



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF THE  
ADMINISTRATOR

IN RE	)	
	)	I. F. & R. NO. VII-407-C-81-P
PANHANDLE COOPERATIVE ASSO.,	)	
RAILROAD AVE.	)	
	)	
Respondent	)	

INITIAL DECISION

This is a proceeding under section 14(a) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, 7 U.S.C. 136 1(a) (supp. v, 1975), for assessment of civil penalties for violation of 7 U.S.C. 136-136y (1972), of the Federal Insecticide, Fungicide and Rodenticide Act as amended. This proceeding was initiated by a Complaint issued on August 3, 1981 relating to the failure to label a bulk storage tank containing the pesticide Telone II. Respondent filed his answer on August 12, 1981 and the matter was assigned to the undersigned Administrative Law Judge on August 19, 1981. Following the exchange of certain pre-hearing information and extended negotiations between the parties in an attempt to settle this matter, the case was submitted to the Court with a stipulation of facts requesting the undersigned issue an opinion solely on the question of the amount of the civil penalty to be assessed.



The proposed penalty to be assessed in this case is \$5,000.00. The aforementioned stipulation dated October 20, 1981 is attached to this opinion and is hereby adopted as a finding of fact and law.

#### DISCUSSION

Following the filing of the stipulation of facts, the parties submitted briefs on the issue of the proper penalty to be assessed. The Complainant filed a reply brief, the Respondent did not. Apparently the Respondent is in the business of providing agricultural products to farmers, and in the course of that business sells the pesticide Telone II which is a soil fumigant which purportedly kills plant parasitic nematodes and other noxious creatures who live in the soil. The Respondent dispenses this product from a 4,000 bulk tank into suitable drums, usually of 55 gallon capacity provided by the end purchaser to which is later affixed the required and approved EPA label for the product. The tank from which this pesticide is dispensed did not have on it the required label with its accompanying cautionary language, but instead had sprayed thereon the words "Telone II", that being the only descriptive material appearing on the 4,000 bulk tank. The stipulation agrees that the product in the tank is a pesticide and that the failure to have the approved EPA label on that tank constitutes misbranding. The Complaint broke this general violation into several subparts, for example; failure to bear directions for use, failure to bear warning or caution statements, failure to bear ingredient statements, failure to bear the name and address of the producer, failure to bear the net weight or contents, and so forth. The parties further agreed that the Respondent's business

falls in Category 5 because it had total sales in excess of a million dollars for fiscal year 1980 and that the \$5,000.00 penalty in the Complaint was properly proposed in accordance with the limit in §14(a) of the Act, although following the guidelines set forth in 39 F.R. 27713 would have resulted in a higher proposed penalty.

The parties also agree that there have been no previous violations of the Act by the Respondent and that the Respondent has, since the receipt of the Complaint, labeled the bulk storage container with the label attached as Exhibit 1 to the stipulation which apparently satisfies the requirements of the law and the regulations. The parties also agree that the penalty will not affect Respondent's ability to continue in business if assessed.

The Complainant defends its assessment of the \$5,000.00 penalty by pointing out that the product is extremely hazardous and that its vapor may be fatal if inhaled, absorbed through the skin or swallowed. It causes burns of the skin and eyes, it is combustible, and the material should not be stored or in any way treated with equipment made of aluminum, magnesium or its alloys, since the material can be severely corrosive to these metals. The Complainant therefore takes the position that since the large storage tank from which this product is dispensed merely carries the words Telone II that in no way provides any warning to the persons who dispense it or receive it or who may be in or around the area where the dispensing from the bulk tank takes place. The Complainant says that even though the required label was ultimately given to the purchaser to be affixed to the 55 gallon drum, it is likely that by that

time it is too late to take the required precautions since during the dispensing and drum filling process both the purchaser and the sales person are exposed to the quite serious hazards presented by this pesticide.

The Respondent on the other hand takes the position that it is the purpose of FIFRA to protect the health and environment from potentially harmful substances and the Respondent, in order to protect the environment, distributed upon dispensing Telone II all necessary information concerning it and that by distributing this information to all users of the product no harm occurred to the health or the environment. It further argues that the imposition of a \$5,000.00 penalty for failure to label a storage tank of Telone II would, in accordance with the appropriate regulations, be arbitrary, capricious and an abusive of discretion. The Respondent concludes by saying in light of their attempted good faith compliance with the Act and its past record of compliance and absence of harm to health or environment the Agency should not assess the \$5,000.00 penalty but rather should warn the Respondent as a deterrent to future violations or in the alternative assess a nominal penalty.

In determining the amount of the penalty which should be appropriately assessed, §14(a) (3) of the Act requires that there shall be considered the appropriateness of the penalty the size of the Respondent's business, the affect on the Respondent's ability to continue in business and the gravity of the violation. The regulations provide that in evaluating the gravity of the violation there should also be considered the Respondent's history of compliance with the Act and any evidence of good faith of the Act thereof. The parties have stipulated that the \$5,000.00 penalty was properly assessed in terms of the size of the business and that the assessment of the penalty of \$5,000.00 would not adversely affect the ability of the Respondent to stay in business.

In previously decided civil penalty cases under FIFRA it has been held that the gravity of a violation should be considered from two aspects--gravity of harm and gravity of misconduct.

As to gravity of misconduct I conclude that the violation was not of a high order but is nevertheless an admitted violation of the Act done so with the knowledge of what the law requires.

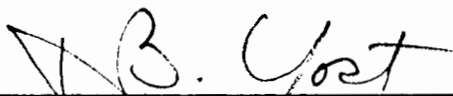
As to the gravity of harm, although no actual injury to the environment or the health of the persons has been alleged, certainly in view of the hazardous nature of the product, the potential for harm is extremely high. The label, for example, requires that the product should not get in the eyes, on skin, on clothing and that eye and skin protection should be worn to prevent contact when handling this material. One should wash thoroughly after handling and before eating and smoking. Contaminated clothing should be thoroughly washed and shoes should be thoroughly aired before re-use. It says do not use, pour, spill or store near heat or open flame. Use only with adequate ventilation and do not breathe the vapor. In case of spillage in-doors, the users are advised to have available an approved full face mask equipped with a fresh black canister meeting specifications of the U.S. Bureau of Mines for organic vapors, a full face self contained breathing apparatus, or full face air-supplied respirator. If inhaled the person should be taken immediately to fresh air, use artificial respiration if breathing is stopped, get immediate medical attention and keep patient absolutely quiet. Apparently this pesticide is extremely dangerous when not used properly or when certain safe-guards for its handling are not observed. Under the circumstances of this case taking into consideration all the factors required by law

and regulation to be considered, I am of the opinion that the \$5,000.00 penalty proposed by the Complainant is reasonable under the circumstances. In coming to that conclusion I have also taken into consideration the past history of the Respondent in complying with the Act and also with its prompt curing of the violation set forth in the Complaint by placing the required label on the 4,000 gallon storage tank.

I have considered the entire record in this case consisting of the stipulation by the parties and the arguments presented by them in their briefs and any suggestions, requests or arguments inconsistent with this decision are denied. It is proposed that the following order be issued.

FINAL ORDER

Pursuant to §14(a) (1) of the Federal Insecticide, Fungicide and Rodenticide Act, as amended, a civil penalty of \$5,000.00 is assessed against Respondent, Panhandle Cooperative Association, for the violation which has been established on the basis of the Complaint issued on August 3, 1981.

  
\_\_\_\_\_  
Thomas B. Yost  
Administrative Law Judge

DATED: February 16, 1982

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Unless appeal is taken by the filing of exceptions pursuant to §22.30 of the Consolidated Rules of Practice, or the Administrator elects to review this decision on his own motion, the Initial Decision shall become the Final Order of the Agency. (See §22.27(c)).

a. The Category V size of business was properly chosen in proposing all penalties because Respondent, Panhandle Cooperative Association, had a total annual sales in excess of \$1,000,000 for fiscal year 1980.

b. For the "failure to bear directions for use" alleged violation, the 1B level of gravity was correctly chosen in proposing the \$2,800 penalty because the likelihood of mishandling or misuse was unknown. (Charge Code Number E4).

c. For the "failure to bear the warning or caution statements" alleged violation, the 2B level of gravity was correctly chosen in proposing the \$2,800 penalty because the adverse effects of the alleged violation were unknown. (Charge Code Number E3).

d. For the "failure to bear an ingredient statement" alleged violation, the A1 level of danger was correctly chosen because the toxicity level of Telone II is dangerous and the ingredient statement was totally lacking on the bulk storage tank. The correct ingredient statement is on the label (Exhibit 1). (Charge Code Number E5).

e. For the "failure to bear the name and address of the producer" alleged violation, there was only one level of gravity: \$1,200 for a Category V Respondent. (Charge Code Number E11).

f. For the "failure to bear the net weight or measure of content" alleged violation, there was only one level of gravity: \$1,200 for a Category V Respondent. (Charge Code Number E10).

g. For the "failure to bear the Environmental Protection Agency pesticide registration number for Telone II" alleged violation, there was only one level of gravity: \$1,200 for a Category V Respondent. (Charge Code Number E9).

h. The five thousand dollar civil penalty in the Complaint was properly proposed in accordance with the limit in §14(a)(1) of the Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. §136 et seq. (1976 and Supp III 1979) although following the Guidelines, 39 F.R. 27713, would have resulted in a higher proposed penalty.

9. Complainant is unaware of any previous violations of the Federal Insecticide, Fungicide and Rodenticide Act by Respondent.

10. Respondent has, since the receipt of the Complaint in this case, labeled the bulk storage container with the label attached to this Stipulation (Exhibit 1).

11. Respondent has over \$1,500,000 in working capital and annual sales in the fiscal year ending August 1980 in excess of \$35,000,000. A \$5,000 penalty would not affect Respondent's ability to continue in business.

Date: 20 Oct. 1981

*Thomas E. Bischof*

Thomas E. Bischof  
Attorney for Complainant  
U.S. Environmental Protection Agency  
324 East 11th Street  
Kansas City, Missouri 64106

Date: \_\_\_\_\_

*Robert C. Guenzel*  
Robert C. Guenzel  
Crosby, Guenzel, Davis, Kessner & Kuenster  
Attorney for Respondent  
400 Lincoln Benefit Building  
Lincoln, Nebraska 68508

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION VII  
324 EAST ELEVENTH STREET  
KANSAS CITY, MISSOURI 64106

IN THE MATTER OF ) I.F. & R. Docket No. VII-407C-81P  
)  
Panhandle Cooperative )  
Association )  
Railroad Avenue )  
Bridgeport, Nebraska )  
)  
Respondent )

STIPULATION

It is hereby stipulated and agreed for purposes of this action only between Complainant, the Director of the Division of Enforcement of Region VII of the United States Environmental Protection Agency, and Respondent, Panhandle Cooperative Association by and through their respective counsel, that the statements are undisputed and true and that this Stipulation and its attachments are to be the sole factual basis upon which the Presiding Officer, is to decide the above-referenced case, unless further written agreement is reached by the parties.

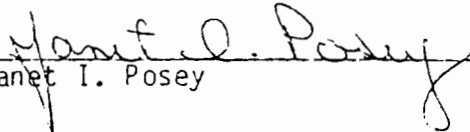
The Stipulation is as follows:

1. Respondent in the above-referenced administrative proceeding is Panhandle Cooperative Association, a Nebraska corporation licensed to do business in Nebraska.
2. Respondent admits the jurisdictional allegations of the Complaint, waives its right to an administrative hearing for the presentation of evidence in this matter and waives any defenses for inadequate service of process.
3. Complainant is the Director of the Enforcement Division of the Region VII (Kansas City, Missouri) Office of the United States Environmental Protection Agency.
4. On February 28, 1980, Rod W. Glebe, a United States Environmental Protection Agency representative inspected the Respondent, Panhandle Cooperative Association's establishment on Railroad Avenue in Bridgeport, Nebraska.
5. Respondent held for sale on February 28, 1980, and regularly sold from its facility in Bridgeport, Nebraska, the pesticide Telone II Soil Fumigant (Environmental Protection Agency Registration Number 464-511) to end use customers. The Telone II was dispensed from Respondent's bulk storage tank with a capacity of 4,000 gallons into the customer's barrel, usually a fifty-five gallon drum. The customer was given a specimen label, a copy of which is attached as Exhibit 1. The label was the Environmental Protection Agency's approved sample label for fifty-five gallon drums of Dow Telone II Soil Fumigant. The bulk storage tank from which the Dow Telone II Soil Fumigant was dispensed was marked only with the words "Telone II". Attached are photographs of front and back of the bulk storage tank taken by Mr. Glebe on February 28, 1980, Exhibits 2a and 2b.
6. The applicable regulations include 40 CFR Part 162, especially 40 CFR §162.10(a)(4)(ii)(B).
7. The two attached exhibits are hereby incorporated into this stipulation and are evidence to be considered by the Administrative Law Judge.
8. The proposed penalties, outlined in the Complaint and the "Civil Penalty Assessment Work Sheet" attached thereto, were calculated in accordance with the Guidelines for Assessment of Civil Penalties 39 F.R. 27713 et seq., and FIFRA, to wit:



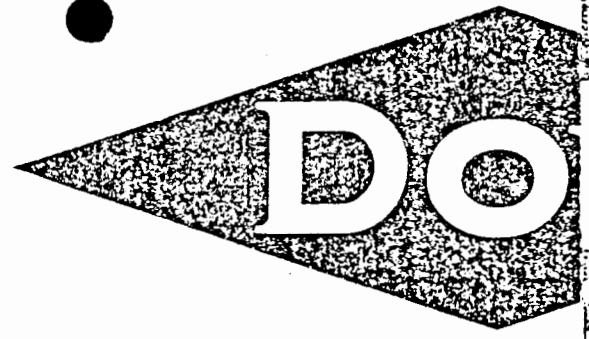
CERTIFICATE OF SERVICE

I certify that the original of this Stipulation and copy of attachments was delivered to the Regional Hearing Clerk; a copy of this stipulation and the originals of the attachments sent by Certified Mail, Return Receipt Requested, to Administrative Law Judge, Thomas B. Yost, U.S. Environmental Protection Agency, 345 Courtland Street, N.E., Atlanta Georgia 30308; a copy of the Stipulation and attachments sent by Certified Mail, Return Receipt Requested, to Mr. Robert C. Guenzel, Crosby, Guenzel, Davis, Kessner & Kuenster, 400 Lincoln Benefit Building, Lincoln, Nebraska 68508 on this 20<sup>th</sup> day of October 1981.

  
\_\_\_\_\_  
Janet I. Posey

Sample  
180555  
RW  
2-28-80

Exhibit 1  
page 1 of 5



**ACTIVE INGREDIENT:**  
1,3-Dichloropropene ..... 92%  
**INERT INGREDIENTS:** ..... 8%  
E.P.A. Registration No. 464-511-AA  
E.P.A. Est. No. 464-TX-1<sup>TB</sup>; 464-CA-1<sup>WP</sup>;  
05770-CO-1<sup>U</sup>; 33780-SC-1<sup>U</sup>; 33776-WA-1<sup>W</sup>;  
14775-FL-1<sup>Q</sup>.  
Superscript used corresponds to letter in Lot No.

**AGRICULTURAL CHEMICAL**

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

**PRECAUCION AL USUARIO:** Si usted no lee  
inglés, no use este producto hasta que la eti-  
queta le haya sido explicada ampliamente.

**TRANSLATION: (TO THE USER:** If you cannot  
read English, do not use this product until the  
label has been fully explained to you.)

# TELON

## SOIL FUN

A Clean, Clear, Non-Clogging Liquid for  
Lands to Control Plant Parasitic Nematode

### 55 GAL / 2

# THE DOW CHEMICAL

AND SUBSIDIARIES

MIDLAND, MICHIGAN 48640, USA ZURICH, SWITZERLAND

CORAL GABLES, FLORIDA 33134, USA

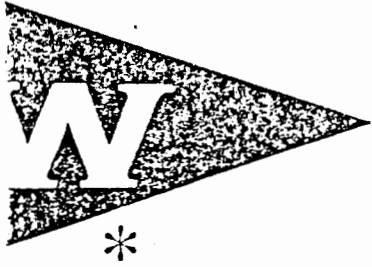
\* Trademark of THE DOW CHEMICAL COMPANY

86-1350 PRINTED IN U.S.A. IN SEPTEMBER, 1975

REPLACES SPECIMEN LABEL 86-1350 PRINTED IN MARCH, 1975

DISCARD PREVIOUS SPECIMEN LABELS

REVISION INCLUDES: CORRECTION OF FOURTH SENTENCE IN FIRST  
PARAGRAPH UNDER "USE PRECAUTIONS" REGARDING AMMONIA INJURY



**SPECIMEN LABEL**  
REDUCED TO 61%

Exhibit 1  
page 2 of 5

**VE \* III**

**IGANT**

*repiant Treatment of Crop  
and Certain Other Soil Pests*

**DANGER**

KEEP OUT OF REACH OF CHILDREN  
HAZARDOUS LIQUID AND VAPOR  
MAY BE FATAL IF INHALED,  
ABSORBED THROUGH SKIN, OR SWALLOWED  
CAUSES BURNS OF SKIN OR EYES  
COMBUSTIBLE

Do Not Get in Eyes, on Skin, or on Clothing. Wear Eye and Skin Protection Necessary to Prevent Contact When Handling This Material. Wash Thoroughly after Handling and Before Eating and Smoking. Wash Contaminated Clothing and Air Contaminated Shoes Thoroughly Before Reuse. DO NOT USE, POUR, SPILL, OR STORE NEAR HEAT OR 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 an approved full face mask equipped with a fresh black canister meeting specifications of the U. S. Bureau of Mines for organic vapors, a full face self-contained breathing apparatus or full face air-supplied respirator.

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.

8.1 L

**AL COMPANY**

ES

WITZERLAND HONG KONG, BCC

SARNIA, ONTARIO, CANADA

AL COMPANY

Exhibit 1  
page 3 of 5

**SPECIMEN LABEL**  
(BACK)  
REDUCED TO 41%

# TELO

## SOIL FUMIGANT

### GENERAL INFORMATION

Use TELONE II soil fumigant only as a preplanting soil treatment for nematodes, knot, meadow (lesion), citrus, cyst formers (golden pin, stubby root, stylet, dagger); also to control wireworms and other soil insects. Land to be planted to the crops listed below by applying TELONE II as recommended under DIRECTIONS FOR USE. DCSA-1000. CAUTIONS. Read the entire label before using TELONE II.

#### Vegetable Crops:

asparagus	cauliflower	horseradish
beans	celery	kale
beets	collards	kohlrabi
blackeyed peas	corn	leeks
broccoli	cowpeas	lettuce
brussels sprouts	cucumbers	melons
cabbage	egg plant	mustard greens
cantaloupe	endive	okra
carrots	garlic	onions

#### Field Crops:

alfalfa	flax
barley	grasses
birdsfoot trefoil	hops
buckwheat	lespedeza
clover	millet
corn	milo
cotton	mint

#### Citrus Fruit Tree Planting Sites:

grapefruit	kumquats	lemons	lime
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#### Deciduous Fruit and Nut Tree Planting Sites:

almonds	dates
apples	figs
apricots	filberts
cashews nuts	hazelnuts
cherries	hickory nuts
chestnuts	nectarines

#### Bush and Vine Planting Sites:

blackberries	currants
blueberries	dewberries
boysenberries	gooseberries
cranberries	grapes

Nursery Crops including floral plants, ornamentals, and vine and bramble fruits of all types.

### DIRECTIONS FOR USE

**WHEN TO TREAT:** Apply TELONE II either in the spring or fall. For best results with annual crops, treat the soil each year (before October 15) is best for land to be planted to such as celery, tomatoes, and nursery and orchard soil. **Note:** Treat muck soils only in the early fall and p (clay) soils only when they are near or at the wilting when it is cold and/or wet.

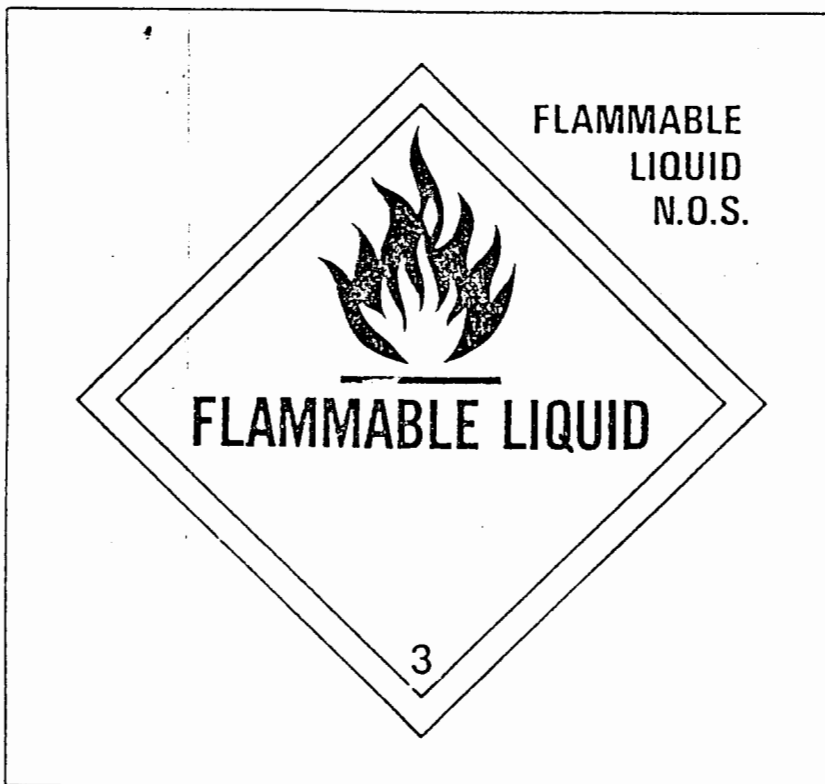
**SOIL PREPARATION:** TELONE II gives best results when the soil is moist and the soil surface can be sealed to the surface. The soil should be in good seed bed condition with moisture at about one-half of field capacity, and ten percent of undecomposed plant debris is present, it should be plowed. TELONE II. Tillage deeper than 12 inches is necessary or "plow" pan occurs at plow depth. Where deep tillage is required, apply the fumigant and thus avoid the plow pan.

**APPLICATION:** TELONE II may be applied either as a broadcast application or by chisel application. For overall application use either broadcast or chisel application. When the fumigant is injected at a depth of 12 inches or more, up to twice the application depth but should not exceed 24 inches. Chisel application, use chisel equipment with one chisel per row. The soil where the crop is to be planted. When one chisel is used per row, distribute about 1 1/2 times more fumigant per chisel than when two chisels are used per row, apply at the same flow rate. Fumigant required per acre will decrease as the distance between chisels increases. When two chisels are used per row, avoid placing the seed row directly over the chisel. When one chisel is used per row, place the seed 3 to 4 inches to one side of the plant in the center of the area between the chisel furrows.

**SEALING:** Immediately after application, compact the soil by chisel application, use a roller, cultipacker, or similar equipment. Then compact it by floating or rolling. Sealing can be done by wheel, by listing, or by bedding so that the fumigant is held in the soil. Fumigating listed rows, seal in the fumigant with rings.

**EXPOSURE PERIOD:** After application and sealing, the exposure period will be required if the soil becomes too dry.

**AERATION AND PREPARATION OF SOIL BEFORE PLANTING:** The soil should be aerated completely before planting the crop. TELONE II is no longer evident. Under optimum soil conditions, 10 gallons of TELONE II applied per acre and shrub planting sites, a 3 to 6 months aeration period is required. If heavy rains or low temperatures occur during the treatment zone. After row treatment use a knife-like implement to break up the soil. To hasten the aeration of the treated soil. To hasten the aeration of the treated soil. This is especially important for muck soils.



BEL

Exhibit 1  
page 4 of 5

47%

# TELONE II

## SOIL FUMIGANT

### GENERAL INFORMATION

Use TELONE II soil fumigant only as a preplanting soil treatment to control plant parasitic nematodes (root-knot, 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	cauliflower	horseradish	parsnips	shallots
beans	celery	kale	peas	spinach
beets	collards	kohlrabi	peppers	squash (summer)
blackeyed peas	corn	leeks	pimientos	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	sugarcane
clover	millet	rice	tobacco
corn	milo	rye	vetch
cotton	mint	safflower	wheat

#### Citrus Fruit Tree Planting Sites:

grapefruit	kumquats	lemons	limes	oranges	tangerines	tangelos
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#### Deciduous Fruit and Nut Tree Planting Sites:

almonds	dates	olives	plums
apples	figs	peaches	pomegranates
apricots	hibernuts	pears	prunes
cashews 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:** 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 PREPARATION:** 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 1½ 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 treatment zone. This is especially desirable in northern states after fall fumigation of muck soils.

to Contro

Crops (consult list of individual crops under General Information)
Shallow Rooted Plants: Field Crops Floral Crops Grasses and Turf Small Fruits Vegetables Ornamentals
Strawberries
Sugar Beets Root-Knot Nematode
Sugar Beet Nematode
Pineapple <sup>4</sup>
Citrus — Florida <sup>5</sup>
Nursery and Field: <sup>7</sup> Citrus Fruit Trees Deciduous Fruit Trees <sup>8</sup> Forest Trees Grapes Nut Trees Ornamentals (deep rooted)

<sup>1</sup>Use the higher rates in heavier soil.  
<sup>2</sup>For cyst-forming nematodes increase 30%  
<sup>3</sup>For muck soils containing less than 3% organic matter, increase 50%  
<sup>4</sup>For Hawaiian pineapple, application 1/2 lb/acre  
<sup>5</sup>For burrowing nematode in citrus inject 200 g/acre for 2 years before replanting to citrus  
<sup>6</sup>Row treatment is not recommended for citrus  
<sup>7</sup>Tree planting sites prepared by backhoe, results prepare and treat sites in the fall  
<sup>8</sup>Use TELONE II as an aid in the control of Verticillium wilt in citrus  
 †NOTE: To control symphylans (garden centipedes) apply early fall when the soil is warm. To control wireworms, apply early fall when the soil is warm. To control nematodes, apply as an overall treatment.

White Potatoes in Northwestern States: Apply as an overall treatment.

Time of Treatment
Spring
Fall

**Mint in Northwestern States:** Use overall treatment in the spring. Verticillium wilt in disease infested soils or until the odor of the fumigant is no longer evident. Station or State Extension Service for weed control, and cultural practices to control Verticillium wilt.

**Important — Note Carefully:** Fertilizers in the soil. This is most likely to occur in soils that are either cold, wet, acid, or high in organic matter. Tests made after fumigation. To avoid this possible effect, if the soil does not use fertilizers contain ammonium salts, do not apply to them. When using fertilizers, apply them before the ammonia toxicity. Certain nursery vegetable crops such as cauliflower, cabbage, and Brussels sprouts experience a deficiency of nitrogen when the soil is treated with TELONE II.

**Attention:** To avoid reinfestation of the soil, the fumigant should be applied early fall when the soil is warm. Since TELONE II soil fumigant is a kerosene immediately after use, the equipment made of aluminum, magnesium, or zinc, is severely corrosive to such metals. Do not use equipment made of these metals. Be penetrated readily by this fumigant. Shoes and hands with polyethylene or rubber coverings. In outside storage, store in a well-ventilated area.

Do not allow contamination of seed, food, feedstuffs, or domestic animals. To avoid injury to fish and other aquatic life, do not allow the fumigant to enter bodies of water.

Rinse equipment and containers with water. Dispose of empty containers properly. Use this product only as specified on the label.

**NOTICE:** Seller warrants that the product is as described and is fit for the purpose intended. No warranty is made as to MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. Use only as directed on the label instructions, or under abnormal conditions, at the risk of any such use.

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IMABLE  
LIQUID  
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CONTROL NEMATODES, SYMPHYLIANS, AND FIREWORMS

Exhibit 1  
page 5 of 5

Crop (consult individual crops under General Information)	Type of Treatment	Soil Type	Rate		
			Gallons Per Acre <sup>1</sup>	Fl. Oz./1000 Ft. Row Per Chisel	
Small Rooted Plants: Field Crops Floral Crops Grasses and Turf Small Fruits Vegetables Ornamentals	Row (42") <sup>6</sup>	Mineral	4.5 to 6	46 to 62	
		Muck or Peat	9 to 12	93 to 123	
	Overall (Broadcast)	Mineral	9 to 15 <sup>2</sup>	26 to 44	
		Muck or Peat	24 <sup>3</sup> 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 <sup>4</sup>	Row	Mineral	24 to 36	—	
Citrus — Florida <sup>5</sup>	Overall	Mineral	36	106	
Nursery and Field <sup>7</sup>	Overall: Gallons Per Acre to Penetrate Various Depths				
Citrus Fruit Trees	Mineral Soils	3 ft.	4 ft.	5 ft.	6 ft.
Deciduous Fruit Trees <sup>8</sup>	Sand	15	21	27	33
Forest Trees	Sandy Loam	27	30	36	48
Grapes	Silt Loam	42	51	63	75
Nut Trees	Clay Loam	54	69	84	102
Ornamentals (deep rooted)					

<sup>1</sup>Use the higher rates in heavier soil

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

<sup>3</sup>For muck soils containing less than 30% organic matter use 18 gallons per acre.

<sup>4</sup>For Hawaiian pineapple, application may be made at time of or just before planting

<sup>5</sup>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

<sup>6</sup>Row treatment is not recommended for potatoes in irrigated areas of western and northwestern states.

<sup>7</sup>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

<sup>8</sup>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.

NOTE: To control symphylians (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 the higher dosages recommended for nematodes in overall or broadcast treatments

**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. Common protective clothing, 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 II 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 in the top or bottom recessed areas.

Do not allow contamination of seeds, plants, fertilizers, or other pesticide chemicals. Do not contaminate food, feedstuffs, or domestic water supplies.

To avoid injury to fish and other wildlife, do not spill or empty TELONE II 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. Dispose of empty containers by punching holes in them and burying with wastes.

Use this product only as specified on this label.

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.

ant parasitic nematodes (root-burrowing, ring, spiral, sting, pedes (symphylians) Fumigate e conditions, and at the rates E. RECOMMENDATIONS, and USE PRE-

shallots  
spinach  
squash (summer)  
squash (winter)  
sweet potatoes  
swiss chard  
tomatoes  
turnips  
watermelons

sorghum  
soybeans  
sugar beets  
sugarcane  
tobacco  
vetch  
wheat

tangerines tangelos

plums  
pomegranates  
prunes  
quince  
walnuts

youngberries

ast, shade, fruit and nut trees

if type and conditions permit, late summer, or early fall treat especially transplanted crops if permits planting a fall cover the spring, treat fine textured NE II to treat any type of soil

apid diffusion of the fumigant ant loss during the exposure decomposed plant material, 90°F at the depth of injection to decompose before applying eration in soils where a hard pment may often be modified e

ow treatment, using suitable 8 inches below the final soil the chisels spaced 12 inches el), the chisel spacing may be on may be made in the same s most convenient. For row d 12 inches apart to treat only ust the fumigant flow rate to overall application. When two n both cases, the amount of eased and vice versa. At time licator chisel. When a single w, when two chisels are used,

xcessive fumigant loss. After ow-sole application, disk the accomplished by the tractor ow the top of the bed. When y re-listing.

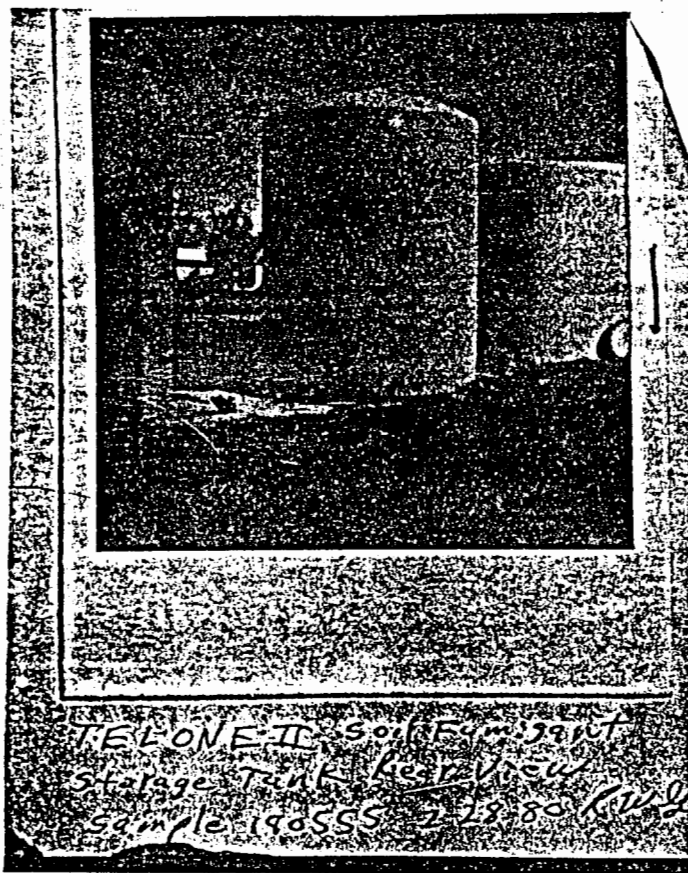
d for 7 to 14 days. A longer uring the exposure period.

of the exposure period allow complete when the odor of allow one week of aeration for treating deep-rooted tree hasten aeration, especially the soil to the depth of urning the soil, thus reducing ment, plow or deep cultivate states after fall fumigation



TELONE II Soil Fumigant  
Storage Tank Front View  
Sample 190555 7-28-80 (WJ)

Exhibit 2a



TELONE II Soil Fumigant  
Storage Tank Rear View  
Sample 190555 7-28-80 (WJ)

Exhibit 2b