

US EPA ARCHIVE DOCUMENT

EEE BRANCH REVIEW

DATE: IN 1/4/77 OUT 1/11/77 IN _____ OUT _____
FISH & WILDLIFE ENVIRONMENTAL CHEMISTRY EFFICACY

FILE OR REG. NO. _____

PETITION OR EXP. PERMIT NO. 241-EUP-84

DATE DIV. RECEIVED 12/20/76

DATE OF SUBMISSION 12/17/76

DATE SUBMISSION ACCEPTED _____

TYPE PRODUCT(S): I, D, (H) F, N, R, S preemergent

PRODUCT MGR. NO. Zink

PRODUCT NAME(S) Prowl

COMPANY NAME American Cyanamid Co.

SUBMISSION PURPOSE For use in sunflowers

CHEMICAL & FORMULATION ([N-(1 ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzenamine])

43.8%

100.0 Pesticidal Use

Soil incorporated, preplant or at planting, preemergent herbicide to control grasses and broadleaf weeds in sunflowers.

100.1 Application Methods/Directions

After preparation of the seed bed, uniformly apply Prowl in 10 or more gallons/acre by ground equipment or 5 gallons or more/acre by aircraft. Prowl should be incorporated into the top 1 or 2 inches within seven days of application - unless 1/4" rain has occurred within that period.

100.2 Rates

Under the proposed program Prowl will be applied at 0.50-3.0 lbs. a.i./A. A total of 32 gals of Prowl 4E will be applied to 48 acres.

<u>State</u>	<u>Acreage requested</u>	<u>Gals</u>
North Dakota	20 (10)	12
South Dakota	8 (4)	6
Texas	4 (2)	3
California	4 (2)	3
Minnesota	12 (6)	8

Note: Plot size is 2 acres. Number in () is number of plots.

101.0 Physical and Chemical Properties

101.1 Chemical name

[N-(1-ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzenamine]

101.2 Common name

Prowl

See J. Akerman's review of 1/7/74.

102.0 Behavior in environment

See N. Cook's review of 8/21.

103.0 Toxicological Properties

See J. Akerman's review of 1/7/74.

See F. Betz review of 11/2/76.

See N. Cook's review of 2/18/75.

104.0 Hazard assessment

104.1 Discussion

Prowl persists in water and soil. Furthermore it bioaccumulates in catfish. There is some indication that Prowl leaches (see C & E's review of Prowl 6/4/75). Prowl is being aerially applied through an EUP on soybeans and a registration on corn.

104.1.1 Adequacy of toxicity data

Data are adequate to grant this EUP.

104.1.2 Additional data required

No additional data are required.

104.1.3 Likelihood of exposure to non-target organisms

Prowl is not acutely or chronically toxic to birds or mammals, therefore the exposure resulting from drift to areas adjacent to the sprayed fields is of little concern. Since Prowl will be soil incorporated (unless 1/4" of rain occurs) within 7 days of application and the bare soil should not be attractive to wildlife (unless freshly worked) there should be little hazard even in the sprayed field.

The question of chronic toxicity to fish is being addressed in the ongoing chronic fish study. After the conclusion and final evaluation of this study a determination will be made of the need for additional studies such as chronic daphnia.

105.0 Conclusions

The Environmental Safety section does not object to the requested EUP of Prowl 4E on sunflowers.

Modify your environmental precautionary labeling from:

"This product is toxic...disposal of wastes." to read as follows:

"This pesticide is toxic to fish. Use with care when applying in areas adjacent to any body of water. Keep out of lakes, streams or ponds. Do not apply when weather conditions favor drift from target areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

H. T. Craven *HTC* 1/11/77
Environmental Safety Section
Efficacy and Ecological Effects Branch

HTC