SHAUGHNESSEY NO. 113501

EEB BRANCH REVIEW

DATE: IN 9-8-83 OUT 11-4-83

FILE OR REG. NO. 100-607

PETITION OR EXP. PERMIT NO.

DATE OF SUBMISSION 8-26-83

DATE RECEIVED BY HED 9-6-83

RD REQUESTED COMPLETION DATE 11-29-83

EEB ESTIMATED COMPLETION DATE 11-22-83

RD ACTION CODE/TYPE OF REVIEW 335/Amendment

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

DATA ACCESSION NO(S).

PRODUCT MANAGER NO. H. Jacoby (21)

PRODUCT NAME(S) Ridomil 2E

COMPANY NAME Ciba-Geigy

SUBMISSION PURPOSE Proposed conditional registration of soil applications on broccoli, cabbage, and cauliflower

SHAUGHNESSEY NO. CHEMICAL, & FORMULATION % A.I.

113501 Metalaxyl 25.1

Inert Ingredients 74.9

Total 100.0
100 Pesticide Use

To control Oomycete fungi on broccoli, cabbage, and cauliflower.

100.1 Application Methods/Directions/Rates

Mixing Instructions

Add one-half to three-fourths of the required amount of water to the spray tank, add the proper amount of Ridomil 2E, then add the rest of the water. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

Ridomil 2E is usually compatible with Balan®, Bravo®, Dasanit® + Di-Syston®, Dithane® M-22, Dithane M-45, Dasanit + Nemacur®, Dasanit, D·z n®, Difolatan®, Enide®, Puradan®, Manzate®, Manzate 200, Mocap®, Mocap Plus 4-2EC, Paarlan®, and Tillam®.

To assure the compatibility of Ridomil 2E with these and other products, pour the products into a small container of water in the correct proportions. After thorough mixing, let stand for five minutes. If the combination remains mixed, or can be remixed readily, the mixture is compatible.

Directions for Use

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

FAILURE TO FOLLOW DIRECTIONS ON THIS LABEL MAY RESULT IN CROP INJURY OR POOR DISEASE CONTROL.

Calculate the amount of Ridomil 2E needed for band treatment by the formula:

\[
\text{band width in inches} \times \frac{\text{row spacing in inches}}{\text{broadcast rate per acre}} = \frac{\text{amount needed per acre of field}}{}
\]

Cole Crops (Cabbage, Broccoli, and Cauliflower)

Soil application (damping-off and basal stem rot):

Ridomil 2E applied as a soil application at seeding will control damping-off caused by Pythium spp. and basal stem rot caused by Phytophthora spp. Applications may be banded over the rows, broadcast or incorporated.
Band application. Apply 2 pts./A of Ridomil 2E in a 7-inch band over the seed row at planting in 20-50 gals. of water per acre. For broadcast applications use 4 pts./A. Lightly irrigate with sprinkler irrigation. For control of Pythium damping-off only use 1/2-1 pt./A.

Incorporated application. Apply 4-8 pts./A of Ridomil 2E as a broadcast soil application in 20-50 gals. of water and incorporate in the top 2 inches of soil. If plantings are made on beds, broadcast the Ridomil and incorporate before forming beds. For control of Pythium damping-off only use 1-2 pts./A of Ridomil 2E.

Note: Soil applications of Ridomil at 4 pts./A will provide 60-90 days control of downy mildew.

Foliar application (downy mildew):

Ridomil 2E applied foliarly in a tank mix with protectant fungicides provides effective control of downy mildew caused by Peronospora spp.

Apply 1/2-1 pt./A of Ridomil 2E as a tank mix with the lowest labeled rates of Bravo 500, Dithane M-22, or Manzate in a minimum of 25 gals. of water starting when conditions are favorable for disease development and continue at 14-day intervals throughout the season. Use a spreader at rates recommended on the product labels. Under heavy disease pressure, use the higher rate of Ridomil 2E.

Note: Do not apply more than 4 pts./A of Ridomil 2E/season as foliar applications, or make the last application within 7 days of harvest. Observe all precautions and restrictions that appear on the Bravo 500, Dithane M-22, and Manzate labels.

100.2 Purpose of Submission

To add soil application on broccoli, cabbage, and cauliflower.

100.3 Precautionary Labeling

Cause eye injury. Do not get in eyes. Avoid contact with skin or clothing. Harmful if swallowed, inhaled or absorbed through the skin. Avoid breathing vapors or spray mist.

101 Physical and Chemical Properties

101.1 Chemical Name

N-(2,6-dimethylphenyl)-N-(methoxycetyl)alanine methyl ester
101.2 **Common Name**
Ridomil 2E

101.3 **Structural Formula**
See review by R. Lee on 9-6-83

101.4 **Solubility**
See review by R. Lee on 9-6-83

102 **Behavior in the Environment**
Refer to Registration Standard, December 1981, for more details.

103 **Toxicological Properties**
See review by C. Laird on 10-14-83

104 **Hazard Assessment**
The proposed conditional registration of Ridomil 2E concerns a soil and foliar application (damping-off, basal stem rot, and downy mildew) on broccoli, cabbage, and cauliflower. Apply 1/2 to 8 pints of Ridomil 2E per acre depending upon application method used.

104.1 **Discussion**
Ridomil is currently registered for cotton, soybeans, forage legumes, grain crops, seed and vegetable, and ryegrass. The new uses will provide for an increase in acreage over previously registered uses. There will be an increase in exposure but not in risks to nontarget organisms. The expected residues are well below 1/10th the LC50 values.

104.2 **Endangered Species Consideration**
Based upon the available toxicology data and use pattern, no acute or chronic hazards are expected.
Conclusions

EEB has completed an incremental risk assessment (3(c)(7) finding) of the proposed conditional registration of Ridomil 2E for use on cabbage, broccoli and cauliflower. Based upon the available data EEB concludes that the proposed uses provide for a significant increase in exposure, but not in acute risks to nontarget organisms. No acute or chronic hazards are expected.

Curtis E. Laird 11-14-83
Curtis E. Laird
Fishery Biologist
Ecological Effects Branch (TS-769)

Norman Cook 11-14-83
Norman Cook
Head, Section #2
Ecological Effects Branch (TS-769)

Clayton Bushong, Chief
Ecological Effects Branch (TS-769)