EEB BRANCH REVIEW

DATE:	IN	OUT	IN	OUT	IN	OUT
	FISH & WILDLIFE		ENVIRONMENTAL CHEMISTRY		EFFICACY	
			8/17/77	11/29/77		

FILE OR REG. NO. 618-IU

PETITION OR EXP. PERMIT NO. 4F1518

DATE DIV. RECEIVED 8/4/77

DATE OF SUBMISSION

DATE SUBMISSION ACCEPTED 8/4/77 3C10-yes

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

PRODUCT MGR. NO. 21 Wilson

PRODUCT NAME(S) Mertect LSP Fungicide

COMPANY NAME Merck & Co., Inc.

SUBMISSION PURPOSE New use wheat seed treatment

CHEMICAL & FORMULATION Thiabendazole (2-(4-Thiazolyl) benzimidazole).

1.0 Introduction

1.1 Thiabendazole, Mertect.

1.2 Percent Active: 30

Flowable Formualtion

1.3 Application is for registration (?) of Mertect 230-F as a seed protectant against certain fungal diseases.

1.4 Routing sheet rather unclear - method of support lacking - 2A or 2B - and action type was stated as "rereview under new section 3-Regs." We asked PM 21 for clarrification and support method is -2B- and that "rereview..." meant to look at the data and bring it up to current standard. Dr. Rogoff's memo to Mr. Compt, of 8/12/77, is pertinent to this section.

2.0 Directions for Use

For Spring and Winter Wheat -

Seed - and Soil-borne Common Bunt (Stinking Smut): For ready-mix or slurry seed treaters, disperse 2.0 fluid ounces MERTECT LSP in an equal amount of water (1:1 ratio) and apply this dispers;ion per bushel.

Dwarf Bunt: For ready-mix or slurry seed treaters, disperse 4.0-6.0 fluid ounces MERTECT LSP in an equal amount of water (1:1 ratio) and apply this selected dispersion per bushel. For best results against Dwarf Bunt, plant winter wheat treated with MERTECT LSP as late in the growing season as is practical.

2.1 Disposal

Do not contaminate water by storage or disposal. Open dumping is prohibited. Do not reuse empty container. Pesticide Disposal - Pesticide, spray mixture, or rinsate that cannot be used or chemically reprocessed should be disposed of in a land-fill approved for pesticides or buried in a safe place away from water supplies. Container Disposal - Triple rinse (or equivalent) and dispose in an incinerator or landfill approved for pesticide containers, or bury in a safe place. General - Consult Federal, state, or local disposal authorities for approved alternative procedures such as limited open burning.

3.0 Discussion of Data

No new Environmental Chemistry data submitted. Previously submitted data has not been validated per Dr. Rogoff's memo to Mr. Compt of 8/12/77.

4.0 Conclusions

The legal weight for a bushel of wheat is 60 lbs. Approx. 4-6 pecks of wheat seed are used to plant (there are 4 pecks in 1 bushel). Approx. 60-90 lbs of wheat seed/A is used and the treatment rate calls for 2-9 fl$/bushel. At the highest rate, approx. 0.30 lbs ai/A would be incorporated into the soil at a depth of 1 1/2-3 inches.

Since the use involves incorporation, the photodecomposition on soil surfaces study would not be warranted. Similar uses for sweet potato seed roots are registered. Rotational crop uptake data showed no uptake and the chemical does not leach. Fish accumulation data does not show any accumulation. The rate of applied used is lower than for other uses and wheat is normally stored before planting, allowing for some degradation to occur. It would take quite a few successive plantings of wheat (≥3 at highest rate) to build up residues that could affect the soil microflora. We believe that this would be a major question if a field use for wheat would be submitted in the future.

5.0 Recommendations

5.1 We can concur with the proposed seed treatment use (wheat) for thiabendazole (see section 4.0 for further details).

PM NOTE - Routing sheet specified "rereview under new section 3 Regs." If this implies to validate old data, Dr. Rogoff's memo to Mr. Compt of 8/12/77, does not allow us (EC) from performing that function. If this request was to identify data gaps per se then, outright, the following exist:

(1) Photodecomposition on soil surfaces.

(2) Aged leaching.

(3) Effect of microbes on pesticides, sterile vs. nonsterile. For this use these studies are not warranted (rationale sect. 4.0 and review 618-75 (soybeans-77). However, based on the data presented field use applications in the future may warrant other data. This review was based on Dr. Rogoff's memo to Mr. Compt 8/12/77, and Mr. Johnson's memo to Mr. Compt. of 5/12/77.

REney 12/12/77

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