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207098
RECORD NO.

031301
SHAUGHNESSEY NO.

REVIEW NO.

EEB REVIEW

DATE: IN 09-25-87 OUT 09-30-87

FILE OR REG. NO 87-TX-11

PETITION OR EXP. NO.

DATE OF SUBMISSION 8-28-87

DATE RECEIVED BY HED 9-25-87

RD REQUESTED COMPLETION DATE 9-28-87

EEB ESTIMATED COMPLETION DATE 9-28-87

RD ACTION CODE/TYPE OF REVIEW 510

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

DATA ACCESSION NO(S).

PRODUCT MANAGER NO. S. Austin (41)

PRODUCT NAME(S) DCNA (Botran)

COMPANY NAME State of Texas

SUBMISSION PURPOSE Proposed Section 18 for Control of Sclerotinia blight in Peanuts

SHAUGHNESSEY NO.	CHEMICAL, & FORMULATION	% A.I.
031301	DCNA (Botran)	75.0

EEB REVIEW

Botran (DCNA)

100.0 Submission Purpose and Labeling Information

100.1 Submission Purpose and Pesticide Use

The State of Texas is requesting an emergency exemption (section 18) for the use of Botran 75W on peanuts, to control sclerotinia blight. No data were submitted with this request.

100.2 Formulation Information

Active Ingredient:
2,6-Dichloro-4-nitroaniline----------75%

Inert Ingredients ----------25%

100.3 Application Methods, Directions, Rates

Applications of Botran 75W will be made at the rate of 2.0 to 4.0 pounds of product (1.5 to 3.0 pounds active ingredient) per acre.

Botran may be applied through overhead irrigation systems provided the systems contain antisyphon devices adequate to protect against contamination of the water supply, by ground-application equipment with flat spray nozzles capable of producing fairly large droplets.

Users are advised not to apply Botran where the water table (groundwater) is within 25 feet of the soil surface and where the soils are very permeable, I.e., well-drained soils such sands, loamy sand, and sandy loams.

100.4 Geographical Location

Any peanut field that becomes infected with sclerotinia blight within the following Texas counties: Comanche, Erath, Grayson, Mason, and McCulloch.

100.5 Duration

From September 28, 1987 through November 16, 1987

100.6 Target Organisms

Sclerotinia blight fungus (Sclerotinia minor)

101 Hazard Assessment

101.1 Discussion

The state of Texas is requesting an emergency exemption for the use of Botran on peanuts. Botran is currently registered for use on a number of crops, including deciduous fruits, vegetables, cotton, and ornamentals. Texas is requesting a maximum of two applications at 1.5 to 3.0 lb ai per acre. According to the material submitted with the request, treated acreage will be in the following counties: Comanche, Erath, Grayson, Mason, and McCulloch. The total acreage covered under this exemption is 7,730 (61,840 pounds of Botran 75W).

101.2 Likelihood of Adverse Effects on Nontarget Organism

Botran is no more than slightly toxic to birds and is practically nontoxic to mammals and honey bees. Hazard to terrestrial nontarget organisms is not expected from the proposed use.

Botran is moderately toxic to freshwater fish (bluegill sunfish LC_{50} = 1.08 ppm; rainbow trout LC_{50} = 0.56 ppm). To assess the potential hazard of the proposed use, aquatic EEC's were calculated using the highest application rate (3.0 lb ai/acre). These calculations (see attachment) show the highest EEC to be 36.6 ppb (0.0366 ppm). As this is less than one tenth the LC_{50} of the most sensitive fish species, hazard to fish is not anticipated even at the highest application rate.

No data were available on the toxicity of Botran to freshwater aquatic invertebrates. Thus, hazard to these organisms cannot be evaluated.

101.3 Endangered Species Considerations

Based on Endangered and Threatened Wildlife and Plants, dated April 10, 1987, 50 CFR 17.11 and 17.12, U.S. Fish and Wildlife Service, Department of Interior. The following organisms are listed as endangered species in Texas:

Birds

Eagle, bald	Haliaeetus leucocephalus
Falcon, Eurasian peregine	Falco peregrinus
Pelican, Brown	Pelecanus occidentalis
Prairie-chicken, Attwater's greater	Tympanuchus cupido attwateri
Stork, Wood	Mycteria americana

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Fish

Darter, fountain	Etheostoma fonticola
Gambusia, Big Bend	Gambusia gaiger
Gambusia, Pecos	Gambusia nobilis
Pupfish, Comanche Spring	Cyprinodon elegans
Pupfish, Leon Spring	Cyprinodon bovinus

The maximum Expected Residue on Vegetable From 3.0 lb ai/A (ppm)

Short Rangegrass	720
Long Grass	330
Leaves and Leafy Crops	375
Forage-Alfalfa, Clover	174
Pod Containing Seeds, legumes	36
Fruits- Cherries, Peaches	21
Water 6.0 ft	0.184
Soil 0.1 inch	0.066

Only the residue on short rangegrass exceeded 1/10th the LC_{50} (5620 ppm) for bobwhite quail (720 ppm vs 562 ppm). Peanut fields are utilized by birds in the month of September through November for feeding and loafing. However, it is unlikely that any of the above listed birds will be affected by utilizing peanut fields because most bird diets consist of a combination of vegetation, seeds, insects etc. For example:

Prairie-chicken (Food Requirement): Potential food source (vegetation and insects) vary by season, location, and availability. Lahmann (1941) identified parts of 50 species of plants and 65 species of insects as food sources. Cogar (1980) identified foliage of 56 plant species, seeds of 19 plant species and 12 families of insects from adult Attwater's Prairie chicken dropping. Cogar (1980) noted that Prairie chickens were mainly herbivorous, eating more green foliage (74%) than seeds (18%) or insects (8%). Therefore, 74% x 375 ppm = 277 ppm which is less than 1/10th the LC_{50} (5620 ppm) 277 ppm vs 562 ppm. See Prairie chicken recovery plan dated January 13, 1984.

Wood Stork (Food Requirement and Location): Feeding ares include ponds, wet prairies, cypress heads, and roadside ditches (Kahl, (1964). The specialized feeding behavior of the wood stork involves tactolocation, also called grope feeding. A feeding stork wades through the water with the beak immersed and partially open. Upon contact with a prey item (mainly small fish, occasionally take amphibians, reptiles, mammals, birds, and anthropods. See wood stork recovery plan dated October 22, 1986.

The EEC calculations using the highest application rate (3.0 lb ai/A) will exceed 1/20th the LC_{50} value (0.56 ppm) for the most sensitive species (rainbow trout) 0.028 ppm vs 0.036 ppm. However, there are no listed endangered fish species in the proposed counties under this section 18 (see attached page).

103 Conclusions

EEB has reviewed the proposed emergency exemption for the use of Botran on peanuts in Texas. EEB cannot complete a hazard assessment for this use because data on freshwater aquatic invertebrates are not available. For nontargets other than aquatic invertebrates, this use will not present a significant increase in exposure or toxicity. There are no federally listed endangered or threatened species in Texas that will be adversely affected by this use.

Curtis E. Laird 10-5-87
Curtis E. Laird, Fishery Biologist
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Hazard Evaluation Division (TS-769C)

Allen W. Vaughan 10.5.87
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Henry T. Craven 10/5/87
Henry T. Craven, Acting Chief
Ecological Effects Branch
Hazard Evaluation Division (TS-769C)

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DCNA (Botran)

Attachment A

EEC CALCULATION SHEET

I. For foliar application

A. Runoff

3.0 lbs x 0.02 (2% runoff) x 10 (A) (from 10 A. dranage basin) = 0.6 lb (tot. runoff)

EEC of 1 lb a.i. direct application to 1 A. pond 6-foot deep = 61 ppb

Therefore, EEC = 61 ppb x 0.6 (lb) = 36.6 ppb

II. For aereal application

A. Runoff

3.0 lbs x 0.6 (appl. efficiency) x 0.02 (2% run-off) x 10 (A) (10 A. d. basin) = 0.36 lbs (tot. runoff)

B. Drift

3.0 lbs x 0.05 (5 % drift) = 0.15 lb (tot. drift)

Tot. loading = 0.36 lb + 0.15 lb = 0.51 lbs

Therefore, EEC = 61 ppb x 0.51 (lbs) = 31.1 ppb or 0.031 ppm

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REPORT OF TELEPHONE CALL OR VISITOR

NOTE: Complete this form. Write "NA" where not applicable.

	INCOMING CALL		VISITOR
	OUTGOING CALL		CONGRESSIONAL

DATE: September 30, 1987

TIME OF CALL: 1:15 p.m.

NAME AND ADDRESS OF CALLER OR VISITOR

Mr. David Tilton
U.S. Fish and Wildlife Srevice

9A33 Fritz Lanham Building
819 Taylor Street, Fort Worth, Texas 76102

PHONE NO. *(Include Area Code or IDS No.)*: FTS 334-2961

REGISTRATION, ID NO. OR FILE SYMBOL: 87-TX-11

DATE OF LATEST SUBMISSION:

BRIEF SUMMARY OF CONVERSATION

I called the OES to inquire about possible endangered species concern for fish. I informed Mr. Tilton taht I was reviewing an emergency exemption (section 18) which was submitted by the state of Texas to use Botran on peanuts. I informed him that we identified a potential hazard to endangered fish. Mr. Tilton informed me that there is no listed endangered fish species in the counties where peanuts will be treated with Botran in Texas. However, there is an endangered water snake in McColloch county in Texas

ACTION TAKEN OR RECOMMENDED

RECORDED BY *(Name)*	REFERRED TO *(Name)*
Curtis E. Laird	

EPA Hq Form 8500-5 (8-72) REPLACES PR FORM 1-5 WHICH MAY BE USED UNTIL EXHAUSTED.