Shaugh. No. 090501

EAB Log Out Date: JAN 29 1986

Init.: #14 for SMC

To: W. M.McDavit
Product Manager 62
Registration Division (TS-767)

From: Carolyn K. Offutt
Head, Environmental Processes and Guidelines Section
Exposure Assessment Branch, HED (TS-769)

Attached, please find the estimated environmental concentration review of:

Reg./File No.: 644(30000/44), 565(30000/44).

Chemical: Alachlor

Type Product: Herbicide

Product Name:

Company Name: Monsanto

Submission Purposes: Comments on alachlor PD # 1 .

Action Code: 827

Date In: 3/5/85

EFB#: 5330

Date Completed: 1/22/86

Review time 3 Days

Deferrals To:

_____ Ecological Effects Branch

_____ Residue Chemistry Branch

_____ Toxicology Branch

(1)

MR. FRED ROETH'S (University of Nebraska) REBUTTAL 644(30000/44) AGAINST THE SPECIAL REVIEW OF ALACHLOR PD # 1 SUBMITTED FEBRUARY 21, 1985.

COMMENTS:

"Lowering chemical exposure to the user and general public is a worthwhile effort. Certainly chemical runoff or leaching into our water system is particularly alarming. For that reason short residual, biologically degraded chemicals such as Lasso have been considered less risky than longer lived products.

Once applied, holding agrichemicals in place is important. Conservation tillage which reduces water runoff will reduce erosion and chemical runoff. In this regard herbicide incorporation is counterproductive since it buries crop residue. Lasso is an important preemergence, surface applied herbicide choice in reduced tillage systems so I oppose EPA's suggestion that it always be incorporated. Saving our topsoil is vitally important. Furthermore except under unusual circumstances I doubt that Lasso poses a threat to leach into groundwater."

RESPONSE:

The Agency stated in PD # 1 page 23 paragraph 2 line 3, "Although alachlor is biologically degraded in soil, it does not readily degrade once it reaches aquatic systems." Alachlor has been found in ground water (refer to Table 7 of PD # 1 document).

The Agency is examining the regulatory action that alachlor should be applied as an incorporated herbicide only (refer to PD #1, page 77, regulatory option 2 requiring alachlor to be soil incorporated) and is aware of the fact that incorporation of alachlor may cause higher amounts to leach into ground water.

PRDatta

Padma Rag Datta, Chemist
Environmental Processes and Guidelines Section
Exposure Assessment Branch
Hazard Evaluation Divison (TS-769C)

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PROFESSOR EMERITUS ROBERT D. SWEET'S (CORNELL UNIVERSITY) REBUTTAL
565(30000/14) AGAINST THE SPECIAL REVIEW FOR ALACHLOR PD # 1
SUBMITTED ON FEBUARY 22, 1985

COMMENTS:

"Risk to ground water is an extremely important aspect of all pesticides. Unfortunately we scientists in universities as well as those in the private sector have not given a sufficient amount of time to obtain all the data needed to pinpoint the fate of pesticides after application under all possible situations regarding soils, rainfall, dosage, etc. Typically we have accepted rather generalized information and applied it in a rather non-specific manner. This has given rise to a certain number of specialized circumstances where ground water contamination has been detected.

As an interim measure to reduce the risk to groundwater I suggest the following restrictions be considered:

a) Reduce the permitted rate of alachlor to the minimum possible dosage with favorable weather on most soil types. Often this would be 2 lbs/A.

b) Ban the use of alachlor on extremely light, "leachy", soil types. These would need careful definition by soil scientists based on clay, organic matter, cation exchange capacity, etc. Then, local authorities could specify areas where alachlor could and could not be used. Pragmatically, field corn, sweetcorn and white potatoes rarely are grown on these special soils unless irrigation is available. With irrigation metolachlor could be substituted. It would not need incorporation because irrigation could be given, if needed.

During this interim period, high priority should be given to data development for the specifics on risk to ground water, and as data becomes available restrictions could be changed as warranted."

RESPONSE:

The Agency is currently developing an alachlor monitoring program with Monsanto for both ground water and surface water sources used for potable (drinking) water in the United States. The experimental monitoring design includes sampling well sites corresponding to low, medium, and high alachlor use areas. Your suggestion to ban the use of alchlor on extremely light "leachy" soil types is under consideration by the Agency since available well water monitoring data, the LEACH analysis, and PRZM assessment showed that alachlor has the potential to leach (Refer to Tables 7, 8, 9 of PD # 1, respectively).

Although the Agency is considering the ban of the use of alachlor on sandy or leachy soils and reducing rate of application in all soils, those decisions have not been finalized.

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