

[Label Finished Size: 7.375" x 8.5"]

[Label Copy Area: 5.875" x 8.125"]

## **RESTRICTED USE PESTICIDE**

### **Due To Acute Toxicity And Carcinogenicity**

For retail sale to and use by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification.



# **Strike 80CP Fumigant**

*A multi-purpose liquid fumigant for preplant treatment of soil to control plant parasitic nematodes and to help manage certain soil-borne diseases and symphylans in cropland.  
Not for use in greenhouses or other enclosed areas and not for use in drip or other chemigation applications.*

#### **ACTIVE INGREDIENTS:**

Chloropicrin..... 79.8%  
1,3-Dichloropropene..... 19.5%

**OTHER INGREDIENTS:**..... 0.7%  
**TOTAL:**..... 100.0%

*One gallon of Strike 80CP Fumigant weighs 12.96 pounds at 68°F (20°C).  
Contains 2.5 pounds of 1,3-Dichloropropene and 10.3 pounds of Chloropicrin per gallon.*

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**



**PELIGRO**

**POISON**

*Si Usted no entiende la etiqueta, busque a alguien para que se la explique a Usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)*

**IN ALL CASES OF OVEREXPOSURE, GET MEDICAL ATTENTION IMMEDIATELY.  
TAKE PERSON TO A DOCTOR OR TO AN EMERGENCY TREATMENT FACILITY.**

### **FIRST AID**

#### **IF SWALLOWED:**

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

#### **IF ON SKIN OR CLOTHING:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

#### **IF INHALED:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance; and then give artificial respiration, preferably by mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

#### **IF IN EYES:**

- Hold eyes open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after 5 minutes; and then continue rinsing eyes.
- Call a poison control center or doctor for treatment advice.

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- For additional information in case of an emergency, call toll free (1-800-424-9300).

[See label booklet for additional Precautionary Statements and complete Directions for Use.]

**EPA Reg. No. 11220-36-53766**

**EPA Est. 53766-WA-2**

[Date of Labeling: September 25, 2020]

*Sold by:*

**Trident Agricultural Products, Inc.**

P. O. Box 1909  
Woodland, WA 98674

**Net Contents:**

- ☐ 324 LBS  
☐ 1296 LBS  
☐ Other \_\_\_\_\_ LBS

barcode area

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### NOTE TO PHYSICIAN

Because rapid absorption may occur through lungs if product is aspirated and cause systemic effects, the decision to induce vomiting or not should be made by a physician. Probable mucosal damage may contraindicate the use of gastric lavage. If lavage is performed, endotracheal and/or esophageal control is suggested. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Chloropicrin is a volatile liquid that is the active ingredient in tear gas. As a gas it is a powerful lachrymator. Early symptoms of overexposure are lachrymation, respiratory distress and vomiting. Pulmonary edema may develop later. Treatment is symptomatic.

## **PRECAUTIONARY STATEMENTS** **HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER.** Fatal if inhaled, swallowed or absorbed through the skin. Poisonous liquid and vapor. Corrosive. Liquid causes skin burns and irreversible eye damage. Do not get in eyes, on skin or on clothing. Do not breathe mist or vapor. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. May cause lung, liver, and kidney damage and respiratory system irritation upon prolonged contact. The use of this product may be hazardous to your health. This product contains 1,3-dichloropropene, which has been determined to cause tumors in laboratory animals. Risks can be reduced by exactly following directions for use and precautionary statements, and by wearing the personal protective equipment specified in the labeling. Chloropicrin is readily identifiable by smell. Exposures to very low concentrations of vapor will cause irritation of eyes, nose and throat. Continued exposure after irritation occurs, or exposure to higher concentration may cause painful irritation or temporary blindness.

## **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are listed below. PPE constructed of saranex, neoprene, nitrile, and chlorinated polyethylene provide short-term contact or splash protection against liquid in this product. Longer-term protection is provided by PPE constructed of viton, Teflon, and EVAL barrier laminates (for example, responder suits manufactured by Life-guard or silvershield gloves manufactured by North). Where chemical-resistant materials are required, leather, canvas, or cotton materials offer no protection from this product and must not be worn as the sole article of protection when contact with this product is possible. Where coveralls are required, they must be loose-fitting and constructed of woven fabrics (e.g., tight knit cotton or cotton/polyester), non-woven fabrics (e.g., tyvek or sontara), or fabrics containing microporous Teflon.

**When performing tasks with NO potential for contact with liquid fumigant, all handlers (including applicators) must wear:**

- Long-sleeved shirt and long pants, and
- Shoes and socks.

**When performing tasks with potential for contact with liquid fumigant, all handlers (including applicators) must wear:**

- Long-sleeved shirt and long pants,
- Chemical-resistant gloves,
- Chemical-resistant apron,
- Protective eyewear (Do NOT wear goggles), and
- Chemical-resistant footwear with socks.

The PPE required when handling liquid fumigant must be immediately available and must be worn if the handler is to perform any handling activity with a potential for liquid fumigant contact.

1. All handlers (including applicators) must wear a half-face air-purifying respirator (except when handlers are in enclosed cabs or applying the fumigant with equipment that disrupts the chisel trace and seals the soil at the same time, e.g., Yetter applicator) equipped with an organic-vapor (OV, NIOSH approval number prefix TC-23C) cartridge and a particulate pre-filter (Type N, R, P or HE, NIOSH approval number prefix TC-84A).

If sensory irritation (tearing, burning of the eyes or nose) is experienced and handlers remain in the application block or buffer zone, handlers must wear at a minimum either:

- A NIOSH certified full facepiece air-purifying respirator equipped with an organic vapor (OV, NIOSH approval prefix TC-23C) cartridge and a particulate pre-filter (Type N, R, P, or HE, NIOSH approval number prefix TC-84A), or
- A gas mask with a canister approved for organic vapor (NIOSH approval number prefix TC-14G).

See *Directions for Use, Air Monitoring Requirements, Respiratory Protection and Stop Work Triggers*, number 1, *Handlers Wearing Half-Face Air-Purifying Respirators* for when an air-purifying respirator (full facepiece or gas mask) is required.

**IMPORTANT:** A self-contained breathing apparatus (SCBA) is not permitted for routine handler tasks.

If responding to an emergency, when corrective action is needed to reduce air concentrations to acceptable levels, wear an SCBA. Escape-only SCBA respirators must not be used by handlers for responding to emergencies. In addition wear PPE required for potential contact with liquid fumigant.

2. Handlers using enclosed cabs are not required to wear respiratory protection (**not applicable in California**) provided that the cab has been maintained according to the manufacturer's written operating instructions **and** there is written documentation that the ventilation system has been maintained according to the manufacturer's instructions **and** the enclosed cab is in conformance with the following requirements:

- The enclosed cab must maintain a positive pressure of 6 mm H<sub>2</sub>O.
- The enclosed cab must have a minimum air intake flow of 43 m<sup>3</sup>/hour.
- The enclosed cab must be equipped with activated charcoal filter media containing no less than 1,000 grams of activated charcoal.
- The filter must be changed after no more than 50 hours of application time.

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See *Directions for Use, Air Monitoring Requirements, Respiratory Protection and Stop Work Triggers*, number 2, *Handlers in Enclosed Cabs (Not Applicable in California)* for stop work procedures.

3. Handlers applying the fumigant with equipment that disrupts the chisel trace and seals the soil with one implement, e.g., Yetter applicator (**not applicable in California**) are not required to wear respiratory protection unless sensory irritation is experienced.

If sensory irritation (tearing, burning of the eyes or nose) is experienced and handlers remain in the application block or buffer zone, handlers must wear at a minimum either:

- A NIOSH certified full facepiece air-purifying respirator equipped with an organic vapor (OV, NIOSH approval prefix TC-23C) cartridge and a particulate pre-filter (Type N, R, P, or HE, NIOSH approval number prefix TC-84A), or
- A gas mask with a canister approved for organic vapor (NIOSH approval number prefix TC-14G).

See *Directions for Use, Air Monitoring Requirements, Respiratory Protection and Stop Work Triggers*, number 3, *Handlers Applying the Fumigant with Equipment That Disrupts the Chisel Trace and Seals the Soil with One Implement*, e.g., a Yetter applicator (**not applicable in California**) for when respiratory protection is required.

4. Handlers exposed to greater than 1.5 ppm of chloropicrin, (e.g., in an emergency when corrective action is needed to reduce air concentrations to acceptable levels), and handlers exposed to this product in poorly ventilated areas, must wear at a minimum:
  - Chemical-resistant suit
  - Chemical-resistant gloves such as barrier laminate (EVAL) or viton
  - Chemical-resistant footwear with socks
  - Chemical-resistant headgear
  - A self-contained breathing apparatus (SCBA) with NIOSH approval number prefix TC-13F.

See further respirator requirements in the *Protection for Handlers* section on this label.

## USER SAFETY REQUIREMENTS

1. **Never Fumigate Alone:** It is imperative to always have an assistant and proper protective equipment in case of accidents.
2. **Drivers' Responsibilities:** Drivers of application equipment must advise other workers of all precautions and procedures. In addition, drivers must instruct their helpers in the mechanical operation of the tractor and how to safely work with the tractor and driver while fumigating.
3. **Dispose of Contaminated Clothing:** Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.
4. **Clean and Maintain PPE:** Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.
5. **Contact With Mouth:** Never siphon this product by mouth or use mouth to blow out clogged lines, nozzles, etc.
6. **Heat Illness Avoidance:** Use measures to avoid or minimize heat illness while using this product. These measures include gradual adjustment to heat and respirator stress, fans for cooling, cooling vests, frequent breaks to cool down, frequent intake of drinking water, and maintaining weight from day to day.

## USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## ENVIRONMENTAL HAZARDS

- This pesticide is toxic to mammals, birds, fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.
- Chloropicrin has certain properties and characteristics in common with chemicals that have been detected in groundwater (chloropicrin is highly soluble in water and has low adsorption to soil).
- For untarped applications of chloropicrin, leaching and runoff may occur if there is heavy rainfall after soil fumigation.
- **Groundwater Advisory:** 1,3-dichloropropene is known to move through soil and under certain conditions has the potential to reach groundwater as a result of agricultural use. Application in areas where soils are permeable and groundwater is near the surface could result in groundwater contamination.

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## PHYSICAL OR CHEMICAL HAZARDS

- Combustible. Do not use or store near heat or open flame.
- Do not mix or allow coming in contact with oxidizing agent. A chemical reaction hazard may occur.
- Handle carefully! Do not drop or let container be impacted by heavy objects. An explosion hazard may occur.
- This product is corrosive to copper and may be corrosive to aluminum and zinc.

## DIRECTIONS FOR USE Restricted Use Pesticide

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only handlers may be in the application block from the start of the application until the entry restricted period ends, and in the buffer zone during the buffer zone period. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS). **No instructions elsewhere on this labeling relieve users from complying with the requirements of the WPS.**

For the entry restricted period and notification requirements, see the *Entry Restricted Period and Notification* section of this labeling. PPE For Entry During the Entry-Restricted Period: PPE for entry that is permitted by this labeling is listed in the *Personal Protective Equipment (PPE)* section of this labeling.

READ ALL DIRECTIONS FOR USE CAREFULLY BEFORE APPLYING. READ THE ENTIRE LABEL. USE ONLY ACCORDING TO LABEL DIRECTIONS. BEFORE BUYING OR USING THIS PRODUCT, READ "LIMITED WARRANTY" AND "LIMITATION OF LIABILITY AND REMEDIES".

### Terms Used in This Labeling

**Soil Fumigant Training Program:** Certified applicator training that provides information on (1) how to correctly apply the fumigant, including how to comply with new label requirements; (2) how to protect handlers and bystanders; (3) how to determine buffer zone distances; (4) how to complete an FMP and the post-application summary; (5) how to determine when weather and other site-specific factors are not favorable for fumigant application; (6) how to comply with required GAPs and how to document compliance with GAPs in the FMP; and (7) how to develop and implement emergency response plans.

**Fumigant Safe Handling Information:** Information that must be provided annually to handlers that must include the following: (1) what fumigants are and how they work, (2) safe application and handling of soil fumigants, (3) air monitoring and respiratory protection requirements for handlers, (4) early signs and symptoms of exposure, (5) appropriate steps to take to mitigate exposures, (6) what to do in case of an emergency, and (7) how to report incidents.

**Application Block:** Area within the perimeter of the fumigated portion of a field (including furrows, irrigation ditches, roadways). The perimeter of the application block is the border that connects the outermost edges of total area treated with the fumigant product.

**Application Rate:** The ratio of fumigant mass applied compared to the soil surface area (e.g., pounds of product per acre). The application rate is expressed on this labeling in terms of either the "treated area application rate" or the "broadcast equivalent application rate." The "treated area application rate" relates to only the rate of fumigant applied to the portion of the field that is fumigated (e.g., rate within the bed or strips). The "broadcast equivalent application rate" relates to the rate of fumigant applied within the entire perimeter of the application block. For bedded and strip applications, the "broadcast equivalent application rate" must be calculated to determine the buffer zone distance required by this labeling.

**Start of the Application:** The time at which the fumigant is first delivered/dispensed into the soil in the application block.

**Application is Complete:** The time at which the fumigant has stopped being delivered/dispensed into the soil and the soil has been sealed; drip lines have been purged (if applicable).

**Entry Restricted Period:** This period begins at the start of the application and expires depending on the application method and if tarps are used when the tarps are perforated and removed. Entry into the application block during this period is only allowed for appropriately PPE-equipped handlers performing handling tasks. See the *Entry Restricted Period and Notification* section for additional information.

**Buffer Zone:** An area established around the perimeter of each application block. The buffer zone must extend outward from the edge of the application block perimeter equally in all directions.

**Buffer Zone Period:** Begins at the start of the application and lasts for a minimum of 48 hours after the application is complete. Non-handlers must be excluded from the buffer zone during the buffer zone period.

**Difficult to Evacuate Sites:** Pre-K to Grade 12 schools, state-licensed daycare centers, nursing homes, assisted living facilities, hospitals, in-patient clinics, and prisons.

**Owner:** Any person who has a present possessory interest (fee, leasehold, rental, or other) in an agricultural establishment. A person who has both leased such agricultural establishment to another person and granted that same person the right and full authority to manage and govern the use of such agricultural establishment is not an owner. See definition of "owner" in WPS (40 CFR §170.3).

**Roadway:** Portion of a street or highway improved, designed or ordinarily used for vehicular travel, exclusive of the sidewalk or shoulder even if such sidewalk or shoulder is used by persons riding bicycles. In the event a highway includes two or more separated roadways, the term *roadway* shall refer to any such roadway separately.

barcode area



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**Representative Handling Task:** For air monitoring, the locations and handler activities sampled must represent each handler's exposure occurring within the application block. For example, for an application consisting of a seven-handler crew (1 tractor driver, 1 tractor co-pilot, 4 shovelers, and 1 certified applicator supervising) two breathing zone samples could be collected: one sample for the tractor co-pilot and one sample for a downwind shoveler. Results of previous sampling may indicate which tasks and locations are worst case and therefore representative of all handlers.

**B25 Tarp:** The names of tarps meeting the requirements of B25 Tarp will be displayed on the US EPA website at <https://www.epa.gov/soil-fumigants/tarps>. For all buffer zones in California, see the California requirements at <https://www.cdpr.ca.gov/chloropicrin.htm>.

### Application Restrictions

- The use of this product is restricted to the methods described in this label.
- Do not formulate and/or tank mix this product into other end-use agricultural products.
- Soil fumigation using Strike 80CP Fumigant must be conducted only according to directions and conditions of use.
- Chemigation: Do not apply Strike 80CP Fumigant through any type of irrigation system.
- Not for use in greenhouses or other enclosed areas.
- An application block treated with Strike 80CP Fumigant must not be within 100 feet of an occupied structure. No person shall be present at this structure at any time during the seven consecutive day period after the application is complete. **EXCEPTION:** This restriction does not apply to use on soils that have not experienced a 1,3-Dichloropropene treatment in the previous two years, for example, on soils to be planted with fruit trees, nut and nursery crops, perennial vines, hops, mint or pineapple.
- Strike 80CP Fumigant shall not be applied to soil more frequently than once each year.
- Do not apply within 100 feet of any well used for potable water.
- Do not apply in areas overlying karst geology. Karst topography is identified from landscape features that result from the dissolving activity of water in carbonate rock formations (limestone, dolomite and marble). Surface features that are associated with karst topography include sinkholes, caverns, springs, and sinking or disappearing streams.
- In North Dakota, South Dakota, Wisconsin, Minnesota, New York, Maine, New Hampshire, Vermont, Massachusetts, Utah, and Montana: Where groundwater aquifers exist at a depth of 50 feet or less from the surface, do not apply this product where soils are Hydrologic Group A.
- This product is prohibited for sale, sale into, use, or distribution in Nassau and Suffolk Counties, New York.
- Use of Strike 80CP Fumigant is prohibited in Broward and Dade Counties, Florida.
- **Use Restrictions for Certain Florida Counties:** Additional use restrictions listed below apply to the following Florida counties: Brevard, Charlotte, Citrus, Collier, DeSoto, Glades, Hardee, Hendry, Hernando, Highlands, Hillsborough, Indian River, Lake, Lee, Manatee, Martin, Monroe, Okeechobee, Orange, Osceola, Palm Beach, Pasco, Pinellas, Polk, Sarasota, Seminole, St. Lucie, Sumter, and Volusia. For all other Florida counties, follow the label affixed to the product container for Strike 80CP Fumigant.

- o Use Strike 80CP Fumigant only on soils that have a relatively shallow hard pan or soil layer restrictive to downward water movement (such as spodic horizon) within six feet of the ground surface and are capable of supporting seepage irrigation regardless of irrigation method employed.
- o Use standard chisel injection equipment to inject Strike 80CP Fumigant as deep as possible without placing the fumigant directly into the shallow subsurface irrigation water.
- o Strike 80CP Fumigant may not be applied within 100 feet of drinking water wells.

#### For Applications in California Only:

Use the buffer zone distances specified by the California Department of Pesticide Regulation, which are found at the website listed below. Additional California Department of Pesticide Regulation requirements must also be followed, including:

- Additional tarp requirements
- Application time restrictions
- Additional buffer zone restrictions for overlapping buffer zones and credits
- Additional emergency preparedness and response requirements

The certified applicator must follow all California buffer zone requirements and California restrictions that are specified at: <https://www.cdpr.ca.gov/chloropicrin.htm>.

### Product Information

This product is a multi-purpose liquid fumigant for preplant treatment of soil to control nematodes, symphylans, wireworms and certain soil-borne diseases in cropland. This product, a soil fungicide and nematicide, may be applied as a preplant soil treatment to control or to aid in reducing the damaging effects of certain soil-borne diseases, such as potato scab (caused by *Streptomyces scabies*), soil rot (soil pox) of sweet potatoes, Granville (bacterial) wilt, black root rot and black shank diseases of tobacco, *Verticillium* wilt of mint, pink root of onions, and pod rot of peanuts. This product also controls plant parasitic nematodes, such as root-knot, root lesion, citrus, cyst formers (golden, sugar beet, soybean), burrowing, lance, reniform, ring, spiral, sting, pin, stubby root, stylet, dagger and certain others, as well as symphylans (garden centipedes) and wireworms. Before fumigation, soil sampling for the type and number of pests present is recommended. In fields where pre-treatment soil samples indicate the presence of high population levels of nematodes, a successful fumigation cannot be expected to eradicate entire populations. Therefore, post-treatment sampling is recommended to determine the need for additional pest management practices. Consult State Agricultural Experiment Station or Extension Service specialists for information on other practices such as post-harvest destruction of crop residues, weed control or other cultural practices, and use of nematode resistant crop varieties that may aid in reducing crop losses from soil-borne pests.

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## Use Precautions

### Recontamination Prevention

Strike 80CP Fumigant will help manage certain soil-borne pests that are present in the soil treatment zone at time of fumigation. It will not control pests that are introduced into soil after fumigation. To avoid reinfestation of treated soil do not use irrigation water, transplants, seed pieces, or equipment that could carry soil-borne pests from infested land. Avoid contamination from moving infested soil onto treated beds through cultivation, movement of soil from below the treated zone, dumping contaminated soil in treated fields and soil contamination from equipment or crop remains. Clean equipment carefully before entering treated fields. Cultural practices, which provide post-harvest destruction of crop residues and weeds prior to fumigation and practices which prevent weed infestation following fumigation and prior to planting, will help prevent recontamination.

### Equipment Clean-Up

Because Strike 80CP Fumigant is corrosive under certain conditions, flush all application equipment with fuel oil, kerosene or a similar type of petroleum solvent immediately after use. Fill pumps and meters with new motor oil or a 50% motor oil/fuel oil mixture before storing. Do not use water. Dispose of rinsate by incorporation into field just treated or by other approved means. Never introduce rinsate or unused Strike 80CP Fumigant into surface or underground water supplies.

### Fertility Interactions

Fumigation may temporarily raise the level of ammonia nitrogen and soluble salts in the soil. This is most likely to occur when high rates of fertilizer and fumigant are applied to soils that are either cold, wet, acidic, or high in organic matter. To avoid injury to certain crops including red beets, carrots, corn, radishes, cole crops, legumes (beans), lettuce, onions, and sugarbeets, fertilize when possible as indicated by soil tests made after fumigation. Use only fertilizers containing nitrates until after the crop is well established and the soil temperature is above 65°F. In mineral soils, do not apply more than ⅓ of the nitrogen requirements from fertilizers containing ammonium salts until the crop is well established and soil temperature is above 65°F. To avoid ammonia injury or nitrate starvation (or both) to crops grown on high organic soils, do not use fertilizers containing ammonium salts. When using high rates of Strike 80CP Fumigant as required by certain state nursery regulations, liming of highly acid soils before fumigation may stimulate nitrification and reduce the possibility of ammonia toxicity. Certain nursery crops such as citrus seedlings, *Cornus* sp., *Crataegus* sp., spruce, and vegetable crops such as cauliflower have shown evidence of phosphorus deficiency following fumigation. To avoid this possible effect, additional phosphate fertilizer (foliar applied) is recommended where experience indicates a deficiency may occur.

## Certified Applicator Training

Any certified applicator supervising a soil fumigant application must have successfully completed one of the soil fumigant training programs listed on the following EPA website: <https://www.epa.gov/soil-fumigants/soil-fumigant-training-certified-applicators> for the active ingredient(s) in this product. The training must be completed in the time frames listed on the website. The FMP must document the date and location where the soil fumigant training program was completed.

## Handlers

The following activities are prohibited from being performed by anyone other than persons who have been appropriately trained and equipped as handlers in accordance with the requirements in WPS (40 CFR Part 170):

- Monitoring fumigant air concentrations;
- Cleaning up fumigant spills (this does not include emergency personnel not associated with the application);
- Handling or disposing of fumigant containers;
- Cleaning, handling, adjusting, or repairing the parts of application equipment that may contain fumigant residues; and
- Performing any handling tasks as defined by the WPS (40 CFR 170).

The following activities are prohibited from being performed in the application block from the start of the application until the entry restricted period ends and in the buffer zone during the buffer zone period by anyone other than persons who have been appropriately trained and equipped as handlers in accordance with the requirements in WPS (40 CFR Part 170). (NOTE: persons repairing and monitoring tarps are considered handlers for the duration listed below). Prohibited activities (except for trained and equipped handlers) include:

- Participating in the application as supervisors, loaders, drivers, tractor co-pilots, shovelers, cross ditchers, or as other direct application participants;
- Installing, repairing, operating, or removing irrigation equipment;
- Performing scouting, crop advising, or monitoring tasks;
- Installing, perforating (cutting, punching, slicing, poking), or removing tarps; and
- Repairing or monitoring tarps until 14 days after application is complete if tarps are not perforated and removed during those 14 days.

NOTE: see *Tarp Perforation and/or Removal* section on this labeling for requirements about when tarps are allowed to be perforated.

Handlers do not include local, state, or federal officials performing inspection, sampling, or other similar official duties.

## Protection for Handlers

### Supervision of Handlers:

For all applications, from the start of the application until the application is complete, a certified applicator must be at the application block in the line of sight of the application and must directly supervise all persons performing handling activities. For handling activities that take place after the application is complete until the entry restricted period expires, the certified applicator is not required to be on-site, but must have communicated in a manner that can be understood by the site owner and handlers responsible for carrying out those activities the information necessary to comply with the label and procedures described in the FMP (e.g., emergency response plans and procedures).

IMPORTANT: This requirement does not override the requirements in the Worker Protection Standard for Agricultural Pesticides for information exchange between operators of agricultural establishments and commercial pesticide applicators.

barcode area

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The certified applicator must provide **Fumigant Safe Handling Information** to each handler or confirm that within the past 12 months, each handler has received **Fumigant Safe Handling Information** in a manner that he/she can understand. **Fumigant Safe Handling Information** will be provided where this product is purchased or at <https://www.epa.gov/soil-fumigants/soil-fumigant-training-certified-applicators>.

For all handling tasks at least two handlers must be present.

Exception: After the application is complete, only one trained handler is required to perform fumigant site monitoring tasks outside of the buffer zone.

#### **Exclusion of Non Handlers from the Application Block and Buffer Zone:**

The certified applicator supervising the application and the owner of the establishment where the application is taking place must make sure that all persons who are not trained and PPE-equipped and who are not performing one of the handling tasks as stated in this labeling are:

- excluded from the application block during the entry restricted period, and
- excluded from the buffer zone during the buffer zone period (see buffer zone exemption for transit on roadways in *Buffer Zone Requirements* section).

Local, state, or federal officials performing inspection, sampling, or other similar official duties are not excluded from the application block or the buffer zone by this labeling. The certified applicator supervising the application and the owner of the establishment where the application is taking place are not authorized to, or responsible for, excluding those officials from the application block or the buffer zone.

#### **Providing, Cleaning, and Maintaining PPE:**

The employer of any handler (as stated in this label) must make sure that all handlers are provided and correctly wear the required PPE. The PPE must be cleaned and maintained as required by the Worker Protection Standard for Agricultural Pesticides.

#### **Air Purifying Respirator Availability:**

The employer of any handler must confirm that an air-purifying respirator and appropriate cartridges/canisters of the type specified in the *PPE* section of this labeling are immediately available for each handler who will wear one (see *Respirator Fit Testing, Medical Qualification, and Training* section for additional requirements).

Exception: Air-purifying respirators do not need to be made available for handlers performing fumigant site monitoring tasks outside of the buffer zone.

Cartridges or canisters must be replaced when odor or sensory irritation from this product becomes apparent during use, if the measured concentration of chloropicrin is greater than or equal to 1.5 ppm, or after 8 hours of cumulative use, whichever occurs first.

#### **Respirator Fit Testing, Medical Qualification, and Training:**

Using a program that conforms to OSHA's requirements (see 29 CFR Part 1910.134), employers must verify that any handler who uses a respirator is:

- Fit-tested and fit-checked,
- Trained, and
- Examined by a qualified medical practitioner to ensure physical ability to safely wear the style of respirator to be worn. A qualified medical practitioner is a physician or other licensed health care professional who will evaluate the ability of a worker to wear a respirator.

The initial evaluation consists of a questionnaire that asks about medical conditions (such as a heart condition) that would be problematic for respirator use. If concerns are identified, then additional evaluations, such as a physical exam, might be necessary. The initial evaluation must be done before respirator use begins. Handlers must be reexamined by a qualified medical practitioner if their health status or respirator style or use-conditions change.

- Upon request by local/state/federal/tribal enforcement personnel, employers must provide documentation demonstrating how they have complied with these requirements.

## **Air Monitoring Requirements, Respiratory Protection, and Stop Work Triggers**

### **Air Monitoring Requirements**

- When air-purifying respirators (full facepiece or gas mask) are worn, air monitoring samples for chloropicrin must be collected at least every 2 hours in the breathing zone of a handler performing a representative handling task.
- When breathing zone samples are required, they must be taken outside respiratory protection equipment and within a 10-inch radius of the handler's nose and mouth.
- When using devices to monitor air concentration levels, a direct read detection device, such as an electronic device or a colorimetric device (e.g., Matheson-Kitagawa, Draeger, or Sensidyne) must be used. The devices must have sensitivity of at least 0.15 ppm for chloropicrin. Persons using direct read detection devices must follow the manufacturer's directions.

### **1. Handlers Wearing Half-Face Air-Purifying Respirators**

(Handlers are required to start work in half-face air-purifying respirators.)

The *Air Monitoring Requirements* section above must be followed.

- If at any time any handler experiences sensory irritation (tearing, burning of the eyes or nose) while wearing a half-face respirator then either:
  - o (OPTION 1) An air-purifying respirator (full facepiece or gas mask) must be worn by all handlers who remain in the application block or surrounding buffer zone, or
  - o (OPTION 2) Operations must cease and handlers not wearing air-purifying respirators (full facepiece or gas mask) must leave the application block and surrounding buffer zone.

For OPTION 1 [all handlers are wearing air-purifying respirators (full facepiece or gas mask)]

a) Handlers can **resume** operations wearing half-face air-purifying respirators if all of the following conditions exist:

- o Two consecutive chloropicrin breathing zone samples taken at the handling site at least 15 minutes apart must be less than 0.15 ppm, and
- o Handlers do not experience sensory irritation.
- o During the collection of air samples an air-purifying respirator (full facepiece or gas mask) must be worn by the handlers taking the air samples. Samples must be taken where the sensory irritation was first experienced.

barcode area



- b) If at any time (1) a handler experiences sensory irritation when wearing an air-purifying respirator (full facepiece or gas mask), or (2) a chloropicrin air sample is greater than or equal to 1.5 ppm, then all handler activities must cease and handlers must be removed from the application block and surrounding buffer zone.

i. Handlers can **resume** operations wearing half-face air-purifying respirators if all of the following conditions exist:

- Two consecutive chloropicrin breathing zone samples taken at the handling site at least 15 minutes apart must be less than 0.15 ppm,
- Handlers do not experience sensory irritation, and
- Cartridges/canisters have been changed.
- During the collection of air samples an air-purifying respirator (full facepiece or gas mask) must be worn by the handler taking the air samples. Samples must be taken where the sensory irritation was first experienced or where sample(s) were greater than or equal to 1.5 ppm.

For OPTION 2 (Operations ceased)

a) Handlers can **resume** operations wearing half-face air-purifying respirators if all of the following conditions exist:

- o Two consecutive chloropicrin breathing zone samples taken at the handling site at least 15 minutes apart must be less than 0.15 ppm, and
- o Handlers do not experience sensory irritation.
- o During the collection of air samples an air-purifying respirator (full facepiece or gas mask) must be worn by the handler taking the air samples. Samples must be taken where the sensory irritation was first experienced.

### 2. Handlers in Enclosed Cabs (Not Applicable in CA)

(Handlers in enclosed cabs are not required to start work in half-face air-purifying respirators if the conditions in the *Personal Protective Equipment (PPE)* section are met.)

The *Air Monitoring Requirements* section above must be followed.

- If at any time a handler experiences sensory irritation (tearing, burning of the eyes or nose) while in the enclosed cab, operations must cease and handlers must leave the application block and buffer zone.
- Operations may resume in the enclosed cab provided that:
  - o Two consecutive chloropicrin samples taken in the breathing zone of the handlers at the handling site at least 15 minutes apart must be less than 1.5 ppm,
  - o Handlers do not experience sensory irritation, and
  - o The filter has been changed.
  - o During the collection of air samples, an air-purifying respirator (full facepiece or gas mask) must be worn by the handler taking the air samples. Samples must be taken where the sensory irritation was first experienced.

### 3. Handlers Applying the Fumigant with Equipment That Disrupts the Chisel Trace and Seals the Soil with One Implement, e.g., a Yetter Applicator (Not Applicable in California)

(Handlers applying the fumigant with equipment that disrupts the chisel trace and seals the soil with one implement, e.g., a Yetter Applicator are not required to start work in half-face air-purifying respirators.) The *Air Monitoring Requirements* section above must be followed.

- If at any time any handler experiences sensory irritation (tearing, burning of the eyes or nose) then either:

- o (OPTION 1) An air-purifying respirator (full facepiece or gas mask) must be worn by all handlers who remain in the application block or surrounding buffer zone, or
- o (OPTION 2) Operations must cease and handlers not wearing an air-purifying respirator (full facepiece or gas mask) must leave the application block and surrounding buffer zone.

For OPTION 1 [all handlers are wearing air-purifying respirators (full facepiece or gas mask)]

a) Handlers can remove air-purifying respirators (full facepiece or gas mask) if all of the following conditions exist:

- o Two consecutive chloropicrin breathing zone samples taken at the handling site at least 15 minutes apart must be less than 0.15 ppm, and
- o Handlers do not experience sensory irritation.
- o During the collection of air samples an air-purifying respirator (full facepiece or gas mask) must be worn by the handler taking the air samples. Samples must be taken where the sensory irritation was first experienced.

b) If at any time: (1) a handler experiences sensory irritation when wearing an air-purifying respirator (full facepiece or gas mask) or (2) a chloropicrin breathing zone sample is greater than or equal to 1.5 ppm, then all handler activities must cease and handlers must be removed from the application block and the surrounding buffer zone.

o Handlers can **resume** operations **without** wearing an air-purifying respirator (full facepiece or gas mask) if all of the following conditions exist:

- Two consecutive chloropicrin breathing zone samples taken at the handling site at least 15 minutes apart must be less than 0.15 ppm, and
- Handlers do not experience sensory irritation.
- During the collection of air samples an air-purifying respirator (full facepiece or gas mask) must be worn by the handler taking the air samples. Samples must be taken where the sensory irritation was first experienced or where sample(s) were greater than or equal to 1.5 ppm.

o Handlers can **resume** operations **with** wearing an air-purifying respirator (full facepiece or gas mask) if all of the following conditions exist:

- Two chloropicrin breathing zone samples taken at the handling site at least 15 minutes apart must be less than 1.5 ppm,
- Handlers do not experience sensory irritation, and
- Cartridges have been changed.
- During the collection of air samples an air-purifying respirator (full facepiece or gas mask) must be worn by the handler taking the air samples. Samples must be taken where the sensory irritation was first experienced or where sample(s) were greater than or equal to 1.5 ppm.

For OPTION 2 (Operations ceased)

a) Handlers can resume operations if all of the following conditions exist:

- o Two consecutive chloropicrin breathing zone samples taken at the handling site at least 15 minutes apart must be less than 0.15 ppm, and
- o Handlers do not experience sensory irritation.
- o During the collection of air samples an air-purifying respirator (full facepiece or gas mask) must be worn by the handler taking the air samples. Samples must be taken where the sensory irritation was first experienced.

barcode area

## Tarp Perforation and/or Removal

IMPORTANT: Persons perforating, repairing, removing, and/or monitoring tarps are defined, within certain time limitations, as handlers (see Handlers section), and they must be provided the PPE and other protections for handlers as required on this labeling and in the Worker Protection Standard for Agricultural Pesticides. For applications in California follow the information at <https://www.cdpr.ca.gov/chloropicrin.htm>. (See page 5.)

- B25 tarps (see definition on page 5) used for broadcast applications 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 *Adverse weather* [as defined below] has compromised the integrity of the tarp.
- All other tarps, except B25 tarps, must not be perforated until a minimum of 5 days (120 hours) have elapsed after the application is complete, unless a weather condition exists which necessitates early tarp perforation or removal (see *Early Tarp Removal for Broadcast Applications Only* and *Early Tarp Perforation during Flood Prevention Activities for Bedded Applications Only* requirements).
- If tarps are perforated within 14 days after the application is complete, tarp removal must not begin until at least 2 hours after tarp perforation is complete.
- If tarps are perforated but not removed within 14 days after the application is complete, planting or transplanting must not begin until at least 48 hours after the tarp perforation is complete.
- If tarps are not perforated or removed within 14 days after the application is complete, planting or transplanting may take place while the tarps are being perforated.
- Each tarp panel used for broadcast application must be perforated.
- Tarps may be perforated manually **ONLY** for the following situations:
  - o At the beginning of each row when a coulters blade (or other device which performs similarly) is used on a motorized vehicle such as an ATV.
  - o In fields that are 1 acre or less.
  - o During flood prevention activities.
- In all other instances tarps must be perforated (cut, punched, poked, or sliced) only by mechanical methods.
- Tarp perforation for broadcast applications must be completed before noon.
- For broadcast applications, tarps must not be perforated if rainfall is expected within 12 hours.
- Early Tarp Removal for Broadcast Applications Only:
  - o Tarps may be removed before the required 5 days (120 hours) if adverse weather conditions have compromised the integrity of the tarp, provided that the compromised tarp poses a safety hazard. *Adverse weather* includes high wind, hail, or storms that blow tarps off the field and create a hazard, e.g., tarps blowing into power lines and onto roads. A *compromised tarp* is a tarp that due to an adverse weather condition is no longer performing its intended function and is creating a hazard.
- Early Tarp Perforation during Flood Prevention Activities:
  - o Tarp perforation is allowed before the 5 days (120 hours) have elapsed.
  - o For Bedded Applications: Tarps must be immediately retucked and packed after tarp removal.
  - o For Broadcast Applications: Tarps may be perforated and/or removed prior to a major rain event, to prevent flooding.

## Entry Restricted Period and Notification

### Entry Restricted Period

Entry into the application block (including early entry that would otherwise be permitted under the WPS) by any person – other than a correctly trained and PPE-equipped handler who is performing a handling task listed on this labeling – is PROHIBITED from the start of the application until:

- 5 days (120 hours) after the application is complete for untarped applications, or
- 5 days (120 hours) after the application is complete if tarps are not perforated and removed for at least 14 days after the application is complete, or
- 48 hours after tarp perforation is complete if tarps will be perforated within 14 days after the application is complete and will not be removed for at least 14 days after the application is complete, or
- tarp removal is completed if tarps are both perforated and removed less than 14 days after the application is complete.

### NOTES:

- See *Tarp Perforation and/or Removal* section on this labeling for requirements about when tarps are allowed to be perforated.
- If early tarp removal occurs for a broadcast application the entry restricted period is a minimum of 5 days after the application is complete.
- When listing application information for soil fumigant applications to comply with part 170.122 of the WPS, list the entry restricted period time frame in place of the REI.

### Notification

Notify workers of the application by warning them orally and by posting Fumigant Treated Area signs. The signs must bear the skull and crossbones symbol and state:

- "DANGER/PELIGRO",
- "Area under fumigation, DO NOT ENTER / NO ENTRE",
- "1,3-dichloropropene and chloropicrin fumigants in use",
- The date and time of fumigation
- The date and time entry restricted period is over
- "Strike 80CP Fumigant", and
- Name, address, and telephone number of the certified applicator in charge of the fumigation.

Post the Fumigant Treated Area sign instead of the WPS sign for this application, but follow all WPS requirements pertaining to location, legibility, text size, and sign size (40 CFR §170.120).

Post Fumigant Treated Area signs at all entrances to the application block no sooner than 24 hours prior to application.

Fumigant Treated Area signs must remain posted for no less than the duration of the entry restricted period.

Fumigant Treated Area signs must be removed within 3 days after the end of the entry restricted period.

barcode area

## Mandatory Good Agricultural Practices (GAPs)

The following GAPs must be followed during all fumigant applications.

### Application Timing

Apply Strike 80CP Fumigant at any time of the year when soil conditions permit. Conditions that allow rapid diffusion of the fumigant as a gas through the soil normally give the best results. Because Strike 80CP Fumigant does not provide residual control of soil pests, use it as a preplant application before planting each crop.

**Tarps** (when tarps are used in Strike 80CP Fumigant applications)

- A written tarp plan must be developed and included in the FMP.
- Once a tarp is perforated, the application is no longer considered tarped.
- Tarps must be installed immediately after the fumigant is applied to the soil.

### Weather Conditions

- To determine if unfavorable weather conditions exist or are predicted (see *Identifying Unfavorable Weather Conditions* section) and whether an application should proceed, the National Weather Service weather forecast must be checked by the certified applicator supervising the application:
  - o on the day of, but prior to the start of the application, and
  - o on a daily basis during the application if the time period from the start of the application until the application is complete is greater than 24 hours.
- Do not apply if an air stagnation advisory issued by the National Weather Service is in effect for the area in which the application is planned, during the application, or the 48 hours after the application is complete.
- Do not apply if light wind conditions (< 2 mph) are forecast to persist for more than 18 consecutive hours from the time the application starts until 48 hours after the application is complete.
- Detailed National Weather Service forecasts for local weather conditions, wind speed, and air stagnation advisories may be obtained on-line at: <https://www.nws.noaa.gov>, on NOAA weather radio, or by contacting your local National Weather Service Forecasting Office.

### Identifying Unfavorable Weather Conditions

Unfavorable weather conditions block upward movement of air, which results in trapping fumigant vapors near the ground. The resulting air mass can move off-site in unpredictable directions. These conditions typically exist within an hour prior to sunset and continue past sunrise and may persist as late as noontime. Unfavorable conditions are common on nights with limited cloud cover and light to no wind and their presence can be indicated by ground fog or smog and can also be identified by smoke from a ground source that flattens out below a ceiling layer and moves laterally in a concentrated cloud.

### Soil Preparation

- Soil must be in good till and free of large clods. Large clods can prevent effective soil sealing and reduce effectiveness of the application. If subsurface soil compaction layers (hardpans) are present within the intended fumigation treatment zone, a deep tillage to fracture these layers must occur prior to or during the soil fumigant application.
- Plant residue that is present must not interfere with the application or the soil seal. Non-decomposed plant

material may harbor pests that will not be controlled by fumigation. Crop residue that is present must lie flat to permit the soil to be sealed effectively and limit the natural "chimneys" that may occur in the soil when plant residue is present. These "chimneys" allow the soil fumigants to move through the soil quickly and escape into the atmosphere. This may create potentially harmful conditions for workers and bystanders and limits the efficacy of the fumigant. Plant residue on the field serves to prevent soil erosion from both wind and water.

- Trash pulled by the shanks to the ends of the field must be covered with tarp, or soil, depending on the application method before making the turn for the next pass.

### Soil Temperature

- The minimum soil temperature at the depth of injection is 40°F.
- For *Deep Ripped Untarped Shallow Broadcast* applications (Not For Use in California): The maximum soil temperature at the depth of injection must not exceed 70°F at the beginning of the application.
- For all other applications, the maximum soil temperature at the depth of injection must not exceed 90°F at the beginning of the application.
  - o If air temperatures have been above 100°F in any of the three days prior to the start of the application, then soil temperature must be measured and recorded in the FMP. Record temperature measurements at the application depth or 12 inches, whichever is shallower.

### Soil Sealing

- *Broadcast Untarped Applications*: Use a disc or similar equipment to uniformly mix the soil to at least a depth of 3 to 4 inches to eliminate the chisel or plow traces. Following elimination of the chisel trace, the soil surface must be compacted with a cultipacker, ring roller, orchard float with a weighted/ring roller, or roller in combination with tillage equipment. When using equipment similar to the Yetter applicator (chisel trace disruption and soil sealing are done with one implement), additional tillage and compaction are not required.
- *Bedded Applications*: Preformed beds must be sealed by disruption of the chisel trace using press sealers, bed shapers, cultipackers, or by reshaping (e.g., relisting, lifting and replacing) the beds immediately following injection. Beds formed at the time of application must be sealed by disrupting the chisel trace using press sealers or bed shapers. When bedding, prebedders such as ripper hippers, hillers, or other prebedders may be used to disrupt the chisel trace and seal the soil. When using equipment similar to the Yetter applicator (chisel trace disruption and soil sealing are done with one implement), additional tillage and compaction are not required. Beds may be formed following the Yetter-type applicator in a normal interval consistent to area production practices.
- *Tarped Applications*: The use of a tarp does not eliminate the need to minimize chisel traces prior to application of the tarp, such as by using a Noble plow or other injection shank that disrupts the chisel traces. When bedding, prebedders such as ripper hippers, hillers, or other prebedders may be used to disrupt the chisel trace and seal the soil. When using equipment similar to the Yetter applicator (chisel trace disruption and soil sealing are done with one implement), additional tillage and compaction are not required. Beds may be formed following the Yetter-type applicator in a normal interval consistent to area production practices.
- For *Deep Ripped Untarped Shallow Broadcast Applications* (Not For Use in California): The soil must be sealed immediately after the fumigant application, with a disk followed by a packer.

barcode area

#### Soil Moisture

- The soil must be moist 9 inches below the surface. The amount of moisture needed in this zone will vary according to soil type. Surface soil generally dries rapidly and must not be considered in this determination.
- Soil moisture must be determined using one of the following methods:
  - the USDA Feel and Appearance Method for testing (see below), or
  - an instrument, such as a tensiometer.
- Available water capacity must be equal to or greater than 50% for shank applications. If there is less than 50% available water capacity 9 inches below the surface, the soil moisture must be adjusted. If irrigation is not available and there is adequate soil moisture below 9 inches, soil moisture can be adjusted by discing or plowing before the start of the application. To conserve existing soil moisture, pretreatment irrigation or pretreatment tillage should be done as close to the start of the application as possible.
- Measure soil moisture at a depth of 9 inches at either end of the field, no more than 48 hours prior to the start of the application.
- For *Deep Ripped Untarped Shallow Broadcast* applications (Not For Use in California): Available water capacity must also be equal to or greater than 50% at the 4-inch soil depth and deeper. Measure soil moisture at depths of 4 inches and 9 inches, at either end of the field, no more than 48 hours prior to the start of the application.

The USDA Feel and Appearance Method for estimating soil moisture as appropriate for the soil texture:

- For **coarse** textured soils (fine sand and loamy fine sand), the soil is moist enough (50 to 75% available water capacity) to form a weak ball with loose and clustered sand grains on fingers, darkened color, moderate water staining on fingers, will not ribbon.
- For **moderately coarse** textured soils (sandy loam and fine sandy loam), the soil is moist enough (50 to 75% available water capacity) to form a ball with defined finger marks, very light soil/water staining on fingers, darkened color will not stick.
- For **medium** textured soils (sandy clay loam, loam, and silt loam), the soil is moist enough (50 to 75% available water capacity) to form a ball, very light staining on fingers, darkened color, pliable, and forms a weak ribbon between the thumb and forefinger.
- For **fine** textured soils (clay, clay loam, and silty clay loam), the soil is moist enough (50 to 75% available water capacity) to form a smooth ball with defined finger marks, light soil/water staining on fingers, ribbons between thumb and forefinger.
- For **fields with more than one soil texture**, soil moisture content in the lightest textured (most sandy) areas must comply with this soil moisture requirement. Whenever possible, the field should be divided into areas of similar soil texture and the soil moisture of each area should be adjusted as needed. Coarser textured soils can be fumigated under conditions of higher soil moisture than finer textured soils; however, if the soil moisture is too high, fumigant movement will be retarded and effectiveness of the treatment will be reduced. Previous and/or local experience with the soil to be treated or the crop to be planted can often serve as a guide to conditions that will be acceptable. If there is uncertainty in determining the soil moisture content of the area to be treated, a local extension service agent, soil conservationist, or pest control advisor (agriculture consultant) should be consulted for assistance.

#### Application Depth

- **Tarped Bedded and Tarped Broadcast Applications:** The injection point must be a minimum of 8 inches from the nearest final soil/air interface.
- **Untarped Bedded Applications:** The injection point must be a minimum of 12 inches from the nearest final soil/air interface.
- **Untarped Broadcast Applications:** The injection point must be a minimum of 12 inches from the nearest final soil/air interface.
- **Untarped Broadcast Deep Applications:** The injection point must be a minimum of 18 inches from the nearest final/soil air interface.
- **Deep Ripped Untarped Shallow Broadcast Applications (Not For Use in California):** The injection point must be a minimum of 12 inches from the nearest final soil/air interface.

#### Application Methods and Equipment

- **Broadcast Applications:** Use chisel (shank) or coulter (e.g., Yetter 30-inch Avenger), offset wing shank, Noble (sweep) plow, or plow-sole application equipment. For best results when using chisel equipment, use ripper-type, forward-swept shanks. Noble plow equipment is particularly useful for fall fumigation when the soil still contains some standing undecomposed plant material. Subsoiling may be necessary before application. Choose application equipment that allows the deepest application and best soil seal under existing conditions.
  - The fumigant outlet spacing varies with the type of application equipment used.
  - With chisel and coulter equipment, a fumigant shank spacing of 12 to 24 inches is recommended. Do not exceed the maximum shank and outlet spacing of 24 inches. The outlet spacing for this equipment may be up to 1 1/2 times the application depth but generally should be equal to the application depth and should not exceed the soil-shattering capability of the chisels.
  - With plow-sole equipment, 12-inch outlet spacing is recommended. Do not exceed an outlet spacing of 18 inches.
  - With Noble (sweep) plow equipment, use an outlet spacing of 9 to 12 inches along the sweeps.
  - Broadcast application can be made in the same direction or at an angle to the direction of row planting.
- For the **Deep Ripped Untarped Shallow Broadcast application method** (Not For Use in California), Strike 80CP Fumigant is injected into the soil using ripper shanks that simultaneously rip the ground to a minimum depth of 18 inches below the soil surface while applying the product via wings to a minimum depth of 12 inches below the final soil surface and 4 inches from the side of the shanks.
- **Bedded Applications (for Row Spacing Greater Than 24 Inches):** Use chisel equipment to treat a band of soil where the crop is to be planted, i.e., the plant row. When multiple chisels per plant row are used, space the chisels (fumigant outlets) no more than 12 inches apart.
  - With certain deep rooted crops such as potatoes and sugar beets, higher rates may be necessary to ensure adequate treatment of the zone of soil where primary root growth occurs; however in no case should the amount of fumigant applied exceed the maximum rate given in Table 1.
  - To prevent seed germination problems caused by improper seed-to-soil contact or improper planting depth, do not place the seed directly over the furrow left by the applicator chisel(s). When one chisel is used per plant row, place the seed about 4 inches to one side of the chisel furrow. When two chisels are used per plant row, plant the seed offset from the chisel trace.



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#### **Prevention of End Row Spillage**

- Do not apply or allow fumigant to spill onto the soil surface. For each injection line either have a check valve located as close as possible to the final injection point, or drain/purge the line of any remaining fumigant prior to lifting injection shanks from the ground.
- Do not lift injection shanks from the soil until the shut-off valve has been closed and the fumigant has been depressurized (passively drained) or purged (actively forced out via air compressor) from the system.
- The dispensing system must shut off the feed stream when chisels are raised out of the ground.
- Do not stop or park near any area where dribble from chisel tips has fallen.
- A flow shutoff device must be placed as close as is technically feasible to the fluid discharge point. This can be a ball, poppet, or diaphragm check valve, or full flow shutoff device such as an electric or pneumatically actuated valve.
- Service any system immediately if continuous drip occurs.
- If mechanical check valves and orifices are used, place the check valve above the orifice. Also, isolate the check valve from upstream pressure by installing a main line shut off or bypass valve prior to the manifold.
- Pipe diameter from check valve to injection point must not exceed ¼ inches ID National Pipe Standard (NPS). Preferably, use the smallest diameter pipe or tubing possible which achieves the required flow rate.
- Do not use any method of end-row spillage control other than that which is stated on this labeling.
- Alternative end-row spillage devices or methods, such as, but not limited to, micro-bore restricted flow tubing or line purge systems may be used if they provide equal or superior control versus check valves.
- Ensure that application rigs are equipped with properly functioning check valves between the compressed gas cylinder or compressed air system and the fumigant cylinder. The check valve is best placed on the outlet side of the pressure regulator and is oriented to only allow compressed gas to flow out of the cylinder or compressed air out of the compressed air system.
- A pressure relief valve must be installed between the regulator and the check valve to ensure a regulator failure does not overpressurize the fumigant cylinder.
- Always pressurize the system with compressed gas or by use of a compressed air system before opening the fumigant cylinder valve.
- Before using a fumigation rig for the first time, or when preparing it for use after storage, the operator must check the following items carefully:
  - Check the filter, and clean or replace the filter element as required.
  - Check all tubes and chisels to make sure they are free of debris and obstructions.
  - Check and clean the orifice plates and screen checks, if installed.
  - Pressurize the system with compressed gas or compressed air, and check all fittings, valves, and connections for leaks using soap solution.
- Install the fumigant cylinder and connect and secure all tubing. Slowly open the compressed gas or compressed air valve and increase the pressure to the desired level. Slowly open the fumigant cylinder valve, always watching for leaks.
- When the application is complete, close the fumigant cylinder valve and blow residual fumigant out of the fumigant lines into the soil using compressed gas or compressed air. If the rig uses a centrifugal pump instead of compressed gas to inject fumigant into the soil, you may clear residual fumigant from the fumigant lines using an application wand connected to the system's low point via a drain hose. Place the wand in the soil until all residual fumigant has drained from the system. The wand and drain hose must be free of dirt to allow proper drainage. At the end of the application season, disconnect all fumigant cylinders from the application rig. At the end of the season, seal all tubing openings with tape to prevent the entry of insects and dirt.

#### **Calibration, Set Up, Repair and Maintenance for Application Rigs**

- Brass, carbon steel, or stainless steel fittings must be used throughout. Polyethylene tubing, polypropylene tubing, Teflon® tubing or Teflon®-lined steel braided tubing must be used for all low pressure lines, drain lines, and compressed gas or air pressure lines. All other tubing must be Teflon®-lined steel braided.
- Galvanized, PVC, nylon, or aluminum pipe fittings must not be used.
- All rigs must include a filter to remove any particulates from the fumigant and for pressurized systems a check valve to prevent backflow of the fumigant into the pressurizing cylinder or the compressed air system.
- Rigs must include a flowmeter or a constant pressure system with orifice plates to ensure the proper amount of fumigant is applied.
- To prevent the backflow of fumigant into the compressed gas cylinder (e.g., nitrogen, other inert gas or compressed air), if used, applicators must:
  - Ensure that positive pressure is maintained in the compressed gas cylinder at not less than 200 psi during the entire time it is connected to the application rig if a compressed gas cylinder is used. (This is not required for a compressed air system that is part of the application rig because if the compressor system fails, the application rig will not be operable.)

Application equipment must be calibrated and all control systems must be working properly. Proper calibration is essential for application equipment to deliver the correct amount of fumigant uniformly to the soil. Refer to the manufacturer's instructions on how to calibrate your equipment. Usually the equipment manufacturer, fumigant dealer, or Cooperative Extension service can provide assistance.

#### **Planting Interval**

- Leave the soil undisturbed and unplanted for at least 7 days after the application of Strike 80CP Fumigant is complete. A longer undisturbed interval is required if the soil becomes cold or wet, and for deep-rooted tree, shrub and vine planting sites.

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- After fumigation to prevent phytotoxicity, allow the fumigant to dissipate completely before planting the crop. Dissipation is usually complete when Strike 80CP Fumigant can no longer be detected at the application depth. Under optimum soil conditions for dissipation, a period of 1 week for each 10 gallons per treated acre is generally required for complete dissipation. If tarps that qualify for either a 40% or a 60% buffer zone credit are used, a longer dissipation period may be needed. Rapidly germinating seed (i.e., lettuce or radish) and/or seed or transplants to be grown may be used as a bioassay to determine if Strike 80CP Fumigant is present in the soil at concentrations sufficient to cause plant injury.
- To hasten dissipation especially if heavy rains or low temperatures occur during the treatment period, till the soil to the depth of fumigant application. Use a knife-like chisel without turning the soil to reduce the possibility of recontaminating the treated soil. Dissipation is usually complete when Strike 80CP Fumigant is no longer evident at the application depth. Seed may be used as a bioassay to determine if Strike 80CP Fumigant is present in the soil at concentrations sufficient to cause plant injury. Do not plant if Strike 80CP Fumigant is detected.
- All hoses, piping, and tanks used in connection with Strike 80CP Fumigant shall be of the type appropriate for use under the pressure and vacuum conditions to be encountered.
- Do not use containers, pumps or other transfer equipment made of aluminum, magnesium or their alloys, as under certain conditions 1,3-dichloropropene may be severely corrosive to such metals.
- External sight gauges shall be equipped with valves so that pipes to sight gauge can be shut off in case of breakage or leakage.
- The mechanical transfer system must be adequate to make necessary measurements of the pesticide being used.
- Shut-off devices must be installed on the exit end of all hoses and at all disconnect points to prevent leakage of Strike 80CP Fumigant when the transfer is stopped and hose is removed or disconnected. A dry coupler that will minimize pesticide leakage must be installed at the disconnect point.
- The pressure in hoses used to move Strike 80CP Fumigant beyond a pump must not exceed the manufacturer's maximum pressure specification.

#### Bulk and Non-Bulk Containers

- Strike 80CP Fumigant must be transferred through connecting hoses, pipes, and/or couplings sufficiently

NOTE: In-tank cleaning of bulk tanks must be performed only by persons who have been specifically trained for this activity. Refer to OSHA 29 CFR Part 1910.146.

**TABLE 1  
STRIKE 80CP FUMIGANT PRODUCT APPLICATION RATES**

Crop	Soil Type	Maximum Application Rates <sup>(a)</sup> for tarped shank bed, strip and broadcast; for untarped shank bed; and for untarped deep (18 inches) shank broadcast applications	
		Gallons/ treated acre	Lbs/ treated acre
Carrots, Onions, Potatoes, Mint, Sweet Corn, and Sugar Beets <sup>1, 2, 3, 4</sup>	Mineral, Muck, or Peat	34	440
		Maximum Application Rates <sup>(a)</sup> for untarped shank broadcast applications	
		Gallons/ treated acre	Lbs/ treated acre
		17	220

<sup>(a)</sup>Do not exceed specified maximum application rates in Table 1 or in the footnotes below.

<sup>1</sup> Row treatment is not recommended for potatoes in irrigated areas of western and northwestern states.

<sup>2</sup> For cyst-forming nematodes, increase dosage to 34 gallons (440 lbs.) product per treated acre for all applications except untarped shank broadcast.

<sup>3</sup> For muck soils containing less than 30% organic matter use 34 gallons (440 lbs.) product per treated acre for all applications except untarped shank broadcast.

<sup>4</sup> For mint apply 34 gallons (440 lbs.) product per treated acre for all applications except untarped shank broadcast.

Note: To control symphylans (garden centipedes), use 34 gallons (440 lbs.) product per treated acre for all applications except untarped shank broadcast, or 17 gallons (220 lbs.) of product per treated acre for untarped shank broadcast applications. Apply during late Summer or early Fall when the soil is warm.

To control wireworms, use dosage recommended for nematodes. For wireworm control in soils to be planted to potatoes in Idaho, Nevada, Oregon, Utah, and Washington, refer to footnote 1 above.

### Calculating the Broadcast Equivalent Application Rate

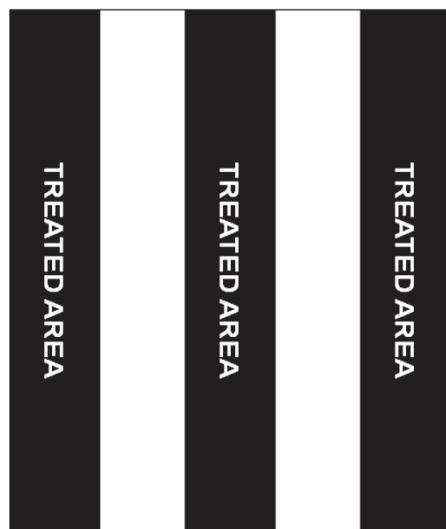
To calculate the broadcast equivalent rate for bedded or strip applications the following information is needed:

- Pounds (or gallons) of product per treated acre
- strip or bed bottom width (inches)
- center-to-center row spacing (inches)
- application block size (acres)

Pounds (or gallons) of product **per treated acre** is the ratio of total amount of product applied to the size of the **total area treated** (e.g., the rate of product applied in the bed). For bedded or strip applications, the **total area treated** is the summation of the area (i.e., length x width) of each treated bed bottom or strip that is located within the application block as shown by the black areas in Figure 1 (e.g., black areas are 0.6A or 60% of the area within the application block). The area of the space between the beds/strips is not factored in the total area treated.

The **application block size** is the acreage within the perimeter of the fumigated portion of a field (including furrows, irrigation ditches, roadways). The perimeter of the application block is the border that connects the outermost edges of total area treated with the fumigant product.

Figure 1. Bedded/Strip Application  
(1 acre application block)



Space Between Beds/Strips is not treated

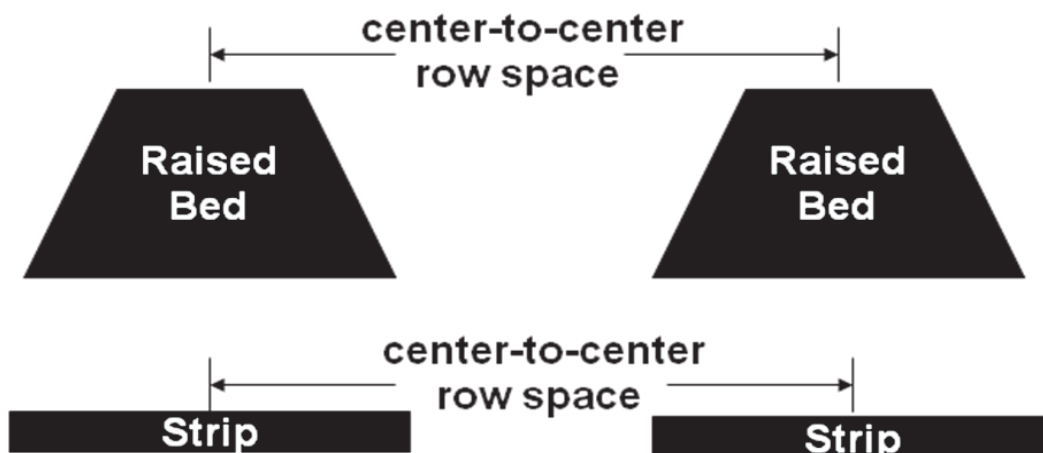
The "broadcast equivalent rate" must be calculated with the following formula:

$$\begin{array}{lcl} \text{broadcast equivalent rate} & & \text{strip or bed bottom} \\ \text{(pounds (or gallons)} & & \text{width} \\ \text{product / acre)} & = & \text{(inches)} \\ & & \text{center-to-center} \\ & & \text{row spacing (inches)} \end{array} \times \begin{array}{l} \text{pounds (or} \\ \text{gallons) of} \\ \text{product /} \\ \text{treated acre} \\ \text{applied in the} \\ \text{strip or bed} \end{array}$$

- The bed width must be measured from the bottom of the bed.
- The center-to-center row spacing must be calculated as shown in Figure 2.
- If there are any ditches, waterways, drive rows and other areas that are not fumigated that are in the application block, multiply the above broadcast equivalent equation by **(total area of strips or beds + row spacing) / (application block size)**. A sample calculation is provided below.

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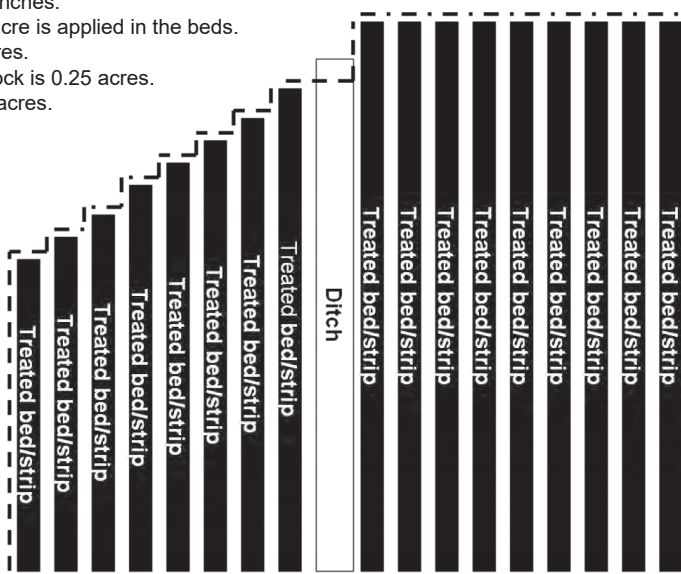
Figure 2. Center Row Spacing



Sample broadcast equivalent rate calculation

Assumptions:

- Application method is shank bedded.
- Bed width is 30 inches (measured at the bottom of bed).
- Center-to-center row spacing is 60 inches.
- 200 pounds of product per treated acre is applied in the beds.
- Total application block size is 10 acres.
- Ditch in the middle of application block is 0.25 acres.
- Area of beds + row spacing is 9.75 acres.



$$\begin{aligned}
 \text{broadcast equivalent rate} &= \frac{\text{strip or bed bottom width (inches)}}{\text{center-to-center row spacing (inches)}} \times \frac{\text{area of strips or beds + row spacing}}{\text{application block size}} \times \text{pounds product/ treated acre applied in the bed} \\
 &= \frac{30\text{-inch width beds}}{60\text{-inch row spacing}} \times \frac{9.75\text{ acres}}{10\text{ acres}} \times 200\text{ pounds product/ treated acre} \\
 &= 97.5\text{ pounds product/acre}
 \end{aligned}$$



## Buffer Zone Requirements

A buffer zone must be established for every fumigant application. The following describes the buffer zone requirements: An area established around the perimeter of each application block.

- The buffer zone must extend outward from the edge of the application block perimeter equally in all directions.
- All non-handlers, including field workers, residents, pedestrians, and other bystanders, must be excluded from the buffer zone during the buffer zone period except for transit (see *Buffer Zone Exemption for Transit on Roadways*).
  - Local, state, or federal officials performing inspection, sampling, or other similar official duties are not excluded from the application block or the buffer zone by this labeling. The certified applicator supervising the application and the owner of the establishment where the application is taking place are not authorized to, or responsible for, excluding those officials from the application block or the buffer zone.
- The buffer zone period begins at the start of the application and lasts for a minimum of 48 hours after the application is complete.

### Buffer zone proximity

- Before the start of application, the certified applicator must determine whether their buffer zone will overlap any chloropicrin buffer zone(s).
- To reduce the potential for off-site movement from multiple fumigated fields, buffer zones from multiple chloropicrin application blocks must not overlap UNLESS:
  1. A minimum of 12 hours have elapsed from the time the earlier application(s) is complete until the start of the later application, and
  2. *Fumigant Site Monitoring or Response Information for Neighbors* have been implemented if there are any residences or businesses within 300 feet of any of the buffer zones.

### Structures under the control of the owner of the application block

- Buffer zones must not include buildings used for storage (e.g., sheds, barns, garages) UNLESS:
  1. The storage buildings are not occupied during the buffer zone period, and
  2. The storage buildings do not share a common wall with an occupied structure.

### Areas not under the control of the owner of the application block

- Buffer zones must not include residential areas (e.g., employee housing, private property), buildings (e.g., commercial, industrial), outdoor residential areas (e.g., lawns, gardens, play areas) and other areas that people may occupy, UNLESS:
  1. The occupants provide written agreement, prior to the start of the application, that they will voluntarily vacate the buffer zone during the entire buffer zone period, and
  2. Reentry by occupants and other non-handlers must not occur until,
    - The buffer zone period has ended, and
    - Sensory irritation is not experienced upon re-entry.

- Buffer zones must not include agricultural areas owned and/or operated by persons other than the owner of the application block, UNLESS:

1. The owner of the application block can ensure that the buffer zone will not overlap with a chloropicrin buffer zone from any other property owners, except as provided in the *Buffer Zone Proximity* section, and
  2. The owner of the other property provides written agreement to the applicator that they, their employees, and other persons will stay out of the buffer zone during the entire buffer zone period.
- Buffer zones must not include roadways and rights of way UNLESS:
    1. The area is not occupied during the buffer zone period, and
    2. Entry by non-handlers is prohibited during the buffer zone period.

### Buffer Zone Exemption for Transit on Roadways

Vehicular and bicycle traffic on public and private roadways through the buffer zone is permitted. (NOTE: Buffer zones are not permitted to include bus stops or other locations where persons wait for public transit.)

- For all other publicly owned and/or operated areas such as parks, sidewalks, permanent walking paths, playgrounds, and athletic fields, buffer zones must not include these areas UNLESS:
  1. The area is not occupied during the buffer zone period,
  2. Entry by non-handlers is prohibited during the buffer zone period, and
  3. Written permission to include the public area in the buffer zone is granted by the appropriate state and/or local authorities responsible for management and operation of the area.

Certified applicators must comply with all local laws and regulations.

See the *Posting* section for additional requirements that may apply.

## Buffer Zone Distances

Buffer zone distances must be calculated using the application rate and the size of the application block.

- Buffer zone distances must be based on look-up tables in this labeling (25 feet is the minimum distance regardless of site-specific application parameters).
- Buffer zone distances cannot be greater than ½ mile (2,640 feet). If after applying applicable credits the buffer zone distances are still greater than ½ mile (2,640 feet), the application is prohibited.
- For all other applications, Tables 2-8 must be used to determine the minimum buffer distances as appropriate for the method of application. Round up to the nearest rate and block size, where appropriate. Applications are prohibited for rates or block sizes that exceed what is presented in the buffer zone tables.

barcode area

## Buffer Zone Credits

The buffer zone distances for Strike 80CP Fumigant applications may be reduced by the percentages listed below. Credits may be added, but credits cannot exceed 80%. Also the minimum buffer zone distance is 25 feet regardless of buffer zone credits available. For all buffer zones in California, see the California requirements at <https://www.cdpr.ca.gov/chloropicrin.htm>.

See <https://www.epa.gov/soil-fumigants/tarps> for a list of tarps that have been tested and determined to qualify for buffer reduction credits. Only tarps listed on this website qualify for buffer reduction credits.

- 15% reduction in buffer zone distance, IF potassium thiosulfate (KTS) is applied at a minimum rate of 300 pounds per acre.
- 15% reduction in buffer zone distance, IF  $\frac{1}{4}$  to  $\frac{1}{2}$  inch of water is applied.
- 10% reduction in buffer zone distance, IF the organic content of the soil in the application block is  $\geq 1\%$  - 2%; 20% reduction in buffer zone distance, IF the organic content of the soil in the application block is  $> 2\%$  - 3%; and a 30% reduction in the buffer zone distance, IF the organic content of the soil in the application block is  $> 3\%$ .
- 10% reduction in buffer zone distance, IF the soil temperature is measured to be 50°F or less. Record temperature measurements at the application depth or 12 inches, whichever is shallower.
- 10% reduction in the buffer zone distance, IF the clay content of the soil in the application block is greater than 27%.
- 10% reduction in buffer zone distance IF the Symmetry™ application system is used with a tarp that qualifies for a credit and the application rate is  $\leq 100$  pounds a.i./treated acre. The 10% credit for the Symmetry™ application system is added to the buffer zone credit for the tarp. For example if the Symmetry™ application system is used with a tarp that qualifies for a 40% credit the total credit for the tarp and the application system would be 50%.

**Examples of Buffer Zone Calculations with Credits Applied**  
If the buffer zone is 50 feet and the application qualifies for a buffer zone credit since the soil organic content is 1.5%, then the buffer zone can be reduced by 10%, i.e., reduced by 5 feet based on the following calculation: 50 feet - (50 feet x 10%) = 45 feet.

If the buffer zone is 50 feet and the application qualifies for two buffer zone credits since the soil organic content is 1.5% and the clay content is greater than 27%, then the buffer zone can be reduced by 20% (10% organic content credit + 10% clay content credit), i.e., reduced by 10 feet based on the following calculation 50 feet - (50 feet x 20%) = 40 feet.

## Posting Fumigant Buffer Zones

- Posting of a buffer zone is required unless there is a physical barrier that prevents bystander access to the buffer zone.
- Buffer Zone signs must be placed along or outside the perimeter of the buffer zone, at all usual points of entry and along likely routes of approach from areas where people not under the owner's control may approach the buffer zone.
  - Some examples of points of entry include, but are not limited to, roadways, sidewalks, paths, and bike trails.
  - Some examples of likely routes of approach include, but are not limited to, the area between a buffer zone and a roadway, or the area between a buffer zone and a housing development.
  - When posting, the certified applicator supervising the application must ensure compliance with all local laws and regulations.
- Buffer Zone signs must meet the following criteria:
  - The printed side of the sign must face away from the application block toward areas from which people could approach.
  - Signs must remain legible during the entire posting period and must meet the general standards outlined in the WPS for sign size, text size, and legibility (see 40 CFR §170.120).
  - Signs must be posted no sooner than 24 hours prior to the start of the application and remain posted until the buffer zone period has expired.
  - Signs must be removed within 3 days after the end of the buffer zone period.
  - Buffer Zone signs which meet the criteria above will be provided at points of sale for applicators to use. Templates may be downloaded from <https://www.epa.gov/soil-fumigants/buffer-zone-sign-template>.
  - The Buffer Zone signs must contain the following information:
    - ☐ The 'Do Not Walk' symbol
    - ☐ "DO NOT ENTER/NO ENTREE",
    - ☐ "Chloropicrin and 1,3-Dichloropropene (Strike 80CP) FUMIGANT BUFFER ZONE",
    - ☐ Contact information for the certified applicator in charge of the fumigation.

**Exception:** If multiple contiguous blocks are fumigated within a 14-day period, the entire periphery of the contiguous blocks' buffer zones may be posted. Buffer Zone signs must be posted no sooner than 24 hours prior to the start of the first application. The signs must remain posted until the last buffer zone period expires, and signs must be removed within 3 days after the buffer zone period for the last block has expired.

barcode area

[illegible]

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		Application Block Size (Acres)																												
		1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	90	100	110	120	130	140	150	160	
Broadcast Equivalent Application Rate (lbs Product/Acre)	56	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	30	35	35	
	62	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	38	41	44	47
	69	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	30	30	35	40	49	53	56	60	
	75	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	36	40	55	60	65	70	76	81	87	
	81	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	34	43	60	75	85	100	108	117	125	133	
	88	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	38	50	75	100	115	130	141	152	163	171	
	94	25	25	25	25	25	25	25	25	25	25	25	25	25	30	32	36	46	56	70	83	110	125	135	150	163	175	188	200	
	100	25	25	25	25	25	25	25	25	25	25	25	25	30	31	39	48	68	88	102	116	130	145	160	175	190	204	219	231	
	107	25	25	25	25	25	25	25	25	25	25	25	25	30	34	46	59	89	119	134	149	164	179	194	209	226	244	261	279	
	114	25	25	25	25	25	25	25	25	25	25	30	33	41	50	65	79	114	149	166	184	196	214	232	249	269	291	311	331	
	119	25	25	25	25	25	25	25	25	25	25	37	49	64	80	94	108	142	176	198	221	236	258	279	298	323	348	373	397	
	125	25	25	25	25	25	25	25	25	25	25	45	64	87	110	123	136	170	203	230	258	277	302	326	348	377	406	435	463	
	132	25	25	25	25	25	25	25	25	25	25	53	80	110	140	153	165	198	230	263	295	325	355	382	407	441	475	509	543	
	138	25	25	25	25	25	25	30	30	31	32	66	100	129	157	170	184	218	253	280	306	356	389	419	446	483	520	558	595	
	144	25	25	25	25	25	30	31	34	36	39	80	120	147	174	188	202	239	276	297	318	388	424	456	485	525	566	606	647	
	150	25	25	25	25	25	30	34	38	42	46	93	140	166	191	206	221	260	297	314	329	419	458	493	524	568	611	655	699	
	157	25	25	25	25	25	31	38	44	51	57	106	154	182	209	224	239	281	322	340	358	451	492	529	563	610	657	704	751	
	163	25	25	25	25	25	34	44	53	62	71	117	163	195	228	243	258	302	346											

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Table 3. Bed Tarp Buffer Zone Distances in Feet

		Application Block Size (Acres)																															
		1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	90	100	110	120	130	140	150	160				
Broadcast Equivalent Application Rate (lbs Product/Acre)	94	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	40	45			
	100	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	34	43	51	60	65	70	75	80		
	106	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	43	60	78	95	103	111	119	127		
	113	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	40	55	74	93	119	145	157	169	181	193			
	119	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	55	85	105	125	160	195	211	228	244	260			
	125	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	45	63	93	123	143	163	193	223	241	260	278	297		
	132	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	65	100	130	160	180	200	225	250	271	292	313	333			
	138	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	45	65	135	155	183	210	230	250	283	315	341	368	394	420	
	144	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	43	70	95	145	168	203	238	256	275	310	345	374	403	440		
	150	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	60	95	125	155	180	223	265	283	300	338	375	406	438	469	500		
	157	25	25	25	25	25	25	25	25	25	25	25	25	25	25	55	78	110	143	188	210	251	293	315	338	388	438	474	510	547	583		
	163	25	25	25	25	25	25	25	25	25	25	25	25	25	25	85	95	125	160	220	240	280	320	348	375	438	500	542	583	625	667		
	169	25	25	25	25	25	25	25	25	25	25	25	25	25	50	103	113	143	180	230	253	300	348	374	400	463	525	569	613	656	700		
	176	25	25	25	25	25	25	25	25	25	25	25	25	25	75	120	130	160	200	240	265	320	375	400	425	488	550	596	642	688	733		
	182	25	25	25	25	25	25	25	25	25	25	25	25	45	100	135	160	175	220	275	300	350	400	438	475	528	580	628	677	725	773		
	188	25	25	25	25	25	25	25	25	25	25	25	70	120	148	178	200	248	298	325	379	433	466	500	555	610	661	712	763	813			
	194	25	25	25	25	25	25	25	25	25	25	25	95	140	160	195	225	275	320	350	408	465	495	525	583	640	693	747	800	853			
	201	25	25	25	25	25	25	25	25	25	25	25	108	153	178	213	243	283	330	373	428	483	523	563	613	663	718	773	828	883			
	207	25	25	25	25	25	25	25	25	25	25	25	120	165	195	230	260	290	340	395	448	500	550	600	643	685	742	799	856	913			
	213	25	25	25	25	25	25	29	33	37	41	45	128	173	213	245	278	310	360	410	474	538	588	638	678	718	777	837	897	957			
	220	25	25	25	25	25	25	33	41	49	57	65	135	180	230	260	295	330	380	425	500	575	625	675	713	750	813	875	938	1000			
	226	25	25	25	25	25	34	42	50	59	67	139	185	237	267	303	339	391	437	514	591	643	694	733	771	836	900	964	1029				
	232	25	25	25	25	25	35	43	52	60	69	143	190	243	275	312	349	402	449	529	608	661	714	753	793	859	925	991	1057				
	238	25	25	25	25	25	36	45	53	62	71	147	195	250	282	320	358	413	461	543	624	679	733	774	814	882	950	1018	1086				
	245	25	25	25	25	30	37	46	55	64	72	150	201	256	290	329	368	423	474	557	641	696	752	794	836	905	975	1045	1114				
	251	25	25	25	25	30	38	47	56	65	74	154	206	263	297	337	377	434	486	571	657	714	771	814	857	929	1000	1071	1143				
	257	25	25	25	25	30	39	48	57	67	76	158	211	269	305	346	387	445	498	586	674	732	791	835	879	952	1025	1098	1171				
	264	25	25	25	30	30	40	49	59	68	78	162	216	276	312	354	396	456	510	600	690	750	810	855	900	975	1050	1125	1200				
	270	25	25	25	30	30	41	50	60	70	80	166	221	283	319	362	405	467	522	614	706	768	829	875	921	998	1075	1152	1229				
	276	25	25	25	30	30	41	52	62	72	82	170	226	289	327	371	415	478	534	629	723	786	849	896	943	1021	1100	1179	1257				
	282	25	25	25	30	35	42	53	63	73	84	174	231	296	334	379	424	489	546	643	739	804	868	916	964	1045	1125	1205	1286				
	289	25	25	25	30	35	43	54	64	75	85	177	237	302	342	388	434	499	559	657	756	821	887	936	986	1068	1150	1232	1314				
	295	25	25	25	30	35	44	55	66	77	87	181	242	309	349	396	443	510	571	671	772	839	906	957	1007	1091	1175	1259	1343				
	301	25	25	25	30	35	45	56	67	78	89	185	247	315	357	405	453	521	583	686	789	857	926	977	1029	1114	1200	1286	1371				
	308	25	25	25	30	35	46	57	69	80	91	189	252	322	364	413	462	532	595	700	805	875	945	998	1050	1138	1225	1313	1400				
	314	25	25	25	30	35	47	59	70	81	93	193	257	329	371	421	471	543	607	714	821	893	964	1018	1071	1161	1250	1339	1429				
	320	25	25	30	35	40	48	60	71	83	95	197	262	335	379	430	481	554	619	729	838	911	984	1038	1093	1184	1275	1366	1457				
	326	25	25	30	35	40	49	61	73	85	97	201	267	342	386	438	490	565	631	743	854	929	1003	1059	1114	1207	1300	1393	1486				
	333	25	25	30	35	40	50	62	74	86	98	204	273	348	394	447	500	575	644	757	871	946	1022	1079	1136	1230	1325	1420	1514				

barcode area



[Label Finished Size: 7.375" x 8.5"]

[Booklet Copy Area: 6.0" x 8.125"]

Table 4. Bed Untarp (both preformed beds and beds listed/disk hilled at the time of application) Buffer Zone Distances in Feet

	Application Block Size (Acres)															
	1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40
44	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
50	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
56	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
62	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
69	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
75	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
81	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
88	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
95	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
106	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
113	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
119	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
125	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
132	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
138	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
144	25	30	32	36	39	43	68	94	119	145	213	268	330	365	418	455
150	25	32	39	46	53	60	85	110	135	160	225	285	350	380	435	475
157	30	40	49	59	68	78	101	125	149	173	243	303	368	415	460	513
163	30	43	56	69	82	95	118	140	163	185	260	320	385	450	485	550
169	30	45	59	74	88	103	126	150	174	198	273	335	405	468	510	565
176	35	50	65	80	95	110	135	160	185	210	285	350	425	485	535	580
182	40	56	72	88	104	120	146	173	199	225	315	385	440	500	545	590
188	45	63	80	98	115	133	159	185	211	238	328	393	463	523	565	600
194	50	69	88	107	126	145	171	198	224	250	340	400	485	545	585	625
201	55	75	94	114	133	153	181	210	239	268	358	418	508	578	625	675
207	60	80	100	120	140	160	191	223	254	285	375	435	530	590	665	765
214	65	88	111	134	157	180	211	243	274	305	418	460	555	633	708	778
220	75	100	125	150	175	200	231	263	294	325	460	485	580	675	750	790
226	77	103	129	154	180	206	238	270	302	334	473	499	597	694	771	813
232	79	106	132	159	185	211	244	278	311	344	486	513	613	714	793	835
238	81	109	136	163	190	217	251	285	319	353	499	527	630	733	814	858
245	84	111	139	167	195	223	258	293	327	362	513	540	646	752	836	880
251	86	114	143	171	200	229	264	300	336	371	526	554	663	771	857	903
257	88	117	146	176	205	234	271	308	344	381	539	568	679	791	879	925
264	90	120	150	180	210	240	278	315	353	390	552	582	696	810	900	948
270	92	123	154	184	215	246	284	323	361	399	565	596	713	829	921	971
276	94	126	157	189	220	251	291	330	369	409	578	610	729	849	943	993
282	96	129	161	193	225	257	297	338	378	418	591	624	746	868	964	1016
289	99	131	164	197	230	263	304	345	386	427	605	637	762	887	986	1038
295	101	134	168	201	235	269	311	353	394	436	618	651	779	906	1007	1061
301	103	137	171	206	240	274	317	360	403	446	631	665	795	926	1029	1083
308	105	140	175	210	245	280	324	368	411	455	644	679	812	945	1050	1106
314	107	143	179	214	250	286	330	375	420	464	657	693	829	964	1071	1129
320	109	146	182	219	255	291	337	383	428	474	670	707	845	984	1093	1151
326	111	149	186	223	260	297	344	390	436	483	683	721	862	1003	1114	1174
333	114	151	189	227	265	303	350	398	445	492	697	734	878	1022	1136	1196

Buffer zone distances cannot be greater than ½ mile (2,640 feet). If after applying applicable credits the buffer zone distances are still greater than ½ mile (2,640 feet), the application is prohibited.

Buffer for Compacted Untarp Beds (beds listed/disk hilled and compacted at the time of application in one pass) is 25 feet.

barcode area

[Label Finished Size: 7.375" x 8.5"]

[Booklet Copy Area: 6.0" x 8.125"]

Table 5. Broadcast Tarp Buffer Zone Distances in Feet

	Application Block Size (Acres)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
	1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	60	70	80	90	100	110	120	130	140	150	160																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
88	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	30	35	40	45	50	55	60																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
100	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	32	37	40	43	45	45	50	55	60	64	69	73																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
113	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	30	39	49	55	61	65	65	70	76	82	88	93																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
119	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	31	46	61	70	79	83	88	95	95	103	111	119	127																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
125	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	33	53	73	85	97	110	115	120	125	135	146	156	167																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
132	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	60	85	100	115	130	145	160	170	184	198	213	227																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
138	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	30	34	36	38	45	51	58	65	72	80	88	96	104	112	120	128	136	144	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	280	288	296	304	312	320	328	336	344	352	360	368	376	384	392	400	408	416	424	432	440	448	456	464	472	480	488	496	504	512	520	528	536	544	552	560	568	576	584	592	600	608	616	624	632	640	648	656	664	672	680	688	696	704	712	720	728	736	744	752	760	768	776	784	792	800	808	816	824	832	840	848	856	864	872	880	888	896	904	912	920	928	936	944	952	960	968	976	984	992	1000	1008	1016	1024	1032	1040	1048	1056	1064	1072	1080	1088	1096	1104	1112	1120	1128	1136	1144	1152	1160	1168	1176	1184	1192	1200	1208	1216	1224	1232	1240	1248	1256	1264	1272	1280	1288	1296	1304	1312	1320	1328	1336	1344	1352	1360	1368	1376	1384	1392	1400	1408	1416	1424	1432	1440	1448	1456	1464	1472	1480	1488	1496	1504	1512	1520	1528	1536	1544	1552	1560	1568	1576	1584	1592	1600	1608	1616	1624	1632	1640	1648	1656	1664	1672	1680	1688	1696	1704	1712	1720	1728	1736	1744	1752	1760	1768	1776	1784	1792	1800	1808	1816	1824	1832	1840	1848	1856	1864	1872	1880	1888	1896	1904	1912	1920	1928	1936	1944	1952	1960	1968	1976	1984	1992	2000	2008	2016	2024	2032	2040	2048	2056	2064	2072	2080	2088	2096	2104	2112	2120	2128	2136	2144	2152	2160	2168	2176	2184	2192	2200	2208	2216	2224	2232	2240	2248	2256	2264	2272	2280	2288	2296	2304	2312	2320	2328	2336	2344	2352	2360	2368	2376	2384	2392	2400	2408	2416	2424	2432	2440	2448	2456	2464	2472	2480	2488	2496	2504	2512	2520	2528	2536	2544	2552	2560	2568	2576	2584	2592	2600	2608	2616	2624	2632	2640	2648	2656	2664	2672	2680	2688	2696	2704	2712	2720	2728	2736	2744	2752	2760	2768	2776	2784	2792	2800	2808	2816	2824	2832	2840	2848	2856	2864	2872	2880	2888	2896	2904	2912	2920	2928	2936	2944	2952	2960	2968	2976	2984	2992	3000	3008	3016	3024	3032	3040	3048	3056	3064	3072	3080	3088	3096	3104	3112	3120	3128	3136	3144	3152	3160	3168	3176	3184	3192	3200	3208	3216	3224	3232	3240	3248	3256	3264	3272	3280	3288	3296	3304	3312	3320	3328	3336	3344	3352	3360	3368	3376	3384	3392	3400	3408	3416	3424	3432	3440	3448	3456	3464	3472	3480	3488	3496	3504	3512	3520	3528	3536	3544	3552	3560	3568	3576	3584	3592	3600	3608	3616	3624	3632	3640	3648	3656	3664	3672	3680	3688	3696	3704	3712	3720	3728	3736	3744	3752	3760	3768	3776	3784	3792	3800	3808	3816	3824	3832	3840	3848	3856	3864	3872	3880	3888	3896	3904	3912	3920	3928	3936	3944	3952	3960	3968	3976	3984	3992	4000	4008	4016	4024	4032	4040	4048	4056	4064	4072	4080	4088	4096	4104	4112	4120	4128	4136	4144	4152	4160	4168	4176	4184	4192	4200	4208	4216	4224	4232	4240	4248	4256	4264	4272	4280	4288	4296	4304	4312	4320	4328	4336	4344	4352	4360	4368	4376	4384	4392	4400	4408	4416	4424	4432	4440	4448	4456	4464	4472	4480	4488	4496	4504	4512	4520	4528	4536	4544	4552	4560	4568	4576	4584	4592	4600	4608	4616	4624	4632	4640	4648	4656	4664	4672	4680	4688	4696	4704	4712	4720	4728	4736	4744	4752	4760	4768	4776	4784	4792	4800	4808	4816	4824	4832	4840	4848	4856	4864	4872	4880	4888	4896	4904	4912	4920	4928	4936	4944	4952	4960	4968	4976	4984	4992	5000	5008	5016	5024	5032	5040	5048	5056	5064	5072	5080	5088	5096	5104	5112	5120	5128	5136	5144	5152	5160	5168	5176	5184	5192	5200	5208	5216	5224	5232	5240	5248	5256	5264	5272	5280	5288	5296	5304	5312	5320	5328	5336	5344	5352	5360	5368	5376	5384	5392	5400	5408	5416	5424	5432	5440	5448	5456	5464	5472	5480	5488	5496	5504	5512	5520	5528	5536	5544	5552	5560	5568	5576	5584	5592	5600	5608	5616	5624	5632	5640	5648	5656	5664	5672	5680	5688	5696	5704	5712	5720	5728	5736	5744	5752	5760	5768	5776	5784	5792	5800	5808	5816	5824	5832	5840	5848	5856	5864	5872	5880	5888	5896	5904	5912	5920	5928	5936	5944	5952	5960	5968	5976	5984	5992	6000	6008	6016	6024	6032	6040	6048	6056	6064	6072	6080	6088	6096	6104	6112	6120	6128	6136	6144	6152	6160	6168	6176	6184	6192	6200	6208	6216	6224	6232	6240	6248	6256	6264	6272	6280	6288	6296	6304	6312	6320	6328	6336	6344	6352	6360	6368	6376	6384	6392	6400	6408	6416	6424	6432	6440	6448	6456	6464	6472	6480	6488	6496	6504	6512	6520	6528	6536	6544	6552	6560	6568	6576	6584	6592	6600	6608	6616	6624	6632	6640	6648	6656	6664	6672	6680	6688	6696	6704	6712	6720	6728	6736	6744	6752	6760	6768	6776	6784	6792	6800	6808	6816	6824	6832	6840	6848	6856	6864	6872	6880	6888	6896	6904	6912	6920	6928	6936	6944	6952	6960	6968	6976	6984	6992	7000	7008	7016	7024	7032	7040	7048	7056	7064	7072	7080	7088	7096	7104	7112	7120	7128	7136	7144	7152	7160	7168	7176	7184	7192	7200	7208	7216	7224	7232	7240	7248	7256	7264	7272	7280	7288	7296	7304	7312	7320	7328	7336	7344	7352	7360	7368	7376	7384	7392	7400	7408	7416	7424	7432	7440	7448	7456	7464	7472	7480	7488	7496	7504	7512	7520	7528	7536	7544	7552	7560	7568	7576	7584	7592	7600	7608	7616	7624	7632	7640	7648	7656	7664	7672	7680	7688	7696	7704	7712	7720	7728	7736	7744	7752	7760	7768	7776	7784	7792	7800	7808	7816	7824	7832	7840	7848	7856	7864	7872	7880	7888	7896	7904	7912	7920	7928	7936	7944	7952	7960	7968	7976	7984	7992	8000	8008	8016	8024	8032	8040	8048	8056	8064	8072	8080	8088	8096	8104	8112	8120	8128	8136	8144	8152	8160	8168	8176	8184	8192	8200	8208	8216	8224	8232	8240	8248	8256	8264	8272	8280	8288	8296	8304	8312	8320	8328	8336	8344	8352	8360	8368	8376	8384	8392	8400	8408	8416	8424	8432	8440	8448	8456	8464	8472	8480	8488	8496	8504	8512	8520	8528	8536	8544	8552	8560	8568	8576	8584	8592	8600	8608	8616	8624	8632	8640	8648	8656	8664	8672	8680	8688	8696	8704	8712	8720	8728	8736	8744	8752	8760	8768	8776	8784	8792	8800	8808	8816	8824	8832	8840	8848	8856	8864	8872	8880	8888	8896	8904	8912	8920	8928	8936	8944	8952	8960	8968	8976	8984	8992	9000	9008	9016	9024	9032	9040	9048	9056	9064	9072	9080	9088	9096	9104	9112	9120	9128	9136	9144	9152	9160	9168	9176	9184	9192	9200	9208	9216	9224	9232	9240	9248	9256	9264	9272	9280	92

[Label Finished Size: 7.375" x 8.5"]

[Booklet Copy Area: 6.0" x 8.125"]

Table 6. Broadcast Untarp Buffer Distances in Feet

	Application Block Size (Acres)															
	1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40
37	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
44	25	25	25	25	25	25	25	25	25	25	25	25	25	30	35	43
50	25	25	25	25	25	25	25	25	25	25	25	25	25	38	50	80
56	25	25	25	25	25	25	25	25	25	25	25	41	58	76	95	133
62	25	25	25	25	25	25	25	25	25	25	25	58	90	115	140	185
69	25	25	25	25	25	25	25	25	25	25	46	68	100	133	161	190
75	25	25	25	25	25	25	25	25	25	25	68	110	143	175	208	240
81	25	25	25	25	25	30	33	37	41	45	95	145	183	220	253	285
88	25	25	25	25	25	33	41	49	57	65	123	180	223	265	298	330
94	25	25	30	30	30	42	56	70	84	98	158	218	263	307	343	380
100	25	30	30	30	32	52	72	92	112	132	194	257	303	348	389	430
106	25	30	30	33	35	61	87	113	139	165	230	295	343	390	435	480
113	25	34	43	52	61	86	111	136	161	186	248	309	366	423	473	523
119	25	41	56	72	88	112	136	160	184	208	265	323	389	455	510	565
125	25	47	69	92	114	137	160	183	206	229	283	336	412	488	548	608
132	25	54	83	111	140	162	184	206	228	250	300	350	435	520	585	650
138	25	56	88	119	150	173	196	218	241	264	325	386	473	559	628	696
144	25	59	93	126	160	184	207	231	254	278	350	422	510	598	670	742
150	25	61	98	134	170	194	219	243	268	292	375	458	548	637	713	788
157	25	64	103	141	180	205	230	256	281	306	400	494	585	676	755	834
163	25	66	108	149	190	216	242	268	294	320	425	530	623	715	798	880
169	25	71	118	164	210	238	265	293	320	348	450	553	651	750	833	915
176	25	76	128	179	230	259	288	317	346	375	475	575	680	785	868	950
183	25	78	130	183	235	268	301	334	367	400	500	600	706	811	903	994
188	25	79	133	186	240	277	314	351	388	425	525	625	731	838	938	1038
194	25	80	135	190	245	286	327	368	409	450	550	650	757	864	973	1081
201	25	81	138	194	250	295	340	385	430	475	575	675	783	890	1008	1125
207	25	85	146	206	267	310	353	397	440	483	595	707	817	927	1038	1150
213	25	90	154	219	283	325	367	408	450	492	615	738	851	963	1069	1175
220	25	94	163	231	300	340	380	420	460	500	635	770	885	1000	1100	1200

Buffer zone distances cannot be greater than ½ mile (2,640 feet). If after applying applicable credits the buffer zone distances are still greater than ½ mile (2,640 feet), the application is prohibited.

barcode area

Table 7. Deep Ripped Untarp Shallow Shank Buffer Table (in feet)

	Application Block Size (Acres)															
	1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40
45	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
51	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
59	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
66	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
74	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
81	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
89	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
96	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
103	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
110	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
125	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
133	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
140	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
147	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
150	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
154	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
162	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
169	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
177	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
184	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
192	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
198	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
206	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
213	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
219	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25

[Label Finished Size: 7.375" x 8.5"]

[Booklet Copy Area: 6.0" x 8.125"]

Table 8. Broadcast Deep (18 inches) Untarp Buffer Zone Distances in Feet

		Application Block Size (Acres)																	
		1	2	3	4	5	6	7	8	9	10	15	20	25	30	35	40	50	
Broadcast Application Rate (lbs Product/Acre)	37	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	44	25	25	25	25	25	25	25	25	25	25	30	30	33	35	38	41	44	48
	50	25	25	25	25	25	25	25	25	25	25	30	35	40	46	51	57	63	70
	56	25	25	25	25	25	25	25	25	25	25	33	40	48	56	64	73	83	93
	62	25	25	25	25	25	25	25	25	25	25	35	45	56	67	78	88	102	115
	69	25	25	25	25	25	25	25	25	25	25	40	55	71	88	104	120	140	160
	75	25	25	25	25	25	25	25	25	25	25	45	65	87	108	130	152	178	205
	81	25	25	25	25	25	25	25	25	25	25	50	75	102	129	156	183	217	250
	88	25	25	25	25	25	25	25	25	25	25	55	85	118	150	183	215	255	295
	94	25	25	25	25	25	25	30	32	35	38	40	77	114	148	183	216	249	294
	100	25	25	25	25	25	33	39	45	51	55	99	143	179	215	249	283	334	385
	107	25	25	25	25	25	37	46	55	63	70	121	171	209	248	282	316	373	430
	113	25	25	25	25	25	42	53	65	76	85	143	200	240	280	315	350	413	475
	119	25	25	25	30	30	46	60	74	89	101	161	220	263	305	341	378	445	513
	125	25	25	30	30	30	50	67	84	102	118	179	240	285	330	368	405	478	550
	132	25	30	30	30	33	58	81	104	127	150	215	280	330	380	420	460	543	625
	138	25	32	38	45	51	74	97	120	143	166	234	301	355	408	450	493	579	665
	144	25	36	46	57	68	91	114	137	160	183	253	323	379	436	481	526	615	705
	150	25	40	55	69	84	107	130	153	176	199	272	344	404	464	511	559	652	745
Broadcast Application Rate (lbs Product/Acre)	157	25	44	63	82	101	124	147	170	193	216	291	366	429	491	541	591	688	785
	163	25	48	71	94	117	140	163	186	209	232	310	387	453	519	572	624	725	825
	169	25	52	79	106	134	157	180	203	226	249	329	409	478	547	602	657	761	865
	176	25	56	88	119	150	173	196	219	242	265	348	430	503	575	633	690	798	905
	182	25	59	92	126	159	183	207	231	255	279	365	451	527	603	664	725	841	956
	188	25	61	97	133	169	193	218	243	267	292	382	471	551	631	695	760	884	1008
	194	25	63	101	140	178	203	229	255	280	306	399	492	575	659	727	795	927	1059
	201	25	66	106	147	187	214	240	266	293	319	416	513	600	686	758	830	970	1111
	207	25	68	111	154	196	224	251	278	306	333	433	534	624	714	790	865	1014	1162
	213	25	70	115	161	206	234	262	290	318	346	450	554	648	742	821	900	1057	1214
	220	25	73	120	168	215	244	273	302	331	360	468	575	673	770	853	935	1100	1265
	226	25	75	126	176	226	257	287	317	347	377	491	605	704	803	886	969	1139	1309
	232	25	78	131	185	238	269	300	332	363	394	515	635	735	836	920	1004	1179	1354
	238	25	81	137	193	249	282	314	347	379	411	538	665	767	869	953	1038	1218	1398
	245	25	84	143	202	261	294	328	361	395	429	562	695	798	901	987	1072	1257	1442
	251	25	87	149	210	272	307	342	376	411	446	585	725	830	934	1020	1106	1296	1486
	257	25	90	154	219	284	319	355	391	427	463	609	755	861	967	1054	1141	1336	1531
	264	25	93	160	228	295	332	369	406	443	480	633	785	893	1000	1088	1175	1375	1575
	270	32	101	170	238	307	345	383	420	458	496	650	805	913	1021	1111	1201	1409	1617
Broadcast Application Rate (lbs Product/Acre)	276	39	109	179	249	319	358	396	435	473	511	668	825	934	1043	1135	1228	1444	1659
	282	46	118	189	260	331	371	410	449	488	527	686	845	955	1064	1159	1254	1478	1701
	289	54	126	199	271	344	383	423	463	503	543	704	865	975	1086	1183	1281	1512	1744
	295	61	134	208	282	356	396	437	477	518	559	722	885	996	1107	1207	1307	1546	1786
	301	68	143	218	293	368	409	450	492	533	574	740	905	1017	1129	1231	1334	1581	1828
	308	75	151	228	304	380	422	464	506	548	590	758	925	1038	1150	1255	1360	1615	1870
	314	82	159	235	312	389	431	474	516	559	601	769	936	1057	1179	1283	1387	1641	1896
	320	89	166	243	320	397	440	483	527	570	613	780	946	1077	1207	1311	1414	1668	1921
	326	96	174	251	328	406	449	493	537	581	624	791	957	1096	1236	1339	1441	1694	1947
	333	104	181	259	337	414	459	503	547	591	636	802	968	1116	1264	1366	1469	1721	1973
	339	111	189	267	345	423	468	513	557	602	647	813	979	1136	1293	1394	1496	1747	1999
	345	118	196	275	353	431	477	522	568	613	659	824	989	1155	1321	1422	1523	1774	2024
	352	125	204	283	361	440	486	532	578	624	670	835	1000	1175	1350	1450	1550	1800	2050
	358	129	208	287	366	446	493	541	588	635	683	853	1023	1201	1379	1479	1579	1836	2093
	364	132	212	292	372	451	500	549	598	647	696	871	1046	1226	1407	1507	1607	1871	2136
	370	136	216	296	377	457	507	558	608	658	709	889	1069	1252	1436	1536	1636	1907	2179
	377	139	220	301	382	463	515	566	618	670	721	906	1091	1278	1464	1564	1664	1943	2221
	383	143	224	306	387	469	522	575	628	681	734	924	1114	1304	1493	1593	1693	1979	2264
	389	146	228	310	392	474	529	583	638	693	747	942	1137	1329	1521	1621	1721	2014	2307
Broadcast Application Rate (lbs Product/Acre)	396	150	233	315	398	480	536	592	648	704	760	960	1160	1355	1550	1650	1750	2050	2350
	402	151	235	319	403	486	543	599	656	712	769	973	1177	1371	1566	1675	1784	2085	2385
	408	153	238	323	408	493	550	607	663	720	777	986	1194	1388	1581	1700	1819	2119	2420
	414	154	241	327	413	499	557	614	671	728	786	999	1211	1404	1597	1725	1853	2154	2455
	421	156	243	331	418	506	563	621	679	737	794	1011	1229	1421	1613	1750	1887	2189	2490
	427	157	246	335	423	512	570	628	687	745	803	1024	1246	1437	1629	1775	1921	2223	2525
	433	159	249	339	429	519	577	636	694	753	811	1037	1263	1454	1644	1800	1956	2258	2560
	440	160	251	343	434	525	584	643	702	761	820	1050	1280	1470	1660	1825	1990	2293	2595

Buffer zone distances cannot be greater than ½ mile (2,640 feet). If after applying applicable credits the buffer zone distances are still greater than ½ mile (2,640 feet), the application is prohibited.



## Restrictions for Difficult to Evacuate Sites

Difficult to evacuate sites are pre-K to grade 12 schools, state-licensed daycare centers, nursing homes, assisted living facilities, hospitals, in-patient clinics, and prisons.

- No fumigant application with a buffer zone greater than 300 feet is permitted within ¼-mile (1,320 feet) of difficult to evacuate sites unless the site is not occupied by children from state-licensed day care centers, students (pre-K to grade 12), patients, or prisoners during the application and the 36-hour period following the end of the application.
- No fumigant application with a buffer zone of 300 feet or less is permitted within ½-mile (660 feet) of difficult to evacuate sites unless the site is not occupied by children from state-licensed day care centers, students (pre-K to grade 12), patients, or prisoners during the application and the 36-hour period following the end of the application.

## Emergency Preparedness and Response Measures

If the buffer zone is 25 feet, then the *Emergency Preparedness and Response Measures* are not applicable.

### Triggers for Emergency Preparedness and Response Measures:

The certified applicator must either follow the directions under the *Fumigant Site Monitoring* section or follow the directions under the *Response Information for Neighbors* section if:

- the buffer zone is greater than **25 feet** but less than or equal to **100 feet**, and there are residences or businesses within **50 feet** from the outer edge of the buffer zone, or
- the buffer zone is greater than **100 feet** but less than or equal to **200 feet**, and there are residences or businesses within **100 feet** from the outer edge of the buffer zone, or
- the buffer zone is greater than **200 feet** but less than or equal to **300 feet**, and there are residences or businesses within **200 feet** from the outer edge of the buffer zone, or
- the buffer zone is greater than **300 feet** or the **buffer zones overlap**, and there are residences or businesses within **300 feet** from the outer edge of the buffer zone.

### Fumigant Site Monitoring

NOTE: *Fumigant Site Monitoring* is ONLY required if the *Emergency Preparedness and Response Measures* are triggered AND directions from the *Response Information for Neighbors* section are not followed.

From the start of the application until the buffer zone period expires, a certified applicator or handler(s) under his/her supervision must:

- Monitor for sensory irritation in areas between the buffer zone outer perimeter and residences and businesses that trigger this requirement.
- Monitoring for sensory irritation must begin in the evening on the day of application and continue until the buffer zone period expires. Monitor a minimum of 8 times during the buffer zone period, including these periods:

- 1 hour before sunset,
- during the night,
- 1 hour after sunrise, and
- during daylight hours.

Implement the emergency response plan immediately if a handler monitoring experiences sensory irritation.

Handlers performing fumigant site monitoring outside of the buffer zone are not required to wear an air-purifying respirator.

### Response Information for Neighbors

NOTE: *Response Information for Neighbors* is ONLY required if the *Emergency Preparedness and Response Measures* are triggered AND directions from the *Fumigant Site Monitoring* section are not followed. The certified applicator supervising the application must ensure that residences and businesses that trigger the requirement have been provided the response information at least 1 week before the application starts. The information provided may include application dates that range for no more than 4 weeks. If the application does not occur when specified, the information must be delivered again.

Information that must be included:

- o The location of the application block.
- o Fumigant(s) applied including the active ingredient, name of the fumigant product(s), and the EPA Registration number.
- o Contact information for the applicator and property owner.
- o Time period in which the application is planned to take place (must not range more than 4 weeks).
- o Early signs and symptoms of exposure to the fumigant(s) applied, what to do, and who to call if you believe you are being exposed (911 in most cases).
- o How to find additional information about fumigants.

The method used to share the response information for neighbors can be accomplished through mailings, door hangers, or other methods that will effectively inform the residences and businesses within the required distance from the edge of the buffer zone.

## Notice to State and Tribal Lead Agencies

If your state and/or tribal lead agency requires notice, information must be provided to the appropriate state or tribal lead agency prior to the application. Please refer to <https://www.epa.gov/soil-fumigants/complying-required-state-and-tribal-notification-soil-fumigations> for a list of states and tribal lead agencies that require notice and information on how to submit the information.

The information that must be provided to state and tribal lead agencies includes the following:

- Location of the application blocks,
- Fumigant(s) applied including EPA registration number,
- Applicator and property owner contact information, and
- Time period that fumigation may occur.

barcode area

## Emergency Response Plan

The certified applicator must include in the FMP a written emergency response plan that identifies:

- Evacuation routes,
- Locations of telephones,
- Contact information for first responders and local/state/federal/tribal personnel, and
- Emergency procedures/responsibilities (e.g., adding water to the field, repairing tarps, fixing equipment, evacuating upwind) if:
  - o there is an incident,
  - o sensory irritation is experienced outside of the buffer zone, and/or
  - o there are equipment/tarp/seal failure or complaints, or other emergencies.

## Site Specific Fumigant Management Plan (FMP)

Prior to the start of application, the certified applicator supervising the application must verify that a site-specific FMP exists for each application block. In addition, an agricultural operation fumigating multiple application blocks may format the FMP in a manner whereby all of the information that is common to all the application blocks is captured once, and any information unique to a particular application block or blocks is captured in subsequent sections.

The FMP must be prepared by the certified applicator, the site owner, registrant, or other party.

The certified applicator supervising the application must verify in writing (sign and date) that the site-specific FMP(s) reflects current site conditions before the start of application.

Each site specific FMP must contain the following elements:

- Certified Applicator Supervising the Application
  - o Name,
  - o Phone number,
  - o Pesticide applicator license and/or certificate number,
  - o Specify if commercial or private applicator,
  - o Employer name,
  - o Employer address, and
  - o Date and location of completing EPA approved soil fumigant training program.
- General site information
  - o Application block location (e.g., county, township-range-section quadrant), address, or global positioning system (GPS) coordinates
  - o Verify if 1,3-dichloropropene has been used on this application block in the previous two years
  - o Confirm that there will be no occupied structures within 100 feet of the application block during the 7 consecutive day period after the application is complete
  - o Name, address, and phone number of application block owner
  - o Site map, aerial photo, or detailed sketch showing:
    - application block location
    - application block dimensions
    - buffer zone dimensions
    - property lines
    - roadways
    - rights-of-ways
    - sidewalks
    - permanent walking paths
    - bus stops
    - wells
    - karst topography
    - nearby application blocks
    - surrounding structures (occupied and non-occupied)
    - locations of Buffer Zone signs, and
    - locations of difficult to evacuate sites within 1/4 mile of the application block if the buffer zone is greater than 300 feet, or 1/8 mile if the buffer zone is 300 feet or less.
- General application information
  - o Target application date/window,
  - o Fumigant Product Name, and
  - o EPA registration number.
- Tarp Plan (if tarp is used)
  - o Schedule for checking tarps for damage, tears, and other problems,
  - o Minimum size of damage that will be repaired,
  - o Factors used to determine when tarp repair will be conducted,
  - o Equipment/methods used to perforate tarps,
  - o Target dates for perforating tarps, and
  - o Target dates for removing tarps.
- Soil conditions
  - o Description of soil texture in the application block,
  - o Description of soil moisture, and
  - o Method used to determine soil moisture.
  - o Soil temperature measurement if air temperatures were above 100°F in any of the 3 days prior to the application.
- Buffer zones
  - o Application method,
  - o Injection depth,
  - o Application rate from lookup table on label,
  - o Application block size from lookup table on label,
  - o Credits applied and measurements taken (if applicable),
    - Tarp brand name, Lot number, Thickness, Manufacturer, Batch number, Part number and Color.
    - Potassium thiosulfate
    - Water seal
    - Organic matter content
    - Clay content
    - Soil temperature
    - Symmetry™ application system
  - o Buffer zone distance, and
  - o Description of areas in the buffer zone that are not under the control of the owner of the application block. If buffer zones extend onto areas not under the control of the owner, attach the written agreement and keep it with the FMP.
- Record Emergency Response Plan as described in the *Emergency Response Plan* section.
- Posting of Fumigant Treated Area and Buffer Zone
  - o Person(s) who will post and remove (if different) Fumigant Treated Area and Buffer Zone signs, and
  - o Location of Buffer Zone signs.
- Emergency Preparedness and Response Measures (if applicable)
  - o Fumigant site monitoring (if applicable):
    - When and where it will be conducted

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- o Response information for neighbors (if applicable):
  - List of residences and businesses informed,
  - Name and phone number of person providing information, and
  - Method of providing the information.
- State and/or tribal lead agency advance notification (if state and/or tribal lead agency requires notice, provide a list of contacts that were notified and date notified)
- Plan describing how communication will take place between the certified applicator supervising the application, the owner, and other on-site handlers (e.g., tarp perforators/removers, irrigators) for complying with label requirements (e.g., buffer zone location, buffer zone start and end times, timing of tarp perforation and removal, PPE).
  - o Name and phone number of persons contacted by the certified applicator, and
  - o Date contacted.
- Handler (including Certified Applicators) Information and PPE
  - o Names, addresses and phone numbers of handlers
  - o Names, addresses, and phone numbers for employers of handlers
  - o Tasks that each handler is authorized and trained to perform
  - o Date of PPE training for each handler
  - o Applicable handler PPE including:
    - Long-sleeved shirts/long pants, shoes, socks
    - Chemical-resistant apron
    - Chemical-resistant footwear
    - Protective eyewear (not goggles)
    - Chemical-resistant gloves
    - Chemical-resistant suit
    - Chemical-resistant headgear
    - Air-purifying respirators
      - Respirator make, model, type, style, size, and cartridge/canister type
    - SCBAs
      - Respirator make, model, type, style, size
    - Other PPE
  - o For handlers: Confirmation of receipt of Fumigant Safe Handling Information.
  - o For certified applicator(s) supervising the application: Completion date and location of the soil fumigant training program listed on the following EPA website <https://www.epa.gov/soil-fumigants/soil-fumigant-training-certified-applicators> for the active ingredient(s) in this product.
  - o For handlers designated to wear respirators (air-purifying respirator or SCBA):
    - date of medical qualification to wear a respirator,
    - date of respirator training, and
    - date of fit-testing for the respirator.
  - o Unless exempted in the *Protection of Handlers* section, verify that:
    - handlers have the appropriate respirators and cartridges/canisters during handler activities, and
    - the employer has confirmed that the appropriate respirator and cartridges/canisters are immediately available for each handler who will wear one.
- If using an enclosed cab in lieu of wearing an air-purifying respirator, verify that the cab:
  - o Has positive pressure (6 mm H<sub>2</sub>O Gauge).
  - o Has a minimum air intake flow of 43 m<sup>3</sup>/hour.
  - o Is equipped with activated charcoal filter-media containing no less than 1,000 grams of activated charcoal.

- o Document the application hours of the filter to confirm that the filter has been used for no more than 50 hours of application time.
- o In addition document that the ventilation system has been maintained according to manufacturer's instructions.
- Air monitoring plan
  - o If sensory irritation is experienced, indicate whether operations will cease or operations will continue with use of an air-purifying respirator.
  - o For monitoring the breathing zone:
    - Representative handler tasks to be monitored,
    - Monitoring equipment to be used, and
    - Timing of the monitoring.
- Good Agricultural Practices (GAPs)
  - o Identify (e.g., list, attach applicable label section) applicable mandatory GAPs.
- Ensure that labels and MSDS are on-site and readily available for employees to review.

#### Record-Keeping Procedures

The owner of the application block as well as the certified applicator supervising the application must keep a signed copy of the site-specific FMP for 2 years from the date of application.

For situations where an initial FMP is developed and certain elements do not change for multiple application blocks (e.g., applicator information, certified applicator, handlers, record-keeping procedures, emergency procedures) only elements that have changed need to be updated in the site-specific FMP provided the following:

- The certified applicator supervising the application has verified that those elements are current and applicable to the application block before it is fumigated.
- Record-keeping requirements are followed for the entire FMP (including elements that do not change).

The certified applicator must make a copy of the FMP immediately available for viewing by handlers involved in the application. The certified applicator or the owner of the application block must provide a copy of the FMP to any local/state/federal/tribal enforcement personnel who request the FMP. In the case of an emergency, the FMP must be made immediately available when requested by local/state/federal/tribal emergency response and enforcement personnel. The certified applicator supervising the application must ensure the FMP is at the application block during all handler activities.

Within 30 days after the application is complete, the certified applicator supervising the application must complete a Post-Application Summary.

#### Post Application Summary

The Post-Application Summary must contain the following elements:

- Actual date and time of the application
- Application rate
- Size of application block
- Weather Conditions
  - o Summary of the National Weather Service weather forecast during the application and the 48 hours after the application is complete including:
    - wind speed, and
    - air stagnation advisory (if applicable).
  - o Forecast must be checked on the day of, but prior to the start of the application, and on a daily basis during the application if the time period from the start of the application until the application is complete is greater than 24 hours.

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[Label Finished Size: 7.375" x 8.5"]

[Booklet Copy Area: 6.0" x 8.125"]

- Tarp damage and repair information (if applicable):
  - Date of tarp damage discovery,
  - Location and size of tarp damage,
  - Description of tarp/tarp seal/tarp equipment failure, and
  - Date and time of tarp repair completion.
- Tarp perforation/removal details (if applicable):
  - Date and time tarps were perforated,
  - Date and time tarps were removed, and
  - Record if tarps were perforated and/or removed early. Describe the conditions that caused early tarp perforation and/or removal.
- Complaint details (if applicable):
  - Person filing complaint (e.g., on-site handler, person off-site),
  - If off-site person, name, address, and phone number of person filing complaint, and
  - Description of control measures or emergency procedures followed after complaint.
- Description of incidents, equipment failure, or other emergency and emergency procedures followed (if applicable).
- Communication between applicator, owner and other on-site handlers (if applicable)
  - Record additional dates persons were contacted.
- Air monitoring results:
  - Date(s), time(s), and location(s) of sensory irritation or air sample measurement with the direct read detection device,
  - Handler name and task/activity,
  - Air concentration measurement with direct read detection device (if applicable), and
  - Resulting action/comments (e.g. cease operations, continue operations with air-purifying respirators, implement emergency response plan).
- Fumigant Treated Area and Buffer Zone Signs:
  - Dates of posting and removal.
- Any deviations from the FMP (e.g. changes in emergency response actions, changes in handler information, changes in handlers responsible for completing emergency tasks).

#### Record-Keeping Procedures

The owner of the application block, as well as the certified applicator supervising the application, must keep a signed copy of the Post-Application Summary for 2 years from the date of application.

### Spill and Leak Procedures

In case of a rupture of a hose or fitting, immediately stop the fumigation. Evacuate everyone from the immediate area of spill or leak. Only applicators or other handlers are permitted to perform corrective action and cleanup. Use the personal protective equipment specified in the *Personal Protective Equipment (PPE)* section of this labeling for entry into affected area to correct problem. Move leaking or damaged cylinders outdoors or to an isolated location, observing strict safety precautions. Work upwind if possible. Allow spill to evaporate or to absorb onto vermiculite, dry sand, earth, or similar absorbent material. Dispose of contaminated material on site or at an approved disposal facility. Only correctly trained and PPE-equipped handlers are permitted to perform such cleanup. Do not permit entry into spill area by unprotected persons until concentration of chloropicrin is determined to be less than 0.15 ppm or less.

### Storage and Disposal

*Do not contaminate water, food, or feed by storage or disposal.*

**Pesticide Storage:** Store in a cool, dry, well-ventilated area under lock and key. Post as a pesticide storage area.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide and rinsates is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance. Because 1,3-dichloropropene is corrosive under certain conditions, flush all application equipment with fuel oil, kerosene or a similar type of petroleum solvent immediately after use. Fill pumps and meters with new motor oil or a 50% motor oil/fuel oil mixture before storing. Do not use water. Dispose of rinsate by applicable Federal, State and local regulations. Never introduce rinsate or unused product into surface or underground water supplies.

**Container Handling:** Persons moving, handling, or opening containers must wear the personal protective equipment specified in the *Personal Protective Equipment (PPE)* section of this labeling. Open container only in a well-ventilated area. Remove the valve protection bonnet and safety cap only when fumigant is about to be removed from the cylinder. The safety cap and valve protection bonnet must be replaced when the cylinder is not in use. Do not subject cylinders to rough handling, or to abnormal mechanical shock such as dropping, bumping, dragging, or sliding. Do not use ropes, slings, hooks, tongs, and similar handling devices for unloading cylinders. To transport heavier cylinders, use a hand truck, fork truck, or similar device to which cylinders can be firmly secured.

**Refillable Container:** Only the registrant is authorized to refill cylinders. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

**Return of Containers:** Cylinders are the property of the manufacturer or distributor and must be returned promptly by collect freight. Do not ship cylinders without safety caps or valve protection bonnets.

**Container Disposal:** To clean the container before final disposal, remove any remaining liquid from the container, using dry air pressure if necessary. Allow container to aerate for at least 5 days. After aeration, wash container using hot water; then offer container to qualified reconditioner or dispose of as directed by State or local regulations.

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## LIMITED WARRANTY

Seller warrants that this product conforms to the chemical description on its label and is reasonably fit for the purposes stated on the label when used in strict accordance with the label's directions under normal conditions of use. To the extent consistent with applicable law, THE PRECEDING WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY MADE IN CONNECTION WITH THIS PRODUCT. To the extent consistent with applicable law, ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE EXPRESSLY DISCLAIMED. SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

## LIMITATION OF LIABILITY AND REMEDIES

Although this product has been extensively tested under a large variety of conditions, specific results cannot be guaranteed. No soil treatment will completely eradicate soil pests. Fumigation efficacy may vary due to weather, soil type and preparation, pest population density in and around the treated area, presence of crop debris, and cultural practices following fumigation, among others. Soil pests may be re-introduced to treated soil by wind, rain, farm workers or equipment, contaminated irrigation water, transplanted seeds or seedlings, and other sources. For these reasons, to the extent consistent with applicable law, THE REGISTRANT OR MANUFACTURER OF THIS PRODUCT SHALL NOT BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OR LOSSES, INCLUDING WITHOUT LIMITATION, DAMAGES FOR CROP FAILURE OR REDUCED YIELDS. To the extent consistent with applicable law, THE EXCLUSIVE REMEDY FOR LOSSES OR DAMAGES RELATING TO THE USE OF THIS PRODUCT IS EXPRESSLY LIMITED TO EITHER (1) REPLACEMENT OF THE PRODUCT USED, OR (2) A REFUND OF THE PURCHASE PRICE PAID FOR THE SPECIFIC PRODUCT FOR WHICH DAMAGES ARE CLAIMED, AT THE BUYER'S DISCRETION.

## ACCEPTANCE OF TERMS AND CONDITIONS

If the terms of the above Limited Warranty and Limitation of Liability and Remedies are not acceptable, you may return unopened product containers to the seller and receive a full refund. USING THIS PRODUCT CONSTITUTES ACCEPTANCE OF THESE TERMS.

## Strike 80CP Fumigant

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