

US EPA ARCHIVE DOCUMENT

EEE BRANCH REVIEW

DATE: IN _____ OUT _____ IN 12/2/77 OUT 1/6/78 IN _____ OUT _____
FISH & WILDLIFE ENVIRONMENTAL CHEMISTRY EFFICACY

FILE OR REG. NO. 100-583

PETITION OR EXP. PERMIT NO. 7F1913

DATE DIV. RECEIVED _____

DATE OF SUBMISSION _____

DATE SUBMISSION ACCEPTED _____

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

PRODUCT MGR. NO. Jacoby 24

PRODUCT NAME(S) Dual 6E Herbicide

COMPANY NAME Ciba-Geigy

SUBMISSION PURPOSE Soybeans (Special review)

CHEMICAL & FORMULATION Metolachlor

[2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl)acetamide]

Response to questions in registrants Dec. 2, 1977 letter. (Note: Some of the questions apply to section 6.5 of our review on DUAL 6E (100-583).)

A. Field soil studies

1. The sole absence of soil bulk density properties is not sufficient to declare a study unacceptable. However, if we are asking for soil profile information regarding a study, the soil bulk density will be requested.
2. One study we reviewed is study 74022, a field plant uptake study, containing some field soil dissipation data. The primary objective of the study is to monitor uptake and distribution of ^{14}C metolachlor residues in field grown corn but our comments apply to the soil dissipation part of the study, which is the only part that addresses EC data requirements. In a field soil dissipation study, residues to be identified are those comprising $> 10\%$ of the initial application or 0.01 ppm, whichever is greater. *The test is to be conducted under actual use conditions.*
The registrant's question probably refers to our comments on this study (74022).
3. A leaching study (see our review of 7F1913 dated Aug. 8, 1977) using ^{14}C parent overlaid on a 12" column and subjected to 20" of "rain" at 1"/hour showed considerable leaching in soils low in organic matter. A sandy soil showed 21% activity in the leachate, and a sandy loam showed 36% of the leachate. Therefore, we are justified in requesting soil samples taken to 12 inches.
4. Our comments on the individual tank mix studies concerning identification of all residues and our sample protocol do not agree. The purpose of the tank mix studies is to determine if there is increased soil persistence of any of the tank mix components due to use of the tank mix. Analysis only for parent is sufficient. (The identification of products formed as provided by the field soil dissipation and aerobic soil metabolism studies is sufficient.) Also, take enough samples to provide a decline curve.

Ronald E. Ney, Jr. 2/6/78

Ronald E. Ney, Jr. 1/6/78

Samuel M. Creeger Feb 6, 1978

Samuel M. Creeger
January 5, 1978
Environmental Chemistry Section
EEEEB