

US EPA ARCHIVE DOCUMENT

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SHAUGHNESSY NO.

5
REVIEW NO.

EEB REVIEW

DATE: IN 4/29/85 OUT 5/8/85

FILE OR REG. NO. 30182-on

PETITION OR EXP. PERMIT NO.

DATE OF SUBMISSION 4/12/85

DATE RECEIVED BY HED 4/26/85

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RD ACTION CODE/TYPE OF REVIEW 160/old chemical

TYPE PRODUCT(S): I, D, H, F, N, R, S plant growth regulator

PRODUCT MANAGER NO. R. Taylor (25)

PRODUCT NAME(S) Clipper 20 UL

COMPANY NAME ICI Americas, Inc.

SUBMISSION PURPOSE Proposed full registration on ornamental trees by injection

SHAUGHNESSY NO. CHEMICAL, & FORMULATION 8 A.I.

125601 Paclobutrazol 2.79%

ECOLOGICAL EFFECTS BRANCH REVIEW

Paclobutrazol

100 Submission Purpose and Label Information

100.1 Submission Purpose and Pesticide Use

Proposed full registration on ornamental trees by injection.

100.2 Formulation Information

(excerpted from proposed label)

(2RS,3RS)-1-(4-chlorophenyl)-4,4-dimethyl-2-(1H-1,2,4-triazol-1-yl)pentan-3-ol.....2.79%

INERT INGREDIENTS97.21%

Total100.00%

100.3 Application Methods, Directions, Rates

(Right Panel)

(excerpted from proposed label)

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Apply CLIPPER to ornamental trees by trunk injection according to one of the following techniques.

Method 1. Trunk Injection of CLIPPER 20 UL Using 4-Inch Spacing.

Tree Diameter at Breast Height (in)	Number of Injection Holes	Volume CLIPPER 20 UL Injected/Hole (ml)
8	6	25
9-11	8	25
12	10	25
13,14	10	38
15,16	12	38
17-19	14	38
20,21	16	38
22-24	18	38
25,26	20	38
27-29	22	38
30,31	25	38
32-34	26	38
35	28	38

Method 2. Trunk Injection of CLIPPER 20 UL Using
8-Inch Spacing.

Tree Diameter at Breast Height (in)	Number of Injection Holes	Volume CLIPPER 10 UL Injected/Hole (ml)
8	3	75
9-11	4	75
12	5	75
13,14	5	75
15,16	6	75
17-19	7	75
20,21	8	75
22-24	9	75
25,26	10	75
27-29	11	75
30,31	12	75
32-34	13	75
35	14	75

Injection Techniques

Injection holes should be uniformly spaced around the tree trunk and within 0 to 2 feet above the soil surface.

Drill injection holes horizontally into the trunk to intercept the outer sapwood. Injection holes should not exceed 2 1/2 inches (6.3 cm) in depth and 7/32 inches (5.5 mm) in width.

Use appropriate trunk injection equipment capable of injection pressures from 50 to 200 psi.

Precautions

Do not inject CLIPPER into:

- ° trees that do not appear healthy
- ° sugar maple trees tapped for sugar
- ° fruit or nut trees that will be harvested within one year after application.

100.4 Target Organisms

Ornamental trees

100.5 Precautionary Labeling

ENVIRONMENTAL HAZARDS

Do not contaminate water by cleansing of equipment or disposal of wastes.

In case of a significant spill, call CHEMTREC 800/424-9300.

101 Hazard Assessment

101.1 Discussion

EEB has reviewed a submission for registration on ornamental trees, previously (Bascietto February 15, 1983). This review indicated minimal hazard to wildlife and fish.

This submission proposes a maximum application rate is 75 ml/hole with 14 holes/trees. The holes are from 0 to 2 feet above the soil surface. Injection holes should not exceed 2 1/2 inches (6.3 cm) in depth and 7/32 inches (5.5 mm) in width. Injection pressure will be in the range of 50 to 200 psi. Following the Directions for Use are the following statements:

"Precautions

Do not inject CLIPPER into:

- trees that do not appear healthy
- sugar maple trees tapped for sugar
- fruit or nut trees that will be harvested within one year after application."

101.2 Likelihood of Adverse Effects to Nontarget Organisms

The bird and fish data indicate paclobutrazol is "practically nontoxic." However, the aquatic invertebrate data indicate that Daphnia are very sensitive. The 48 hour LC50 would place invertebrates in the "very highly toxic" category with a value of 33.2 ug/l.

The exposure to nontargets, other than those feeding directly on the tree sap, is expected to be minimal. The fate of those feeding on the sap is unknown. However, due to the desirability of growth in non-ornamentals (wild and timber) and the greater relative number of nonornamentals compared to ornamentals, if the sap-feeding invertebrates were reduced by this use on non-ornamentals untreated ornamentals would be

expected to provide sufficient reserve population for
reinvansion as resistant species evolved. Based on
this, minimal hazard is expected.

101.3 Endangered Species Considerations

Minimal hazard is expected for endangered species.

101.4 Adequacy of Toxicity Data

The six basic studies are valid. No further
studies are necessary for this use.

101.5 Adequacy of Labeling

The submitted labeling should add the following statement:
" Do not apply directly to water or wetlands."

102. Classification

Minimal pesticide impact is expected to wildlife
species. Therefore, no classification exposure
concentrations have been exceeded.

103 Conclusions

EEB has completed a full risk assessment (3)(c)(5)
finding) of the proposed registration of the proposed
registration of paclobutrazol for use on ornamental
trees. Based upon the available data and use information,
EEB concludes that the proposed use on ornamental trees
provides for minimal hazards to nontarget organisms.

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Date: 5-8-85

for
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