

City of Palo Alto Integrated Pest Management Plan

February 26, 2002

Public Works, Environmental Compliance Division

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Policy Statement

The City of Palo Alto 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. Each division that applies pesticides 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 Outline

The City will ensure that general staff and staff who are responsible for pest control will adhere to both the City-wide and division specific pesticide plan and procedure requirements. Plan components include:

City-wide Components

- a) Restricted Chemicals
- b) Annual Storage Inventory and Unwanted Chemical Disposal
- c) Interdepartmental Coordination
- d) Staff Education and Training
- e) Record Keeping and Annual Report
- f) Public Outreach
- g) Contractor Compliance
- h) Annual Evaluation

Division-specific Components

- a) Reporting IPM Activities and Pesticide Use
- b) Staff Training
- c) Public Outreach

Integrated Pest Management Plan

City-wide Components

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. Antimicrobial agents are not included in this definition of pesticides.

City employees and City contractors will not use the following pesticides.: Acute Toxicity Category I chemicals as identified by the Environmental Protection Agency (EPA), diazinon, or chlorpyrifos. Emergency applications can be authorized via the completion of the Emergency Application Form submitted to the Environmental Compliance Public Works Environmental Specialist located in the Environmental Compliance Division of Public Works. Other pesticides may be added to the above list of restricted chemicals following the recommendation of the Palo Alto IPM Committee and approval by the City Manager.

The purchase of any pesticide by staff is prohibited unless directed by a Palo Alto Pest Control Advisor (Attachment F). Structural pest management actions will be managed and overseen by Facilities Management staff, or staff designated at remote buildings by the Facilities Division Manager.

B. Annual Storage Inventory and Unwanted Chemical Disposal

An annual storage inventory will be conducted to remove and dispose of any chemicals that are unwanted or that are prohibited from City use by the IPM policy. These chemicals will be disposed through the City's Hazardous Waste Program. The Environmental Control Programs Manager in Public Works Operations shall be contacted to arrange for the appropriate disposal.

C. Interdepartmental Coordination

To ensure that the City's IPM goals are achieved and coordinated the following will be implemented:

IPM Plan-City-wide and Division-specific IPM Plans will be maintained. Plan components will address pest management and pesticide application strategies and procedures, chemical disposal record keeping, training, and public outreach.

IPM Committee-An IPM committee comprised of representatives from each City division using pesticides will meet at least once every six months to discuss revisions and updates to IPM plans based on regulatory changes, chemicals of concern, or improved best management practices. The IPM Committee will also conduct an annual evaluation of the City's pesticide use to be shared with members of the public as described in "H" below.

D. Staff Education and Training

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

Applicator training and supervision: City staff who manage pest problems and who apply pesticides as part of their job must be trained according to Department of Pesticide Regulation requirements listed in the Division-specific IPM Plans.

E. Record Keeping and Annual Report

All city staff who apply pesticides will maintain pest management and pesticide application records using the Monthly City Pesticide Use Record (Attachment E). Contractors will send copies of Monthly Contractor Pesticide Use Record (Attachment J) to both the City department they contract with and the Environmental Compliance Environmental Specialist. Annual summaries and pesticide use records will record the amount used, date and location of use, and the target pest. More detailed records will be maintained by each division using pesticides and kept with that division. All records will be made available to the public upon request.

An annual pesticide use report (Annual City-wide IPM and Pesticide Use Report (Section III, Attachment C), will be written and coordinated through Environmental Compliance and made available to the public. The report will include:

- a general overview of the City's IPM Plan;
- a list to include: total amount of all pesticides used by each division (chemical and common name) during the prior year, target pest(s) for each pesticide, the general locations where they were applied;
- pest problem trends and related non-chemical/structural/landscape solutions
- new IPM strategies piloted that year
- list of staff trained during the year
- goals for the following year

The report will be reviewed by the Palo Alto IPM Committee, Department Heads and the City Manager, and then made available to the public.

F. 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 schools, residents, and businesses via special events, IPM workshops, school presentations, advertisements and the point-of-sale Our Water, Our World publications (through Environmental Compliance).
- Pesticide disposal options: Residential and business pesticide disposal options will be provided and promoted through the City's Household Hazardous Waste Program (through Public Works Household Hazardous Waste Program and Environmental Compliance).
- All IPM and pesticide use records will be made available to the public within one week of request.
- Which chemical pesticide alternatives were considered and tested, and an explanation for their inclusion or rejection for City use.
- By July 1 of each year, the Annual Pesticides Report for the preceding calendar year shall be made available to interested members of the public. A list of interested persons shall be maintained. The City Council packet will be used to distribute the report to Council members.

G. Contractor Compliance

Palo Alto contractors must follow all aspects of the Palo Alto IPM Plan, including the restrictions contained in "A" above.

H. Annual Evaluation

The Palo Alto IPM committee will review the draft Annual Pesticide Report in April of each year and make recommendations and submit a final report to the City Manager by June 1. After City Manager review, or his/her designees, the report shall be made available to the public by July 1 of each year.

Division-specific Components

Divisions using pesticides will participate in the City-wide components of the plan, and:

Maintain site-specific plans

Each City Division applying pesticides (Parks and Golf, Trees, Open Space, Facilities Management, Water Quality Operations) will develop an IPM plan (*Integrated Pest Management Plan*- Section III, Attachment A) which will outline pest management guidelines for the most persistent and frequent pests

- 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.

In addition, general City-wide guidelines for ant and rat management will maintained by Facilities Management (Section III, Attachment H).

A. Record and Report and IPM Activities and Pesticide Use

- Record Keeping- Staff will maintain a record-keeping system to catalog pest management procedures and each pesticide application (Section III, Attachments D and/or E depending on pest and action taken).
- Annual Report-Divisions will provide Environmental Compliance staff with an annual summary of pest management problems and chemicals used (*Annual Division IPM Summary and Pesticide Inventory*-Attachment B, Section III).

B. Provide Staff Training

Training will be provided to City staff who apply, prescribe, or supervise pesticide application. Training will include:

DPR pesticide training requirements as outlined in the California Code of Regulations Title 3, Division 6 for pesticide applicators and advisors (Section III, Attachment G).
Annual IPM training for all staff who apply any pesticides on the job.

C. Provide Public Outreach

As part of the City's commitment to less-toxic pesticide management, City divisions will use appropriate opportunities (e.g., signage) to communicate with the public about IPM strategies and their benefits.

III. Reporting Forms and Attachments

Attachment A-Division IPM Checklist and Plan Template

Attachment B-Annual Division IPM Plan Summary and Pesticide Inventory

Attachment C-Annual City-wide IPM and Pesticide Use Report

Attachment D-Structural Pest Management Log

Attachment E- City of Palo Alto Pesticide Use Log and California State Monthly
Summary Pesticide Use Report

Attachment F- Current Palo Alto Pest Control Advisors

Attachment G- Training Requirements

Attachment H- Current Palo Alto Pest Management Contractors

Attachment I- Palo Alto Contractor Monthly Pesticide Use Summary

Attachment J-Written Training Program for Employees Who Handle Pesticides

Attachment A

Division IPM Checklist and Plan Template

Division IPM Checklist and Plan Template

City-wide IPM Requirements

Pesticide Use

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

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.

IPM Committee Participation

Each Division will be represented at periodic IPM Committee Meetings held by Environmental Compliance.

Annual responsibilities

Each division who is responsible for pest management activities must complete or provide the following by February 1 each year:

- Review division-level IPM plans for any updates, changes, and for evaluation from previous year.
- Complete the *Annual Division IPM Plan Summary and Pesticide Inventory* (Section III, Attachment B) and provide to Environmental Compliance by February 1 of each year.
- Provide necessary staff training based on California State Code of Regulations, Title 3 (Section III, Attachment G) and annual IPM training to City staff on seasonally relevant topics.
- Pilot new least-toxic IPM strategies.

On-Going Responsibilities

- Maintain and adhere to site specific IPM Plans using Attachment A-*IPM Checklist and Plan Template*
- Report all pesticide applications using Attachment E-*City of Palo Alto Monthly Pesticide Use Log*. Route monthly to Environmental Compliance at the Regional Water Quality Control Plant.
- Trial new least-toxic IPM strategies
- (*For Structural Pest Control*) Report all pest management procedures using Attachment D (*Structural Pest Management Log*)
- (*For Landscaping Pest Control*) Submit California State Monthly Summary Pesticide Use reports to County Agricultural Department.

Contact:

Date:

IPM Plan

Pest:

Site:

Division:

Pest of concern:

Pest threshold (what level of the problem will trigger a response at this site, i.e., how many insects, weeds, fungus amount):

Annual Tasks

Review Annual Pest Prevention Strategies

In an effort to use preventative maintenance as the primary strategy to prevent key pests and avoid chemical pesticide use, (Division Name) will use the methods below to prevent infestations and review annually for evaluation and updating:

- Habitat management needs. List which cleaning or hygiene changes are needed in area to stop or prevent problem:

- Which physical controls are authorized to control this pest (e.g., traps, barriers or mechanical removal)?

- Which landscaping redesign elements should be altered (e.g., can landscaping be modified to discourage pests)?

- Which biological controls are to be used to prevent pest infestations (use of natural enemies).

- The City's IPM consultant has been contacted for non-chemical eradication options.

Based on the previous information identify:

Monthly maintenance needed to deter pest:

Annual maintenance needed to deter pest:

Historical problem spots and pest entrance points:
Sketch or describe below, or attach a map.

Annual
Evaluation of effectiveness / notes:

Attachment B

Annual Division IPM Plan Summary and Pesticide Inventory

B. Please check off staff names who received required training.

Designation	Required Annual Training ✓ next to names who are in compliance with training requirements		Summary of State training requirements:
Landscaping/Agricultural Uses	State requirements:	City IPM training*	
Advisors Steve Scott (Trees, also QAC) Steve Sims (Parks and Golf) Don Piana (Parks and Golf)			Accumulate at least 40 hours of approved continuing education every 2 years before license renewal (or retake PCA exam through DPR). A minimum of 4 of the 40 hours must include the topic of pesticide and pest control laws and regulations (CCR 6511). Source: www.cdpr.ca.gov/docs/license/apcainfo.htm , and Michelle Nachand, Santa Clara County Department of Agriculture
Current Palo Alto QACs: Dave Davies Michelle Wagner Lisa Myers Government agencies are not required to have a licensee on staff. City employees can be trained by their employer to spray pesticides. Employees that have a QAC are considered trained.*			Qualified Applicator (QAC) Supervises pesticide applications, (and/or supervises the application of restricted pesticides). 20 hours of approved continuing education every two years. At least 4 of the 20 hours must cover the topic of pesticides and pest control laws and regulations. Source: www.cdpr.ca.gov/docs/license/qacinfo.htm , and Michelle Nachand, Santa Clara County Department of Agriculture.

<p>Applicator Current Palo Alto Applicators:</p>			<p>CCR Title 3, Division 6, Section 6724</p> <p>Employees are required to be trained annually.</p> <p>Pesticide Safety Information Series (use PSIS- N Series) not yet inserted in plan. Information in PSIS N8 must be posted in the work place and explained to employees.</p> <p>Preferably taught by QAC, QAL, or Advisor. Training is also required for anyone who works on equipment contaminated with pesticides.</p> <p>Source: Michelle Nachand, Santa Clara County Department of Agriculture</p>
<p>Structural Uses</p> <p>Applicators <i>Facilities</i> Dennis Huebner (Lead in Facilities) Tom Hafner (Utilities)</p> <p>Vehicle Maintenance staff</p>			<p>Same requirements as above.</p> <p>Source: Michelle Nachamd, Santa Clara County Department of Agriculture</p>

*City requirement

**Please see division for list of staff who participated in training.*

C. Please list and describe the pest problem trends your division dealt with this year, including peak season problems and non-chemical/structural/landscape solutions that were used.

D. Which IPM pesticide alternatives were considered and tested. Please explain the reason for their inclusion or rejection for City use.

Attachment C

Annual IPM and Pesticide Use Report

Annual IPM and Pesticide Use Report

Completed by Environmental Compliance

Date:

Palo Alto's Integrated Pest Management (IPM) Program (standard info)

- A. General overview of the IPM policy and plans.
- B. A list of all pesticides used during past year including total amount used and target pest(s) for each pesticide
- C. Pest problem trends
- D. New reduced-risk pest management strategies piloted this year
- E. Summary of IPM trainings
- F. Goals for next year
- G. Division contacts

A. City of Palo Alto IPM Policy

The City of Palo Alto will carry out its pest management operations using integrated pest management (IPM) techniques to reduce or eliminate chemicals to the maximum extent, and use chemicals only as a last resort for pest management problems. Each division that applies pesticides 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 landscaping pest control, seeking to use 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.

C. Pest problem trends

D. New IPM strategies piloted this year

E. Department staff who received the following required training for the year based on California Code of Regulation (Title 3, Division 6) and City Policy requirements. Check necessary categories:

Designation	Required Annual Training ✓ next to names who are in compliance with training requirements		Summary of State training requirements:
Landscaping/Agricultural Uses	State requirements:	City IPM training*	
Advisors Steve Scott (Trees, also QAC) Steve Sims (Parks and Golf) Don Piana (Parks and Golf)			Accumulate at least 40 hours of approved continuing education every 2 years before license renewal (or retake PCA exam through DPR). A minimum of 4 of the 40 hours must include the topic of pesticide and pest control laws and regulations (CCR 6511). Source: www.cdpr.ca.gov/docs/license/apcainfo.htm , and Michelle Nachand, Santa Clara County Department of Agriculture
Current Palo Alto QACs: Dave Davies Michelle Wagner Lisa Myers Government agencies are not required to have a licensee on staff. City employees can be trained by their employer to spray pesticides. Employees that have a QAC are considered trained.*			Qualified Applicator (QAC) Supervises pesticide applications, (and/or supervises the application of restricted pesticides). 20 hours of approved continuing education every two years. At least 4 of the 20 hours must cover the topic of pesticides and pest control laws and regulations. Source: www.cdpr.ca.gov/docs/license/qacinfo.htm , and Michelle Nachand, Santa Clara County Department of Agriculture

<p>Applicator Current Palo Alto Applicators:</p>			<p>CCR Title 3, Division 6, Section 6724</p> <p>Employees are required to be trained annually.</p> <p>Pesticide Safety Information Series (PSIS- N Series) is a helpful tool for training. Information in PSIS N8 must be posted in the work place and explained to employees.</p> <p>Preferably taught by QAC, QAL, or Advisor. Training is also required for anyone who works on equipment contaminated with pesticides.</p> <p>Source: Michelle Nachand, Santa Clara County Department of Agriculture</p>
<p>Structural Uses</p> <p>Applicators <i>Facilities</i> Dennis Huebner (Lead in Facilities) Tom Hafner (Utilities)</p> <p>Vehicle Maintenance staff</p>			<p>Same requirements as above.</p> <p>Source: Michelle Nachand, Santa Clara County Department of Agriculture</p>

*City requirement

**Please see division for list of staff who participated in training.*

F. Goals for next year

G. Division Contacts: For information on specific pesticide application locations and dates, contact individual department representatives below.

Division	Contact	Phone/Email
General Information	Julie Weiss-Environmental Compliance	650.329.2598 julie_weiss@city.palo-alto.ca.us
Facilities Management	Karen Smith or Dennis Huebner	650.496.6900 Karen_Smith@city.palo-alt.ca.us
Parks and Golf	Don Piana or Dave Davies	650.496.6962 don_piana@city.palo-alto.ca.us
Trees	Steve Scott	650.496.5953 steve_scott@city.palo-alto.ca.us
Open Space	Greg Betts	650.617.3112 greg_betts@city.palo-alto.ca.us
Utilities	Michael Haynes	650.329.6917 michael_haynes@city.palo-alto.ca.us
Water Quality	Julie Weiss	650.329.2117 julie_weiss@city.palo-alto.ca.us

Attachment D

Structural Pest Management Log

Structural Pest Management Log

Date: Contact:

Pest problem	Sketch pest entrance point(s):
Location	
Action taken:	
Consultant needed? Yes__ No__	Consultant action taken:

Attachments E

Monthly Reporting Forms

- **Monthly City Pesticide Use Record**
- **Monthly County Use Report**

City of Palo Alto Pesticide Use Record

Month _____ Year _____

Date	Address/ Location	Crop/site Tree species/site number	Units treated (acres, tress)	Active Ingredient	Trade Name/EPA ID number	Quantity of chemical used	Total number of gallons of mix used	Crew/staff Name	Hours on pump	
									Start	Finish

STATE OF CALIFORNIA
MONTHLY SUMMARY PESTICIDE USE REPORT
 PR-ENF-060 (REV. 4/92)

DEPARTMENT OF PESTICIDE REGULATION
 PESTICIDE ENFORCEMENT BRANCH

INSTRUCTIONS FOR COMPLETING THIS FORM ARE INDICATED BELOW AND ON THE REVERSE SIDE

OPERATOR (FIRM NAME)		ADDRESS		CITY		ZIP CODE	PHONE NUMBER
OPERATOR IDENTIFICATION PERMIT NUMBER	LICENSE NUMBER	COUNTY (WHERE APPLIED)	COUNTY NUMBER	MONTH/YEAR OF USE		TOTAL NUMBER OF APPLICATIONS	

1. Complete Columns A,B,C, and D for All Users

2. Complete Column E by Using One of the Following Codes

- Code 10 - Structural Pest Control includes any pest control work performed Within or on buildings and other structures.
- Code 30 - Landscape Maintenance Pest Control includes any pest control work performed on landscape plantings around residences, or other buildings, golf courses, parks, cemeteries, etc.
- Code 40 - Right-of-Way Pest Control includes any pest control work performed along roadsides, power lines, median strips, ditch banks and similar sites.
- Code 50 - Public Health Pest Control includes any pest control work performed by or under contract with State or local public health or vector control agencies.
- Code 80 - Vertebrate Pest Control includes any vertebrate pest control work performed by public agencies or work under the supervision of the State or county agricultural commissioner.
- Code 91 - Commodity Fumigation (Nonfood/Nonfeed) ... includes fumigation of nonfood/nonfeed commodities such as; pallets, dunnage, furniture, burlap bags, etc.
- Code 100 - Regulatory Pest Control includes any post control work performed by public employees or contractors in the control of regulated pests.

3. Complete Columns F and G, if Use Does not Fit one of the Above Codes

A MANUFACTURER AND NAME OF PRODUCT APPLIED	B EPA/CALIFORNIA REGISTRATION NUMBER FROM LABEL INCLUDE ALPHA CODE	C TOTAL PRODUCT USED (Circle One Unit of Measure)	D NUMBER OF APPLICATIONS	E CODE	F COMMODITY OR SITE TREATED	G ACRES/UNITS TREATED
		LB OZ PT QT GA				
		LB OZ PT QT GA				
		LB OZ PT QT GA				
		LB OZ PT QT GA				
		LB OZ PT QT GA				
		LB OZ PT QT GA				
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		LB OZ PT QT GA				
		LB OZ PT QT GA				

REPORT PREPARED BY _____ DATE _____

Attachment F

City of Palo Alto Pest Control Advisors

City of Palo Alto Pest Control Advisors

Don Piana, Parks and Golf Superintendent (*Community Services*)

3201 E. Bayshore

x 6910

Steve Scott, Coordinator (*Public Works*)

3201 E. Bayshore

x6954

Steve Sims (*Community Services*)

3201 E. Bayshore

x5928

Attachment G

Training Requirements

Pesticide Training Requirements for Government Agency Pesticides Applicators.

Designation	Required Annual Training ✓ next to names who are in compliance with training requirements		Summary of State training requirements:
Landscaping/Agricultural Uses	State requirements:	City IPM training*	
Advisors Steve Scott (Trees, also QAC) Steve Sims (Parks and Golf) Don Piana (Parks and Golf)			Accumulate at least 40 hours of approved continuing education every 2 years before license renewal (or retake PCA exam through DPR). A minimum of 4 of the 40 hours must include the topic of pesticide and pest control laws and regulations (CCR 6511). Source: www.cdpr.ca.gov/docs/license/apcainfo.htm mand Michelle Nachand, Santa Clara County Department of Agriculture
Current Palo Alto QACs: Dave Davies Michelle Wagner Lisa Myers Government agencies are not required to have a licensee on staff. City employees can be trained by their employer to spray pesticides. Employees that have a QAC are considered trained.*			Qualified Applicator (QAC) Supervises pesticide applications, (and/or supervises the application of restricted pesticides). 20 hours of approved continuing education every two years. At least 4 of the 20 hours must cover the topic of pesticides and pest control laws and regulations. Source: www.cdpr.ca.gov/docs/license/qacinfo.htm , and Michelle Nachand, Santa Clara County Department of Agriculture

<p>Applicator Current Palo Alto Applicators:</p>			<p>CCR Title 3, Division 6, Section 6724</p> <p>Employees are required to be trained annually.</p> <p>Pesticide Safety Information Series (PSIS-N Series) is a helpful tool for training. Information in PSIS N8 must be posted in the work place and explained to employees.</p> <p>Preferably taught by QAC, QAL, or Advisor. Training is also required for anyone who works on equipment contaminated with pesticides.</p> <p>Source: Michelle Nachand, Santa Clara County Department of Agriculture</p>
<p>Structural Uses</p> <p>Applicators <i>Facilities</i> Dennis Huebner (Lead in Facilities) Tom Hafner (Utilities)</p> <p>Vehicle Maintenance staff</p>			<p>Same requirements as above.</p> <p>Source: Michelle Nachamd, Santa Clara County Department of Agriculture</p>

*City requirement

**Please see division for list of staff who participated in training.*

Attachments H

Current Pest Management Contractors

Current Pest Management Contractors

Aquatic Environment

P. O. Box 1406
Alamo, CA 94507
(925) 314-0831
Contact: David Najera
City Contact: Greg Betts

Landscape Pest Control

P.O. Box 1166
Pleasanton, CA 94566
925.426.8461
fax: 925.426.9416
Contact: Chris Lo, or Allen Tunberg
City Contact: Dave Davies

David the Bee Man

1184 Nevada Ave
San Jose, Calif, 95125
Cell:408.829.4660
Pager: 408.994.8665
Contact: Dave Williams
City contact: Steve Sims

S. P. McClenahan Co.

1 Arastradero Road
Portola Valley, CA 94208
(650) 326-8781
Contact: Gary Armstrong
City Contact: Steve Scott
fax: (650) 854-1267

Environmental Care

a.k.a Arbor Care
825 Mabury Road
San Jose, CA 95133
(408) 453-5922
City Contact: Steve Scott

Terminex

The Terminex International Company
1010 Olinder Court
San Jose, CA 95122-2619
Contact: Gerald C. Jewell
(408) 283-0492
City Contacts: Dennis Huebner,
Dave Davies

Gachina Landscape Maintenance

1130 Obrian Dr.,
Menlo Park, CA 94025
(650) 853-0400
Contact: John Gachina
City Contact: Steve Sims

Santa Clara County Vector Control District

976 Lenzen Ave.
San Jose, CA 95126
Contact: Noor Tietze, Ph.D.
(408) 299-2050
fax: (408) 298-6356
email: noor.tietze@deh.co.scl.ca.us
Contact: Julie Weiss

Attachment I

Palo Alto Contractor Monthly Pesticide Use Summary

Attachment J

**Written Training Program for Employees Who Handle
Pesticides**

WRITTEN TRAINING PROGRAM FOR EMPLOYEES WHO HANDLE PESTICIDES

Business Name: _____ Date: _____

Person or firm providing the training: _____

The training program shall describe the materials (e.g., study guides, pamphlets, pesticide product labeling, Pesticide Safety Information Series leaflets, Material Safety Data Sheets, slides, video tapes, etc...) that will be provided and used to train employees.

- 1) The meaning of information such as precautionary statements about human health hazards, and where this information can be found in pesticide product labeling.
- 2) Hazards of pesticides, including acute and chronic effects, delayed effects, and sensitization.
- 3) Routes by which pesticides can enter the body, and the signs and symptoms of overexposure.
- 4) How to obtain emergency medical care.
- 5) The procedures for handling non-routine tasks or emergency situations including spill clean- up and emergency first aid for pesticide overexposure
- 6) Routine decontamination procedures, such as the need to thoroughly shower with soap and warm water after an exposure period.
- 7) Need for, limitations, appropriate use, proper storage, and sanitation, of any required personal protective equipment
- 8) Prevention, recognition, and first aid for heat-related illness
- 9) Safety requirements and procedures, including engineering controls (such as enclosed cabs and closed systems) for handling, transporting, storing, and disposing of pesticides.
- 10) Environmental concerns such as drift, runoff, and wildlife hazards.
- 11) Warnings about taking pesticides or pesticide containers home
- 12) The location of Material Safety Data Sheets, Pesticide Safety Information Series, pesticide labels, and any Laws & Regulations relating to pesticide safety.

13) [Production Agriculture & Research only] The purpose and requirements for medical supervision if organophosphate or carbamate pesticides with the signal work "DANGER" or "WARNING" on the labeling are mixed, loaded, or applied for the commercial or research production of an agricultural plant commodity.

14) The material used to cover employee's rights: including the right for the employee, or the employee's representative, to receive information about the pesticides to which the employee may be exposed, and the right to be protected against retaliatory action due to the exercise of any of his or her rights.

* Maintain the written training program and the training materials at your workplace for two years. This form may need to be updated periodically. Check with your Agricultural Commissioner's office.

Santa Clara County Department of Agriculture 7/99

Section III

Integrated Pest Management Plans and Guidelines

Ants

Mice

Rats

Ant Control With Less-toxic Pesticides!

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>, or <http://www.city.palo-alto.ca.us/cleanbay/pest.html>.

If ant problems persist, call Environmental Compliance at 329.2117 to discuss the need for a specialist to eradicate the problem.

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 (kept in stock at MSC and RWQCP Stores):

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, 99 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 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>

If mouse problems persist, call Environmental Compliance at 329.2117 to discuss the need for a specialist to eradicate the problem.

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 (kept in stock at MSC and RWQCP Stores):

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

Rat 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.
- Roof rats and Norway rats are very different animals and the difference can be important to the success (or failure) of control measures.
- 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>.

If rat problems persist, call Environmental Compliance at 329.2117 to discuss the need for a specialist to eradicate the problem.

Rat or Mouse? Identify the pest correctly.

Because the controls for the two most common rats (roof rats and Norway rats) and mice are different, it is important to accurately identify the pest.

- Evidence of infestation can be damaged food, droppings, holes chewed in walls and doors.
- Roof rat droppings are larger than mouse droppings, rounded at one end and pointed at the other, and are often comma-shaped. Norway rat droppings are rounded at both ends and larger than roof rat droppings. 35 to 50 droppings are produced each day. Removing old droppings will indicate if an infestation is active.
- If rats are seen during the day it usually indicates a fairly large population with inadequate food. Higher status rats dominate the food sources during the night, and low status rats have to forage during the day.
- Both species of rats are omnivorous, but Norway rats tend to be more carnivorous and roof rats more herbivorous (esp. avocados, and oranges) but also like snails. Accumulated snail shells (sometimes combined with nut shells) indicate feeding sites. If there has been a long on-going rat infestation, oil from the rats' hair will collect on the edges of trails and entrance holes forming rub marks.

Effective Trapping

Controls - Unlike mice which are curious and often trapped soon after a trap is set, rats are shy and afraid of new objects. Unless they are young, or very hungry rats are rarely caught the first night of trapping. They easily become “trap shy” so it is very important to trap as many rats as soon as possible.

- Used traps are more effective than new traps.
- Bait unset traps, wait until the bait is fed upon, then rebait and set again.
- It is important to set traps right against a wall. Traps can be set perpendicular, or back-to-back. Four traps per estimated number of animals is a standard.
- Use the food that the rats are feeding on to bait the traps or use peanut butter. Raisins and other dried fruit are good baits for roof rats.
- Rat traps can damage children, pets and the hands and feet of adults. Place them carefully. Placing (sometimes securing) traps on top of objects (hot water heaters, overhead beams, on shelves...) is often effective for roof rats.

Preventing rat problems

Rodents, mice and rats, dribble urine as they walk. This leaves an odor trail that may persist for five to ten years. New animals following their noses can easily find the access holes, unless the access is eliminated.

- Inspect the outside of a building looking for any gap greater than ¼” (a pencil width = the mouse standard). These gaps are potential rodent access points.
- Inspect under outside doors, broken foundation vent screens, holes in the foundation, and utility penetrations (water, sewer and electrical). Check utility boxes in walls. Check for holes where new additions (including decks) are joined to existing structures. Check where complex roofs are joined (especially roof rats).
- Materials used to seal gaps are patching concrete, durable ¼” inch mesh wire, door sweeps (install to corners - do not cut short).
- Steel wool is sometimes used, but it can rust and leave stains. Copper (StuffIt), or stainless steel dish scrubbers are better, but unlike mice, rats will shove out material in stuffed holes. More secure sealing is required. Rats can easily chew through plastic foam. To prevent this put a layer of wire in the foam (foam + wire + foam).
- Rats do not like to be shut out, and if the structure is not very strong (such as shingles) will often make a new hole next to the old one. To prevent this spray the adjacent areas with a capsaicin-based rodent repellent (Squirrel Scoot®). Trim all tree branches at least 3’ away from structures. Rats will often use woody vegetation (vines and bushes) to climb onto a building.

Sanitation is essential.

The less food and shelter available the more stressed the animal is and the easier to catch. Kibbled pet food and bird seed should be stored in metal containers.

- Trash should be stored in rodent secure containers, and compost bins should be tightly constructed and protected with wire. Rodents chew through plastic bins. Rats will feed on seed in bird feeders and on the ground.
- *Squirrel* 1 proofing measures also work for rats - but are difficult.

Common Diazinon Products

Brand Name	Percent of diazinon as active ingredient
Ace 5% Diazinon Lawn Insect Control	5
Ace Diazinon Lawn Insect Control Granules	5
Ace Dilutable Concentrate Diazinon Insect Spray	25
Acme Diazinon 25% Emulsifiable Concentrate	25
All Pro Diazinon 50 WP Insecticide	50
All Pro Diazinon AG500	48
Black Leaf 25% Diazinon	25
Black Leaf 5% Diazinon Granules	5
Chemsico Diazinon Insect Spray	22.7
Clean Crop Diazinon 5 Granules	5
Clean Crop Diazinon 5 Lawn & Garden	5
Clean Crop Diazinon 50 W	50
Clean Crop Diazinon 50WP Insecticide	50
Clean Crop Diazinon AG500 Insecticide	48
Clean Crop Diazinon AG600 WBC	56
Clean Crop Diazinon G-14	14
D.Z.N. Diazinon 14G	14.3
D.Z.N. Diazinon 2D	2
D.Z.N. Diazinon 4E	47.5
D.Z.N. Diazinon 50W	50
D.Z.N. Diazinon AG500	48
D.Z.N. Diazinon AG600 WBC	56
D.Z.N. Diazinon Garden Insect Dust	2
D.Z.N. Diazinon Lawn & Garden WBC	22.4
D.Z.N. Diazinon MG 22.4% WBC	22.4
D.Z.N. Diazinon MG 22.4% WBC HG	22.4
D.Z.N. Diazinon MG 56.0% WBC	56
D.Z.N. Diazinon MG 56.0% WBC AG	56
D.Z.N. Diazinon MG 87%	87
D.Z.N. Diazinon MG 87% AG	87
D.Z.N. Diazinon MG 87% HG	87
Dexol Diazinon 2% Granules	2
Dexol Diazinon 25% Insect Spray	25
Dexol Diazinon 5% Granules	5
Dexol Diazinon Insect Control Granules	5
Diazinon 4E	47.5
Diazinon 4E	47.5
Diazinon 50 WP Insecticide	50
Diazinon 50 WP Insecticide	50
Diazinon 50W	48
Diazinon AG500	48
Diazinon AG500 Insecticide	48
Diazinon Dust Eliminator	2
Diazinon Lawn Insect Control	4.54
Diazol (Diazinon) Stabilized Oil Concentrate AG	87
Diazol (Diazinon) Stabilized Oil Concentrate HG	87
Do-It Best Diazinon	25
Do-It Best Diazinon Granules	5
Drexel D-264 14G Diazinon Granular Insecticide	14

Brand Name	Percent of diazinon as active ingredient
Drexel D-264 4E Diazinon Insecticide	48.2
Drexel Diazinon Insecticide	48.2
Easy Kill Diazinon Soil & Turf Insect Killer Granules	5
Easy Gone Concentrate Diazinon Insect Killer	25
Easy Gone Diazinon Soil & Turf Insect Killer Granules	5
Easy Gone Ready-To-Use Diazinon Insect Killer Granules	5
Eliminator 5%Diazinon Insect Killer Granules	5
Eliminator Diazinon Insect Spray Concentrate	22.4
Enforcer Ant Killer Diazinon Granules	5
Garden Place Diazinon Insect Control Granules	2
Garden Place Diazinon Soil & Turf Insect Control Granules	5
Garden Tech Ready-To-Use Diazinon Bug Killer	.058
Gordon's Diazinon 25% Emulsifiable Concentrate	25
Gowan Diazinon 14G	14.3
Gowan Diazinon 4E	50
Gowan Diazinon 50 WP	50
Gowan Diazinon 50 WSB	50
Gowan Diazinon 5F	56
Gowan Diazinon 5G	5
Green Light Diazinon	22.4
Green Light Diazinon 5 Granules	5
Green Light Diazinon Granules	5
Green Thumb 25% Diazinon	25
Green Thumb 5% Diazinon Granules	5
Green Thumb Diazinon Insect Control Granules	2
Green Thumb Diazinon Insect Spray Concentrate	25
Grower's choice Diazinon 5% Granules	5
Howard Johnson's Diazinon 5G Insecticide	5
KGRO Diazinon Granules	2
KGRO Diazinon Insect Spray Concentrate	22.4
KGRO Diazinon Soil & Turf Insect Control	5
Knock Out Brand 5% Diazinon insect Granules	5
Master Nurseryman Diazinon-25 Insect Control	25
Maxide Concentrate Diazinon Insect Killer	22.4
Maxide Concentrate Diazinon Insect Killer	22.4
Maxide Ready-To-Use Diazinon Insect Killer Granules	5
Maxide Ready-To-Use Diazinon Insect Killer Spray	.058
New Z Diazinon Insecticide Cattle Ear Tags	18
No-Pest Diazinon Insect Spray Concentrate	25
No-Pest Diazinon Soil & Turf Insect Control	5
Ortho Diazinon Granules	2
Ortho Diazinon Plus Insect Spray	25
Ortho Diazinon Soil & Turf Insect Spray	5
Ortho Diazinon Soil & Turf Insect Spray	5
Ortho Diazinon Ultra Insect Spray	22.4
Ortho Lock 'N' Spray Diazinon Ultra Insect Spray	22.4
Prentox Diazinon 2D Insecticide Dust	2
Prentox Diazinon 4E Insecticide	47.5
Prentox Diazinon 50W Insecticide	50
Prentox Diazinon 5G	5
Prentox Diazinon AG500 Insecticide	48
Prescription Treatment Brand TKO Diazinon Capsule Suspension Formula 1	23

Brand Name	Percent of diazinon as active ingredient
Prescription Treatment Brand TKO Pressurized Diazinon Capsule Suspension Formula 1	1
Pro Tech Diazinon 4E Indoor-Outdoor Insecticide	47.5
Quality Select Premium Diazinon Insect Control	5
Real-Kill Diazinon Insect Control Granules	2
Real-Kill Diazinon Insect Killer Spray Concentrate	25
Real-Kill Diazinon Soil & Turf Insect Control Granules	25
Spectracide Diazinon Multi-Purpose Insect Spray Concentrate	5
Spectracide Soil & Turf Insect Control 6000 Diazinon Granules	5
Strike Diazinon Insect Killer Concentrate	22.4
Strike Diazinon Insect Killer Granules	5
Strike Diazinon Soil & Turf Insect Killer Granules	5
SunGro Diazinon Spray	25
Twin Pine Diazinon Lawn & Garden Insect Control	5
Unicorn Diazinon 5G Granules	5
United Horticulture Supply Diazinon 4E	47.5
United Horticulture Supply Diazinon 4E Indoor-Outdoor Insecticide	47.5
United Horticulture Supply Diazinon 5G Insecticide	5
United Horticulture Supply Professional Turf Products Diazinon 50WP Insecticide	50
Web Foot Diazinon 5% Granules	5
Wilbur-Ellis Diazinon 4 Spray	14.3
Wilber-Ellis Diazinon 4 Spray	48
Yard Works! Diazinon Granules 1	2

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Common Chlorpyrifos Products

Brand Name	Percent of chlorpyrifos as active ingredient
3M Duratol Darkling Beetle Spray	20
Aqueous Roach & Ant Spray	.5
Ace Dursban Lawn Insect Control	1
Ace Dursban Insecticide Lawn Insect Control	1
Acme Dursban Granular Insecticide	5
Acme Dursban Granular Insecticide	1
Acme Dursban Insecticide For Lawns & Ornamentals	6.62
Affront Ant, Roach & Cricket Bait	.5
Affront FG Fine Granular Ant, Roach & Cricket Control	.5
Alco Bug Spray	.25
All Star Blitz Aqueous Residual	.5
All Star Blitz Residual Crack & Crevice	.5
Ant & Roach Spray	.5
Ant-Stop Ant Killer	.5
Ant-Stop Ant Killer Dust	1
Aqueous Residual Spray	.5
Champion Spray-on Crawling Insect Killer	.5
Chemsico Roach Control	.5
Chemsico Roach Control System	.5
Chlorpyrifos 4E AG	40.7
Chlophifos 4E AG	40.7
Chlorpyrifos 4E AG	44.7
Chlorpyrifos Pro 2	24.66
Chlorpyrifos Pro 6 Mup	61.5
Chlorpyrifos Pro 6 Mup	61.5
Chlorpyrifos Pro Termite Concentrate	42.8
Citrus Scented Flea & Tick Collar for Cats	3
Citrus Scented Flea & Tick Collar For Dogs	.8
Citrus Scented Flea & Tick Collar For Large Dogs	8
Color Guard Cat Collar	3
Color Guard Dog Collar	3
Color Guard Large Dog Collar	8
Color Guard Neon-Colored Collar for Cats	3
Color Guard Neon-Colored Collars For Dogs	8
Color Guard Neon-Colored For Large Dogs	8
CR-2 Premium Crawling Insect Killer	.5
Crack-Shot Ant & Roach Spray	.5 1/2
Crawling Insect Killer	.5
Cyren 2 TC	24.7
Cyren 2E	24.5
Cyren 4E	44.6
Cyren TC	43.2
Deep 6 Roach & Ant Killer- Country Fresh Scent	.5
Deep 6 Roach & Ant Killer- Unscented	.5
Diaphos RX Insecticide Cattle Ear Tag	10
Dichloron L.O.	3
Dorsan 2E	24.8
Dorsan 4E	44.9
Dorsan Tech	97
Drexel Chlorpyrifos 4E-AG	40.7
Drs. Foster & Smith 11 Month Flea & 6 Month Tick Collar for Cats	3
Drs. Foster & Smith 12 Month Flea & 7 Month Tick	8

Brand Name	Percent of chlorpyrifos as active ingredient
Collar for Dogs	
Dual Use E.C.	31.99
Durashield CS Controlled Release Premise Insecticide	20
Duratrol Yard Spray Concentrate	1.7
Dursban 1-12 Insecticide	12.6
Dursban 1/2G Granular Insecticide	.5
Dursban 1G Insecticide	1
Dursban 2.5 G	25
Dursban 20 MEC	20
Dursban 2E	24.8
Dursban 2E Insecticide	30
Dursban 30 SEC	30
Dursban 30 Sec Insecticide Concentrate	30
Dursban 4E Insecticide	44.9
Dursban 4E-N	44.9
Dursban 50W In Water Soluble Packets	50
Dursban 50W Insecticide	50
Dursban 50W Nursery in Water Soluble Packets	50
Dursban 75 WG	75
Dursban HF	62.5
Dursban HF Insecticide Concentrate	62.5
Dursban L.O. Insecticide	41.5
Dursban ME02	.2
Dursban ME02+ETOC	.2
Dursban ME04 Microencapsulated Insecticide	.4
Dursban ME20 Microencapsulated Insecticide	.20
Dursban NXS05	.5
Dursban 0.74%+32-4-6 Fertilizer	.74
Dursban Pro	23.5
Dursban R	99
Dursban R Insecticidal Chemical	99
Dursban TC	44.9
Dursban Turf Insecticide	44.9
Dursban W	50
Dursban W Insecticidal Chemical	50
Dursban WB05 III	.5
Dursban WB05 Insecticide	.5
Dursban XP	.99
Dursban XP	99
EasyKill Dursban Insect Killer Granules	1
Eliminator Ant, Flea, Tick & Grub Killer Granules	.5
Eliminator Dursban Insect Killer Granules	1
Eliminator Dursban Insect Spray	6.7
Eliminator Multi-Purpose Insect Killer Ready-To-Spray	6.7
Empire 20	20
Empire 20 Microencapsulated Insecticide	20
Enforcer Ant & Insect Barrier Treatment II	.5
Enforcer Ant & Roach Home Pest Control III	.2
Enforcer Exterminator Plus Mosquito & Flying Insect Killer	1.7
Enforcer Flea Spray For Yards Concentrate III	1.7
Enforcer Home Pest Control XI	.2
Enforcer Mosquito & Flying Insect Killer	1.7
Enforcer Roach Killing Gel	.5
Equity	23.5
Estate	22

Brand Name	Percent of chlorpyrifos as active ingredient
Exterminator's Choice Instant Roach & Ant Killer	.2
Flea Stop 11 Month Metered Release Flea and Tick Collar for Cats	.3
Flea Stop 12 month Metered Release Flea and Tick Collar For Large Dogs	.8
Flea Stop 12 Month Metered Release Flea and Tick Collar for Medium Dogs	.8
Flea-B-Gon Flea and Tick Killer Indoor & Outdoor Spray	.5
Flea-B-Gon Outdoor Flea & Tick Killer	5.3
Flea-B-Gon Outdoor Flea & Tick Killer	4.38
Grant's Kills Ants & Spider Killer	.5
Grant's Kills Ants Insect Granules	.5
Green Light Ant Killer Concentrate	6.6
Green Light Borer Killer II	12.9
Green Light Double Dursban Granules	1
Green Light Dursban Granules	.5
Green Light Fire Ant Killer II	1
Green Light House Plant Spray II	.06
Green Light Many Purpose Dursban Concentrate II	6.6
Green Light Ready-To-Use Whitefly & Mealybug Spray	.06
Green Light Termite & Insect Pest Killer	12.6
Green Thumb Dursban	6.6
Green Thumb Dursban Lawn Insect Control	1
Green Thumb Home Pest Insect Killer	5
Greenview Bug Out	5
Gustafson Lorsban 30 Flowable	30
Gustafson Lorsban 50-SL	50
Hartz Control Pet Control Care System Yard & Kennel Spray	1.7
Home Defense Indoor & Outdoor Insect Killer	5
Home Defense Indoor & Outdoor Insect Killer 2	.5
Home Defense Ortho-Klor Insect & Termite Killer	12.6
Hopkins Lawn Granules	.5
Hot Shot Maxattrax Roach Bait	.5
Hot Shot Macattrax Ultra Roach Bait	.5
Insecta	.86
Insecta for Manholes	.86
Insecta Perimeter Spray	.86
Kill Zone Ant & Roach Killer	.5
Kill Master II	.2
L.O. Sect	.3
Landscaper Lawn Fertilizer with Insect Control	.7
Lassie Flea & Tick Collar For Dogs	.8
Lentrek 6	62.5
Lentrek 6 Insecticidal Concentrate	62.5
Lo-Ban	.3
Lock-On Insecticide	22.9
Lock-On Insecticide	22.9
Longs Ant & Roach Killer	.5
Lorsban 15G Granular Insecticide	15
Lorsban 15G Granular Insecticide	15
Lorsban 30 Flowable	30
Lorsban 4E-HF	41.7
Lorsban 4E-SG	44.9
Lorsban 50-SL	50
Lorsban 50-W	50

Brand Name	Percent of chlorpyrifos as active ingredient
Lorsban 50W in Water Soluble Packets	50
Lorsban 50W Wet Table Powder Insecticide	50
Lorsban F	97
Lorsban F Insecticidal Chemical	97
Lorsban-4E	44.9
Lorsban-4E	41.7
Maxide Ready-To-Use Ant, Roach & Spider Killer	5
Maxide Ready-To-Use Dursban Granules	1
MEC Chlorpyrifos Livestock Premise Spray Concentrate	20
Methoprene/Chlorpyrifos Combination Collar for Dogs	8
Misty Aqueous Residual Spray	5
Misty Crack & Crevice Residual Spray With Dursban	.5
Misty Crack & Crevice Residual Spray with Dursban	5
Misty Residual Insecticide with Dursban	.5
Mosquitomist One Ulv	13.624
Mr. Scott's Pest Control	.5
Next Day Brand Lawn Insect Killer	1.7
Nu-Mark 2000 Nu-Method Ant & Roach Killer	.5
Nufos 15G	15
Nufos 4E	44.2
Nufos 4E SG	44.2
Ortho Borer & Leaf Miner Spray	12.6
Ortho Borer & Leaf Miner Spray 1	10.7
Ortho Dursban Lawn & Garden Insect Control	1
Ortho Dursban Lawn Insect Spray	5.3
Ortho Dursban Lawn Insect Spray	4.38
Ortho Dursban Ready-Spray Outdoor Flea & Tick Killer	5.3
Ortho Dursban Ready-Spray Outdoor Flea & Tick Killer 1	4.38
Ortho Lock 'N' Spray Dursban Lawn Insect Spray 1	4.38
Ortho Ortho-Klor Soil Insect & Termite Killer	12.6
Ortho-Klor Ant Killer Dust	1
Ovitrol Plus II Complete Flea & Tick Collar For Dogs and Puppies	8
P-D 5 Residual Insecticide Intermediate	.5
Power House Ant & Roach Killer	.5
Prentox Dursban ½ G Granular Insecticide	
Prentox Dursban 2.32 Granular Insecticide	2.32
Prentox Dursban 2E Insecticide	24.6
Prentox Dursban 4E Insecticide	44.8
Prescription Treatment Brand Duraguard ME Microencapsulated Insecticide	20
Prescription Treatment Brand Duraplex TR Micro Total Release Insecticide	8
Prescription Treatment Brand Duration Chlorpyrifos Capsule Suspension Formula	20
Prescription Treatment Brand Engage Crack & Crevice Pressurized Residual Formula 1	.5
Prescription Treatment Brand Intern Crack & Crevice Pressurized Residual Formula	99.5
Professional Turf Insecticide	44.9
Proturf Insecticide III	1.34
Pyrinex Chlorpyrifos Insecticide	97
Raid Ant & Roach Home Insect Killer Formula II	.5
Raid Ant Baits	.03
Raid Flea Killer Plus Yard Spray	1.7
Raid Liquid Ant & Roach Killer Formula 1	.25

Brand Name	Percent of chlorpyrifos as active ingredient
Raid Liquid Roach & Ant Killer Formula I	.25
Raid Max Extra Large Roach Bait	.5
Raid Max Roach Bait for Large Roaches	.5
Raid Outdoor Flea Killer	3.81
Raid Roach Baits	.5
Raid Wasp & Hornet Killer Formula XII	.25
Raid Wasp & Hornet Killer ND	.25
Rainbow Fire Ant Killer	.5
Rainbow Multi-Bug II (with Dursban) 4340	.5
Ralph's Ant & Roach Killer Country Scent	.5
Ralph's Ant & Roach Killer Outdoor Fresh	.5
Releve Pet Protection System Yard and Kennel Spray	1.7
Rid-A-Bug Flea & Tick Killer	.5
Roach & Ant II Crack & Crevice Residual Spray with Dursban	.5
Roach & Ant II Crack & Crevice Residual with Dursban	.5
Roach & Ant Killer	.5
Scratchex Flea & Tick Collar for Cats	.3
Scratchex Flea & Tick Collar for Dogs	.8
Sniper Insecticide	.5
Spartan Wasp & Hornet Killer II	.25
Spectracide Power Bait Roach Bait	.5
SSS Crack & Crevice Residual Spray with Dursban	.5
State Foamicide	.5
Strike Ant, Flea, Tick & Grub Killer Granules	.5
Strike Dursban Insect Killer	6.7
Strike Dursban Insect Killer Granules	1
Strike Dursban Insect Killer Ready-To-Spray	6.7
StrikeForce HPX-20 Residual with Dursban	.5
Strikeforce II Residual with Dursban	.5
Sungro Buggone II Residual Insecticide	.5
Sungro Combo Water Base	.5
Sungro Dursbo	.5
Sungro Residue DU	.5
Tiny Tiger Flea & Tick Collar for Cats	97
Tomic Du-Py Residual Roach Spray	.5
Trugreen by Chemlawn Insect Control + Lawn Fertilizer	.74
Ultracide	.86
ULV Mosquito Master 42	12
Unicorn (Termin-Chlor) Termini-Treat Termite Concentrate	12.6
Unicorn Dursban 1-12 Insecticide	12.6
United Horticulture Supply Dursban 2 Coated Granules Insecticide	41.2
United Horticulture Supply Professional Turf Products Dursban TNP	41.2
Vertagreen Turf Food With Dursban	.42
Walgreen's Ant & Roach Killer	.5
Walgreen's Ant & Roach Killer Country Spring Scent	10
Warrior Insecticide Cattle Ear Tags	
Wasp-A-Foam	.5
Waxie Bug-Off Spray Residual Insecticide	
Y-TEX Max-Con Insecticide Ear Tags	.5
Zema 11-Month Collar for Dogs	8
Zep Commercial Ant & Insect Barrier Treatment	.5
Zep Commercial Mosquito, Flying & Crawling Insect Killer	1.7

Brand Name	Percent of chlorpyrifos as active ingredient
Zep Commercial Ready-To-Use Pest Control	.2
Zep Commercial Roach Killing Gel	5
Zep Flush N' Kill	.5
Zep Hit Man Spray Insecticide	.5
Zodiac 11 Month Flea Collar for Dogs	.8
Zodiac Fleatrol Yard & Kennel Spray Concentrate	7
Zodiac Power Band Flea & Tick Collar for Dogs	8
Zodiac Veterinarian Quality Fleatrol Carpet & Upholstery Aerosol Spray	.5
Zodiac Veterinarian Quality Fleatrol Flea & Tick Collar for Dogs	8
Zodiac Veterinarian Quality Fleatrol Flea & Tick Collar for Puppies	8
Zodiac Yard & Kennel Spray Concentrate	7