

California Environmental Protection Agency Department of Pesticide Regulation

1,3-Dichloropropene Field Fumigation Requirements Established January 1, 2024

Overview

Introduction

This document is incorporated by reference in Title 3, California Code of Regulations (3 CCR) sections 6448, 6448.2, 6624 and 6626. It describes requirements for 1,3-Dichloropropene (1,3-D) setbacks around occupied structures (zones where 1,3-D applications are prohibited) and related requirements, including minimum setback distances, minimum setback durations, maximum application rates, and maximum application block sizes. This document also includes soil moisture requirements, and restrictions to mitigate volatile organic compound (VOC) emissions. Detailed descriptions of the allowed fumigation methods with assigned field fumigation method (FFM) codes are also given.

1,3-D is designated as a California restricted material (3 CCR section 6400) County agricultural commissioners (CACs) have the authority to require more restrictive use requirements based on local conditions in accordance with 3 CCR section 6432.

Questions about the requirements in this document should be directed to the agricultural commissioner's office of the county where the application will take place. Contact information for the agricultural commissioner's office is available at <https://www.cdfa.ca.gov/exec/county/countymap/>.

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Section 1

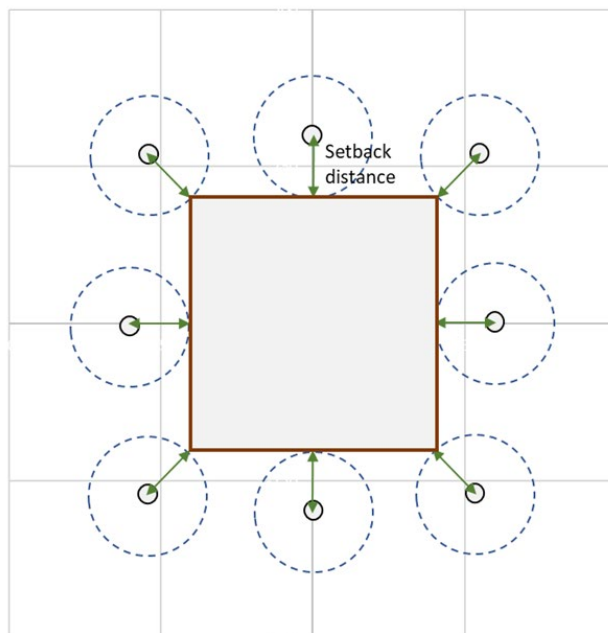
Minimum Requirements for All Field Soil Fumigations

Setback restrictions

3 CCR section 6448(b) prohibits 1,3-D field soil fumigations within the setback distance from occupied structures, including residences, onsite employee housing, schools, convalescent homes, hospitals, businesses, or other similar sites identified by the CAC. Non-residential agricultural buildings, including barns, livestock facilities, sheds, and outhouses, are not by default considered to be an occupied structure. Additionally, the setback is measured from the wall of the structure, not lawns or other outdoor areas associated with a structure. However, a setback is also required for any other indoor or outdoor site that will be occupied for at least 72 consecutive hours during and following a 1,3-Dichloropropene application. The CAC has the discretion to apply the setback to other sites if someone may be at an indoor or outdoor area for more than 24 consecutive hours during and following application.

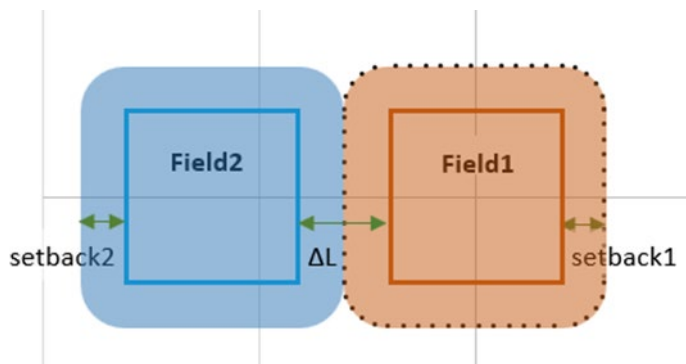
Setback distance

The minimum setback distance from an occupied structure to the perimeter of a 1,3-D fumigation is 100 feet. However, the setback tables in this document specify a longer distance for certain combinations of fumigation method, application rate, and application block size. The figure shows the setback from occupied structures represented by the circles to the fumigated area (application block) represented by the square.



Setbacks for overlapping field soil fumigations

To determine if multiple 1,3-D applications “overlap,” the setback distance is measured from the 1,3-D application block to other 1,3-D application blocks rather than occupied structures. Setbacks for overlapping field soil fumigations are required if the setbacks for two or more application blocks overlap within 36 hours from the time the earlier field soil fumigation is complete until the start of the later field soil fumigation. The figure shows overlapping field soil fumigations occur when the distance between applications (ΔL) is the combined setback distance (setback 1 + setback 2) or less.



For overlapping field soil fumigations, the setback from occupied structures is the same distance for all application blocks and determined using 1) the combined acreage of all overlapping application blocks, 2) the highest application rate, and 3) the setback table for the fumigation method with the largest setback.

Fumigation methods that require the minimum setback restrictions for all field soil fumigations (page 17) are exempt from the multiple field soil fumigations requirements.

Maximum application rate

The maximum application rate is 332 pounds of 1,3-D active ingredient per broadcast-equivalent acre. However, the setback tables in this document specify a lower maximum application rate for certain combinations of fumigation method, setback distance, and application block size. The broadcast equivalent application rate accounts for alternating treated and untreated areas when a bed or strip fumigation is conducted. It is determined by dividing the total amount of 1,3-Dichloropropene (pounds active ingredient) applied to the application block divided by the total area of the application block (fumigated acres plus unfumigated acres of the application block).

Application block size limit

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). The maximum application block size for applications of 1,3-D is 80 acres. However, the setback tables in this

document specify smaller application block sizes for certain combinations of fumigation methods, application rates, and setback distances.

Soil moisture requirements

Except for drip chemigation field soil fumigations, 3 CCR section 6448.2(b) requires the application block to have a minimum soil moisture of 50% of field capacity at a depth of three to nine inches below the surface when the fumigation occurs. One of the following options shall be used to comply with the soil moisture requirement.

Option 1 – Irrigation: Irrigate with three inches of water 48–72 hours prior to fumigation with 1,3-D.

Option 2 – Feel and Appearance: Determine if soil moisture content is at least 50% of field capacity at the time of 1,3-D fumigation using a hand examination of the soil. The level of soil moisture content is determined based on several factors, such as the ability to 1) form a ball out of the soil in your hand, 2) the firmness and surface roughness of the ball, 3) the ability to form a ribbon with the soil, water glistening on the surface of the sample, 4) loose soil particles, soil/water staining on fingers, and soil color. The steps are as follows:

1. Divide the application block into five or six equal sections.
 2. Obtain a soil sample between three to nine inches deep, using an auger or shovel, from each section.
 3. Forming a ball: Squeeze the soil sample firmly in your hand several times to form an irregularly shaped "ball."
 4. Forming a ribbon: Squeeze the soil sample ball out of your hand between thumb and forefinger to form a "ribbon."
 5. The feel and appearance of the soil must meet the following descriptions for a soil moisture content of at least 50% of field capacity:
 - *Coarse texture (fine sand, loamy fine sand):*
 - Soil looks moist.
 - It forms a weak ball. A weak ball will disintegrate with two to three bounces of the hand.
 - Loose and aggregated sand grains remain on fingers when forming a ball.
 - Moderate water staining is seen on fingers.
 - It appears with a darkened color.
 - It will not form into a ribbon.
-



- *Moderately coarse texture (sandy loam, fine sandy loam):*
 - Soil looks moist.
 - It forms a ball with defined finger marks.
 - It leaves very light water staining on fingers.
 - It appears with darkened color and will not slick.
 - A weak ribbon forms [Note: less than one inch in length].



- *Medium texture (sandy clay loam, loam, silt loam):*
 - Soil looks moist.
 - It forms a ball with very light staining on fingers.
 - It appears with darkened color
 - It forms a weak ribbon between thumb and forefinger.



- *Fine texture (clay loam, silty clay loam):*
 - Soil looks moist.
 - It forms a smooth ball with defined finger marks.
 - It leaves light soil water staining on fingers.
 - It forms a ribbon between thumb and forefinger.
-



Option 3 – Soil Moisture Sensor: In this method, first determine the soil moisture level at field capacity. The procedure to determine field capacity takes at least 48 hours to complete. For fields that will be fumigated more than once (e.g., annual crops), the field capacity must be determined at least every two years or after organic matter is added to the field or when the soil preparation procedure changes, whichever is more frequent. Once the field capacity is known, the soil moisture content before the fumigation must be at least 50% of field capacity based on a second set of measurements.

Materials

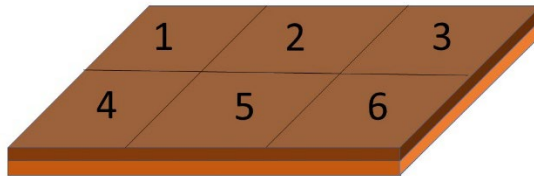
- Electric drill with a drill bit size of 3/32” or smaller
 - Six plastic 5-gallon buckets
 - 25-30 gallons of water
 - Trowel or a similar garden tool
 - Duct tape
 - Permanent marker
 - Six plastic sheets or all-purpose/weather resistant tarpaulins measuring at least 4 x 4 feet
 - Approximately 30 pounds (2.25 gallons) of playground sand (enough to form a one-inch layer at the bottom of each bucket to slow the rate at which water leaves the bucket and infiltrates into the ground); OR, six ½-inch thick sheets of sponge cut to conform to the inner diameter of the bottom of the plastic bucket.
 - Soil moisture sensor that meets the following criteria:
 - Sensor head with 3 rods, 15 centimeters in length with stainless steel waveguide
 - Operation based on a Time Domain Reflectometry function in GHz range
 - Waterproof housing for the sensor
 - Easy and quick readout unit
 - Measurement range: 0 to 100 % volumetric water content (VWC)
 - Measurement resolution: 0.1 % VWC
 - Measurement accuracy: ± 1 percentage VWC points in coarse and medium texture soils; ± 2.5 percentage VWC points in fine textured soils
-

Acclima® Digital True TDR-315H Soil Moisture-Temperature - Bulk Electrical Conductivity (BEC) sensor meets the criteria. Other sensors that meet the criteria can be used.

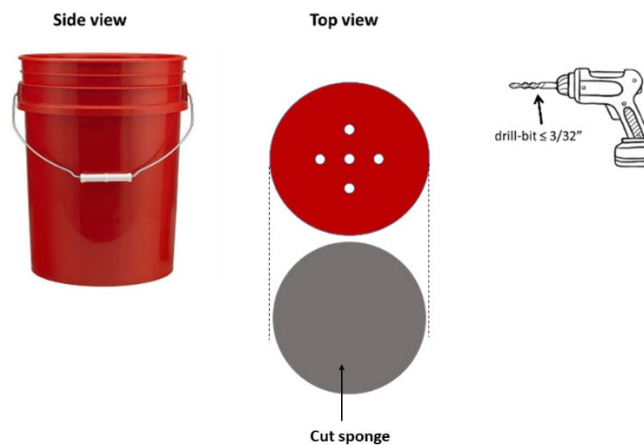
DISCLAIMER: The identification of commercial products, their source, or their use is not to be construed as either an actual or implied endorsement of such product.

Procedure to Determine Soil Moisture at Field Capacity

1. Divide the field into at least six equal sections. The field capacity will be estimated for each of these sections and then a field average value will be determined, thereby accounting for variation within the field.



2. Using a drill and drill bit size of 3/32-inch, drill five holes in the bottom of 5-gallon buckets as is shown in the figure below. Step 4 uses sand or a sponge to slow the speed at which water leaves the bucket and infiltrates into the soil. If a sponge is used, prepare a circular sponge piece by cutting from the sheet of sponge foam into the inner diameter of the bottom of the bucket



3. Trace the bottom diameter of the bucket onto the middle of the plastic sheet/tarpaulin with a permanent marker. Cut the sheet or tarpaulin and attach the sheet/tarpaulin to the side wall of the bucket close to its bottom with duct tape.



(a)

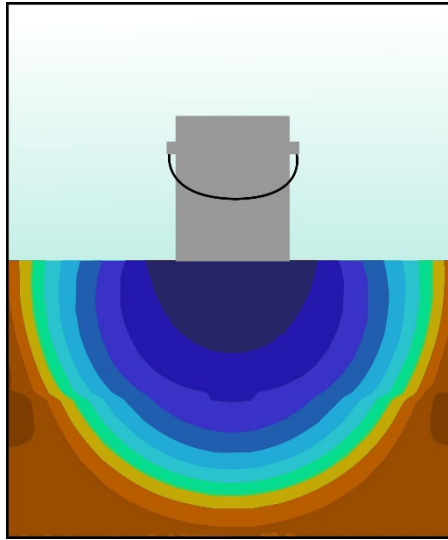


(b)

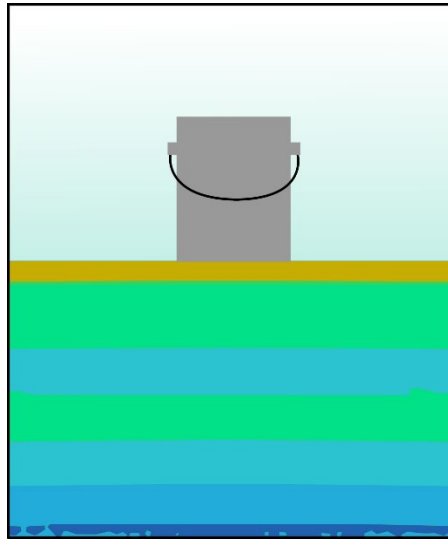
4. Fill each bucket with sand to a depth of approximately one inch OR place the circle shaped pre-cut sheet sponge at the bottom inside each bucket. In each section of the field, place the bucket on the ground approximately in the middle of the section and cover the edge of plastic sheet/tarpaulin with soil to prevent water escape and evaporation. Fill the bucket with water. The water will gradually leak from the bucket through sand or sheet sponge and infiltrate into the soil. A rock or other weight may be needed inside the bucket to keep the sponge in place or to keep the wind from tipping the bucket.



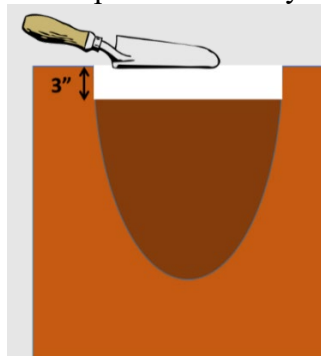
Avoid runoff away from the bucket. If runoff from underneath the bucket occurs, it indicates that the flow rate coming from bucket is higher than the soil's infiltration rate. If any runoff is observed, prepare, and use another bucket with a reduced number of holes such that the flow rate from the bottom of bucket is equal or smaller than the infiltration rate of the soil. With time, water will flow from the bottom of the bucket into soil and re-distribute into surrounding soil. It is recommended to leave a heavy (and small) object inside the bucket to add extra stability against wind.



5. Leave the bucket and plastic sheet/tarpaulin in place for an additional 48 hours (after all the water in the bucket has infiltrated into the soil) allowing for re-distribution of water within the soil profile and minimizing evaporative loss.



6. Remove the bucket and plastic sheet/tarpaulin covering the soil surface. Use a trowel to remove the top 3-inch soil layer of wetted area.



Section 2

**Table 1. 1,3-Dichloropropene (With or Without Chloropicrin)
Field Fumigation Methods Allowed**

Method Name	Field Fumigation Method (FFM) Code (3CCR 6448.2(d))	Regulation Subsection (3 CCR 6448.2)	Setback Table in Section 3
Nontarpaulin/shallow/broadcast or bed	1201 ^a	(d)(1)	2
Tarpaulin/shallow/broadcast	1202 ^a	(d)(2)	2
Tarpaulin/shallow/bed	1203 ^a	(d)(2)	2
Nontarpaulin/shallow/broadcast or bed/ 3 water treatments	1204	(d)(3)	2
Tarpaulin/shallow/bed/3 water treatments	1205 ^a	(d)(4)	2
Nontarpaulin/18 inches deep/broadcast or bed	1206 ^b	(d)(5)	3
Tarpaulin/18 inches deep/broadcast	1207	(d)(6)	3
Tarpaulin/18 inches deep/bed	1208	(d)(6)	3
Chemigation (drip system)/tarpaulin	1209 ^a	(d)(7)	4
Nontarpaulin/18 inches deep/strip	1210	(d)(5)	3
Nontarpaulin/18 inches deep/GPS targeted	1211	(d)(5)	3
Nontarpaulin/24 inches deep/broadcast	1224	(d)(5)	5
Tarpaulin/24 inches deep/broadcast	1225	(d)(5)	5
Nontarpaulin/24 inches deep/strip	1226	(d)(5)	5
Totally Impermeable Film (TIF) tarpaulin/shallow/broadcast	1242	(d)(2)	6
TIF tarpaulin/shallow/bed	1243	(d)(2)	7
TIF tarpaulin/shallow/bed/3 water treatments	1245	(d)(4)	7
TIF tarpaulin/deep/broadcast	1247	(d)(6)	6
TIF tarpaulin/deep/bed	1248	(d)(6)	7
TIF tarpaulin/deep/strip	1249	(d)(6)	6
50% TIF tarpaulin/18 inches deep/broadcast	1250	(d)(5)	8
Chemigation (drip)/TIF tarpaulin	1259	(d)(7)	7
50% TIF tarpaulin/24 inches deep/broadcast	1264	(d)(5)	9
Other label method	1290		Not allowed

^a High-emission method pursuant to VOC regulations (3 CCR 6448.2(d)) and is prohibited in the San Joaquin Valley, Southeast Desert, and Ventura ozone nonattainment areas during May–October.

^b High-emission method when used with chloropicrin. Low-emission method when used with 1,3-D only.

Section 3

Descriptions of Allowed Fumigation Methods and Corresponding Maximum Application Block Size Tables

Standard nontarpaulin and non-TIF tarpaulin shallow (at least 12-inch) methods

The following standard shallow (at least 12 inches) injection depth, nontarpaulin and non-TIF tarpaulin methods must comply with the restrictions below. These fumigation methods are prohibited for applications to tree and grape crops (3 CCR section 6448.2(c)). VOC regulations prohibit these methods in the San Joaquin Valley, Southeast Desert, and Ventura ozone nonattainment areas (NAAs) during May 1 and October 31, except FFM 1204.

Table 2. Maximum Application Block Size (Acres) For
 FFM 1201 – nontarpaulin/shallow/broadcast (3 CCR 6448.2(d)(1))
 FFM 1202 – tarpaulin/shallow/broadcast (3 CCR 6448.2(d)(2))
 FFM 1203 – tarpaulin/shallow/bed (3 CCR 6448.2(d)(2))
 FFM 1204 – nontarp/shallow/brdcast or bed/3 water treatments (3 CCR 6448.2(d)(3))
 FFM 1205 – tarpaulin/shallow/bed/3 water treatments (3 CCR 6448.2(d)(4))

a. March–October applications. Round up to nearest setback distance and application rate.

Broadcast Equivalent a.i. App Rate	Occupied Structure Setback Distance		
	100 ft	200 ft	500 ft
100 lbs/ac	5 ac	15 ac	40 ac
110 lbs/ac	5 ac	10 ac	35 ac
125 lbs/ac	4 ac	5 ac	25 ac
150 lbs/ac	3 ac	5 ac	15 ac
200 lbs/ac	2 ac	3 ac	10 ac
250 lbs/ac	1 ac	2 ac	5 ac
300 lbs/ac	Not Allowed	2 ac	5 ac
332 lbs/ac	Not Allowed	1 ac	4 ac

b. November–February applications. Round up to nearest setback distance and application rate.

Broadcast Equivalent a.i. App Rate	Occupied Structure Setback Distance		
	100 ft	200 ft	500 ft
100 lbs/ac	2 ac	4 ac	10 ac
110 lbs/ac	2 ac	3 ac	10 ac
125 lbs/ac	1 ac	3 ac	5 ac
150 lbs/ac	1 ac	2 ac	5 ac
200 lbs/ac	Not Allowed	1 ac	4 ac
250 lbs/ac	Not Allowed	Not Allowed	3 ac
300 lbs/ac	Not Allowed	Not Allowed	2 ac
332 lbs/ac	Not Allowed	Not Allowed	2 ac

Standard nontarped and non-TIF tarpaulin deep (at least 18-inch) methods

The following standard deep (at least 18 inches) injection depth, nontarped and non-TIF tarpaulin methods must comply with the restrictions below. These fumigation methods are prohibited for applications to tree and grape crops (3 CCR section 6448.2(c)). VOC regulations prohibit method 1206 in the San Joaquin Valley between May 1 and October 31 when used with chloropicrin.

Table 3. Maximum Application Block Size (Acres) For
 FFM 1206 – nontarp/deep/broadcast (3 CCR 6448.2(d)(5))
 FFM 1207 – tarp/deep/broadcast (3 CCR 6448.2(d)(6))
 FFM 1208 – tarp/deep/bed (3 CCR 6448.2(d)(6))
 FFM 1210 – nontarp/deep/strip (3 CCR 6448.2(d)(5))
 FFM 1211 – nontarp/deep/GPS-targeted (3 CCR 6448.2(d)(5))

a. March–October applications. Round up to nearest setback distance and application rate.

Broadcast Equivalent a.i. App Rate	Occupied Structure Setback Distance		
	100 ft	200 ft	500 ft
100 lbs/ac	80 ac	---	---
110 lbs/ac	80 ac	---	---
125 lbs/ac	50 ac	80 ac	---
150 lbs/ac	25 ac	50 ac	80 ac
200 lbs/ac	15 ac	20 ac	65 ac
250 lbs/ac	5 ac	15 ac	40 ac
300 lbs/ac	5 ac	10 ac	25 ac
332 lbs/ac	4 ac	5 ac	20 ac

b. November–February applications. Round up to nearest setback distance and application rate.

Broadcast Equivalent a.i. App Rate	Occupied Structure Setback Distance		
	100 ft	200 ft	500 ft
100 lbs/ac	20 ac	35 ac	80 ac
110 lbs/ac	15 ac	25 ac	65 ac
125 lbs/ac	10 ac	15 ac	50 ac
150 lbs/ac	5 ac	10 ac	30 ac
200 lbs/ac	3 ac	5 ac	15 ac
250 lbs/ac	2 ac	4 ac	10 ac
300 lbs/ac	2 ac	3 ac	10 ac
332 lbs/ac	1 ac	2 ac	5 ac

*--- indicates that the occupied structure distance is not applicable because a shorter distance is sufficient for a maximum application block of 80 ac.

**Chemigation
(drip)/non-TIF
tarpaulin
methods**

Drip irrigation systems (chemigation) with beds covered with a non-TIF tarpaulin can be used with the following FFM code and restrictions below. VOC regulations prohibit this method in the San Joaquin Valley, Southeast Desert, and Ventura ozone NAAs between May 1 and October 31. This fumigation method is prohibited for applications to tree and grape crops (3 CCR section 6448.2(c)).

Table 4. Maximum Application Block Size (Acres) For FFM 1209 – chemigation (drip) system/tarpaulin (3 CCR 6448.2(d)(7))

a. March–October applications. Round up to nearest setback distance and application rate.

Broadcast Equivalent a.i. App Rate	Occupied Structure Setback Distance		
	100 ft	200 ft	500 ft
100 lbs/ac	20 ac	40 ac	80 ac
110 lbs/ac	15 ac	30 ac	80 ac
125 lbs/ac	10 ac	20 ac	65 ac
150 lbs/ac	5 ac	15 ac	40 ac
200 lbs/ac	3 ac	5 ac	20 ac
250 lbs/ac	2 ac	4 ac	15 ac
300 lbs/ac	2 ac	3 ac	10 ac
332 lbs/ac	1 ac	3 ac	10 ac

b. November–February applications. Round up to nearest setback distance and application rate.

Broadcast Equivalent a.i. App Rate	Occupied Structure Setback Distance		
	100 ft	200 ft	500 ft
100 lbs/ac	5 ac	10 ac	25 ac
110 lbs/ac	4 ac	5 ac	20 ac
125 lbs/ac	3 ac	5 ac	15 ac
150 lbs/ac	2 ac	4 ac	10 ac
200 lbs/ac	1 ac	2 ac	5 ac
250 lbs/ac	Not Allowed	2 ac	5 ac
300 lbs/ac	Not Allowed	1 ac	4 ac
332 lbs/ac	Not Allowed	1 ac	3 ac

At least 24-inch injection methods

Methods 1206, 1207 and 1210 modified from a minimum injection depth of 18 inches (3 CCR section 6448.2(d)(5)(A)) to a minimum injection depth of 24 inches can be used with the following FFM codes and restrictions below.

Table 5. Maximum Application Block Size (Acres) For
 FFM 1224 – nontarp/24 inches deep/broadcast (3 CCR 6448.2(d)(5))
 FFM 1225 – tarpaulin/24 inches deep/broadcast (3 CCR 6448.2(d)(5))
 FFM 1226 – nontarp/24 inches deep/strip (3 CCR 6448.2(d)(5))

a. March–October applications. Round up to nearest setback distance and application rate.

Broadcast Equivalent a.i. App Rate	Occupied Structure Setback Distance		
	100 ft	200 ft	500 ft
100 lbs/ac	80 ac	---	---
110 lbs/ac	80 ac	---	---
125 lbs/ac	80 ac	---	---
150 lbs/ac	80 ac	---	---
200 lbs/ac	80 ac	---	---
250 lbs/ac	55 ac	80 ac	---
300 lbs/ac	30 ac	50 ac	80 ac
332 lbs/ac	20 ac	40 ac	80 ac

b. November–February applications. Round up to nearest setback distance and application rate.

Broadcast Equivalent a.i. App Rate	Occupied Structure Setback Distance		
	100 ft	200 ft	500 ft
100 lbs/ac	80 ac	---	---
110 lbs/ac	80 ac	---	---
125 lbs/ac	80 ac	---	---
150 lbs/ac	60 ac	80 ac	---
200 lbs/ac	25 ac	40 ac	80 ac
250 lbs/ac	15 ac	20 ac	55 ac
300 lbs/ac	5 ac	15 ac	35 ac
332 lbs/ac	5 ac	10 ac	30 ac

*--- indicates that the occupied structure distance is not applicable because a shorter distance is sufficient for a maximum application block of 80 ac.

Totally Impermeable Film (TIF) tarpaulin methods with minimum restrictions

At the time of application, TIF tarpaulins must meet the criteria specified in 3 CCR section 6448.1(a)(2) and are included in the “List of Approved Totally Impermeable Film (TIF) Tarpaulins,” available on the Department’s Web site. The following TIF methods are allowed with the minimum restrictions below. TIF tarpaulin methods with minimum restrictions below are exempt from overlapping applications requirements. Adjacent applications can occur on consecutive days with the same minimum restrictions below.

Table 6. Maximum Application Block Size (Acres) For
 FFM 1242 – TIF tarpaulin/shallow/broadcast (3 CCR 6448.2(d)(2))
 FFM 1247 – TIF tarpaulin/deep/broadcast (3 CCR 6448.2(d)(6))
 FFM 1249 – TIF tarpaulin/deep/strip (3 CCR 6448.2(d)(6))

a. March–October applications. Round up to nearest setback distance and application rate.

Broadcast Equivalent a.i. App Rate	Occupied Structure Setback Distance		
	100 ft	200 ft	500 ft
100 lbs/ac	80 ac	---	---
110 lbs/ac	80 ac	---	---
125 lbs/ac	80 ac	---	---
150 lbs/ac	80 ac	---	---
200 lbs/ac	80 ac	---	---
250 lbs/ac	80 ac	---	---
300 lbs/ac	80 ac	---	---
332 lbs/ac	80 ac	---	---

b. November–February applications. Round up to nearest setback distance and application rate.

Broadcast Equivalent a.i. App Rate	Occupied Structure Setback Distance		
	100 ft	200 ft	500 ft
100 lbs/ac	80 ac	---	---
110 lbs/ac	80 ac	---	---
125 lbs/ac	80 ac	---	---
150 lbs/ac	80 ac	---	---
200 lbs/ac	80 ac	---	---
250 lbs/ac	80 ac	---	---
300 lbs/ac	80 ac	---	---
332 lbs/ac	80 ac	---	---

*--- indicates that the occupied structure distance is not applicable because a shorter distance is sufficient for a maximum application block of 80 ac.

TIF tarpaulin methods

At the time of application, TIF tarpaulins must meet the criteria specified in 3 CCR section 6448.1(a)(2) and are included in the “List of Approved Totally Impermeable Film (TIF) Tarpaulins,” available on the Department’s Web site. The following TIF methods can be used with the restrictions below.

Table 7. Maximum Application Block Size (Acres) For
 FFM 1243 – TIF tarpaulin/shallow/bed (3 CCR 6448.2(d)(2))
 FFM 1245 – TIF tarp/shallow/bed/3 water treatments (3 CCR 6448.2(d)(4))
 FFM 1248 – TIF tarpaulin/deep/bed (3 CCR 6448.2(d)(6))
 FFM 1259 – TIF tarpaulin/chemigation (drip) (3 CCR 6448.2(d)(7))

a. March–October applications. Round up to nearest setback distance and application rate.

Broadcast Equivalent a.i. App Rate	Occupied Structure Setback Distance		
	100 ft	200 ft	500 ft
100 lbs/ac	80 ac	---	---
110 lbs/ac	80 ac	---	---
125 lbs/ac	80 ac	---	---
150 lbs/ac	80 ac	---	---
200 lbs/ac	80 ac	---	---
250 lbs/ac	80 ac	---	---
300 lbs/ac	50 ac	80 ac	---
332 lbs/ac	35 ac	65 ac	80 ac

b. November–February applications. Round up to nearest setback distance and application rate.

Broadcast Equivalent a.i. App Rate	Occupied Structure Setback Distance		
	100 ft	200 ft	500 ft
100 lbs/ac	80 ac	---	---
110 lbs/ac	80 ac	---	---
125 lbs/ac	80 ac	---	---
150 lbs/ac	80 ac	---	---
200 lbs/ac	30 ac	50 ac	80 ac
250 lbs/ac	15 ac	25 ac	70 ac
300 lbs/ac	10 ac	15 ac	45 ac
332 lbs/ac	5 ac	15 ac	35 ac

*--- indicates that the occupied structure distance is not applicable because a shorter distance is sufficient for a maximum application block of 80 ac.

50% TIF tarpaulin with 18-inch injection depth method

At the time of application, TIF tarpaulins must meet the criteria specified in 3 CCR section 6448.1(a)(2) and are included in the “List of Approved Totally Impermeable Film (TIF) Tarpaulins,” available on the Department’s Web site. Method 1206, modified so that planted rows are covered with a TIF tarpaulin, can be used with the following FFM code and restrictions below.

Table 8. Maximum Application Block Size (Acres) For FFM 1250 – 50% TIF tarpaulin/18 inches deep/broadcast (3 CCR 6448.2(d)(5))

March–October applications. Round up to nearest setback distance and application rate.

Broadcast Equivalent a.i. App Rate	Occupied Structure Setback Distance		
	100 ft	200 ft	500 ft
100 lbs/ac	80 ac	---	---
110 lbs/ac	80 ac	---	---
125 lbs/ac	80 ac	---	---
150 lbs/ac	80 ac	---	---
200 lbs/ac	80 ac	---	---
250 lbs/ac	40 ac	65 ac	80 ac
300 lbs/ac	20 ac	40 ac	80 ac
332 lbs/ac	15 ac	30 ac	80 ac

b. November–February applications. Round up to nearest setback distance and application rate.

Broadcast Equivalent a.i. App Rate	Occupied Structure Setback Distance		
	100 ft	200 ft	500 ft
100 lbs/ac	80 ac	---	---
110 lbs/ac	80 ac	---	---
125 lbs/ac	65 ac	80 ac	---
150 lbs/ac	35 ac	60 ac	80 ac
200 lbs/ac	15 ac	25 ac	70 ac
250 lbs/ac	10 ac	15 ac	40 ac
300 lbs/ac	5 ac	10 ac	25 ac
332 lbs/ac	4 ac	5 ac	20 ac

*--- indicates that the occupied structure distance is not applicable because a shorter distance is sufficient for a maximum application block of 80 ac.

NOTE: FFM 1250 fumigates both the planted rows and areas between the rows (standard broadcast treatment), with TIF applied only to the planted rows. FFM 1249 leaves the areas between planted rows untreated and untarped (strip treatment).

50% TIF tarpaulin with 24-inch injection depth method

At the time of application, TIF tarpaulins must meet the criteria specified in 3 CCR section 6448.1(a)(2) and are included in the “List of Approved Totally Impermeable Film (TIF) Tarpaulins,” available on the Department’s Web site. Method 1206, modified from a minimum injection depth of 18 inches (3 CCR section 6448.2(d)(5)(A)) to a minimum injection depth of 24 inches, and with planted rows covered with TIF tarpaulin can be used with the FFM code and restrictions below.

Table 9. Maximum Application Block Size (Acres) For FFM 1264 – 50% TIF tarpaulin/ 24 inches deep/broadcast (3 CCR 6448.2(d)(5))

a. March–October applications. Round up to nearest setback distance and application rate.

Broadcast Equivalent a.i. App Rate	Occupied Structure Setback Distance		
	100 ft	200 ft	500 ft
100 lbs/ac	80 ac	---	---
110 lbs/ac	80 ac	---	---
125 lbs/ac	80 ac	---	---
150 lbs/ac	80 ac	---	---
200 lbs/ac	80 ac	---	---
250 lbs/ac	80 ac	---	---
300 lbs/ac	80 ac	---	---
332 lbs/ac	80 ac	---	---

b. November–February applications. Round up to nearest setback distance and application rate.

Broadcast Equivalent a.i. App Rate	Occupied Structure Setback Distance		
	100 ft	200 ft	500 ft
100 lbs/ac	80 ac	---	---
110 lbs/ac	80 ac	---	---
125 lbs/ac	80 ac	---	---
150 lbs/ac	80 ac	---	---
200 lbs/ac	80 ac	---	---
250 lbs/ac	75 ac	80 ac	---
300 lbs/ac	40 ac	65 ac	80 ac
332 lbs/ac	30 ac	50 ac	80 ac

*--- indicates that the occupied structure distance is not applicable because a shorter distance is sufficient for a maximum application block of 80 ac.