

US EPA ARCHIVE DOCUMENT



*Glyphosate/Tox*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

MAR 20 1986

MAR 20 1986

~~CONFIDENTIAL~~



MEMORANDUM:

OFFICE OF PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: Glyphosate; 86-OK-01; Section 18 request from Oklahoma to use glyphosate in/on wheat  
Project No. 1286  
Record No. 168705  
Caswell No. 661A

TO: Don Stubbs  
Product Manager (41)  
Registration Division (TS-767)  
and  
Residue Chemistry Branch  
Hazard Evaluation Division (TS-769)

THRU: Theodore M. Farber, Chief Toxicology Branch  
Hazard Evaluation Division (TS-769)

*Theodore M. Farber*  
3/17/86

THRU: Edwin Budd, Section Head Review Section II  
Toxicology Branch  
Hazard Evaluation Division (TS-769)

*Budd*  
3/12/86

FROM: William Dykstra Toxicology Branch  
Hazard Evaluation Division (TS-769)

*William Dykstra*  
3/11/86

The Oklahoma Department of Agriculture requests a Section 18 to use glyphosate on wheat to control common rye grain in commercial wheat fields.

The proposed use is rope wick and wiper applicators to volunteer rye when it is six or more inches above the wheat crop.

Approximately 75,000 acres of wheat will be treated for a total of 4,500 lbs., a.i. A maximum of two applications will be used. A preharvest interval of 30 days is specified. The feeding of forage or hay from glyphosate treated wheat is prohibited.

The formulation to be used is Roundup (EPA Reg. No. 524-308-AA). Inerts are cleared under 180.1001.

The toxicity data base has been indentified in previous memoranda.

The duration of the application is April 10, 1986 to May 20, 1986.

In the attached memo of 5/1/85 from A.J. Reiter to J. Housenger, RCB concludes that "residues of glyphosate and its metabolite aminomethyl phosphonic acid will not likely to exceed 0.25 ppm in/or wheat grain, 0.75 ppm in milled by products and 3 ppm in/on wheat straw at a 30-day PHI."

"Secondary residues of glyphosate and its metabolite aminomethyl phosphonic acid in/on kidney and liver of cattle, goats, hogs, horses, poultry and sheep are not expected to exceed the established 0.2 ppm tolerance. A restriction is needed on the feeding of forage or hay from glyphosate treated wheat."

In a previous Section 18 attached memo (4/29/85) from W. Dykstra to D. Stubbs, Toxicology Branch stated that "glyphosate was oncogenic in male mice"; and that "if the Delaney rule also applies to residues resulting from a Section 18 use, Toxicology Branch would also conclude that the Section 18 is not toxicologically supported."

The Agency recently requested the SAP to consider the potential oncogenicity of glyphosate. In the attached report, the SAP concluded that "glyphosate be categorized as Group D (not classified) and that there be a data call-in for further studies in rats and/or mice to clarify unresolved questions."

If the Agency concurs with the SAP position glyphosate should not be considered oncogenic in male mice. If this is the case, the Delaney clause would not apply to the Section 18.

The TMRC for wheat at a 0.25 ppm action level would be

$$\text{TMRC} = 0.25 \text{ ppm} \times 1.5 \text{ Kg/day} \times \frac{\text{F.F.}}{10.36} \times \frac{100}{100}$$

$$\text{TMRC} = 0.03885 \text{ mg/day}$$

$$\text{Percent increase in ADI} = \frac{\text{TMRC} \times 100}{\text{MPI}}$$

$$\text{Percent increase in ADI} = \frac{0.03885 \text{ mg/day} \times 100}{6.000 \text{ mg/day}} = \underline{0.65\%}$$

Conclusion: Depending on the Agency's position relative to the SAP conclusion, the Section 18 may or may not be supported.