

E-NEWSLETTER

PROPER USE AND MAINTENANCE OF INSECT LIGHT TRAPS

If maintained and used properly, insect light traps (ILTs) can be very effective at both capturing and monitoring for flies. ILTs allow for easy identification, because generally, intact flies are preserved in the sticky traps. The following maintenance and use tips will help ensure your ILTs are working to the best of their ability:

Light Trap Location. Location and proper positioning are main factors in successful light trap usage:

- Install traps either on the same wall as the entryway (see **Figure 1**), or on a nearby perpendicular wall. The attractant light should not be seen from the outside to avoid attracting outdoor flies.
- Avoid other light sources that could potentially compete with the trap. Try to avoid placing ILTs in brightly lit areas, if possible.
- Insects need to be able to see the light, so make sure that there is nothing placed in front of the ILT that would substantially block the light.
- For day-flying insects like house flies, install wall-mount or corner-mount light traps low.
- Ceiling-hung traps work better for night fliers like stored product moths.
- Install ILTs along the path to stored or processed food. Narrow hallways are good installation sites. ILTs are most effective where flying insects are funneled into narrow spaces.
- In food-processing areas, place ILTs so as to draw insects away from the food. Do not install ILTs over exposed food or near food prep surfaces.
- Place open tube electrocuting traps near back doors that lead to garbage areas and dumpsters but are not near food or customers.
- To capture *Drosophila* (fruit flies), place an ILT that contains a sticky board low behind counters or behind beverage or salad bars.

- Place ILTs in drop ceilings or attics to trap overwintering flies, such as cluster flies.
- Don't place ILTs near air blowers or in areas where there are strong air currents.

Light Trap Maintenance. Be sure to dust off the lamps and the guard door on a regular basis. Use a wire brush to remove insects from the grid. The lamps, reflector and grid should be periodically washed with warm, soapy water. Inspect the trap for signs of electrical problems like damaged wires, cracked insulators, scorched transformers or loose electrical connections. Most ILTs will automatically turn off the electricity when the trap is opened for inspection or maintenance. However, it may be necessary to unplug the unit before cleaning.

Collection trays should be emptied and cleaned regularly. Dead insects left in the collection tray may attract dermestid beetles, so don't wait until it's full of insects to empty the tray. A small paint brush can be used to brush insect parts out of the catch tray and other parts of the trap.



Figure 1. Install light traps on the same wall as entryways, if possible (Photo: Mike Waldvogel, NCSU).

Many ILTs use glue boards rather than a collection tray. Glue boards that are dusty or full of debris and insects will not be ineffective and should be changed. Even if the glue boards are clean and empty, they can dry out over time. Check the manufacturer's recommendations for replacement of the glue board.

Most manufacturers recommend that lamps be replaced at least annually. The effective life of a lamp is about 7,000 hours or 9½ months of use. Even if the light appears alright, it may no longer attract insects. It's good practice to replace the lamp in the spring to ensure they are most effective during peak season.

Examine the catch. Examine traps regularly. An increase in trap catch or the appearance of a new pest may indicate a developing pest problem somewhere in the building.

Use and promote IPM. Fly management will get an extra boost if other pest control strategies, such as exclusion and sanitation, are integrated with ILTs. Discuss with and educate your customers about the issues that may be contributing to a fly problem. Provide recommendations for minimizing these conditions. In addition, take advantage of any opportunities for some up-selling. For example, you might recommend the use of fly fans (air curtains) and/or vinyl strips at exterior doors and loading docks.

KUDZU BUGS

Kudzu bugs are 4 to 6 mm long (about 1/6" - 1/4"), somewhat oblong in shape, and olive-green colored with brown speckles (see **Figure 2**). Aside from kudzu, these insects are known to feed on a wide variety of legumes (soybeans and other bean species), as well as wisteria.



Figure 2. Adult kudzu bug (Photo: Daniel R. Suiter, Univ of Georgia).

Kudzu bugs have several generations per year. In the spring, they feed extensively in kudzu patches and on other legume hosts. In July-August, they will move into soybeans where they feed on stems and foliage and can have a significant impact on crop yields. The bugs continue to feed and lay eggs into the fall on kudzu, late-planted soybeans, and other hosts.

NCSU Department of Entomology News

Dr. Coby Schal has been chosen as one of this year's recipients of the Crown Leadership Awards presented annually by *Pest Control Technology Magazine* and Syngenta. The award was presented on October 23, 2013 at the National Pest Management Association's *PestWorld 2013* meeting in Phoenix. The award spotlights individuals who have contributed positively to the growth and development of the structural pest control industry, as well as established ties with fellow business leaders, civic groups and customers in their local communities.



KUDZU BUGS, CONT.

As temperatures and day length decline, kudzu bugs seek out sheltered areas where they can pass the winter. They are most common along the edges of kudzu patches and soybean fields, and in areas near residential areas, we can expect to see them invade homes and other structures. The bugs will often congregate on light-colored surfaces, such as siding, fascia boards, etc. (see **Figure 3**). They will then move under siding, or into gaps around doors and windows, or through areas where air conditioning and water pipes penetrate the building. In the following spring, the bugs become active again and begin moving onto kudzu and other host plants, particularly wisteria. As a result, those bugs which have overwintered inside homes (inside walls, attics, etc.) may end up inside the home instead of heading to food sources. They may also land on siding and will deposit their eggs on non-plant surfaces such as brick, vinyl, and other siding materials.



Figure 3. Kudzu bugs often aggregate on light-colored surfaces (Photo: Daniel R. Suiter, Univ of Georgia).

Controlling kudzu bugs. Although most insecticides will kill the bugs on direct contact, controlling kudzu bug by treating the exterior of structures is likely to produce poor to mediocre results. Because the insects are actively feeding even in the fall, their movement out of these plantings may take place over several weeks which means several applications (e.g., weekly) may be needed to reduce their numbers. It is neither practical or economical to make weekly treatments. Exterior applications should be targeted to eaves, soffits, and

to areas around door and window frames. Be sure to read and follow all pesticide labels; and remember to adhere to the relatively recent pyrethroid label changes (see <http://www.epa.gov/oppsrrd1/reevaluation/environmental-hazard-statement.html> for more information).

Exclusion is top priority with this pest. It is important to seal gaps and openings (such as around plumbing and AC lines) to prevent the bugs from entering. Insects that do find their way indoors may be vacuumed up; be sure to place the vacuum bag (or contents) into a plastic bag and freeze the bag for several days. If you simply dump the live insects outdoors, they will likely end up back inside or surviving somewhere else outside.

What a Way to Go!



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In Belize, mermithid nematode worms infect trap-jaw ant larvae in the ant nest. Adult ants who have been parasitized have a grossly swollen abdomen and a shrunk head. When mature, the nematode worm breaks free from their hosts, splitting the ants open and killing them in the process. The nematode is then free to mate and lay eggs.