



D-D[®]

SOIL FUMIGANT

(LIQUID INSECTICIDE)

ACTIVE INGREDIENTS

Chlorinated C₃ Hydrocarbons, including 1,3-Dichloropropene,
1,2-Dichloropropane, and Other Related Chlorinated Hydrocarbons.....

BY WEIGHT

TOTAL.....

* Equivalent to 100.0%w D-D Soil Fumigant

KEEP OUT OF REACH OF CHILDREN.

WARNING

May be fatal if swallowed, inhaled, or absorbed through skin.

Hazardous vapor and liquid.

Causes burn of skin or eyes.

Do not get in eyes, on skin or on clothing.

Do not breathe vapor.

Use with adequate ventilation.

Keep away from heat or open flame.

Keep out of reach of children.

Keep container closed.

Do not contaminate feed and foodstuffs.

Do not store near seeds, fertilizers, or plants.

In case of contact, IMMEDIATELY remove all contaminated clothing or shoes and wash skin thoroughly with soap and water; for eyes, flush with water for at least 15 minutes. Do not wear contaminated clothing or shoes until entirely free of chemical odor. Wash clothing before re-use. In case of accidental spillage in closed areas, do not enter without a mask or respirator of a type passed by the U. S. Department of Agriculture for Chlorinated C₃ Hydrocarbons protection.

Manufactured By:
PACIFIC GUANO
COMPANY
LOS ANGELES, CALIFORNIA

GENERAL DIRECTIONS

Use D-D Soil Fumigant at full strength as a preplanting treatment by injection in the soil only to control cyst (soybean, golden, tobacco, sugar beet), root knot, root-lesion or meadow, burrowing, citrus, stem and bulb, free-living (sting, ring, awl, spiral, lance, pin, stubby root, stylet, dagger), and other plant parasitic nematodes. The above nematodes as well as others, appear on field, forage, vegetable, nursery crops, grasses, ornamentals, small fruits, citrus, nut and deciduous fruits. For best results treat prior to each crop planting. Do not use on heavy clay soils. Avoid reinfestation of treated soil from transplants, tools, equipment, or crop remains from infested areas.

Crop	Directions for Application	Soil Type	Dosage (Gallons per Acre*)
FIELD CROPS, FLORAL CROPS, GRASSES and TURF, ORNAMENTALS, SMALL FRUITS, VEGETABLES	Row (42")	Mineral	7½ to 10
		Muck or Peat	15 to 20
	Over-all (or Broadcast)	Mineral	18 to 25**
		Muck or Peat	40** to 60
SUGAR BEETS Root knot nematode	Row (42")	Mineral	9
	Over-all	Mineral	20
Sugar beet nematode	Row (42")	Mineral	15 to 20
	Over-all	Mineral	25 to 30
DECIDUOUS ORCHARDS, FOREST NURSERIES, NUT TREES, ORNAMENTAL NURSERIES,** VINEYARDS	Strip treatment	Mineral	Treat a 10 ft. wide strip in which new trees are to be planted at 40 gals. per acre**
	Over-all	Mineral	40 to 60
CITRUS California	Over-all	Sandy	60 to 100
		Loam	80 to 150
		Clay Loam	120 to 200

* For cyst-forming nematodes, increase dosage to 25 to 30 gallons per acre.

** For muck soils containing less than 30% organic matter reduce dose to 30 gallons per acre.

Examples: (A) If trees are to be planted in rows 20 ft. apart, only half of the area is treated (alternate 10 ft. strips), thus only 20 gals. are applied; the part treated is at the over-all rate of 40 gals. per acre.

(B) Formula for calculating dosage rate on strips:

$$\frac{\text{Width of strip to be treated}}{\text{Row spacing}} \times \text{Over-all rate} = \text{Actual gals. to be applied}$$

* One gallon of D-D Soil Fumigant weighs 10 pounds.

** In California, consult local recommendations for specific rates on individual nursery crops

WHEN TO TREAT

Treat in spring or fall or whenever soil conditions are suitable. Soil temperature 6 inches deep should be between 40 and 80° F. (Cold or wet soils retain fumigant longer. Dry or hot soils release fumigant too rapidly.) Fall treatment is suggested for land to be planted to early planted crops such as celery, tomatoes and nursery stock. Early fall treatment allows planting a fall cover crop.

A three month waiting period should be allowed before planting muck and heavy soil to allow complete aeration.

SOIL PREPARATION

Plow to a depth of 8 to 10 inches. Disc soil thoroughly to break up clods and cut up trash. Cover trash or allow to rot before fumigation. Soil should be smooth and free from debris with adequate moisture for good germination. Deep tillage, 12 to 18 inches, often improves results, especially in heavy and muck soil.



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APPLICATION

Over-all (Broadcast) Application. Apply with chisel or power equipment. Apply in rows 10 to 12 inches apart and 6 to 8 inches deep in the soil. With chisel or power equipment, follow with a drag, ringroller, or press wheel behind the applicator. With power equipment, apply IMMEDIATELY to break clods and then seal with roller or drag.

Row (Band) Treatment. Adjust injection chisels to same spacing as planter. Inject at 6 to 12 inches below the final soil surface. Seal with roller or drag. Plant directly in treated soil.

Split Application. (Use only for dosages in excess of 60 gallons per acre). Apply one-half the suggested dosage, wait one to two weeks and plow, turning the treated soil completely over. If this is unsatisfactory, then apply the remainder and seal with drag or roller.

Citrus Replanting Sites. Space chisels 18 to 20 inches wide and inject 12 to 14 inches deep. For Deciduous Orchards, Forest and Nursery Crop Planting Sites. Treat large areas over all or in strips 10 feet wide. Individual tree sites can be treated by injection with a handgun in a 10 foot by 10 foot area. Inject 10 to 12 inches deep with spacings 12 inches apart. Seal by pressing soil with foot.

WHEN TO PLANT

Under normal conditions, a waiting period of one week for each 10 gallons of D-D Soil Fumigant used should be allowed. (Pineapples can be planted 2 to 3 days after treatment). Allow additional time before planting if temperatures are below 60° F. or if there has been heavy rain.

Soil treated with massive doses of fumigant before planting, such as for deep-rooted tree and shrub planting sites, requires a 3 to 6 months waiting period. Before planting, plow or open planting hole to thoroughly aerate soil.

PRECAUTIONS IN USING

Wear goggles and polyethylene gloves when handling material. Wash with soap and water after handling and before eating or smoking. Do not store in or use containers or equipment made of aluminum, magnesium or their alloys. Store in cool place away from dwellings.

Avoid reentering treated soil. After use, always empty and clean applicator thoroughly with kerosene or fuel oil. Avoid using water in equipment. To protect fish and wildlife, do not spill or empty fumigant into streams, ponds or other bodies of water.

NONWARRANTY

Because the use of this material is subject to conditions beyond their control, neither the Pacific Guano Company, nor any other Seller hereof warrants, either expressed or implied, the use thereof or the results of such use, whether or not used in accordance with directions. Neither of the foregoing will or shall be responsible for the results of any use of this material.

ACCEPTED WITH COMMENTS