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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

TO: James D. Felkel
Wildlife Biologist
Ecological Effects Branch
Hazard Evaluation Division (TS-769)

SUBJECT: Terbufos Aquatic Exposure Assessment (Registration Standard)

THRU: Carolyn K. Offutt *Carolyn K. Offutt*
Environmental Processes and Guidelines Section
Exposure Assessment Branch, HED (TS-769)

We received your memorandum of July 27, 1983, to William Miller which requested further work on the Terbufos aquatic exposure assessment.

On June 20, 1983, we provided you with Estimated Environmental Concentrations (EEC) of terbufos using two different application rates (0.784 lb a.i./A and 1.25 lb a.i./A) to account for soil incorporation. The resulting EEC values showed that a linear relationship exists between the EEC values obtained and the application rates used in the models. (maximum EEC=10 ppb for 1.25 lb a.i./A and maximum EEC=7 ppb for 0.784 lb a.i./A).

In our team meeting on April 7, 1983, I explained that the SWRRB and the EXAMS-2 models are based on linear functions. EEC values obtained as output data are linear to the application rate used as input data in the models. Therefore, it is not necessary to run model simulations for all possible application rates on corn fields.

I understand from Dr. L. Richardson, Chief of Registration Standards Section, EAB/HED, and Mr. Henry Craven, Registration Standard Coordinator, EEB/HED, that the registrants were asked to provide monitoring data for terbufos used on cornfields after reviewing our EEC values of terbufos on corn uses sent to you on June 20, 1983, and that presently monitoring for terbufos use on sorghum and sugarbeets ~~is~~ not considered in the Registration Standard package.

It is true that EEC values will be needed for terbufos usage on sugarbeets or sorghum during review by the Office of Endangered Species (USFWS) under the ongoing "cluster" project. However, such review will be initiated only after reviewing the monitoring data for terbufos on corn usages provided by the registrants. We will be glad to provide you with EEC values of terbufos use on sorghum, if needed, upon review of the registrants' monitoring data on corn usage. Since sugarbeets are grown in irrigated fields, the SWRRB model is not suitable. I understand that a SWRRB modified version or TOXIWASP model with an irrigation subroutine module will be made available to us in the near future by the Athens laboratory for obtaining runoff data on irrigated croplands.

I hope this response will clarify the status of the terbufos aquatic exposure assessment addressed in your July 27, 1983 memo.

Please feel free to call me or Carolyn K. Offutt at 557-7347 if you have any questions regarding this matter.



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