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

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OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

MEMORANDUM

SUBJECT: ID #062719-00131 (CBTS #9506; Barcode #D175211).
Trifluralin (Treflan® TR-10) on Soybeans. Proposed Label
Amendment dated 2/6/92. (No MRID #).

FROM: Nancy Dodd, Chemist *Nancy Dodd*
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THRU: Debra Edwards, Ph.D., Acting Chief *R. Loranger for DE*
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TO: Joanne Miller, PM #23
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Registration Division (H7505C)

Introduction

DowElanco has requested a label amendment to the registered use of the herbicide trifluralin (Treflan® TR-10, EPA Reg. #62719-131) on soybeans to allow use under reduced or conservation tillage conditions. This amendment dated 2/6/92 was submitted in response to CBTS's review dated 12/6/91 (W.T. Chin) which recommended against the proposed label amendment.

Conclusions

1. The granular formulation Treflan TR-10 is registered for use on soybeans. The proposed use would allow use under reduced or conservative tillage conditions. Although such a requested label change would not normally require residue data, we have no data in our files reflecting use of the granular formulation on soybeans. It is our policy to require data for both EC and granular formulations.

2. Although residue data were not required for the granular formulation in connection with the registration standard, such data were required in the W.T. Chin memo (ID #062719-00131, 12/6/91).

Residue data for Treflan® TR-10 on soybean seeds, soybean forage, and soybean hay to support the proposed amended use reflecting the maximum proposed rate should be submitted. Studies on soybeans should be conducted in the states of MS/LA, TN, AR, IN/IL, IA/NE, MN, and MO. Alternatively, several side-by-side bridging studies could be conducted with the granular and EC formulations.

3. Soybean processing data are not available. Such data should be submitted.

4. Except for specific states or areas, the proposed use involves a higher rate than the registered rate. The proposed use would allow spring applications of Treflan TR-10 at rates up to 1.25 lbs ai/A and fall applications at rates up to 1.5 lb ai/A. However, the registered spring application rates for both Treflan EC and Treflan TR-10 are 0.5-1.0 lb ai/A. The registered fall application rates for both Treflan EC and Treflan TR-10 are 1.0-1.25 lb ai/A. The registered rates for Treflan EC which are higher than 1.25 lb ai/A are restricted to specified states or areas.

5. It is not clear whether both a fall and a spring application are intended. The label should be clarified. If a fall application can be followed by a spring application, then residue data reflecting both fall and spring applications should be submitted.

Recommendations

CBTS recommends against the proposed use for Treflan TR-10 on soybeans grown under reduced or conservation tillage conditions for reasons given under Conclusions #2, 3, 4, and 5 above.

DETAILED CONSIDERATIONS

CBTS's deficiency from the 12/6/91 (W.T. Chin) review of this label amendment request will be repeated below, followed by the petitioner's response and CBTS's Discussion/Conclusion.

Deficiency

The petitioner is requested to submit residue data for use of Treflan® TR-10 on soybeans to support the amended registration reflecting the maximum proposed rate and incorporated applications both in the fall and prior to planting in the spring.

Petitioner's Response

"On October 15, 1991, DowElanco submitted supplemental labeling proposing Treflan use under conservation tillage cultural practices prior to planting soybeans. Our current approved labeling already allows this conservation tillage use in cotton. Conservation tillage is reduced tillage practices designed for more favorable

soil conservation and erosion prevention. Thus this cultural practice allows crop residue to be in the field prior to using Treflan. DowElanco also proposed maximum use rates of 1.0, 1.25, 1.5 lbs active per acre for coarse, medium and fine textured soils respectively. These rates are still within the maximum allowed rates in soybeans as Treflan is registered for use up to 2 lbs active/Acre in special use programs such as Johnsongrass control."

"The Agency responded to DowElanco on December 23, 1991 indicating that to allow this use for conservation tillage, additional residue data were required."

"DowElanco requests the Agency to reconsider the proposed labeling amendment since the only change is using a different cultural practice of less field tillage prior to application. As mentioned, soybeans are registered and have tolerances established for use of up to 2 lbs active/A and the proposed labeling dictates rates that are less than the already approved rates."

CBTS's Discussion

CBTS elaborated on the deficiency in the review dated 12/6/91 (W.T. Chin) as follows:

"No residue data are submitted to support this amendment. By a telephone conversation on 11/19/91, the petitioner (Dr. D. H. Lade) indicated that the Treflan® EC formulation for use on soybeans and other crops has been replaced by Treflan® TR-10 for years without changing the residue patterns of trifluralin. CBTS cannot accept this explanation because no residue data from use of Treflan® TR-10 on soybeans or other crops are available. The petitioner, therefore, is requested to submit residue data for use of Treflan® TR-10 on soybeans to support the amended registration using the maximum proposed rate and preplant incorporated applications in both the fall and prior to planting in the spring."

Treflan EC contains 4 lbs ai/gal. Treflan EC can be broadcast for soybeans as a spring or fall preplant soil incorporated application. Spring application rates are 0.5-1.0 lb ai/A. Fall application rates are 1-1.25 lb ai/A. Rates higher than 1.25 lb ai/A are restricted to specified states or areas.

Treflan TR-10 (a granular formulation) contains 10.53% ai. Treflan TR-10 can be applied for soybeans as a preplant soil incorporation in the spring before planting or in the fall. Spring application rates are 0.5-1.0 lb ai/A. Fall application rates are 1.0-1.25 lb ai/A.

The proposed supplemental labeling for Treflan TR-10 would allow application in the fall or spring as a preplant incorporated treatment for soybeans grown under reduced or conservation tillage conditions. Spring applications would be made at rates of 0.5-1.25 lbs ai/A. Fall applications would be made at rates of 0.75 to 1.5 lb ai/A.

Residue data in the Trifluralin Registration Standard on soybeans include data reflecting preplant application at rates up to 2 lb ai/A. The formulations used were EC or unspecified. Most of the studies were conducted by Elanco.

The Trifluralin Registration Standard (7/12/85) required a soybean processing study. This residue data deficiency remains outstanding. (See the update for the product chemistry and residue chemistry chapters, "Trifluralin Product and Residue Chemistry Reregistration Standard Updates", dated 10/29/91 (CBRS #'s 8100 and 7205; Barcode #'s D157287 and D159654) for a complete list of outstanding data deficiencies for reregistration.

CBTS's Conclusions

1. The granular formulation Treflan TR-10 is registered for use on soybeans. The proposed use would allow use under reduced or conservative tillage conditions. Although such a requested label change would not normally require residue data, we have no data in our files reflecting use of the granular formulation on soybeans. It is our policy to require data for both EC and granular formulations.
2. Although residue data were not required for the granular formulation in connection with the registration standard, such data were required in the W.T. Chin memo (ID #062719-00131, 12/6/91). Residue data for Treflan® TR-10 on soybean seeds, soybean forage, and soybean hay to support the proposed amended use reflecting the maximum proposed rate should be submitted. Studies on soybeans using Treflan TR-10 should be conducted in the states of MS/LA, TN, AR, IN/IL, IA/NE, MN, and MO. Alternatively, several side-by-side bridging studies could be conducted with the granular and EC formulations.
3. Soybean processing data are not available. Such data should be submitted.
4. Except for specific states or areas, the proposed use involves a higher rate than the registered rate. The proposed use would allow spring applications of Treflan TR-10 at rates up to 1.25 lbs ai/A and fall applications at rates up to 1.5 lb ai/A. However, the registered spring application rates for both Treflan EC and Treflan TR-10 are 0.5-1.0 lb ai/A. The registered fall application rates for both Treflan EC and Treflan TR-10 are 1.0-1.25 lb ai/A.

The registered rates for Treflan EC which are higher than 1.25 lb ai/A are restricted to specified states or areas.

5. It is not clear whether both a fall and a spring application are intended. The label should be clarified. If a fall application can be followed by a spring application, then residue data reflecting both fall and spring applications should be submitted.

cc: RF, SF, Circu (7), PP#8F0664, N.Dodd (CBTS), E. Haeberer (CBTS), PM #23, C. Furlow (PIB/FOD, H7506C), Trifluralin Reg. Std. File

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