Kudzu Bug Update: March

Dan Suiter and the UGA CAES Megacopta Working Group

Many of you are likely inundated with calls about the invasive kudzu bug. They have now been reported in 126 Georgia counties. Only the coastal, extreme southern, southeastern and northwestern counties in the state are kudzu bug free at this time. If you reside in an infested county, you are likely seeing very high activity of the adult bugs. In light of this activity and our ever-changing knowledge of this pest, we felt that an update was needed.

The kudzu bug is causing a number of problems in its new home in Georgia and the southeastern U.S. It is a nuisance pest to people, a concern for home gardeners, an economic pest of soybeans, and has caused interruption of international trade with our exports to Latin America.

As a nuisance pest, we see a bi-modal pattern of adult activity and nuisance for homeowners and outdoor activities. We are currently experiencing activity of adult bugs as they are emerging from their winter time inactivity that began last October/November. These adults are in search of host plants and, in Georgia and throughout the Southeast, that means kudzu. As the spring progresses and, more importantly, as the kudzu continues to grow, the bugs will become less troublesome for homeowners as they move onto kudzu to feed and reproduce. As this happens, we'll see fewer and fewer numbers on our homes and vehicles and in our landscapes. They will not disappear from the environment, however, but the nuisance factor will subside as we enter late spring and summer.

We now know that these adults that are active in the springtime will feed and reproduce primarily in kudzu, starting a new generation or cycle of the insect. Unfortunately, many of the adults produced in this new generation move over onto soybeans in June and July where they become an economic problem. During the summer months, reports from frustrated homeowners will likely subside, as the insects feed on their preferred host plants, i.e., kudzu and soybean. However, you may receive complaints from soybean growers or from home gardeners who plant various types of beans in backyard gardens and beans being grown organically for sale.

In most of Georgia, we see these insects developing a second generation during the summer growing season, and in the fall we see the second peak in adult and nuisance activity for homeowners and outdoor activities. What we think happens (based on what we know about other insects) is that a combination of day length, change in plant (kudzu) physiology, dying host plants, and perhaps declining temperatures trigger kudzu bugs to leave their kudzu host in search of protected sites where they will spend the winter. Overwintering sites are *any* crack or crevice where a group of bugs can aggregate. For example, this can be, but is not limited to, the gaps under the bark of trees or under the siding of a home. They seem to like high places as well, such as the edges of homes (fascia boards, gutters). At any rate, during each of the past several years, this fall flight began in mid-October and did not subside until late November or early December.

Kudzu bugs are attracted to light-colored surfaces, especially white (e.g., siding of homes, white shirts, white cars, etc.). When large numbers of bugs are present, it is not uncommon to find them on most types of vegetation, including oak and pine trees, tomato plants, azaleas, etc. They are not reproducing on these plants. Kudzu bugs only reproduce on plants known as legumes, i.e, what you might think of as anything that grows a bean (yes, kudzu has beans). In the fall, kudzu bugs fly to homes and are a general nuisance due to their large numbers. On homes they

aggregate in large numbers. During cool, fall mornings they are not very active, but when temperatures warm into the afternoon their flying and nuisance activity increases dramatically. Those planning outdoor activities should take this observation into account and, if needed, plan outdoor activities for the morning.

Some Bullet Points from the March 2012 Scientific Symposium on *Megacopta cribraria* held at the Entomological Society Meeting in Little Rock:

- 1. Dr. Tracie Jenkins says the bug most likely invaded Georgia from Japan. Prior to its discovery in Atlanta in October 2009 it was not known from this hemisphere. It made its way to the U.S. from a single introduction.
- 2. Dr. Jim Hanula reported that the bug is impacting Georgia kudzu by reducing growth by perhaps 30-50%.
- 3. Dr. Phillip Roberts reports that the bug is having an impact on Georgia soybean by reducing yield by around 20%.
- 4. Dr. John Ruberson reports that here in Georgia there does not appear to be very many native natural enemies of kudzu bugs. As a result, he and scientists at the USDA-ARS have searched for and identified a parasitoid in Japan. Plans are to import and release, in Georgia, this minute wasp for biological control purposes. The wasp parasitizes kudzu bug eggs.

Control of Nuisance Kudzu Bugs in the Urban and Suburban Home Environment. Contact Dr. Dan Suiter (dsuiter@uga.edu) in Griffin. When calls are received, as a standard procedure print and send (or direct callers to) the circular "*Megacopta cribraria* as a Nuisance Pest", circular #991 at <u>www.caes.uga.edu/publicaitons</u>. Or just give them the website and they can print the circular themselves. Bottom line: vacuum bugs on the inside if they enter; in late summer (in preparation for the fall flight) seal all cracks and crevices around homes and make sure window screens are repaired and that door sweeps are installed; *if possible, remove kudzu in summer*; outdoors, when bugs get on the building spray them directly with a pyrethroid insecticide (*do not spray indoors, however, or anywhere close to a body of water*). Prior to the use of *any* pesticide, first read and follow the pesticide label's directions for use on the product's label.

Control of Kudzu Bugs in Soybean. Contact Dr. Phillip Roberts (proberts@uga.edu) in Tifton.

Control in Kudzu Bugs in Backyard Vegetable Gardens (including organically-grown beans). Contact Dr. Stormy Sparks (<u>asparks@uga.edu</u>) in Tifton.

This brief update authored March 16, 2012 by Dan Suiter with the help and support of a number of scientists and specialists on the UGA CAES *Megacopta* working group.