POISON OAK

(Rhus diversiloba)

Drawing from: California Range Brushlands and Browse Plants by Arthur W. Sampson and Beryl S. Jespersen. Calif. Agric. Expt. Sta. — Ext. Ser. Manual 33.

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Poison oak *(Rhus diversiloba)* of western North America is similar in appearance to its relatives poison oak and poison ivy of the eastern United States. Much of what can be said for one species is also true for the others. For example, each species can grow as a ground cover, or climb trees, or stand alone as shrubs.

In all, there are about 150 species of *Rhus (sumacs)* consisting of evergreen and deciduous shrubs and trees. Some of these, including sugar bush *(R. ovata)* and staghorn sumac *(R. typhina)*, are valuable as ornamentals. *Rhus* is a member of the Cashew family, which includes trees with edible nuts — the cashew *(Anacardium occidentale)* and the pistachio *(Pistacia vera)*,—and fruit, mango *(Mangifera indicam)*.

Poison oak is widely distributed from southern British Columbia to Baja California. It is most common in California in the Coast Ranges and in the lower mountain slopes of the Sierra Nevada. It becomes especially abundant in areas where competing vegetation has been removed; thus one can see hillsides in the lower mountain slopes containing nearly solid stands of this shrub; these same hillsides had been converted from mixed stands of woody plants to solid poison oak by periodic burning and erratic browsing by goats, sheep, or horses. Such animals are rarely poisoned by it.

This shrub is a vigorous sprouter from the underground stems. The leaves are trifoliate, 3 to 6 inches long and deciduous. The leaflets are variously lobed, toothed and sometimes entire, and 1 to 4 inches long. These leaves remain green for varying periods of time, largely depending on the moisture status of the site. However, sooner or later they become yellow and often a beautiful red as the plants become moisture stressed. Reddening of leaves can be seen in different areas from May through October. Flowers are greenish-white, appearing with the leaves in April or May. The fruit is a brown or whitish drupe, about ¼ inch in diameter.

Poison oak forms an oily substance which is nonvolatile at normal temperature, but is volatilized by fire. This substance occurs in all parts of the plant, from which skin irritation can result following contact. It can be transmitted indirectly through contact with contaminated clothing, animal fur, etc. It can even be contacted by inhaling fumes from burning plants, often causing severe effects.

The main interest in controlling this shrub rests in its poisonous allergic properties to many people. There are several herbicides which can be used to kill it. Most important, irrespective of herbicide used, is persistence if complete kill of all plants is to be achieved. Complete eradication may require several years of effort.

Amino triazole and ammonium sulfamate are good herbicides to use around the home. If care is used in application, little injury should be experienced on most other nearby shrubs or trees. Amino triazole can be applied after the poison oak is well leafed out and is moderately effective until foliage begins to yellow.

Poison oak can be controlled with brush killer mixtures of 2,4-D and 2,4,5-T or by 2,4,5-T alone. Silvex (2,4,5-TP) appears to be slightly superior to the previously mentioned herbicides. Careful use of these herbicides is necessary to avoid injury to ornamentals or crops.

When just a limited number of poison oak plants is to be controlled, a satisfactory method is to apply the esters of brush killer mixtures of 2,4-D and 2,4,5-T dissolved in oil. These mixtures should be applied to the basal crown and bark, being careful not to spray other shrubbery. This treatment can be applied at any time of year, although winter and spring are preferable.

Picloram is the most effective herbicide available for poison oak control. However, it is also the most difficult to use, as it may injure other plants having roots beneath the treated areas. Its application should be left to experts.