

Monitoring for Insect Pests

Pest Monitoring Protocols - When placing sticky monitoring traps:

- Monitors should be placed in **all** pest vulnerable areas (PVAs)¹ and hot spots² that are recognized risk locations (for example, in a garbage room or near dishwasher).
- Monitors should be placed against a wall perimeter and/or on a window ledge against the sill or edge of the window. Secluded corners are often good locations for monitors. Monitors should be placed out of view of people and away from activities.
- All monitors must be identified by date of placement and identification code and number that signify location and the number of monitors in the location area e.g. Kitchen monitor 1 of 10 placed September 10th, 2014 could be indicated by K-01/10 (09-10-14).
- Monitor placements should be documented by a list or on a location map to enable ease of retrieval and inspection by staff who did not place them originally. This enables identifying areas of activity so actions can be directed accurately. This is one of the most important part of the IPM process.
- Monitor locations should cover the site well. Too many are better than not enough. Insects are small and a large gap in placements can mean missing early detection.
- Place traps near to persistent/chronic conditions that encourage pests. This can document the effect of the conditions so a maintenance or repair order is strongly justified.
- Monitors should be re-locatable, so you can target the pest if a pest has been reported, but if nothing has been caught at a current location in the area where the pest(s) have been observed, the monitors should be moved to a different location in the area.
- Stickers may be used to locate monitors that are placed underneath shelving or equipment. Sticky dots at eye level give a clear indication where monitors have been placed. Dot stickers can also be printed with date of placement using free software by providers of stickers (e.g. Avery Labels).
- If monitors are placed in a classroom, the teacher should be informed of their purpose and location.
- Monitors should be “read” (inspected) monthly and *replaced* when they have numerous

¹ Pest Vulnerable Areas (PVA) are locations that can easily support pests due to conditions or even short term deficiencies such as inadequate sanitation encouraging fruit flies or roaches.

²A hot spot is a location known to have had problems that can easily recur.

pests, are contaminated with dust/dirt, or *when three months have passed. Monitors may also be replaced earlier as part of checking, if control has been achieved in addressing a specific problem such as cockroaches or ants.*

PVAs	Monitor Placement Area
1. Kitchen/Cafeteria	Dry goods storage and pantry, dishwasher area, in vicinity of cafeteria receiving doors, in vicinity of floor drains, and inside lower space of serving counters.
2. Staff lounge	Behind vending machines, inside counter spaces, especially sink counter, drawers as appropriate, behind or adjacent to microwave oven, adjacent or behind refrigerator, and next to refrigerator. Next to external doorways.
3. Custodian's office/storage area	Under shelving, near to floor sink, near external door (if present). At wall perimeter. Close to storage areas, especially if cardboard is boxes are present.
4. Reported hot zones from pest sighting log.	Under counters, sinks, near windows, next to external doorways.
5. Special Education or kindergarten classrooms	Near food preparation/storage areas, near backpack storage, under sink, and refrigerator, and oven if applicable. Next to external doorways.
6. Home economics/ Life skills classrooms	Near stove and refrigerator, near washer/dryer, under counters.
7. Stage areas	Under stage storage, equipment rooms.
8. Locker areas	Under lockers as possible.
9. Concession stands	Under counters or equipment.
10. Classrooms with animals/plants	Near pet food or plants, adjacent to aquaria or terraria. Under counters, sinks, near windows, next to external doorways.

11. Cluttered classrooms	Reduce clutter first, t h e n monitor in storage areas, under sinks.
12. Bathrooms (if there is a problem)	Near external doors, near cracks and crevices, near utility pipes without escutcheon plates under sinks.
13. Nurses station	Under desk, under sink, near external doors.

General Information:

Monitors should be placed on the floor at wall perimeters and/or on window ledges. Monitors can be attached to cupboard backs with double-sided sticky tape and can be moved if necessary. If monitors do not show any captures consistently, and pests are still being reported, think about how the pests may be entering and re-locate the monitor to a more suitable location. Don't forget to use other structural elements as monitors. Window ledges, floor drains, light /lamp coverings, and spider webbing all serve to help you monitor for pests. Monitoring stations should not be stored near volatile pesticides or where there has been a recent spray treatment. A period of at least 24 hours is appropriate if an area was treated before monitors are replaced. Such treatment is exceptional.

There are different types of sticky traps such as flat traps, box traps, matchbox style traps, tent traps, etc. which come in a variety of sizes. There are also special monitor traps with pheromone attractants available specific to a targeted pest – for example, Indian meal moths that are a common food-infesting pest of flour, as well as pet food, chocolates, nuts and cereals. These specialty traps are used when a specific issue with that pest has arisen. Experiment with the different types of sticky traps to see which works most effectively in your own specific sites. If pest managers are having trouble with the traps collapsing, try the matchbox style, which are more robust.