

029001  
SHAUGHNESSY NUMBER

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REVIEW NO.

EEB REVIEW

5-5-86

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PETITION OR EXP. NO. \_\_\_\_\_

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RD ACTION CODE/TYPE OF REVIEW 750

TYPE PRODUCT(S): I, D, H, F, N, R, S Fumigant

DATA ACCESSION NO(S). 261119

PRODUCT MANAGER NO. H. Jacoby (21)

PRODUCT NAME(S) TELONE II

COMPANY NAME Dow Chemical U.S.A.

SUBMISSION PURPOSE Proposed EUP for use on cotton and soybeans  
when applied as an at plant injection  
treatment

SHAUGHNESSY NO. CHEMICAL & FORMULATION % A.I.

029001 1,3-Dichloropropene 94%

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## EEB BRANCH REVIEW

### 1,3-Dichloropropene

#### 100. Submission Purpose and Label Information

##### 100.1 Submission Purpose and Pesticide Use

Proposed EUP to evaluate the use of TELONE II to control plant parasitic nematodes and certain other soil inhabiting pests.

##### 100.2 Formulation Information

1,3-Dichloropropene.....	94.0%
Inerts.....	6.0
	<u>100.0%</u>

##### 100.3 Application Methods, Directions, Rates (As indicated in EPA Accession # 261119)

When to Treat: Apply TELONE II at planting time of the cotton or soybeans.

Soil Preparation and Application: The soil should be in good seed condition, free of clods, moisture at about one-half of field capacity and soil temperatures between 40° and 80°F at the depth of injection. Apply 2.5 to 4 gallons of TELONE II per row acre by injecting to a depth of 10 to 14 inches below each row of cotton or soybeans being planted.

Sealing: Seal the chisel traces immediately by compacting the soil surface with a drag chain or other suitable equipment.

Restrictions: Do not make more than one application per year. Do not enter treated areas without heavy synthetic rubber foot gear until 3 days post treatment.

Attention: All applicable directions, restrictions and precautions on the EPA registered label for TELONE II soil fumigant are to be followed.

##### 100.4 Target Organisms

Plant parasitic nematodes [root-knot, meadow (lesion), citrus, cyst formers (golden sugar beet, soybean), burrowing, ring, spiral, sting, pin, stubby root, stylet, dagger], wireworms, and garden centipedes (symphylans).

##### 100.5 Precautionary Labeling

The federally registered TELONE II label bears the following environmental hazards statements: "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."

101 Hazard Assessment

101.1 Discussion  
(As indicated in EPA Accession # 261119)

Dichloropropene is presently registered as pre-planting soil fumigant for nematode, insect, disease, and weed control. It is recommended on a variety of crops such as vegetables, field crops, citrus, deciduous fruits and nuts, brush and vines, and nursery crops (Farm Chemicals Handbook, 1981).

The objective of the experimental program is to evaluate TELONE II soil fumigant under commercial conditions as an at plant soil injection treatment to cotton and soybeans. Data will be collected on pest control, yield, phytotoxicity, and growth response of the treated crop. Residue samples will also be gathered from certain sites. It is expected that this experimental program will generate sufficient data registration. TELONE II is to be applied to cotton and soybeans by at plant soil injection to evaluate the control of plant parasitic nematodes and other soil inhabiting pests. The material will be applied at rates ranging from 2.5 to 4 gallons per acre to plots that are 1/4 to 5 acres in size. The material will be injected to a depth of 12 to 14 inches. At the discretion of the cooperator and as conditions permit, there may be up to 4 replicates per experiment.

This program is anticipated to last two years. There will be applications made in each of the two years. The two years are necessary since the requested commencement date of the permit is into the planting season of the first year and treatments will be required in the second year to allow full evaluation of the product.

The following states, crops, acreage, and pesticide product quantity (maximum gallons) will be utilized in the EUP program.

<u>State</u>	<u>Crop</u>	<u>Acreage</u>	<u>TELONE II (gallons)</u>
Alabama	Cotton	100	400
	Soybeans	100	400
Florida	Cotton	50	200
	Soybeans	50	200
Georgia	Cotton	100	400
	Soybeans	100	400
Maryland	Soybeans	10	40
North Carolina	Cotton	50	200
	Soybeans	50	200
South Carolina	Cotton	500	2000
	Soybeans	500	2000
Texas	Cotton	200	800
Total		1810	7240

Justification for the quantity (7240 gallons) of TELONE II soil fumigant requested is based strictly on the need to have sufficient material to carry out the proposed experimental program. In making this determination, consideration was given to the maximum acreage to be treated (1810), and to the maximum amount of chemical that may be applied per acre (4 gallons) plus provision for slight overage to accommodate the needs of commercial fumigation equipment. Any unused material remaining at the conclusion of this experimental program will be used or disposed of according to the federally registered label.

#### 101.2 Likelihood of Adverse Effects to Non-Target Organisms

The Dichloropropene Registration Standard EEB memorandum dated August 30, 1985 references acceptable studies for use in making non-target avian and aquatic hazard assessments. The available toxicological data indicated that dichloropropene is of low toxicity to birds and moderate toxicity to fish. The method of application, i.e. injection into the soil and sealing of the chisel traces, would further reduce the minimum possible effects of the EUP. Therefore, the likelihood of harmful exposure of this pesticide to non-target organisms is improbable.

#### 101.3 Endangered Species Considerations

Because of the low toxicity of dichloropropene, the method of application and limited test acreage, no adverse impact on endangered species is expected.

#### 101.4 Adequacy of Toxicity Data

No data was submitted with this EUP application. Section C of the EUP application, assigned under EPA Accession # 261119, provides a summary of previously submitted toxicity data in support of TELONE II. The pending Dichloropropene Registration Standard, as indicated in EEB's memorandum dated August 30, 1985 will not require additional data.

#### 101.5 Adequacy of Labeling

The EUP labeling is supplemental to the federally registered TELONE II label. It bears the current appropriate environmental hazards language, including the statement prescribed by the Dichloropropene Registration Standard EEB memorandum dated August 30, 1985, "Do not contaminate water by cleaning of equipment or disposal of wastes". The memorandum indicates that fish and avian toxicity statements will not be required. Therefore, the TELONE II fish and wildlife toxicity statements may be deleted by the registrant after the issuance of the Dichloropropene Registration Standard in order to bring labeling into proper compliance.

102      Classification

Based upon current evaluations of non-target avian and aquatic toxicity data, there are no present reasons to reclassify or restrict the use of TELONE II.

103      Conclusions

The Ecological Effects Branch has determined that this proposed EUP will not pose any significant adverse problems to non-target organisms. Therefore, EEB concurs with this EUP action.

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