



FUMIGATION MANAGEMENT PLAN

DRAFT FOR BURROWING PESTS

All phosphine labels now require that the certified applicator be responsible for developing and following a Fumigation Management Plan (FMP). The FMP is intended to ensure the safety of the applicators, site employees, the surrounding community, and the environment. It is also designed to ensure a legal and effective fumigation. The FMP is a written record that provides specific logistical, performance and contact information to help “characterize” the fumigation site. The FMP is meant to be somewhat prescriptive, yet flexible enough to allow the experience and expertise of the fumigator to make changes based on circumstances, which may exist in the field.

Prior to writing a FMP, carefully read and review both the pesticide label and the Applicator’s Manual for the fumigant product to be used. Assemble and organize all of the information needed to develop a FMP. Preparation is the key of any successful fumigation. Once the FMP has been written, a copy of this information must be given to the appropriate company officials (supervisors, foreman, safety officer, etc.) in charge of the site.

Finally, before any fumigation begins you must be familiar with and comply with all applicable federal, state, and local regulations. The success of the fumigation is not only dependent on your ability to do your job but also upon carefully following all rules, regulations, and procedures required by governmental agencies.

Follow the “Guidance for Preparing of a Fumigation Management Plan” contained in the Applicator’s Manual for the specific phosphine product you will be applying. A checklist is provided in this manual to help you take into account factors that must be addressed prior to performing all fumigations. It emphasizes safety steps to protect people and property. The checklist is general in nature and cannot be expected to apply to all types of fumigation situations. It is to be used as a guide to prepare the required plan. Each item must be considered. However, it is understood that each fumigation is different and not all items will be necessary for each fumigation site.

FUMIGATION MANAGEMENT PLAN (FMP)

“Burrowing Pests”

Company: John’s Landscape Services
Address: 123 Main St.
Los Angeles, CA 93845
Telephone: 213-234-5678

A. PRELIMINARY PLANNING & PREPARATION

1. Purpose of Fumigation: Elimination of vertebrate pests
 - Pocket gopher
 - Ground squirrel
 - Prairie dog
 - Mole
 - Vole
 - Chipmunk
 - Norway rat

2. Type of Fumigation: Outdoor area
 - Closed-burrow system (pocket gophers, etc.)
 - Open-burrow system (ground squirrels, prairie dogs, etc.)

3. Read and review with the facility management and appropriate employees any existing FMP (Fumigation Management Plan), M.S.D.S. (Material Safety Data Sheet), product label, Applicator’s Manual and other relevant safety procedures.

4. Obtain or develop a site-drawing (see Appendix No. 1) of the facility layout. This drawing is used to make “site-specific” notes, as needed. Attach this drawing to the FMP and update it yearly, or prior to each fumigation. Keep it on file with the FMP.

5. Inspect the site to determine its suitability for fumigation. Consult previous records (FMP) for treatment history information.

Date of site inspection: March 20, 2004

Name of inspection personnel: Larry Jackson

6. Facility / Owner / Manager:

Facility: Los Angeles Municipal Golf Course

Facility Address: 146 Blue Canyon Road
Los Angeles, CA 90056

Facility Manager: Tom Smith

Daytime telephone: 213-456-5566

Night telephone: 213-445-0088

Mobile telephone: 213-995-5522

Pager number: 45670

7. Certified Applicator (Fumigator) in charge:

Name: Larry Jackson

Company: John's Landscape Services

Certification No.: A-445568

Daytime telephone: 213-789-0044

Night telephone: 213-997-2345

Mobile telephone: 213-765-1267

Pager number: 9977

8. Emergency Information:

Hospital Emergency: 213-990-3378

(for first aid information in case of exposure)

Fire Dept.: 213-679-3355 (or 911)

Police Dept.: 213-567-4467 (or 911)

Poison Control: 800-221-1245

Chem Trec: 800-425-8765

Registrant of Fumigant: 252-237-7923 (Pestcon Systems, Inc.)

Other: _____

9. Exposure time considerations:
(consult label instructions)

Fumigant to be used: Aluminum phosphide (*FUMITOXIN*)

Tablets (3.0 grams / tablet)

Pellets (0.6 grams / pellet)

Ambient temperature: 70 degrees F

(burrow / tunnel system)

Minimum fumigant

Exposure at measured

Temperature: 3 days (72 hours) - Tablets

Fumigation date / time of application: March 23, 2004 8:00-10:00 a.m.

Recommended label dosage:

Tablets (3.0 grams / tablet) = 2-4 tablets per tunnel or burrow

Pellets (0.6 grams / pellet) = 10-20 pellets per tunnel or burrow

Dosage used:

Tablets: 2 / tunnel or burrow

Pellets: _____ / tunnel or burrow

Proximity of inhabited structures from treated

tunnel / burrow systems: > 15 ft. (5 meters)

B. PERSONNEL

1. Scheduled personnel for the fumigation. Product labeling requires that at least one (1) state certified / licensed pesticide applicator to be present and on site to oversee all phases of the fumigation procedure.

List of personnel scheduled for chemical treatment:

1. Larry Jackson (Certified applicator – on premises)
2. Tom Smith
3. Bob Carter

2. Instructed all personnel on the following:

- a. To report any accident and / or incidents related to exposure, provide a telephone number for emergency response reporting.
- b. To report to proper authorities any theft of fumigant and / or equipment related to the fumigation.
- c. The established meeting area for all personnel in case of an emergency.

C. MONITORING

Current E.P.A. approved labeling does not require the use of respiratory protection equipment if phosphine concentrations do not exceed the 8-hour Time Weighted Average (TWA) of 0.3 ppm or the 15-minute Short Term

Exposure Limit (STEL) of 1.0 ppm. Documented worker exposure studies conducted during burrowing rodent applications with aluminum phosphide confirm that exposure levels were routinely and consistently below the TWA and STEL levels. Therefore, no respiratory protection is required as long as fumigation operations are conducted according to current label directions. These operations include, (but not limited to) personnel initially entering chemical storage areas, changing flasks, riding in the truck cabs, or making applications of aluminum phosphide tablets or pellets.

D. NOTIFICATION

1. Confirm that the appropriate local authorities (fire departments, police departments, etc.) have been notified as per label instructions, local ordinances, or instructions of the client.
2. Prepare written procedure (“Emergency Response Plan”), which contains explicit instructions, names, and telephone numbers so as to be able to notify local authorities if phosphine levels are exceeded in an area that could be dangerous to bystanders and / or domestic animals.

E. SEALING

Closed-Burrow Systems:

Following application of label recommended dosage of aluminum phosphide to the tunnel main runway, a tight seal should be used to close the probe hole by using a clod of soil or a soil plug to cover the hole or by using the heel of your shoe to push sod and / or soil over the surface opening. If probe hole is more than one (1) inch in diameter, place crumbled paper in the hole before closing it with soil and / or sod.

Open-Burrow Systems:

Following application of label recommended dosage of aluminum phosphide to the burrow openings, pack each treated entrance with crumpled paper and shovel soil to completely cover the paper. Using crumpled paper will prevent soil from covering the tablets or pellets and slowing down their action. Rocks, clods of soil, cardboard, etc. may be used for this purpose. Be sure to seal all untreated entrances by shoveling and packing soil and / or sod to completely seal the opening.

F. APPLICATION PROCEDURES & FUMIGATION PERIOD

1. Plan carefully and apply the fumigant in accordance with the label requirements.
2. Protective Clothing: Wear dry gloves of cotton or other material when applying aluminum phosphide tablets or pellets, or if contact with fumigant dust is likely. Gloves should remain dry during use.
3. Wash hands thoroughly after handling aluminum phosphide tablet or pellet products.
4. Aerate used gloves and other clothing that may be contaminated in a well ventilated area prior to laundering.
5. Use Restrictions:
 - a. Aluminum phosphide may be applied to underground burrow systems located in non-crop areas, crop areas, or orchards occupied by pocket gophers and other burrowing pests as listed on the pesticide label.
 - b. All treatments for control of the target pest species in burrows must be made outdoors. Tablets or pellets must be applied directly to underground burrow systems. Before using aluminum phosphide tablets or pellets for burrowing pest control, read the applicable restrictions under Environmental Hazards, Endangered Species and Special Local Restrictions in the Applicator's Manual.
 - c. Aluminum phosphide products may be used out-of-doors only for control of burrowing pests. **THIS PRODUCT MUST NOT BE APPLIED INTO A BURROW SYSTEM THAT IS WITHIN 15 FEET (5 METERS) OF A BUILDING THAT IS, OR MAY BE OCCUPIED BY HUMANS, AND / OR ANIMALS, ESPECIALLY RESIDENCES.** Document any burrows that open under or into occupied buildings and do not apply to these burrows. In addition, check for any other source through which the gas (phosphine) may enter into occupied buildings as a result of application to burrows. If there is any way gas can move through pipes, conduits, etc., from burrows – **DO NOT TREAT THESE BURROWS.** Prior to treating a rodent burrow on property containing an inhabited structure, the applicant must provide the customer (e.g. tenant, homeowner, or property manager) with a MSDS or appropriate sections of the Applicator's Manual.
 - d. Application Directions: Use application procedures appropriate to the type of burrow system being treated. **DOSAGE RATES MUST NOT BE EXCEEDED UNDER ANY CIRCUMSTANCES.**

PEST SPECIES WITH “CLOSED-BURROW” SYSTEMS:

(pocket gophers, etc.)

Locate the main underground runway by probing with a smooth-sided rod 12-18 inches from a fresh mound. For pocket gophers, begin probing on the flat side of the mound. A sudden reduction in soil resistance to the probe indicates that the main runway has been located. Once the main runway is located, remove the probe and apply 2-4 tablets or 10-20 pellets through the probe hole. Adjust treatment rate according to the level of soil moisture, using more tablets or pellets if the soil is relatively dry. Do not treat if soil is extremely dry or if there are no signs of recent gopher activity.

PEST SPECIES WITH “OPEN-BURROW” SYSTEMS:

(ground squirrels, prairie dogs, etc.)

Locate all entrances to each burrow system. Treatment of more than one (1) entrance in a system is often desirable as systems often overlap and are not defined. Treat all entrances except for those entrances you are not sure connect to already treated entrances. Insert 2-4 tablets or 10-20 pellets into each entrance to be treated. Use the lower rates for smaller burrows and / or when soil moisture is high. Use higher rates for larger burrow systems and when soil moisture is relatively low.

Environmental Hazards:

Aluminum phosphide products are very highly toxic to wildlife. Many non-target organisms exposed to phosphine gas in burrows will be killed. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Do not contaminate water by cleaning of equipment or disposal of wastes.

Endangered Species Restrictions:

The use of aluminum phosphide in a manner that may kill or otherwise harm an endangered or threatened species or adversely modify their habitat is a violation of Federal laws. Before using this pesticide on range and / or pastureland you must obtain the PESTICIDE USE BULLETIN FOR PROTECTION OF ENDANGERED SPECIES for the county in which the product is to be used. This bulletin is available from your County Extension Agent, State Fish and Game Office, or your pesticide dealer. Use of this product in a manner inconsistent with the PESTICIDE USE BULLETIN FOR PROTECTION OF ENDANGERED SPECIES is a violation of Federal Laws.

G. POST APPLICATION PROCEDURES

1. Return all unused fumigant product to an approved, locked chemical storage area.

2. Re-inspection / Re-treatment

Closed-burrow systems:
(pocket gophers, etc.)

Two days after treatment, you may check area for residual pest activity by poking holes in the main runways of burrow systems, flagging holes and inspecting them two (2) days later. You should retreat all reclosed systems, on both sides of the plug.

Open-burrow systems:
(ground squirrels, prairie dogs, etc.)

Inspect treated areas 1-2 days following treatment for signs of residual activity of target species. Treat all reopened burrows in the same manner as prescribed for application / treatment.

COMPLIANCE CHECK LIST

	<u>YES</u>	<u>NO</u>
<u>PRELIMINARY PLANNING & PREPARATION:</u>		
1. Read & reviewed existing FMP, MSDS, product label, Applicator's Manual, and other relevant safety procedure with appropriate personnel.	<input type="checkbox"/>	<input type="checkbox"/>
2. Develop a site drawing of the facility layout.	<input type="checkbox"/>	<input type="checkbox"/>
<u>RECORD KEEPING:</u>		
1. Name & address of Certified Applicator is recorded.	<input type="checkbox"/>	<input type="checkbox"/>
2. Specific site of application recorded.	<input type="checkbox"/>	<input type="checkbox"/>
3. Is the fumigation treatment conducted when the ambient temperature is 40 degrees F or more.	<input type="checkbox"/>	<input type="checkbox"/>
4. Local officials provided with safety information.	<input type="checkbox"/>	<input type="checkbox"/>
<u>CERTIFIED APPLICATOR:</u>		
1. Certified applicator physically present during application:	<input type="checkbox"/>	<input type="checkbox"/>
2. Certified applicator is certified in required category:	<input type="checkbox"/>	<input type="checkbox"/>
<u>NOTIFICATION:</u>		
1. Confirmation that the appropriate local authorities have been notified as per label instructions, local	<input type="checkbox"/>	<input type="checkbox"/>

ordinances, or instructions of the client.

2. Confirmation that a written procedure (“Emergency Response Plan”) has been properly prepared and communicated to appropriate personnel.

APPLICATION & FUMIGATION PERIOD:

1. Confirmation that the fumigant was applied in accordance with label requirements. (dosage, exposure period, temperature, etc.)
2. Confirmation that protective clothing was properly used.
3. Confirmation that personnel handling fumigant thoroughly washed their hands following treatment.
4. Confirmation that proper distance was maintained between treated burrow / tunnel systems and any inhabited structures on site.

SEALING PROCEDURES:

1. Properly performed sealing of burrow / tunnel systems following application of fumigant.

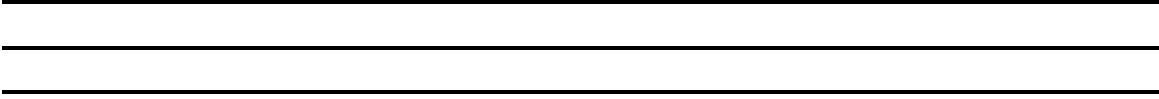
POST APPLICATION PROCEDURES:

1. Confirmation that Post Application Procedures were completed correctly

CHEMICAL – PRODUCT STORAGE:

1. Storage: Under lock & Key
 Posted as Pesticide Storage
 Dry storage
 Well-ventilated area
 Away from heat
2. Not Stored:
 Humans & Animals Reside
 Food / Feed Stored

Comments:



APPENDIX NO. 1

SITE DRAWING