Florida School IPM Focus- German cockroach

In 2008, I (Faith) wrote an article titled "Pests that can get you on a health inspection report." German cockroaches are one of the pests. April seems to be FCAT month and thought it might be a good idea to review German cockroach control, not just from a pest control perspective, but from a health perspective, too.

In schools, "pests" can be broadly defined as anything that distracts students from learning. German cockroach infestations not only distract students, but are known as potent asthma triggers which cause absenteeism. It is estimated that 26 percent of the general population in the USA reacts negatively to German cockroach allergens, the most common indoor cockroach. It has been reported that 37 percent of children with asthma living in the inner-city were sensitive to cockroach allergens. Sensitization lead to asthma and lost school days, lost days at work for caregivers and loss of sleep for both children and caregivers. It is worth noting that 12.8 million school days are lost per year due to asthma alone.

Pest infestations and allergic reaction to pest exposures are frequent in schools. While it is difficult to definitively prove the link between chronic pesticide exposure and presentation of disease symptoms, it is prudent to minimize the risk of unnecessary pesticide exposure as well as minimizing the risk caused by pests by using an IPM approach. The risk due to pesticide exposure can be minimized by the selection of application methods that target treatments versus selecting a method that applies product in a broadcast fashion. We will cover sanitation and bait selection in this issue.

Identification

The first step in IPM is to identify the insect you are working with and to determine if it is in fact a pest. If you have German cockroaches in your school rest assured you have a pest problem that needs to be resolved. To learn more about identification please read this EDIS publication on the German cockroach that was written by Steven Valles.

Know the facts: Baits and Management

- Monitor using sticking traps to identify the area to be baited.
- Select a bait that is palatable to the cockroaches. There are a number of very effective baits on the market and some that act as quickly as an old-fashioned spray, but with much less risk of exposure (i.e., liability).
- If one bait does not control the population, use another. Remember, doing the same thing over and over again, expecting different results is the definition of insanity!
Emphasis on Sanitation

Sanitation is pest management. Clutter helps create a conducive condition for pest harborage that allows pests to eat, rest, and reproduce. It has been shown that light can penetrate the ootheca of an American cockroach and significantly decrease the weight of the subsequently emerging nymphs. Reduced fitness reduces survival and keeps the population under check.

Adult female German cockroaches were found to live for almost 13 days even without food or water. However, if food and water are present, their longevity increases to 85 days.

These facts provide plenty of reasons to hold sanitation as a key practice in cockroach management. In addition, sanitation further leads to success in implementing the key IPM components such as:

- Making critical areas accessible and improving targeted treatments
- Increasing effectiveness of monitoring
- Eliminating alternative food sources which directly compete with baits

News!

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