

City of Monte Sereno Integrated Pest Management Plan

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Policy Statement

The City of Monte Sereno will carry out its pest management operations using reduced-risk IPM techniques to reduce or eliminate chemicals to the maximum extent. Chemicals will be used only as a last resort for pest management problems. The City will maintain an active IPM plan to ensure the long-term prevention or suppression of pest problems with minimum negative impact on human health, non-target organisms, and the environment.

The City will actively pilot non-toxic alternatives for structural and landscape pest control, seeking to use the most recent technology, best management practices, and least toxic methods for all pest control measures.

The City will use appropriate venues to educate staff and the public about its IPM commitment in an effort to role model less toxic approaches to structural and landscaping pest control.

Integrated Pest Management Plan

A. Restricted Chemicals

Pesticides are defined as: any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest. Pests can be insects, mice and other animals, unwanted plants (weeds), or fungi. The term pesticide applies to herbicides, fungicides, rodenticides, molluscicides and other substances used to control pests.

City employees and City contractors will not use the following pesticides: Acute Toxicity Category I chemicals, and Category II chemicals as identified by the Environmental Protection Agency (EPA), diazinon, chlorpyrifos, and chlorpyralid. Emergency applications may be authorized via the completion of a written request and approval by the City Manager

The purchase of any pesticide by staff is prohibited unless directed by a Monte Sereno Pest Control Advisor or licensed contractor. Structural pest management actions will be managed and overseen by the Finance Officer.

B. Staff Education and Training

The City will provide City-wide IPM training. City staff who are not applying pesticides as part of their regular job will receive annual outreach from City staff about the City's IPM policy and appropriate procedures for controlling pests.

Applicator training and supervision: City staff who manage pest problems or who apply pesticides as part of their job will be trained annually on "Integrated Pest Management" and less toxic methods to control common pests.

C. Record Keeping and Annual Evaluation

All contractors who apply pesticides will maintain pest management and pesticide application records using the Monthly Contractor Pesticide Use Record (Attachment C) Copies should be sent to the City Manager. Pesticide use records will record the amount used, date and location of use, target pest, and biological and mechanical controls used. All records will be made available to the public upon request.

Annual Evaluation – City staff will prepare an annual summary of pest management problems. Because this is a County-wide storm water permit requirement, the West Valley Clean Water Program will be responsible for consolidating the monthly use reports and preparing the annual report. Attachment A includes a checklist of annual and on-going IPM Plan responsibilities

D. Public Outreach

The City will use appropriate opportunities to communicate with the public about IPM strategies and their benefits. Public outreach will include:

- IPM information provided to local schools, residents, and businesses via special events, IPM workshops, advertisements, and point-of-sale (hardware and nurseries).
- Pesticide disposal options: Residential and business pesticide disposal options will be provided and promoted through the City's Household Hazardous Waste Program.
- All IPM and pesticide use records will be made available to the public within one week of request.

E. Contractor Compliance

Monte Sereno's contractors must follow all aspects of the Monte Sereno IPM Plan, including the restrictions contained in "A" above.

F. Pest Specific IPM Plans

The City will maintain pest-specific IPM Plans which will outline pest management guidelines for the most persistent and frequent pests (See Attachment C). The IPM Plans will:

- Use preventative maintenance and the most recent best management practices as a primary strategy to prevent key pests and thereby minimize the use of chemical pesticides.
- Establish inspection procedures for key pests to monitor pest population and tolerance levels based on the biological, aesthetic, and economic loss each site can tolerate, and set pest population levels at which corrective action should be taken.
- Use alternative control options such as (but not limited to): habitat management (changing the biological environment), maintenance practices (modifying watering, mulching, waste disposal), physical controls (mechanical removal, traps and barriers), biological controls (use of natural enemies), and re-design (modifying landscape design) to the maximum extent practical.
- Pilot and report on the results of new less-toxic measures for animal or plant pest control.

Attachment A

**Checklist of Annual and On-going
“IPM Plan” Responsibilities**

“IPM Plan” Checklist

IPM Requirements

Pesticide Use

The following pesticides are prohibited from use: Category I chemicals, Category II chemicals, diazinon, chlorpyrifos, and chlorpyralid.

Employee purchase of pesticides:

Employees may not purchase pesticides of any kind through City contracts, or blanket accounts without the written permission of a certified pest control advisor.

Contractors

Contractors will comply with all elements of the City’s pesticide plan and must make arrangements with division staff for reporting.

Annual Responsibilities

The City will complete or provide the following by February 1 each year:

- Review Pest Specific IPM plans for any updates, changes, and for evaluation from previous year.
- Complete the *Annual “IPM Plan”* (Attachment C) and provide to City Manager by February 1 of each year.
- Provide/attend annual IPM training on seasonally relevant topics.
- Pilot new least-toxic IPM strategies.

On-Going Responsibilities

- Maintain and adhere to site specific IPM Plans (see Attachment A, Ant IPM Plan, and Mouse IPM Plan)
- Report all pesticide applications using Attachment B - *Monthly Contractor Pesticide Use Record* to the City Manager
- Trial new least-toxic IPM strategies

Attachment B

Pest-specific “IPM Plans”

“Ant IPM Plan”

Ant Control and Management!

Goals:

- Remove ant invasion and protect human and environmental health using the least-toxic products and methods.
- Reduce honeydew producing insects (e.g., aphids, scales, psyllids) which attract ants.

Tolerance level: Low

Argentine ant facts:

- Argentine ants eliminate *native* ant species, are territorial, have many queens, and reproduce rapidly
- Colonies have shallow nests and readily move into structures when weather is too hot, cold, wet, or dry, or when natural food supplies decline. They will also nest in the moist soil of potted plants, in walls, and traverse through the walls on electrical and plumbing conduits.
- Adult ants feed principally on carbohydrates/sugars while gathering proteins to feed young.
- Argentine ants have young which serve as the “stomach of the colony” and digest solids which they regurgitate and feed to adults (adults only feed on liquids). **This is why slow-acting baits work best. Fast acting baits kill the workers before they feed the young, colony ants and queens.**
- Populations are synergistic with honeydew producing insects. The ants herd them, protect them from biocontrols and clean up honeydew so the plant pests can increase.

For additional information, visit:

<http://www.ipm.ucdavis.edu/PMG/selectnewpest.home.html>

Cleaning up an immediate ant problem

Inside –

- Use a vacuum to remove ants. If the suction does not kill them then the dust inside the vacuum will.
- Use soapy water, glass cleaner or products such as Orange Guard*. This removes the ant scent trail.
- Caulk cracks and dust inside walls with diatomaceous earth. This makes the space in the walls uninhabitable for ants.
- Remove what is luring them inside-garbage, food, water, shelter. Thoroughly clean the area.
- Place bait in places not accessible to children and pets.

Outside –

- Apply granular baits where ants are seen (see list for approved baits. Be sure to follow label directions). Do not overbait.

Outside baiting done properly will leave no ants to invade nearby buildings. Sometimes ants invade from quite a distance and cross areas where resident ants have been eliminated. If ants persist, try switching baits-their food preferences change abruptly.

When ants decline and can no longer protect honeydew producing pests, other predators such as wasps, ladybird beetles, lacewings are able to kill the plant pests.

Bait effectively

Baits are the most effective ant control because they kill a majority of the population as opposed to sprays which kill just those ants in the sprayed area.

Bait tips:

Where to bait: Bait outside, along building perimeters, and away from people. Look at past complaint logs, exactly where were these complaints. Ask where did you last see the ants?

When to bait: The best time to bait is early spring where the food supply is variable and the ants are foraging for food.

February to May (or during warm weather): Use protein baits (e.g., Maxforce/Combat) when the ants have larvae that feed off the protein. When the larvae eats the protein the slow acting bait is passed up the food chain to the queen. This will kill the colony!

Year Round: Use a carbohydrate bait (e.g., Terro) throughout the year, especially during the winter when the ants are typically not eating. Note that this is faster acting bait than the protein and for that reason; it will not wipe out the entire colony.

Slow-acting baits work best because Argentine ants have young which serve as the “stomach of the colony” digesting solids which they regurgitate and feed to adults. Fast acting baits kill the workers before they feed the young, colony ants and queens.

Approved baits and ant supplies:

During warm weather and seasons when there are young

- MaxForce Ant Killer Bait gel (fipronil).
- Combat or MaxForce granular insect bait (hydramethynon)
- Niban

All seasons

- Terro Ant Killer Liquid Ant Baits (plastic station with 11 cc. = 0.36 oz)

Dust barriers (for wall cracks-makes crawl spaces uninhabitable)

- Diatomaceous earth
- Tim Bor (to control carpenter ants, 1-3 teaspoons dusted into the boxes of wall sockets and electrical switches).

Why don't we just use spray?

Health Risks Associated with Traditional Ant Sprays

When sprays are used, only one percent of the mix reaches the targeted pest. Ninety-nine percent of it is lost as pollution which impairs air quality for humans. Human health risks associated with pesticides:

Children are more sensitive to pesticides. Ant sprays or bombs usually kill pests by disrupting their nervous system. These same chemicals can affect people, especially young children whose small body size and developing nervous systems make them more susceptible to hazards of pesticides.

Environmental concerns: Water quality and wildlife are affected by the pesticides and other chemicals we use. Run-off carries chemicals into storm drains, creeks and then the Bay impairing those ecosystems.

“Mouse IPM Plan”

Mouse Control and Management

Goal: Prevent or stop structural damage due to rodents.

Tolerance level: inside tolerance is zero.

Quick facts:

- Most reports about rat problems are actually mouse problems.
- Because controls for mice and rats are somewhat different it is important to accurately identify the cause of the infestation.
- Removal of mice should be followed by taking steps to exclude them so that the problem does not reoccur.

For additional information, visit:

<http://www.ipm.ucdavis.edu/PMG/selectnewpest.home.html>

Mouse or rat? Identify the pest correctly.

Because the controls for mice and rats are somewhat different it is important to accurately identify the cause of the infestation.

- Evidence of mouse infestation: droppings, holes chewed in food containers, gnawed edges and holes chewed through walls. In large populations there is a distinctive “mousy” odor. Mice are often active in the daytime.
- House mouse droppings look like grains of rice. A mouse can produce 30-50 droppings per day so the droppings accumulate rapidly. If all the droppings are the same size there is probably only one mouse. Multiple sizes indicate a breeding population. Mouse droppings can be removed to see if an infestation is active.
- Seeing one mouse does not indicate a large infestation.

Effective Trapping

Snap traps provide a fast, non-toxic, economical way to catch mice.

- Used traps catch more mice than clean un-used traps. Use four traps for every estimated mouse.
- Use enough traps to catch all the mice at once to reduce the possibility of “trap shyness.”
- Peanut butter is a good bait. If a mouse is hard to catch use white glue to attach an M&M, jelly bean (or a hard candy) to the trigger.

- Trap placement is critical. Mice can live between traps set too far apart (five feet). Mice run along walls and are often caught by blundering into traps. A trap even an inch away from the wall will catch less than one set right against the wall. Two traps can be set back-to-back along a wall. If mice jump over the trap(s) build an artificial tunnel with a piece of cardboard, shingle, etc.
- Place a piece of paper under the trap to catch any fluids, pick up the trap and mouse in a plastic bag, and dispose of the catch and trap in an outside trash container. The odor will escape a plastic bag, so do not place a bagged dead rodent in inside trash.

Preventing mouse problems

Rodents, mice and rats, dribble urine as they walk leaving an odor trail that may persist for five to ten years. New mice can easily find their way in unless the access is repaired.

- Inspect the outside of a building looking for any gap greater than ¼” (a pencil width). These gaps are potential mouse access points. Under outside doors, broken foundation vent screens, and utility penetrations (water, sewer and electrical). Check utility boxes in walls). Check for holes where new additions are joined to existing structures.
- It may be necessary to cover the edges of doors and windows with metal to prevent gnawing. Plastic screening, rubber or vinyl, wood, and other gnawable materials are unsuitable for plugging holes used by mice.
- Materials used to seal gaps are patching cement, ¼” mesh wire, door sweeps (install to corners - do not cut short). Steel wool is sometimes used, but it can rust and leave stains. Copper, or stainless steel dish scrubbers are better. Mice can easily chew through plastic foam. To prevent this put a layer of wire in the foam.

Sanitation is essential.

The less food and shelter available the more stressed the animal is and the easier to catch.

- Kibbled pet food and birdseed should be stored in metal containers.
- Lunchroom areas should be kept clean and swept.
- Keep counters wiped down with soapy water or surface cleaner.

Approved rat supplies:

- All traps
- Plaster lath wire, or ¼ inch hardware cloth

Attachment C

Monte Sereno Contractor Monthly Pesticide Use Summary

Date:

Company Name:

Contact/Phone:

City of Monte Sereno Contact:

Monte Sereno Contractor Monthly Pesticide Use Summary

1. List all total chemicals (including baits) and biological/mechanical (traps, hoeing, mulching, release of predator, landscape design controls, etc.) used at each site serviced.

Specific Location	Active Ingredient	Trade Name/EPA #	Quantity	Biological/Mechanical Control	Target Pest

Attachment D

Annual “IPM Plan” Report

