TELONE® Clean, Clear, Nor ozzle Clogging SOIL FUMIGANT

GENERAL INFORMATION

Use TELONE only as a **preplanting soil fumigant** to control nematodes such as meadow (lesion), rootknot, citrus, burrowing, ring, spiral, sting, pin, stubby root, stylet, dagger and cyst formers (golden and sugar beet) and certain others; also to control wireworms and garden centipedes (symphylans). Fumigate land to be planted to the crops listed below, under the conditions, and at the rates indicated under DIRECTIONS FOR USE, DOSAGE RECOMMENDATIONS, and PRECAUTIONS.

Vegetable Crops:

asparagus	cauliflower	horseradish	parsnips	shallots
beans	celery	kale	peas	spinach
beets	collards	kohlrabi	peppers	squash (summer)
blackeyed peas	corn	leeks	pimentoes	squash (winter)
broccoli	cowpeas	lettuce	potatoes	sweet potatoes
brussels sprouts	cucumbers	melons	pumpkins	swiss chard
cabbage	egg plant	mustard greens	radishes	tomatoes
cantaloupe	endive	okra	rutabaga	turnips
carrots	garlic	onions	salsify	watermelons

Field Crops:

alfalfa	flax	oats	sorghum
barley	grasses	pasture grass	soybeans
birdsfoot trefoil	hops	peanuts	sugar beets
buckwheat	lespedeza	popcorn	sugar cane
clover	millet	rice	tobacco
corn	milo	rye	vetch
cotton	mint	safflower	wheat

Citrus Fruit Tree Planting Sites:

grapefruit kumquats lemons limes oranges tangerines tangelos

Deciduous Fruit and Nut Tree Planting Sites:

almonds	dates	olives	plums
apples	figs	peaches	pomegranates
apricots	filberts	pears	prunes
cashew nuts	hazelnuts	pecans	quince
cherries	hickory nuts	persimmons	walnuts
chestnuts	nectarines	pineapple	

Bush and Vine Planting Sites:

blackberries	currants	huckleberries	youngberries
blueberries	dewberries	loganberries	
boysenberries	gooseberries	raspberries	
cranberries	grapes	strawberries	

Nursery Crops including floral plants, ornamentals, shrubs and bushes; forest, shade, fruit and nut trees and vine and bramble fruits of all types.

DIRECTIONS FOR USE

WHEN TO TREAT: Treat either in spring or fall, whenever soil conditions permit. For best results, with annual crops, treat soil each year. Do not use TELONE on extremely heavy clay soils. In northern states, late summer or early fall treatment (before October 15) is best for land to be planted to early spring crops. This is especially true where plants are to be set out, such as celery, tomatoes, nursery and orchard stock. Treat muck soils only in the early fall and plant in the spring. Early treatment permits planting a fall cover crop.

SOIL PREPARATION: For best fumigant penetration and sealing, plant remains should be worked into the soil long enough before treatment so that the roots are well rotted. The soil should be in good seedbed condition, free of clods and undecomposed plant material with the temperature between 40° and 80°F at the depth of injection, and with enough moisture for good seed germination. Deep tillage, 12 to 18 inches, often improves results. Treat loams and clay loams when fairly dry (water content, one-half of field capacity).

APPLICATION: For **over-all application**, either chisel (with chisels set 12 inches apart) or plow-sole equipment may be used. For **row application**, use one chisel per row, or two chisels spaced 12 inches apart. Where 2 or more chisels are used per row apply at the same rate per chisel as for over-all. As the distance between rows is increased the amount of fumigant required per acre will decrease. Also when the distance between rows is decreased the amount required per acre will increase. Mark the treated strips by bedding or listing or by tractor wheel marks, and plant in the middle of the treated areas. Where only 1 chisel is used per row adjust the fumigant flow to distribute about 1½ times as much per chisel as over-all. When a single chisel is used, for best crop stands, place seed row 3 to 4 inches to one side of the fumigation chisel mark. Always inject the fumigant at least 6 to 8 inches below the final soil surface. In western irrigated cotton areas, use 2 chisels per row, set 12 inches apart, and plant in the middle of the treated strip.

SEALING: Immediately after application, compact the soil. After chisel application, use a roller, cultipacker or similar sealing device. After plow-sole application, disk the land, then compact it by floating or rolling. Sealing after row application can be accomplished by the tractor wheel, by listing, or by bedding so that the fumigant will be 12 to 14 inches below the top of the bed. When fumigating listed rows, seal in the fumigant with ring rollers or press sealers.

EXPOSURE PERIOD: After application and compacting, leave soil undisturbed for 7 to 14 days. Wet soil retards diffusion of fumigant, requiring a longer exposure period.

AERATION AND PREPARATION OF SOIL BEFORE PLANTING: At the end of the exposure period, aerate the soil by plowing or deep cultivation. This is especially desirable in northern areas after fall application in muck soils. On fumigated muck soil, plant as late as possible in the spring. Shallow-rooted crops can usually be planted after about 7 to 10 days of aeration. Under optimum seedbed condition of soil composition, moisture and temperature one week of aeration time should be allowed for each 10 gallons of TELONE used per acre. For deep-rooted shrubs and trees the aeration period should be 3 to 6 months. If heavy rains or low temperature occur during the exposure period, working the soil several times to a depth of 6 to 8 inches may be necessary to hasten aeration. Aeration is usually complete when the odor of the fumigant is no longer evident.

Active Ingredients..... 100%

1,3-Dichloropropene and Related Chlorinated Hydrocarbons

EPA Reg. No. 10914-2

DOSAGE RECOMMENDATIONS
To Control Nematodes, Symphylans and Wireworms

Crops (consult list of individual crops under GENERAL INFORMATION)	Type of Treatment	Soil Type	Gallons Per Acre[1]	Linear Feet Per Plot Per Chisel: Two or more chisels per row	Linear Feet Per Plot Per Chisel: One chisel per row
Shallow Rooted Plants Field Crops Floral Crops Grasses and Turf Small Fruits Vegetables Ornamentals	Row (or Band) (42")	Mineral	6 to 8	208 to 195	173 to 130
		Muck or Peat	12 to 16	138 to 97	87 to 85
	Over all (or Broadcast)	Mineral	12 to 20[2]	466 to 273	
		Muck or Peat	32[2] to 48	170 to 114	
Strawberries	Over all	Mineral	32 to 48	170 to 114	
Sugar Beets Root-Knot Nematode	Row (42")	Mineral	7	223	140
	Over all		15 to 20	383 to 273	
Sugar Beet Nematode	Row (42")		12	138	87
	Over-all		15 to 25	383 to 218	
Pineapple[4]	Row	Mineral	30 to 80		
Citrus – Florida[5]	Over-all	Mineral	40	138	

Nursery and Field Crops: Citrus Fruit Trees, Deciduous Fruit Trees, Forest Trees, Grapes, Nut Trees, Ornamentals (deep rooted)	Over-all: Gallons Per Acre to Penetrate Various Depths			
Mineral Soils	3 ft.	4 ft.	5 ft.	6 ft.
Sand	20	28	36	44
Sandy Loam	36	48	68	84
Silt Loam	56	88	84	100
Clay Loam	72	92	112	136

[1] Use the higher rates in heavier soil.
[2] For cyst-forming nematodes increase dosage to 25 gallons (218 linear feet per plot per chisel.)
[3] For muck soils containing less than 30% organic matter use 25 gallons per acre.
[4] For Hawaiian pineapple, application may be made at time of, or just before planting.
[5] For burrowing nematode in citrus inject on 18-inch centers 12 inches deep. Keep free of plants susceptible to burrowing nematodes for 2 years before replanting to citrus.

NOTE: To control symphylans (garden centipedes) use only over-all at 25 or more gallons per acre, and apply during late summer or early fall when the soil is warm. To control wireworms use dosages recommended for nematodes in over-all or broadcast treatments. See also The Dow Chemical Company literature entitled "TELONE® and VIDDEN® D for Outstanding Control of Sugar Beet and Beet Knot Nematodes on Sugar Beets."

White Potatoes in Northwestern States: Use TELONE as a spring or preferably a fall treatment to control quackgrass and for suppression of the damaging effects of Verticillium wilt in fields to be planted to white potatoes. Apply as an over-all treatment according to the following tabular directions:

Time of Treatment	Gallons per acre	Linear feet per plot per chisel
Spring	20 to 30	273 to 182
Fall	30 to 40	182 to 136

Mint in Northwestern States: Use 70 gallons of TELONE per acre as a spring or preferably a fall treatment to aid in the reduction of the damaging effects of Verticillium wilt in disease infested land to be used for mint production. After treatment allow at least 7 to 8 weeks or until the odor of the fumigant has left the soil before planting. Consult local Agricultural Experiment Station authorities for the use of other practices such as flaming the stubble, weed control and cultural practices when using TELONE as an aid to reducing damage caused by Verticillium wilt.

Distributed by

FEED SERVICE INC.

P.O. Box 482 Caldwell, Idaho 83605

USE PRECAUTIONS

HAZARDOUS VAPOR AND LIQUID

Important – Note carefully. Fumigation may temporarily raise the level of ammonia nitrogen and soluble salts in the soil. This is most likely to occur when heavy rates of fertilizer and fumigant are applied to soils that are either cold, wet, acid, or high in organic matter. To avoid injury to plant roots, fertilize as indicated by soil tests made after fumigation. To avoid ammonia injury or nitrate starvation, or both, to crops on high organic soils do not use fertilizers containing ammonium salts and use only fertilizers containing nitrates, until after the crop is well established and the soil temperature is above 65°F.

Certain crops including cotton, sugar cane, and pineapple are tolerant to ammonia and the above rule does not apply to them. Liming highly acid soils before fumigation stimulates nitrification and reduces 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, it is suggested that additional phosphate fertilizer be used on soils which tend to be deficient in this nutrient.

CAUTION: To avoid reinfestation of treated soil do not use transplants, tools, or crop remains that could carry soilborne pests from infested land. Clean rig carefully before using.

Since TELONE soil fumigant is corrosive under certain conditions, flush all applicators with fuel oil or kerosene immediately after use. **DO NOT USE WATER. Do not use containers, pumps, or other transfer equipment made of aluminum, magnesium or their alloys, as under certain conditions TELONE may be severely corrosive to such metals.** Common protective equipment, such as rubber gloves and boots, etc., may be penetrated readily by this material. Polyethylene provides a good barrier. For field operations cover shoes and hands with polyethylene bags. Store TELONE in tightly closed containers in a cool place away from dwellings. In outside storage, store drums on their sides to avoid accumulation of rain water.

Do not store near seeds, plants, fertilizers, or other pesticide chemicals. Do not contaminate feed or foodstuffs.

To avoid injury to fish and other wild life, do not spill or empty fumigant into streams, ponds or other bodies of water.

Rinse equipment and containers and dispose of wastes by burying in non-crop lands away from water supplies. Containers should be disposed by punching holes in them and burying with wastes.

WARNING

KEEP OUT OF THE REACH OF CHILDREN
MAY BE FATAL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED
CAUSES BURN OF SKIN OR EYES
COMBUSTIBLE LIQUID

Wear Eye Protection Appropriate to the Circumstances When Handling This Material • Wash Thoroughly after Handling and Before Eating and Smoking • Wash Contaminated Clothing and Air Contaminated Shoes Thoroughly Before Re-use • Keep Away from Heat and Open Flame • Use Only with Adequate Ventilation • Do Not Breathe Vapor.

In case of contact, immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water; **for eyes,** flush with flowing water for at least 15 minutes and get medical attention.

In case of spillage indoors, have available a self-contained breathing apparatus or a mask or respirator of a type passed by the United States Bureau of Mines for chlorinated C_3 hydrocarbons.

If inhaled, remove to fresh air. Use artificial respiration if breathing has stopped. Get immediate medical attention. Keep patient absolutely quiet.

If swallowed, call a doctor. Induce vomiting by giving an emetic such as 2 tablespoonfuls of table salt in a glass of warm water.

NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

WARNING

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TELONE®

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