



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

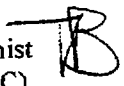
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EPA SERIES 361

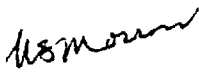
OFFICE OF  
PREVENTION, PESTICIDES, AND  
TOXIC SUBSTANCES  
OPP OFFICIAL RECORD  
HEALTH EFFECTS DIVISION  
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EPA SERIES 361

28-July-1999

MEMORANDUM

Subject: PP#s 7F04910, 8F04997 - Amendment to the Glufosinate Ammonium **Evaluation of Residue Data and Analytical Methods** Memorandum (D257629 & D257628, T. Bloem, 9-Jul-1999). DP Barcode D258075. Chemical # 128850. Case # 289177. Submission # S529287.

From: Tom Bloem, Chemist   
RAB1/HED (7509C)

Through: Melba Morrow, DVM, Branch Senior Scientist   
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To: Joanne Miller/Eugene Wilson (PM Team 23)  
RD (7505C)

Several mistakes, related to calculation of application rates, were identified in the glufosinate ammonium **Evaluation of Residue Data and Analytical Methods** memorandum (D257629 & D257628, T. Bloem, 9-Jul-1999). The "Special Notes" section of the Liberty™ label for sugar beet and canola indicates that the maximum seasonal rate for sugar beets is 84 ounces/acre and for canola is 64 ounces/acre. The units on the application rates should be 84 and 64 fluid ounces/acre. As a result, the application rates specified in Conclusions 2a and 2b (page 3) and OPPTS GLN 860.1200 Directions for Use Section (page 12) are incorrect. These sections should read as indicated below (bolded text indicates where a change was made). The miscalculation of the application rates has no bearing on any other conclusion in the glufosinate ammonium **Evaluation of Residue Data and Analytical Methods** memorandum.

**OPPTS GLN 860.1200: Directions for Use**

The petitioner is requesting registration of Liberty™ Herbicide (18.19% glufosinate ammonium; 1.67 lbs ai/US gallon; EPA Reg. No. 45639-199) for use on the transgenic varieties of sugar beet and canola and Rely® Herbicide (11.33% glufosinate ammonium; 1.00 lbs ai/US gallon; EPA Reg. No. 45639-187) for use in potato vine desiccation. Both products are water-soluble and applied as a foliar spray. The Liberty™ label indicates that a 120 day interval from the last application is required prior to planting wheat and grazing treated crop or cut for hay is prohibited.

*Sugar Beets:* Applications of Liberty™ Herbicide may be made from the cotyledon stage up to the 10 leaf stage. Maximum recommended single application rate is **0.55 lbs ai/acre**. A maximum of **1.1 lbs ai/acre** can be applied per season. Application can be made with ground (controlled droplet application equipment or air assisted spray equipment; minimum of 10 gallons of water/acre) or aerial (minimum of 5 gallons of water/acre) equipment. The label specifies a 60 day pre-harvest interval (PHI).

*Canola:* Applications of Liberty™ Herbicide may be made from the cotyledon stage up to the early bolting stage (at this stage the plant has at least 6 leaves). A maximum of two applications per season is allowed with the total seasonal rate not to exceed **0.89 lbs ai/acre**. Application can be made with ground (controlled droplet application equipment or air assisted spray equipment; minimum of 10 gallons of water/acre) or aerial (minimum of 5 gallons of water/acre) equipment. The label specifies a 65 day PHI.

*Potato:* Application of Rely® Herbicide is recommended at the beginning of natural vine senescence. The product is to be applied at a rate of 0.375 lbs ai/acre in 20-100 gallons of water per acre with ground equipment or in 5-10 gallons of water per acre with aerial equipment. The label specifies a 9 day PHI. Potatoes grown for seed stock are not to be treated.

*Conclusion:* The sugar beet portion of the Liberty™ Herbicide label should be amended to indicate in the "Special Notes" section that the maximum single application rate is 42 fluid ounces/acre (**0.55 lbs ai/acre**).

The maximum seasonal application rate for canola is listed as **0.89 lbs ai/acre** in the application timing section and **0.84 lbs ai/acre** in the special notes section (**0.89 lbs ai/acre** will be assumed to be correct). The petitioner indicated that only the spring variety of canola has been genetically modified for tolerance to glufosinate ammonium. In Region 2, canola is only planted in the winter months (winter variety of canola) due to the unfavorable climate for canola in the summer. Therefore, the petitioner is not requesting registration of transgenic canola in Region 2. The canola portion of the Liberty™ Herbicide label should be amended to indicate in the "Special Notes" section that use of this product on transgenic canola in Region 2 is prohibited.

Both the Rely® Herbicide and Liberty™ Herbicide labels should be amended to indicate a 120 day plant back interval for all crops except wheat where a 70 day plant back interval is appropriate.

cc: PP 7F04910 & 8F04997, T. Bloem (RAB1)  
RDI: M. Morrow (28-Jul-1999)  
T. Bloem:806R:CM#2:(703)-605-0217