

DATE: AUG 24 1978

SUBJECT: Hazard Assessment for Glyphosate, your telephone request of 8/24/78

FROM: Robert J. Taylor, Fungicide-Herbicide Branch
Registration Division (TS-767)

TO: Deputy Assistant Administrator for
Pesticide Programs (TS-766)

THRU: Acting Director
Registration Division (TS-767)

The following is a synopsis of the Science Branch (toxicology and chemistry) findings pertaining to the herbicide glyphosate which contains the chemical contaminate N-nitrosoglyphosate (NNG):

- a) No residues of NNG appear in raw agricultural commodities treated with technical glyphosate.
- b) The maximum calculated residues of NNG on raw agricultural commodities, assuming that all of the NNG present in applied formulation is found on harvested commodity, is in the 10-20 parts per billion range. Due to the photosensitivity of NNG to ultraviolet light, actual residues in food items would be expected to be appreciably less than these amounts.
- c) The results of an application study submitted by Monsanto measured actual amounts of glyphosate and NNG to which an applicator may be exposed when loading and applying the pesticide by various means. These results demonstrate exposure to glyphosate to be essentially nil, and to NNG to be nonexistent.
- d) The formulated product (Roundup) contains concentrations of 0.2 to 0.4 parts per million of N-nitrosoglyphosate (NNG).

For your information see the attached photocopy of the toxicologist and chemist review.

Robert J. Taylor
Robert J. Taylor

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