UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 20 1997

OFFICE OF
PREVENTION, PESTICIDES, AND
TOXIC SUBSTANCES

MEMORANDUM

Subject: ZA1296. Conclusions of the HED Metabolism Committee at Meeting of 04/22/97.

FROM: Jerry B. Stokes, Chemist
Chemistry Branch I/Tolerance Support
Health Effects Division (7509C)

THRU: Elizabeth Haeberer, Acting Branch Chief
Chemistry Branch I/Tolerance Support
Health Effects Division (7509C)

TO: Metabolism Committee
Health Effects Division (7509C)

A. Individuals in Attendance:

1. Metabolism Committee: (Signature indicates concurrence unless otherwise stated.)

Randy Perfetti

Richard Loranger

Alberto Protzel

2. Scientists: (Non-committee members responsible for data presentation; signatures indicate technical accuracy of panel report.)

Jerry Stokes

3. Metabolism Committee Members in Absentia: (Committee members who were unable to attend the discussion; signatures indicate concurrence with the overall conclusions of the committee.)

Paul Chin _____

Mike Ioannou _____

Michael Metzger _____

Bill Burnam _____

Karl Baetcke _____

B. Material Reviewed/Conclusions:

The Committee discussed the results of metabolism studies and field trials for ZA1296 as delineated in the J. Stokes briefing memorandum dated 03/20/97. The following conclusions are provisional pending review of the complete studies:

The registrant should continue to analyze all field trial samples for parent ZA1296 and metabolite MNBA in both target and rotational crops. Since analysis of metabolite AMBA is apparently quite difficult (major portion in corn tissues in conjugated forms proven refractory to quantitative acid, base, or enzymatic hydrolysis), and the projected toxicity of AMBA is less than the parent, MNBA (a precursor of AMBA) can be used as a potential marker for residues of AMBA for risk assessments, if necessary.

Based on the available data, ruminants could ingest small quantities (<0.5 ppm/day) of AMBA from treated feedstuffs. This could come from the ruminant in vivo metabolism of ZA1296 residues present in/on feedstuffs, or ingestion of AMBA residues arising from metabolism of ZA1296 in/on the growing plant and remaining on the harvested feedstuff. Using ZA1296 treated target crop corn and a rotational crop wheat to develop a worst case daily dietary intake of metabolite AMBA, CBTS expects AMBA residues in milk or edible tissues (except kidney) at <0.01 ppm based on the results of the cattle metabolism study in which animals were dosed with radiolabeled ZA1296 and AMBA observed in kidney and excreta. Kidney may show residues of <0.05 ppm. Therefore, no ruminant metabolism or feeding studies using AMBA are needed.

Provided that 4-hydroxy ZA1296 is shown to be both a rat and a plant metabolite, additional data for this metabolite will not be needed for other crops.

cc: J. Stokes (CBTS); Metabolism Comm. F. (T. Edwards); ZA1296 S.F.; R.F.; Signers Above; Circu.
RDI:RLoranger;05/16/97:EHaeberer:05/19/97
7509C:CBTS:CM#2:Rm803:305-7561:JStokes:05/20/97