

US EPA ARCHIVE DOCUMENT

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Date out of EAB: OCT - 9 1987

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

From: Matthew N. Lorber, Acting Team Leader  
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

ACTION CODE: 405

Date In: 9/16/87

EAB #(s): 70956

Date Completed: 10/9/87

Reviewing Time: .1

Monitoring study requested:

Monitoring study voluntarily:

Deferrals To:  Ecological Effects Branch

Residue Chemistry Branch

Toxicology Branch

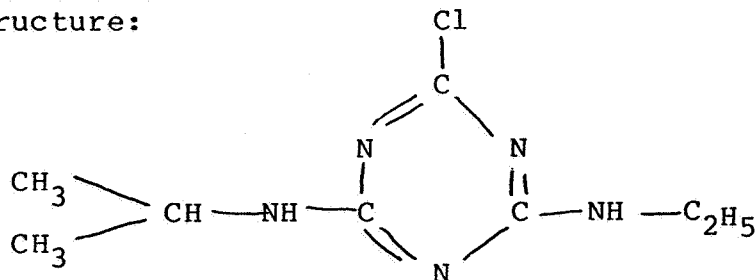
EVALUATION OF MONITORING DATA

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: letter and attachments from Karen Stumpf to Robert Taylor dated Aug 24, 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: Sep. 16, 1987

Accession No: not given

Record No: 202978

5. REVIEWED AND APPROVED BY:

Matthew N. Lorber, Acting Team Leader  
Ground Water Team/EAB/HED

Matthew Lorber Date 10/19/87

6. CONCLUSIONS:

This letter reports on findings of simazine and atrazine in Hillsdale and St. Joseph counties, and additional sampling with no positives reported in Kalamazoo county. The letter

will be retained in EAB files for future reference.

7. RECOMMENDATIONS:

No recommendations appropriate.

8. BACKGROUND:

This letter was not sent to EPA in response to any data requirement; rather, it provides the Agency with this additional information "in keeping with the intent of EPA's Interpretive Rule regarding the reporting of potential adverse effects under Section 6(a)(2) of FIFRA...".

9. DISCUSSION

The submitted data is summarized in three tables which are attached to this review, and which are also stored in EAB's ground water monitoring filing system. Briefly, sampling for atrazine and simazine on two dates, 7/17 and 7/30, in Kalamazoo county in 9 different wells did not show any positive hits. The well depths were unknown for four of these wells, but for the other five wells, the depth was known and was between 20 and 96 ft deep. Positive findings for both pesticides were noted in St. Joseph and Hillsdale counties. Briefly, there were results listed for 11 wells sampled in St. Joseph county on 2 dates: 13 samples, 6 positive for atrazine (mean of positives = 50 ppb, range = 16-107), 1 positive for simazine (at 11 ppb). The well depths were unknown for 3 of these wells, but for the other 8 wells, the depths were shallow at between 16 and 26 ft deep. There were results listed for 8 wells and one spring sampled in Hillsdale county: 19 samples, 14 positive for atrazine (mean = 46 ppb, range = 1-210 ppb), 6 positive for simazine (mean = 7 ppb, range = 1-16 ppb). There 8 wells ranged in depth from 30 to 200 ft deep, with the deepest well identified as an irrigation well.

These results were part of a joint monitoring effort of the Water Resources Institute at Michigan State University and the Michigan Department of Public Health. These institutions are currently being contacted to obtain details of the study, since they are not available with this submission. It was noted that the current EPA guidance level for atrazine was 3 ppb, indicating that these results are significant from a health standpoint.

Results of Herbicide Screening for RGC Project, 1987

Atr = Atrazine, Sim = Simazine

Kalamazoo County:

<u>Well- Depth</u>	<u>Twp</u>	<u>7/17</u>		<u>7/30</u>	
		<u>Atr</u>	<u>Sim</u>	<u>Atr</u>	<u>Sim</u>
26-?	Ross	nd	nd	-	-
27-?	Ross Irrig	nd	nd	-	-
28-?	Richland	nd	nd	-	-
29-?	Richland Barn	nd	nd	-	-
30-20'	Prairie Ronde	-	-	nd	nd
31-46'	Schoolcraft	-	-	nd	nd
32-77'	Wakeshma	-	-	nd	nd
33-60'	Richland	-	-	nd	nd
34-96'	Richland	-	-	nd	nd

Results of Herbicide Screening for RGC Project, 1987

Atr = Atrazine, Sim = Simazine

St. Joseph County:

<u>Well-Depth</u>	<u>Twp</u>	<u>6/24</u>		<u>7/17</u>	
		<u>Atr</u>	<u>Sim</u>	<u>Atr</u>	<u>Sim</u>
9-?	Fawn River	nd	nd	-	-
10-26'	Florence	23	nd	15	nd
11-16'	Colon	107	11	-	-
12-18'	Florence Barn	53	nd	23	nd
13-25'	Colon	nd	nd	-	-
14-18'	Burr Oak Barn	16	nd	-	-
15-25'	Leonidas	nd	nd	-	-
16-?	Constantine	-	-	nd	nd
17-?	Constantine	-	-	nd	nd
18-18'	Constantine	-	-	nd	nd
19-20'	Constantine	-	-	nd	nd
20-?	Florence	wells 11 and 14 also sampled on 7/27 both had nd levels of both herbicides			
21-?	Florence	wells 20-25 had nd levels of both herbicides			
22-?	Florence	herbicides			
23-?	Mendon	wells 20-22 sampled on 7/27 only			
24-87'	Mendon	wells 23-25 sampled on 7/30 only			
25-18'	Park				

Results of Herbicide Screening for RGC Project, 1987

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Hillsdale County:

<u>Well-Depth</u>	<u>Tw</u>	<u>7/2</u>		<u>7/13</u>	
		<u>Atr</u>	<u>Sim</u>	<u>Atr</u>	<u>Sim</u>
All Results in ppb ( $\mu\text{g}/\text{l}$ )					
1-68'	Moscow	7	nd	1	nd
2-30'	Moscow	23	nd	14	nd
3-76'	Moscow	43	1	27	nd
" (dup)	Moscow	-	-	23	nd
4-spring	Moscow	nd	nd	nd	nd
5-200' irr	Moscow	-	-	nd	nd
" (dup)	Moscow	-	-	nd	nd
6-30'	Scipio	83	10	1	16
7-159'	Scipio	47	nd	12	nd
8-55'	Litchfield	210	8	76	4
" (dup)	Litchfield			83	2
8a-100'	Litchfield	nd for all analyses (sampled only on 7/28)			

NOTE:

NO DETECTABLE ATRAZINE/SIMAZINE ON 3/30, 5/14, AND 7/28  
ALL WELLS IN HILLSDALE COUNTY

Notes: EPA guideline for atrazine in drinking water = 3 ppb ( $\mu\text{g}/\text{l}$ )

level of detection for Atrazine and Simazine = .01 ppb

nd = not detectable

- = no sample