3/17/81

17 MAR 1981

FILE COPY

To: Chief, Ecological Effects Branch
Hazard Evaluation Division

Thru: Chief, Review Section No. 1
Environmental Fate Branch, HED

From: Review Section No. 1
Environmental Fate Branch, HED

Attached find environmental fate information and/or EEC(s) requested for:

Chemical: pendimethalin and propanil

Product Name: Prowl

Use Pattern for EEC Calculations: use on rice

Date in: 3/11/81

Date out: 17 MAR 1981

EEC/EFP#: 53

The unofficial standard scenorio for rice (USSR) was used for these calculations. It is assumed that the fields are flooded two days after application and drained two days later.

The requested application rates of 1 and 4 lbs/A respectively for pendimethalin and propanil were used. Kd values for hydrosoil containing 2.5% OM were estimated from the respective aqueous solubilities (the average of two reported values, 200 and 500 ppm, was used in the case of propanil). For degradation considerations, pendimethalin was assumed to be stable over the time period in question since it is very persistent in soil and is stable to hydrolysis. Propanil was assumed to have a half-life of two days both on soil and in water (the average persistence in moist soil is 1-3 days according to the Herbicide Handbook).

It was assumed that a steady-state equilibrium was attained in the bayou two days after field draining began (a total of six days have thus expired from the time of application). Under these conditions, the steady-state equilibrium EECs in the bayou water are:

propanil	0.1 ppm
pendimethalin	0.007 ppm

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