

6-28-89

246202  
RECORD NUMBER

128825  
SHAUGHNESSY NO.

REVIEW NO.

EEB REVIEW

DATE: IN 6/7/89

DATE: OUT 6/28/89

FILE OR REG. NO. 279-3069

PETITION OR EXP. NO. \_\_\_\_\_

DATE OF SUBMISSION 5/25/89

DATE RECEIVED BY EFED 6/6/89

RD REQUESTED COMPLETION DATE 7/6/89

EEB ESTIMATED COMPLETION DATE 76/89

RD ACTION CODE 576

TYPE OF PRODUCT(S) : I,D,H,F,N,R,S SYNTHETIC PYRETHROID

DATA ACCESSION NO(S). \_\_\_\_\_

PRODUCT MANAGER (NO.) George LaRocca (15)

PRODUCT NAME(S) Capture 2EC

COMPANY NAME FMC Corp.

SUBMISSION PURPOSE Registrant response concerning Agency's  
review of fish life-cycle study

SHAUGHNESSY NO.

CHEMICAL & FORMULATION(S)

% A.I.

128825

Bifenthrin

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

June 28, 1989

MEMORANDUM

SUBJECT: FMC response to EEB review of fathead minnow life-cycle study with bifenthrin as Capture 2EC

FROM: James W. Akerman, Chief  
Ecological Effects Branch  
Environmental Fate and Effects Division (H-7507-C)

TO: George LaRocca, Product Manager (15)  
Insecticide and Rodenticide Branch  
Environmental Fate and Effects Division (H-7507-C)

On June 27, 1989, EEB received a summary of fathead minnow life-cycle spawning data provided to FMC by Mr. D. R. Buckler, National Fisheries Contaminant Research Center, FWS, Columbia MO. Based on this information, and other information requested by EEB, EEB has agreed to re-evaluate the fathead minnow life-cycle study. This was verbally communicated to Ms. E. Curlie of FMC by Art Buikema (EEB) in a telephone conversation on June 27, 1989.

In that conversation, Buikema generally discussed the informational needs before EEB can re-evaluate the study. The purpose of this letter is to specifically outline the data requirements for EEB to re-evaluate the FMC study; they are:

- 1) FMC will contact ABC Laboratories and request historical control fish life-cycle data from all other studies conducted in their laboratory on the fathead minnow. EEB will also maintain direct communication with ABC Laboratories as necessary.

The following data are requested from ABC laboratory for the purpose of determining with-in laboratory variability, i.e., the variation that is expected each time the test is repeated. These data are not requested

CONCURRENCES							
COL	H-7507C	H-7507C	H-7507C1				
SURNAME	Buikema	Mather	Allen				
DATE	6/20/89	6/29/89	6/29/89				

by EPA to judge ABC Laboratories. EEB is considering asking all laboratories to submit historical control data as part of laboratory protocols for future fish life-cycle studies.

Data should be provided separately for each experiment; i.e., do not composite control data for several different experiments. Raw data are preferred so that EEB can conduct their own statistical analyses; at a minimum the data must include (mean, standard deviation, and number of data points (N) for each parameter).

Specifically EPA will need the following information to adequately address the issue of variability in fathead minnow life-cycle data:

- a) percent normal hatch of eggs of the  $P_0$  and  $F_1$  generations.
  - b) survival after  $\approx 30$  and 60 days, relative survival (after reductions in numbers) after  $\approx 90$ , 120 and subsequent 30 day intervals thereafter as appropriate including at the termination of the experiment.
  - c) body weight and standard body length after the same time intervals listed in Item (b) for  $P_0$  and  $F_1$  generations.
  - d) number of spawns/female, number of eggs/female, number of eggs/spawn/female.
- 2) EEB will contact Buckler for more detailed information on control fish data for fathead minnow life-cycle studies conducted by the FWS. These data will include the information requested in Item 1 above.
  - 3) EEB will contact the EPA-Duluth laboratory for the same type of information requested in Item 1 above.
  - 4) EEB will contact Larry Goodman, USEPA-Gulf Breeze, coordinator of the ASTM Standard on early life-stage toxicity tests for fish to clarify the issue of control mortality for fathead minnows issue (Item X3.2.7 of Standard E 1241-88).

Once these data have been compiled, EEB will re-evaluate the fathead minnow life-cycle study submitted for bifenthrin.

EEB is cognizant of the FMC concern regarding EPA adherence to time schedules for compliance with data requirements for conditional registration of bifenthrin (FMC letter from Curlie, dated 6/15/89). If, after re-evaluation, the fathead minnow life-cycle test must be repeated, an extension of the deadline for compliance with the fish life-cycle data requirement will be considered by the Agency.