323EE

Date Out EFB: FEB 25 1982

To: Product Manager 21 Jacoby
TS-767

From Dr. Willa Garner
Chief, Review Section No. 1
Environmental Fate Branch

Attached please find the environmental fate review of:

Reg./File No.: 100-EUP-TN

Chemical: CGA-64250

Type Product: Fungicide

Product Name: Tilt

Company Name: Ciba Geigy

Submission Purpose: Protocol review - treated paddy soil on rotated fish after reflooding.

ZBB Code: other

Date in: 2/22/82

Date Completed: FEB 25 1982

Deferrals To:

_____ Ecological Effects Branch

_____ Residue Chemistry Branch

_____ Toxicology Branch

ACTION CODE: 450

EFB # 203

TAIS (level II)	Days
67	0.25

1. INTRODUCTION

1.1 The registrant (Ciba-Geigy) has submitted a protocol of a simulated field study to determine growth effects and residue levels in catfish cultivated in harvested rice paddies treated the previous year with TILT (CGA-64250).

2. DISCUSSION/RECOMMENDATIONS

The protocol involves taking soil from a rice paddy treated the previous year with TILT and spreading it on the bottom of an aquarium to a depth of 0.5 inches followed by flooding and introduction of catfish. Since such a shallow depth (0.5") of soil is not representative of field conditions, and we have accepted, in the past, laboratory fish accumulation studies (per the Guidelines) to determine whether rice could be followed by fish farming, it was suggested to the registrant, that a catfish accumulation study be conducted instead. (Telephone conversation with Richard Conn and Dr. Richard Honeycutt of Ciba-Geigy, telephone number 919-292-7100, on February 24, 1982).

Since TILT degrades in soil to bound residues with an aerobic halflife of the parent of 10 weeks under lab conditions, a catfish accumulation study, involving 30 days of aerobic aging will be worst case since the catfish will be exposed to higher levels of non-bound soil residues than if the soil were aged for 12 months as would occur under use conditions.

The registrant responded that they have already conducted a catfish bioaccumulation study, at about 6X the label rate, which resulted in a whole fish bioaccumulation factor of 15X.

I recommend they submit the catfish study for scientific evaluation and if it is acceptable, it will support rotation of rice to fish farming and a study conducted under the submitted protocol will not be necessary.

Samuel M. Creeger

Samuel M. Creeger
Feb. 24, 1982
Section #1, EFB
Hazard Evaluation Division