

Appendix J

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

Overview

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.

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.

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) Interim Recommended Permit Conditions*.

In this document This document contains the following topics:

Section	Topic	See Page
J.1	Background on Use Limitations	J-3
J.2	Conditions for All Application Methods	J-4
J.3	Tables	J-6
	• Table 1 - 1,3-D Field Fumigation Method (FFM) Codes for Pesticide Use Reporting	J-6
	• Table 2 - Determining the Application Factor (AF)	J-7

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Section J.1

Background on Use Limitations

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).

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.

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).

Section J.2

Conditions for All Application Methods

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.

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

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

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.

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.

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.

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

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

Section J.3

Tables

Table 1. 1,3-D Field Fumigation Method (FFM) Codes for Pesticide Use Reporting

Regulation Section	Field Fumigation Method	FFM Code
		-
6448.1	1,3-Dichloropropene Fumigation Methods (with or without chloropicrin)	1200 series
6448.1(d)(1)	Nontarpaulin/Shallow/Broadcast or Bed	1201 *
6448.1(d)(2)	Tarpaulin/Shallow/Broadcast	1202 *
	Tarpaulin/Shallow/Bed	1203 *
6448.1(d)(3)	Nontarpaulin/Shallow/Broadcast /Three Water Treatments	1204
6448.1(d)(4)	Tarpaulin/Shallow/Bed/Three Water Treatment	1205
6448.1(d)(5)	Nontarpaulin/Deep/Broadcast or Bed	1206
6448.1(d)(6)	Tarpaulin/Deep/Broadcast	1207
	Tarpaulin/Deep/Bed	1208
6448.1(d)(7)	Chemigation (Drip System)/Tarpaulin	1209
6448.1(d)(5)	Nontarpaulin/Deep/Strip	1210
6448.1(d)(5)	Nontarpaulin/Deep/GPS-targeted	1211
6448.1(d)(2)	Tarpaulin/Shallow/Broadcast –with tarp eligible for 60% credit	1242
	Tarpaulin/Shallow/Bed–with tarp eligible for 60% credit	1243 *
6448.1(d)(4)	Tarpaulin/Shallow/Bed/Three Water Treatment –with tarp eligible for 60%	1245
6448.1(d)(6)	Tarpaulin/Deep/Broadcast –with tarp eligible for 60% credit	1247
	Tarpaulin/Deep/Bed–with tarp eligible for 60% credit	1248
6448.1(d)(6)	Tarpaulin/Deep/Broadcast-strip –with tarp eligible for 60% credit	1249
6448.1(d)(7)	Chemigation (Drip System)/Tarpaulin –with tarp eligible for 60% credit	1259
	Other label method for 1,3-Dichloropropene (with or without chloropicrin)**	1290

*Method prohibited within the San Joaquin Valley, Southeast Desert, and Ventura nonattainment areas during May 1 – October 31.

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Tables, Continued

Table 2. Determining the Application Factor (AF)

Location ⁱ	Tarp Type ⁱⁱ	Months ⁱⁱⁱ	Fumigation Method ^{iv}	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			

ⁱ Within SJV - Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare Counties

Outside SJV - All other counties in California

ⁱⁱ 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.html>).

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.

ⁱⁱⁱ All applications are prohibited during December.

^{iv} 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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