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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.
<u>031301</u>	<u>DCNA (Botran)</u>	<u>75.0</u>
_____	_____	_____
_____	_____	_____

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 antisiphon 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 as 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)

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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 LC₅₀ = 1.08 ppm; rainbow trout LC₅₀ = 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 LC₅₀ 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 peregrine	Falco peregrinus
Pelican, Brown	Pelecanus occidentalis
Prairie-chicken, Attwater's greater	Tympanuchus cupido attwateri
Stork, Wood	Mycteria americana

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 Rangelgrass	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 rangelgrass exceeded 1/10th the LC₅₀ (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, $74\% \times 375 \text{ ppm} = 277 \text{ ppm}$ which is less than 1/10th the LC₅₀ (5620 ppm) 277 ppm vs 562 ppm. See Prairie chicken recovery plan dated January 13, 1984.

Wood Stork (Food Requirement and Location): Feeding areas 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 LC₅₀ 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.

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DCNA (Botran)

Attachment A

EEC CALCULATION SHEET

I. For foliar application

A. Runoff

$$\underline{3.0} \text{ lbs} \times \frac{0.02}{(\underline{2}\% \text{ runoff})} \times 10 \text{ (A)} = \underline{0.6} \text{ lb}$$

(from 10 A. drainage basin) (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 aerial application

A. Runoff

$$\underline{3.0} \text{ lbs} \times 0.6 \text{ (appl. efficiency)} \times \frac{0.02}{(\underline{2}\% \text{ runoff})} \times 10 \text{ (A)} = \underline{0.36} \text{ lbs (tot. runoff)}$$

(10 A. d. basin)

B. Drift

$$\underline{3.0} \text{ lbs} \times 0.05 \text{ (5 \% drift)} = \underline{0.15} \text{ lb (tot. drift)}$$

$$\text{Tot. loading} = \underline{0.36} \text{ lb} + \underline{0.15} \text{ lb} = \underline{0.51} \text{ lbs}$$

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	DATE September 30, 1987
OUTGOING CALL		CONGRESSIONAL	TIME OF CALL 1:15 p.m.
NAME AND ADDRESS OF CALLER OR VISITOR Mr. David Tilton U.S. Fish and Wildlife Service 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 that 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 McCulloch county in Texas			
ACTION TAKEN OR RECOMMENDED			
RECORDED BY (Name) Curtis E. Laird			REFERRED TO (Name) 7