

US EPA ARCHIVE DOCUMENT

RECORD NUMBER: 220100

SCHAUGHNESSEY NO: 031301

REVIEW NO:

EEB REVIEW

DATE IN: 4-18-88

OUT: 4-29-88

FILE OR REG. NO: 88-OK-01

PETITION OR EXP. NO:

DATE OF SUBMISSION: 3-31-88

DATE RECEIVED BY HED: 4-15-88

RD REQUESTED COMPLETION DATE: 4-28-88

EEB ESTIMATED COMPLETION DATE: 4-28-88

RD ACTION CODE/TYPE OF REVIEW: 510

TYPE PRODUCT(S): Fungicide

DATA ACCESSION NO(S):

PRODUCT MANAGER AND NO: D. Stubbs (41)

PRODUCT NAME(S) Botran ⁵/_A 7W (DCNA)

COMPANY NAME: Oklahoma Department of Agriculture

SUBMISSION PURPOSE: Proposed Section 18 for use on peanuts

SHAUGHNESSEY NUMBER	CHEMICAL AND FORMULATION	% A.I.
031301	2,6-Dichloro-4-nitroaniline	75

ECOLOGICAL EFFECTS BRANCH REVIEW

BOTRAN 75W

100 SUBMISSION PURPOSE AND LABEL INFORMATION

100.1 SUBMISSION PURPOSE AND PESTICIDE USE

The Oklahoma Department of Agriculture has submitted an application for an Emergency Exemption under Section 18 of FIFRA for the use of Botran 75WTM on peanuts in order to control sclerotinia blight. According to the submission, a similar Emergency Exemption was requested in 1987. This request has included additional counties because of an increase in the geographical range of the disease organism. It is expected that, of the 30,000 acres infected with sclerotinia, 12,000 acres will be treated. The counties included in the request are: Atoka, Bryan, Caddo, Carter, Comanche, Garvin, Grady, Hughes, Johnston, Lincoln, Love, Marshall, McClain, Okfuskee, Okmulgee and Stephens.

Sclerotinia blight of peanuts is caused by the fungus Sclerotinia minor and is stimulated by high humidity and cool temperatures. Growers have had problems suppressing the blight with RovralTM, which is registered for use on peanuts. The use of Botran 75WTM is intended to augment RovralTM treatments.

The Exemption is requested for the 1988 growing season, with the first application being made sometime between July 15 and September 1, depending on weather. The only alternative is the currently-used RovralTM, which is not as effective and costs from two to four times as much per acre.

100.2 LABEL INFORMATION (excerpted from label)

<u>Ingredient</u>	<u>Percent (w/w)</u>
<u>Active:</u>	
2,6-Dichloro-4-nitroaniline	75
<u>Inert Ingredients</u>	<u>25</u>
Total	100

100.3 APPLICATION METHODS, DIRECTIONS, RATES (excerpted from label and submission)

Equivalents: One and one-third pounds as found in Directions for Use equals one pound bag in 300 gallons. One (1) level tablespoon per gallon equals one (1) pound per 100 gallons.

2

Botran 75W application may be made by ground application equipment with flat spray nozzles capable of producing large droplets. Application may also be made by aircraft, also capable of producing fairly large droplets. Application by this equipment would not result in run-off of pesticides soon after application.

Growers may also use overhead irrigation equipment to apply Botran 75W. Application should be made in the first 30 minutes of the irrigation set. Growers are responsible for control of tail water or run-off when it is a problem.

Applications will be made at a rate of 2 to 4 pounds of product (1.5 to 3.0 pounds a.i.) per acre when the disease is first detected. A second application at the same rate will be made if the disease reappears. The total dosage for the season will not exceed 8.0 pounds product (6.0 pounds a.i.).

100.4 TARGET ORGANISM

Sclerotinia minor

100.5 PRECAUTIONARY LABELING (copied from label)

"Toxic to fish. Do not apply directly to water or wetlands. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from areas treated. Do not contaminate water by cleaning of equipment or disposal of wastes."

101 HAZARD ASSESSMENT

101.1 DISCUSSION

Botran 75WTM is a fungicide that is currently registered on a variety of crops which include deciduous fruits and vegetables. It is not registered for use on peanuts. The State of Oklahoma has requested Emergency Exemptions for use of this product nine out of the last ten years to control disease in peanuts. The area of use is expected to be approximately 12,000 of the 30,000 acres predicted to be infected with Sclerotinia minor. The State expects that farmers will use a total of 18,000 to 36,000 pounds of active ingredient during the growing season, depending on whether one or two applications are necessary. The requested duration of this exemption is from July 15 to October 30.

101.2 LIKELIHOOD OF ADVERSE EFFECTS TO NONTARGET ORGANISMS

Terrestrial species

According to data in Ecological Effects Branch files, 2,6-Dichloro-4-nitroaniline is from slightly toxic to practically

nontoxic to avian species on both an acute and subacute basis, depending on species. It is practically nontoxic to mammals and honey bees. Therefore, EEB expects no hazard to terrestrial species from the use of Botran 75WTM on peanuts.

Aquatic species

EEB aquatic data are incomplete; 2,6-Dichloro-4-nitroaniline is from highly toxic to moderately toxic to freshwater (LC50 = 1.08 ppm for bluegill sunfish and 0.56 ppm for rainbow trout). There are no data on the toxicity of this chemical to freshwater aquatic invertebrates, although the Company states that these data have been submitted in response to the registration standard issued in December, 1983. There are no environmental fate data available for review.

An estimated environmental concentration in adjacent ecosystems due to runoff from treated fields may be calculated using an application rate of 3.0 pounds of active ingredient per acre, a 2 percent runoff, and the following formula:

$$EEC = \frac{(A.R.) (RUNOFF) (DRAINAGE BASIN SIZE)}{(P.S.) (P.D.) (43560 \text{ SQ. FT./A}) (WEIGHT OF WATER)}$$

Where: A.R. = Max. Application Rate of a.i. in pounds
 RUNOFF = Percent runoff expressed in decimal form
 DRAINAGE BASIN SIZE = 10 Acres
 P.S. = POND SIZE IN Acres
 P.D. = POND DEPTH in feet

$$EEC = \frac{(3.0 \text{ lb/A})(0.02)(10 \text{ A})}{(1 \text{ A})(6 \text{ ft.})(43560 \text{ sq.ft./A})(62.36 \text{ lb/cu. ft.})}$$

EEC = 37 parts per billion in adjacent aquatic systems

This concentration is approximately 1/15th the lowest fish LC50. EEB does not expect there to be an immediate hazard to fish under this Emergency Exemption. A hazard assessment cannot be made for freshwater aquatic invertebrates.

101.3 ENDANGERED SPECIES CONSIDERATION

Botran is relatively nontoxic to avian and mammal species and therefore, it is not expected that there will be a "may effect" to resident or visiting avian species from this use.

There are no other endangered or threatened species known to reside in the counties in which this pesticide will be used.

101.4 ADEQUACY OF THE TOXICITY DATA

A Registration Standard on 2,6-Dichloro-4-nitroaniline was published in December, 1983. The Company submitted a letter with this submission indicating that the studies required by that registration standard have been submitted. The data available are adequate to assess hazard for this Emergency Exemption.

101.5 ADEQUACY OF LABELING

The existing precautionary labeling is adequate for this use.

102 CLASSIFICATION

NA

103 CONCLUSIONS

Ecological Effects Branch has reviewed the submission by the Oklahoma Department of Agriculture for an Emergency Exemption for the use of Botran 75W (DCNA) on peanuts for control of sclerotinia. EEB sees no increased risk to nontarget organisms from this use.

Robert W. Pilsucki, Microbiologist
Ecological Effects Branch
Hazard Evaluation Division (TS-769C)

Robert W. Pilsucki
4/29/88

Raymond W. Matheny, Head, Section 1
Ecological Effects Branch
Hazard Evaluation Division (TS-769C)

Raymond W. Matheny
4/29/88

for James W. Akerman, Chief
Ecological Effects Branch
Hazard Evaluation Division (TS-769C)

James W. Akerman, *Attorney*
4/29/88