

## Appendix J

### 1,3-Dichloropropene (Field Fumigant) Recommended Permit Conditions

#### Overview

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**Introduction** These recommended permit conditions apply to the use of pesticide products containing the active ingredient (a.i.) *1,3-Dichloropropene* (1,3-D) when applied by either mechanical soil injection or drip application systems to fields used for the production of agricultural crops. They should 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.

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**When requirements differ** **When requirements differ, the most stringent requirements should be followed.** County agricultural commissioners (CACs) can use more restrictive conditions based on the local use conditions.

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**Combination with chloropicrin** 1,3-D products containing chloropicrin are also subject to the recommended permit conditions in Appendix K, *Chloropicrin and Chloropicrin in Combination with Other Products (Field Fumigant) Recommended Permit Conditions*.

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## Section J.1

### Background on Use Limitations

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**Background on use limit** DPR is utilizing the guidelines of the Risk Management Directive and Mitigation Guidance for Cancer Risk from 1,3-Dichloropropene (1,3-D) - ([http://www.cdpr.ca.gov/docs/whs/pdf/1,3-d\\_directive\\_mitigation.pdf](http://www.cdpr.ca.gov/docs/whs/pdf/1,3-d_directive_mitigation.pdf)).

DPR limits the 1,3-D used annually in a township to a fixed maximum number of adjusted total pounds (ATP).

Adjusted Total Pounds (ATP) is the total quantity of 1,3-D active ingredient applied during an application, adjusted by an Application Factor (AF). The AF is a numerical value, set by DPR, of the relative amount of 1,3-D potentially present in the air near treated fields. The higher the AF value, the greater the proportion of the applied 1,3-D that may escape into the air. AF values are based on the geographic location, month, and application method.

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**Annual use limit for each township** For all townships in California, except one (Merced township 7S/11E\*), the use limit is 136,000 ATP per calendar year.

\* Only for calendar year 2017, Merced township 7S/11E has a use limit of 115,000 ATP. After 2017, the cap for township 7S/11E reverts to 136,000 ATP.

Dow AgroSciences LLC (DAS) or the DAS's contractor is responsible for tracking, reporting, and ensuring township use limits are observed. The annual township use limit is fixed and cannot be exceeded (i.e., cannot "bank" and roll over unused allotted ATP for later use).

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## Section J.2

### Conditions for All Application Methods

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**Notice of intent (NOI)** The notice of intent (NOI) must be submitted at least 48 hours before the fumigation begins.

The permittee must provide the CAC with a DAS- or DAS contractor-approved recommendation before the NOI is accepted and the application allowed.

In addition to the information required in 3 CCR section 6434, the following information must be included in the NOI:

1. Starting ATP balance available in the township prior to the proposed application
2. Application depth and type, including 4-digit field fumigation method (FFM) code (Table 1)
3. The total gallons (TG) of the pesticide formulation
4. The pounds per gallon (lbs./gal) of 1,3-D formulation
5. The percent by weight of a.i., expressed as a decimal (.XX)
6. The total pounds (TP) of 1,3-D a.i. applied
7. The application factor (AF) appropriate for the proposed application from Table 2
8. The adjusted total pounds (ATP) for the proposed application

The NOI will be denied if the proposed application ATP exceeds the available use limit balance in a township.

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**Maximum application rate** An application cannot exceed the maximum application rate of 332 pounds of 1,3-D active ingredient per acre.

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**1,3-D use reporting** Use reports required by 3 CCR sections 6626(a) or (b) for all 1,3-D applications must include the field fumigation method (FFM) code describing methods of application pursuant to 3 CCR section 6448.1 (Table 1).

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## Conditions for All Application Methods, Continued

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**Restrictions for occupied structures** Applications are prohibited within 100 feet of any occupied structure, measured from the perimeter of the application block to any occupied residences, occupied onsite employee housing, schools, convalescent homes, hospitals, or other similar sites identified by the CAC. If a structure is within 100 feet of the application block, no person shall be present at this structure at any time during the application and during the seven-consecutive day period after the application is complete. This restriction applies even on soils that have not experienced a 1,3-D treatment in the previous two years.

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**Entry into the application block** Entry into the application block (including early entry that would otherwise be permitted by the Worker Protection Standard or 3 CCR section 6770) by any person, other than a government official mandated to regulate pesticide use or a properly trained and equipped handler who is performing a handling task permitted by the product labeling, is prohibited from the start of the application until seven (7) days after the application is complete. This prohibition applies to all applications, including all tarp types and untarped applications.

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**Tarp perforation and removal** Tarps that do not meet the requirements for any percentage reduction in buffer zone distance mentioned on 1,3-D/chloropicrin labels, such as standard polyethylene tarps, may be perforated and/or removed according to fumigant labeling directions.

Tarps that meet the requirements for any percentage reduction in buffer zone distance mentioned on 1,3-D/chloropicrin labels (<https://www.epa.gov/soil-fumigants/tarps%23chloropicrin-1-3d#chloropicrin-1-3d>) must not be perforated until a minimum of nine (9) days (216 hours) have elapsed after the application is complete, and must not be removed until a minimum of one (1) day (24 hours) after perforation, unless a weather condition exists that necessitates early tarp perforation or removal as specified by the fumigant label.

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**Use site restrictions** Use of 1,3-D in greenhouses is prohibited.

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**Time of year restrictions** All 1,3-D applications are prohibited during December to address air concentration uncertainties and potentially high seasonal exposures.

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## Section J.3

### Tables

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

*Note:* Restrictions on fumigation methods are in effect May 1 through October 31 in certain geographic areas (see table). From November through April, any label method may be used anywhere in California. (Regulations and permit conditions that already restricted the use of fumigants still apply.)

1,3-Dichloropropene			Methods Allowed From May 1 Through October 31, by Geographic Area		
Method name	Regulation Section (3 CCR)	Field Fumigation Method Code	NAAs: Sacramento Metro & South Coast	NAAs: Southeast Desert, San Joaquin Valley & Ventura	Outside NAAs
	<b>6448.1</b>				
Nontarpaulin/Shallow/Broadcast or Bed	(d)(1)	1201	✓		✓
Tarpaulin/Shallow/Broadcast	(d)(2)	1202	✓		✓
Tarpaulin/Shallow/Bed	(d)(2)	1203	✓		✓
Nontarpaulin/Shallow/Broadcast or Bed/Three water treatment	(d)(3)	1204	✓	✓	✓
Tarpaulin/Shallow/Bed/Three Water Treatments	(d)(4)	1205	✓	✓	✓
Nontarpaulin/Deep/Broadcast or Bed	(d)(5)	1206	✓	✓	✓
Tarpaulin/Deep/Broadcast	(d)(6)	1207	✓	✓	✓
Tarpaulin/Deep/Bed <sup>†</sup>	(d)(6)	1208	✓	✓	✓
Chemigation (Drip System)/Tarpaulin	(d)(7)	1209	✓	✓	✓
Nontarpaulin/Deep/Strip	(d)(5)	1210	✓	✓	✓
Nontarpaulin/Deep/GPS targeted	(d)(5)	1211	✓	✓	✓
Tarpaulin/Shallow/Broadcast – with tarp eligible for 60% credit	(d)(2)	1242	✓	✓	✓
Tarpaulin/Shallow/Bed -- with tarp eligible for 60% credit	(d)(2)	1243	✓	✓	✓
Tarpaulin/Shallow/Bed/Three Water Treatments – with tarp eligible for 60%	(d)(4)	1245	✓	✓	✓
Tarpaulin/Deep/Broadcast – with tarp eligible for 60% credit	(d)(6)	1247	✓	✓	✓
Tarpaulin/Deep/Bed – with tarp eligible for 60% credit <sup>†</sup>	(d)(6)	1248	✓	✓	✓
Chemigation (Drip System)/Tarpaulin - with tarp eligible for 60% credit	(d)(7)	1259	✓	✓	✓
Other label method		1290			✓

*Abbreviations:* NAA: nonattainment area; 3 CCR: Title 3, California Code of Regulations  
*For more information,* including a map of the NAAs, go to [www.cdpr.ca.gov](http://www.cdpr.ca.gov), click on “A-Z Index,” then “VOC regulations.”

<sup>†</sup> Method is no longer allowed.

## Tables, Continued

**Table 2. Determining the Application Factor (AF)**

Location <sup>i</sup>	Tarp Type <sup>ii</sup>	Months <sup>iii</sup>	Fumigation Method <sup>iv</sup>	Application Factor
Within SJV	non-60% credit	Jan	Shallow	Prohibited
			Deep	1.9
			Drip	1.16
		Feb-Nov	Shallow	1.9
			Deep	1.0
			Drip	1.16
	60% credit	Jan	Shallow	0.6
			Deep	0.6
			Strip	1.2
			Drip	1.16
		Feb-Nov	Shallow	0.3
			Deep	0.3
Outside SJV	non-60% credit	Jan	Shallow	2.3
			Deep	1.2
			Drip	1.16
		Feb-Nov	Shallow	1.9
			Deep	1.0
			Drip	1.16
	60% credit	Jan	Shallow	0.6
			Deep	0.6
			Strip	1.2
			Drip	1.16
		Feb-Nov	Shallow	0.3
			Deep	0.3
Strip	0.6			
Drip	1.16			

<sup>i</sup> Within SJV - Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare Counties;  
Outside SJV - All other counties in California

<sup>ii</sup> Tarp type: 60% Credit - Only DPR-approved tarp assigned a 60% buffer zone credit for products containing both chloropicrin and 1,3-D  
(<http://www.cdpr.ca.gov/docs/emon/pubs/tac/tarpaulins.htm>).

Non-60% Credit - Either the tarp is not DPR-approved for a 60% buffer zone reduction for chloropicrin and 1,3-D products or the application is untarped.

<sup>iii</sup> All applications are prohibited during December.

<sup>iv</sup> Fumigation Methods consist of -

- Shallow broadcast – shank injection less than 18 inches deep
- Deep broadcast – shank injection 18 inches or deeper
- Strip – shank injection alternating with untreated area
- Drip – all chemigation using drip irrigation system whether on soil surface or buried, regardless of depth

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