2-4-87

188098
RECORD NO.

~~128801~~ 125301
SHAUGHNESSEY NO.

REVIEW NO.

EEB REVIEW

DATE: IN 2-2-87 OUT 2-4-87

FILE OR REG. NO 87-A2-03

PETITION OR EXP. NO.

DATE OF SUBMISSION 12-29-86

DATE RECEIVED BY HED 1-22-87

RD REQUESTED COMPLETION DATE 2-5-87

EEB ESTIMATED COMPLETION DATE 2-5-87

RD ACTION CODE/TYPE OF REVIEW 520

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

DATA ACCESSION NO(S).

PRODUCT MANAGER NO. D. Stubbs (41)

PRODUCT NAME(S) Fenoxycarb

COMPANY NAME Arizona commission of Agriculture and Horticulture

SUBMISSION PURPOSE Proposed § 18 for use on citrus, pasture, and dairy feed lots in city of Mesa, Arizona to control imported fire ants

SHAUGHNESSEY NO.	CHEMICAL, & FORMULATION	% A.I.

ECOLOGICAL EFFECTS BRANCH REVIEW

Fenoxycarb

100. Submission Purpose and Label Information

100.1 Submission Purpose and Pesticide Use

The state of Arizona is requesting an emergency exemption (Sect. 18) for the use of Logic (active ingredient, Fenoxycarb) to control the imported fire ant, Solenopsis invicta.

Although Logic is registered to control fire ants, it cannot be applied aerially, only with ground equipment. Arizona wants to use an aerial application since the area to which they want to apply Logic covers 4 square miles. In addition Logic is only registered for fire ant control on turf, lawns, airports, parks and golf courses, and Arizona wants to use it in citrus (650 acres), pasture (120 acres) and dairy feed lots (60 acres) in the city of Mesa. The registered label specifically states the use of Logic is prohibited on pasture, rangeland and other grazed areas. There is to be a single application between February 15, 1987 and April 15, 1987 as weather permits.

The reasons for this request is that a single colony of the Red Imported Fire Ant was discovered at an old plant nursery at the center of the proposed treatment area. It's believed that the colony was brought into the area from infested areas in the southeastern U.S. Although the colony was destroyed using registered pesticides, the state wants to take preventative measures to ensure that there are not any additional colonies in the area that were over looked.

100.2 Formulation Information

Active ingredient:

Fenoxycarb*	1%
Inerts	99%

*Ethyl (2-(4-phenoxyphenoxy)ethyl)carbamate

1 lb. contains 0.16 oz active ingredient

100.3 Application Directions, Methods, Rates

Rate: 0.015 lb a.i./A or 1.5 lb. formulated product/A.

Single application by airplane.

100.4 Target Organism

Red Imported Fire Ant (Solenopsis invicta)

100.5 Precautionary Labeling

This product is toxic to fish and invertebrates. Drift and runoff from treated areas may be hazardous to aquatic invertebrates in adjacent aquatic sits. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of wastes.

101 Hazard Assessment

101.1 Discussion

The state of Arizona is requesting an emergency exemption (Sect. 18) for the use of Logic (fenoxycarb) to control fire ants in citrus, dairy feed lots and pasture. There is to be a single aerial application to 4 square miles. Although Logic is registered for fire ant control, it is not registered for use on the sites requested by Arizona and not by aerial application. In fact, the label specifically prohibits its use on pastures, rangelands and other grazed areas. Fenoxycarb is to be applied at the rate of 0.015 lb. a.i./A.

101.2 Likelihood of Adverse Effects to Non-Target Organisms

The EEB's chapter of the Registration Standard, April 16, 1985, stated that fenoxycarb is practically non-toxic to birds (LD_{50} > 3000 mg/kg, LC_{50} = 11574 ppm), moderately toxic to fish (LC_{50} = 1.6 and 1.9 ppm) and highly toxic to freshwater invertebrates (LC_{50} = 0.4 ppm).

As stated in the Registration Standard, it is unlikely that the use of fenoxycarb at the rate of 0.015 lb. a.i./A will cause acute hazards to fish or aquatic invertebrates. A worst-case scenario, the direct of application of the pesticide to 6 inches of water, indicates that the concentration of residues of fenoxycarb immediately following this application is 11 ppb. This

concentration is less than the risk criterion of 1/2 the LC_{50} for Daphnia (200 ppb). In addition, fenoxycarb dissipates quickly in natural water as its photolytic half-life is only 5 hours (EPA Fact Sheet No. 78, February 1986).

101.3 Endangered Species Considerations

The risk criterion for endangered species is an EEC $\geq$ 1/20 LC_{50} of the most sensitive species. The worst-case scenario, described above gave an EEC of 11 ppb. Since this is less than 1/20 x 400 ppb, it is highly unlikely that any endangered aquatic species will be affected by this use of fenoxycarb. Since fenoxycarb is practically nontoxic to birds and mammals, use of this chemical will not affect these groups of endangered species.

101.4 Adequacy of Toxicity Data

All the acute toxicity data needed for this risk assessment meets the EPA guidelines requirements.

101.5 Adequacy of Labeling

The labeling is adequate.

103 Conclusions

The Ecological Effects Branch has reviewed this request by the state of Arizona for an emergency exemption (Sect. 18) for the use of fenoxycarb to control fire ants by aerial application to citrus, pasture and dairyland. This use will not cause a significant increase in risk to non-target organisms.

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LOGIC® FIRE ANT BAIT

PRECAUTIONARY STATEMENTS
HAZARD TO HUMANS AND DOMESTIC ANIMALS

CAUTION

May be harmful if swallowed. Avoid breathing dust. Avoid contact with clothing, skin or eyes.

STATEMENT OF PRACTICAL TREATMENT

In case of contact, flush skin or eyes with plenty of water. Get medical attention if irritation persists.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic invertebrates. Drift and runoff from treated areas may be hazardous to aquatic invertebrates in adjacent aquatic sites. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of wastes.

STORAGE AND DISPOSAL

Pesticide Disposal: Do not contaminate food or feed by storage or disposal. Store away from heat. Dispose of bag in a sanitary landfill or incinerate if allowed by state and local authorities.

LOGIC®
FIRE ANT BAIT

An Insect Growth Regulator for the Control of Fire Ants

Active Ingredient	
fenoxycarb	
Ethyl (2-(4-phenoxyphenoxy) ethyl) carbamate.....	1%
Inert Ingredients.....	99%
	100%

1 lb. contains 0.16 oz. active ingredient

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Left Panel for Additional Precautionary Statements

EPA Reg. No. 35977-4
NET CONTENTS: 25 lbs.

EPA Est. No. 33560-TN-1

Maag Agrochemicals Inc.
P.O. Box 6430
Vero Beach, FL 32961-6430 U.S.A.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. DO NOT USE ON PASTURE, RANGELAND OR OTHER GRAZED AREAS. LOGIC® fire ant bait is an insect growth regulator with a mode of action specific to insects, and therefore has less influence on non-target organisms. LOGIC® fire ant bait is very easy and convenient to apply (see use directions below). Following application LOGIC® fire ant bait is collected by worker ants and distributed throughout the colony. Within 3 to 5 weeks there is considerable ant mortality and a continual decline of the fire ant colony.

METHODS OF APPLICATION

Apply LOGIC® Bait when ants are actively foraging. This is usually when soil temperatures are above 60°F. Avoid application during excessively hot periods of the day or when the grass is wet. Heavy rainfall within 2 or 3 hours of application may reduce effectiveness.

FOR USE ON TURF, LAWNS AND NON-AGRICULTURAL LAND SUCH AS: LAWNS, TURF, AIRPORTS, PARKS AND GOLF COURSES.

In cases where reinfestation occurs or when very large mounds remain active, retreatment may be desirable after 3 to 4 months.

Do not apply to pasture, rangeland or other areas which may be grazed by cattle, sheep or other domestic animals.

Single Mound: Apply 1 to 3 level tablespoons of LOGIC® bait per mound uniformly, distributing material 3 to 4 feet around the base of the mound. Do not contaminate kitchen utensils by use or storage.

Broadcast Application: Apply uniformly with ground equipment calibrated to give the correct dosage. Apply at 1 to 1.5 lb/A.

Warranty and Limitations of Damages

Maag Agrochemicals Inc. warrants that this product conforms to the chemical description of the label and is reasonably fit for the purposes referred to in the Directions for Use, subject to the inherent risks referred to therein. Maag Agrochemicals Inc. makes no other express or implied warranty of fitness of merchantability and no agent of Maag Agrochemicals Inc. is authorized to do so except in writing with a specific reference to this warranty. Any damages arising from breach of this warranty shall be limited to direct damages and shall not include consequential, commercial, special or indirect damages such as loss of profits, values, etc. resulting from the use or handling of this product.

LG-10/85

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