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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Memorandum

Subject: Effects Determination for Glyphosate to Pacific Anadromous Salmonids

From: Michael Patterson, Ph. D 10/07/04
Environmental Field Branch
Field and External Affairs Division

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

I reviewed data and other information for glyphosate, a registered herbicide named by the Californians for Alternatives to Toxics (CATs) and included in the Consent Decree that settled the case CATs brought against EPA. Glyphosate is one of the most widely used pesticides in the United States. It is a non-selective herbicide used in agriculture, industry, residences, and for public health. The specific application sites are alfalfa, barley, beans, buckwheat, corn, grass/fodder/hay, lentils, millet, nongrass/forage/fodder/straw/hay, oats, pastures, rye, sorghum, wheat. almond, anole, barley, beans, beets, buckwheat, calamodin, citron, citrus hybrids other than tangelo, corn, cotton, grapefruit, grapes, kumquat, lemon, lentils, lime, millet proso, mustard, orange, parsnip, peanuts, peas, pineapple, potato, pummelo, rape, rice, wild rice, rye, sorghum, soybeans, sugar beet, sugarcane, tangelo, tangerines, tomato, tritricale, turnip, wheat. agricultural fallow/idleland, rights-of-way/fences/hedgerows, agricultural uncultivated areas, airports/landing fields, Christmas tree plantations, golf course turf, industrial sites (outdoor), nonagricultural outdoor buildings and structures, ornamental and/or shade trees, ornamental lawns and turf, ornamental woody shrubs and vines, paths/patios, paved areas, recreational sites, urban areas.

Although a potential for aqueous contamination exists, due largely to the volume of product used, the Agency determined during the Reregistration Eligibility Decision that glyphosate posed minimal or no risk to aquatic fauna, including endangered species. Concern for some damage to aquatic flora was noted, however this concern does not appear to be relevant to salmon and steelhead due to their preferred habitat in cold, fast moving waters. The immature forms inhabit loose gravel and do not rely on floral cover for protection and water temperature is generally controlled by mountain snow runoff.

With the exception of the northern California, southern Oregon coastal Coho ESU, no effects are expected to the species of concern. In the northern California, southern Oregon Coho Salmon ESU, due to the potential for forest use, it must be concluded that the use of glyphosate at label limits may affect the species of concern, but is unlikely to adversely affect salmon due to the previously established low toxicity of the chemical to aquatic fauna.

Attachment