance. Here are some of the most frequently asked questions concerning kudzu bug control around homes and in urban settings.

Why are there so many Kudzu bugs on my home in spring and fall? During the fall Kudzu bugs will seek out protected areas to spend the colder winter months. In spring, the warm weather wakes up the bugs from their overwintering sites and they will begin flying in search of food plants. Additionally, they are attracted to light colors such as white and yellow. Unfortunately this means they may aggregate on or nearby your home, on you, or your vehicle, and may accidentally wander into your home. March-April and September-October present the most common times that homeowners will encounter this insect.

What should I do if Kudzu bugs enter my home? Kudzu bugs can enter your home through various ways such as holes in window and door screening, or through gaps under doors. The best way to prevent this from happening is to secure your home; make sure that cracks/holes are well sealed, windows are tight, and any opening to the outside is screened. If insects do enter your home do not squish them, as they will emit a foul odor and can stain fabrics.

- Get a vacuum cleaner and secure pantyhose to the vacuum tube with a rubber band, this will allow you to suck the bugs up and dispose of them.
- If you have a shop vacuum you can fill the canister with hot soapy water and suck them up that way.

What do they eat and why they are seen on many garden plants and yard ornamentals? Kudzu bugs are leguminous plant feeders. The primary hosts, or named reproductive hosts, are kudzu vines and soybeans. This means that they will have to feed on the primary hosts to be able to produce eggs. However they are capable of

feeding on a wide range of leguminous and non-leguminous plants. This is particularly true in early spring and later fall when the preliminary hosts are unavailable but they are desperately in need of storing reserves for long winter or are hungry enough to non-selectively eat any tender plants to obtain energy before host plants become ready.

Do they cause damage or kill garden vegetables, fruit trees, and landscape plants? Kudzu bugs suck out sap of plant, and can cause severe yield loss to soybeans. They don't chew holes or eat up leaves. The effects of their feeding on vegetable beans and peas can range from discolored spots to the death of the plants. Their feeding on non-legume plants is often minor, and discolored spots are barely visible.

How can I control Kudzu bugs in my garden and outside my home? If Kudzu bugs begin to show up outside your home or in your garden, chemical control is not recommended on home gardens or residential structures, due to the potential for run off and their toxicity. If bugs begin to aggregate on your home you may control them mechanically via:

- Washing them off your home with a high-powered hose or soap-water.
- In the fall, remove plant debris around your home and garden in order to prevent the bugs from overwintering near your home.
- Eliminating nearby kudzu patches with the use of herbicides or mowing.
- Place buckets of warm soapy water beneath garden plants and knockdown bugs from plants into the buckets, then dispose of them.
- You may delay the planting of vegetable plants past the critical time of kudzu bug emergence.
- Since these bugs are attracted to lighter colors, you may set up a white-panel trap on the edge of your property. Use a piece of white poster board and cut it in half, attach the two halves by cutting a line up the middle of the two pieces and put them together. Place a bucket with soap-water underneath the panel trap and you may deter some bugs from landing on your home (Fig. 1.).

Fig.1.



S. Horn and Hanula, L., 2011.

Do they bite or transfer disease? They don't bite like mosquitoes; they don't sting like wasps and bees. The most significant impact they have on human is the pungent odor they discharge when being disturbed. Your skin will be stained orange if you are in touch with the odor emission. They are not known disease transfer.

Will killing kudzu around my house eliminate my kudzu bug problem? Controlling kudzu near your house will likely reduce the large number of kudzu bugs seen in spring, summer, and fall. This should be a community-wide effort to eradicate kudzu patches. However, kudzu bugs are strong fliers and regardless of whether or not there is kudzu near may still end up on or near your home.

Will treating Kudzu bugs with insecticides get rid of them? Spraying insecticides discourages these bugs temporarily, but does not provide lasting control. Large scales spray of house siding or plants that are not in the bean family is not recommended and will not get rid of these insects. Kudzu bugs tend to migrate in spring and fall and infestations come in waves. Many frequent applications of insecticides, or other treatment methods will only help to reduce bugs currently in the area. More or less, the Kudzu bug is here to stay, we have to learn how to manage them come spring and fall.

What insecticides can I use if I have to kill Kudzu bugs? If you treat Kudzu bugs with chemicals, it is best to apply these directly to kudzu patches in the landscape. Any product using an active ingredient ending in –thrin should be effective against the Kudzu bug. However, synthetic pyrethroids are toxic to bees and beneficial insects that naturally help to keep pest populations in balance. So timing of application is critical. Never use harmful chemicals on your home or garden vegetables. There are many insecticides labeled for kudzu bug control, but most are for agricultural crops not for home gardens.

Table 1. Examples of common insecticidal products available at local retail garden supply stores. Always read and follow all directions on the herbicide label

Product name	Active ingredient	Application rate
D-Fense	Deltamethrin (.05)	½ lb./ 1000 ft ²
Delta Dust	Deltamethrin (.05)	1 lb./ 1000 ft ²
EcoVia EC (Organic)	Botanical oils	2 oz./gal/ 1000 ft ²
Gmax Bioguard	<i>B. bassiana</i>	Mix 2 kg inoculants in 100L of water for one acre and spray

What is the optimal timing for insecticide treatment? The best time to treat kudzu patches is in early spring when kudzu starts budding, then again later in fall before kudzu bugs move out of kudzu patches. Products with the active ingredient lambda-cyhalothrin, thiomethoxam, or beta-cypermethrin are most effective. Insecticide treatments should not be applied to kudzu patches past mid April, as these are times

when natural enemies may be most active. It is also important to control kudzu bugs when they are in nymph stages, and avoid pesticide spray during their egg-laying period.

Do they have any natural enemies in the landscape? Yes, there have been field observations of generalist predators such as green lacewings, lady beetles, damsel bugs, and big-eyed bugs attacking Kudzu bug nymphs. More excitingly, two parasitoids have been found to attack other life stages of this invasive pest. *Paratelenomus saccharalis*, a wasp species smaller than the size of a period, was discovered in the summer of 2013 in Alabama, Georgia, and Mississippi. It is a specialist wasp species and is only capable of using the Kudzu bug eggs to develop. Additionally in 2013, a fly was found developing within the bodies of adult Kudzu bugs. *Strongygaster triangulifera* fly larvae eat the inside of the Kudzu bug, ultimately resulting in the death of the Kudzu bug.

How can I increase the number of natural enemies? The best way to increase the number of natural enemies is to conserve landscapes near kudzu patches. Wildflowers that grow near these patches provide food sources to natural enemies and will allow these insects to live longer and produce more offspring. If you live near a kudzu patch you may want to consider planting flowering plants.

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