

## Cockroach Monitoring



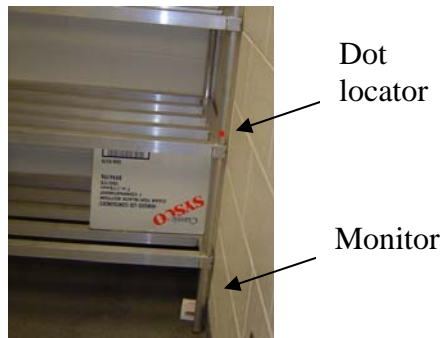
Figure 1. Tri-fold monitoring station



Figure 2. Matchbox monitoring station



Figure 3. Cockroaches in a monitoring station.



Dot  
locator

Monitor

Figure 4. Locator dot and monitor.



We don't really want to see them, but monitoring for cockroaches is the best bet in developing an action plan for managing them. Cockroaches like to live in tight areas close to food and water sources. Monitoring can give you a plethora of information about where these cryptic harborages are located.

Monitors are basically sticky boards that trap cockroaches. There are several models to choose from. There are your basic glue board, tri-fold glue boards (figure 1), and matchbox type glue boards (figure 2). Some, such as the matchbox type, come with a cockroach pheromone to attract the cockroaches. If you are using monitors in higher traffic areas, take note. The matchbox monitors are sturdy enough to withstand some wear and tear from routine cleaning efforts. The tri-fold monitors often get compressed and become useless for pest monitoring. With that said, here are some tips on the placement of cockroach monitors.

- ✂ Monitors should always be dated to monitor activity over time.
- ✂ Be sure to place enough monitors to accurately monitor an area. Monitors provide valuable information about pest activity, so be sure to use a sufficient number of them. Food service areas should have more monitors than non-food areas.
  - If a trap is consistently empty, the trap may be relocated to another site.
  - Create a map of the area that includes the location of the traps. You may also leave space on your map to write numbers of insect per trap for each inspection. It may be helpful to use monitor locators such as stickers. *(Tip from Dan Lisenko and Dwayne Riedel, Manatee County Schools.)*
- ✂ Monitors should be placed along walls or in corners (figure 2).
  - Monitors should be kept out of view if possible. Monitors may be secured with double sided tape.
  - They should be placed in clean, dry areas close to suspected cockroach haborage.
- ✂ If possible, monitors should be placed in between resources (haborage, food, and water) where cockroaches may travel.
- ✂ Monitors should be replaced if full or if the monitor has been wet or is covered in dust (figure 3).
- ✂ Monitors should be placed in areas where goods are received to trap cockroaches from shipments.

## What can you learn from a cockroach monitor?



Figure 5. Full monitor.

Okay, we are all curious about that little box in the corner and we want to look inside, right? Right. But there is more knowledge to be gained than just sheer numbers of trapped insects.

It is important to know what information you can obtain from a good monitoring program. It is also important to *communicate* some of that information to the building inhabitants. If the residents of the room or building understand the purpose behind the monitoring program, they can become part of the program and can communicate information to you, the pest manager, when there may be a pest issue in an area. Here are a few questions to ask when inspecting your monitors.

### Detective work:

1. **When was the monitor placed?**

This can let you know if the insects have been there for a while or if they are new to the trap.

2. **What is the location of the insect(s) in the monitor (left side, right side, front, or back)?**

This can give you an idea of harborage location. Is there a concentration of insects on one side of the trap? Look to the direction they traveled from to further inspect for cockroach harborage.

3. **What direction was the insect traveling?**

This will give you a clue to why the cockroach is in the area. Look in the direction from which the cockroach came and the direction it was traveling. Is there a food source, a water source, or harborage site on either side of the monitor? Think like a cockroach.

4. **What life stage has been trapped?**

Do you have mostly nymphs (immatures) or adults? Nymphs spend most of their time in the harborage, so finding large numbers of nymphs may indicate that the nearby harborage is full and the cockroaches are looking for a new harborage site. Look carefully though. Is there an egg case that has been dropped on the monitor? When a female cockroach (German) is stressed, she may drop her egg case which may hatch on the glue board. Are you finding mostly adults? You may have a new infestation. Check shipment records and see if a vendor is bringing in “new” cockroaches to the area.

5. **What is the condition of the trapped cockroaches?**

If there are only fragments of cockroach bodies, especially legs and wings, in your monitor, you likely have mice or a larger cockroach species (American, Australian, etc.) feeding on the cockroaches in the monitor. If you find that there are only fragments of cockroaches in your trap, adjust your monitoring program include mice. Be sure to look for droppings. The droppings should be recorded on your pest log and then should be removed. Another inspection should be scheduled a few days from the initial discovery to determine whether any new evidence has been left behind.

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