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

3-19-86

John— see note on page 2

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Dave
3/19

MEMORANDUM

DATE: 3/19/86

SUBJECT: Fenvalerate (Pydrin) -- Removal of rotational crop restriction

FROM: J. Jordan, Microbiologist J. Jordan

THRU: E. Regelman, Supervisory Chemist, ECRS#3, EAB

TO: Files

Background: Based on previous EAB reviews (9/4/80 and 9/28/81) rotational crop restrictions for use on both small grains and leafy vegetables have been waived. However, the submitted data were only adequate to support a one-year rotational restriction interval for root crops.

Discussion: EAB is completing its review of two field studies which address the root crop issue[1,2]. Both studies have been found to be deficient since they failed to identify/quantitate crop (plant) degradates. We are especially concerned about the identification/quantification of degradates in a typical root crop under field conditions, since the previously reviewed confined (^{14}C) study[3] suggested that (uncharacterized) residues up to 2.44 ppm (fenvalerate equivalents) may occur.

---

1 Crop Testing Services of NJ, Inc. 1985. 1985--Residue data for SD 43775 and SD 47117 in table beets following ten applications of SD 43775 to spinach, a New Jersey study. RIR-24-220-85. Shell Oil Company, Washington, D.C. Acc. No. 261050

2 Skelsey, J.J. 1983. 1983--Residue data for SD 43775 in table beets grown in soil which had previously received ten appplications of SD 43775, a California study. RIR-24-142-83. Shell Oil Company, Washington, D.C. Acc. No. 261050

3 Lee, P.W., S.M. Stearns and W.R. Powell. 1982. A 30- and 120-day Rotation Crop STudy using ^{14}C-SD 43775 following a single soil treatment at a dosage rate of 2 lb. ai/acre. RIR-22-044-83 here. Shell Oil Company Washington, D.C. Acc. No. 248812

4

Minimally, two degradates were detected in the New Jersey study, one in soil (SD-47117) and the other (SD 44064) otherwise uncharacterized. The California study was likewise deficient in that soil samples were not analyzed for Fenvalerate and the interval from final Fenvalerate application to residue sampling was too long (287 days).

Conclusion: Data are inadequate to support any change in the existing 12-month rotational crop restriction for root crops.

Recommendation: Additional data should be submitted which are consistent with the requirements of §165-2 of Subpart N. EAB strongly recommends that this new study be conducted in the State of California, in an area typical of the proposed use.

CC: D. Severn
H. Harrison

Please call Steve Wang and (916-322-5130) (CDFA) tell him the precise names of these studies and why we made the technical determination not to remove the restriction.

Dave
3/19/86