

# Kern County

## Chloropicrin Field Fumigation Permit Conditions

(Effective 1/2021)

### A. 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).

Based on site evaluation the Commissioner may impose additional restrictions.

These permit conditions shall be used in addition to the provisions in the California Food and Agricultural Code (FAC), Title 3, California Code of Regulations (3 CCR), and product labeling. Any conflict between these conditions and any other applicable conditions, laws, regulations, and/or label statements shall be resolved in favor of the most restrictive requirement.

### B. Notice of Intent (NOI)

1. The notice of intent (NOI) shall be submitted at least **96** hours before the fumigation begins and include the time fumigation is scheduled to begin. The fumigation cannot begin sooner than the time listed on the NOI.
  - a. If the fumigation does not begin on the date or time proposed on the NOI the certified applicator shall reevaluate the application to determine if this change in date or time will result in overlapping chloropicrin buffer zones and take appropriate steps to comply with label and permit condition requirements.
2. NOI must include amount of Chloropicrin, by pounds of active ingredient (AI)/acre.
3. NOI must include exact application method.
4. NOI must include the method of sealing the application.
5. NOI must be submitted with the written recommendation and a detailed map showing surrounding land use, schools, sensitive areas, occupied structures, bus stops and any other bystander areas within  $\frac{1}{4}$  mile of the treatment site.
6. NOI must be submitted with written permission to allow the buffer zone to extend into adjoining agricultural property.
7. NOI must include all pesticides for the proposed application.
8. If tarps will be used, the NOI must include a copy of the tarp invoice. Confidential business

information, such as pricing, can be omitted.

9. NOI not submitted with required elements or supporting documents will be denied.

### **C. Fumigation Management Plan (FMP)**

A copy of the site-specific Fumigation Management Plan (FMP) must be available at the application site during the entire application.

### **D. Tarps that qualify as Totally Impermeable Film (TIF)**

The Department of Pesticide Regulation (DPR) has created a California-specific list of totally impermeable films (TIF) for soil fumigant products containing chloropicrin that qualify for reduced buffer zone distances as shown in tables 1 through 4 of Section S at the end of these permit conditions. The approved TIF list is on the DPR website at:

[https://www.cdpr.ca.gov/docs/emon/pubs/tac/dpr\\_tarp\\_list.pdf](https://www.cdpr.ca.gov/docs/emon/pubs/tac/dpr_tarp_list.pdf)

### **E. Maximum Rate**

The maximum chloropicrin rate shall not exceed 200 pounds active ingredient per acre (lbs AI/ac) for all applications that do not utilize TIF tarps.

(See additional restrictions for Schools, Difficult to Evacuate Sites and Other Designated Sensitive Areas in Section R.)

### **F. 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).

### **G. Tarp Combination**

An application block shall only be covered with tarps in the same permeability category.

### **H. Application Block Size Limit**

1. For only those chloropicrin applications that do not include methyl bromide and use totally impermeable film (TIF), application block size is limited to 60 acres.
2. 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.

(See additional restrictions for Schools, Difficult to Evacuate Sites and Other Designated Sensitive Areas in Section R.)

**I. Buffer Zone Tables for Chloropicrin- only products and Chloropicrin/ 1,3-Dichloropropene combinations**

The buffer zone tables consist of the following:

<b>Method:</b>	<b>Use Buffer Zone Table:</b>
TIF broadcast shank injection	Table 1
TIF bed injection	Table 2
TIF strip deep injection*	Table 3
TIF drip	Table 4
Non-TIF tarp broadcast shank injection	Table 5
Non-TIF tarp bed injection	Table 6b
Non-TIF tarp strip injection	Table 7b
Non-TIF tarp drip	Table 8b
Untarped broadcast shallow injection	Table 9b
Untarped broadcast deep injection	Table 10b
Untarped bed injection	Table 11b
Untarped drip**	Table 12

\*TIF tarp strip shallow injection is prohibited.

\*\*Untarped drip applications with products containing Methyl Bromide are prohibited.

Applicators must utilize the buffer zone table(s) in Section “S” at the end of these permit conditions to determine the buffer zone distance. 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.

**Label-specified buffer zone reduction credits are not allowed.** These tables already take into account any reductions in buffer zones that would be allowed in California due to buffer zone credits found on the chloropicrin product labels.

**J. Buffer Zones for Methyl bromide and Chloropicrin combinations**

For products containing methyl bromide and chloropicrin, determine the methyl bromide and chloropicrin buffer zones separately. Determine the methyl bromide outer and inner buffer zones distances following the procedure described in Appendix M, *Methyl Bromide Field Fumigation Recommended Permit Conditions*, of the Pesticide Use Enforcement Program Standards Compendium, Volume 3 *Restricted Materials and Permitting*. Determine the chloropicrin buffer zone using the appropriate buffer table in Section S at the end of these permit conditions. These determinations will result in three (3) 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 also apply.

**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. 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. All of the methyl bromide outer buffer zone restrictions also apply.

**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 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.

## **K. Minimum Buffer Zone Distances**

The minimum buffer zone distances are:

1. TIF tarp: 25 feet
2. Non-TIF tarp applications less than or equal to 6 acres: 60 feet
3. Non-TIF tarp applications greater than 6 acres: 100 feet
4. Untarped: 100 feet

(See additional restrictions for Schools, Difficult to Evacuate Sites and Other Designated Sensitive Areas in Section R.)

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

## **L. Tree Hole Fumigation Limitations**

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

1. 50 holes per acre in no more than 40 acres

2. 75 holes per acre in no more than 10 acres
3. 100 holes per acre in no more than 5 acres
4. 200 holes in no more than 1 acre

If any site is 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, the following spacing between fumigated tree holes is listed as a guide:

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

These spacing do not need to be achieved for each tree hole but shall 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 one acre.

### **M. 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 tarps.**

TIF tarp conditions:

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

#### ***Scenario 1 example:***

Two applications, both blocks use TIF tarps.

Block 1:	Block 2:
TIF	TIF
Broadcast shank	Drip
200 lbs/ac	150 lbs/ac
10 ac	20 ac

**Scenario 1 Buffer zone determination:**

- a. Combined TIF acreage is less than or equal to 60 ac (10+20=30).
- b. Individual block buffer zones:
  - i. Block 1 buffer is based on broadcast shank, 200 lbs Al/ac, 10 ac: 56 feet (Table 1).
  - ii. Block 2 buffer is based on drip, 150 lbs Al/ac, 20 ac: 45 feet (Table 4)

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

Non-TIF/untarped conditions:

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

**Scenario 2 example:**

Two applications, both blocks use non-TIF tarps, same method and rate.

Block 1:	Block 2:
Non-TIF	Non-TIF
Broadcast shank	Broadcast shank
200 lbs/ac	200 lbs/ac
10 ac	20 ac

**Scenario 2 Buffer Zone determination:**

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

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

Non-TIF/untarped conditions:

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

d. Use buffer table with largest buffer.

**Scenario 3 example:**

Two applications, both blocks use non-TIF tarps, different methods and rates.

Block 1:	Block 2:
Non-TIF	Non-TIF
Broadcast shank	Drip
200 lbs/ac	150 lbs/ac
10 ac	20 ac

**Scenario 3 Buffer zone determination:**

- a. Combined non-TIF/untarped acreage is less than or equal to 40 ac (10+20=30).
- b. Block 1 and Block 2 buffers are the same distance based on non-TIF drip, 200 lbs AI/ac, 10+20=30 ac: 310 feet (Table 8b).
- c. **NOTE:** Shorter buffer of 272 feet (Table 5) for non-TIF broadcast shank, 200 lbs/ac, 30 ac, does not apply.
- d. DPR consultation would be needed if the Block 1 application rate was >225 lbs AI/ac; this exceeds the application rates in Table 8a.

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

Total combined treated acreage shall not exceed 60 acres.

TIF tarp conditions:

- a. Buffer distance for each TIF block shall be based on individual method, application rate, and acres.

Non-TIF/untarped conditions:

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

**Scenario 4 example:**

Four applications, two blocks use TIF tarps, two blocks use non-TIF tarps, all blocks use same application method and rate

Block 1:	Block 2:	Block 3:	Block 4:
TIF	TIF	Non-TIF	Non-TIF
Broadcast Shank	Broadcast Shank	Broadcast Shank	Broadcast Shank
200 lbs/ac	200 lbs/ac	200 lbs/ac	200 lbs/ac
10 ac	15 ac	20 ac	5 ac

**Scenario 4 Buffer zone determination:**

- a. Combined non-TIF/untarped acreage is less than or equal to 40 ac (20+5=25). Total combined treated acreage is less than or equal to 60 ac (10+15+20+5=50).
- b. 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 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).

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

Total combined treated acreage shall not exceed 60 acres.

TIF tarp conditions:

- a. Buffer distance for each TIF block shall be based on individual method, application rate, and acres.

Non-TIF/untarped conditions:

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

**Scenario 5 example:**

Four applications, two blocks use TIF tarps, two blocks use non-TIF tarps, applications methods and rates vary among blocks.

Block 1:	Block 2:	Block 3:	Block 4:
TIF	TIF	Non-TIF	Non-TIF
Broadcast Shank	Drip	Broadcast Shank	Drip
200 lbs/ac	175 lbs/ac	225 lbs/ac	150 lbs/ac
10 ac	15 ac	20 ac	5 ac

**Scenario 5 Buffer zone determination:**

- a. Combined non-TIF/untarped acreage is less than or equal to 40 ac (20+5=25).  
Total combined treated acreage is less than or equal to 60 ac (10+15+20+5=50).
- b. 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: 365 feet (Table 8b).
- c. **NOTE:** Shorter buffer of 272 feet (Table 5) for non-TIF broadcast shank, 200 lbs/ac, 30 ac, does not apply.
- d. DPR consultation would be needed if the Block 1 application rate was >225 lbs AI/ac; this exceeds the application rates in Table 8a.



## **N. Fumigation Time Restrictions**

Fumigations must start no earlier than one hour after sunrise and must end no later than three hours prior to sunset.

For applications using TIF tarps (including products containing methyl bromide and chloropicrin), these time restrictions do not apply unless the application block is within ¼ mile of a Difficult to Evacuate Site or Other Designated Sensitive Area. (See additional restrictions for Schools, Difficult to Evacuate Sites and Other Designated Sensitive Areas in Section R.)

## **O. Tarp Perforation and Removal**

Tarps that qualify for any buffer zone percentage reduction credit (i.e., listed on [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.

## **P. Emergency Preparedness and Response Measures**

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

1. Monitoring for sensory irritation must be done along the outside perimeter of the buffer zone.
2. At the start of each label-specified monitoring period, monitors must determine the wind direction and speed.
3. The wind directions, speeds, times of determinations and presence (or lack) of sensory irritation or odor must be included in the Post-Application Summary portion of the FMP.
4. Monitoring must be done in at least two different locations along the perimeter, including:
  - a. Downwind of the application block.
  - b. In the direction of all residences, businesses, and bystander areas that trigger the Emergency Preparedness and Response Measures.
  - c. On calm days, monitoring must be done along all buffer zone sides.
5. Monitors must have full olfactory capabilities.
6. 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:**

1. The notification must be given in both Spanish and English.

## **Q. Emergency Response Plan**

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

## **R. Restrictions for Schools, Difficult to Evacuate Sites and Other Designated Sensitive Areas**

### **Definitions:**

1. **Other Designated Sensitive Areas are defined as:** Residential areas, labor camps, apartment complexes, motels, rest areas, churches, designated businesses and any other sensitive area designated by the Commissioner.

**Restrictions:**

1. No chloropicrin application is permitted within ½ mile of a school, unless it will not be in session and no school sponsored activities where children are present take place during the application and for 36 hours following the end of the application.
2. Applications within ¼ mile of a Difficult to Evacuate Site or Other Designated Sensitive Area must be tarped except tree hole fumigations to individual tree and vine replants of less than 1 contiguous acre.
3. The chloropicrin rate shall not exceed 175 pounds AI per acre (lbs AI/ac) when Non-TIF tarps are utilized for sites within ¼ mile of a Difficult to Evacuate Site or Other Designated Sensitive Area.
  - a. The chloropicrin rate shall not exceed 200 pounds AI per acre (lbs AI/ac) when TIF tarps are used if the site is within ¼ mile of a Difficult to Evacuate Site or Other Designated Sensitive Area.
4. All Fumigations (including applications using TIF Tarps) must start no earlier than one hour after sunrise and must end no later than three hours prior to sunset if the site is within ¼ mile of a Difficult to Evacuate Site or Other Designated Sensitive Area.
5. A maximum application block size of 10 acres may be treated if the site is within ¼ mile of a Difficult to Evacuate Site or Other Designated Sensitive Area.
  - a. At least 36 hours must elapse between all fumigations within ¼ mile of the same Difficult to Evacuate Site or Other Designated Sensitive Area. Elapsed time is measured from the time the earlier application is complete until the start of the later application.
6. The following minimum buffer zones shall apply to all to all Difficult to Evacuate Site and Other Designated Sensitive Area:
  - a. **TIF Tarp:** Minimum 60 feet buffer distance to the Difficult to Evacuate Site or Other Designated Sensitive Area.
  - b. **Non-TIF Tarp & Tree Hole Fumigations:** Minimum 100 feet buffer distance to the Difficult to Evacuate Site or Other Designated Sensitive Area.
7. In addition to any site monitoring or emergency preparedness and response measures required by the label and these permit conditions, the **site monitoring described below will be required for all chloropicrin applications made within ½ mile of a Difficult to Evacuate Site or Other Designated Sensitive Area.**
  - a. This additional monitoring for sensory irritation shall be conducted every two (2) hours for a minimum of twelve (12) hours and begin at the completion of the application.
    - i. The monitoring that may be required by the label and these permit condition continuing for 36 hours after the application is complete would still be required if the certified applicator chose the Fumigant Site Monitoring option for their Emergency Preparedness and Response Measures.

- b. Monitoring must be conducted by a certified applicator or someone under his/her supervision.
- c. Monitoring, for sensory irritation, must take place in all areas along the outside perimeter of the buffer zone.
- d. The wind directions, speeds, times of determinations and presence (or lack) of sensory irritation or odor must be included in the Post-Application Summary portion of the FMP.
- e. Those monitoring must have full olfactory capabilities.
- f. If at any time the person(s) monitoring the air concentrations experience sensory irritation, then the emergency response plan stated in the FMP must be immediately implemented.
- g. If those monitoring experience sensory irritation triggering the emergency response plan, the certified applicator overseeing the monitoring must immediately notify the county agricultural commissioner.

**S. Buffer Zone Tables for Inland Counties including Kern County**

**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	25	26	30	34	45	56
	125	25	25	25	25	25	25	25	25	25	25	25	25	25	27	30	36	40	52	64
	130	25	25	25	25	25	25	25	25	25	25	25	25	27	32	36	41	47	59	71
	135	25	25	25	25	25	25	25	25	25	25	25	25	30	36	41	47	54	66	78
	140	25	25	25	25	25	25	25	25	25	25	25	25	34	40	46	53	60	73	86
	145	25	25	25	25	25	25	25	25	25	25	25	26	38	45	52	59	66	79	92
	150	25	25	25	25	25	25	25	25	25	25	25	29	42	50	58	64	72	85	99
	155	25	25	25	25	25	25	25	25	25	25	25	33	45	54	63	70	77	92	106
	160	25	25	25	25	25	25	25	25	25	25	25	36	49	59	69	76	83	98	112
	165	25	25	25	25	25	25	25	25	25	25	27	40	52	64	74	82	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	25	28	33	38	52	64	78	90	100	108	125	141
	185	25	25	25	25	25	25	26	32	37	42	56	69	82	95	106	116	134	150	
	190	25	25	25	25	25	25	30	36	41	47	60	74	87	100	112	125	142	160	
	195	25	25	25	25	25	27	33	39	45	51	65	78	91	104	119	133	151	168	
	200	25	25	25	25	25	30	37	43	49	56	69	83	96	109	125	142	160	178	
	205	25	25	25	25	27	34	40	47	53	60	74	88	100	114	132	150	168	187	
	210	25	25	25	25	30	37	44	50	57	64	78	92	105	118	138	158	177	196	
	215	25	25	25	27	33	40	46	53	60	66	81	96	110	124	144	164	182	202	
	220	25	25	25	29	36	42	49	56	62	68	84	100	114	130	149	169	188	208	
	225	25	25	25	32	38	45	52	58	64	71	87	103	119	135	155	174	194	213	
	230	25	25	26	34	42	48	54	60	67	73	90	107	124	141	160	180	199	219	
	235	25	25	27	36	44	50	57	63	69	76	93	110	128	146	166	185	205	224	
	240	25	25	28	38	47	53	59	66	72	78	96	114	133	152	172	190	210	230	
	245	25	25	30	40	50	56	62	68	74	80	99	118	138	158	177	196	216	236	
	250	25	25	31	41	52	58	64	70	76	82	102	121	142	163	181	200	220	242	
	255	25	25	32	42	53	59	65	71	77	84	104	124	146	168	185	203	225	248	
	260	25	25	32	43	54	60	67	73	79	85	106	128	150	172	190	206	230	253	
	265	25	25	33	44	56	62	68	74	81	87	109	130	154	178	194	210	234	259	
270	25	25	34	45	57	64	70	76	82	88	111	134	158	182	198	213	239	264		
275	25	25	34	46	58	65	71	78	84	90	114	137	162	187	202	216	244	270		
280	25	25	35	48	60	66	73	79	86	92	116	140	166	192	206	220	248	276		
285	25	25	36	49	62	68	75	82	89	96	120	144	169	194	210	228	257	286		
290	25	25	36	50	63	70	78	85	92	99	124	149	172	195	215	235	266	296		
295	25	25	37	51	64	72	80	87	95	102	128	154	175	196	220	242	274	306		
300	25	25	38	52	66	74	82	90	98	106	132	158	178	198	224	250	283	316		
305	25	26	40	54	69	77	85	93	101	109	136	163	184	205	229	253	287	321		
310	25	27	42	57	71	80	88	96	104	113	141	169	190	211	234	257	292	327		
315	25	29	44	59	74	82	91	99	108	116	145	174	196	218	239	260	296	332		
320	25	30	45	60	76	84	92	101	109	118	147	176	199	222	243	264	301	337		
325	25	31	46	62	78	86	94	102	110	119	149	178	202	226	247	268	306	342		
330	25	32	48	64	79	87	96	104	112	120	150	181	205	229	251	273	310	348		
335	25	33	49	65	81	89	97	105	114	122	152	183	208	233	255	277	315	352		
340	25	34	50	66	82	91	99	107	115	123	154	186	211	236	259	282	320	358		
345	25	36	52	68	84	92	100	108	116	124	156	188	214	240	263	286	324	363		
350	25	36	53	70	86	94	102	110	118	126	158	190	217	244	267	290	329	368		

**S. Buffer Zone Tables for Inland Counties including Kern County (Continued)**

**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	28	38	58	67	
	120	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	

**S. Buffer Zone Tables for Inland Counties including Kern County (Continued)**

**Table 3.** Chloropicrin buffer zone distances (feet) for TIF strip deep (≥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		

**S. Buffer Zone Tables for Inland Counties including Kern County (Continued)**

**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.

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

**S. Buffer Zone Tables for Inland Counties including Kern County (Continued)**

**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
Broadcast Equivalent Application Rate (lbs A/acre)	125	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	101
	130	60	60	60	60	60	60	100	100	100	100	100	100	100	100	103	117
	135	60	60	60	60	60	60	100	100	100	100	100	100	100	102	118	134
	140	60	60	60	60	60	60	100	100	100	100	100	100	100	115	133	150
	145	60	60	60	60	60	60	100	100	100	100	100	100	112	129	147	164
	150	60	60	60	60	60	60	100	100	100	100	100	104	124	144	161	179
	155	60	60	60	60	60	60	100	100	100	100	100	113	135	158	175	193
	160	60	60	60	60	60	60	100	100	100	100	100	122	147	172	190	207
	165	60	60	60	60	60	60	100	100	100	100	100	131	159	186	204	221
	170	60	60	60	60	60	60	100	100	100	100	109	141	171	201	218	236
	175	60	60	60	60	60	60	100	100	100	100	118	150	183	215	233	250
	180	60	60	60	60	60	60	100	100	100	100	129	161	194	226	249	271
	185	60	60	60	60	60	60	100	100	100	106	140	173	205	238	265	291
	190	60	60	60	60	60	61	100	100	103	117	151	184	217	249	281	312
	195	60	60	60	60	60	68	100	100	113	128	162	196	228	261	297	333
	200	60	60	60	60	61	76	100	107	123	139	173	207	240	272	313	354
	205	60	60	60	60	68	84	100	117	133	149	184	219	251	284	329	374
	210	60	60	60	63	75	92	109	126	143	160	195	230	263	295	345	395
	215	60	60	60	68	82	99	116	132	149	166	203	239	274	309	359	409
	220	60	60	60	73	89	106	122	139	155	171	210	249	286	324	373	422
	225	60	60	61	79	96	113	129	145	161	177	218	258	298	338	387	436
	230	60	60	64	84	104	119	135	151	167	183	225	267	310	352	401	449
	235	60	60	68	89	111	126	142	157	173	189	233	276	321	366	415	463
	240	60	60	71	95	118	133	148	164	179	194	240	286	333	381	429	476
	245	60	60	75	100	125	140	155	170	185	200	248	295	345	395	443	490
	250	60	60	77	103	129	144	159	174	189	204	254	303	355	407	453	499
	255	60	60	79	105	132	147	163	178	193	209	260	311	365	419	463	507
	260	60	60	80	108	136	151	167	182	197	213	266	319	375	431	474	516
	265	60	60	82	111	139	155	170	186	202	217	272	326	385	444	484	524
	270	60	60	84	113	143	159	174	190	206	221	278	334	395	456	494	533
	275	60	60	86	116	146	162	178	194	210	226	284	342	405	468	505	541
	280	60	60	88	119	150	166	182	198	214	230	290	350	415	480	515	550
285	60	60	89	122	154	171	188	205	222	239	300	361	423	484	526	569	
290	60	60	91	124	158	176	194	212	230	248	310	373	430	488	538	588	
295	60	60	93	127	161	180	199	218	237	256	320	384	438	491	549	606	
300	60	60	95	130	165	185	205	225	245	265	330	395	445	495	560	625	
305	60	64	100	136	172	192	212	233	253	273	341	408	460	512	573	633	
310	60	68	105	142	178	199	220	240	261	282	352	422	475	528	585	642	
315	60	73	110	148	185	206	227	248	269	290	363	435	490	545	598	650	
320	60	75	113	151	189	210	231	252	273	294	367	441	498	554	608	661	
325	60	78	116	155	194	214	235	256	276	297	372	446	505	564	618	671	
330	60	81	120	159	198	218	239	260	280	301	376	452	513	573	628	682	
335	60	83	123	163	202	223	243	263	284	304	381	458	520	582	638	693	
340	60	86	126	166	206	227	247	267	288	308	386	464	528	591	648	704	
345	60	89	129	170	211	231	251	271	291	311	390	469	535	601	658	714	
350	60	91	133	174	215	235	255	275	295	315	395	475	543	610	668	725	



**S. Buffer Zone Tables for Inland Counties including Kern County (Continued)**

**Table 6b.** Chloropicrin buffer zone distances (feet) for non-TIF tarp 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.

		Application Block Size (acres)															
		1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40
<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	120	215	260	300	335	365
	<b>120</b>	60	60	60	60	60	65	100	100	110	120	20	265	320	370	405	440
	<b>130</b>	60	60	60	70	85	100	120	130	150	160	230	305	365	425	475	525
	<b>140</b>	60	60	65	85	105	120	140	160	180	200	280	360	430	490	550	605
	<b>150</b>	60	60	80	105	130	150	170	200	220	240	330	410	485	555	625	685
	<b>160</b>	60	60	95	120	150	180	200	230	250	270	370	465	550	625	695	765
	<b>170</b>	60	65	110	140	170	200	230	260	290	310	420	525	610	695	770	845
	<b>180</b>	60	75	120	160	200	230	260	290	320	350	470	580	675	765	845	925
	<b>190</b>	60	85	130	180	220	260	290	320	360	380	520	635	735	830	920	1005
	<b>200</b>	60	100	160	210	250	290	330	360	390	420	560	690	800	900	990	1080
<b>210</b>	60	110	170	220	270	310	350	390	420	460	610	740	860	965	1065	1160	
<b>220</b>	60	120	180	240	290	330	380	420	450	490	650	795	920	1035	1145	1245	
<b>230</b>	60	130	200	250	310	360	400	440	480	520	690	845	980	1105	1215	1325	
<b>240</b>	60	130	210	270	330	380	420	470	510	550	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

**S. Buffer Zone Tables for Inland Counties including Kern County (Continued)**

**Table 7b.** Chloropicrin buffer zone distances (feet) for non-TIF tarp 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.

		Application Block Size (acres)																
		1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	
Broadcast Equivalent	50	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	100	
	60	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	100	
	70	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	100	
	80	60	60	60	60	60	60	100	100	100	100	100	100	105	125	140	155	
	90	60	60	60	60	60	60	100	100	100	100	100	125	155	180	200	220	
	100	60	60	60	60	60	60	100	100	100	100	100	120	170	205	240	265	290
	110	60	60	60	60	60	60	100	100	100	100	100	120	215	260	300	335	365

<b>120</b>	60	60	60	60	60	65	100	100	110	120	200	265	320	370	405	440
<b>130</b>	60	60	70	85	100	120	130	150	160	230	305	365	425	475	525	
<b>140</b>	60	65	85	105	125	140	160	180	200	280	360	430	490	550	605	
<b>150</b>	60	80	105	130	150	170	200	220	240	330	410	485	555	625	685	
<b>160</b>	60	95	120	150	180	200	230	250	270	370	465	550	625	695	765	
<b>170</b>	65	110	140	170	200	230	260	290	310	420	525	610	695	770	845	
<b>180</b>	75	120	160	200	230	260	290	320	350	470	580	675	765	845	925	
<b>190</b>	85	130	180	220	260	290	320	360	380	520	635	735	830	920	1005	
<b>200</b>	105	160	210	250	290	330	360	390	420	560	690	800	900	990	1080	
<b>210</b>	110	170	220	270	310	350	390	420	460	610	740	860	965	1065	1160	
<b>220</b>	120	180	240	290	330	380	420	450	490	650	795	920	1035	1145	1245	
<b>230</b>	130	200	250	310	360	400	440	480	520	690	845	980	1100	1215	1325	
<b>240</b>	130	210	270	330	380	420	470	510	550	740	895	1040	1170	1290	1405	
<b>250</b>	140	220	290	340	400	450	500	540	580	780	945	1090	1230	1360	1485	
<b>260</b>	160	240	310	370	430	480	530	580	630	830	1000	1150	1300	1430	1560	
<b>265</b>	190	270	340	400	460	510	560	610	660	870	1050	1210	1360	1500	1640	

**S. Buffer Zone Tables for Inland Counties including Kern County (Continued)**

**Table 8b.** Chloropicrin buffer zone distances (feet) for non-TIF tarp 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.

		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)	120	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	100
	130	60	60	60	60	60	60	100	100	100	100	100	100	100	100	100	110
	140	60	60	60	60	60	60	100	100	100	100	100	100	100	110	130	145
	150	60	60	60	60	60	60	100	100	100	100	110	130	145	175	200	220
	160	60	60	60	60	60	60	100	100	100	100	120	140	165	190	215	235
	170	60	60	60	60	60	60	100	100	100	100	130	165	190	220	240	265
	180	60	60	60	60	60	70	100	100	105	110	155	190	220	250	275	300
	190	60	60	60	60	70	85	100	110	120	130	175	215	250	280	310	335
	200	60	60	60	75	90	100	115	125	140	150	195	240	275	310	345	375
	210	60	60	65	85	100	115	130	145	155	165	220	265	305	345	375	410
	220	60	60	70	95	110	130	145	160	175	185	245	295	335	375	410	445
	225	60	60	80	105	125	140	160	175	190	205	265	320	365	410	445	480

**Table 9b.** Chloropicrin buffer zone distances (feet) for untarped broadcast 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	100	110	125	140	155	170	240	305	365	420	475
	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	10	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

**S. Buffer Zone Tables for Inland Counties including Kern County (Continued)**

**Table 10b.** Chloropicrin buffer zone distances (feet) for untarped broadcast deep (≥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 A/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	100	105	125	140	155	170	250	320	385	450	515	575
	120	100	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		

**S. Buffer Zone Tables for Inland Counties including Kern County (Continued)**

**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	100	110	120	140	155	170	240	305	365	420	475	530
	90	100	100	100	100	100	120	140	170	190	210	225	315	390	460	530	595	655
	100	100	100	100	130	150	180	210	235	260	285	385	475	560	640	710	780	
	110	100	100	115	155	190	220	250	285	310	340	460	565	660	745	830	905	
	120	100	100	135	185	220	260	300	335	365	395	530	650	755	855	945	1030	
	130	100	100	155	210	260	300	340	380	415	450	605	735	855	960	1060	1155	
	140	100	110	180	240	290	340	380	430	470	505	675	820	950	1070	1180	1280	
	150	100	120	200	265	320	380	430	475	520	565	750	905	1050	1170	1290	1400	
	160	100	165	240	310	370	420	470	525	570	615	815	985	1140	1280	1410	1540	
	170	100	195	275	345	410	460	520	575	625	670	880	1060	1230	1380	1530	1660	
	180	120	220	305	380	440	510	560	620	675	725	950	1140	1320	1490	1640	1790	
	190	140	245	335	410	480	550	610	665	725	775	1010	1230	1420	1600	1760	1920	
	200	155	270	360	445	520	580	650	715	770	830	1080	1310	1510	1700	1880	2050	
210	175	290	390	475	550	620	690	760	820	880	1150	1390	1600	1810	2000	2180		
220	190	315	415	505	580	660	730	805	870	930	1210	1470	1700	1910	2110	2310		
230	205	335	440	535	620	700	770	850	915	985	1280	1550	1790	2020	2230	2430		
240	225	355	465	565	650	740	810	890	965	1030	1350	1630	1880	2120	2350	2560		
250	240	375	490	595	680	770	850	935	1010	1080	1410	1710	1980	2230	2470	NA		
260	255	395	515	620	720	810	890	980	1050	1130	1480	1780	2070	2330	2580	NA		

	265	270	415	540	650	75 0	84 5	93 5	102 0	110 0	118 0	154 5	186 5	216 5	244 0	NA	NA
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**S. Buffer Zone Tables for Inland Counties including Kern County (Continued)**

**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.

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