

Resolution 96-23 of the Yurok Tribal Council recognizes, “many tribal members use the many animal, plant and aquatic resources on the Yurok Reservation for ceremonial, traditional and subsistence purposes, and the use of chemical pesticides...poses a threat to the health and safety of humans...” As such, the Tribal Council “proclaims a ban on the use of any restricted or controlled chemical pesticides on any and all lands under the jurisdiction of the Yurok Tribe.”

Although the Yurok Tribe, including the Forestry Department do not use pesticides within Tribal land on the Reservation, other public and private landowners within Yurok Ancestral Territory do utilize pesticides.

SYMPTOMS COMMONLY RELATED TO HERBICIDE EXPOSURE

Headache
Dizziness
Itchy, burning eyes
Sore Throat
Red, itchy rash
Tingling skin
Swelling
Difficulty breathing
Nausea, vomiting
Abdominal pain
Diarrhea

MANY OF THESE SYMPTOMS CAN MIMIC THE FLU

FIRST AID FOR HERBICIDE EXPOSURE

- Use gloves to remove clothing & wash skin
- Wash contaminated items separately
- Avoid inhaling dust from contaminated items
- Clean where contaminated shoes have been
- Wash thoroughly with soap & water for at least 15 minutes
- If symptoms persist, contact your doctor and explain what, where & when you have been.

FOR MORE INFORMATION CONTACT:

Yurok Tribe Environmental Program:

(707) 482-1822 for information on all herbicide

applications and monitoring within Yurok Ancestral Lands

Humboldt Agricultural Commissioner's Office:

(707) 445-7223 for information on pesticide applications in Humboldt County (2 weeks post application)

Del Norte Agricultural Commissioner's Office:

(707) 464-7235 for information on pesticide applications in Del Norte County (2 weeks post application)

California Department of Transportation:

1 (800) 999-1053 for herbicide roadside application schedules and locations

Californians for Alternatives to Toxics:

<http://www.alternatives2toxics.org/> (707) 445-5100

for information on pesticide uses, strategic actions and alternatives, focused on Northern California

Pesticide Action Network North America Database:

<http://www.pesticideinfo.org/Index.html> for information on specific chemicals, products, and toxicity

California Department of Pesticide Regulation:

<http://www.cdpr.ca.gov/> (916) 445-4300 for California regulations governing pesticide applications and certification, as well as data use reports

U.S. Environmental Protection Agency:

<http://www.epa.gov/pesticides> for pesticide regulatory and scientific information

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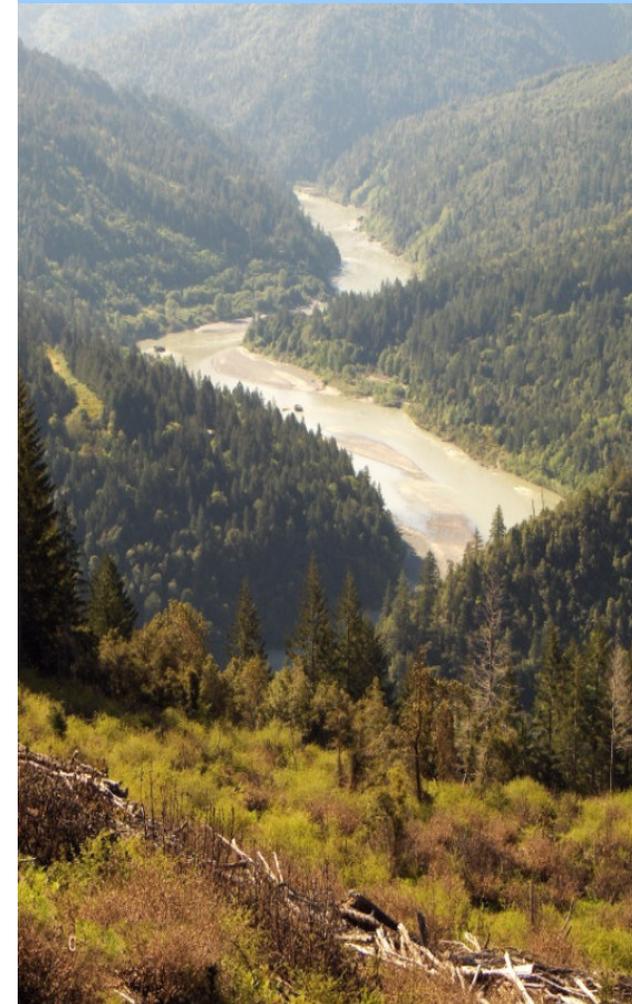
The Yurok Tribe Environmental Program

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WHAT TRADITIONAL RESOURCE GATHERERS SHOULD KNOW ABOUT FORESTRY HERBICIDES



USED WITHIN YUROK ANCESTRAL LANDS



WHAT ARE HERBICIDES?

Herbicides are chemicals used to eliminate, control, or prevent the growth of unwanted plants.

Foresters use herbicides to remove & suppress plants that compete with trees grown for timber harvest, as well as minimize invasive species along roadsides. **Public Lands Maintenance crews** use herbicides to clear vegetation along roadsides to increase visibility and combat invasive species. **Homeowners** use them to rid their yards of weeds.

Traditional resource users can encounter these chemicals while out in forestlands hunting, mushrooming, gathering basketry materials and other traditional resources, as well as when harvesting acorns, berries, and additional traditional subsistence activities.

WHAT TO LOOK FOR

Typical signs of herbicide use include:

- Wilted, or burnt-looking leaves
- Patches of dead & dying plants near healthy young trees
- Unusual odors, like kerosene & ammonia
- Tree with large slashes cut into the trunk (see right)
- In the forest, a pink-tinted residue on leaves and/or the ground.
- Along roadsides, a green-tinted residue on the ground.



HOW ARE HERBICIDES APPLIED?

Application techniques are determined by the type of herbicide being used and the kinds of plants being controlled.

Foliar application targets the leaves of individual plants or groups of plants.

Pre-emergent or Ground applications are used over large areas to remove large numbers of plants, prevent plants from sprouting.

'Hack and squirt' uses slashes cut into the trunk to introduce herbicide directly into the tree's inner bark.

WHEN ARE HERBICIDES MOST COMMONLY USED?

Most herbicide use occurs in spring & fall.

Spring applications are aimed at halting competing seed germination (pre-emergent or ground); and larger competing vegetation (foliar and hack & squirt). Fall herbicide use targets larger plants and trees, as well as those missed in the spring (foliar and hack & squirt applications).

Weather conditions also affect herbicide use

Herbicide users must work to minimize drift—the movement of herbicide away from the target site—so they choose days when winds are light (3-10 mph) & vertical air mixing is good. Smoke that collects into layers and moves laterally is a sign of bad mixing. Also, spraying may not be performed when it is raining.

COMMONLY USED FORESTRY HERBICIDES

2,4-D: Absorbed through leaves, cuts & root uptake; interferes with growth—plants are stunted and leaves curl. Applied via hack & squirt, foliar spray. Sweet, tarry smell.

ARSENAL / CHOPPER (IMAZAPYR): Absorbed through leaves, cuts & roots; accumulates in growing tips. Interferes with plant metabolism. Applied via hack & squirt, foliar spray. Smells like ammonia

ATRAZINE: Acts mainly through root absorption; applied via ground & broadcast spraying. No detectable odor.

TAHOE4E / GARLON4 (TRICLOPYR): Absorbed via leaves, cuts & bark; accumulates in growing tips. Interferes with growth. Applied using hack & squirt, spray (bark & stumps). Smells like kerosene.

OUST / SPYDER (SULFOMETURON METHYL): Absorbed through leaves & roots; stops growth in root and shoot tips. Applied as foliar spray. No detectable odor.

RAZOR / RODEO (GLYPHOSATE): Absorbed via leaves & cuts; inhibits chlorophyll production causing leaves to lose color. Foliar spray, hack & squirt. No odor.



One Week After Foliar Application