Memorandum

From: Michael Patterson, Ph. D 7-15-04
Environmental Field Branch
Field and External Affairs Division

To: Arthur-Jean Williams, Chief
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Subject: Effects Determination for Dimethoate to pacific Anadromous Salmonids

Dimethoate is a general use insecticide/acaricde. It is an organophosphate chemical that is a common component of many formulated end-use products. It has been used on a variety of food and non-food crops, including alfalfa, cotton, corn, wheat, soybeans sorghum, apples, pears tangelo, pomelo, grapes, cherries, pecans, peppers, mustard greens watermelons, beans, lentils, spinach potatoes, cabbage, turnips, peas, ornamentals, forestry (mainly cottonwood) and ornamental ponds (not open to permanent water sites). It is also used as a wall coating to control flies, rangeland, and non-cultivated soils (CA only).

The target species cover a broad spectrum if insects including, but not limited to, scale, thrips, aphids, mites, grasshoppers, and flies. It is also available for residential use to control flies.

Dimethoate remains a widely used chemical, although data given to Agency from local agriculture sources, indicates that, for commercial purposes, it has been replaced by other agents that are more effective and less costly to purchase and apply. The reregistration of this chemical is pending (expected in December, 2004). At this time, however, label application rates and USDA crop data indicate there is significant risk in some ESU's to the food source in the critical spawning and rearing areas of the endangered and threatened species of concern for this review. Because of relatively high toxicity to aquatic invertebrates we conclude that dimethoate use may indirectly affect the species of concern.