029001
SHAUGHNESSEY NUMBER

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REVIEW NO.

EEB REVIEW

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

DATA ACCESSION NO(S). 261120

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 almonds, citrus, cherries, grapes, peaches, plums, and walnuts when applied as a post plant injection treatment

SHAUGHNESSY NO.	CHEMICAL & FORMULATION	% A.I.
029001	1,3-Dichloropropene	94%

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
100.0%

100.3 Application Methods, Directions, Rates
(As indicated in EPA Accession # 261120)

Directions for Use Within the States of Alabama, North Carolina, and South Carolina.

When to Treat: Apply TELONE II immediately after harvest in the fall. Treatment before root flush occurs is preferred to avoid damage to new roots. Do not apply when the soil is cold and/or wet.
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 tempertures between 60° and 70°F at the depth of injection. Prepare the ground to be treated by discing to a depth of 6 inches as close as is practical to the tree trunks; however, do not apply closer than 12 inches to the trunk. Apply the fumigant in the disced strips by injecting to a depth of 4 to 6 inches. The chisel number may vary from 1 (Stockdale shank with 4 outlets) to 8 (sweep type shanks) depending on the distribution (spread) of the root system. The chisels should be placed 12 inches apart. The area treated should represent at least 50 percent of the root system on a surface area basis.
Rate and Use Recommendations: Use TELONE II at the rate of 9 to 30 gallons per broadcast acre (26 to 88 fluid ounces per 1000 feet of row per chisel based on 12 inch chisel spacing). Do not apply more than 30 gallons of TELONE II per broadcast acre regardless of the chisel spacing.
Sealing: Seal the chisel traces immediately by compacting the soil surface over the trace. A cultipacker is preferred.

Directions of Use Within the States of California, New Jersey, New York, Pennsylvania, and West Virginia

When to treat: Apply TELONE II after the fruit is harvested and before new bloom appears in the spring, except in the case of grapes when treatment should be made before harvest. Treatment before root flush occurs is preferred to avoid damage to new roots. Do not apply TELONE II when the is cold and/or wet.

Soil Preparation and Application: The soil should be in good seed bed conditions, free of clods, moisture at about one-half of field capacity with soil tempertures of 60° to 80° or 50° and warming at the depth of injection. Prepare the ground to be treated by discing to a depth of 6 inches as close as is practical to the tree/vine trunk; however, do not apply closer than 12 inches to the trunk. Apply the fumigant in the disced strips by injecting to a depth 4 to 6 inches. The chisel number may vary from 1 (Stockdale shank with 4 outlets) to 8 (sweep type shanks) depending on the distribution (spread) of the root system. The chisels should be placed 12 inches apart. The area treated should represent at least 50 percent of the root system on a surface on a surface area basis.

Rate and Use Recommendations: Use TELONE II at the rate of 9 to 15 gallons per broadcast acre (26 to 88 fluid ounces per 1000 feet of row per chisel based on a 12 inch chisel spacing). Do not apply more than 15 gallons of TELONE II per broadcast acre regardless of ther chisel spacing.

Sealing: Seal the chisel traces immediately be compacting the soil surface over the trace. A cultipacker is preferred. If an irrigation is to follow the pesticide application, the water should applied 20 to 28 hours after treatment to achieve maximum depth of pest control. Apply 4 to 6 acre inches of water.

Note: Damage to crops can occur if discing results in severe root pruning, particularly when the roots are mostly in the top few inches of the soil, or a hard pan or compacted layer of soil restricts the movement of the chemical, or if the treatment is applied to soil which is cold and/or wet at the point of injection.

Restrictions: Do not make more than one application per year. Do not graze or feed orchard cover crops. 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 # 261120)

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 following states, crops, acreage, and pesticide product quantity (maximum gallons) will be utilized in the EUP program. Applications will be made to the crops after the fruit is harvested and before new blooms appear in the spring.

State	Crop	Acreage	TELONE II (gallons)
Alabama	Peaches	10	300
California	Grapes	100	1500
	Almonds	50	750
	Peaches	50	750
	Walnuts	50	750
	Citrus	75	1125
	Plums	10	150
New Jersey	Peaches	10	150
New York	Cherries	25	375
North Carolina	Peaches	10	300
Pennsylvania	Peaches	10	150
South Carolina	Peaches	50	1500
West Virginia	Peaches	10	150
	Total	460	7950

In the case of grapes, applications will be made 2 weeks prior to harvest. The treatments will be made using soil fumigation injection equipment equipped with chisels designed to deliver the chemical approximately 4 to 6 inches below the soil surface. Plot sizes and replicates will vary depending on the experimental needs and the size of individual tests.

The maximum rate will be 15 gallons per acre except in Alabama. North Carolina and South Carolina where the maximum rate wil be 30 gallons per acre.

A duration of 3 years is necessary for the completion of this permit program. This period of time is necessary since it is expected that appliction will be made in each of the first two years of the experimental program. The third year is necessary to allow the collection of data on yield and growth response resulting from these applications.

101.2 Likelihood of Adverse Effects to Non-Target Organisms

The Dichlorpropene 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 are 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 # 261120, 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 of 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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