

## Appendix K

# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions

## Overview

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### Introduction

In April 2015, DPR developed recommended permit conditions for products containing chloropicrin to mitigate the hazards of offsite movement of chloropicrin. Subsequently in February 2016, DPR amended these conditions and updated buffer zone tables. These permit conditions apply to products containing more than 2% chloropicrin, products containing chloropicrin and another fumigant, and simultaneous applications of chloropicrin and another fumigant product. The conditions do not apply to non-field fumigations, including greenhouses, potting soil, and golf courses.

In October 2017, registrants began amending chloropicrin product labels with California-specific use directions. The “Amended Labels Directions For Use” section includes the header “For Applications in California Only”. These California-specific use directions require applicators to follow buffer zone and California restrictions specified at [www.cdpr.ca.gov/chloropicrin.htm](http://www.cdpr.ca.gov/chloropicrin.htm). The California-specific use directions available at this website are equivalent to almost all of the recommended permit conditions in Appendix K.

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### Recommended permit conditions

There may be chloropicrin products in the channels of trade with older labels that do not have label language directing applicators to use the buffer zone tables and restrictions specified at [www.cdpr.ca.gov/chloropicrin.htm](http://www.cdpr.ca.gov/chloropicrin.htm). DPR recommends all the following permit conditions on pages K-3 through K-40 to ensure that the more restrictive use requirements are applied to all chloropicrin field fumigation applications.

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### Product labels with “For Applications in California Only” section

The restrictions and buffer zone tables at [www.cdpr.ca.gov/chloropicrin.htm](http://www.cdpr.ca.gov/chloropicrin.htm) now have use directions equal to most of DPR’s recommended permit conditions. In addition to the use directions and buffer zone tables specified at the website, DPR recommends the following conditions:

- require the notice of intent be submitted at least 48 hours before the application (refer to page K-4)
  - tree-hole limitations described on page K-15, when applicable.
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## Overview, Continued

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### Contents

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# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions

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## General application information

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**Buffer zone credits** Label-specified buffer zone reduction credits are not allowed. The only buffer zone credit allowed is for DPR-approved totally impermeable films (TIF). This credit allows use of the decreased buffer zone distances in DPR's TIF-specific buffer zone tables (see next section and Tables 1-4).

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**DPR-approved TIF tarpaulins** The Department of Pesticide Regulation has created a California-specific list of TIF tarps that qualify to receive a 60% buffer zone reduction credit for soil fumigant products containing chloropicrin. The approved TIF list is on the DPR website at [http://www.cdpr.ca.gov/docs/emon/pubs/tac/dpr\\_tarp\\_list.pdf](http://www.cdpr.ca.gov/docs/emon/pubs/tac/dpr_tarp_list.pdf)

County agricultural commissioners may further limit the type of tarpaulin allowed.

Evaluations of proposed applications near sensitive sites using methods that result in high humidity conditions under the tarp, such as drip applications, may indicate the use of either larger buffer zones or use of specific tarp compositions known to be superior under these conditions.

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**TIF documentation** If TIF will be used, the tarp name and lot number must be printed on the tarp in a font size equal to 2-3 inches in height and printed at least 1 foot from each edge and at an interval of 20-30 feet along the length of the tarp.

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**Tarp combination** An application block shall only be covered with tarps in the same permeability category (e.g., two different brands of TIF may be used in an application block, but an application block cannot be covered with a mix of TIF and other tarps.)

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# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

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**Notice of intent** The notice of intent (NOI) shall be submitted to the CAC at least 48 hours before the fumigation begins and include the time fumigation is scheduled to begin.

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**Fumigation time restrictions** Fumigations must start no earlier than one hour after sunrise and must end no later than three hours prior to sunset. These time restrictions do not apply to applications using TIF (including products containing methyl bromide and chloropicrin).

The fumigation cannot begin sooner than the time listed on the NOI and must begin within 12 hours of the scheduled time. If fumigation does not begin within the 12-hour period, a new NOI must be submitted. The CAC can determine whether another 48-hour waiting period is needed.

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**Application block** An application block is a field or the portion of a field treated in a 24-hour period that typically is identified by visible indicators, maps, or other tangible means (3 CCR section 6000).

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**Application block size limit** For only those chloropicrin applications that do not include methyl bromide and use TIF, application block size is limited to 60 acres.

For all non-TIF and all untarped applications – and for any TIF application that includes methyl bromide – the application block size is limited to 40 acres at one location within a 24-hour period.

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# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

## Coastal and Inland county designations

The Coastal and Inland county designations follow.

Alameda – Inland	Orange – Coastal
Alpine – Inland	Placer – Inland
Amador – Inland	Plumas – Inland
Butte – Inland	Riverside – Inland
Calaveras – Inland	Sacramento – Inland
Colusa – Inland	San Benito – Inland
Contra Costa – Inland	San Bernardino – Inland
Del Norte – Coastal	San Diego – Coastal
El Dorado – Inland	San Francisco – Coastal
Fresno – Inland	San Joaquin – Inland
Glenn – Inland	San Luis Obispo – Coastal
Humboldt – Coastal	San Mateo – Coastal
Imperial – Inland	Santa Barbara – Coastal
Inyo – Inland	Santa Clara – Inland
Kern – Inland	Santa Cruz – Coastal
Kings – Inland	Shasta – Inland
Lake – Inland	Sierra – Inland
Lassen – Inland	Siskiyou – Inland
Los Angeles – Coastal	Solano – Inland
Madera – Inland	Sonoma – Coastal
Marin – Coastal	Stanislaus – Inland
Mariposa – Inland	Sutter – Inland
Mendocino – Coastal	Tehama – Inland
Merced – Inland	Trinity – Inland
Modoc – Inland	Tulare – Inland
Mono – Inland	Tuolumne – Inland
Monterey – Coastal	Ventura – Coastal
Napa – Inland	Yolo – Inland
Nevada – Inland	Yuba – Inland

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# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

**Buffer zones for chloropicrin-only products and chloropicrin/1,3-D combinations**

For chloropicrin-only products and chloropicrin/1,3-D products:

Method	Coastal Counties	Inland Counties
TIF broadcast shank injection	Table 1	Table 1
TIF bed injection	Table 2	Table 2
TIF strip deep injection*	Table 3	Table 3
TIF drip	Table 4	Table 4
Non-TIF broadcast shank injection	Table 5	Table 5
Non-TIF bed injection	Table 6a	Table 6b
Non-TIF strip injection	Table 7a	Table 7b
Non-TIF drip	Table 8a	Table 8b
Untarped broadcast <u>or strip</u> shallow injection	Table 9a	Table 9b
Untarped broadcast <u>or strip</u> deep injection	Table 10a	Table 10b
Untarped bed injection	Table 11a	Table 11b
Untarped drip	Table 12	Table 12

\*TIF strip *shallow* injection is prohibited.

Similar to labels, the broadcast-equivalent application rate is used to determine the buffer zone requirements. However, labels specify the buffer zone distance based on the broadcast-equivalent application rate for the *product*. The buffer zone tables in these permit conditions specify the distance based on the broadcast-equivalent application rate for the chloropicrin *active ingredient* (lbs AI/ac). The broadcast-equivalent application rate for the AI is calculated using the same procedure as described on the label for bed/strip width and row spacing, then adjusting for the percent of chloropicrin listed on the label. For example, if the broadcast-equivalent application rate for the product is 300 lbs/ac and the product contains 60% chloropicrin, the broadcast-equivalent application rate for chloropicrin is  $300 \times 0.60 = 180$  lbs AI/ac.

*Continued on next page*

# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

**Buffer zones for methyl bromide and chloropicrin combinations**

For products containing methyl bromide and chloropicrin, determine the methyl bromide and chloropicrin buffer zones separately.

1. Determine the chloropicrin buffer zone.

Method	Coastal Counties	Inland Counties
TIF broadcast shank injection	Table 1	Table 1
TIF bed injection	Table 2	Table 2
TIF strip deep injection*	Table 3	Table 3
TIF drip	Table 4	Table 4
Non-TIF broadcast shank injection	Table 5	Table 5
Non-TIF bed injection	Table 6a	Table 6b
Non-TIF strip injection	Table 7a	Table 7b
Non-TIF drip	Table 8a	Table 8b
Untarped broadcast or strip shallow injection	Table 9a	Table 9b
Untarped broadcast or strip deep injection	Table 10a	Table 10b
Untarped bed injection	Table 11a	Table 11b
Untarped drip	Table 12	Table 12

\*TIF strip *shallow* injection is prohibited.

\*\*Untarped drip fumigations are prohibited for chloropicrin fumigations in combination with methyl bromide

The buffer zone tables in these permit conditions specify the distance based on the broadcast-equivalent application rate for the chloropicrin *active ingredient* (lbs AI/ac). The broadcast-equivalent application rate for the AI is calculated using the same procedure as described on the label for bed/strip width and row spacing, then adjusting for the percent of chloropicrin listed on the label. For example, if the broadcast-equivalent application rate for the product is 300 lbs/ac and the product contains 60% chloropicrin, the broadcast-equivalent application rate for chloropicrin is  $300 \times 0.60 = 180$  lbs AI/ac.

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# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

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**Buffer zones for methyl bromide and chloropicrin combinations**  
(continued)

2. Determine the methyl bromide outer and inner buffer zones distances following the procedure described in Appendix M, *Methyl Bromide Field Fumigation Recommended Permit Conditions*.
3. These determinations will result in three possible scenarios for buffer zone restrictions:

**Scenario 1:** If the chloropicrin buffer zone is smaller than the methyl bromide inner zone, then there are two buffer zones – a combined methyl bromide inner/chloropicrin buffer zone and a methyl bromide outer buffer zone.

In this case the methyl bromide inner buffer zone distance also functions as the chloropicrin buffer zone distance. Both the chloropicrin buffer zone and methyl bromide inner buffer zone restrictions apply.

All of the methyl bromide outer buffer zone restrictions apply to the methyl bromide outer buffer zone.

For clarity, the combined requirements of the labels and regulations are described on the following page.

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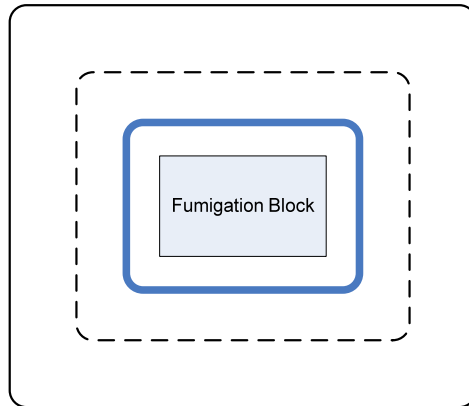
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# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

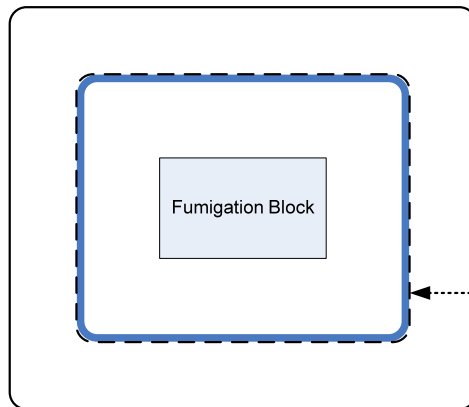
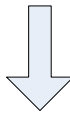
**Buffer zones for methyl bromide and chloropicrin combinations**  
(continued)

Scenario 1. Buffer Zone Requirements for Methyl Bromide/Chloropicrin Combination Fumigations



Chloropicrin buffer is smaller than both the methyl bromide inner buffer and methyl bromide outer buffer

- Methyl Bromide Outer Buffer
- - - Methyl Bromide Inner Buffer
- Chloropicrin Buffer



Methyl Bromide Outer Buffer Requirements

**Allowed activities:** fumigation handling, transit by vehicle or bike (label), and CAC-approved activities for no more than 12 hrs (regs)

**Duration:** 48-84 hrs (regs)

**Extending into other properties:** any properties with written permission (label), except schools, convalescent homes, hospitals, other sites identified by CAC (regs)

**Posting:** none

Combined Methyl Bromide Inner Buffer and Chloropicrin Buffer Requirements

**Allowed activities:** fumigation handling and transit by vehicle or bike (label)

**Duration (except TIF broadcast):** 48-84 hrs (regs)

**Extending into other properties:** ag properties only, with written permission (regs)

**Posting (except TIF broadcast):** at usual points of entry (label) and every 200 ft along perimeter in adjoining ag property (regs)

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# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

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**Buffer zones for methyl bromide and chloropicrin combinations (continued)**

**Scenario 2:** If the chloropicrin buffer zone is larger than the methyl bromide inner buffer zone, but smaller than the methyl bromide outer buffer zone, then there are two buffer zones – a combined methyl bromide/chloropicrin buffer zone and a methyl bromide outer buffer zone (same as Scenario 1).

In this case, the chloropicrin buffer zone distance also functions as the methyl bromide inner buffer zone distance. Both the chloropicrin buffer zone and methyl bromide inner buffer zone restrictions apply (same as Scenario 1).

All of the methyl bromide outer buffer zone restrictions apply to the methyl bromide outer buffer zone.

For clarity, the combined requirements of the labels and regulations are described on the following page.

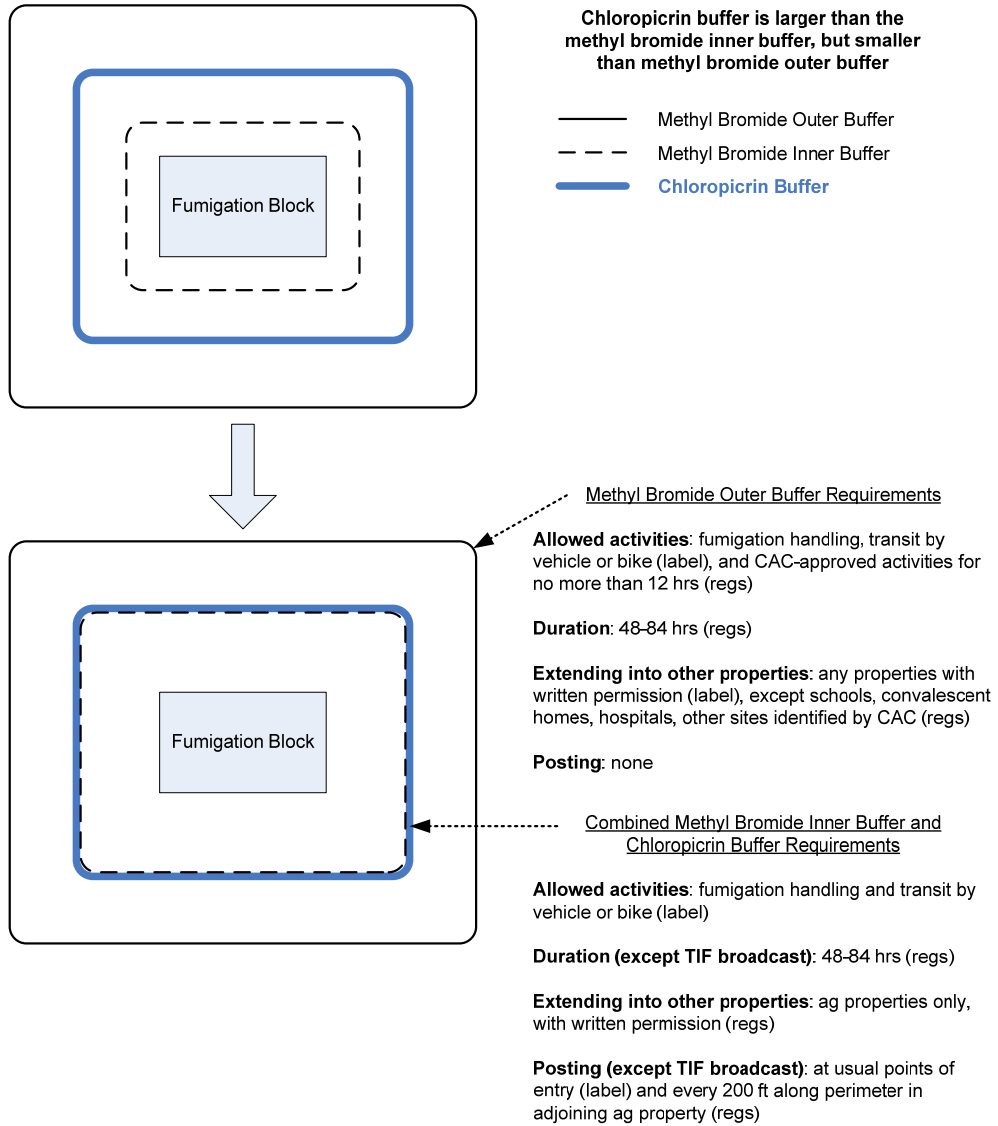
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# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

**Buffer zones for methyl bromide and chloropicrin combinations (continued)**

Scenario 2. Buffer Zone Requirements for Methyl Bromide/Chloropicrin Combination Fumigations



*Continued on next page*

# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

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**Buffer zones for methyl bromide and chloropicrin combinations (continued)**

**Scenario 3:** If the chloropicrin buffer zone is larger than the outer methyl bromide buffer zone, then there are two buffer zones – a methyl bromide inner buffer zone and a combined methyl bromide outer/chloropicrin buffer zone.

All of the methyl bromide inner buffer zone restrictions apply to the methyl bromide inner buffer zone.

In this case, the chloropicrin buffer zone distance also functions as the methyl bromide outer buffer zone distance. Both the chloropicrin buffer zone and methyl bromide outer buffer zone restrictions apply to the combined buffer zone, consequently no persons are allowed within this buffer zone except to perform fumigation-handling activities or transit by vehicle or bicycle.

For clarity, the combined requirements of the labels and regulation are described on the following page.

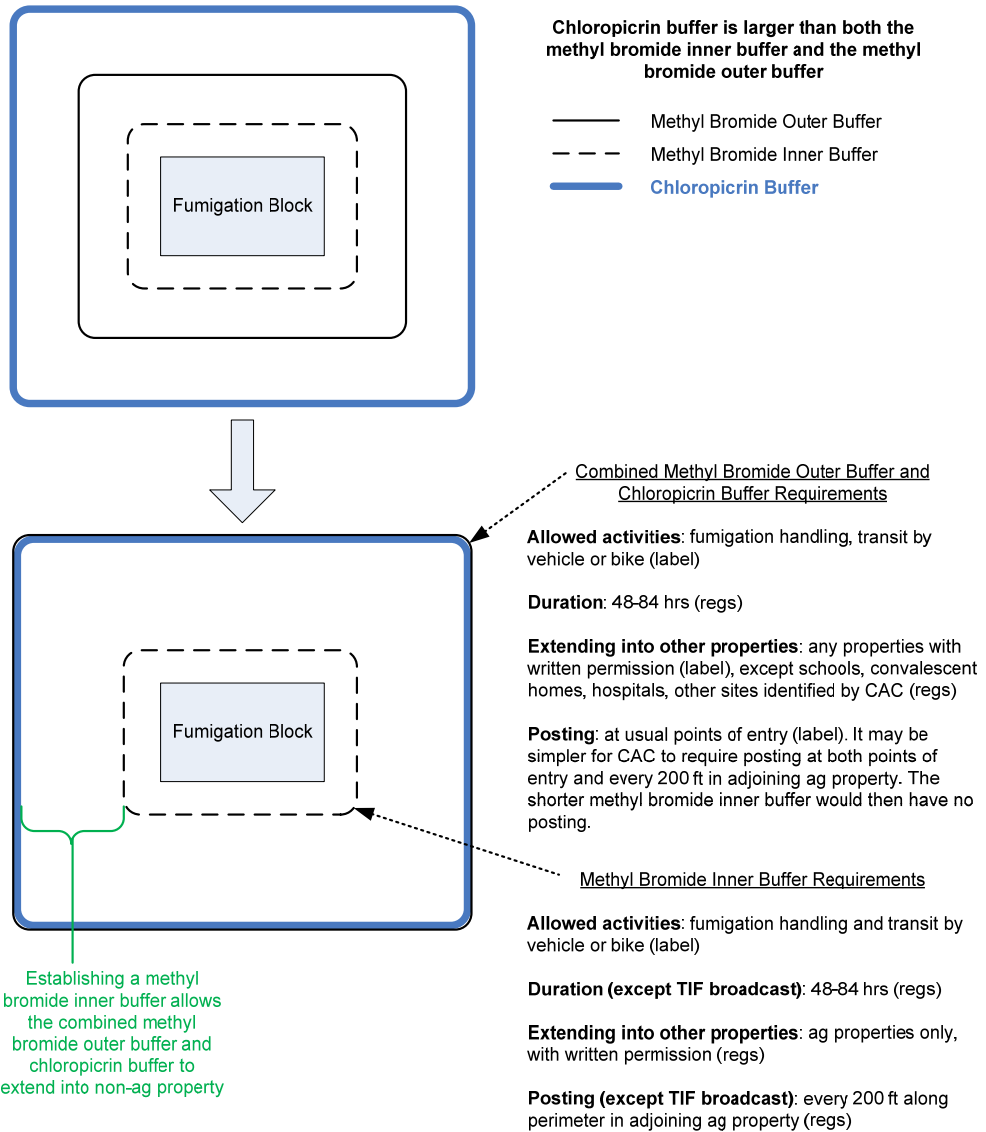
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# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

## Buffer zones for methyl bromide and chloropicrin combinations (continued)

Scenario 3. Buffer Zone Requirements for Methyl Bromide/Chloropicrin Combination Fumigations



Continued on next page

# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

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## **Buffer zones for methyl bromide and chloropicrin combinations (continued)**

For all scenarios, the buffer zone duration for methyl bromide is the same or more restrictive than the duration for chloropicrin. Use the buffer duration specified in Appendix M, *Methyl Bromide Field Fumigation Recommended Permit Conditions*, page M-11.

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## **Minimum buffer zone distances**

The minimum buffer zone distances are:

- TIF: 25 feet
- Non-TIF applications less than or equal to 6 acres: 60 feet
- Non-TIF applications greater than 6 acres: 100 feet
- Untarped: 100 feet

For products containing methyl bromide and chloropicrin, the methyl bromide minimum buffer zone may be longer.

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# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

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## Tree hole limitations

The maximum number of tree holes and acreage allowed to be treated for any site (entire orchard) in a 24-hour period are:

- 50 holes per acre in no more than 40 acres
- 75 holes per acre in no more than 10 acres
- 100 holes per acre in no more than 5 acres
- 200 holes in no more than 1 acre

If any site is planned to be fumigated more than once (e.g., sequential applications within a single orchard), at least 36 hours must elapse between fumigations. Elapsed time is measured from the time the earlier application is complete until the start of the later application.

These limits assume that the tree holes are evenly distributed across the site, and may not provide adequate protection for tree holes that are unevenly distributed. To prevent bunching of tree holes, DPR recommends the following spacing between fumigated tree holes:

- At least 30 feet for 50 holes per acre in no more than 40 acres
- At least 25 feet for 75 holes per acre in no more than 10 acres
- At least 20 feet for 100 holes per acre in no more than 5 acres
- At least 15 feet for 200 holes in no more than 1 acre

This recommended minimum spacing does not need to be achieved for each tree hole, but should be achieved for the majority of tree holes, particularly near the borders of an orchard.

A separation of 51 feet between tree holes (i.e., minimum distance for no overlapping buffer zones) is likely insufficient separation between application blocks for this permit condition. The required buffer zone of 25 feet may not provide adequate protection if multiple application blocks within a single orchard (or adjacent orchards) are fumigated with less than 36-hour separation. CAC staff should consult with DPR before allowing these types of fumigations.

For products containing methyl bromide and chloropicrin, the application is limited to 1 acre.

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# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

## Overlapping buffer zones

If buffer zones for two or more applications overlap within 36 hours from the time the earlier application is complete until the start of the later application, certain restrictions apply based on the type of tarpaulin used (if any). Labels require a minimum of 12 hours to elapse from the time the earlier application(s) is complete until the start of the later application. An application block is the area of a field treated in a 24-hour period.

The following are additional restrictions when application block buffer zones overlap within the first 36 hours:

### **Scenario 1: All application blocks use TIF.**

TIF conditions:

- Combined TIF acreage shall not exceed 60 acres.
- Buffer distance for each TIF block shall be based on individual method, application rate, and acres.

### **Scenario 1 example:**

#### **Coastal county, two applications, both blocks use TIF.**

<u>Block 1:</u>	<u>Block 2:</u>
• TIF	• TIF
• Broadcast shank	• Drip
• 200 lbs AI/ac	• 150 lbs AI/ac
• 10 ac	• 20 ac

### **Buffer zone determination:**

- Combined TIF acreage is less than 60 ac (10+20=30).
- Block 1 buffer is based on broadcast shank, 200 lbs AI/ac, 10 ac: 56 feet (Table 1)
- Block 2 buffer is based on drip, 150 lbs AI/ac, 20 ac: 45 feet (Table 4)

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# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

**Overlapping buffer zones**  
(continued)

**Scenario 2: All application blocks use non-TIF or untarped, and use same application method and application rate.**

Non-TIF/untarped conditions:

- Combined non-TIF/untarped acreage shall not exceed 40 acres.
- Buffer distance shall be based on combined acreage of all non-TIF/untarped blocks.

**Scenario 2 example:**

**Coastal county, two applications, both blocks use non-TIF, same method and rate.**

<p><u>Block 1:</u></p> <ul style="list-style-type: none"> <li>• Non-TIF</li> <li>• Broadcast shank</li> <li>• 200 lbs AI/ac</li> <li>• 10 ac</li> </ul>	<p><u>Block 2:</u></p> <ul style="list-style-type: none"> <li>• Non-TIF</li> <li>• Broadcast shank</li> <li>• 200 lbs AI/ac</li> <li>• 20 ac</li> </ul>
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**Buffer Zone determination:**

- Combined non-TIF/untarped acreage is less than 40 ac (10+20=30).
- Block 1 and Block 2 buffers are the same distance based on broadcast shank, 200 lbs AI/ac, 10+20=30 ac: 272 feet (Table 5).

*Continued on next page*

# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

**Overlapping buffer zones**  
(continued)

**Scenario 3: All application blocks non-TIF or untarped blocks and blocks use different application methods and/or application rates.**

Non-TIF/untarped conditions:

- Combined non-TIF/untarped acreage shall not exceed 40 acres.
- Buffer zone distance shall be based on combined acreage of all non-TIF/untarped blocks.
- Use highest non-TIF or untarped application rate.
- Use buffer table with largest buffer.

*Alternative: consult with DPR.*

**Scenario 3 example:**

**Coastal county, two applications, both blocks use non-TIF, different methods and rates.**

<p><b>Block 1:</b></p> <ul style="list-style-type: none"> <li>• Non-TIF</li> <li>• Broadcast shank</li> <li>• 200 lbs AI/ac</li> <li>• 10 ac</li> </ul>	<p><b>Block 2:</b></p> <ul style="list-style-type: none"> <li>• Non-TIF</li> <li>• Drip</li> <li>• 150 lbs AI/ac</li> <li>• 20 ac</li> </ul>
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**Buffer zone determination:**

- Combined non-TIF/untarped acreage is less than 40 ac (10+20=30).
- Block 1 and Block 2 buffers are the same distance based on non-TIF drip, 200 lbs AI/ac, 10+20=30 ac: 375 feet (Table 8a).
- **NOTES:** Shorter buffer of 272 feet (Table 5) for non-TIF broadcast shank, 200 lbs AI/ac, 30 ac, does not apply.
- DPR consultation would be needed if the Block 1 application rate was >225 lbs AI/ac; this exceeds the application rates in Table 8a.

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# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

**Overlapping buffer zones**  
(continued)

**Scenario 4: Multiple application blocks, at least one TIF application block, other application blocks individually use non-TIF or untarped, and all application blocks use the same application method and rate.**

TIF conditions:

- Combined TIF acreage shall not exceed 60 acres.
- Buffer distance for each TIF block shall be based on individual method, application rate, and acres.

Non-TIF/untarped conditions:

- Combined non-TIF/untarped acreage shall not exceed 40 acres.
- Buffer distance shall be based on combined acreage of all non-TIF/untarped blocks.

**Scenario 4 example:**

**Coastal county, four applications, two blocks use TIF, two blocks use non-TIF, all blocks use same application method and rate.**

<u>Block 1:</u>	<u>Block 2:</u>	<u>Block 3:</u>	<u>Block 4:</u>
• TIF	• TIF	• Non-TIF	• Non-TIF
• Broadcast	• Broadcast	• Broadcast	• Broadcast
• shank	• shank	• shank	• shank
• 200 lbs AI/ac	• 200 lbs AI/ac	• 200 lbs AI/ac	• 200 lbs AI/ac
• 10 ac	• 15 ac	• 20 ac	• 5 ac

**Buffer zone determination:**

- Combined TIF acreage is less than 60 ac (10+15=25).
- Combined non-TIF/untarped acreage is less than 40 ac (20+5=25).
- Block1 buffer is based on TIF broadcast shank, 200 lbs AI/ac, 10 ac: 56 feet (Table 1).
- Block 2 buffer is based on TIF broadcast shank, 200 lbs AI/ac, 15 ac: 69 feet (Table 1).
- Block 3 and Block 4 buffers are the same distance, based on non-TIF broadcast shank, 200 lbs AI/ac, 20+5=25 ac: 240 feet (Table 5).

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# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

## Overlapping buffer zones (continued)

Scenario 5: Multiple application blocks, at least one TIF application block, other application blocks individually use non-TIF or untarped, and blocks use different application methods and/or application rates.

TIF conditions:

- Combined TIF acreage shall not exceed 60 acres.
- Buffer distance for each TIF block shall be based on individual method, application rate, and acres.

Non-TIF/untarped conditions:

- Combined non-TIF/untarped acreage shall not exceed 40 acres.
- Buffer distance shall be based on combined acreage of all non-TIF/untarped blocks.

### Scenario 5 example:

**Coastal county, four applications, two blocks use TIF, two blocks use non-TIF, applications methods and rates vary among blocks.**

<u>Block 1:</u>	<u>Block 2:</u>	<u>Block 3:</u>	<u>Block 4:</u>
<ul style="list-style-type: none"> <li>• TIF</li> <li>• Broadcast</li> <li>• shank</li> <li>• 200 lbs AI/ac</li> <li>• 10 ac</li> </ul>	<ul style="list-style-type: none"> <li>• TIF</li> <li>• Drip</li> <li>• 175 lbs AI/ac</li> <li>• 15 ac</li> </ul>	<ul style="list-style-type: none"> <li>• Non-TIF</li> <li>• Broadcast</li> <li>• shank</li> <li>• 225 lbs AI/ac</li> <li>• 20 ac</li> </ul>	<ul style="list-style-type: none"> <li>• Non-TIF</li> <li>• Drip</li> <li>• 150 lbs AI/ac</li> <li>• 5 ac</li> </ul>

### Buffer zone determination:

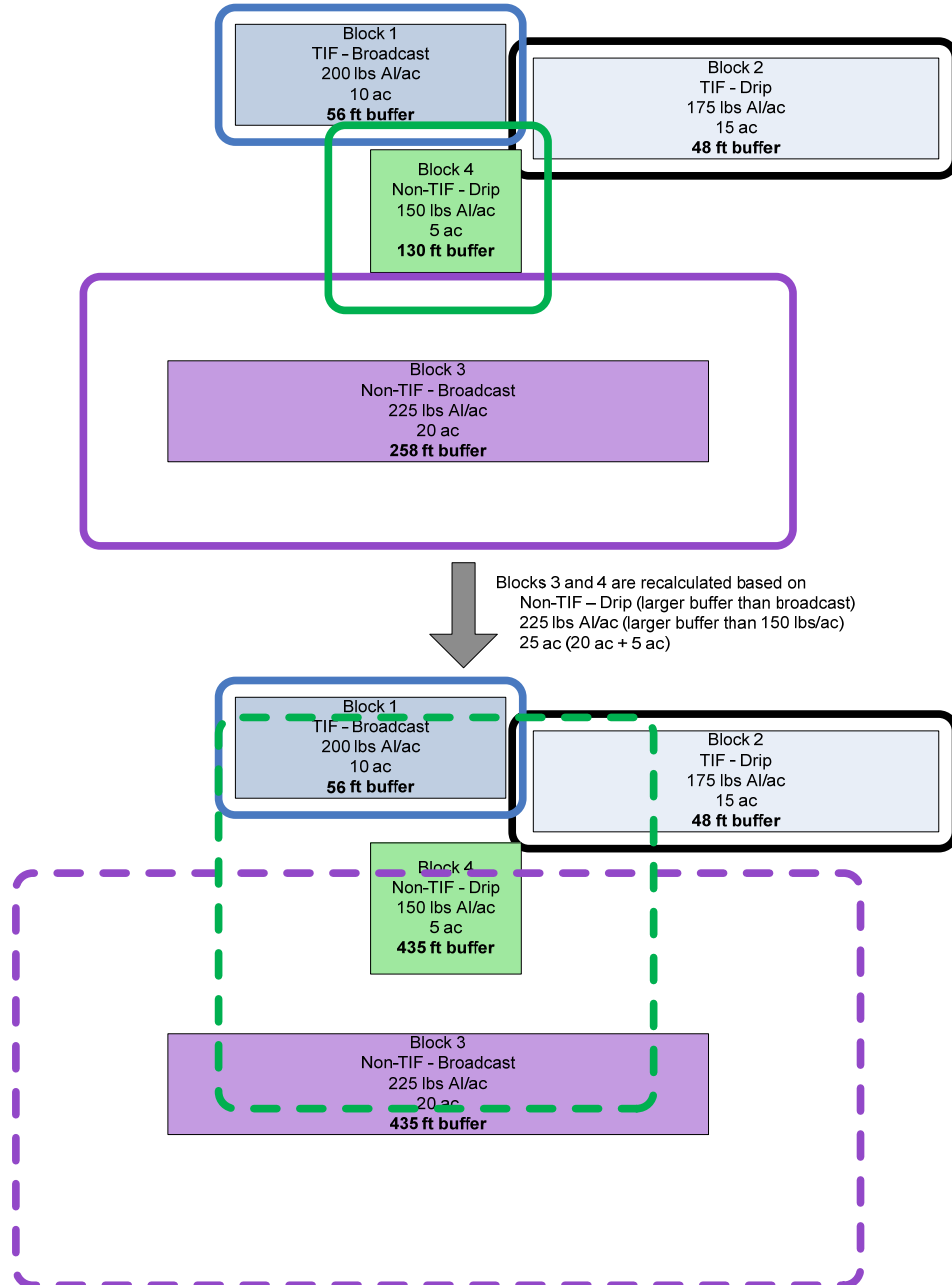
- Combined TIF acreage is less than 60 ac (10+15=25).
- Combined non-TIF/untarped acreage is less than 40 ac (20+5=25).  
Block 1 buffer is based on TIF broadcast shank, 200 lbs AI/ac, 10 ac:
- 56 feet (Table 1).
- Block 2 buffer is based on TIF drip, 175 lbs AI/ac, 15 ac: 48 feet (Table 4).
- Block 3 and Block 4 buffers are the same distance based on non-TIF drip, 225 lbs AI/ac, 20+5=25 ac: 435 feet (Table 8a).
- **NOTES:** Shorter buffer of 298 feet (Table 5) for non-TIF broadcast shank, 225 lbs AI/ac, 25 ac, does not apply.
- DPR consultation would be needed if the Block 3 application rate was >225 lbs AI/ac; this exceeds the application rates in Table 8a.

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# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

## Overlapping buffer zones (continued)

Overlapping Buffer Zone Requirements



# Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions, Continued

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## Tarp perforation and removal

Tarps that qualify for any buffer zone percentage reduction credit (i.e., listed on either <http://www2.epa.gov/soil-fumigants/tarps> or [http://www.cdpr.ca.gov/docs/emon/pubs/tac/dpr\\_tarp\\_list.pdf](http://www.cdpr.ca.gov/docs/emon/pubs/tac/dpr_tarp_list.pdf)) must not be perforated until a minimum of 9 days (216 hours) have elapsed after the application is complete, and must not be removed until a minimum of 1 day (24 hours) after perforation. Tarps may be perforated or removed earlier if label-specified adverse weather conditions have compromised the integrity of the tarp.

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## Emergency preparedness and response measures

### **If the certified applicator uses Fumigant Site Monitoring, then:**

- Monitoring for sensory irritation must be done along the outside perimeter of the buffer zone.
- At the start of each label-specified monitoring period, monitors must determine the wind direction. The wind directions and times of determination must be included in the Post-Application Summary.
- Monitoring must be done in at least two different locations along the perimeter, including:
  - Downwind of the application block.
  - In the direction of all residences, businesses, and bystander areas that trigger the Emergency Preparedness and Response Measures.
  - On calm days, monitoring must be done along all buffer zone sides.
- Monitors must have full olfactory capabilities.
- If the monitor experiences sensory irritation triggering the emergency response plan, the monitor must notify the county agricultural commissioner.

### **If the certified applicator uses Response Information for Neighbors (notification), then it must be in both Spanish and English.**

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## Emergency response plan

The county agricultural commissioner must be notified immediately if the emergency response plan is implemented.

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*Continued on next page*

Table 1. Chloropicrin buffer zone distances (feet) for TIF broadcast shank injection fumigations in Coastal and Inland counties. Round up to the nearest rate and block size, where applicable.

		Application Block Size (acres)																		
		1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	
Broadcast Equivalent Application Rate (lbs AI/acre)	95	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	
	100	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	29
	105	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	34
	110	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	31	42
	115	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	27	38	49
	120	25	25	25	25	25	25	25	25	25	25	25	25	25	26	30	34	34	45	56
	125	25	25	25	25	25	25	25	25	25	25	25	25	27	30	36	40	40	52	64
	130	25	25	25	25	25	25	25	25	25	25	25	27	32	36	41	47	47	59	71
	135	25	25	25	25	25	25	25	25	25	25	25	30	36	41	47	54	54	66	78
	140	25	25	25	25	25	25	25	25	25	25	25	34	40	46	53	60	60	73	86
	145	25	25	25	25	25	25	25	25	25	25	26	38	45	52	59	66	66	79	92
	150	25	25	25	25	25	25	25	25	25	25	29	42	50	58	64	72	72	85	99
	155	25	25	25	25	25	25	25	25	25	25	33	45	54	63	70	77	77	92	106
	160	25	25	25	25	25	25	25	25	25	25	36	49	59	69	76	83	83	98	112
	165	25	25	25	25	25	25	25	25	25	27	40	52	64	74	82	88	88	104	119
	170	25	25	25	25	25	25	25	25	25	26	30	44	56	68	80	87	94	110	126
	175	25	25	25	25	25	25	25	25	25	29	34	47	60	73	86	93	100	116	132
	180	25	25	25	25	25	25	25	28	33	38	52	64	78	90	100	108	108	125	141
	185	25	25	25	25	25	25	26	32	37	42	56	69	82	95	106	116	116	134	150
	190	25	25	25	25	25	25	30	36	41	47	60	74	87	100	112	125	125	142	160
	195	25	25	25	25	25	27	33	39	45	51	65	78	91	104	119	133	133	151	168
	200	25	25	25	25	25	30	37	43	49	56	69	83	96	109	125	142	142	160	178
	205	25	25	25	25	27	34	40	47	53	60	74	88	100	114	132	150	150	168	187
	210	25	25	25	25	30	37	44	50	57	64	78	92	105	118	138	158	158	177	196
	215	25	25	25	27	33	40	46	53	60	66	81	96	110	124	144	164	164	182	202
	220	25	25	25	29	36	42	49	56	62	68	84	100	114	130	149	169	169	188	208
	225	25	25	25	32	38	45	52	58	64	71	87	103	119	135	155	174	174	194	213
	230	25	25	26	34	42	48	54	60	67	73	90	107	124	141	160	180	180	199	219
	235	25	25	27	36	44	50	57	63	69	76	93	110	128	146	166	185	185	205	224
	240	25	25	28	38	47	53	59	66	72	78	96	114	133	152	172	190	190	210	230
245	25	25	30	40	50	56	62	68	74	80	99	118	138	158	177	196	196	216	236	
250	25	25	31	41	52	58	64	70	76	82	102	121	142	163	181	200	200	220	242	
255	25	25	32	42	53	59	65	71	77	84	104	124	146	168	185	203	203	225	248	
260	25	25	32	43	54	60	67	73	79	85	106	128	150	172	190	206	206	230	253	
265	25	25	33	44	56	62	68	74	81	87	109	130	154	178	194	210	210	234	259	
270	25	25	34	45	57	64	70	76	82	88	111	134	158	182	198	213	213	239	264	
275	25	25	34	46	58	65	71	78	84	90	114	137	162	187	202	216	216	244	270	
280	25	25	35	48	60	66	73	79	86	92	116	140	166	192	206	220	220	248	276	
285	25	25	36	49	62	68	75	82	89	96	120	144	169	194	210	228	228	257	286	
290	25	25	36	50	63	70	78	85	92	99	124	149	172	195	215	235	235	266	296	
295	25	25	37	51	64	72	80	87	95	102	128	154	175	196	220	242	242	274	306	

Table 1 (cont.). Chloropicrin buffer zone distances (feet) for TIF broadcast shank injection fumigations in Coastal and Inland counties. Round up to the nearest rate and block size, where applicable.

		<b>Application Block Size (acres)</b>																	
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>	<b>40</b>	<b>50</b>	<b>60</b>
<b>lbs AI/acre</b>	<b>300</b>	25	25	38	52	66	74	82	90	98	106	132	158	178	198	224	250	283	316
	<b>305</b>	25	26	40	54	69	77	85	93	101	109	136	163	184	205	229	253	287	321
	<b>310</b>	25	27	42	57	71	80	88	96	104	113	141	169	190	211	234	257	292	327
	<b>315</b>	25	29	44	59	74	82	91	99	108	116	145	174	196	218	239	260	296	332
	<b>320</b>	25	30	45	60	76	84	92	101	109	118	147	176	199	222	243	264	301	337
	<b>325</b>	25	31	46	62	78	86	94	102	110	119	149	178	202	226	247	268	306	342
	<b>330</b>	25	32	48	64	79	87	96	104	112	120	150	181	205	229	251	273	310	348
	<b>335</b>	25	33	49	65	81	89	97	105	114	122	152	183	208	233	255	277	315	352
	<b>340</b>	25	34	50	66	82	91	99	107	115	123	154	186	211	236	259	282	320	358
	<b>345</b>	25	36	52	68	84	92	100	108	116	124	156	188	214	240	263	286	324	363
	<b>350</b>	25	36	53	70	86	94	102	110	118	126	158	190	217	244	267	290	329	368



Table 2. Chloropicrin buffer zone distances (feet) for TIF bed shank injection fumigations in Coastal and Inland counties. Round up to the nearest rate and block size, where applicable.

		Application Block Size (acres)																		
		1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	
Broadcast Equivalent Application Rate (lbs AI/acre)	100	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	
	105	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	26	40
	110	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	26	54	62
	115	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	28	38	58	67
	120	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	38	50	62	72
	125	25	25	25	25	25	25	25	25	25	25	25	25	25	25	31	44	57	75	84
	130	25	25	25	25	25	25	25	25	25	25	25	25	25	34	38	50	64	88	96
	135	25	25	25	25	25	25	25	25	25	25	25	25	25	41	45	57	72	92	101
	140	25	25	25	25	25	25	25	25	25	25	25	25	30	48	52	64	80	96	106
	145	25	25	25	25	25	25	25	25	25	25	25	25	40	54	64	70	88	110	120
	150	25	25	25	25	25	25	25	25	25	25	25	28	48	59	71	80	99	119	130
	155	25	25	25	25	25	25	25	25	25	25	25	38	56	64	78	90	110	128	140
	160	25	25	25	25	25	25	25	25	25	25	25	43	61	71	85	97	113	132	149
	165	25	25	25	25	25	25	25	25	25	25	25	48	66	78	92	104	116	136	158
	170	25	25	25	25	25	25	25	25	25	25	25	51	69	85	98	111	124	144	164
	175	25	25	25	25	25	25	25	25	25	25	26	54	72	92	104	118	132	152	170
	180	25	25	25	25	25	25	25	25	25	25	27	56	74	95	107	121	136	156	175
	185	25	25	25	25	25	25	25	25	25	25	28	57	76	97	110	125	140	161	180
	190	25	25	25	25	25	25	25	25	25	25	28	59	78	100	113	128	143	165	184
	195	25	25	25	25	25	25	25	25	25	26	29	60	80	102	116	132	147	169	190
	200	25	25	25	25	25	25	25	25	25	26	30	62	82	105	119	135	151	174	194
	205	25	25	25	25	25	25	25	25	25	27	30	63	84	108	122	138	155	178	199
	210	25	25	25	25	25	25	25	25	25	27	31	65	86	110	125	142	158	182	204
	215	25	25	25	25	25	25	25	25	25	28	32	66	88	113	128	145	162	187	209
	220	25	25	25	25	25	25	25	25	25	29	33	68	90	116	131	148	166	191	214
	225	25	25	25	25	25	25	25	25	25	29	34	70	92	118	134	152	170	196	218
230	25	25	25	25	25	25	25	25	26	30	34	71	95	121	137	155	174	200	224	
235	25	25	25	25	25	25	25	25	26	31	35	72	97	124	140	158	177	204	228	
240	25	25	25	25	25	25	25	25	27	31	36	74	99	126	143	162	181	208	233	
245	25	25	25	25	25	25	25	25	28	32	36	76	101	129	146	165	185	213	238	
250	25	25	25	25	25	25	25	25	28	32	37	77	103	132	148	168	188	217	243	
255	25	25	25	25	25	25	25	25	28	33	38	79	105	134	152	172	192	222	248	
260	25	25	25	25	25	25	25	25	29	34	39	80	107	137	154	175	196	226	252	
265	25	25	25	25	25	25	25	25	30	34	39	82	109	139	158	179	200	230	258	

Table 3. Chloropicrin buffer zone distances (feet) for TIF strip *deep* ( $\geq 18$  inches) injection fumigations in Coastal and Inland counties. TIF strip *shallow* injection fumigations are prohibited. Round up to the nearest rate and block size, where applicable.

		Application Block Size (acres)																		
		1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	
Broadcast Equivalent Application Rate (lbs AI/acre)	75	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	
	80	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	27	35
	85	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	36	48
	90	25	25	25	25	25	25	25	25	25	25	25	25	25	25	26	32	46	60	
	95	25	25	25	25	25	25	25	25	25	25	25	25	26	32	38	43	57	70	
	100	25	25	25	25	25	25	25	25	25	25	25	26	35	44	49	54	68	81	
	105	25	25	25	25	25	25	25	25	25	25	25	32	44	56	61	66	79	92	
	110	25	25	25	25	25	25	25	25	25	25	26	40	52	63	68	74	87	101	
	115	25	25	25	25	25	25	25	25	25	25	32	48	59	70	75	81	96	110	
	120	25	25	25	25	25	25	25	25	25	25	37	56	66	76	82	88	104	120	
	125	25	25	25	25	25	25	25	25	25	25	42	62	73	84	90	96	112	129	
	130	25	25	25	25	25	25	25	25	25	28	47	65	78	91	97	103	121	138	
	135	25	25	25	25	25	25	25	25	30	34	52	68	84	98	104	110	130	148	
	140	25	25	25	25	25	25	25	28	34	40	56	72	89	106	112	118	138	158	
	145	25	25	25	25	25	25	27	33	40	46	62	78	95	113	120	128	148	170	
	150	25	25	25	25	25	26	32	38	45	52	68	84	102	120	128	138	159	181	
	155	25	25	25	25	25	30	37	44	50	57	73	89	108	126	137	147	170	192	
	160	25	25	25	25	27	34	41	47	54	61	78	94	113	132	144	156	179	202	
	165	25	25	25	25	30	36	43	49	56	62	80	98	117	136	150	163	188	212	
	170	25	25	25	26	32	38	45	51	58	64	83	102	121	140	155	170	196	221	
	175	25	25	25	28	34	40	47	53	60	66	86	106	125	144	161	178	204	230	
	180	25	25	25	29	35	42	48	55	61	68	88	109	129	148	166	183	210	236	
	185	25	25	25	30	36	43	50	56	63	70	91	112	132	152	170	188	216	243	
	190	25	25	25	30	37	44	51	58	65	72	93	115	136	156	175	193	222	250	
	195	25	25	25	31	38	45	52	59	66	74	96	118	140	160	180	198	227	256	
	200	25	25	25	32	39	46	54	61	68	76	98	121	143	164	184	204	233	263	
	205	25	25	26	33	40	47	55	62	70	77	101	124	147	169	189	208	239	270	
	210	25	25	26	34	41	48	56	64	72	79	103	127	150	173	194	214	245	276	
	215	25	25	27	34	42	50	58	65	73	81	106	130	154	177	198	219	251	282	
	220	25	25	28	35	43	51	59	67	75	83	108	133	157	181	203	224	256	289	
225	25	25	28	36	44	52	60	68	77	85	110	136	161	185	207	229	262	296		
230	25	25	29	37	45	53	62	70	78	87	113	139	164	189	212	234	268	302		
235	25	25	30	38	46	54	63	72	80	89	116	142	168	193	216	239	274	309		
240	25	25	30	38	47	56	64	73	82	90	118	145	172	198	221	244	280	316		
245	25	25	31	39	48	56	66	74	84	92	120	148	175	202	226	249	286	322		
250	25	25	32	40	48	58	67	76	85	94	123	152	179	206	230	254	292	328		
255	25	25	32	41	50	59	68	78	87	96	125	154	182	210	235	259	297	335		
260	25	25	33	42	50	60	70	79	88	98	128	158	186	214	240	264	303	342		
265	25	25	33	42	52	61	71	80	90	100	130	160	190	218	244	270	309	348		

Table 4. Chloropicrin buffer zone distances (feet) for TIF drip fumigations in Coastal and Inland counties. Round up to the nearest rate and block size, where applicable.

		<b>Application Block Size (acres)</b>																		
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>	<b>40</b>	<b>50</b>	<b>60</b>	
<b>Broadcast Equivalent Application Rate (lbs AI/acre)</b>	<b>112</b>	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	<b>118</b>	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	31	37
	<b>123</b>	25	25	25	25	25	25	25	25	25	25	25	25	25	25	26	27	27	41	48
	<b>128</b>	25	25	25	25	25	25	25	25	25	25	25	25	25	27	30	32	34	56	56
	<b>133</b>	25	25	25	25	25	25	25	25	25	25	25	26	29	33	37	41	59	64	64
	<b>139</b>	25	25	25	25	25	25	25	25	25	25	25	28	32	35	42	49	61	72	72
	<b>144</b>	25	25	25	25	25	25	25	25	25	25	25	30	34	38	47	56	64	80	80
	<b>149</b>	25	25	25	25	25	25	25	25	25	25	25	28	37	42	49	58	67	77	92
	<b>155</b>	25	25	25	25	25	25	25	25	25	25	34	45	50	59	69	77	89	104	104
	<b>160</b>	25	25	25	25	25	25	25	25	26	30	44	52	58	70	80	88	102	116	116
	<b>165</b>	25	25	25	25	25	25	25	25	27	31	46	54	60	72	83	91	106	120	120
	<b>171</b>	25	25	25	25	25	25	25	25	28	32	47	56	62	75	85	94	109	124	124
	<b>176</b>	25	25	25	25	25	25	25	25	29	33	48	57	64	77	88	97	112	128	128
	<b>181</b>	25	25	25	25	25	25	25	26	30	34	50	59	66	79	91	100	116	132	132
	<b>187</b>	25	25	25	25	25	25	25	27	31	35	51	61	68	82	93	103	119	135	135
	<b>192</b>	25	25	25	25	25	25	25	27	32	36	53	62	70	84	96	106	122	139	139
	<b>197</b>	25	25	25	25	25	25	25	28	32	37	54	64	72	86	99	108	126	143	143
	<b>203</b>	25	25	25	25	25	25	25	29	34	38	56	66	74	89	101	112	129	147	147
	<b>208</b>	25	25	25	25	25	25	25	30	34	39	57	68	76	91	104	114	133	151	151
	<b>213</b>	25	25	25	25	25	25	26	30	35	40	59	69	77	93	107	117	136	155	155
<b>219</b>	25	25	25	25	25	25	26	31	36	41	60	71	79	96	109	120	140	158	158	
<b>224</b>	25	25	25	25	25	25	27	32	37	42	62	73	81	98	112	123	143	162	162	
<b>229</b>	25	25	25	25	25	25	28	33	38	43	63	74	83	100	115	126	146	166	166	
<b>235</b>	25	25	25	25	25	25	28	34	39	44	64	76	85	103	117	129	150	170	170	
<b>240</b>	25	25	25	25	25	25	29	34	40	45	66	78	87	105	120	132	153	174	174	

Table 5. Chloropicrin buffer zone distances (feet) for non-TIF broadcast shank injection fumigations in Coastal and Inland counties. Round up to the nearest rate and block size, where applicable.

	Application Block Size (acres)															
	1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40
<b>125</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	101
<b>130</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	117
<b>135</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	102	118	134
<b>140</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	115	133	150
<b>145</b>	60	60	60	60	60	60	100	100	100	100	100	100	112	129	147	164
<b>150</b>	60	60	60	60	60	60	100	100	100	100	100	104	124	144	161	179
<b>155</b>	60	60	60	60	60	60	100	100	100	100	100	113	135	158	175	193
<b>160</b>	60	60	60	60	60	60	100	100	100	100	100	122	147	172	190	207
<b>165</b>	60	60	60	60	60	60	100	100	100	100	100	131	159	186	204	221
<b>170</b>	60	60	60	60	60	60	100	100	100	100	109	141	171	201	218	236
<b>175</b>	60	60	60	60	60	60	100	100	100	100	118	150	183	215	233	250
<b>180</b>	60	60	60	60	60	60	100	100	100	100	129	161	194	226	249	271
<b>185</b>	60	60	60	60	60	60	100	100	100	106	140	173	205	238	265	291
<b>190</b>	60	60	60	60	60	61	100	100	103	117	151	184	217	249	281	312
<b>195</b>	60	60	60	60	60	68	100	100	113	128	162	196	228	261	297	333
<b>200</b>	60	60	60	60	61	76	100	107	123	139	173	207	240	272	313	354
<b>205</b>	60	60	60	60	68	84	100	117	133	149	184	219	251	284	329	374
<b>210</b>	60	60	60	63	75	92	109	126	143	160	195	230	263	295	345	395
<b>215</b>	60	60	60	68	82	99	116	132	149	166	203	239	274	309	359	409
<b>220</b>	60	60	60	73	89	106	122	139	155	171	210	249	286	324	373	422
<b>225</b>	60	60	61	79	96	113	129	145	161	177	218	258	298	338	387	436
<b>230</b>	60	60	64	84	104	119	135	151	167	183	225	267	310	352	401	449
<b>235</b>	60	60	68	89	111	126	142	157	173	189	233	276	321	366	415	463
<b>240</b>	60	60	71	95	118	133	148	164	179	194	240	286	333	381	429	476
<b>245</b>	60	60	75	100	125	140	155	170	185	200	248	295	345	395	443	490
<b>250</b>	60	60	77	103	129	144	159	174	189	204	254	303	355	407	453	499
<b>255</b>	60	60	79	105	132	147	163	178	193	209	260	311	365	419	463	507
<b>260</b>	60	60	80	108	136	151	167	182	197	213	266	319	375	431	474	516
<b>265</b>	60	60	82	111	139	155	170	186	202	217	272	326	385	444	484	524
<b>270</b>	60	60	84	113	143	159	174	190	206	221	278	334	395	456	494	533
<b>275</b>	60	60	86	116	146	162	178	194	210	226	284	342	405	468	505	541
<b>280</b>	60	60	88	119	150	166	182	198	214	230	290	350	415	480	515	550
<b>285</b>	60	60	89	122	154	171	188	205	222	239	300	361	423	484	526	569
<b>290</b>	60	60	91	124	158	176	194	212	230	248	310	373	430	488	538	588
<b>295</b>	60	60	93	127	161	180	199	218	237	256	320	384	438	491	549	606
<b>300</b>	60	60	95	130	165	185	205	225	245	265	330	395	445	495	560	625
<b>305</b>	60	64	100	136	172	192	212	233	253	273	341	408	460	512	573	633
<b>310</b>	60	68	105	142	178	199	220	240	261	282	352	422	475	528	585	642
<b>315</b>	60	73	110	148	185	206	227	248	269	290	363	435	490	545	598	650
<b>320</b>	60	75	113	151	189	210	231	252	273	294	367	441	498	554	608	661
<b>325</b>	60	78	116	155	194	214	235	256	276	297	372	446	505	564	618	671

Table 5 (cont.). Chloropicrin buffer zone distances (feet) for non-TIF broadcast shank injection fumigations in Coastal and Inland counties. Round up to the nearest rate and block size, where applicable.

		<b>Application Block Size (acres)</b>															
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>	<b>40</b>
<b>lbs AI/acre</b>	<b>330</b>	60	81	120	159	198	218	239	260	280	301	376	452	513	573	628	682
	<b>335</b>	60	83	123	163	202	223	243	263	284	304	381	458	520	582	638	693
	<b>340</b>	60	86	126	166	206	227	247	267	288	308	386	464	528	591	648	704
	<b>345</b>	60	89	129	170	211	231	251	271	291	311	390	469	535	601	658	714
	<b>350</b>	60	91	133	174	215	235	255	275	295	315	395	475	543	610	668	725

Table 6a. Chloropicrin buffer zone distances (feet) for non-TIF bed shank injection fumigations in Coastal counties. Maximum application rate allowed by labels is 265 lbs AI/ac. Round up to the nearest rate and block size, where applicable.

		<b>Application Block Size (acres)</b>																
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>	<b>40</b>	
<b>Broadcast Equivalent Application Rate (lbs AI/acre)</b>	<b>50</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	100	
	<b>60</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	100	
	<b>70</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	105	120	140	155
	<b>80</b>	60	60	60	60	60	60	100	100	100	100	100	130	160	190	215	235	
	<b>90</b>	60	60	60	60	60	60	100	100	100	100	135	190	230	265	295	325	
	<b>100</b>	60	60	60	60	60	60	100	100	100	100	170	245	300	345	385	420	
	<b>110</b>	60	60	60	60	60	60	100	100	100	110	205	295	375	435	480	515	
	<b>120</b>	60	60	60	60	65	85	105	125	145	165	265	360	440	510	570	620	
	<b>130</b>	60	60	60	60	85	105	130	155	180	205	330	435	525	600	665	715	
	<b>140</b>	60	60	75	105	140	165	195	220	245	270	385	485	580	670	755	835	
	<b>150</b>	60	60	95	135	170	200	235	265	295	320	445	560	665	760	850	940	
	<b>160</b>	60	70	120	165	205	240	275	305	340	370	510	630	745	850	945	1040	
	<b>170</b>	60	85	140	190	235	275	310	350	385	415	570	705	825	935	1040	1145	
	<b>180</b>	60	95	160	215	260	305	350	390	430	465	630	775	905	1025	1140	1245	
	<b>190</b>	60	105	175	235	290	340	385	430	475	515	690	845	985	1115	1235	1345	
	<b>200</b>	60	120	195	260	320	375	425	470	515	560	750	915	1065	1200	1330	1450	
	<b>210</b>	60	130	210	285	345	405	460	510	560	605	810	985	1145	1290	1425	1550	
<b>220</b>	60	160	245	320	385	445	500	555	605	650	865	1050	1220	1370	1515	1650		
<b>230</b>	60	170	265	340	410	475	535	590	640	695	920	1120	1295	1460	1610	1755		
<b>240</b>	60	180	280	360	435	500	565	625	680	735	975	1185	1370	1545	1705	1855		
<b>250</b>	60	190	295	380	460	530	595	660	715	775	1030	1250	1445	1630	1800	1960		
<b>260</b>	60	205	310	400	480	555	625	690	755	815	1080	1315	1520	1715	1890	2060		
<b>265</b>	170	275	360	440	515	585	650	715	775	835	1105	1350	1575	1785	1990	2180		

Table 6b. Chloropicrin buffer zone distances (feet) for non-TIF bed shank injection fumigations in Inland counties. Maximum application rate allowed by labels is 265 lbs AI/ac. Round up to the nearest rate and block size, where applicable.

		<b>Application Block Size (acres)</b>															
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>	<b>40</b>
<b>Broadcast Equivalent Application Rate (lbs AI/acre)</b>	<b>50</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	100
	<b>60</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	100
	<b>70</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	100
	<b>80</b>	60	60	60	60	60	60	100	100	100	100	100	100	105	125	140	155
	<b>90</b>	60	60	60	60	60	60	100	100	100	100	100	125	155	180	200	220
	<b>100</b>	60	60	60	60	60	60	100	100	100	100	120	170	205	240	265	290
	<b>110</b>	60	60	60	60	60	60	100	100	100	100	125	215	260	300	335	365
	<b>120</b>	60	60	60	60	60	65	100	100	110	125	200	265	320	370	405	440
	<b>130</b>	60	60	60	70	85	100	120	135	150	165	235	305	365	425	475	525
	<b>140</b>	60	60	65	85	105	125	145	160	180	200	285	360	430	490	550	605
	<b>150</b>	60	60	80	105	130	155	175	200	220	240	330	410	485	555	625	685
	<b>160</b>	60	60	95	125	155	180	205	230	255	275	375	465	550	625	695	765
	<b>170</b>	60	65	110	145	175	205	235	265	290	315	425	525	610	695	770	845
	<b>180</b>	60	75	120	165	200	235	265	295	325	350	470	580	675	765	845	925
	<b>190</b>	60	85	135	180	220	260	295	325	360	385	520	635	735	830	920	1005
	<b>200</b>	60	105	160	210	255	290	330	365	395	425	565	690	800	900	990	1080
	<b>210</b>	60	115	175	225	270	315	355	390	425	460	610	740	860	965	1065	1160
<b>220</b>	60	120	185	240	290	335	380	420	455	490	655	795	920	1035	1140	1245	
<b>230</b>	60	130	200	255	310	360	405	445	485	525	695	845	980	1100	1215	1325	
<b>240</b>	60	135	210	275	330	380	425	470	515	555	740	895	1040	1170	1290	1405	
<b>250</b>	60	145	225	290	345	400	450	500	545	585	780	945	1095	1235	1365	1485	
<b>260</b>	70	165	245	315	375	435	485	535	585	630	830	1000	1155	1300	1435	1560	
<b>265</b>	90	190	270	340	400	460	515	565	615	660	870	1050	1215	1365	1505	1640	

Table 7a. Chloropicrin buffer zone distances (feet) for non-TIF strip injection fumigations in Coastal counties. Maximum application rate allowed by labels is 265 lbs AI/ac. Round up to the nearest rate and block size, where applicable.

		<b>Application Block Size (acres)</b>																
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>	<b>40</b>	
<b>Broadcast Equivalent Application Rate (lbs AI/acre)</b>	<b>50</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	100	
	<b>60</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	100	
	<b>70</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	105	120	140	155
	<b>80</b>	60	60	60	60	60	60	100	100	100	100	100	130	160	190	215	235	
	<b>90</b>	60	60	60	60	60	60	100	100	100	100	135	190	230	265	295	325	
	<b>100</b>	60	60	60	60	60	60	100	100	100	100	170	245	300	345	385	420	
	<b>110</b>	60	60	60	60	60	60	100	100	100	110	205	295	375	435	480	515	
	<b>120</b>	60	60	60	60	65	85	105	125	145	165	265	360	440	510	570	620	
	<b>130</b>	60	60	60	60	85	105	130	155	180	205	330	435	525	600	665	715	
	<b>140</b>	60	60	75	105	140	165	195	220	245	270	385	485	580	670	755	835	
	<b>150</b>	60	60	95	135	170	200	235	265	295	320	445	560	665	760	850	940	
	<b>160</b>	60	70	120	165	205	240	275	305	340	370	510	630	745	850	945	1040	
	<b>170</b>	60	85	140	190	235	275	310	350	385	415	570	705	825	935	1040	1145	
	<b>180</b>	60	95	160	215	260	305	350	390	430	465	630	775	905	1025	1140	1245	
	<b>190</b>	60	105	175	235	290	340	385	430	475	515	690	845	985	1115	1235	1345	
	<b>200</b>	60	120	195	260	320	375	425	470	515	560	750	915	1065	1200	1330	1450	
	<b>210</b>	60	130	210	285	345	405	460	510	560	605	810	985	1145	1290	1425	1550	
<b>220</b>	60	160	245	320	385	445	500	555	605	650	865	1050	1220	1370	1515	1650		
<b>230</b>	60	170	265	340	410	475	535	590	640	695	920	1120	1295	1460	1610	1755		
<b>240</b>	60	180	280	360	435	500	565	625	680	735	975	1185	1370	1545	1705	1855		
<b>250</b>	60	190	295	380	460	530	595	660	715	775	1030	1250	1445	1630	1800	1960		
<b>260</b>	60	205	310	400	480	555	625	690	755	815	1080	1315	1520	1715	1890	2060		
<b>265</b>	170	275	360	440	515	585	650	715	775	835	1105	1350	1575	1785	1990	2180		



Table 7b. Chloropicrin buffer zone distances (feet) for non-TIF strip injection fumigations in Inland counties. Maximum application rate allowed by labels is 265 lbs AI/ac. Round up to the nearest rate and block size, where applicable.

		<b>Application Block Size (acres)</b>															
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>	<b>40</b>
<b>Broadcast Equivalent Application Rate (lbs AI/acre)</b>	<b>50</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	100
	<b>60</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	100
	<b>70</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	100
	<b>80</b>	60	60	60	60	60	60	100	100	100	100	100	100	105	125	140	155
	<b>90</b>	60	60	60	60	60	60	100	100	100	100	100	125	155	180	200	220
	<b>100</b>	60	60	60	60	60	60	100	100	100	100	120	170	205	240	265	290
	<b>110</b>	60	60	60	60	60	60	100	100	100	100	125	215	260	300	335	365
	<b>120</b>	60	60	60	60	60	65	100	100	110	125	200	265	320	370	405	440
	<b>130</b>	60	60	60	70	85	100	120	135	150	165	235	305	365	425	475	525
	<b>140</b>	60	60	65	85	105	125	145	160	180	200	285	360	430	490	550	605
	<b>150</b>	60	60	80	105	130	155	175	200	220	240	330	410	485	555	625	685
	<b>160</b>	60	60	95	125	155	180	205	230	255	275	375	465	550	625	695	765
	<b>170</b>	60	65	110	145	175	205	235	265	290	315	425	525	610	695	770	845
	<b>180</b>	60	75	120	165	200	235	265	295	325	350	470	580	675	765	845	925
	<b>190</b>	60	85	135	180	220	260	295	325	360	385	520	635	735	830	920	1005
	<b>200</b>	60	105	160	210	255	290	330	365	395	425	565	690	800	900	990	1080
	<b>210</b>	60	115	175	225	270	315	355	390	425	460	610	740	860	965	1065	1160
<b>220</b>	60	120	185	240	290	335	380	420	455	490	655	795	920	1035	1140	1245	
<b>230</b>	60	130	200	255	310	360	405	445	485	525	695	845	980	1100	1215	1325	
<b>240</b>	60	135	210	275	330	380	425	470	515	555	740	895	1040	1170	1290	1405	
<b>250</b>	60	145	225	290	345	400	450	500	545	585	780	945	1095	1235	1365	1485	
<b>260</b>	70	165	245	315	375	435	485	535	585	630	830	1000	1155	1300	1435	1560	
<b>265</b>	90	190	270	340	400	460	515	565	615	660	870	1050	1215	1365	1505	1640	

Table 8a. Chloropicrin buffer zone distances (feet) for non-TIF drip fumigations in Coastal counties. Maximum application rate allowed by labels is 225 lbs AI/ac. Round up to the nearest rate and block size, where applicable.

		<b>Application Block Size (acres)</b>																
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>	<b>40</b>	
<b>Broadcast Equivalent Application Rate (lbs AI/acre)</b>	<b>120</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	100	
	<b>130</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	100	115	130	145
	<b>140</b>	60	60	60	60	60	60	100	100	100	100	100	110	130	150	170	185	
	<b>150</b>	60	60	60	60	60	60	100	100	100	100	110	130	160	190	210	230	
	<b>160</b>	60	60	60	60	60	60	100	100	100	100	125	160	195	220	250	275	
	<b>170</b>	60	60	60	60	60	65	100	100	100	105	150	190	225	260	290	320	
	<b>180</b>	60	60	60	60	70	80	100	100	115	125	170	215	255	295	335	370	
	<b>190</b>	60	60	60	65	80	95	110	120	130	145	200	245	290	335	375	415	
	<b>200</b>	60	60	60	75	95	110	125	140	150	165	225	280	325	375	415	460	
	<b>210</b>	60	60	65	90	105	125	140	155	170	185	250	310	365	410	460	505	
	<b>220</b>	60	60	75	100	120	140	155	175	190	205	280	340	400	450	500	550	
<b>225</b>	60	60	85	110	130	155	175	195	210	230	305	375	435	490	545	595		

Table 8b. Chloropicrin buffer zone distances (feet) for non-TIF drip fumigations in Inland counties. Maximum application rate allowed by labels is 225 lbs AI/ac. Round up to the nearest rate and block size, where applicable.

		<b>Application Block Size (acres)</b>																
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>	<b>40</b>	
<b>Broadcast Equivalent Application Rate (lbs AI/acre)</b>	<b>120</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	100	
	<b>130</b>	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	110	125
	<b>140</b>	60	60	60	60	60	60	100	100	100	100	100	100	110	130	145	170	
	<b>150</b>	60	60	60	60	60	60	100	100	100	100	110	130	145	175	200	220	
	<b>160</b>	60	60	60	60	60	60	100	100	100	100	120	140	165	190	215	235	
	<b>170</b>	60	60	60	60	60	60	100	100	100	100	130	165	190	220	240	265	
	<b>180</b>	60	60	60	60	60	70	100	100	105	110	155	190	220	250	275	300	
	<b>190</b>	60	60	60	60	70	85	100	110	120	130	175	215	250	280	310	335	
	<b>200</b>	60	60	60	75	90	100	115	125	140	150	195	240	275	310	345	375	
	<b>210</b>	60	60	65	85	100	115	130	145	155	165	220	265	305	345	375	410	
	<b>220</b>	60	60	70	95	110	130	145	160	175	185	245	295	335	375	410	445	
<b>225</b>	60	60	80	105	125	140	160	175	190	205	265	320	365	410	445	480		

Table 9a. Chloropicrin buffer zone distances (feet) for untarped broadcast or strip shallow (<18 inches) shank injection fumigations in Coastal counties. Maximum application rate allowed by labels is 175 lbs AI/ac. Round up to the nearest rate and block size, where applicable.

		Application Block Size (acres)															
		1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40
Broadcast Equivalent Application Rate (lbs AI/acre)	20	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	30	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	110
	40	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	190
	50	100	100	100	100	100	100	100	100	100	100	100	100	100	100	160	225
	60	100	100	100	100	100	100	100	100	100	100	100	140	195	250	305	360
	70	100	100	100	100	100	110	125	145	160	175	255	325	390	450	510	560
	80	100	100	100	110	135	160	185	210	235	255	360	445	525	600	660	720
	90	100	100	115	150	180	215	245	275	305	330	460	570	665	745	820	880
	100	100	100	150	200	245	290	330	365	400	430	570	690	795	895	980	1065
	110	100	100	175	235	290	335	380	425	465	500	665	805	930	1040	1145	1240
	120	100	120	200	270	330	385	435	485	530	570	760	920	1060	1190	1305	1415
	130	100	155	240	310	375	435	490	540	590	635	840	1025	1185	1335	1475	1605
	140	100	175	265	345	415	480	540	600	655	705	935	1135	1315	1485	1635	1785
	150	100	190	295	380	460	530	595	660	715	775	1030	1250	1445	1630	1800	1960
	160	100	205	315	410	495	570	645	710	780	840	1120	1360	1575	1775	1960	2135
170	105	245	355	450	540	620	695	770	840	905	1200	1460	1700	1915	2120	2315	
175	140	280	390	490	585	670	750	825	895	965	1285	1565	1820	2055	2280	2495	

Table 9b. Chloropicrin buffer zone distances (feet) for untarped broadcast or strip shallow (<18 inches) shank injection fumigations in Inland counties. Maximum application rate allowed by labels is 175 lbs AI/ac. Round up to the nearest rate and block size, where applicable.

		Application Block Size (acres)															
		1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40
Broadcast Equivalent Application Rate (lbs AI/acre)	40	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	50	100	100	100	100	100	100	100	100	100	100	100	100	100	100	110	130
	60	100	100	100	100	100	100	100	100	100	100	100	100	125	160	200	240
	70	100	100	100	100	100	100	100	100	100	105	115	165	215	265	310	355
	80	100	100	100	100	100	110	125	140	155	170	240	305	365	420	475	530
	90	100	100	100	100	125	145	170	190	210	225	315	390	460	530	595	655
	100	100	100	100	130	155	185	210	235	260	285	385	475	560	640	710	780
	110	100	100	115	155	190	225	255	285	310	340	460	565	660	745	830	905
	120	100	100	135	185	225	265	300	335	365	395	530	650	755	855	945	1030
	130	100	100	155	210	260	300	345	380	415	450	605	735	855	960	1060	1155
	140	100	110	180	240	290	340	385	430	470	505	675	820	950	1070	1180	1280
	150	100	120	200	265	325	380	430	475	520	565	750	905	1050	1175	1295	1405
	160	100	165	240	310	370	425	475	525	570	615	815	985	1140	1280	1415	1540
	170	100	195	275	345	410	465	520	575	625	670	880	1065	1230	1385	1530	1665
	175	120	220	305	380	445	510	565	620	675	725	950	1145	1325	1490	1645	1795

Table 10a. Chloropicrin buffer zone distances (feet) for untarped broadcast or strip *deep* ( $\geq 18$  inches) shank injection fumigations in Coastal counties. NA indicates that application is not allowed because the buffer zone exceeds 2640 feet (1/2 mile). Round up to the nearest rate and block size, where applicable.

		Application Block Size (acres)															
		1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40
Broadcast Equivalent Application Rate (lbs AI/acre)	50	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	60	100	100	100	100	100	100	100	100	100	100	100	100	110	125	140	155
	70	100	100	100	100	100	100	100	100	100	100	145	180	215	245	270	295
	80	100	100	100	100	100	100	100	100	120	135	215	275	320	365	400	430
	90	100	100	100	100	100	100	100	130	155	180	285	360	425	480	525	570
	100	100	100	100	100	100	100	120	160	195	225	355	450	530	595	650	705
	110	100	100	100	125	155	185	215	240	265	290	405	510	605	690	775	855
	120	100	100	115	155	190	225	260	290	320	350	480	595	705	805	895	985
	130	100	100	135	185	225	265	305	340	375	405	555	685	805	915	1015	1115
	140	100	100	155	210	260	305	345	385	425	460	625	770	900	1020	1135	1245
	150	100	110	175	235	290	340	390	430	475	515	695	855	995	1130	1255	1370
	160	100	120	195	265	325	380	430	480	525	570	765	940	1095	1235	1370	1495
	170	100	135	215	290	355	415	470	520	570	620	835	1020	1190	1345	1485	1625
	180	100	145	235	315	385	450	510	565	620	675	905	1105	1285	1450	1600	1745
	190	100	155	255	340	415	485	550	610	670	725	970	1185	1375	1555	1715	1870
	200	100	165	275	365	445	520	590	655	715	775	1040	1265	1470	1655	1830	1995
	210	100	190	300	395	480	560	630	700	765	825	1105	1345	1560	1760	1945	2120
	220	100	220	330	430	515	595	675	745	815	875	1170	1420	1650	1860	2055	2245
	230	100	245	360	460	550	635	715	790	860	930	1235	1500	1740	1960	2170	2365
	240	125	270	390	495	590	675	755	835	905	980	1295	1575	1830	2060	2280	2490
	250	150	300	420	525	625	715	800	880	955	1030	1360	1650	1915	2160	2395	2610
	260	175	325	450	560	660	755	840	925	1000	1080	1425	1725	2005	2260	2505	NA
	270	195	350	480	590	695	790	880	965	1050	1130	1485	1805	2090	2360	2615	NA
	280	220	375	510	625	730	830	925	1010	1095	1180	1550	1880	2180	2460	NA	NA
	290	240	400	535	655	765	870	965	1055	1145	1230	1615	1955	2265	2555	NA	NA
	300	255	425	565	685	800	905	1005	1100	1190	1280	1675	2030	2355	NA	NA	NA
	310	275	445	590	720	835	945	1045	1145	1240	1330	1740	2105	2440	NA	NA	NA
	320	295	470	615	750	870	980	1085	1190	1285	1380	1805	2180	2525	NA	NA	NA
	330	310	490	645	780	905	1020	1130	1230	1330	1430	1865	2255	2615	NA	NA	NA
	340	325	510	670	810	935	1055	1170	1275	1380	1480	1930	2330	NA	NA	NA	NA
350	340	530	695	840	970	1095	1210	1320	1425	1530	1995	2410	NA	NA	NA	NA	

Table 10b. Chloropicrin buffer zone distances (feet) for untarped broadcast or strip deep ( $\geq 18$  inches) shank injection fumigations in Inland counties. NA indicates that application is not allowed because the buffer zone exceeds 2640 feet (1/2 mile). Round up to the nearest rate and block size, where applicable.

		Application Block Size (acres)																
		1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	
Broadcast Equivalent Application Rate (lbs AI/acre)	50	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	60	100	100	100	100	100	100	100	100	100	100	100	100	100	100	110	130	155
	70	100	100	100	100	100	100	100	100	100	100	100	100	100	125	150	185	215
	80	100	100	100	100	100	100	100	100	100	100	115	155	190	225	255	285	
	90	100	100	100	100	100	100	100	100	100	100	160	215	260	300	340	375	
	100	100	100	100	100	100	100	100	100	110	130	210	275	330	380	425	470	
	110	100	100	100	100	100	105	125	140	155	170	250	320	385	450	515	575	
	120	100	100	100	100	115	135	155	175	195	215	305	385	460	535	600	670	
	130	100	100	100	115	140	165	190	215	235	260	360	450	535	615	690	765	
	140	100	100	100	135	170	200	225	255	280	305	420	520	610	700	780	860	
	150	100	100	120	160	195	230	260	290	320	350	475	585	690	780	870	955	
	160	100	100	135	180	220	260	295	330	360	395	530	655	765	865	960	1050	
	170	100	100	150	205	250	290	330	370	405	440	590	720	840	950	1050	1145	
	180	100	105	170	225	275	325	365	405	445	480	645	790	915	1030	1140	1240	
	190	100	115	185	250	305	355	400	445	485	525	705	855	990	1115	1230	1340	
	200	100	125	200	270	330	385	435	480	525	570	760	920	1065	1195	1320	1435	
	210	100	160	235	305	365	420	470	520	565	610	810	980	1135	1275	1410	1535	
	220	100	185	265	335	395	455	510	560	605	655	860	1045	1205	1360	1500	1635	
	230	105	205	290	360	425	485	540	595	645	695	915	1105	1280	1440	1590	1730	
	240	120	225	310	385	455	515	575	630	685	735	965	1170	1350	1520	1680	1830	
250	135	245	335	410	480	550	610	670	725	775	1020	1230	1425	1600	1770	1925		
260	150	260	355	435	510	580	645	705	760	820	1070	1290	1495	1680	1855	2025		
270	160	280	375	460	535	610	675	740	800	860	1120	1355	1565	1760	1945	2120		
280	175	295	395	485	565	635	705	775	835	895	1170	1415	1635	1840	2035	2215		
290	185	310	415	505	590	665	740	805	875	935	1225	1475	1705	1920	2125	2315		
300	200	325	435	530	615	695	770	840	910	975	1275	1535	1775	2000	2210	2410		
310	210	345	455	550	640	720	800	875	945	1015	1325	1595	1845	2080	2300	2505		
320	220	360	470	570	665	750	830	905	980	1050	1370	1655	1915	2160	2385	2605		
330	235	375	490	595	690	775	860	940	1015	1090	1420	1715	1985	2235	2475	NA		
340	245	390	510	615	715	805	890	970	1050	1125	1470	1775	2055	2315	2560	NA		
350	255	405	525	635	735	830	920	1005	1085	1160	1515	1830	2120	2395	NA	NA		

Table 11a. Chloropicrin buffer zone distances (feet) for untarped bed injection fumigations in Coastal counties. Maximum application rate allowed by labels is 265 lbs AI/ac. NA indicates that application is not allowed because the buffer zone exceeds 2640 feet (1/2 mile). Round up to the nearest rate and block size, where applicable.

		Application Block Size (acres)															
		1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40
Broadcast Equivalent Application Rate (lbs AI/acre)	20	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	30	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	110
	40	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	190
	50	100	100	100	100	100	100	100	100	100	100	100	100	100	100	160	225
	60	100	100	100	100	100	100	100	100	100	100	140	195	250	305	360	420
	70	100	100	100	100	100	110	125	145	160	175	255	325	390	450	510	560
	80	100	100	100	110	135	160	185	210	235	255	360	445	525	600	660	720
	90	100	100	115	150	180	215	245	275	305	330	460	570	665	745	820	880
	100	100	100	150	200	245	290	330	365	400	430	570	690	795	895	980	1065
	110	100	100	175	235	290	335	380	425	465	500	665	805	930	1040	1145	1240
	120	100	120	200	270	330	385	435	485	530	570	760	920	1060	1190	1305	1415
	130	100	155	240	310	375	435	490	540	590	635	840	1025	1185	1335	1475	1605
	140	100	175	265	345	415	480	540	600	655	705	935	1135	1315	1485	1635	1785
	150	100	190	295	380	460	530	595	660	715	775	1030	1250	1445	1630	1800	1960
	160	100	205	315	410	495	570	645	710	780	840	1120	1360	1575	1775	1960	2135
	170	105	245	355	450	540	620	695	770	840	905	1200	1460	1700	1915	2120	2315
	180	140	280	390	490	585	670	750	825	895	965	1285	1565	1820	2055	2280	2495
	190	175	315	430	535	630	715	800	880	955	1030	1365	1665	1940	2195	2435	NA
	200	205	345	465	575	670	765	850	935	1015	1095	1445	1765	2055	2330	2585	NA
	210	230	380	500	615	715	810	905	990	1075	1155	1530	1865	2170	2460	NA	NA
220	255	410	535	650	760	860	955	1045	1135	1220	1610	1960	2285	2590	NA	NA	
230	280	435	570	690	800	905	1005	1100	1190	1280	1690	2055	2395	NA	NA	NA	
240	300	465	605	730	845	955	1055	1155	1250	1345	1770	2155	2510	NA	NA	NA	
250	320	490	635	765	885	1000	1105	1210	1310	1405	1850	2250	2615	NA	NA	NA	
260	335	515	665	800	930	1045	1160	1265	1370	1470	1930	2340	NA	NA	NA	NA	
265	355	540	695	840	970	1095	1210	1320	1430	1530	2005	2435	NA	NA	NA	NA	

Table 11b. Chloropicrin buffer zone distances (feet) for untarped bed injection fumigations in Inland counties. Maximum application rate allowed by labels is 265 lbs AI/ac. NA indicates that application is not allowed because the buffer zone exceeds 2640 feet (1/2 mile). Round up to the nearest rate and block size, where applicable.

		Application Block Size (acres)																
		1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	
Broadcast Equivalent Application Rate (lbs AI/acre)	40	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	50	100	100	100	100	100	100	100	100	100	100	100	100	100	100	110	130	145
	60	100	100	100	100	100	100	100	100	100	100	100	100	125	160	200	240	280
	70	100	100	100	100	100	100	100	100	100	105	115	165	215	265	310	355	400
	80	100	100	100	100	100	110	125	140	155	170	240	305	365	420	475	530	530
	90	100	100	100	100	125	145	170	190	210	225	315	390	460	530	595	655	655
	100	100	100	100	130	155	185	210	235	260	285	385	475	560	640	710	780	780
	110	100	100	115	155	190	225	255	285	310	340	460	565	660	745	830	905	905
	120	100	100	135	185	225	265	300	335	365	395	530	650	755	855	945	1030	1030
	130	100	100	155	210	260	300	345	380	415	450	605	735	855	960	1060	1155	1155
	140	100	110	180	240	290	340	385	430	470	505	675	820	950	1070	1180	1280	1280
	150	100	120	200	265	325	380	430	475	520	565	750	905	1050	1175	1295	1405	1405
	160	100	165	240	310	370	425	475	525	570	615	815	985	1140	1280	1415	1540	1540
	170	100	195	275	345	410	465	520	575	625	670	880	1065	1230	1385	1530	1665	1665
	180	120	220	305	380	445	510	565	620	675	725	950	1145	1325	1490	1645	1795	1795
	190	140	245	335	410	480	550	610	665	725	775	1015	1230	1420	1600	1765	1925	1925
	200	155	270	360	445	520	585	650	715	770	830	1085	1310	1515	1705	1880	2050	2050
210	175	290	390	475	555	625	695	760	820	880	1150	1390	1605	1810	2000	2180	2180	
220	190	315	415	505	585	665	735	805	870	930	1215	1470	1700	1915	2115	2310	2310	
230	205	335	440	535	620	700	775	850	915	985	1285	1550	1795	2020	2235	2435	2435	
240	225	355	465	565	655	740	815	890	965	1035	1350	1630	1885	2125	2350	2565	2565	
250	240	375	490	595	685	775	855	935	1010	1085	1415	1710	1980	2230	2470	NA	NA	
260	255	395	515	620	720	810	895	980	1055	1135	1480	1785	2070	2335	2585	NA	NA	
265	270	415	540	650	750	845	935	1020	1100	1180	1545	1865	2165	2440	NA	NA	NA	

Table 12. Chloropicrin buffer zone distances (feet) for untarped drip fumigations in Coastal and Inland counties. Round up to the nearest rate and block size, where applicable.

		<b>Application Block Size (acres)</b>																
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>	<b>40</b>	
<b>Broadcast Equivalent Application Rate (lbs AI/acre)</b>	<b>22</b>	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	<b>27</b>	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
	<b>32</b>	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	105
	<b>38</b>	100	100	100	100	100	100	100	100	100	100	100	100	100	124	154	187	220
	<b>43</b>	100	100	100	100	100	100	100	100	100	100	100	103	157	187	217	250	283
	<b>48</b>	100	100	100	100	100	100	100	100	100	100	100	146	220	250	281	314	347
	<b>54</b>	100	100	100	100	100	100	100	100	100	124	149	206	264	314	363	410	457
	<b>59</b>	100	100	100	100	100	100	100	100	123	148	173	238	303	359	415	459	503
	<b>64</b>	100	100	100	100	100	100	119	145	172	198	270	341	404	468	509	550	
	<b>70</b>	100	100	100	100	100	121	149	176	204	231	314	396	454	512	561	611	
	<b>75</b>	100	100	100	100	116	145	174	203	232	261	353	446	510	575	627	679	
	<b>80</b>	100	100	100	110	138	168	199	230	261	292	393	495	567	638	693	748	
	<b>86</b>	100	100	100	117	147	180	212	245	278	311	419	528	604	681	739	798	
	<b>91</b>	100	100	100	125	156	191	226	261	295	330	446	561	642	723	785	848	
	<b>96</b>	100	100	100	132	165	202	239	276	313	350	472	594	680	766	832	898	
	<b>102</b>	100	100	105	139	174	213	252	291	330	369	498	627	718	808	878	947	
<b>107</b>	100	100	110	147	183	224	265	307	348	389	524	660	755	851	924	997		