



6-11-82 7

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

MEMORANDUM

OFFICE OF  
PESTICIDES AND TOXIC SUBSTANCES

TO: Robert Taylor  
Registration Division (TS-767)

THRU: William Burnam, Deputy Chief *WB*  
Toxicology Branch  
Hazard Evaluation Division (TS-769)

SUBJECT: Alachlor Risk Assessment

During our review of Monsanto's risk assessment for Alachlor (R.D. #393, Special Report MSL-1983, Vol. 1, part 3, 1/5/82. Accession#070585) we noted that there are certain assumptions regarding Monsanto's calculations of the dietary exposure (see table 4, page 18):

1. Monsanto's maximum observed Alachlor residues in or on several commodities are different from Toxicology Branch approved tolerances for these commodities.
2. Monsanto is using in these calculations the percentage of total acres treated with Lasso.

The above stated two assumptions resulted in an estimate of dietary exposure which is different from the existing theoretical maximum residue contributions (TMRC) calculated by the Toxicology Branch.

Toxicology Branch cannot validate these assumptions made by Monsanto. Please refer these assumptions to the proper branch for review.

*Amal Mahfouz 6/11/82*  
Amal Mahfouz, Ph.D  
Toxicology Branch  
Hazard Evaluation Division (TS-769)

TS-769:th:TOX/HED:AMahfouz:6-11-82:card 5

TABLE 4.

RESIDUE CONTRIBUTION FROM DIET<sup>1</sup>

Crop With Approved Tolerance	Maximum Observed Residue (ppm)	% Total Acres Treated With LASSO <sup>2</sup>	Average Total Diet for 60 kg Human (kg)	Percent of Diet <sup>3</sup>	Daily Residue Contribution (mg)
Corn (all types)	<0.05	36	1.5	2.51	<0.00068
Soybeans	0.09	26	1.5	0.92	0.00032
Field Beans	0.09	2	1.5	0.31	0.00001
Lima Beans	0.08	2	1.5	0.19	0.00000
Peas	0.10	10	1.5	0.69	0.00010
Potatoes	0.08	6	1.5	5.43	0.00039
Cotton seed (oil)	<0.02	1	1.5	0.15	0.00000
Peanuts	<0.02	54	1.5	0.36	0.00006
Total Daily Residue Contribution from Diet (mg)					<0.00156

Raw Crop Residues. Does not include any residue reduction occurring during processing and cooking.

Calculated from U.S.D.A. Crop Reporting Board statistics and Monsanto Company market research information for 1981.

From U.S.-EPA. Revised Food Factor Tables, May 1978.

From Table 4.

$$\begin{aligned}
 <0.00156 \text{ mg} = <1.56 \text{ } \mu\text{g}/\text{Human}/\text{day} = \frac{1.56 \text{ } \mu\text{g}}{60 \text{ kg Human}} = \\
 &= 0.026 \text{ } \mu\text{g}/\text{kg body weight}/\text{day}
 \end{aligned}$$

CONTAINS TRADE SECRET OR  
OTHERWISE CONFIDENTIAL  
INFORMATION OF MONSANTO  
COMPANY.