11/29/2000

MEMORANDUM

SUBJECT: Amendment to D263055 (PP# 0E06097), Clethodim (ANSI) in/on Root Vegetables (except Sugar Beet) Crop Subgroup 1B and Leaves of Root and Tuber Vegetables (except Sugar Beet) Crop Group 2.

DP Barcode: D270788
Submission Nos: S531616 & S556745
PC Code: 121011
Trade Name: Select® Herbicide
Select® 2EC Herbicide
Class: Herbicide
MRID Nos: 45027802 & 45027803

PRAT Case Nos:

Caswell#: 721F
EPA Reg#: 59639-78
EPA Reg#: 59639-3
40 CFR: §180.458

FROM: Manying Xue, Chemist
Registration Action Branch 3
Health Effects Division (7509C)

THRU: Stephen Dapson, Branch Senior Scientist
Registration Action Branch 3
Health Effects Division (7509C)

TO: Joanne Miller, PM Team # 23
Registration Division (7505C)

The Interregional Research Project No. 4 (IR-4), on behalf of the Agricultural Experiment Stations of various states, has submitted a petition for the establishment of permanent tolerances for residues of the herbicide clethodim (Select® Herbicide 0.94EC (also called Prism) and Select® 2EC Herbicide (EPA Reg. Nos 59639-78 and 59639-3)). Tolerances were proposed for the combined residues of clethodim [(E)-(±)-2-[1-[[(3-chloro-2-propenyl)oxy]imino]propyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one] and its metabolites containing the 5-(2-(ethylthiopropyl)cyclohexene-3-one and 5-[2-(ethylthio)propyl]-5-hydroxycyclohexene-3-one moieties and their sulphoxides and sulphones for the root vegetables (except sugar beet) subgroup1B at 1.0 ppm and leaves of root and tuber vegetables (except sugar beet) crop group 2 at 2.0 ppm.

HED previously recommended for a tolerance of 1.0 ppm for residues of clethodim and its metabolites in/on root vegetables (except sugar beet) subgroup1B and leaves of root and tuber vegetables (except sugar beet) crop group 2 (D263055, M.Xue, 10/25/2000). However, the submitted residue data for the root vegetables (except sugar beet) subgroup1B and leaves of root and tuber vegetables (except sugar beet) crop group 2 have been reevaluated.

Recommendations:

After reevaluation of the submitted residue data, HED does not recommend permanent tolerances for the root vegetables (except sugar beets) crop subgroup1B and leaves of root and tuber vegetables (except sugar beet) crop group 2 for the following reasons: (i) The use directions regarding the number of applications and preharvest interval for the submitted representative crops for the root vegetables (except sugar beets) crop subgroup 1B (carrots and radish) were not similar [40 CFR 180.40 (e)]; and (ii) the representative crops for the leaves of root and tuber vegetables (except sugar beet) crop group 2 are inadequate. Therefore, **HED recommends for tolerances of 0.5 ppm for residues of clethodim and its metabolites in/on carrots and radish root, and 0.7 ppm for residues of clethodim and its metabolites in/on radish tops. A revised Section F must be submitted.**

Residue Data:

Magnitude of the Residue in Carrot and Radish Root: The submitted carrot and radish field trial data and geographic representation are adequate to satisfy the requirements described in OPPTS 860.1500 for tolerances for carrots and radish roots; but are not adequate for a tolerance for the root vegetables (except sugar beets) crop subgroup 1b. Eight carrot field trials were conducted in CA (4), FL (1), MI (1), TX (1), and WA (1); and four radish trials were conducted in FL (1), MI (1), NY (1) and WA (1). Carrot samples were harvested 29-31 days following the last of two applications of clethodim (0.94 lb/gal EC) at 0.236-0.256 lb ai/A/application, at 14-15 day retreatment intervals (RTI), for a total of 0.480-0.512 lb ai/A/season (~1x the maximum proposed rate). Combined residues of clethodim ranged from <0.25 to <0.39 ppm. Radish root samples were harvested 14-15 days post-treatment following a single treatment with clethodim at 0.246-0.252 lb ai/A/season (1x rate). Combined residues were <0.45 ppm (<LOQ) in/on all radish root samples. Based on the residue data, HED recommends for a tolerance of 0.5 ppm for residues of clethodim and its metabolites in/on carrots and radish roots. A revised Section F must be submitted. HED does not recommend a group tolerance for the root vegetables (except sugar beets) crop subgroup 1b because the proposed use directions regarding the number of applications and preharvest interval for carrots and radish are not the same.

Magnitude of the Residue in Radish Top: The submitted radish top residue data and geographic representation are adequate to satisfy the requirements described in OPPTS 860.1500 for a tolerance for radish tops. Four radish top trials were conducted in FL (1), MI (1), NY (1), and WA (1) following a single treatment with clethodim (0.94 lb/gal EC) at 0.25 lb ai/A/season (1x rate), and harvested 14-15 days post-treatment. Combined residues of clethodim were <0.46-<0.58 ppm in/on eight samples of radish tops. Based on the residue data, HED recommends a tolerance of 0.7 ppm for residues of clethodim and its metabolites in/on radish tops. A revised

Section F must be submitted. HED does not recommend for a group tolerance for the leaves of root and tuber vegetables (excluding sugar beets) crop group 2. **For the establishment of a group tolerance for the leaves of root and tuber vegetables (except sugar beets) crop group 2, the petitioner must submit additional field trial data for representative crops (turnip tops or garden beet tops) reflecting the proposed use.**

cc: RF, PP# 0E06097, MXue, PM# 23, MRust
RDI: ChemTeam:11/29/2000 :Sdapson 11/29/2000
7509C: RAB3, MXue :CM-2: RM 810F: 703 305-6198: 11/29/2000