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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Memorandum

From: Nikiba Daughtry, Biologist /s/ 4-1-04
Environmental Field Branch
Field and External Affairs Division

To: Arthur-Jean Williams, Chief
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Subject: Effects Determination for Methyl Parathion for Pacific Anadromous Salmonids

We reviewed data and other information for methyl parathion, a broad spectrum insecticide/miticide named by the Washington Toxics Coalition (WTC) and included in the court order for 'effects determinations' and potential consultation with the National Marine Fisheries Service. Methyl parathion is registered nationally for use on alfalfa, almonds, barley, dried beans, cabbage, corn, cotton, grass forage/fodder/hay, hops, lentils, oats, onion, pastures, dried peas, pecans, rangeland, rape seed (canola), rice, rye, soybeans, sugar beets, sunflower, sweet potatoes, walnuts, wheat, white potatoes, and yams. As indicated in the EFED chapter, more than two-thirds of the methyl parathion used in the country is used on corn and cotton. Methyl parathion use is heaviest in the southern United States and California. The Environmental Fate and Effects Division (EFED) completed an environmental risk assessment for an Interim Reregistration Eligibility Decision (IRED) and the assessment was issued in May of 2003. The assessment concludes that levels of concern are exceeded for endangered freshwater fish and populations of aquatic invertebrates exposed to runoff and drift from agricultural treatment sites. We have adapted the more general findings of the EFED assessment to develop an analysis of the potential for effects on endangered and threatened Pacific salmon and steelhead Evolutionary Significant Units (ESUs) from current uses in California and the Pacific Northwest.

Based on the environmental risk assessment and additional considerations indicated in our analysis and other attached or referenced materials, we conclude that the use of methyl parathion may affect 9 salmon and steelhead ESUs, may affect but is not likely to adversely affect 12 ESUs, and will have no effect on 5 ESUs . Our determinations are based on the known or potential use of methyl parathion on crops within habitats and migration corridors of each

ESU, the acute risk of methyl parathion to endangered fish, and the potential for indirect effects due to acute and chronic risks to their aquatic-invertebrate food supply. Methyl parathion is registered only for agricultural uses, therefore county-level usage data for homeowner and most non-crop uses are not included in this analysis, but we presume that they may contribute to the exposure and risks of these ESUs.

attachments

Methyl parathion: Analysis of Risks to Endangered and Threatened Salmon and Steelhead (with attachments)