http://cnps.org/forestry/special_topics/herbicides/HerbicidesOnFederalForests.htm

Herbicide Use on Federal Forest Lands in California

Herbicides are used in silvicultural practices on federal forest lands in California, including national forests, as well as on private forest lands, primarily to remove vegetation that competes with the growth of commercially valuable timber.

Under the implementing regulations of the National Forest Management Act, the Forest Service must restock timberlands that have been clearcut or logged after wildfire (termed salvage logging), by replanting within five years after harvest. Planted units, known as plantations, are managed by the silvicultural division of each forest and ranger district. The mission to grow trees as quickly as possible has led to a reliance on the use of chemicals to remove competing vegetation that grows up quickly after wildfire or clearcutting, including native vegetation.

Many native plant species are fire dependent, and require multiple years of vigorous growth after wildfire in order to replenish seed banks that may lay dormant for hundreds of years, awaiting the next stand replacing wildfire. The vigorous young growth of many native shrubs produce nutritious food, shelter, and nesting materials for neotropical migratory bird species, for small mammals, and for deer and bear. Many of our native wildflowers appear and bloom prolifically after fire, producing abundant food in the form of seeds, pollen, and nectar for a variety of small animals and insects. Thus, the use of chemicals to enhance tree farm-type management of national forest lands is a practice that does not mesh well with a commitment to ecology-based management of national forest lands.

In 1984, in response to several court rulings, the USFS in California placed a moratorium on the use of herbicides for forestry application in the state. After the development of a new analysis (Region 5 Final Environmental Impact Statement for Vegetation Management for Reforestation, USDA Forest Service, 1988) the moratorium was lifted in 1988, and herbicide use resumed in 1992. The most hazardous of chemicals, such as atrazine and 2,4-D, used prior to 1984 were essentially dropped, although the USFS did not completely ban their use.

Over the last decade, on the average the USFS has applied herbicides to approximately 10-12,000 acres in California per year. In fiscal year 2000, the USFS reported use of close to 35,000 pounds of herbicides (active ingredient) on national forests in the state. Although 29 pounds of this total were used for weed control on slightly over 100 acres, the bulk of herbicide use is for "conifer release." These figures refer to the weight of the active ingredients only, so many more thousands of pounds of a variety of chemicals were actually applied to the ground during this time.

Out of the 108 different herbicide products registered for forestry use in California, the USFS used only four in 2000: glyphosate, hexazinone, triclopyr, and clopyralid. The herbicide glyphosate accounted for over 97 percent, or 34,000 pounds, of the total volume. While glyphosate is widely considered to be one of the most environmentally benign of the herbicides used today, it is most often combined with

surfactants that are known to adversely impact amphibians and other aquatic organisms. The volume of its use globally is also considered by many to contribute to cumulative impacts of concern for human health and for wildlife. Aerial applications of herbicides over many thousands of acres is of particular concern to CNPS due to the broad destruction of all native plant species that occur in the targeted area.