2-1-94

To: Bob Taylor, RD

From: Mike Davy, EEB

Re: Comparison of Acetochlor and Alachlor EEC and RQ for fish.

According to EFGWB analysis of alachlor environmental fate data alachlor and acetochlor should behave similar in the environment. A general assumption can therefore be made that the modeling EECs can also be similar. Therefore, for the purpose of this note, the alachlor EEC can be based on the EFGWB model on acetochlor EEC.

Acetochlor RQ= 0.37 for fish in corn belt and 1.5 for fish in southeastern U.S. where runoff potential is high.

**ALACHLOR**

If 71 ppb is runoff load for acetochlor in 6 feet of water when applied at 2.34 lb ai/A on corn in the corn belt, then the load for alachlor which is applied at 4 lb ai/A should be 121.4 ppb. (71/2.34 = x/4; x=121.4 ppb)

Trout $LC_{50}$= 1.4 ppm for alachlor (alachlor topical summary from EEB). LOC= 1/2 $LC_{50}$ = 0.7 ppm = 700 ppb. No adverse effects anticipated for fish from alachlor in corn belt. RQ = 0.17.

If 284 ppb is load for acetochlor at 2.34 lb ai/A in southeastern U.S., then for alachlor which is at 4 lb ai/A the load should be 485.5 ppb. (284/2.34 = x/4; x=485.5 ppb).

Trout $LC_{50}$= 1.4 ppm for alachlor. LOC= 0.7 ppm = 700 ppb. RQ=0.69. **No adverse effects are anticipated for fish from alachlor in southeastern U.S.**

No complete risk assessment has been done for alachlor at this time.

**Endangered Species of Fish**

Triggers for endangered species of fish have been exceeded by the labeled use of acetochlor **for the entire U.S.**

Triggers for endangered species of fish have been exceeded by the labeled use of alachlor **for only the high runoff area of southeastern U.S.**

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