Department of Pesticide Regulation

Paul Helliker
Director

Gray Davis
Governor

Winston H. Hickox
Secretary, California Environmental Protection Agency

M E M O R A N D U M

TO: Barry Cortez, Chief
Pesticide Registration Branch

FROM: John S. Sanders, Ph.D., Chief
Environmental Monitoring Branch
(916) 324-4100

DATE: November 5, 2002

SUBJECT: REQUEST TO PLACE DIAZINON PRODUCTS INTO REEVALUATION

Background

Approximately 60 California water bodies are on the current Federal Clean Water Act (CWA) section 303(d) list of water bodies where water quality is limited due to the presence of diazinon at levels that violate narrative water quality objectives that prohibit toxicity to aquatic life. The Sacramento, Feather, and San Joaquin Rivers are among the listed water bodies. The agricultural uses of diazinon—especially dormant spray applications—have been identified as the principal source of diazinon in these rivers.

Total maximum daily load (TMDL) values for diazinon are either under development or have been proposed for various water bodies on the CWA section 303(d) list by California's Regional Water Quality Control Boards (RWQCBs). The TMDLs were developed based upon the California Department of Fish and Game's (DFG's) water quality criteria (WQC) for the protection of aquatic life. (DFG's acute toxicity WQC for diazinon is 0.08 µg/L [one-hour average]; the WQC for diazinon chronic toxicity is 0.05 µg/L [four-day average].)

Monitoring data from 22 studies conducted between 1991 and 2001 by the U.S. Geological Survey, Dow Agrosciences, the Department of Pesticide Regulation, the Central Valley Regional Water Quality Control Board, and the State Water Resources Control Board demonstrate the presence of diazinon in the Sacramento and San Joaquin Valleys at levels that regularly exceed the WQCs, especially during dormant spray season. Aquatic toxicity associated with the presence of diazinon has also been observed. (Report attached.)

Request for Reevaluation

Based upon an evaluation of sample data, Environmental Monitoring (EM) Branch staff believes that substantial reductions in diazinon loading will be required to meet the proposed TMDLs for diazinon. Therefore, specific uses that result in unacceptable levels in surface water must be identified and reduced to the extent feasible through the implementation of effective mitigation measures. Staff requests, pursuant to Title 3, California Code of Regulations, section 6221 (b) and (d), that products containing diazinon and used as dormant sprays applied to orchard crops

be placed into reevaluation. (Section [b] identifies environmental contamination as a criterion for reevaluation; section [d] identifies fish or wildlife hazard as a criterion.)

The EM Branch recommends an investigation into the following areas to better define the hazard presented by the use of diazinon in dormant sprays and to aid staff with the development of mitigation strategies that will reduce or eliminate the offsite movement of dormant spray materials:

- Request that registrants identify the processes by which diazinon dormant spray products are contributing to detections of diazinon in surface water (at levels that exceed DFG's WQCs).

- Request that registrants identify mitigation strategies that will reduce or eliminate diazinon in surface water. The mitigation strategies must be feasible and supported by scientifically valid studies.

If you have any questions regarding this request, please feel free to contact me.

Attachment