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Portions of the California Code of Regulations submitted for U.S. EPA approval

California Code of Regulations

**(Title 3. Food and Agriculture)
Division 6. Pesticides and Pest Control Operations
Chapter 2. Pesticides
Subchapter 4. Restricted Materials
Article 4. Use Requirements**

~~6400. Restricted Materials.~~

~~(e) Certain other pesticides:~~

~~METHYL IODIDE~~

~~6446. Methyl Iodide Field – General Requirements~~

~~The provisions of section 6446.1 apply to field soil fumigation using methyl iodide within the Sacramento Metro, San Joaquin Valley, South Coast, Southeast Desert, or Ventura ozone nonattainment areas below during the May 1 through October 31 time period. Replant of individual vine or tree-sites (tree holes) less than one contiguous acre is not considered field soil fumigations under the provisions of section 6446.1.~~

~~NOTE: Authority Cited: Sections 11456, 12976, 14005, and 14102, Food and Agricultural Code.
Reference: Sections 11501, 14006, and 14102, Food and Agricultural Code.~~

~~6446.1. Methyl Iodide Field Fumigation Methods.~~

~~(a) The field soil fumigation of methyl iodide is limited to methods specifically identified in the labeling.~~

~~(b) Notwithstanding subsection (a), a method for experimental research purposes pursuant to a valid research authorization issued according to section 6260 may be allowed.~~

~~NOTE: Authority cited: Sections 11456, 12976, 14005, and 14102, Food and Agricultural Code.~~

~~Reference: Sections 11501, 14006, and 14102, Food and Agricultural Code.~~

6448.1. 1,3-Dichloropropene Field Fumigation Methods.

(a) Application rate must not exceed 332 pounds of 1,3-Dichloropropene active ingredient per acre.

(b) If there are no labeling requirements specifying soil moisture, then at time of application soil must contain at least enough moisture above the depth of application to meet the following test appropriate to the soil texture for:

(1) coarse soils (sand and loamy sand) – at least enough moisture to form a ball when compressed by hand, that may break when tapped;

(2) loamy, moderately coarse, or medium textured (coarse sandy loam, sandy loam, fine sandy loam) – at least enough moisture so that soil forms a ball that holds together when tapped;

(3) fine texture soils (clay loam, silty clay loam, sandy clay, silty clay, sandy clay loam and clay) – at least enough moisture so that the soil is pliable, not crumbly.

(c) Fumigation methods using post-water treatments must be applied at a rate of 0.15-0.25 inches per hour and meet one of the following water requirements depending on soil texture:

(1) coarse soils - a minimum of 0.40 inches of water per acre.

(2) loamy, moderately coarse, or medium texture soils - a minimum of 0.30 inches of water per acre.

(3) fine texture soils - a minimum of 0.20 inches of water per acre.

(d) The 1,3-Dichloropropene field soil fumigation must be made using only the methods described in this section. However within the San Joaquin Valley, Southeast Desert, or Ventura ozone nonattainment areas, methods (1) and (2) are prohibited. In addition to labeling requirements for each of these methods, the following requirements shall apply.

(1) Nontarpaulin/Shallow/Broadcast or Bed

(A) Injection point must be at least 12 inches below the soil surface.

(B) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

(2) Tarpaulin/Shallow/Broadcast or Bed

(A) Injection point must be at least 12 inches below the soil surface.

(B) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

(C) Tarpaulins must be buried under at least four inches of firmly packed soil at the end of the rows.

(D) The operator of the property shall maintain a "tarpaulin repair response plan" pursuant to subsection (e).

(3) Nontarpaulin/Shallow/Broadcast or Bed/Three Post-fumigation Water Treatments

(A) Injection point must be at least 12 inches below the soil surface.

(B) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

(C) Fumigation must be completed in a time that allows compliance with the post-fumigation water treatments below and meet the requirements in subsection (c):

1. Water must be applied by an irrigation method that uniformly covers the treated area in the entire application block.

2. On the day of fumigation, the first water treatment must begin within 30 minutes of the completion of fumigation. A second post-fumigation water treatment must start no earlier than one hour prior to sunset on the day of fumigation and completed by midnight.

3. On the day following fumigation, a third post-fumigation water treatment must be applied starting no earlier than one hour prior to sunset and completed by midnight.

4. Additional post-fumigation water treatment(s) may be applied at any time provided the treatments required above are completed in the specified time periods.

(4) Tarpaulin/Shallow/Bed/Three Post-fumigation Water Treatment

- (A) Injection point must be at least 12 inches below the soil surface.
- (B) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches.
- (C) Tarpaulins must be buried under at least four inches of firmly packed soil at the ends of the rows.
- (D) Fumigation must be completed in a time that allows compliance with the post-fumigation water treatments below and meet the requirements in subsection (c):
 - 1. Water must be applied by an irrigation method that uniformly covers the untarped area in the entire application block.
 - 2. On the day of fumigation, the first water treatment to the untarped areas must begin within 30 minutes of the completion of fumigation. A second post-fumigation water treatment to the untarped areas must start no earlier than one hour prior to sunset on the day of fumigation and completed by midnight.
 - 3. On the day following fumigation, a third post-fumigation water treatment to the untarped areas must be applied starting no earlier than one hour prior to sunset and completed by midnight.
 - 4. Additional post-fumigation water treatment(s) may be applied at any time provided the treatments required above are completed in the specified time periods.
- (E) The operator of the property shall maintain a "tarpaulin repair response plan" pursuant to subsection (e).

(5) Nontarpaulin/Deep/Broadcast or Bed

- (A) Injection point must be at least 18 inches below the soil surface.
- (B) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.

(6) Tarpaulin/Deep/Broadcast or Bed

- (A) Injection point must be at least 18 inches below the soil surface.
- (B) Chisel trace must be eliminated by use of tillage equipment to mix the soil to a depth of at least three inches. Broadcast fumigation must be followed by compaction of the soil surface.
- (C) Tarpaulins must be buried under at least four inches of firmly packed soil at the end of the rows.
- (D) The operator of the property shall maintain a "tarpaulin repair response plan" pursuant to subsection (e).

(7) Chemigation (Drip System)/Tarpaulin

- (A) Drip system must be filled with water and tested for pressure variation, clogged emitters, and leaks before chemigation. The pressure must not exceed the pressure rating of the drip tape, and the pressure variation in the drip tape throughout the field must be less than three pounds per square inch. Drip system must be free of leaks and clogged emitters.
- (B) The tarpaulin shall be placed and inspected for tears, holes, or improperly secured edges prior to fumigating. Repairs and adjustments shall be made before the chemigation begins.
- (C) Ends of drip tape not covered by tarpaulin must be covered by at least two inches of soil.

(D) After chemigation, the drip system must be flushed with a volume of water at least three times the volume of the mainline and laterals of the drip system.

(E) The operator of the property shall maintain a "tarpaulin repair response plan" pursuant to subsection (e).

(e) Tarpaulin Repair.

(1) If a tarpaulin is used, the operator of the property shall maintain a "tarpaulin repair response plan." The tarpaulin repair response plan shall identify the responsibilities of the licensed pest control business and/or the permittee with regard to tarpaulin damage detection and repair activities. At a minimum, the tarpaulin repair response plan shall indicate the parties responsible for the repair and incorporate the applicable elements listed in (2) below.

(2) The "tarpaulin repair response plan" must state with specificity the situations when tarpaulin repair must be conducted. The situations should be based on, but not limited to, hazard to the public, residents, or workers; proximity to occupied structures, size of the damaged area(s); timing of damage; feasibility and response time of repair; and environmental factors such as wind speed and direction.

(f) Notwithstanding subsection (d), a reduced volatile organic compound emission field fumigation method approved pursuant to section 6452 or a method for experimental research purposes pursuant to a valid research authorization issued according to section 6260 may be allowed.

NOTE: Authority cited: Sections 11456, 12976, 12981, 14005, and 14102, Food and Agricultural Code.
Reference: Sections 11501, 12981, 14006, and 14102, Food and Agricultural Code.

~~6448.1. Chloropicrin Field Fumigation Methods.~~

~~(a) Application rate must not exceed 400 pounds of chloropicrin per acre.~~

~~(b) For products containing chloropicrin as the sole active ingredient, the field soil fumigation must be made using only the methods described in section 6447.3 or 6448.1. However within the San Joaquin Valley, Southeast Desert, or Ventura ozone nonattainment areas the methods described in the following sections are prohibited: 6447.3(a)(1), (2), (4), and (6); if applied as alternating fumigated and unfumigated areas (strip fumigation), methods 6447.3(a)(3) and (5); 6448.1(c)(1) and (5); and if applied as a bed fumigation, 6448.1(c)(2).~~

~~(c) If there are no labeling requirements specifying soil moisture, then at time of application soil must contain at least enough moisture above the depth of application to meet the following test appropriate to the soil texture for:~~

~~(1) coarse soils (sand and loamy sand) - at least enough moisture to form a ball when compressed by hand, that may break when tapped;~~

~~(2) loamy, moderately coarse, or medium textured (coarse sandy loam, sandy loam, fine sandy loam) - at least enough moisture so that soil forms a ball that holds together when tapped;~~

~~(3) fine texture soils (clay loam, silty clay loam, sandy clay, silty clay, sandy clay loam and clay) - at least enough moisture so that the soil is pliable, not crumbly.~~

~~(d) Tarpaulin Repair.~~

~~(1) If a tarpaulin is used, the operator of the property shall maintain a "tarpaulin repair response plan." The tarpaulin repair response plan shall identify the responsibilities of the licensed pest control business and/or the permittee with regard to tarpaulin damage detection and repair activities. At a minimum, the tarpaulin repair response plan shall indicate the parties responsible for the repair and incorporate the applicable elements described in (2) below.~~