SHAUGHNESSEY NO. _____ 9 REVIEW NO.

EEB BRANCH REVIEW

DATE: IN 4/14/81 OUT 6/19/81

FILE OR REG. NO. _____

PETITION OR EXP. PERMIT NO. 10182-EUP-EG

DATE OF SUBMISSION 3/31/81

DATE RECEIVED BY HED 4/14/81

RD REQUESTED COMPLETION DATE 7/14/81

EEB ESTIMATED COMPLETION DATE _____

RD ACTION CODE/TYPE OF REVIEW 720/EUP-Nonfood Use

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

DATA ACCESSION NO(S). _____

PRODUCT MANAGER NO. W. Miller (16)

PRODUCT NAME(S) Talon Weather Block

COMPANY NAME ICI Americas, Inc.

SUBMISSION PURPOSE EUP for testing Talon Weather Blocks

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

100.0 Submission Purpose - Experimental Use Permit

100.4 Proposed EUP Program

100.4.1 Objective - To evaluate the TALON WEATHERBLOK for suitability in control of Rattus norvegicus, R. rattus and Mus musculus.

100.4.2 Duration/Date/Amount Shipped

The permit is requested for twelve months from date of issuance. A total of 3000 pounds of Talon Weatherbloks containing 50 ppm brodifacoum, 0.05 lbs A.I., is requested for use in all 50 states in the U.S.

100.4.3 Application Procedures

The Experimental Label gives the following information on application procedures:

For control of Norway rats, roof rats, and house mice in and around homes, industrial buildings, commercial and agricultural buildings, and inside transport vehicles and related port or terminal buildings. BLOKS must be placed in tamperproof bait boxes or in locations not accessible to children, pets, domestic animals or wildlife such as in burrows which are then closed. For sewer use, hang WEATHERBLOKS on a string or wire, on a tethered floating platform, or place in bait stations.

Norway and Roof Rats

Apply 1/2 to 1 1/2 WEATHERBLOKS (usually at intervals of 15-30 ft) per placement. Maintain an uninterrupted supply of fresh bait for 10 days or until signs of rat activity ceases. When infestations of Norway or roof rats are limited to overhead areas, tie or fasten BLOKS securely in protected locations on vegetation, fences, poles, beams, or other overhead areas where signs indicate rodents are active.

House Mice

Apply 1 mouse wedge (each 1/12 of a WEATHERBLOK) at intervals of 8-12 feet per placement. Larger placements (2 wedges) may be needed at points of very high mouse activity. Maintain an uninterrupted supply of fresh bait for 15 days or until signs of mouse activity ceases.

100.4.4 Target Pests

Norway Rats (Rattus norvegicus)
Roof Rats (Rattus rattus)
House Mouse (Mus musculus)

100.4.5 Geographical Site Features

The wax blocks are proposed to be tested in a variety of habitats with special attention to moist and humid environments throughout the U.S.

100.4.6 Test Program Description/Features

Twenty to 200 individual trials are proposed using from 5 to 50 lbs of blocks depending on species and trial site size. Field evaluations will be conducted according to the protocol previously developed and utilized for talon pellets, modified as necessary for wax blocks. Basically, this entails pre-and post treatment rodent censuses to assess the degree or percentage of rodent control achieved as the result of a rodent bait application conducted in accordance with label directions. Census methods proposed included, catch-marked-release trapping, counting rodents, counting feces, noting urine, tracks, active burrows, active runs and rub marks, gnawings or other damage, and food or water consumption. Method or methods selected will be left to the discretion of the investigator who will choose the most accurate method(s) which is(are) practical for the test site selected.

101.0 Chemical and Physical Properties

See previous reviews

102.0 Behavior in the Environment

See previous reviews

103.0 Toxicological Properties

See previous reviews.

104.0 Hazard Assessment

Potential hazards to non-target species from the use of brodifacoum to control commensal rodents has been discussed in previous reviews, and therefore the reader is referred to these for an indepth discussion. (Turner 4/26/79). Although previous reviews were for a different bait formulation, pellets, the discussion applies equally well to the wax blocks.

In summary, although proposed use rates are in the lethal range for many primary consumers, areas of use and application methods reduce the chance of exposure to many of these species. In addition, brodifacoum appears to present a secondary hazard. Again due to areas of use and application methods exposure appears to be limited for most sites.

The exception to this is the outside placement of bait, particularly around agricultural buildings. There appears to be a strong possibility, as discussed in EEB's previous review (Turner 4/26/79), of secondary hazard to raptors. ICI initiated a study to evaluate this aspect of Brodifacoum using the Barn Owl (Tyto alba) as an indicator species; however, the results of this study have not been submitted.

In addition to this secondary hazard present by brodifacoum in either pellets or wax blocks, the latter could present a primary hazard to some avian and mammalian species. The concern arises over the statement made on the label indicating wax blocks are to be tied or fastened securely in protected locations on vegetation, fences, or poles. Although the word protected is used, its hard to imagine vegetation, fences or poles around agricultural buildings which would be protected to the extent to stop access of wildlife. The formulation used for the wax blocks may attract non-targets, like squirrels, wood peckers, jays etc. And if so, at proposed concentrations would present a hazard to these species.

This concern may not be justified, because the label also states, blocks must be placed in tamperproof bait boxes or in locations not accessible to wildlife. However, as presented on the label, it is unclear, and should be rewritten to clarify what is meant. If wax blocks in these locations are to be placed in tamperproof bait boxes exposure to non-targets is unlikely; if not, research will be needed to assess the hazard to non-targets from this bait placement.

104.1 Endangered Species Consideration

It is not expected that the proposed use will adversely affect endangered species. This opinion is based on the distribution and habits of endangered species and the exposure potential that centers around human structures and habitations. Endangered species that could be affected are unlikely to exist so close to civilization as to be exposed enough for adverse effects to occur.

107.0 Conclusions

EEB has reviewed the proposed EUP on Talon (Brodifacoum) WEATHERBLOK for commensal rodent control. Although repeated and widespread use of brodifacoum for commensal rodent control, particularly around barns and other outbuildings, could pose risk to raptors, and possibly other avian and mammalian species, the proposed EUP, due to its limited size does not appear to present a significant risk to non-target wildlife populations. We suggest the following restrictions be imposed to mitigate potential hazards which are present:

1. Do not bait within one mile radius of an active raptor nest. Consult State Wildlife Officials, local bird experts and U.S. Fish and Wildlife Service Personnel to determine locations of such nesting sites.

2. All outside placements of bait must be in tamperproof bait boxes.

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