FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT

SCIENTIFIC ADVISORY PANEL MEETING

A Set of Scientific Issues Being Considered by the Agency in Connection with the FQPA 10x Safety Factor: Status Report

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The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Scientific Advisory Panel (SAP) has completed its review of the set of scientific issues being considered by the Agency in connection with the FQPA 10x Safety Factor: Status Report. The review was conducted in an open meeting held in Arlington, Virginia, on July 30, 1998. The meeting was chaired by Dr. Ernest E. McConnell (ToxPath, Inc.). Other Panel Members present were: Dr. Janice Chambers (Mississippi State University); Dr. Rory Conolly (Chemical Industry Institute of Toxicology-CIIT); Dr. Michael Cunningham (National Institute of Environmental Health Sciences-NIEHS); Dr. Amira Eldefrawi (University of Maryland School of Medicine); Dr. David Gaylor (National Center for Toxicological Research); Dr. Gordon Hard (American Health Foundation); Dr. Ronald J. Kendall (The Institute of Environmental and Human Health, Texas Tech University/Texas Tech University Health Sciences Center); Dr. Genevieve M. Matanoski (The Johns Hopkins University); Dr. Fumio Matsumura (University of California); Dr. Herbert Needleman (University of Pittsburgh); Dr. Christopher Portier (National Institute of Environmental Health Sciences-NIEHS); Dr. J. Routt Reigart (Medical University of South Carolina); Dr. Mary Anna Thrall (Colorado State University); and Dr. John Wargo (Yale University).

Public Notice of the meeting was published in the Federal Register on June 19, 1998.

Oral statements were received from the following:

Mr. Charles Fromm (Multinational Legal Services)

Dr. John McCarthy (American Crop Protection Association)

Written statements were received from the following:

American Crop Protection Association

Questions to the Scientific Advisory Panel

No questions were posed to the Scientific Advisory Panel for this session.

General Comments from SAP Members

The Agency presented an update for considering and employing the FQPA 10X safety factor. The Agency indicated the update was not a final operating procedure at this point, but a continuing and evolving process; it expects to finalize the procedures during the next few months, and will solicit further comments then as well as now.

The Panel reminded the Agency of its suggestion from the March, 1998 SAP meeting that a retrospective study be performed on existing data sets to determine whether a need for a developmental neurotoxicity test would have been triggered by the existing data. It seems that for both ethical reasons and for financial and temporal efficiency, such a retrospective study would be wise.

The Panel clarified with the Agency that one of the issues of concern still remaining at this point was the interrelatedness of the FQPA 10x Safety Factor and the uncertainty factor used to account for intraspecies variation.

The Panel again reiterated its concern regarding the protection of the developing human nervous system. It pointed out that functional changes have occurred in the developing nervous system at lower levels of some toxicants (such as lead) than were required to elicit morphological changes. The Panel is concerned that the vulnerability of the developing organism be appropriately characterized through the use of sufficiently sensitive tests. The Panel is concerned that data used to make these judgments on the use of the FQPA 10x Safety Factor be reliable. It was pointed out that not all pesticides which are known to poison insect nervous systems are required to be tested for developmental neurotoxicity at this time. The Agency was urged to consider use of neurobehavioral tests in its toxicity assessments since these would lead to greater sensitivity in characterizing potential toxic effects, and to begin development of guidelines to ensure greater sensitivity. One Panel member indicated that if it was currently impossible to test adequately for the toxicities of greatest concern relative to the developing nervous system, or if the current data indicated that more developmental testing was required, then the FQPA 10X Safety Factor should not be reduced until the issues of toxicity are resolved.

Substantial concern was also raised by the Panel regarding the issue of exposure. The Panel questioned whether there were guidelines on what adequate and appropriate data were for exposure assessment. It was emphasized that issues of exposure be considered of equal relevance to issues of toxicity, and there was concern that the previous SAP opinion regarding the importance of exposure data was being ignored. One Panel member related studies on early exposure to carcinogens which indicated that such exposure may lead to a 10-fold greater risk than later exposures would.

The Panel reiterated that it still believed, consistent with the March SAP suggestions, that the 10X factor be considered after all of the other risk assessment calculations are performed. In addition, the Panel urges the Agency to return its refinements for considering and employing the FQPA 10x Safety Factor to the Panel for more in-depth consideration.

FOR THE CHAIRPERSON:

Certified as an accurate report of findings:

Paul I. Lewis

Designated Federal Official

FIFRA/Scientific Advisory Panel

DATE:_____