

FILE

109301

Date Out EFB: Jan. 4, 1985

TO: Tim Gardner
Product Manager 17
Registration Division
TS-767

FROM: Samuel M. Creeger, Chief 
Review Section No. 1
Exposure Assessment Branch
Hazard Evaluation Division

Attached please find the environmental fate review of:

Reg./File No.: 201-401

Chemical: Pydrin

Type Product: Insecticide

Product Name: Pydrin 2.4 EC

Company Name: Shell Chemical Co.

Submission Purpose: Amend label adding use on carrots and
spinach

Date in: 11/13/84

ACTION CODE: 330

Date Completed: 1/4/85

EFB # 5148, 5149

TAIS (level II) Days

Deferrals To:

63

0.5

Ecological Effects Branch

Residue Chemistry Branch

Toxicology Branch

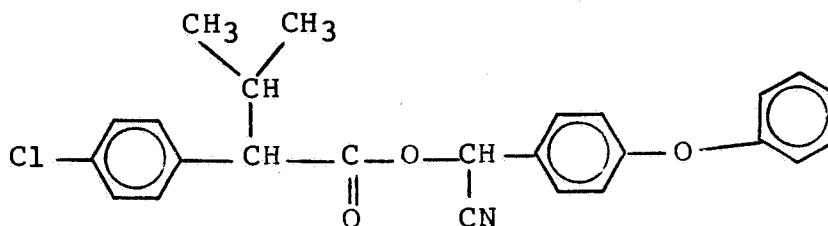
- 1.0 Shell Chemical Company has submitted an application for registration of Pydrin® 2.4 EC (fenvalerate, as a. i.), EPA Reg. No. 201-401, for use on carrots and spinach.

1.1 Chemical

Common name: Fenvalerate

Chemical name: Cyano (3-phenoxyphenyl) methyl-4-chloro-alpha-(1-methylethyl) benzeneacetate

Chemical structure:



2.0 DIRECTIONS FOR USE

Complete use directions are appended to this review.
Briefly:

- 2.1 Carrots: Apply 0.1 - 0.2 lb. a. i./acre (5 1/3 to 10 2/3 fl. oz./acre). Apply as needed for control, but do not exceed 2.0 lb ai/acre per season.

The proposed label bears the following rotational crop restriction: "Do not plant root crops other than those listed on this label within 12 months after last application. Root crops in this label and all other rotational crops may be planted immediately following last application."

- 2.2 Spinach: Apply 0.1 - 0.2 lb ai/acre. Apply as needed for control, but do not exceed 1.4 lb ai/acre

The proposed label bears the following rotational crop restriction: "Crops in this label may be planted immediately after last treatment. Do not plant other root crops within 12 months or all other crops within 60 days after last treatment."

3.0 DISCUSSION OF DATA

- 3.1 Adequate environmental fate data, with the exception of rotational crop data (see Section 3.2, below), have been submitted to support the proposed use of Pydrin[®] 2.4 EC on carrots.
- 3.2 This reviewer notes that the proposed carrot label permits the planting of all other rotational crops (except root crops other than those listed on the label) immediately following last application. The proposed spinach label permits planting root crops and all other rotational crops within 60 days after last treatment.

This reviewer notes the previous EAB review (dated 1/16/79) in which a rotational crop restriction of 270 days for non-root crops appeared to be justified based on the (then) submitted data. A shorter interval should be backed up by residue data for leafy vegetable and small grain crops using a shorter interval (than 270 days) post-treatment/planting interval.

Also, based on the available copies of past Pydrin[®] 2.4 EC labels in EAB files, the 270 day restriction relating to non-root crops was never added to the label. However, the labels do bear a restriction against rotating other root crops within one year.

Additional rotational crop data were submitted and reviewed by EAB (in review dated 11/13/80). However, EAB concluded that the submitted data did not support a change in the currently recommended rotational crop restriction.

4.0 RECOMMENDATION

- 4.1 EAB notes some confusion in the rotational crop restriction on the proposed labels. Adequate rotational crop data are not available to support the planting of non-root rotational crops immediately after last application (proposed carrot label) or within 60 days after last treatment (proposed spinach label). Thus, in addition to the restriction against planting "other root crops within 12 months," the label must bear the restriction against planting "all other crops within 9 months after last application."

If available, the registrant should submit the rotational crop data that show that no residues are taken up by non-root crops planted immediately after last application.

Note: Adequate data are available. See 2/4/83 review. Thus, the proposed label restriction is adequate. However, the 60 day restriction is not adequate.

- 4.2 All other environmental fate data requirements have been satisfied and support the proposed use of Pydrin® 2.4 EC for use on carrots and spinach.



Clinton Fletcher
Review Section No. 1
Exposure Assessment Branch
Hazard Evaluation Division

Page _____ is not included in this copy.

Pages 5 through 8 are not included.

The material not included contains the following type of information:

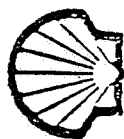
- ☐ Identity of product inert ingredients.
- ☐ Identity of product impurities.
- ☐ Description of the product manufacturing process.
- ☐ Description of quality control procedures.
- ☐ Identity of the source of product ingredients.
- ☐ Sales or other commercial/financial information.
- ☒ A draft product label.
- ☐ The product confidential statement of formula.
- ☐ Information about a pending registration action.
- ☐ FIFRA registration data.
- ☐ The document is a duplicate of page(s) _____.
- ☐ The document is not responsive to the request.

The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.

CARROTS

**RESTRICTED USE
PESTICIDE**

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.



Shell

Pydrin®
Insecticide

2.4 Emulsible Concentrate

EPA Reg. No. 201-401
EPA EST No. 5905-AR-1

**KEEP OUT OF REACH OF CHILDREN
WARNING**

May be irritating to skin, eyes, nose and throat.
Causes substantial but temporary eye injury.

Harmful if swallowed.

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED, do not induce vomiting. Call a physician. Gastric lavage should be supervised by a physician or the professional staff because of the possible pulmonary damage via aspiration of the solvent.

IF ON THE SKIN, wash with plenty of soap and water. Get medical attention if irritation persists.

IF IN EYES, flush with plenty of water. Call a physician.

ACCEPTED

with COMMENTS

by EPA Letter Dated:

SEP 7 1983

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

201-401

CARROTS

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SHELL CHEMICAL COMPANY
A Division of Shell Oil Company
AGRICULTURAL CHEMICALS
HOUSTON, TX 77001

ACL 2319B 11-82

CARROTS

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS — WARNING
Causes substantial but temporary eye injury. Wear goggles while handling. Can cause irritation to skin such as burning and itching. Do not get in eyes, on skin, or on clothing. Wear protective gloves while handling. Harmful if swallowed or absorbed through skin. If material gets on skin, the affected area should be thoroughly washed with plenty of soap and water. Remove and wash clothing before reuse.
For 24-hour emergency medical assistance, call (713) 473-9481.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water by cleaning of equipment or disposal of wastes. Apply this product only as specified on this label.
WILDLIFE PROTECTION IS EVERYONE'S RESPONSIBILITY

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply PYDRIN or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. Additional information may be obtained by consulting your Cooperative Extension Service.

Pydrin®

Insecticide

2.4 Emulsible Concentrate

This product contains 2.4 lbs. of PYDRIN per gallon

ACTIVE INGREDIENT	BY WEIGHT
Cyano (3-phenoxyphenyl) methyl-4-chloro-alpha-(1-methylallyl) benzeneacetate	30%
INERT INGREDIENTS	70%
TOTAL	100%

CARROTS

GENERAL DIRECTIONS

PYDRIN Insecticide 2.4 Emulsible Concentrate contains 2.4 pounds of active ingredient per gallon. For the applications given below, mix the required amount of PYDRIN in sufficient diluent to provide uniform coverage (Refer to Use Tables). PYDRIN may be applied by ground or aerial application equipment. Do not enter treated areas before sprays dry. Do not plant root crops other than those in this label within 12 months after last application. Root crops in this label and all other rotation crops may be planted immediately following last application.

NOTICE OF WARRANTY

SHELL CHEMICAL COMPANY MAKES NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PURPOSE, OR OTHERWISE, EXPRESS OR IMPLIED, concerning this product or its uses which extend beyond the use of the product under normal conditions in accord with the statements made on this label.

Sunilomo Chemical Company, Ltd., holds U.S. Patents for the active ingredient. Sales by Shell Chemical Company of products containing the active ingredient are made under agreements with Sunilomo Chemical Company, Ltd.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with the labeling.

STORAGE AND DISPOSAL

STORAGE: Store in a secure, dry and temperate area. Keep container closed when not in use. Do not store near food or feed. Do not use or store around the home. Avoid contact with water. In case of spill or leak, soak up with sand, earth or synthetic absorbent (Do not use alkaline absorbents) and dispose of wastes in compliance with local, State and Federal regulations.

PESTICIDE DISPOSAL: Pesticide, spray mixture, or rinse water that cannot be used according to label instructions must be disposed of according to Federal or approved State procedures under Subtitle C of the Resource Conservation and Recovery Act. **CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning if container reuse is permitted. If container reuse is prohibited, puncture metal containers and dispose of in a sanitary landfill, or by other approved State and local procedures. Dispose of plastic containers in a sanitary landfill, or by incineration if allowed by State and local authorities. Dispose of glass containers in a sanitary landfill, or by other approved State and local procedures.

In case of a significant spill, call (713) 473-9461 or CHEMTREC (800) 424-9300

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CARROTS

PROPOSED AMENDMENT TO EPA REG. NO. 201-401

DIRECTIONS FOR APPLICATION

CROP	INSECT	DOSAGE		NO. ACRES TREATED WITH GAL	FURTHER USE INSTRUCTIONS	DAYS TO HARVEST
		LB/AI ACRE	FL OZ/ ACRE			
Carrots	Aster Leafhopper	0.1-0.2	5 1/3 -	24-12	Apply as needed for control, but do not exceed 2.0 lb ai/acre per season.	7
	Cutworms		10 2/3			