

US EPA ARCHIVE DOCUMENT

Shaugh. No. 080803

Date out of EAB: DEC 3 1987

To: R. Taylor  
Product Manager 25  
Registration Division (TS-767)

From: Patrick Holden, Team Leader PWH  
Ground Water Team  
Exposure Assessment Branch, HED (TS-769)

Attached, please find the environmental fate review of:

Reg./File No.: 100529

Chemical: Atrazine

Type Product: Herbicide

Product Name: Atrazine

Company Name: CIBA-GEIGY Corporation

Submission Purposes: Submission of monitoring findings

Date In: 10/24/87

Date Completed: 12/1/87

ACTION CODE: 405

EAB #(s): 80072

Reviewing Time: .1

Monitoring study requested:

Monitoring study voluntarily:

Deferrals To:  Ecological Effects Branch  
 Residue Chemistry Branch  
 Toxicology Branch

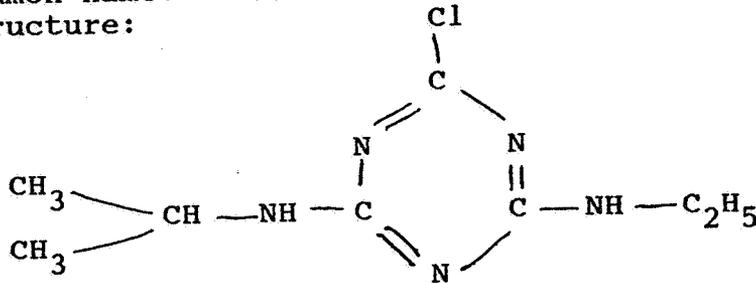
EVALUATION OF MONITORING DATA

1. CHEMICAL:

Chemical name: 2-chloro-4-ethylamino-6-isopropyl-amino-1,3,5-triazine

Common name: atrazine

Structure:



2. TEST MATERIAL:

Not applicable.

3. STUDY/ACTION TYPE:

Evaluation of monitoring data.

4. STUDY IDENTIFICATION:

Title: two letters from Karen Stumpf to Robert Taylor, both dated Oct 8, 1987

Author: Karen S. Stumpf, Senior Regulatory Specialist

Submitted by: CIBA-GEIGY Corporation  
Agricultural Division

P.O. Box 18300

Greensboro, North Carolina 27419

Identifying #: 100-529

Issue Date: Oct. 24, 1987

Accession No: not given

Record No: 206226

5. REVIEWED BY:

Matthew N. Lorber, Agricultural Engineer Matthew Lorber Date 12/1/87  
Ground Water Team/EAB/HED

6. APPROVED BY:

Patrick Holden, Team Leader  
Ground Water Team/EAB/HED

Patrick Holden Date 12/2/87

7. CONCLUSIONS:

The first letter discusses results of a study entitled, "Pesticide Contamination of Groundwaters in Mahantango Creek Watershed". This watershed is located in Pennsylvania in an area noted for agriculture. In that report, 20 wells were analyzed for 8 pesticides, including atrazine and metolachlor. Metolachlor was not detected, but atrazine was detected in 14 of 20 wells, with concentrations ranging from 0.013-1.11 ppb.

The second letter reports on findings atrazine and nitrate in CIBA-GEIGY's ongoing ground-water monitoring project. Sampling occurred July 10-15, 1987. Forty samples were taken, and 11 positives were reported in four states including Pennsylvania, Nebraska, Wisconsin, and Minnesota. The limit of detection was 0.1 ppb.

Both letters are attached to this review for reference and have additionally been filed in EAB's monitoring filing system.

8. RECOMMENDATIONS:

Karen Stumpf has additionally indicated that a finding of 3.2 ppb of atrazine was found in West Branch, Iowa as part of a study being conducted by the Iowa State Department of Natural Resources. She notes that further information on this detection can be supplied at the Agency's request. EAB would like to see information on this study by Iowa DNR. Karen notes that information on the Pennsylvania study can be made available. EAB would also like to see that study.

Finally, CIBA-GEIGY notes that the findings reported in the second letter are part of their "ongoing monitoring project". A check of EAB's files indicates that a protocol for this project has not been submitted, or at least has not been reviewed by EAB. EAB would like to obtain information on this ongoing project, including all details of study design, and all results to date summarized. Please request this information from CIBA-GEIGY.

9. BACKGROUND:

Not applicable

10. DISCUSSION:

The mean of the 11 positive detections in CIBA-GEIGY's ongoing study is 1.17 ppb, with a high of 6.7 ppb. The percentage of hits is 27.5% (11/40). All positive samples had residues of nitrate, with a mean of 16 ppm and a high of 25. Interpretation of these results cannot be accomplished without information on study design: are these samples from drinking water wells only; were the wells selected based on some criteria, etc. For this reason, information on study design is requested.

# CIBA-GEIGY

Agricultural Division  
CIBA-GEIGY Corporation  
P.O. Box 18300  
Greensboro, North Carolina 27419  
Telephone 919 292 7100

October 8, 1987

Mr. Robert J. Taylor  
Product Manager (25)  
Registration Division (TS-767C)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
401 M. Street, S.W.  
Washington, D.C. 20460

Dear Mr. Taylor:

SUBJECT: REPORT OF ATRAZINE FINDINGS IN GROUNDWATER

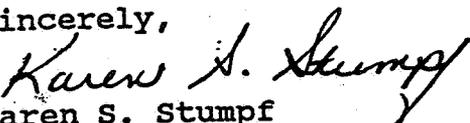
In keeping with the intent of the Agency's proposed Interpretive Rule of FIFRA Section 6(a)(2) for the reporting of adverse effects, CIBA-GEIGY herewith submits the following report of findings of atrazine in groundwater.

Recently we obtained a copy of a study entitled, "Pesticide Contamination of Groundwaters in the Mahantango Creek Watershed." This watershed is located in an area of Pennsylvania primarily noted for its agriculture. Eight different pesticides, including atrazine and metolachlor, were analyzed for in twenty (20) wells.

Metolachlor was not detected in any of the wells. Atrazine was detected in 14 of the 20 wells, at concentrations ranging from .013 - 1.11 parts per billion (ppb).

Should the Agency require more information regarding this study, please advise.

Sincerely,

  
Karen S. Stumpf  
Senior Regulatory Specialist  
Regulatory Affairs

# CIBA-GEIGY

Agricultural Division  
CIBA-GEIGY Corporation  
P.O. Box 18300  
Greensboro, North Carolina 27419  
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October 8, 1987

Mr. Robert J. Taylor  
Product Manager (25)  
Registration Division (TS-767C)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
401 M. Street, S.W.  
Washington, D.C. 20460

Dear Mr. Taylor:

**SUBJECT: REPORT OF ATRAZINE FINDINGS IN GROUNDWATER**

In keeping with the intent of the Agency's proposed Interpretive Rule of FIFRA Section 6(a)(2) for the reporting of adverse effects, CIBA-GEIGY herewith submits the following report of findings of atrazine in groundwater taken from the most recent round of sampling in our ongoing monitoring project.

Sampling Date: July 10-15, 1987

Number of Samples Analyzed: 40

Detection Limit: 0.1 ppb

Positive Detections:

<u>Location</u>	<u>Atrazine (ppb)</u>	<u>Nitrate (ppm)</u>
Holt Co., NE	0.35	25
Todd Co., MN	0.26	23
Todd Co., MN	6.7	23
Walworth Co., WI	0.13	1
Hall Co., NE	1.4	23
Hall Co., NE	0.19	9
Hall Co., NE	0.4	22
Hall Co., NE	0.78	21
Berks Co., PA	2.3	8
Berks Co., PA	0.28	11
Berks Co., PA	0.13	12

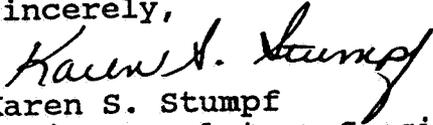
Please note that the findings reported for atrazine were detected using a Hall electrolytic conductivity detector operating in the nitrogen specific mode. Gas chromatographic-mass spectrometry confirmation of these findings will be conducted in the near future.

These results are provided for the Agency's information.

In addition, 3.2 ppb of atrazine were detected in a town well in West Branch, Iowa. This detection was part of a study conducted by the State Department of Natural Resources to determine the presence of synthetic organic chemicals and pesticides in drinking water.

Should the Agency require further information on the latter detection, please advise.

Sincerely,



Karen S. Stumpf  
Senior Regulatory Specialist  
Regulatory Affairs