108501

(11)

EEE BRANCH REVIEW

DATE: IN 4/26 OUT 5/19/76 IN _____ OUT _____ IN _____ OUT _____

FISH & WILDLIFE ENVIRONMENTAL CHEMISTRY EFFICACY

FILE OR REG. NO. _____

PETITION OR EXP. PERMIT NO. 241-EUP 6G1739

DATE DIV. RECEIVED _____

DATE OF SUBMISSION _____

DATE SUBMISSION ACCEPTED _____

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

PRODUCT MGR. NO. D. Stubbs

PRODUCT NAME(S) PROWL (Potatoes & Beans)

COMPANY NAME American Cyanamid Co.

SUBMISSION PURPOSE E.U.P.

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

100.0 PESTICIDAL USE

For control of annual grasses and broadleaf potatoes and beans. PROWL controls weeds as the seeds germinate, but will not control established weeds.

100.1 Application Methods/Directions/Rates

1. Application Instructions

Broadcast Treatment

Apply PROWL in 10 or more gallons of water. Do not apply during periods of gusty winds in excess of 10 mph. Apply with ground equipment only.

Band Treatment

Apply 2 broadcast equivalent rate and volumn per acre.

2. Directions For Use

Preemergence Broadcast Rate of PROWL Per Acre in Potatoes*

Soil Texture	PROWL
Sandy, loamy sand and sandy loams	1 1/2 pints .75 lbs a.i./acre
Loams and silt loams containing less than 3% organic matter	1 1/2 to 2 pints .75-1.0 lbs a.i./acre
Loams, silt loams containing 3% or more organic matter and heavier textured soils (silty clay loams to clays)	2 to 3 pints 1.0-1.5 lbs a.i./acre

The high rate for each soil textured above, where listed should be used when heavy infestations of grass or broadleaf weeds are anticipated.

Do not use on peat or muck soils.

*1 qt. contains 1 lb. active ingredient
For Tank-mix directions see review by N. Cook.

100.2 Areas and Acres To Be Treated

Summary of Proposed Experimental Program for the Use of PROWL Herbicide for Weed Control in Edible Beans[1] During 1976.

State	No. of Test Sites	No. of Acres Requested	Gallons of PROWL 4E Requested
California	4	16	4
Colorado	4	16	4
Delaware	1	4	1
Idaho	2	8	2
Kansas	1	4	1
Maryland	1	4	1
Michigan	10	40	10
Minnesota	2	8	2
Montana	2	8	2
Nebraska	2	8	2
New York	2	8	2
North Dakota	2	8	2
Oregon	2	8	2
Pennsylvania	2	8	2
Tennessee	2	8	2
Utah	2	8	2
Washington	2	8	2
Wisconsin	2	8	2
Wyoming	2	8	2
	47	188	47

[1] Includes dry, lima and snap beans.

100.3 Weeds Controlled

Barnyardgrass	Pigweed	Cocklebur
Crabgrass	Lambsquarters	Jimsonweed
Panicums	Smartweed	Morningglory
Green Foxtail	Velvetleaf	
Giant Foxtail	Common Ragweed	
Yellow Foxtail	Mustards	

101.0 CHEMICAL & PHYSICAL PROPERTIES

101.1 Chemical Name

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

101.2 Common Name

PROWL

102.0 BEHAVIOR IN THE ENVIRONMENT

See previous reviews by N. Cook.

103.0 TOXICOLOGICAL PROPERTIES

See previous reviews by N. Cook - 2/5/76, 2/19/76 and 8/21/75.

104.0 HAZARD ASSESSMENT

104.1 Discussion

104.1.1 Adequacy of Data

Acceptable

104.1.2 Additional Data Required

See 105.0 Conclusions

104.1.3 Likelihood of Exposure to Non-Target Organisms

The proposed use patterns provide for minimal hazards to non-target organisms. Application rates are not high. The product is not toxic to terrestrial organisms but is highly toxic to fish. The concern over PROWL's persistence in soil and water is being addressed: a chronic fish bioassay is in progress and the results will be submitted upon completion.

The use of the product does not appear to pose any direct toxicological hazards to wildlife. However, due to the fact this product has been shown to be extremely effective in controlling grasses and broadleaf weeds - many of which are extremely valuable and necessary as feeding, nesting and brood rearing habitat for upland game birds - indirect hazards caused by habitat destruction may be of concern. It is believed the greatest potential for this type hazard is from drift that may destroy valuable "edge" areas of treated fields.

105.0 CONCLUSIONS

1. Prior to consideration of full registration of the proposed use, the following data must be submitted as per the new Sec. III Regulations and the proposed Guidelines:

   a. An acute oral LD_{50} for either the mallard duck or bobwhite quail.

   b. An acute 48-hr LC_{50} for an aquatic invertebrate.

2. The environmental safety review staff finds no objections to the issuance of the EUP.

3. Insert the statement "Do not apply when weather conditions favor drift from target areas" between ". . . streams or ponds." and "Do not . . . disposal of wastes."

4. If the labeling carries references to mixing PROWL with other products, add a caution similar to the following: "Observe all cautions and limitations on labeling of all products used in mixtures."

R. W. Felthousen 5/19/76
Environmental Safety
Efficacy and Ecological Effects Branch