

**FUMIGATION MANAGEMENT PLAN (FMP)**

**BURROWING PESTS**

**PURPOSE:** 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. This FMP is a written record that provides specific logistical, performance and contact information to help “characterize” the fumigation site. This 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 this FMP, the pesticide label and the Applicator’s Manual for the fumigant product to be used were carefully read and reviewed. Once this FMP was written, a copy of this information was given to the \_\_\_\_\_.

Prior to any fumigation, those employees involved shall become familiar with, and comply with all applicable federal, state, and local regulations. The success of any fumigation is dependent on adequate training, compliance with all laws, regulations, and the label as enforced by governmental agencies.

**FUMIGATION MANAGEMENT PLAN (FMP)**

**“Burrowing Pests”**

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

**A. PRELIMINARY PLANNING & PREPARATION**

1. Purpose of Fumigation: Elimination of vertebrate pests

- Pocket gopher
- Ground squirrel
- Mole
- Vole
- Chipmunk
- Norway rat

2. Type of Fumigation: Outdoor area

- Closed-burrow system (pocket gophers)
- Open-burrow system (ground squirrels)

3. Read and review with the facility management and appropriate employees this FMP (Fumigation Management Plan), M.S.D.S. (Material Safety Data Sheet), product label,

appropriate Applicator's Manual, and other relevant safety procedures prior to fumigation.

4. Review site-drawing or aerial photo of the facility layout. Maintain on file with this FMP.

5. The site was inspected and is suitable for burrow fumigation.

Date of site inspection:

Name of inspection personnel:

History of treatments:

Notice of Intent (NOI) and  
Use Reports on file.

6. Facility / Owner / Manager: \_\_\_\_\_

Facility: \_\_\_\_\_

Department Address: \_\_\_\_\_

Facility Manager: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Night telephone: \_\_\_\_\_

Mobile telephone: \_\_\_\_\_

Pager number: \_\_\_\_\_

Department Director: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

7. Certified Applicator (Fumigator) in charge: \_\_\_\_\_

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Certification No.: \_\_\_\_\_

Daytime telephone: \_\_\_\_\_

Night telephone: \_\_\_\_\_

Mobile telephone: \_\_\_\_\_

Pager number: \_\_\_\_\_

8. Emergency Information:

Hospital Emergency: \_\_\_\_\_

Fire Dept.: \_\_\_\_\_

Sheriff Dept.: \_\_\_\_\_

Poison Control: (800)-221-1245

Chem Trec: (800)-425-8765

Registrant of Fumigant: ( \_\_\_\_ )- \_\_\_\_ - \_\_\_\_ ( \_\_\_\_\_ )

Other: \_\_\_\_\_

9. Exposure time considerations:

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: Refer to NOI.

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: \_\_\_\_\_ / tunnel or burrow  
Pellets: \_\_\_\_\_ / tunnel or burrow

Proximity of inhabited structures from treated  
tunnel / burrow systems:             $\geq$             ft. (            meters)

## **B. PERSONNEL**

List of personnel scheduled for fumigation:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

1. Personnel Instructions:

- a. Report any accident and /or incidents related to exposure. Telephone number for emergency response reporting provided.
- b. Report to proper authorities any theft of fumigant and /or equipment related to the fumigation.
- c. Establish a 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. There are no local regulations requiring prior notification to appropriate local authorities (fire departments, police departments, etc.).
2. **Emergency Response Plan :**
  - a) Refer to Section 8 for emergency names, and telephone numbers to notify local authorities if phosphine levels are exceeded in an area that could be dangerous to bystanders and /or domestic animals.
  - b) Secure the area and prohibit the entry or presence of unauthorized individuals.

#### **E. SEALING**

##### Closed-Burrow Systems (gopher):

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, small rock 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 a small rock, soil and /or sod.

##### Open-Burrow Systems (ground squirrel):

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 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 ? FEET (? METERS) OF A BUILDING THAT IS, OR MAY BE OCCUPIED BY HUMANS, AND / OR ANIMALS, ESPECIALLY RESIDENCES. Document on the NOI 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, moles)

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, Norway rat 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):

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):

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

YES

NO

### PRELIMINARY PLANNING & PREPARATION:

- |   |                          |                          |
|---|--------------------------|--------------------------|
| 1. FMP, MSDS, product label, product Applicator's Manual, and other relevant safety procedures have been read and/or review with appropriate personnel. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Aerial photo for site of the facility layout.  | <input type="checkbox"/> | <input type="checkbox"/> |

### RECORD KEEPING:

- |  |                          |                          |
|--|--------------------------|--------------------------|
| 1. Name & address of Certified Applicator is recorded.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Specific site of application recorded (NOI).  | <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"/> |

### CERTIFIED APPLICATOR:

- |  |                          |                          |
|--|--------------------------|--------------------------|
| 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"/> |

### NOTIFICATION:

- |  |                          |                          |
|--|--------------------------|--------------------------|
| 1. _____ have been notified of pending fumigation.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Emergency Response Plan has been properly prepared and communicated to appropriate personnel. | <input type="checkbox"/> | <input type="checkbox"/> |

### APPLICATION & FUMIGATION PERIOD:

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

### SEALING PROCEDURES:

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

POST APPLICATION PROCEDURES:

1. Confirmation that Post Application Procedures 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:

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**APPENDIX NO. 1**

**SITE DRAWING**

**See site aerial photo on file for each site.**