



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

JUL 24 1990

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: PP#0E3857 - Glyphosate (Roundup®) on Cocoa Bean.
Review of the June 25, 1990 Amendment.
(No MRID Number) [DEB No. 6827]
(HED Project No. 0-1526)

FROM: Francis D. Griffith, Jr., Chemist
Dietary Exposure Branch
Health Effects Division (H7509C)

TO: Hoyt L. Jamerson, Minor Use Officer, PM 43
Registration Support Branch
Registration Division (H7505C)

and

Toxicology Branch II - Herbicide, Fungicide and
Antimicrobial Support
Health Effects Division (H7509C)

THRU: Robert S. Quick, Section Head
Tolerance Petition Section I
Dietary Exposure Branch
Health Effects Division (H7509C)

Dr. Jerry Baron, Associate Coordinator, on behalf of the Interregional Research Project No. 4 (IR-4) submitted this amendment consisting of a cover letter, a revised Section B (new labeling), and a revised Section F (defining the raw agricultural commodity [RAC]) in response to several deficiencies outlined and summarized in our review of June 4, 1990 by F.D. Griffith, Jr. These deficiencies are repeated and listed in the body of this review followed by the petitioner's response then DEB comments. Our conclusions and recommendations follow.

SUMMARY OF DEFICIENCIES REMAINING TO BE RESOLVED

None.

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CONCLUSIONS

1. DEB Conclusion on Directions For Use/Labeling

The petitioner has proposed adequate directions for use of Roundup® in cacao groves. The directions for use are consistent with directions for use on other tree crops. Tank mixes with other pesticides are not permitted. The deficiency is resolved.

2. DEB Conclusion on Proposed Tolerances

The petitioner has proposed a tolerance for glyphosate and its aminomethylphosphonic acid (AMPA) metabolite at 0.2 ppm on cocoa bean. The deficiency is resolved.

RECOMMENDATION

Toxicology Branch considerations permitting and considering that there are no further chemistry deficiencies remaining with this petition, DEB makes the following recommendation.

Since combined residues of glyphosate and its AMPA metabolite are not expected to exceed the proposed tolerance under the proposed Roundup® conditions of use, DEB recommends for the 0.2 ppm glyphosate plus AMPA tolerance on cocoa bean.

DETAILED CONSIDERATIONS

DIRECTIONS FOR USE/LABELING

Deficiency 1

Since cacao is a tree crop, DEB requests the petitioner revise the requested supplemental labeling so that cacao be listed under the Tree Crops portion of the Tree and Vine Crops section rather than under Cropping Systems. Directions for use of glyphosate on cacao orchard floors should be consistent with directions for use on other tree crops (see memorandum by M. Nelson in PP#9E3715 dated April 5, 1989).

DEB also requests the petitioner add a statement to the proposed labeling that tank mixing of Roundup® with other pesticides is NOT permitted unless the tank mates also have established tolerances on cocoa beans.

Petitioner's Response

The petitioner has submitted the following revised directions for use.

"ROUNDUP® is recommended for weed control in established cacao groves or for site preparation prior to transplanting. Application may be made with boom

equipment, CDA, shielded sprayers, hand-held and high-volume wands, lances, or orchard guns, or with wiper applicator equipment. See the "Application Equipment and Techniques" and "Weeds Controlled" sections of the ROUNDUP® label for specific information on use of equipment and recommended rates to be used. Allow a minimum of 14 days between last application and harvest. Do not apply more than 10.6 quarts of ROUNDUP® per acre per year. Do not tank mix with other pesticide products."

DEB Comments

Under the Tree Crops portion of the Tree and Vine Crops section of the label, the petitioner has proposed an adequate set of directions for use of Roundup® (glyphosate) on cacao trees. These directions are consistent with directions for use on other tree crops. Tank mixes are prohibited. The deficiency is resolved.

PROPOSED TOLERANCES

Deficiency

A revised Section F should be submitted which proposes a tolerance for combined residues of glyphosate and AMPA in/on cocoa beans at 0.2 ppm.

Petitioner's Response

The petitioner submitted the following revised Section F:

The petitioner, IR-4, on behalf of the IR-4 National Director, Dr. R.H. Kupelian, and the Agricultural Experiment Station of Hawaii requests the establishment of a tolerance for the combined residues of the herbicide glyphosate [N-(phosphonomethyl)glycine] and its metabolite aminomethylphosphonic acid resulting from application of the isopropylamine salt of glyphosate in or on the raw agricultural commodity cocoa bean at 0.2 ppm.

DEB Comments

The petitioner has now defined the RAC as cocoa bean not cacao. The deficiency is resolved.

cc: R.F., Circ (7), Reviewer (FDG), PP#0E3857, R.D. Schmitt, Ph.D., Chief, PIB/FOD (Furlow), FDA, DRES/SACB (Kariya)

H7509C:DEB:Reviewer(FDG):CM#2:RM 814B:5570826:JOB:57302:I:
WP5.0:C.Disk:KENCO:07/18/90:DD:VO:EK:CL:ed:fdg:7/23/90.
RDI:SecHd:RSquick:7/23/90:BrSrSc:RALoranger:7/24/90.