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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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August 15, 1994

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Metalaxyl (113501) - Reregistration Case No. 0081.
Ciba Geigy letter of July 21, 1994
CB No. 14124, DP Barcode: D206106

FROM: Susan V. Hummel, Chemist *Susan V. Hummel*
Special Review Section II
Chemistry Branch II - Reregistration Support
Health Effects Division (7509C)

THROUGH: Francis B. Suhre, Section Head *Susan V. Hummel, Acting for*
Special Review Section II
Chemistry Branch II - Reregistration Support
Health Effects Division (7509C)

TO: Judith Loranger, PM#73
Reregistration Branch
Special Review and Reregistration Division (7508W)

Ciba Geigy has responded by letter to a telephone conversation with the SRRD Review manager for metalaxyl, where Ciba Geigy was apparently informed that residue data were needed to support use of their recently registered 50% WP formulation of metalaxyl, as indicated in our Residue Chemistry Chapter for the metalaxyl RED. In the cover letter to the Residue Chemistry Chapter (S. Hummel, 6/16/94), we stated,

According to REFS, a 50% wettable powder (WP) formulation of metalaxyl was recently registered for multiple foliar applications to several crops (EPA Reg. No. 100-735). Residue data are not available to support the use of multiple foliar and other late season postemergence applications (7-30 day PHI) of this type of formulation. A limited set of side by side field trial data are needed for the WP formulation on asparagus, fruiting vegetables, and strawberries showing comparable residue levels for the WP and EC formulations.

Ciba Geigy attached a copy of their letter summarizing a meeting which took place 1/17/91, where Ridomil 50WP was discussed. Ciba Geigy states that R. Loranger indicated that "crossover work" (presumably additional residue data) would not be needed because the proposed use pattern for Ridomil 50WP was



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for soil application only at the same rate of application as Ridomil 2E.

Ciba Geigy also included copies of printed labeling for Ridomil 2E and Ridomil 50W, with sections of the label on asparagus, leafy vegetables, and strawberries highlighted. Ciba Geigy States that the highlighted sections of the labels clearly show that the uses are soil applications only. Pertinent sections of the Ridomil 50W label and additional Ciba Geigy comments are quoted here by crop (including those for fruiting vegetables (peppers, eggplant, tomatoes). Near the front of the Ridomil 50W label, it states that foliar applications are not allowed unless specified on the label.

Asparagus. Apply 2 lb/A as a broadcast spray in a minimum of 10 gals of water over the beds. Cutting beds: Apply 30 to 60 days before the first cutting. A supplemental application may be made, for additional control, by applying just before the beginning of harvest. Ciba Geigy claims that the application on cutting beds is soil directed, and that the harvesting of asparagus consists of cutting emerging shoots that have limited surface area for contact with the pesticide.

Leafy Vegetables (Head Lettuce and Spinach only). Ridomil 50W applied as a soil application will control..... Applications may be made banded over the row, preplant incorporated, or injected with liquid fertilizer.... Preplant Incorporated Application.... Surface Application...at planting.... In addition to the preplant incorporated or surface application described above, apply 1/2 lb of Ridomil 50W per acre of crop, shanked in 40-50 days after planting or after the first cutting.... Do not apply Ridomil 50W in foliar applications. Ciba Geigy pointed out that in PP#0F3893, it was considered appropriate to translate data from Ridomil MZ58 to Ridomil 70W.

Peppers and Eggplant. Apply 2-4 lb/treated acre at the time of planting.... After the initial application, 2 supplemental post directed applications at 2 lb/treated acre should be made at 30 day intervals. The spray should be directed at the base of the plants and cover 6-8 inches of soil on either side of the plants. Such applications must be incorporated mechanically or by sprinkler irrigation to move the Ridomil 50W into the root zone. Ridomil may be applied shanked in as a band treatment to either side of the plant. There is a limit of 6 lb/A/season and a 7 day PHI.

Tomatoes. Apply 2-4 lb/treated acre at the time of planting.... For banded applications, a 7 inch band is recommended.... One or two additional application may be

made during the growing season....Apply 2 lb/treated acre beginning 4-6 weeks after planting. A second application may be made as needed up to 4 weeks before harvest but before the last irrigation. Ridomil 50W may be applied as a directed soil surface spray under the vines, or it may be injected into the beds.

Strawberries. Applications may be made using ground application equipment. For established plantings, apply Ridomil 50W at 2 lb/treated acre in sufficient water to move the fungicide into the root zone of the plants. Make one application in the spring after the ground thaws and before first bloom. A second application may be applied after harvest in the fall. For supplemental control of leather rot, an application may be made during the harvest season. For banded applications, use the formula in the General Information section.... Ciba Geigy claims that the requirement to use sufficient water or overhead irrigation constitutes a soil application.

Comments

Chemistry Branch files contain a Memorandum of Phone Call dated 5/20/91, documenting a conversation on 4/12/91, between R. Loranger, CBTS, and Karen Stumpf of Ciba Geigy. General issues, but no specific chemical were discussed. Ciba Geigy was informed that when residue data were available to support a registered EC formulation and an application for registration was to be submitted for a WP, DF, or gel formulation, no additional residue data would be required to support early season uses prior to or just after crop emergence or for applications directed to soil (as opposed to the crop itself, i.e., foliar). This statement was reiterated in the updated Guidance on Number and Location of Domestic Field Trials which was issued 6/2/94. The intent of this statement was to differentiate between uses where the pesticide spray would and would not directly contact the plant. Pesticides directed at the base of the plant would directly contact the plant.

Individual crops will be discussed below.

Asparagus. The use of a broadcast spray means a foliar application. Even if the surface area of the emerging shoots is limited, there is still contact with the plant.

Leafy vegetables (Head Lettuce and Spinach only). Data are available to support this use. In fact, the data for Ridomil MZ58 were considered appropriate supporting data, since they are from a WP formulation. PP#0F3893 on Leafy Vegetables (excluding brassica, excluding spinach) contained appropriate data for a WP formulation on head lettuce. PP#1F2500 on a number of racs

contained appropriate data for a WP formulation on spinach. If the registrant's intent is not to allow foliar applications, then the label needs to be clarified to state that the additional applications are to be directed at the soil between the rows. The requirement to shank the pesticide into the soil does not imply that the application must be made to the soil.

Fruiting Vegetables (peppers, eggplant, and tomatoes). For peppers and eggplant, the second and third applications are directed at the base of the plant. For tomatoes, banded applications are allowed, and the label would allow a banded application over the row.

Strawberries. Using sufficient water for the application does not imply that only a soil application is allowed. In fact it implies that a foliar application is allowed.

Conclusions

1. Foliar applications of Ridomil 50W are allowed on asparagus, strawberries, and tomatoes. No supporting data for a WP formulation are available. These data are required.
2. For peppers and eggplant, applications may be directed at the base of the plant. For tomatoes, the label would allow a banded application over the row. These uses allow direct plant contact. No supporting data for a WP formulation are available. These data are required.
3. For Leafy Vegetables, the label language is contradictory. The requirement to shank the pesticide into the soil does not imply that the application must be made to the soil. The label language should be clarified.

Recommendations

Supporting residue data for Ridomil 50W on asparagus, fruiting vegetables, and strawberries should be required in the RED. Alternatively, labeled use directions could be amended to disallow late season application of Ridomil 50W which may result in direct contact with asparagus, fruiting vegetables and strawberries. The label language for leafy vegetables should be clarified.

cc: Circu, RSF, SF, S. Hummel, RF
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