

Specimen Label

TELONE*

Soil Fumigant

II
NOT REVIEWED
In Accordance with PR Notice 82-2.
Based on Draft Labeling Dated

A Clean, Clear, Non-Clogging Liquid for Preplant Treatment of Crop Lands to Control Plant Parasitic Nematodes and Certain Other Soil Pests

Active Ingredient(s)	(by weight)
1,3-Dichloropropene	94 %
Inert Ingredients	6%

1 gallon of TELONE II weighs 10.1 lb.

E.P.A. Registration No. 464-511

E.P.A. Est. 464-TX-1^(TB); 464-MI-1^(MM); 464-CA-1^(WP); 05770-CO-1^(V); 33780-SC-1^(U); 33776-WA-1^(W); 14775-FL-1^(B).

Superscript used corresponds to letter in Lot No.

KEEP OUT OF REACH OF CHILDREN
DANGER

PELIGRO:

PRECAUCION AL USUARIO:

Si usted no lee inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

HAZARDOUS LIQUID AND VAPOR • MAY BE FATAL IF INHALED, ABSORBED THROUGH SKIN, OR SWALLOWED • CAUSES BURNS OF SKIN OR EYES • MAY PRODUCE KIDNEY AND LIVER DAMAGE UPON PROLONGED EXPOSURE

Do Not Breathe Vapor • Do Not Get In Eyes, On Skin, On Clothing • Do Not Take Internally • Use Only With Adequate Ventilation • Wear Eye and Skin Protection Necessary to Prevent Contact When Handling TELONE II • Wash Thoroughly After Handling and Before Eating or Smoking • If protective gear, such as boots or gloves, becomes contaminated, immediately wash with soap and water. Never wear protective gear having the odor of 1,3-dichloropropene. Aerate and wash all protective gear thoroughly after use until all odor is gone. • Render unusable and dispose of contaminated leather goods, including shoes. • Do not apply this product in such a manner as to directly or through drift expose workers or other personnel. The area being treated must be vacated by unprotected persons. • SEE FURTHER INSTRUCTIONS UNDER HANDLING PRECAUTIONS SECTION

STATEMENT OF PRACTICAL TREATMENT: If inhaled, remove to fresh air. If not breathing, give artificial

respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

If On Skin: immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. If water not immediately available, remove excess chemical from skin with sorbent material such as towel or dry soil, then proceed at once to location where water is available and thoroughly wash contaminated skin with plenty of water. Call a physician.

If In Eyes: immediately flush eyes with plenty of water for at least 15 minutes. Call a physician. **If swallowed,** immediately induce vomiting by giving two glasses of water and sticking finger down throat. Call a physician. Never give anything by mouth to an unconscious person.

Physical or Chemical Hazards

COMBUSTIBLE • Do Not Use, Pour, Spill, or Store Near Heat or Open Flame • Do Not Cut or Weld Container.

Environmental Hazards

This product is toxic to fish and wildlife. • Do not apply directly to water. • Do not contaminate water by cleaning of equipment or disposal of wastes.

NOTICE: Read the entire label. Use only according to label directions.

Before buying or using this product, read "WARRANTY LIMITATIONS AND DISCLAIMER" elsewhere on this label. If terms are not acceptable, return unopened package at once to seller for full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under the Limit of Warranty and Liability.

IN CASE OF AN EMERGENCY

endangering life or property involving this product, call collect 517-636-4400

AGRICULTURAL CHEMICAL

Do Not Ship or Store with Food, Feeds, Drugs, or Clothing

II
*
TELONE

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

HANDLING PRECAUTIONS

DO NOT INHALE VAPORS: NIOSH- or MSHA-approved respiratory protection should be worn when TELONE II liquid soil fumigant is exposed to the atmosphere or when conducting operations which vent to the atmosphere. A NIOSH- or MSHA-approved half-face respirator with chemical worker's goggles or full-face respirator shall be used during small spills, repairs, calibrations, transfers, sampling and when working in poorly ventilated areas. When in use canisters or cartridges shall be replaced daily or sooner if specified by manufacturer or at first sign of odor breakthrough, whichever comes first. NIOSH-approved cartridges, such as a Welsh 7400-IL, will be adequate for short-term situations such as listed above.

Where very high concentrations of vapors might be expected (such as large spills in poorly ventilated areas) a self-contained or air-supplied respirator should be used.

DO NOT GET ON SKIN: When handling or working with TELONE II, wear clean body covering including gloves and heavy footwear. Immediately remove contaminated coverings. Aerate and wash all protective clothing and gear thoroughly after use.

There are no protective clothing materials that are completely impervious. Rubber, vinyl protective gear, thin layers of polyethylene (minimum 1 mil), give short-term protection and shall be immediately discarded upon contamination. Heavy (3+ mil) polyethylene, rubber, neoprene provide longer term protection. Leather gives no protection. If gear becomes contaminated, immediately wash with soap and water. Never wear protective gear having odor of TELONE II. Wash and aerate all protective gear thoroughly after use until all odor is gone.

DO NOT GET IN EYES: Wear eye protection such as chemical worker's goggles or full-face respirator when handling TELONE II.

DO NOT SWALLOW: Do not use the mouth to siphon TELONE II from containers or to blow out clogged lines, nozzles, etc.

STORAGE, SHIPMENT AND DISPOSAL

STORAGE: Store in tightly-closed original container in a cool place away from dwellings. Do not allow contamination of seeds, plants, fertilizers, or other pesticide chemicals. Do not contaminate food, feedstuffs, drugs, or domestic water supplies. In outside storage, store drums on sides to avoid accumulation of rain water in top or bottom recessed areas.

SHIPMENT: Do not ship or store with food, feeds, drugs, or clothing.

DISPOSAL: Triple rinse containers and dispose of rinsate in field just treated. After aeration offer containers to qualified reconditioner or destroy by puncturing or crushing and dispose of in an approved sanitary landfill or bury in the user's cropland or dispose of by other procedures approved by state and local authorities. Do not pollute surface or underground water supplies.

GENERAL INFORMATION

Use TELONE II soil fumigant only as a **preplanting soil treatment** to control plant parasitic nematodes (rootknot, meadow lesion), citrus, cyst formers (golden, sugar beet, soybean), burrowing, ring, spiral, sting, pin, stubby root, stylet, dagger), also to control wireworms and garden centipedes (symphylans). Fumigate land to be planted to the crops listed below by applying TELONE II under the conditions, and at the rates recommended under DIRECTIONS FOR USE, DOSAGE AND USE RECOMMENDATIONS and USE PRECAUTIONS. Read the entire label before using TELONE II.

Vegetable Crops:

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

Field Crops:

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

Citrus Fruit Tree Planting Sites:

grapefruit	limes	tangerines
kumquats	oranges	tangelos.
lemons		

Deciduous Fruit and Nut-Tree Planting Sites:

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

Brush and Vine Planting Sites:

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

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

APPLICATION DIRECTIONS

WHEN TO TREAT: Apply TELONE II either in the spring or fall, whenever soil type and conditions permit. For best results with annual crops, treat the soil each year. In northern states, late summer, or early fall treatment (before October 15) is best for land to be planted to early spring crops, especially transplanted crops such as celery, tomatoes, and nursery and orchard stock. Early fall treatment permits planting a fall cover crop. **Note:** Treat muck soils only in the early fall and plant as late as possible in the spring, treat fine textured (clay) soils only when they are near or at the wilting point. Do not use TELONE II to treat any type of soil when it is cold and/or wet.

SOIL PREPARATIONS: TELONE II gives best results when conditions permit rapid diffusion of the fumigant through the soil and the soil surface can be sealed to prevent excessive fumigant loss during the exposure period. The soil should be in good seed bed condition, free of clods and undecomposed plant material, moisture at about one-half of field capacity, and temperature between 40° and 80° F at the depth of injection. If undecomposed plant debris is present, it should be plowed down and allowed to decompose before applying TELONE II. Tillage deeper than 12 inches is necessary for good fumigant penetration in soils where a hard or plow pan occurs at plow depth. Where deep tillage is used, the tillage equipment may often be modified to simultaneously apply the fumigant and thus

avoid going over the field twice.

APPLICATION: TELONE II may be applied either as an overall (broadcast) or row treatment using suitable application equipment that will ensure placement of the fumigant at least 6 to 8 inches below the final soil surface. For overall application use either plowsole or chisel equipment with the chisels spaced 12 inches apart. When the fumigant is injected at a depth of 12 inches or more (deep tillage), the chisel spacing may be up to twice the application depth but should not exceed 30 inches. Application may be made in the same direction or at an angle to the direction of the planting row, whichever is most convenient. For row application, use chisel equipment with one chisel per row or two chisels spaced 12 inches apart to treat only the soil where the crop is to be planted. When one chisel per row is used, adjust the fumigant flow rate to distribute about 1 1/3 times more fumigant per chisel than is recommended for overall application. When two chisels are used per row, apply at the same flow rate per chisel as for overall. In both cases, the amount of fumigant required per acre will decrease as the distance between rows is increased and vice versa. At time of planting, avoid placing the seed row directly over the furrow left by the applicator chisel. When a single chisel is used per row, place the seed 3 to 4 inches to one side of the chisel furrow; when two chisels are used, plant in the center of the area between the chisel furrows.

SEALING: Immediately after application, compact the soil surface to prevent excessive fumigant loss. 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, press sealers, or by re-listing.

EXPOSURE PERIOD: After application and sealing, leave the soil undisturbed for 7 to 14 days. A longer exposure period will be required if the soil becomes excessively cold or wet during the exposure period.

AERATION AND PREPARATION OF SOIL BEFORE PLANTING: At the end of the exposure period allow the soil to aerate completely before planting the crop. Aeration is usually complete when the odor of TELONE II is no longer evident. Under optimum soil and weather conditions, allow one week of aeration time for each 10 gallons of TELONE II applied per acre. When TELONE II is used for treating deep-rooted tree and shrub planting sites, a 3 to 6 months aeration period should be allowed. To hasten aeration, especially if heavy rains or low temperatures occur during the exposure period, work the soil to the depth of the treatment zone. After row treatment use a knife-like chisel in the bed without turning the soil, thus reducing possible recontamination of the treated soil. To hasten aeration after overall treatment, plow or deep cultivate to the depth of the treated zone. This is especially desirable in northern states after fall fumigation of muck soils.

REENTRY: Do not enter treated areas without heavy synthetic rubber foot gear until after 3 days post treatment. Because certain states may require more restrictive reentry intervals for various crop areas treated with this product, consult your State Department of Agriculture for further information.

DOSAGE AND USE RECOMMENDATIONS to Control Nematodes, Symphylan†, and Wireworms‡

Crops (consult list of individual crops under General Information)	Type of Treatment	Soil Type	Dosage		
			Gallons Per Acre ¹	Fl. Oz./1000 Ft. Row Per Chisel	
Shallow Rooted plants: Field Crops Floral Crops Grasses and Turf Small Fruits Vegetables Ornamentals	Row (42") ⁶	Mineral	4 5 to 6	46 to 62	
		Muck or peat	9 to 12	93 to 123	
	Overall (Broadcast)	Mineral	9 to 15 ⁷	26 to 44	
		Muck or Peat	24 ³ to 36	71 to 106	
Strawberries	Overall	Mineral	24 to 36	71 to 106	
Sugar Beets Root Knot Nematode	Row (42")	Mineral	6	62	
	Overall		12 to 15	35 to 44	
Sugar Beet Nematode	Row (42")		9	93	
	Overall		12 to 18	35 to 53	
Pineapple ⁴	Row	Mineral	24 to 36	—	
Citrus — Florida ⁵	Overall	Mineral	36	106	
Nursery and Field: ⁷ Citrus Fruit Trees Deciduous Fruit Trees ⁸ Forest Trees Grapes Nut Trees Ornamentals (deep rooted)	Overall: gallons Per Acre to Penetrate Various Depths				
	Mineral Soils	3 ft	4 ft	5 ft	6 ft.
	Sand	15	21	27	33
	Sandy Loam	27	30	36	48
	Silt Loam	42	51	63	75
	Clay Loam	54	69	84	102

¹ Use the higher rates in heavier soil

² For cyst-forming nematodes increase dosage to 18 gallons per acre (53 fl. oz./1000 ft. row per chisel)

³ For muck soils containing less than 30% organic matter use 18 gallons per acre

⁴ For Hawaiian pineapple, application may be made at time 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

⁶ Row treatment is not recommended for potatoes in irrigated areas of western and northwestern states

⁷ Tree planting sites prepared by backhoeing may be treated by pouring 27 fl. oz. of TELONE II into the hole during backfilling. For best results prepare and treat sites in the fall and plant in the spring

⁸ Use TELONE II as an aid in the control of bacterial canker and decline of peach trees by application as a preplant, overall treatment of light (sandy) soils at the rate of 24 to 36 gallons per acre (71 to 106 fl. oz./1000 ft. row per chisel) preferably in the fall when the soil is warm (50-85° F at 6-inch depth) and moist. Inject the fumigant at a depth of 10 to 12 inches with chisels mounted on 12 inch centers. Follow directions for soil preparation, sealing, exposure, and aeration as specified elsewhere on this label

⁹ **NOTE:** To control symphylans (garden centipedes) use only overall at 18 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 overall or broadcast treatments

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. These oral warnings shall inform workers of areas or fields that may not be entered without heavy synthetic rubber foot gear until after 3 days post treatment. In case of accidental exposure follow directions as shown by the Statement of Practical Treatment section on this label. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Written warnings must include the following information: **DANGER.** Area treated with TELONE II soil fumigant on (insert date of application). Do not enter without heavy synthetic rubber foot gear until after 3 days post treatment. In case of accidental exposure take actions as shown by the Statement of Practical Treatment section on this label.

White Potatoes in Northwestern States: Use TELONE II 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 overall treatment according to the following directions:

Time of Treatment	Gallons per Acre	Fl. Oz./1000 Ft. Row per Chisel
Spring	17 to 25	50 to 73
Fall	25 to 34	73 to 100

Mint in Northwestern States: Use 59 gallons of TELONE II per acre (173 fl. oz./1000 ft. row per chisel) as an overall treatment in the spring, or preferably in the fall, 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 State Agricultural Experiment Station or State Extension Service Specialists for the use of other practices such as flaming the stubble, weed control, and cultural practices when using TELONE II as an aid to reducing damage caused by Verticillium wilt.

USE PRECAUTIONS

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, sugarcane, and pineapple are tolerant to ammonia and the above rule does not apply to them. When using high rates of TELONE II 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, it is suggested that additional phosphate fertilizer be used on soils where experience indicates a deficiency may occur.

Attention: To avoid reinfestation of treated soil do not use irrigation water, transplants, tools, seed pieces, or crop remains that could carry soilborne pests from infested land. Clean equipment carefully before using.

Since TELONE II 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 II may be severely corrosive to such metals.

Use this product only as specified on this label.

WARRANTY LIMITATIONS AND DISCLAIMER

The Dow Chemical Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions therein under normal conditions of use. **THIS IS THE ONLY WARRANTY MADE ON THIS PRODUCT.** NO OTHER EXPRESS AND NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE OUTSIDE OF THIS LABEL. Therefore, 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 (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), under abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes, etc.) or under conditions not reasonably foreseeable to or beyond the control of seller.

When buyer or user suffers losses or damages resulting from the use or handling of this product (including claims based on contract, negligence, strict liability, or other legal theories), buyer or user must promptly notify in writing The Dow Chemical Company of any claims to be eligible to receive either remedy given below. **THE EXCLUSIVE REMEDY OF THE BUYER OR USER and the LIMIT OF LIABILITY of The Dow Chemical Company or any other seller will be one of the following, at the election of The Dow Chemical Company:**

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

The seller will not be liable for consequential or incidental damages or losses.

The terms of this Limit of Warranty and Liability cannot be varied by any written or verbal statements or agreements. Any employee or sales agent of the seller is not authorized to vary or exceed the terms of this Warranty Limitations and Disclaimer in any manner.

204.4 L/54 gal net

* Trademark of THE DOW CHEMICAL COMPANY
85456-L6 H1185



THE DOW CHEMICAL COMPANY
Midland, Michigan 48640 U.S.A.

SPECIMEN LABEL 86-1350 DATE CODE
H1185
REPLACES 86-1350 DATE CODE G1085
DISCARD PREVIOUS SPECIMEN LABELS

REVISIONS INCLUDE:
1) REVISED REENTRY STATEMENT.
2) REVISED PRECAUTIONARY STATEMENTS.