

US EPA ARCHIVE DOCUMENT

UNDATED

DATA EVALUATION REPORTilt®

1. Chemical: Propiconazole / Sha. No. 122101
2. Test Material: Tilt®
3. Study Type: Aquatic Field Residue Monitoring
4. Study ID: Author- Hosmer, Alan J.
Title- Dissipation of Tilt® 3.6E in Two Arkansas and Two Texas Rice Fields, Interim Report
Laboratory- Wildlife International
Date- April 29, 1987
Report No.- 108-261 (Arkansas)
 108-262 (Texas)
Study Sponsor- Ciba Geigy Corporation
Acc. No. 401833-09, Vol. 14 of 15
5. Review By: Daniel Rieder
Wildlife Biologist
EEB/HED
6. Approved By: Norman J. Cook
Section Head
EEB/HED

Duplicate, original signed DR

7. Conclusion:

This is an interim report, the field work is not completed.

The two sites sampled in Arkansas are identified as WR and LO and in Texas, BC and MO. Applications at BC and WR were twice at 0.169 lb. ai/acre and twice at 0.675 lb. ai/acre at LO and MO (4X label rate). Reported residues are provided in Figures 1 through 8. Maximum residues at outflow from treated field were:

<u>Site</u>	<u>Day</u>	<u>PPB</u>
WR (Ark)	T1+1	51.5
LO (Ark)	T1+5	21.5*
BC (Tex)	T2+0	25
MO (Tex)	T2+0	35.5*

* Extrapolated by dividing measured residues by 4 because application rate was 4X maximum label rate.

This field study does not fulfill a requirement for an aquatic residue monitoring study. However, it provides useful data for estimating the aquatic concentrations likely to occur following application of Tilt® to rice floodwater.

/

8. Recommendations: Since this is an interim report, the registrant should submit a complete report when the study is finished. At that time EEB will perform a complete evaluation of the entire field study.

9. Background: This study was submitted to support registration of Tilt® on rice.

10. Discussion of Individual Studies: This report described two field studies, one in Arkansas (report no. 108-261) and the other in Texas (report no. 108-262).

11. Materials and Methods:

For each site, physical and chemical soil characteristics were determined; DO, Temperature, and pH were measured in floodwater, and meteorological data were collected. Water and sediment samples were collected 1 day pre-application, then 1, 3, 5, 7, and 13 days after the first application and 1, 2, 3, 5, 7, 14, 28, 60, 90, 180 and 210 days post-second application. Additional samples were reported, but those dates have not yet arrived, so they are assumed to be proposed sample dates.

Report 108-261

Site WR

Tilt® was applied to site WR by air at 0.169 lb. ai/acre on 8/7/86 and again on 8/21/86. The treatment plot was actually part of a field and encompassed only 1.9 acres. See Figures 9 and 10. Samples of water and sediment were collected from within the treatment areas and from the outlet and discharge ditch.

Site LO

Tilt® was applied to site LO by air at 0.675 lb. ai/acre (4X label application rate) on 8/11/86 and again on 8/25/86. The treatment plot was actually part of a field and encompassed only 1.5 acres. See Figures 11 and 12. Samples of water and sediment were collected from within the treatment areas and from the outlet and discharge ditch.

Report 108-262

Flow-through irrigation was employed in these fields, therefore, treated floodwater moved through the field and was continually discharged.

Site BC

Tilt® was applied to site BC by air at 0.169 lb. ai/acre on 9/5/86 and again on 9/20/86. The treatment plot was actually part of a field and encompassed only 1.8 acres. See Figures 13 and 14. Samples of water and sediment were collected from within the treatment areas and from the outlet and discharge ditch.

Site MO

Tilt® was applied to site MO by air at 0.675 lb. ai/acre (4X label application rate) on 9/4/86 and again on 9/18/86. The treatment plot was actually part of a field and encompassed only 2.5 acres. See Figure 15. Samples of water and sediment were collected from within the treatment areas and from the outlet and discharge ditch.

12. Reported Results:

Rainfall for each site is reported in Figures 16 through 19. Site WR (Ark) received 2 inches of rain within two days of the first treatment. Site BC and MO (Tex) received 1.3 inches of rain within 4 and 5 days of the first treatment, respectively.

Unscheduled discharges occurred at site WR when heavy rains began shortly after treatment one, August 7 and 8, and on September 15 and 18 and October 1. At site LO, the gate was raised 3-4 inches to preclude discharge, presumably before the first treatment. However, discharge did occur on August 16, after water was added just before a rain of 0.4 inches.

Water flowed continuously through sites BC and MO.

See Figures 1 through 8 for reported aquatic residues. The line graphs represent residues in field water, the bar graphs show concentrations in discharge water. The measured concentrations from sites LO and MO are assumed to be 4X what would be expected. These levels should be divided by 4 before using them in a risk assessment for an application rate of 0.169 lb. ai/acre.

Sediment residue analysis results were not provided. These must be submitted when they become available.

13. Study Author's Conclusions:

Tilt residues in discharge water from a rice field treated with 0.169 lb. ai/acre should be between 21.5 and 51.5 ppb. See the attached summaries excerpted from the report.

14. Reviewer's Evaluation:

The study has not been completed, so it could not be thoroughly reviewed. The sampling schedule was adequate, and both water and sediment were collected. It is significant that heavy rain caused overflow shortly after treatment at site WR, and that continuous flow was employed at sites BC and MO. These situations would be expected to result in worst case concentrations in receiving water.

However, while the study provided information useful in a risk assessment, it was deficient in some respects which preclude it from fulfilling the requirements for an aquatic residue monitoring study.

- The treatment plots were too small. Treatment plots should at least encompass an entire field and preferably several fields draining into one stream which supports aquatic life.

- The treatment rate was 0.169 lb. ai/acre with two applications, which is only one of the label rates. Residue monitoring should be performed using both that rate and the 0.282 lb. ai/acre with one application. However, extrapolation from one rate to another is possible.

- Samples of water and sediment should be collected from stations further downstream.

- More treatment sites (8) would be preferred to accommodate "between site" variability and to adequately characterize the actual exposure of Tilt in aquatic habitats.

Classification: Supplemental

15. One-Liner: NA

16. CBI Appendix: The Figures and attached excerpts are CBI.

Attachments

Page _____ is not included in this copy.

Pages 6 through 29 are not included in this copy.

The material not included contains the following type of information:

- Identity of product inert ingredients.
 - Identity of product impurities.
 - Description of the product manufacturing process.
 - Description of quality control procedures.
 - Identity of the source of product ingredients.
 - Sales or other commercial/financial information.
 - A draft product label.
 - The product confidential statement of formula.
 - Information about a pending registration action.
 - FIFRA registration data.
 - The document is a duplicate of page(s) _____.
 - The document is not responsive to the request.
-

The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.
