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WASHINGTON, D.C. 20460

File

APR 16 1982

OFFICE OF  
PESTICIDES AND TOXIC SUBSTANCES

Memorandum

TO: Clayton Bushong, Chief  
Ecological Effects Branch  
Hazard Evaluation Division (TS-769)

SUBJECT: Review of Temik on cotton

The Peer Group has evaluated C. Bowen's review for the conditional registration of Temik for use on sorghum, tomatoes, and citrus. The request to the committee concerned three items: (1) endangered species labeling to protect the Attwater's prairie chicken, (2) additional studies concerning the hazard to fish and; (3) field monitoring. The endangered species labeling indicated in the OES biological opinion of 1/22/82 did not specify the same counties as a previous OES opinion on carbofuran of 5/6/81 for sorghum. Also, both opinions list Aransas and Galveston counties, whereas, EEB (C. Bowen), through recorded telephone inquires, found no sorghum production in Galveston and a high likelihood that no sorghum is grown in Aransas county. The following is the list of counties mentioned in the biological opinion for Temik:

| <u>County</u> | <u>Chemical</u> | <u>County</u> | <u>Chemical</u> |
|---------------|-----------------|---------------|-----------------|
| 1. Aransas    | Both*           | 8. Victoria   | Both            |
| 2. Refugio    | Both            | 9. Wallen     | Temik           |
| 3. Guliad     | Both            | 10. Wharton   | Temik           |
| 4. Austin     | Both            | 11. Fort Bend | Temik           |
| 5. Colorado   | Both            | 12. De Witt   | Temik           |
| 6. Galveston  | Both            | 13. Brazoria  | Both            |
| 7. Harris     | Both            |               |                 |

\* Carbofuran and Temik

OES explained that the Temik opinion was drawn from both their 1980 and 1976 censuses, the carbofuran opinion did not use the 1976 census. Contrary to the 1980 census C. Bowen indicated birds have recently been seen in Fort Bend County.

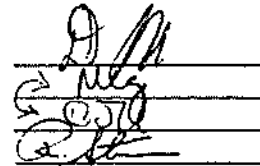
Concerning the fish studies, the reviewer has requested two (2) embryo-larvae studies, one on the fathead minnow and the other on the rainbow trout. Both studies were required because in most cases the rainbow trout is the most sensitive. However, a supplemental (low O<sub>2</sub>) study on bluegill indicates that bluegill is most sensitive by a factor of 10. Due to this confusion both studies were required.

To assess the impact on birds and mammals, a field search was requested.

The Peer Group recommendations:

1. Recommend the labeling against use in counties indicated in the biological opinion for Temik with the two counties, Galveston and Aransas deleted. The RD/PM should be made aware of the difference between the two biological opinions.
2. Repeat the 96 hour acute LC<sub>50</sub> for bluegill sunfish, In order to eliminate the question concerning the supplemental test.
3. After an acceptable 96 hour acute LC<sub>50</sub> study has been submitted, require the embryo-larvae study on either the bluegill or rainbow trout, which ever is most sensitive.
4. Require the field monitoring as presented in the review.

D. McLane  
D. Urban  
M. Gessner  
R. Stevens



Peer Group  
Ecological Effects Branch

cc: C. Bowen, Reviewer  
R. Matheny, Section Head

TS-769:EEB:DMcLane:gs:X75610:CS#4:RM200:4/15/82  
bcc: RF (2)