

US EPA ARCHIVE DOCUMENT

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SHAUGHNESSEY NO.

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REVIEW NO.

EEB BRANCH REVIEW

DATE: IN 12/10/81 OUT 1/19/82

FILE OR REG. NO. 1023-36

PETITION OR EXP. PERMIT NO. \_\_\_\_\_

DATE OF SUBMISSION 11/4/81

DATE RECEIVED BY HED 12/9/81

RD REQUESTED COMPLETION DATE 2/19/82

EEB ESTIMATED COMPLETION DATE \_\_\_\_\_

RD ACTION CODE/TYPE OF REVIEW 335/Amendment - New Food or Feed Use

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

DATA ACCESSION NO(S). \_\_\_\_\_

PRODUCT MANAGER NO. H. Jacoby (21)

PRODUCT NAME(S) Botran 95W Fungicide

COMPANY NAME The UpJohn Company

SUBMISSION PURPOSE Proposed Conditional Registration of Peanut Use

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

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Botran 75W Fungicide

100 Pesticide Label Information

100.1 Pesticide Use

Control of Sclerotinia blight and Southern blight in peanuts.

100.2 Formulation Information

A.I. -- 2, 6-dichloro-4-nitroaniline -----75%  
Inerts-----25%

One and one-third pounds as found in Directions for Use equals one 4 pound bag in 300 gallons. One tablespoon per gallon equals one pound per 100 gallons.

100.3 Application Methods, Directions, Rates

Recommended Rate: Apply 2 to 2 1/2 pounds of Botran 75W per acre.

Remarks: Begin applications when disease first appears. If disease is severe when first diagnosed, apply 4 to 5 pounds per acre. If disease reappears, make additional applications at 2 to 2 1/2 pounds per acre. If disease is diagnosed before it becomes severe, then apply 2 to 2 1/2 pounds followed by additional applications at 2 to 2 1/2 pounds per acre as disease reappears.

Botran may be applied by ground, through overhead irrigation equipment (fungigation) or by air. Ground applications should be made using nozzles (at least one per row) with 30 to 50 gallons of water per acre at sufficient pressure to produce droplets that will cover plants and soil surface. Effectiveness may be increased by band application (12" to 14").

Through overhead sprinklers, Botran 75W is best applied in the first 30 minutes of the overhead irrigation set.

Do not apply within 15 days of expected harvest.

Do not apply more than 10 pounds of Botran 75W per acre per season.

Botran treated peanut hulls and forage may be fed to livestock.

100.4 Target Organisms

Sclerotinia blight (Sclerotinia spp.)  
Southern blight (Sclerotium rolfsii)

100.5 Precautionary Labeling

This product is toxic to fish. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of waste or containers. Do not contaminate food or feed.

101 Physical and Chemical Properties

101.1 Chemical Name

2,6-dichloro-4-nitroaniline (DCNA)

101.2 Trade Name

Botran

101.3 Solubility (from old file)

Practically insoluble in water.  
Slightly soluble in non-polar solvent.  
Moderately soluble in polar solvent.  
Stable to oxidation and hydrolysis.  
Persistent in soil (from EFB file).

103. Toxicological Properties (from old file)

<u>Species</u>	<u>Result</u>	<u>Test Chemical</u>
Bobwhite quail	LC <sub>50</sub> = 2438 ppm	N.I.
Mallard	LC <sub>50</sub> = 8850 ppm	N.I.
Mallard	LD <sub>50</sub> = >2000 mg/kg	N.I.
Bluegill	96-h LC <sub>50</sub> = 7 ppm	Botran 50W
Rainbow trout	96-h LC <sub>50</sub> = 4.1 ppm	Botran 50W
Mouse		
acute IP	>1000 mg/kg	Tech.
Rat		
acute oral	>10000 mg/kg	Tech
Rabbit	>6320 mg/kg	Botran 75W
acute dermal		

104 Hazard Assessment

104.1 Discussion

Botran 75W Fungicide is currently registered on apricot, blackberry, boysenberry, grape, nectarine, peach, plum, prune, red raspberry, sweet cherry, carrot, celery, cucumber, endive, garlic, lettuce, onion, potato, rhubarb, snap bean, sweet potato, tomato, ornamentals and cotton.

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Peanuts are grown in many of the same states as cotton, including North and South Carolina, Georgia, Alabama, Mississippi, Oklahoma, New Mexico and Texas.

In 1976 there were 11.7 million acres of cotton but only 9% or 1.05 million acres were treated with fungicides. In the same year there were 1.50 million acres of peanuts of which 76% or 1.17 million acres were treated with fungicides (Farmer's Use of Pesticides in 1976, USDA, Agricultural Economic Report No. 418).

Botran 75W is applied to cotton at the rate of 2-2 1/3 pounds of product per 100 gallons of water. The application is not to exceed 500 gallons per acre. The cotton plants are sprayed prior to or as the first bolls begin to open. The application is repeated 14 days later. The quantity of the active ingredient (DCNA) applied at one time per acre can range from 1.5 lb a.i./A to 8.74 lb a.i./A.

Botran 75W is to be applied to peanuts at the rate of 4 to 5 pounds of product per acre initially. Additional applications of 2-2 1/2 pounds per acre may be made but no more than 10 pounds of Botran 75W per acre may be applied. The quantity of DCNA that may be applied is 3 to 4 lb a.i./A initially and 1.50 to 1.88 lb a.i./A subsequently.

104.2 Likelihood of Adverse Effects to Non-Target Organisms

The toxicity data indicate that Botran formulations are minimally toxic to birds and moderately toxic to fish. Since the fish studies were conducted with a less concentrated formulation than the one under consideration, the 75W formulation and the active ingredient, DCNA, may be more toxic. This point is moot, however, since the 75W formulation is applied to both cotton and peanuts and the proposed application rate for peanuts is less than that currently used on cotton. Therefore, non-target aquatic organisms will be exposed to a lower level of residues with a peanut application although more acres of peanuts can potentially be sprayed with Botran 75W.

105 Conclusions

EEB has completed an incremental risk assessment [3(c)(7) finding] of the proposed conditional registration of Botran 75W for use on peanuts. Based upon the available data EEB concludes that the proposed use provides for no significant increase in exposure or acute risk to non-target organisms.

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