



## **EFFECTIVE PEST CONTROL GUIDELINES FOR PROPERTY MANAGERS AND OWNERS**

### **THE BASICS**

You trust your hired pest control operator (PCO) to conduct inspection and provide treatment. The goal is to eliminate pests or at least reduce them to a manageable level that does not pose harm to families. Less desirable is the costly need to chase and eliminate maturing offspring, considering one female cockroach can produce up to 400 roaches in three months. In multi-unit apartment buildings, infestation response is costly and ineffective when strategy concentrates on inspection and treatment of a complainant unit only or conventional monthly treatment focused on pesticide alone.

Pests do not contain themselves to one location but move around and transit between units. Therefore, inspection and treatment should be approached from a **building-wide perspective**. If not, you may push the problem deeper into the building and overlook why they are here and how they got in.

To increase your success, request pest control services that address the **3 S's**:

- 1. The SOURCES of the pest problem**
- 2. How pests SLITHER (enter) into apartments and where they hide**
- 3. How to SEAL them out**

The first action is to look for pests, discover their hiding places and how they got in, and what is aiding their survival and reproduction. *These observations are available to you through pest inspections* and enable you to take steps to eliminate access to food, water, and shelter, and seal off entry points. Focus on the following **solutions** and you will reduce pests throughout the building:

- Starve them out**
- Dry them out**
- Keep them out**

The first two services should not increase cost. The third, sealing out pests (pest proofing/exclusion), incurs added cost. Consider your maintenance team for exclusion; sealing out roaches can be as simple as caulking under the kitchen sink and along baseboards.

**A building-wide approach** with emphasis on pest sources and less on killing existing pests leads to a more effective resolution, saving time and money over the medium and long term. A less recognized benefit but no less important is reduced pesticide use over time.

## STEP 1: INSPECTION - BASELINE INFORMATION COLLECTION

Before the PCO treats pests, you must determine the extent of the infestation and what is causing and sustaining it. The PCO should provide baseline information as a standard component of the inspection report. This informs the process of assessing why the pests are there, how they got in, where they are hiding, and how to exclude them. This information guides both property manager and renter in developing corrective actions that can reduce, control, and prevent pests.

### CHECKLIST Where Are They Hiding?

The PCO should inspect each room, paying close attention to the kitchen. Roaches tend to concentrate behind and under the refrigerator. Rodents concentrate around the refrigerator and stove, below sinks, and in cabinets.

**Roach** droppings are dark dots or stains. Egg cases are light brown and ribbed.

**Rodent** droppings are brown and the size and shape of grains of rice.

- Clearly state which units are inspected and treated.
- Inspect surrounding units (adjacent, above, below).
  - A pest complaint should trigger inspection in neighboring units. Emphasis on complainant unit(s) only may cause you to overlook other pest-promoting conditions, moisture, and entry points.
- Monitor** roaches by placing sticky traps in areas where pests are observed. *Sticky traps do not control pests.*
- Look for them in **Gaps, Cracks, Holes, Crevices & Corners:**
  - Along baseboards and windows, around pipes, drains, utility connections and electrical outlets.
  - Below and behind all appliances, especially refrigerators and stoves.
  - Refrigerator motor (cozy and warm!).
  - Underside of sink basin.

#### **Cabinets:**

- installed cabinets leave gaps between cabinet back and wall
- crevices at wall junctions
- in between cabinets
- around trims
- drawers and drawer slides
- kickplate/toe kick: gaps create voids under cabinets allowing harborage/transit
- Door hinges.
- Corners at wall/ceiling joint.
- Vicinity of garbage and recycling receptacles.

## CHECKLIST Why Are They There?

**Note conditions that attract and sustain pests.** Observations inform and prepare property management to advise tenants of housekeeping needs and maintenance staff of ventilation needs and minor repairs. PCOs may not discuss corrective actions with tenants.

- Food sources:**
  - grease on stove and walls
  - exposed food
  - dirty dishes
  - open bags of food
  - check for activity around accumulated (bagged) food in pantry and cabinets
- Moisture:**
  - leaky faucets and pipes* or leaks in ceilings and walls
  - drips or leaks under sinks
  - observe seal around sinks and faucets, water seeps through poorly sealed sinks and deteriorates the cabinet floor (and causes mold to grow)
  - gaps between sink back splash and wall
  - overflowing refrigerator drain pan due to overstuffed freezer
- Roach droppings (frass):**
  - juvenile roaches feed on adult roach droppings: tiny dark dots, smudges, stains
  - behind refrigerator and in motor area (where roaches concentrate)
  - cabinets and hinges
- Clutter provides dark, safe hiding place:**
  - cabinets
  - cardboard boxes
- Lack of ventilation:**
  - assure stove and bathroom fans are fully operational and ventilate effectively
  - lack of air flow behind appliances pushed up against a wall
  - note major appliances placed tightly adjacent to each other (inhibits air flow, traps food and grease, and provides harborage)
- Used appliances**
  - egg casings left at the base of used appliances will spread infestation

## CHECKLIST How Are They Getting In?

**Thorough inspection helps you determine entry points and hiding places. Pest can be “excluded” by sealing them out (including roaches!) and property maintenance:**

- Gaps below kitchen sink:**
  - cabinet back
  - around drain pipe and water valves
  - all utility pipe and line connections
- Behind the refrigerator and stove:**
  - gaps around stove gas line connection at wall
  - gaps and holes around utility lines/connections

- Gaps in and below cabinets:**
  - installed cabinets: gaps in construction leave gaps between cabinetry and wall
  - around utility line connections at the wall
  - water and plumbing line connections
- Wall/floor junction:**
  - gaps between wall and floor
  - deteriorated, loose, and missing baseboards
  - crevices at wall junctions
  - if wall terminates above floor covering
- Seal gap between wall and floor prior to installing baseboards
- Ventilation hood and pipe:
  - gaps around vent pipe
- Shower/Tub:
  - gaps around basin and wall connections
  - gaps at worn/deteriorated caulking
- Toilet
  - gaps at edges

**NOTE:** Cockroaches squeeze through cracks as small as 1/8 of an inch. Mice squeeze through holes as small as 1/4 inch or a dime; rats need only the size of a quarter.

If pest exclusion services are provided by your PCO, they will be at additional cost. Consider that your staff can exclude pests during maintenance activity. See *Integrated Pest Management Toolkit for Building Owners, Managers, and Staff*: [IPM Toolkit NYC IPM](#)

<https://www1.nyc.gov/assets/doh/downloads/pdf/pesticide/ipm-toolkit.pdf>

See also *IPM Guidelines for Integrated Pest Management in San Francisco Multi-family Housing Communities*: [IPM Guidelines for Multifamily Housing](#)

[https://sfenvironment.org/sites/default/files/fliers/files/sfe\\_th\\_pestec\\_ipm\\_guidelines\\_multifamily\\_housing.pdf](https://sfenvironment.org/sites/default/files/fliers/files/sfe_th_pestec_ipm_guidelines_multifamily_housing.pdf)

## STEP 2: POST-INSPECTION: PESTICIDE TREATMENT

### PREVENT POTENTIAL PESTICIDE POISONING

- NEVER give consumer or commercial pesticides directly to tenants.
- Never use products called Chinese Chalk or Tres Pasitos - they are illegal.
- Avoid the use of sprays, foggers, and bug bombs. Sprays kill some pests and repel hidden ones; they scurry back into walls and deeper hiding places.

### Roaches

- Request **least toxic treatments** that do not require removal of cabinet contents, such as gel applications.
- Cockroach Gel Bait application.

Gel bait is highly effective. Roaches do not die immediately after consuming gel but die slowly after returning to the nest. Back at the nest, other roaches will eat the poisoned ones and in turn they will consume the pesticide too.<sup>1</sup>

## Rodents

- Consider trapping, out of reach of children and pets. Rodents generally hide out of reach and transit behind appliances and under sinks where gaps are common (around utility connections described in Step 1 above).

## STEP 3: FOLLOW-UP INSPECTION

- Clearly record the infestation level in each unit, based on data collected from monitoring traps and bait boxes and/or snap traps. Infestation knowledge guides treatment.
- Clean dead roaches and replace sticky (monitoring) traps. Dead roaches and frass (droppings) can cause an allergy and could trigger an asthma attack in asthmatics.
- Consider a request for vacuuming of dead roaches and egg casings in difficult to reach spots (behind refrigerator and around the motor, back of cabinets and small spaces between cabinets and appliances). May incur extra cost.
- Mice Trapping
  - Check the traps daily and dispose mice in sealed plastic bags.
  - Replace traps until you do not catch anything for at least one week.

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<sup>1</sup> *Guidelines for Integrated Pest Management in San Francisco Housing Communities*, Pestec and San Francisco Department of the Environment. March 2013.  
[https://sfenvironment.org/sites/default/files/fliers/files/sfe\\_th\\_pestec\\_ipm\\_guidelines\\_multifamily\\_housing.pdf](https://sfenvironment.org/sites/default/files/fliers/files/sfe_th_pestec_ipm_guidelines_multifamily_housing.pdf)

## GO BEYOND CONVENTION - CHOOSE INTEGRATED PEST MANAGEMENT

### CHOOSE PREVENTION OVER LONG-TERM TREATMENT TO REDUCE COSTS

**Integrated pest management (IPM)** is a common-sense process for achieving medium and long-term environmentally sound pest control by utilizing various non-chemical and reduced-risk chemical methods. IPM focuses on pest prevention by identifying and eliminating conditions conducive to pest activity to preempt future pest infestations. IPM treats the causes of pest infestations instead of the symptoms by relying on data collection through regular building inspections and pest **monitoring**. The response focuses on “reducing and eventually eliminating sources of food, water and harborage available to pests, and limiting access into and throughout buildings.”<sup>2</sup>

*Contact Cynthia Knowles at San Mateo County Environmental Health Services/Healthy Homes Program to discuss how IPM can reduce long-term costs and benefit you and your tenants.*

**STEP 1. HIRE AN IPM PROVIDER**, available through the following networks:

**EcoWise Certified:** <http://www.ecowisecertified.org/>

**GreenShield:** <https://greenshieldcertified.org/>

**GreenPro:** <https://www.npmaqualitypro.org/available-credentials/greenpro/>

**STEP 2. IPM AND PEST EXCLUSION GUIDES** The following guides offer step by step guidelines on IPM implementation and provide clear examples of how your staff can pest proof an apartment building against rodents AND roaches.

[Guidelines for Integrated Pest Management in San Francisco Housing Communities](https://sfenvironment.org/sites/default/files/fliers/files/sfe_th_pestec_ipm_guidelines_multifamily_housing.pdf)

[https://sfenvironment.org/sites/default/files/fliers/files/sfe\\_th\\_pestec\\_ipm\\_guidelines\\_multifamily\\_housing.pdf](https://sfenvironment.org/sites/default/files/fliers/files/sfe_th_pestec_ipm_guidelines_multifamily_housing.pdf)

**IPM Toolkit NYC IPM** <https://www1.nyc.gov/assets/doh/downloads/pdf/pesticide/ipm-toolkit.pdf>

### STEP 3. RENTER OUTREACH

SMC Environmental Health’s Healthy Homes Program provides home inspections and guidance for renters on reducing and eventually eliminating sources of food and water. Guidance emphasizes reasonable actions presented in a culturally appropriate manner.

**The Healthy Homes program provides the following services and guidance:**

#### Families/Renters

- Conduct healthy home inspection to assess conditions and develop action plan.
- Direct outreach to families on actions that improve indoor conditions and help resolve pest, mold, excess moisture, ventilation, and other habitability concerns.
- Direct outreach to families who live in apartment buildings.
- Community workshops on healthy homes actions.
- Healthy Homes Family Resource Fairs.

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<sup>2</sup> Ibid.

## **Property Managers and Owners**

- Collaborate directly with IPM Providers or pest control operators in your building.
- Receive reports of unhealthy conditions.
- Offer a healthy homes inspection to assess conditions and develop mitigation actions (for CA Health and Safety Code compliance, if needed).
- Provide guidance on long-term solutions to pests, mold, excess moisture, and ventilation, among others.
- Direct outreach to families on actions that can resolve unhealthy conditions.
- Organize an Integrated Pest Management (IPM) program in apartment buildings.

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