



Food Quality Protection Act of 1996

Tolerance reassessments involve setting limits on how much of a pesticide residue can be found in or on food.

With passage, Congress directed EPA to implement a comprehensive overhaul of the Nation's pesticide and food safety laws to provide for significant enhancements in public health and environmental protection. EPA has addressed the Congressional mandate thru:

Tolerance Reassessment

- Reestablish new tolerances for pesticides based on reexamination of potential risks to human health posed by that pesticide. Tolerances are EPA set limits for the maximum amounts of a pesticide residue that can be found in or on food.

Changes in labels come from EPA Fumigant Reregistration reviews

Pesticide Reregistration

- Pesticides that meet the new scientific and regulatory health and safety standards may be declared "eligible" for reregistration. The results of EPA's reviews & mandated changes to pesticide labels are summarized in Reregistration Eligibility Decision (RED) documents.

The need for reregistration of the soil fumigants began with passage of the Food Quality Protection Act in 1996, in which the U.S. Congress directed EPA to implement a comprehensive overhaul of the Nation's pesticide and food safety laws to provide for significant enhancements in public health and environmental protection. EPA has addressed the Congressional mandate thru:

Tolerance Reassessment- a procedure in which EPA

Reestablishes new tolerances for pesticides based on reexamination of potential risks to human health posed by that pesticide. Tolerances are EPA set limits for the maximum amounts of a pesticide residue that can be found in or on food. **Tolerance reassessments involve setting limits on how much of a pesticide residue can be found in or on food.**

The process also involves Pesticide Reregistration, in which Pesticides that meet the new scientific and regulatory health and safety standards may be declared "eligible" for reregistration. The results of EPA's reviews & mandated changes to pesticide labels are summarized in Reregistration Eligibility Decision (RED) documents for each of the different fumigants.

Changes in fumigant labels, which we will comprehensively address in subsequent modules of this program, ultimately come from EPA Fumigant Reregistration reviews and data analysis.

EPA ReRegistration of the Soil Fumigants

*Congressional Mandate :
FOOD QUALITY PROTECTION ACT
(FQPA)1996*

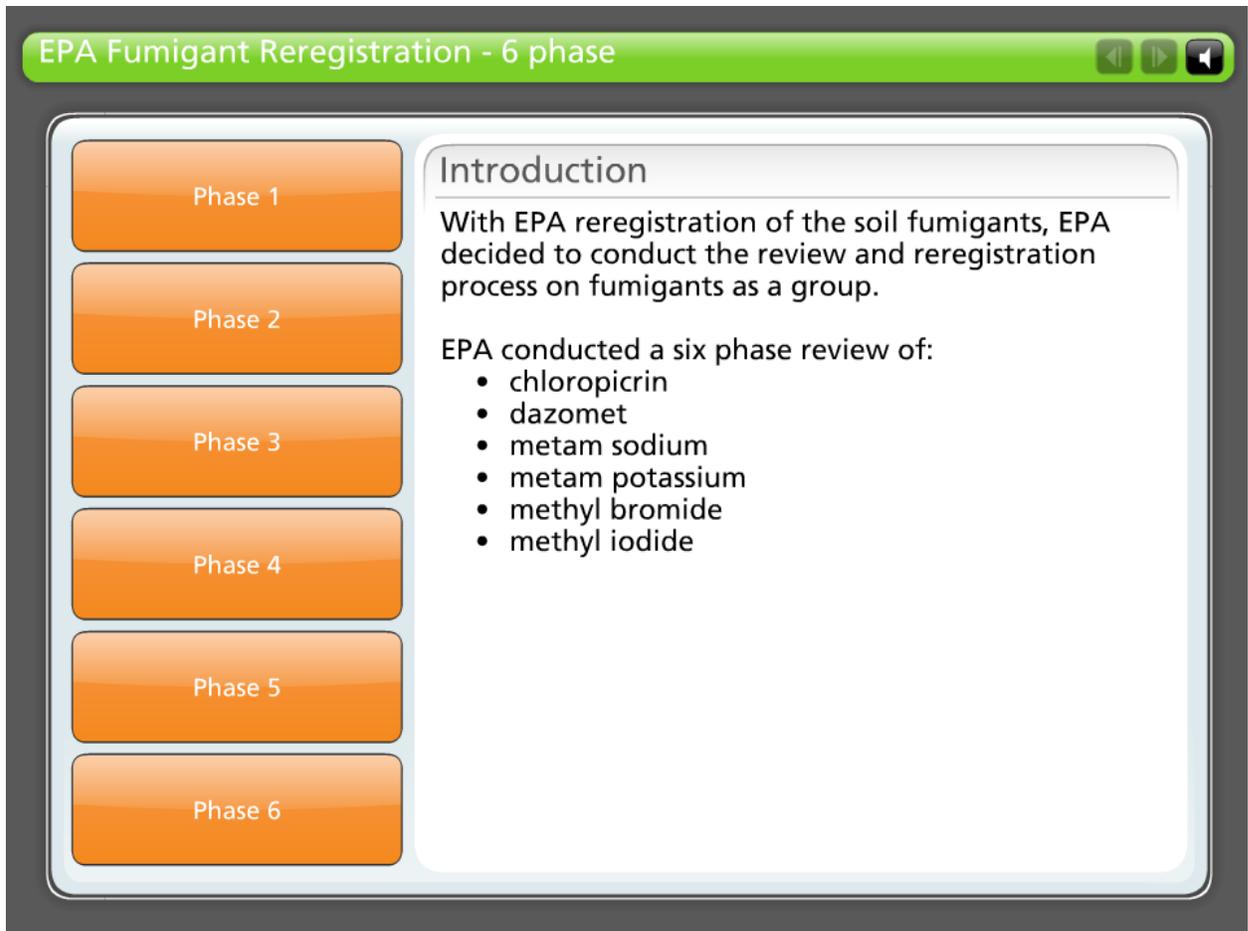
To ensure all new and registered pesticides continue to pose no unreasonable risk or adverse effects.

6 phase process, with new conservative standards

To summarize, EPA's ReRegistration of the soil fumigants was thus a Congressional Mandate to ensure all new and registered pesticides continue to pose no unreasonable risk or adverse effect. It was a 6 phase process with new conservative standards being imposed on all future uses of soil fumigants.

EPA Fumigant Reregistration - 6 phase

Introduction



The image shows a presentation slide with a green header bar containing the title "EPA Fumigant Reregistration - 6 phase" and navigation icons. On the left side, there is a vertical menu of six orange buttons labeled "Phase 1" through "Phase 6". The "Introduction" tab is selected, displaying the following text:

Introduction

With EPA reregistration of the soil fumigants, EPA decided to conduct the review and reregistration process on fumigants as a group.

EPA conducted a six phase review of:

- chloropicrin
- dazomet
- metam sodium
- metam potassium
- methyl bromide
- methyl iodide

Tab Text

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EPA conducted a six phase review of:

- chloropicrin
- dazomet
- metam sodium
- metam potassium
- methyl bromide
- methyl iodide

Phase 1

EPA Fumigant Reregistration - 6 phase

Phase 1

Phase 2

Phase 3

Phase 4

Phase 5

Phase 6

Phase 1

EPA develops lists of active ingredients and asks registrants of these pesticides whether they intend to seek reregistration.

Tab Text

EPA develops lists of active ingredients and asks registrants of these pesticides whether they intend to seek reregistration.

Phase 2

EPA Fumigant Reregistration - 6 phase

Phase 1

Phase 2

Phase 3

Phase 4

Phase 5

Phase 6

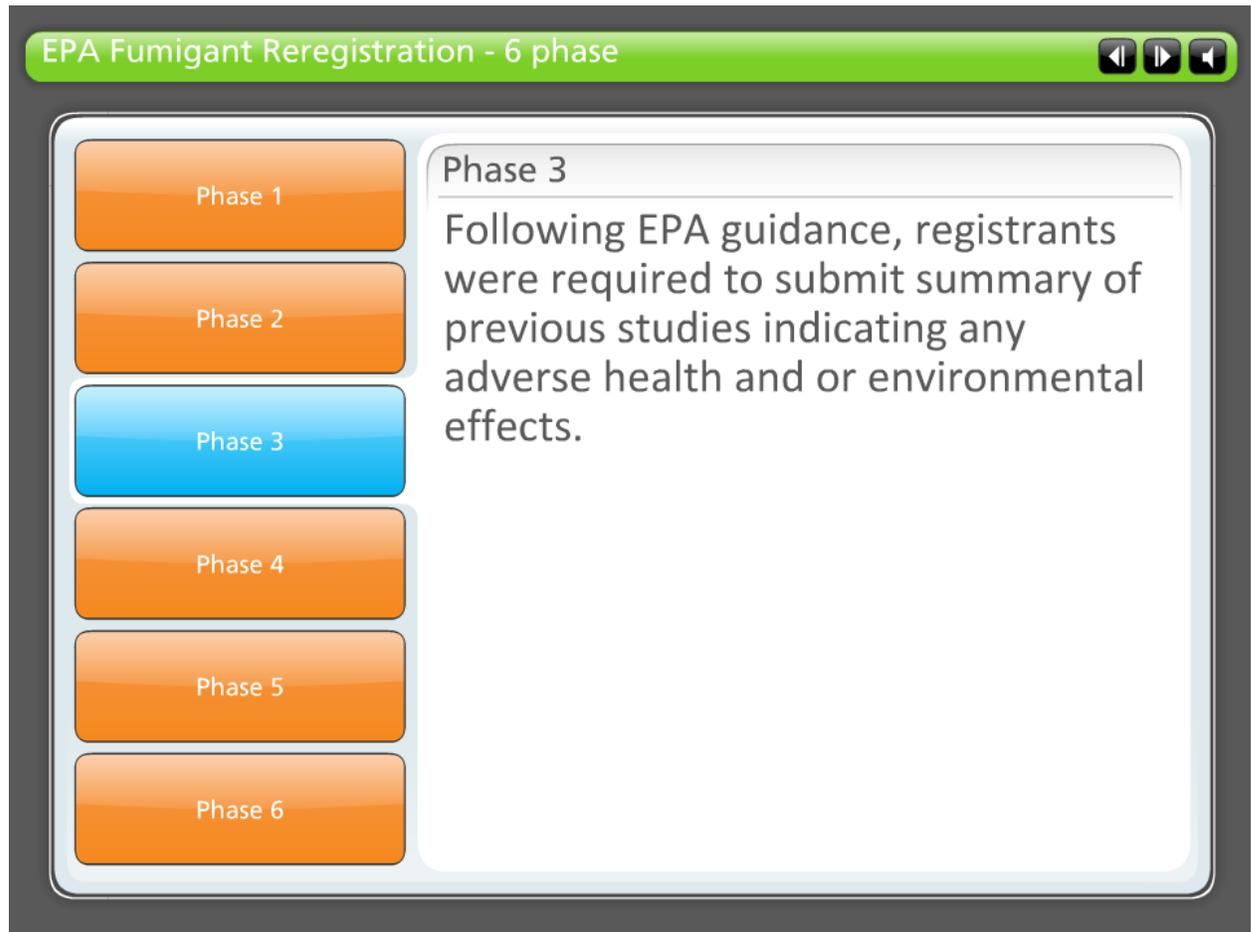
Phase 2

Registrants declare intent to reregister pesticides and identify and commit to providing necessary new studies demanded by EPA.

Tab Text

Registrants declare intent to reregister pesticides and identify and commit to providing necessary new studies demanded by EPA.

Phase 3



EPA Fumigant Reregistration - 6 phase

Phase 1

Phase 2

Phase 3

Phase 4

Phase 5

Phase 6

Phase 3

Following EPA guidance, registrants were required to submit summary of previous studies indicating any adverse health and or environmental effects.

Tab Text

Following EPA guidance, registrants were required to submit summary of previous studies indicating any adverse health and or environmental effects.

Phase 4

EPA Fumigant Reregistration - 6 phase

Phase 1

Phase 2

Phase 3

Phase 4

Phase 5

Phase 6

Phase 4

EPA reviews summaries in support of reregistration and ask registrants to satisfy new data call-in requests.

Tab Text

EPA reviews summaries in support of reregistration and ask registrants to satisfy new data call-in requests.

Phase 5

The image shows a presentation slide with a green header bar containing the text "EPA Fumigant Reregistration - 6 phase" and three navigation icons (back, forward, search). On the left side, there is a vertical list of six orange buttons labeled "Phase 1" through "Phase 6". The "Phase 5" button is highlighted in blue. To the right of this menu is a large white text box with a light blue border. The text box has a title "Phase 5" and contains the following text: "EPA publishes Reregistration Eligibility Documents. RED's indicate what changes to the pesticide label must be made to ensure that the pesticide can be used without unreasonable adverse effect to workers, bystanders, or environment."

Tab Text

EPA publishes Reregistration Eligibility Documents. RED's indicate what changes to the pesticide label must be made to ensure that the pesticide can be used without unreasonable adverse effect to workers, bystanders, or environment.

Phase 6

The screenshot shows a software interface titled "EPA Fumigant Reregistration - 6 phase". On the left, there is a vertical list of six buttons labeled "Phase 1" through "Phase 6". The "Phase 6" button is highlighted in blue, while the others are orange. To the right of this list is a text area containing the following text:

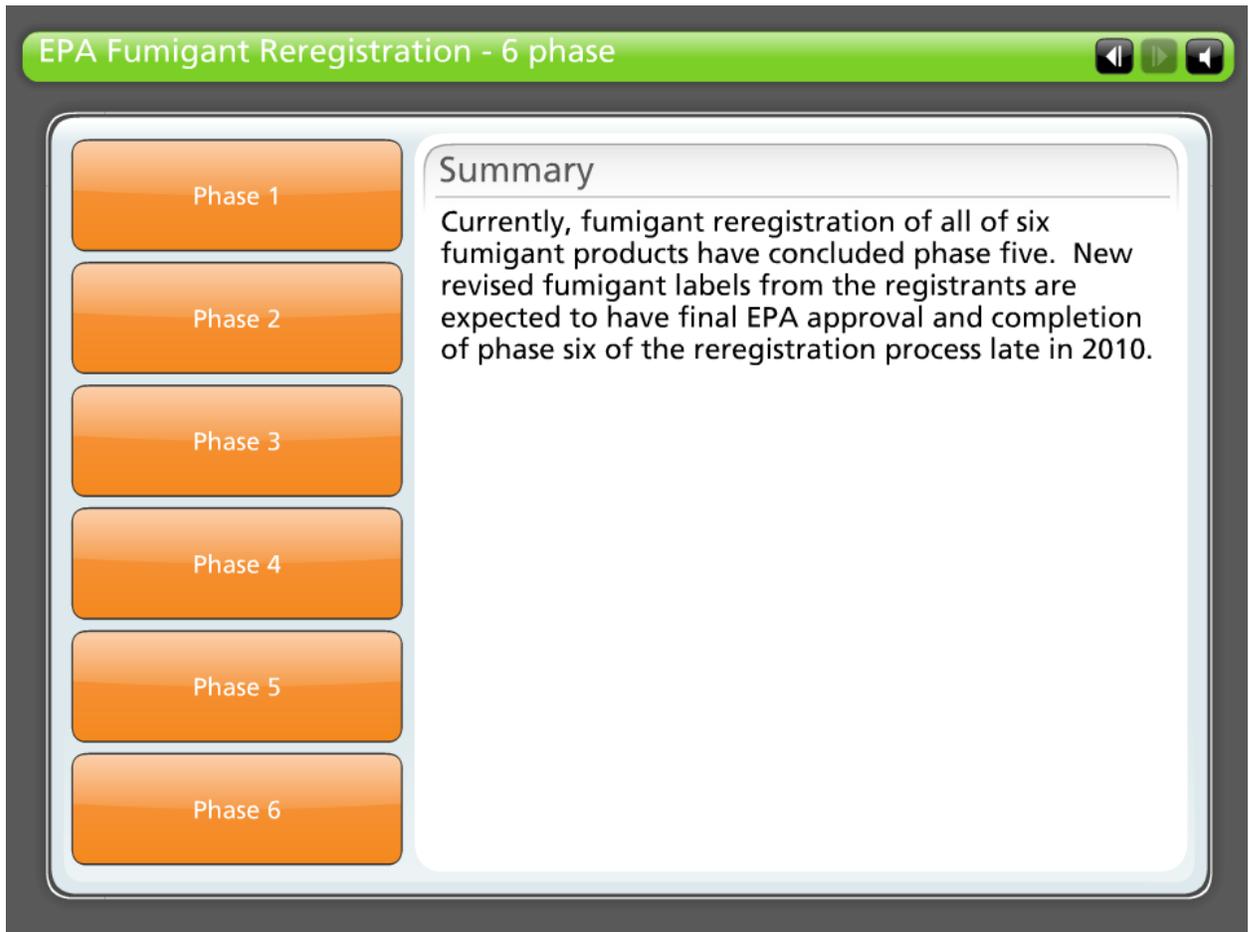
Phase 6

Products federally reregistered after new labels are drafted by registrants and presented back to EPA for final approval.

Tab Text

Products federally reregistered after new labels are drafted by registrants and presented back to EPA for final approval.

Summary



The image shows a presentation slide with a green header bar containing the text "EPA Fumigant Reregistration - 6 phase" and navigation icons. On the left side, there is a vertical list of six orange buttons labeled "Phase 1" through "Phase 6". The "Phase 5" button is highlighted, indicating it is the active tab. The main content area on the right is titled "Summary" and contains the following text:

Summary

Currently, fumigant reregistration of all of six fumigant products have concluded phase five. New revised fumigant labels from the registrants are expected to have final EPA approval and completion of phase six of the reregistration process late in 2010.

Tab Text

Currently, fumigant reregistration of all of six fumigant products have concluded phase five. New revised fumigant labels from the registrants are expected to have final EPA approval and completion of phase six of the reregistration process late in 2010.

Worker & Bystander Risks

EPA's Primary Consideration

The main risk of concern for handlers, workers, and bystanders associated with the soil uses of the fumigants (i.e., chloropicrin) is from acute inhalation exposure as a result of fumigant off-gassing.

**EPA has
REDEFINED
the term
handler:**

Handler refers to persons involved in the application of a fumigant. For soil applications, handlers also include persons involved in tarp perforation and removal. The term worker in all RED's refers to persons performing non-handler tasks (e.g., planting) within the application block, after the fumigation process has been completed. The term bystander refers to any person who lives or works in the vicinity of a fumigation site.

EPA's Primary Considerations in the reregistration process for the soil fumigants was to focus on worker and bystander risks:

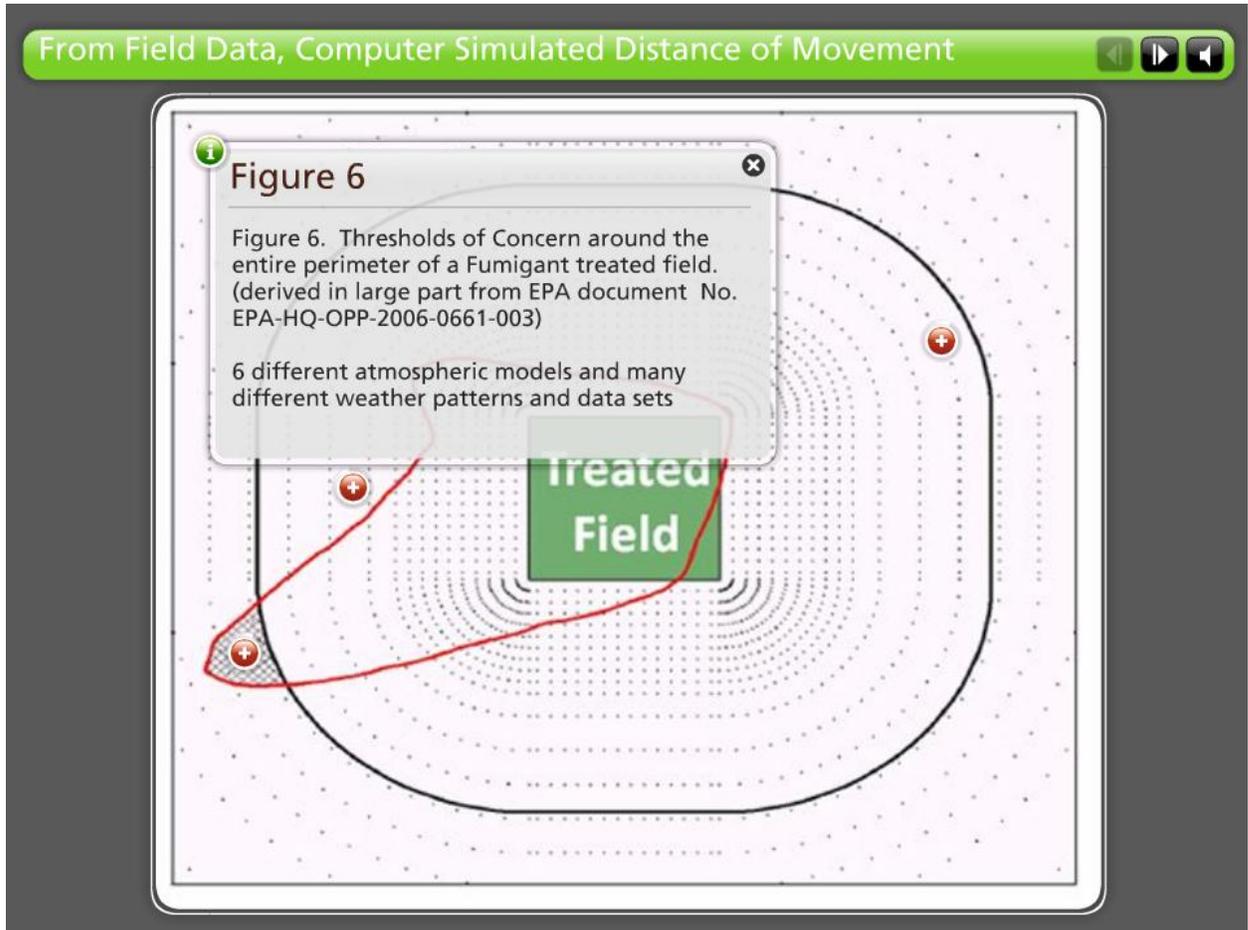
The main risk of concern to EPA for handlers, workers, and bystanders associated with the soil uses of the fumigants is from acute inhalation exposure, breathing in of the fumigant, as a result of fumigant off-gassing from soil and into the atmosphere.

EPA has decided to REDEFINED the term handler to broadly refer to: All persons involved in the application of a fumigant. For soil applications, handlers also include persons involved in tarp perforation and removal.

The term worker in all Reregistration Eligibility Decisions and fumigant labels will now refer to persons performing non-handler tasks (e.g., planting) within the application block, after the fumigation process has been completed. The term bystander refers to any person who lives or works in the vicinity of a fumigation site.

From Field Data, Computer Simulated Distance of Movement

Figure 6

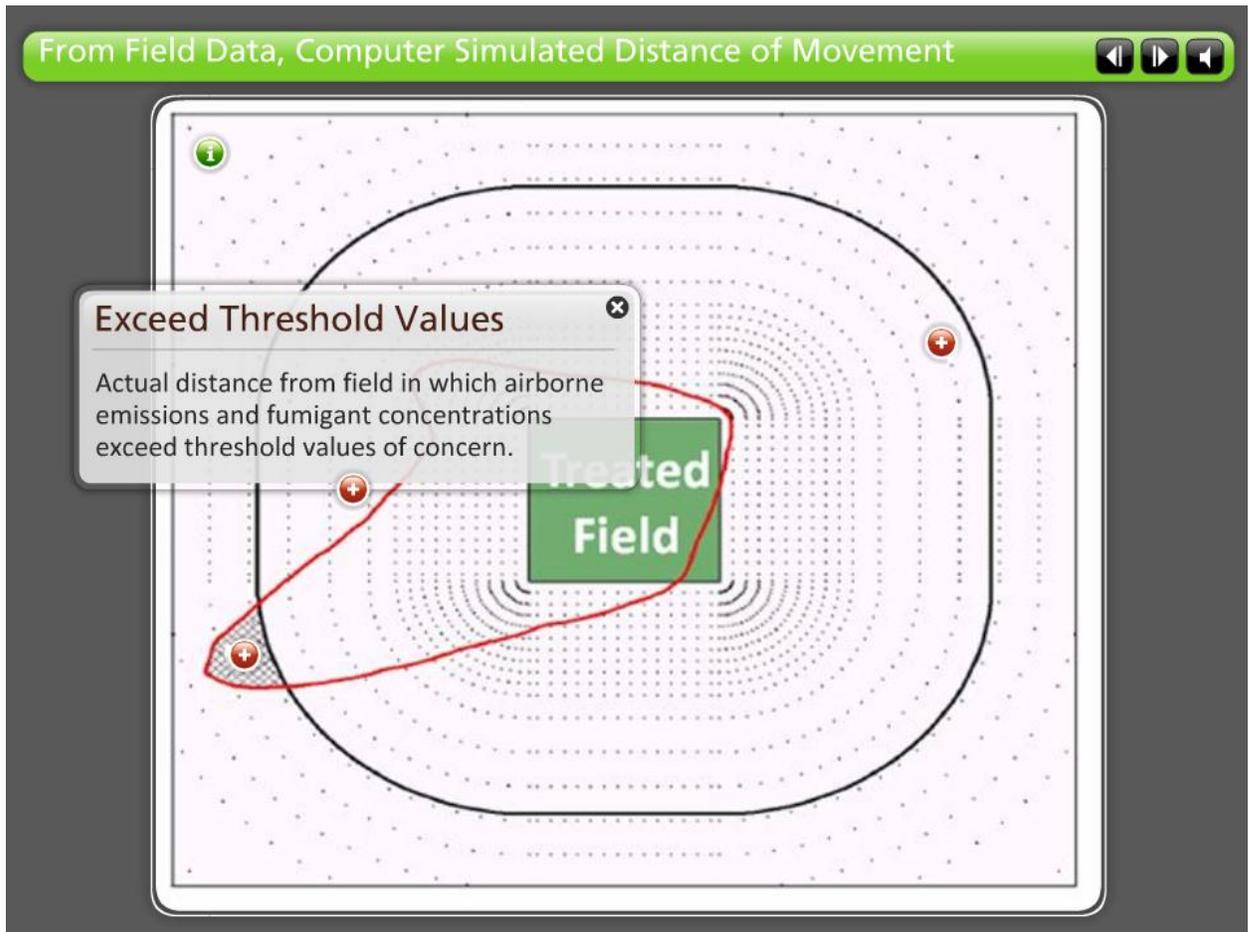


Label Text

Figure 6. Thresholds of Concern around the entire perimeter of a Fumigant treated field. (derived in large part from EPA document No. EPA-HQ-OPP-2006-0661-003)

6 different atmospheric models and many different weather patterns and data sets

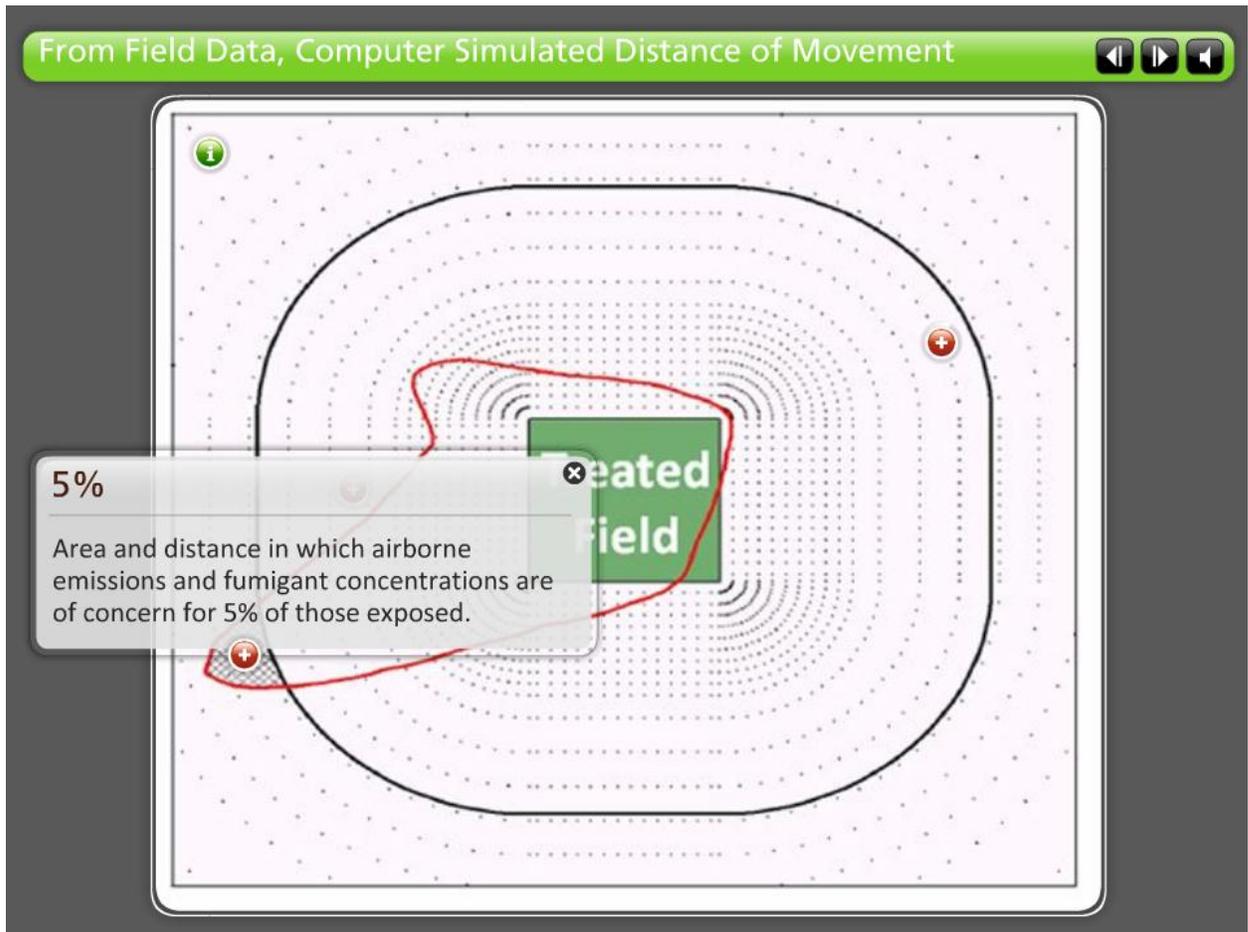
Exceed Threshold Values



Label Text

Actual distance from field in which airborne emissions and fumigant concentrations exceed threshold values of concern.

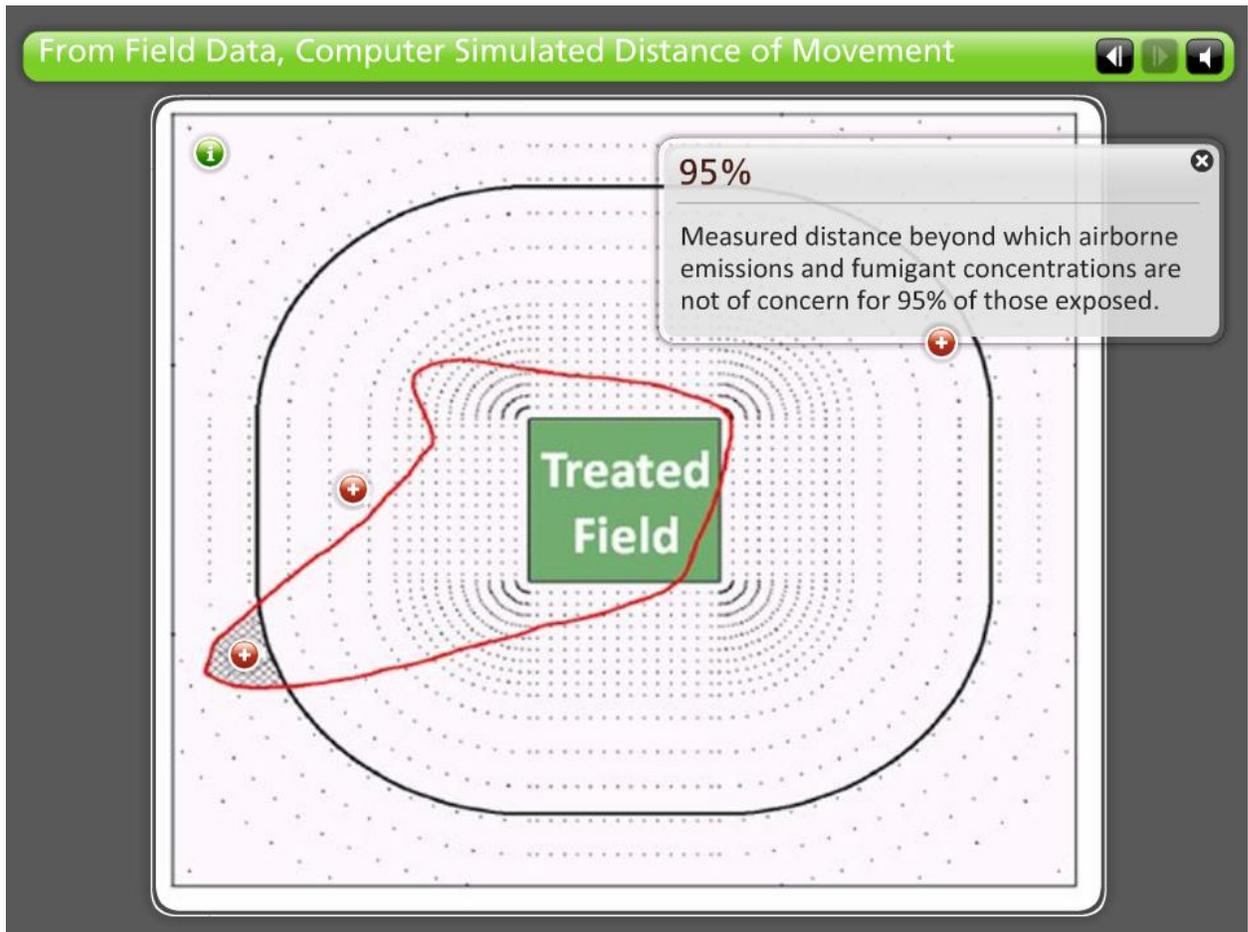
5%



Label Text

Area and distance in which airborne emissions and fumigant concentrations are of concern for 5% of those exposed.

95%

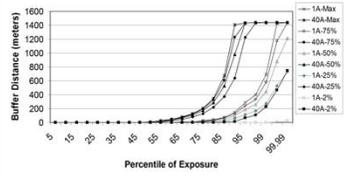


Label Text

Measured distance beyond which airborne emissions and fumigant concentrations are not of concern for 95% of those exposed.

Example of imposing a Buffer Zone

Figure 13: PERFUM Whole Field Buffer Results, Ventura California
CIMIS Weather, Phoenix Shank Injection Broadcast-Tarped,
BMCL₁₀ HC & UF = 10



DELRAY BEACH, FL

This aerial graphic serves to illustrate how fumigant treatment of a number of different fields in Delray Beach, Florida must be discontinued within the ring defined areas if buffer zones of 100 feet, in red, 500 feet (in blue) or 1000 feet (in white) must be imposed for a given fumigant application. What is not shown, are the buffer zones which must also be extended and superimposed from the housing development depicted in the lower right of the picture.

EPA Red Implementation Schedule

2 year stepwise 2010 and 2011 approach



**2010
brings:**

- New agricultural practices
- Fumigant use rate reductions and site limitations
- New health and safety protection standards for handlers
- New tarp cutting and plastic mulch removal restrictions & new worker reentry restrictions
- New worker training information requirements
- Fumigant Management Plan
- Additional applicator training program
- Registrants required to
 - develop and implement community outreach & education programs
 - Emergency information package for first responders



**2011
brings:**

Certified applicators will be required to impose:

- Restrictions on applications near sensitive areas and hard to evacuate sites
- Buffer zones around treated fields and occupied sites

Fumigant labels will require new buffer zone posting requirement

- Signs posted on the border of the buffer zone to alert workers and bystanders
- Implement and provide for emergency preparedness measures
 - Air quality monitoring around buffer zone perimeters
 - Provide emergency response information directly to those in close proximity to fumigated fields.



EPA will implement changes to fumigant labels in a 2 year stepwise approach. As early as December 2010, new label language involving and mandating:

- New Good Agricultural practices
- Fumigant Use rate reductions and site limitations,
- New health and safety protection standards for handlers
- New tarp cutting and plastic mulch removal restrictions and new worker reentry restrictions, along with
- New worker training information requirements Will be implemented in 2010.

Also to implemented in 2010 will be a new requirement for certified applicators to complete a fumigant Management Plan and to complete an additional applicator training program specifically designed and developed for the given fumigant product to be used and applied within the field.

In 2010, Registrants will also be required to develop and implement community outreach & education programs along with information package for first responders to use in the event of an emergency.

In 2011, certified applicators who make fumigant applications in the field will be required to impose:

- Restrictions on applications near sensitive areas and hard to evacuate sites,
- Establish buffer zones around treated fields and occupies sites, which at the same time considers restrictions governing the overlap of buffer zone areas.

The new fumigant labels in 2011 will also require a new buffer zone posting requirement in which certified applicators must post the periphery of the buffer zone with signs to alert workers and bystanders

And to implement and provide for emergency preparedness measures , This new measure requires applicators to either monitor air quality around buffer zone perimeters or, to provide emergency response information directly to neighbors in close proximity to fumigated fields.

Training for Certified Applicators (2011)

Registrants must develop and disseminate training for certified applicators in charge of fumigations

- Increase knowledge and skill

Must include information on:

- How to protect workers and others
- How to comply with new label requirements

As indicated in the previous slide, beginning in 2011, Registrants must develop and disseminate training information for certified applicators in charge of field fumigation operations.

The training information program, which will require applicators to certify dates of completion every three years, are intended to increase applicator knowledge and skill of :

- How to correctly apply the fumigant in the field
- How to protect workers and other field personnel and bystanders nearby
- and how to comply with all of the new label requirements.

This completes Modules number 1

Review questions - Module 1

Questions

1. Tolerances are EPA set limits for the _____ amounts of a pesticide residue that can be found in or on food.

Tolerances are EPA set limits for the _____ amounts of a pesticide residue that can be found in or on food.

- Exact
- Maximum
- Minimum
- Residual

Correct	Choice
	Exact
X	Maximum
	Minimum
	Residual

2. Pesticides that meet the new scientific and regulatory health and safety standards may be declared _____ for reregistration.

Pesticides that meet the new scientific and regulatory health and safety standards may be declared _____ for reregistration.

Choice

eligible

3. The main purpose of the 6 phase process imposed by the EPA was to ensure that the pesticide could be used without unreasonable adverse effect to workers, bystanders, or environment.

The main purpose of the 6 phase process imposed by the EPA was to ensure that the pesticide could be used without unreasonable adverse effect to workers, bystanders, or environment.

True

False

Correct	Choice
X	True
	False

4. The main risk of concern for handlers, workers, and bystanders associated with the soil uses of the fumigants (i.e., chloropicrin) is from _____.

The main risk of concern for handlers, workers, and bystanders associated with the soil uses of the fumigants (i.e., chloropicrin) is from _____.

- absorption through the skin into the blood stream
- burns to skin due to a lack of protective clothing
- temporary/permanent eye damage due to no protective eye ware
- acute inhalation exposure or breathing in of the fumigant

Correct	Choice
	absorption through the skin into the blood stream
	burns to skin due to a lack of protective clothing
	temporary/permanent eye damage due to no protective eye ware
X	acute inhalation exposure or breathing in of the fumigant

5. If a buffer zone is correctly maintained and threshold concentrations of the fumigant are followed, then the distance from the periphery of the treated field beyond which airborne emissions and fumigant concentrations would not be of concern for _____ of the people who might be exposed.

If a buffer zone is correctly maintained and threshold concentrations of the fumigant are followed, then the distance from the periphery of the treated field beyond which airborne emissions and fumigant concentrations would not be of concern for _____ of the people who might be exposed.

- 95%
- 99%
- 85%
- 75%

Correct	Choice
X	95%
	99%
	85%
	75%

6. REDs, or _____, are documents published by the EPA which indicated changes that needed to be made for pesticide labels and include EPA reviews of pesticides.

REDs, or _____, are documents published by the EPA which indicated changes that needed to be made for pesticide labels and include EPA reviews of pesticides.

Choice
Reregistration Eligibility Decisions
Reregistration Eligibility Decision

7. Which of the following is not a new regulation for 2010:

Which of the following is not a new regulation for 2010:

- Fumigant use rate reductions and site limitations
- New health and safety protection standards for handlers
- Applicants must wear protective suits provided by the registrants
- New worker training information requirements

Correct	Choice
	Fumigant use rate reductions and site limitations
	New health and safety protection standards for handlers
X	Applicants must wear protective suits provided by the registrants
	New worker training information requirements

8. By 2011, applicators will have to post signs around _____ where fumigants have been used to alert workers and bystanders.

By 2011, applicators will have to post signs around _____ where fumigants have been used to alert workers and bystanders.

Choice
buffer zones

9. Registrants must develop and disseminate training information for certified applicators in charge of field fumigation operations, which will require applicators to certify dates of completion every _____ year(s).

Registrants must develop and disseminate training information for certified applicators in charge of field fumigation operations, which will require applicators to certify dates of completion every _____ year(s).

- 1
- 2
- 3
- 4

Correct	Choice
	1
	2
X	3
	4