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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Memorandum

From: Michael Patterson, Ph. D /s/ 3-31-04
Environmental Field Branch
Field and External Affairs Division

To: Arthur-Jean Williams, Chief
Environmental Field Branch
Field and External Affairs Division

Subject: Effects Determination for Acephate for Pacific Anadromous Salmonids

We reviewed data and other information for acephate, a broad spectrum organophosphate insecticide 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. Acephate is used to control roaches, wasps, fire ants, crickets, and other pests and is applied to food crops, common to the west and northwest, including beans (green and lima), Brussel sprouts, cauliflower, celery, cranberries, lettuce, peppermint and peppers. used to control a wide range of sucking, leaf-eating, and scale insects. The Environmental Fate and Effects Division (EFED) completed an environmental risk assessment for a Reregistration Eligibility Decision (RED) and the assessment was issued in September of 2002. 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 acephate will have no effect on any of the 26 ESUs considered. Our determinations are based on the known or potential use of acephate on crops within habitats and migration corridors of each ESU, the acute risk of acephate to endangered fish, and the potential for indirect effects due to acute and chronic risks to their aquatic-invertebrate food supply. We don't have county-level usage data for homeowner and most noncrop uses, but we presume that they may contribute to the exposure and risks of these ESUs.

attachments