US EPA ARCHIVE DOCUMENT
To: Robert Taylor, PM #25  
Special Review and Reregistration Division (H7508W)

From: Elizabeth Behl, Head  
Ground Water Technology Section  
Environmental Fate & Ground Water Branch/EFED (H7507C)

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

Attached, please find the EFGWB review of...

<table>
<thead>
<tr>
<th>Common Name:</th>
<th>Bromacil</th>
<th>Trade name:</th>
<th>Hyvar, Krovar, Krovar II</th>
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<tbody>
<tr>
<td>Company Name:</td>
<td>Du Pont Agricultural Products</td>
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<tr>
<td>ID #:</td>
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<tr>
<td>Purpose:</td>
<td>Review Supplemental Submission, Bromacil 6(a)(2)</td>
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<tr>
<th>Type Product:</th>
<th>Action Code:</th>
<th>EFGWB #(s):</th>
<th>Review Time:</th>
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<tbody>
<tr>
<td>Herbicide</td>
<td>001</td>
<td>94-0020</td>
<td>1 day</td>
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STATUS OF STUDIES IN THIS PACKAGE:

<table>
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<tr>
<th>Guideline #</th>
<th>MRID</th>
<th>Status¹</th>
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<tr>
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STATUS OF DATA REQUIREMENTS ADDRESSED IN THIS PACKAGE:

<table>
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<th>Guideline #</th>
<th>Status²</th>
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¹Study Status Codes: A = Acceptable  U = Upgradeable  C = Ancillary  I = Invalid  
²Data Requirement Status Codes: S = Satisfied  P = Partially satisfied  N = Not satisfied  R = Reserved  W = Waived.
1. CHEMICAL:

   Chemical name: 5-Bromo-3-sec-Butyl-6-Methyluracil
   Common name:  Bromacil
   Trade name(s):  Hyvar, Krovar, Krovar II
   Structure:

2. TEST MATERIAL:

   Not Applicable.

3. STUDY/ACTION TYPE:

   Review Supplemental Submission, Bromacil 6(a)(2) Action

4. STUDY IDENTIFICATION:

   Title: Information Submitted in Accordance with FIFRA Section
   Author: Ian Wellings
   Identifying No.: 012301
   DP Barcode: D191677
   EFGWB #: 93-0768
   Date Sent to EFED: 5/8/93

5. REVIEWED BY:

   Kevin J. Costello
   Signature: ____________________________
   Hydrologist
   OPP/EFED/EFGWB/Ground-Water Section
   Date 10/19/93

6. APPROVED BY:

   Elizabeth Behl
   Signature: ____________________________
   Section Head
   OPP/EFED/EFGWB/Ground-Water Section
7. **CONCLUSIONS:**

The data provided in this 6(a)2 package serves as further evidence of the severe vulnerability of the soils of the Central Ridge region of Florida to the leaching of bromacil to ground water. In response to the convincing weight of evidence, the State of Florida has recently banned the use of bromacil on certain vulnerable soils of the Central Ridge. In a memo dated October 19, 1993, EFGWB recommended that EPA impose these same restrictions on the use of bromacil, revising the recommendations of the memo to Walter Waldrop of September 21 that called for use restrictions based on depth to the water table.

It would be useful if future 6(a)2 submissions reported new detections more clearly. Although it is useful to have past and present detections above the HAL presented together, no attempt was made to distinguish between new and previously reported results. Wells with remediation "pending" presumably represent new detections, but distinguishing between all other detections would require revisiting past submissions. It is also unclear why a "remediation date" is provided for those wells for which remediation is still pending. The meaning of this term must be defined for this submission to be acceptable.

It is important to note that EFGWB has not accepted dismissal of detections in the Goins well as fact. Other interpretations of the De Soto City ground water contamination, such as the assertion that high concentrations may have resulted from a ground-water plume due to an offsite point source, are largely conjecture and not supported by data.

8. **RECOMMENDATIONS**

1. The registrant should more clearly present data indicating new ground-water detections of bromacil in future 6(a)2 reports, so they can easily be distinguished from previously submitted data. The data submitted in this report must be resubmitted in a clearer format.

2. The registrant may submit semi-annual compilations of bromacil analysis reports, as requested. However, given the variability in bromacil concentrations over time in each well sampled, and the several interpretations offered to date to explain the variation, EFGWB will not be able to attain a real understanding of the situation if only detections above the HAL of 90 ppb are reported. Future 6(a)2 reports for bromacil should include all detections of bromacil in the sampling program above 10% of the HAL.

3. The registrant should provide the information requested in previous EFGWB reviews and memos which details the sales and usage information of bromacil nationwide, including uses on pineapple in Hawaii and Puerto Rico, as soon as possible.