

US EPA ARCHIVE DOCUMENT

DP Barcode : 179345
PC Code No. : 113501
EFGWB Out :

6/24/92

TO: Susan Lewis
Product Manager #21
Special Review and Reregistration Division (H7508W)

FROM: Elizabeth Behl, Head *E. Waldman for Eb*
Ground Water Technology Section
Environmental Fate & Ground Water Branch/EFED (H7507C)

THRU: Henry Jacoby, Chief *Henry Jacoby*
Environmental Fate & Ground Water Branch/EFED (H7507C)

Attached, please find the EFGWB review of...

Reg./File # : ID: 283696

Common Name : Metalaxyl

Product Name : Ridomil

Company Name : Ciba-Geigy

Purpose : Review 6(a)2 Adverse Pesticide Residue Data

Type Product : Fungicide

6(a)2

Action Code : 405 EFGWB #(s): 92-1044 Total Review Time = 2.0 days

EFGWB Guideline/MRID/Status Summary Table: The review in this package contains...

161-1	162-4	164-4	166-1
161-2	163-1	164-5	166-2
161-3	163-2	165-1	166-3
161-4	163-3	165-2	167-1
162-1	164-1	165-3	167-2
162-2	164-2	165-4	201-1
162-3	164-3	165-5	202-1

Y = Acceptable (Study satisfied the Guideline)/Concur P = Partial (Study partially satisfied the Guideline, but additional information is still needed)
S = Supplemental (Study provided useful information, but Guideline was not satisfied) N = Unacceptable (Study was rejected)/Non-Concur

JUN 24 1992

MEMORANDUM:

Subject: Review of Detections of Metalaxyl and Other Pesticide Residues in a North Carolina Private Rural Well. (EFGWB# 92-1044)

From: John Jordan, Ph.D. *John Jordan*
Ground-Water Technology Section
EFGW Branch/EFED

Thru: Elizabeth Behl *E. Waldman for EB*
Head, Ground-Water Technology Section
EFGW Branch/EFED

To: Susan Lewis
Product Manager # 21

The North Carolina Cooperative Extension Service reported detections of metalaxyl, alachlor, triazines, and metribuzin in ground water from a private supply well located in Hoke County North Carolina. The information was sent to EPA as a result of a previous 6(a)2 action, EFGWB # 92-0528, in which a detection of 136 ppb metalaxyl was found. In this new 6(a)2 action the 136 ppb metalaxyl detection was confirmed and additional detections were reported, including a 815 ppb metalaxyl residue detection in ground water.

The letter from the Extension Service contains the following information:

June, 1990

136 ppb metalaxyl (immunoassay)
15 ppb alachlor/metolachlor (immunoassay)
0.2 ppb triazines (immunoassay)

November, 1990

66 ppb metalaxyl (immunoassay)
7 ppb alachlor/metolachlor (immunoassay)
0.1 ppb triazines (immunoassay)

March, 1991

815 ppb metalaxyl (immunoassay)
35 ppb alachlor/metolachlor (immunoassay)
0.2 ppb triazines (immunoassay)
274 ppb metolachlor (GC)
0.9 ppb metribuzin (GC)

The well in which the pesticide detections were found has been used for pesticide and fertilizer mixing for several years. The well is less than 100 feet from a pesticide storage/mixing area and approximately 200 feet from soybean and cotton fields. There was no grouting around the casing and the well head was unprotected.

2.

Testing of a private well approximately 1/4 mile away from the contaminated well indicated no contamination of ground water. Point source contamination is suspected.

Additional information about the Hoke and Moore County monitoring survey was requested from the North Carolina Extension Service in EFGWB # 92-0528 and by letter from John Jordan (EFGWB Ground-Water Technology Section) on June 10, 1992 (attached). Although individual water quality results and well characteristics are confidential, ground-water detections from survey sample results are, again, requested in this action.

attachments:

TRANSMITTAL DOCUMENT

NAME AND ADDRESS OF SUBMITTER

NORTH CAROLINA COOPERATIVE EXTENSION SERVICE
BOX 7625

RALEIGH, NC 27695-7625
REGULATORY ACTION IN SUPPORT OF WHICH THIS PACKAGE IS SUBMITTED

6(a)(2) METALAXYL

SUBMISSION DATE

6/10/92

LIST OF SUBMITTED STUDIES:

LETTER TO JOHN JORDAN, DATED MAY 29, 1992
REGARDING SAMPLING OF PRIVATE WATER
SUPPLY WELLS CONDUCTED BY THE NORTH
CAROLINA EXTENSION SERVICE

4 pages

42347001

MRID



North Carolina Cooperative Extension Service

NORTH CAROLINA STATE UNIVERSITY
COLLEGE OF AGRICULTURE & LIFE SCIENCES

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E-MAIL: jennings@bae.ncsu.edu

VOICE: (919) 515-6795

FAX: (919) 515-6772

May 29, 1992

Mr. John Jordan
U.S. Environmental Protection Agency
Mail Code H7507C
401 M St. SW
Washington, DC 20460

Dear Mr. Jordan:

As per your telephone request, I am sending you information regarding sampling of private water supply wells conducted by the North Carolina Cooperative Extension Service. The well you inquired about was sampled as part of a study of 100 wells in Moore and Hoke Counties initiated in 1990. Objectives of the study were to: 1) estimate the extent of pesticide contamination of private wells in this environmentally-sensitive region, 2) determine factors contributing to pesticide contamination, and 3) increase public awareness of water quality protection issues.

The study in Moore and Hoke Counties was part of Extension's ongoing Ground Water Education program conducted under the Water Quality and Waste Management Initiative. Well testing for potential contaminants, including pesticides and nitrate, is a fundamental component of this education program. Information on well construction and maintenance, wellhead protection, health effects of contaminated water, and water treatment options is provided to individuals participating in the program through mailings, public meetings, and site visits in some cases. Extension's well testing program is an educational service to private well users who volunteer to participate; therefore individual water quality results and well characteristics remain confidential.

The well you inquired about is located in Hoke County and was tested for pesticides and nitrate in June and November of 1990 and March of 1991. Site investigations were conducted following each sampling period. Pesticide analyses were conducted using immunoassay procedures for the first two sampling periods and using both immunoassay and conventional GC procedures for the third sampling period. Results for pesticide and nitrate detections in this well are as follows:

June 1990:	136 ppb metalaxyl (immunoassay)
	15 ppb alachlor/metolachlor (immunoassay)
	0.2 ppb triazines (immunoassay)
	26 ppm nitrate-nitrogen

November 1990: 66 ppb metalaxyl (immunoassay)
7 ppb alachlor/metolachlor (immunoassay)
0.1 ppb triazines (immunoassay)
29 ppm nitrate-nitrogen

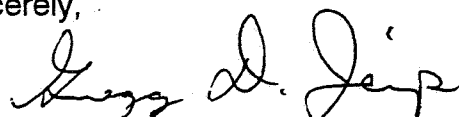
March 1991: 815 ppb metalaxyl (immunoassay)
35 ppb alachlor/metolachlor (immunoassay)
0.2 ppb triazines (immunoassay)
274 ppb metolachlor (GC)
0.9 ppb metribuzin (GC)
34 ppm nitrate-nitrogen

During site visits, information was collected regarding well characteristics. The following information was current as of June, 1990. The well is located on a farm and is used only for chemical preparation. It is less than 100 feet from a pesticide storage area, less than 100 feet from a pesticide mixing area, and less than 200 feet from soybean and cotton fields. It is a 1 and 1/4 inch washed down well of unknown age approximately 20 feet deep in sandy soil. There is neither grouting around the casing nor a concrete pad at the ground surface to protect from direct contamination.

The well has been used for pesticide and fertilizer mixing for several years. We concluded that the likely cause of contamination was improper handling of pesticides and fertilizers during mixing at the wellhead. The well user was encouraged to properly abandon the well and to use recommended procedures for future chemical mixing. He was fully cooperative with Extension staff during follow-up investigations and gained an understanding of the potential impacts of poor chemical handling practices. Testing of the nearest private well (over 1/4 mile away) indicated no contamination.

Please contact me if you have further questions regarding this well specifically or other components of Extension's education activities.

Sincerely,



Gregory D. Jennings, Ph.D.
Assistant Professor and Extension Specialist

cc: Dr. Frank Humenik, NCSU
Dr. Sterling Southern, NCSU
Dr. Henry Wade, North Carolina Department of Agriculture



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 10 1992

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Dr. Gregory D. Jennings, Ph.D.
Assistant Professor and Extension Specialist
North Carolina Cooperative Extension Service
North Carolina State University
College of Agriculture and Life Sciences
Department of Biological and Agricultural Engineering
Box 7625
Raleigh, North Carolina 27695-7625

Dear Dr. Jennings:

It was enjoyable talking with you by telephone. Thank you for your response to my inquiry concerning the 136 ppm detect of metalaxyl. The March, 1991 detection of 815 ppb metalaxyl is of concern to us but I can understand why you classified the 100-well study as confidential.

We are in the process of updating the EPA/OPP, 1988 "Pesticides in Ground-Water Data Base" and any data which you can release would be greatly appreciated. The updated pesticide detections data base publication should be completed this year and any information you can contribute could be incorporated into the publication.

In any event, your cooperation is appreciated and I look forward to meeting you.

Sincerely,

A handwritten signature in cursive script that reads "John Hunt Jordan".

John Hunt Jordan, Ph.D.
Ground-Water Technology Section

John - FYI (file w/NC Metalaxyl 6a2)

June 4th

NOTE TO: Kate Bouve'
Rebecca Torchia

Once we receive a 6(a)(2) report notifying us of a contaminated well, we routinely follow-up with a letter requesting additional information. The attached letter from the North Carolina Cooperative Extension Service is a response to one of our letters. This letter has raised some concern within EFED because it indicates that the contaminated well is less than 100 feet from a pesticide storage area and less than 100 feet from a pesticide mixing area, which is likely to be the cause of the contamination. Apparently the farm is several thousand acres, and all of the mixing/loading of pesticides is done in this one location. We thought that this might be of interest to you. Is there any potential for enforcement action here? Also, people on neighboring farms could be exposed, depending on the extent of the existing contamination. It is important to note that the state is trying to work with the farmer and that they have requested guidance regarding additional action from us.

Also, I do not know if this detection has come through the 6(a)(2) team. I was not able to find it on any of the agendas, but of course I could have missed it.

If you have any questions, feel free to call Betsy Behl (305-6128) or myself (305-5196). Please let us know what you think. Thanks!

Ingrid

Attachment

cc: Anne Barton (no attachment)
Betsy Behl (no attachment)
Kathy Monk
John Lin