

US EPA ARCHIVE DOCUMENT

SAMPLE
2010 SOIL FUMIGANT MANAGEMENT PLAN
(DAZOMET PRODUCTS)

FMP Elements:

- I. Certified Applicator Supervising the Fumigation
- II. General Site Information
- III. Owner/Operator of Application Block
- IV. Recordkeeping
- V. General Application Information
- VI. Emergency Response Plan
- VII. Communication Between Applicator, Owner/Operator and Other On-site Handlers
- VIII. Handler Information
- IX. Tarps
- X. Soil Conditions
- XI. Weather Conditions
- XII. Posting Signs – Fumigant Treated Area
- XIII. Air Monitoring Plan
- XIV. Good Agricultural Practices (GAPs)

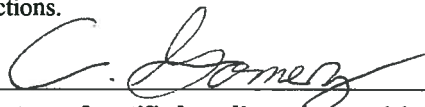
2010 SOIL FUMIGANT MANAGEMENT PLAN (DAZOMET PRODUCTS)

The below text fields will expand as the text is entered. After completing each field, use Tab key to go to next text field or check box.

I. Certified Applicator Supervising the Fumigation			
Name: Carlos Gomez	Phone number: (800) 986-4521	License and/or certificate number: 23GH4	☒ Commercial applicator ☐ Private applicator
Employer name: Florida Fumigation Co.	Employer address: 1562 Burke Ave., Troy, FL 29892		
II. General Site Information			
Application block/field location (e.g., county, township-range-section quadrant), address including zip code, or global positioning system (GPS) coordinates: Fumigating the fairway of Hole 12.			
III. Owner/operator of Application Block			
Name: Chip Smith	Address: Smith Golf Course 3249 Fairway Lane, Miami, FL 33193		Phone number: (800) 852-4521
IV. Recordkeeping			
☒ The owner/operator of the application block has been informed that he/she as well as the certified applicator must keep a signed copy of the site-specific FMP and the post-application summary for 2 years from the date of application.			
V. General Application Information			
Target application date/window: November 2, 2010	EPA Registration Number: 1234-567	Fumigant Product Name: Dazomet Fumigant	
Application method: ☒ Incorporated ☐ Surface	Application Rate (lbs or gallons of product/treated acre): 300 lbs per acre	Injection Depth (inches): 6	Application Block Size (acres): 1
VI. Emergency Response Plan			
Description of evacuation routes (a diagram or drawing may be attached to the FMP): Everyone should move upwind to the closest intersection.			
☐ Check here if diagram or drawing is attached			
Locations of telephones: Cell phone to be kept with certified applicator.			
Contact information for first responders: Silver Hill Fire Department, 222 Main St. Silver Hill, FL 29892 (800) 555-8877	Local/state/federal contacts: FDACS 3125 Conner Blvd, Tallahassee, FL 32302 (850) 487-0532		Other contact information for emergencies: 911
Emergency procedures/responsibilities in case of an incident, equipment/tarp/seal failure, complaints or elevated air concentration levels suggesting potential problems, or other emergencies: All handlers must report any problems to the certified applicator supervising the application, who will decide if additional action must be taken.			
VII. Communication Between Applicator, Owner/Operator, and Other On-site Handlers			
☒ Pesticide product labels and material safety data sheets are at the application site and available for employees to review.			
Will the certified applicator be at the application site during all handler activities that take place after the application is complete until the entry restricted period expires? ☒ Yes ☐ No			
If no, describe how the certified applicator will share the label requirements with owner/operator and/or handlers who will be present at the application site after the application is complete until the entry restricted period expires.			
VIII. Handler Information (use EPA's Microsoft Word or Acrobat Adobe version of the handler information template)			
☒ Information for all handlers is attached to the FMP			
Comments/notes:			
IX. Tarps (check here if section is not applicable ☒)			
Brand name and tarp manufacturer:	Lot Number: Part Number:	Batch Number:	Thickness:
Schedule for checking tarps for damage, tears, and other problems:			
Maximum time following notification of damage that the person(s) responsible for tarp repair will respond:			
Minimum time following damage that tarp will be repaired:		Minimum size of damage that will be repaired:	
Other factors used to determine when tarp repair will be conducted:			
Equipment/methods used to perforate tarps: ☐ mechanical: ☐ hand:			
Schedule and target dates for perforating tarps:			
Equipment, schedule and target dates for removing tarps:			
X. Soil Conditions			
Soil texture/clay content: Clay loam			
Organic Content: ☒ < 1% ☐ ≥ 1%-2% ☐ ≥ 2%-3% ☐ > 3%			

Soil Temperature: Has the air temperature been above 100 °F in any of the 3 days prior to application? ☐ Yes or ☒ No If yes, record the soil temperature measurement:		
Soil Moisture: (check the box of the method used to determine the soil moisture)		
USDA Feel and Appearance Method ☒	Instrument ☐	Other ☐
Description of soil: fine	Instrument used:	Describe method:
Percent soil moisture estimate: 50-75%	Percent soil moisture:	Percent soil moisture:
XI. Weather Conditions		
Summary of the weather on the day of the application (a printed copy may be attached to the FMP): ☐ Check here if printed copy is attached to the FMP or complete the following: Wind Speed: 3-5 mph Inversion conditions: no Air-Stagnation Advisories: no Other:		
Summary of the weather forecast during the 48-hour period following the fumigant application (a printed copy may be attached to the FMP): ☐ Check here if printed copy is attached to the FMP or complete following: Wind Speed: 3-5 mph Inversion conditions: no Air-Stagnation Advisories: no Other:		
XII. Posting Signs – Fumigant Treated Area		
Name(s) of person(s) posting Fumigant Treated Area signs: Carlos Gomez		
Treated Area Signs posting date: November 2, 2010 Treated Area Signs removal date: At most 3 days after the entry restricted period, November 10		
XIII. Air Monitoring Plan		
If monitoring indicates air concentrations greater than or equal to 6000 ppb for methyl isothiocyanate (MITC), handlers must stop work and leave the application block.		
If sensory irritation is experienced check which of the following be procedures will be followed: ☒ Intend to cease operations or ☐ Intend to continue operations with respiratory protection		
Handler Tasks to be Monitored	Monitoring Equipment	Timing
Any handlers that experience sensory irritation will be monitored.	Draeger Tube	Every 15 min.
Full Face Respirator Response Plan If either: (1) a handler experiences any sensory irritation when wearing an full face air-purifying respirator, or (2) a MITC air sample is greater than or equal to 6000 ppb, then all handler activities must cease and handlers must be removed from the application block and the following emergency plan detailed will be implemented: All handlers will leave the application block if sensory irritation is experienced while wearing full-face respirators. If practical, the equipment will be checked to make sure there are no safety failures, and repaired as necessary. If a spill has occurred, the spill will be monitored, the spill location will be isolated, and the location near the spill will be monitored to ensure people are far away enough. The certified applicator will verify that all GAPs and label instructions are being followed (equipment calibration, weather conditions, soil conditions, sealing). Handlers who resume the application after MITC is less than 6000 ppb will use full-face respirators until air monitoring indicates that concentrations are below trigger levels identified on the label. Handlers that are experiencing symptoms of exposure will get medical attention as needed. Within 1hour, air samples will be collected between the application block and any occupied building located withing 1/4 mile of the field. If any samples exceed 600 ppb or if sensory irritation is experienced, call 911.		
XIV. Good Agricultural Practices (GAPs)		
☐ Check here if applicable mandatory GAPs are attached to the FMP (this could be a copy of the label highlighting the applicable GAPs). If this box is not checked, the checklist below must be completed.		
All Applications ☒ Weather Conditions ☒ Application Restrictions		
Description of other product specific GAPs from label that will be followed: n/a		

Before beginning the fumigation, I have verified that this site-specific FMP reflects current site conditions and product label directions.


 Signature of certified applicator supervising the fumigation

10/30/10
 Date

List of Attachments:

Handler Information

Handler Name, Address, and Phone Number	Employer Name, Address, and Phone Number	Tasks Handlers are Trained and Authorized to Perform* (check number(s) from below)	PPE (check all that apply)	Respirator Information (leave blank if "no respirator" is checked under PPE)
Carlos Gomez, 456 Gator St. Miami FL 33193 (123)456-7890	Florida Fumigation Co. 1562 Burke Ave., Troy, FL 29892 (800) 986-4521	☒ 1 ☒ 2 ☒ 3 ☒ 4 ☒ 5 ☒ 6 ☒ 7 ☒ 8 ☒ 9 ☒ 10	☒ Long-sleeved shirt/long-pants, shoes, socks ☒ Chemical-resistant apron ☒ Chemical-resistant footwear and socks ☒ Protective eyewear (NOT goggles) ☒ Chemical-resistant gloves ☒ Full-face air-purifying respirator ☐ Other: ☐ No respirator PPE training date: 6/1/10	Make: Survivair Model: Opt-Fit Type: APR Style: full-face Size: small Cartridge type: Survivair Acid Gas/Organic Vapor Cartridges Fit test date: March 3, 2010 Training date: March 3, 2010 Medical date: March 3, 2010 Make: Model: Type: Style: Size: Cartridge type: Fit test date: Training date: Medical date: Make: Model: Type: Style: Size: Cartridge type: Fit test date: Training date: Medical date:
☒ The above handler has received Fumigant Safe Handling information within the past 12 months.				
*1. Loaders, drivers, tractor co-pilots, shovelers, cross-ditchers, or other direct application participants 2. Cleaning up fumigant spills (does not include emergency personnel not associated with the application) 3. Tasks with liquid contact potential 4. Installing, perforating, removing, repairing, or monitoring tarps until: -14 days after the application is complete if tarps are not perforated and removed during those 14 days, -Tarp removal is complete if tarps are both perforated and removed less than 14 days after the application, or -48 hours after tarp perforation is complete if tarps will not be removed within 14 days after application.				
Comments/notes:				

Handler Information

Handler Name, Address, and Phone Number	Employer Name, Address, and Phone Number	Tasks Handlers are Trained and Authorized to Perform* (check number(s) from below)	PPE (check all that apply)	Respirator Information (leave blank if "no respirator" is checked under PPE)
Roger Dell, 789 Sunny Ave., Miami, FL 33193 (987) 654-3210	Florida Fumigation Co. 1562 Burke Ave., Troy, FL 29892 (800) 986-4521	☒ 1 ☒ 2 ☒ 3 ☐ 4 ☐ 5 ☒ 6 ☐ 7 ☒ 8 ☒ 9 ☒ 10	☒ Long-sleeved shirt/long-pants, shoes, socks ☒ Chemical-resistant apron ☒ Chemical-resistant footwear and socks ☒ Protective eyewear (NOT goggles) ☒ Chemical-resistant gloves ☒ Full-face air-purifying respirator ☐ Other: ☐ No respirator PPE training date: 6/1/10	Make: Survivair Model: Opt-Fit Type: APR Style: full-face Size: small Cartridge type: Survivair Acid Gas/Organic Vapor Cartridges Fit test date: March 3, 2010 Training date: March 3, 2010 Medical date: March 3, 2010 Make: Model: Type: Style: Size: Cartridge type: Fit test date: Training date: Medical date: Make: Model: Type: Style: Size: Cartridge type: Fit test date: Training date: Medical date:
☒ The above handler has received Fumigant Safe Handling information within the past 12 months.				
*1. Loaders, drivers, tractor co-pilots, shovelers, cross-ditchers, or other direct application participants 2. Cleaning up fumigant spills (does not include emergency personnel not associated with the application) 3. Tasks with liquid contact potential 4. Installing, perforating, removing, repairing, or monitoring tarps until: -14 days after the application is complete if tarps are not perforated and removed during those 14 days, -Tarp removal is complete if tarps are both perforated and removed less than 14 days after the application, or -48 hours after tarp perforation is complete if tarps will not be removed within 14 days after application. 5. Taking air samples (breathing zone) 6. Handling or disposing of fumigant containers 7. Cleaning, handling, adjusting, or repairing equipment that may contain fumigant residues 8. Installing, repairing, operating, or removing irrigation equipment in the application block 9. Performing scouting, crop advising, or monitoring tasks in the application block 10. Performing other WPS handling tasks				
Comments/notes:				

SAMPLE
2010 SOIL FUMIGANT POST APPLICATION SUMMARY
(DAZOMET PRODUCTS)

Post Application Summary Elements:

General Application Information

Weather Conditions

Tarp Damage and Repair

Tarp Perforation/Removal

Complaints

Description of Incidents

Communication Between Applicator, Owner/Operator, and Other On-site Handlers

Posting Signs – Fumigant Treated Area and Buffer Zones

Other Deviations from the FMP

Attached Tables: (use EPA's Microsoft Word or Acrobat Adobe version of the table templates)

Check boxes if tables are applicable (i.e., there are changes from the FMP, or monitoring information has been recorded. Tables that are not applicable do not need to be included in the final post-application summary).

- ☒ Handler Information (for changes since the FMP)
- ☐ Respirator Cartridge Replacement
- ☒ Air Monitoring Results When Sensory Irritation Is Experienced
- ☒ Breathing Zone Air Monitoring with Direct Read Instruments

2010 SOIL FUMIGANT POST APPLICATION SUMMARY
FOR (INSERT GENERAL SITE INFORMATION FROM THE FMP): Fairway of Hole 12
(DAZOMET PRODUCTS)

(Only fill-in information if it is different from the FMP or where the label requires that measurements/information are recorded in post-application summary)

The below **text fields** will expand as the text is entered. After completing each **field**, use **Tab key** to go to next text field or check box.

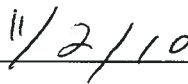
General Application Information			
Application date:		EPA Registration Number:	Fumigant Product Name:
Application method: ☐ Incorporated ☐ Surface		Application Rate (lbs or gallons of product/treated acre): 280 lbs per acre	Injection Depth (inches): Application Block Size (acres):
Weather Conditions			
Summary of the weather on the day of the application (a printed copy may be attached to the post-application summary): ☐ Check here if printed copy is attached to the post-application summary or complete the following: Wind Speed: 1-2 Inversion conditions: Yes Air-Stagnation Advisories: Other:			
Summary of the weather during the 48-hour period following the fumigant application (a printed copy may be attached to the post-application summary): ☐ Check here if printed copy is attached to the post-application summary or complete following: Wind Speed: Inversion conditions: Air-Stagnation Advisories: Other:			
Tarp Damage and Repair (check here if section is not applicable ☒)			
Location and size of tarp damage:			
Description of tarp/tarp seal/tarp equipment failure:			
Date and time of tarp repair:			
Additional comments or other deviations from FMP (if applicable):			
Tarp Perforation/Removal (check here if section is not applicable ☒)			
Description of tarp removal procedures (if different than in the FMP):			
Date tarps were perforated:		Date tarps were removed:	
Complaints (check here if section is not applicable ☐)			
Person filing complaint: ☒ On-site handler ☐ Person off-site		If off-site person, name, address, and phone number of person filing complaints:	
Description of control measures or emergency procedures followed after complaint: Handler experienced eye irritation. Put respirator on and discovered a rototiller malfunction. Fixed rototiller, measured air concentrations 15 min apart, then removed respirator.			
Additional comments:			
Description of Incidents (check here if section is not applicable ☐)			
Description of incident, equipment failure, or other emergency: Inversion		Date and time: November 2, 2010, 8:15am	
Description of emergency procedures followed: Application was stopped. On-site personnel were told to move upwind and meet at the golf course parking lot. Certified applicator made sure all handlers were out of the application block, the drove downwind to ensure there were no bystanders. Checked every hour for wind speed and sensory irritation downwind. By noon, wind speed was 5 mph and no sensory irritation was experienced, so application was resumed.			
Was the incident reported to the state agency? ☐ Yes ☒ No			
Additional comments:			
Communication Between Applicator, Owner/Operator, and Other On-site Handlers (check if no changes from the FMP ☐)			
Was the certified applicator at the application site during all handler activities that took place after the application was completed until the entry restricted period expired? ☐ Yes ☒ No		Date contacted: Nov 2, 2010	
If no, list the names and phone numbers of persons contacted: Jane Smith (845) 309-5309			
Comments/notes (any deviation from FMP regarding how the information was shared): Certified applicator was not available to wet soil for entire 72 hour period following application. Jane Smith water soil from Nov. 5-8.			
Posting Signs – Fumigant Treated Area and Buffer Zone			
Date(s) of Fumigant Treated Area sign removal: November 8, 2010		Date(s) of Buffer Zone sign removal: (check here if not applicable ☒)	
Description of deviations from FMP (if applicable):			
Handler Information for Changes Since the FMP			
Have there been any changes to the handler information since the FMP was completed (including handlers that were on-site that were not listed in FMP)? ☒ Yes ☐ No If yes, the updated handler information must be attached to the post application summary (use EPA's			

Other Deviations from the FMP

Additional comments/notes:

I have verified that this post application summary reflects the actual site conditions that occurred during the fumigation and is an accurate description of deviations from the FMP (if applicable).





Signature of certified applicator that supervised the fumigation

Date

List of Attachments: **See checklist on page 1.**

Handler Information

Handler Name, Address, and Phone Number	Employer Name, Address, and Phone Number	Tasks Handlers are Trained and Authorized to Perform* (check number(s) from below)	PPE (check all that apply)	Respirator Information (leave blank if "no respirator" is checked under PPE)
Jane Smith, 123 Palm St., Miami FL 33193 (845) 309-5309	Florida Fumigation Co. 1562 Burke Ave., Troy, FL 29892 (800) 986-4521	☒ 1 ☒ 2 ☒ 3 ☒ 4 ☒ 5 ☒ 6 ☒ 7 ☒ 8 ☒ 9 ☒ 10	☒ Long-sleeved shirt/long-pants, shoes, socks ☒ Chemical-resistant apron ☒ Chemical-resistant footwear and socks ☒ Protective eyewear (NOT goggles) ☒ Chemical-resistant gloves ☒ Full-face air-purifying respirator ☐ Other: ☐ No respirator PPE training date: 6/1/10	Make: Survivair Model: Opt-Fit Type: APR Style: full-face Size: small Cartridge type: Survivair Acid Gas/Organic Vapor Cartridges Fit test date: March 3, 2010 Training date: March 3, 2010 Medical date: March 3, 2010 Make: Model: Type: Style: Size: Cartridge type: Fit test date: Training date: Medical date: Make: Model: Type: Style: Size: Cartridge type: Fit test date: Training date: Medical date:
☒ The above handler has received Fumigant Safe Handling information within the past 12 months.				
*1. Loaders, drivers, tractor co-pilots, shovelers, cross-ditchers, or other direct application participants 2. Cleaning up fumigant spills (does not include emergency personnel not associated with the application) 3. Tasks with liquid contact potential 4. Installing, perforating, removing, repairing, or monitoring tarps until: -14 days after the application is complete if tarps are not perforated and removed during those 14 days, -Tarp removal is complete if tarps are both perforated and removed less than 14 days after the application, or -48 hours after tarp perforation is complete if tarps will not be removed within 14 days after application. 5. Taking air samples (breathing zone) 6. Handling or disposing of fumigant containers 7. Cleaning, handling, adjusting, or repairing equipment that may contain fumigant residues 8. Installing, repairing, operating, or removing irrigation equipment in the application block 9. Performing scouting, crop advising, or monitoring tasks in the application block 10. Performing other WPS handling tasks				
Comments/notes: Jane Smith was only in the application block after fumigation. Her only task was to irrigate.				

Air Monitoring Results When Sensory Irritation Is Experienced

Date and Time	Handler Name	Handler Task/Activity	Handler Location Where Irritation Was Observed	Resulting Action	Comments
11/2/10, 1pm	Roger Dell	Rototiller driver	SE corner of fairway.	☐ Cease operations ☒ Respiratory protection	Handler put on face mask to deal with machine malfunction.
				☐ Cease operations ☐ Respiratory protection	
				☐ Cease operations ☐ Respiratory protection	
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				☐ Cease operations ☐ Respiratory protection	
Additional Comments:					

Breathing Zone Air Monitoring with Direct Read Instruments

Sample Date/Time	Handler Name	Handler Task/Activity	Handler Location	Air Concentration	Sampling Method	Comments (e.g., sensory irritation experienced while wearing respirator, description of control measures or emergency procedures followed)
11/2/10, 2pm	Roger Dell	rototiler driver	SE corner of fairway	550 ppb	Draeger tube	
2:15pm	same	same	same	500 ppb	same	sensory irritation was experienced around 1pm. Handler put on face mask and told certified applicator. They repaired a malfunction with the rototiller, then the handler monitored air samples until the applicator said it was fine to resume application.
Additional Comments:						