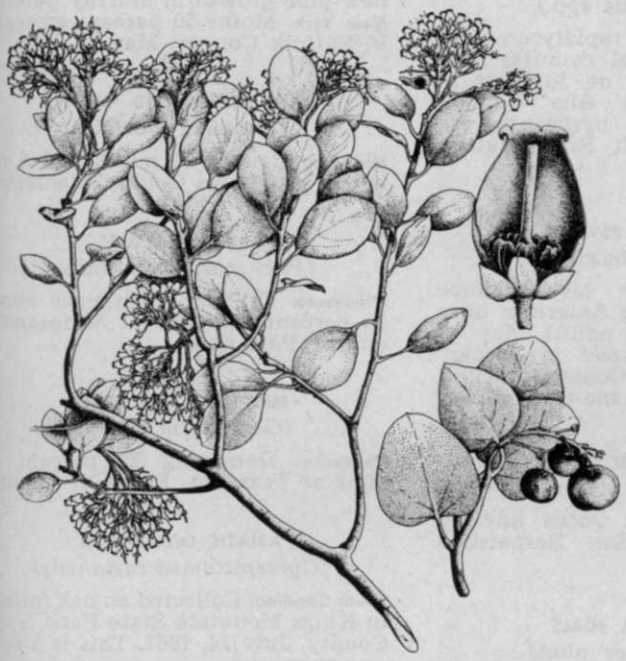
GREENLEAF MANZANITA

(Arctostaphylos patula)



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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Greenleaf manzanita (**Arctostaphylos patula**) is one of the approximately 70 species of manzanitas that are distributed in western North and Central America. Of these—close to 40 species—several varieties and numerous forms are native to California. The genus **Arctostaphylos** is a member of the Heather Family (**Ericaceae**), which includes cranberries, blueberries, and rhododendrons.

In both the chaparral and forest lands of California, southern Oregon, and the eastern slopes of the Cascade mountains of Oregon, the manzanitas are common plants varying from prostrate groundcovers to small trees. They can be problems on ranges, especially when brushlands are being converted into grasslands, and in forested areas following fires, when they are capable of springing from sprouts or seeds and out-competing small coniferous trees. Since manzanitas are not browsed much by either domestic livestock or large animals, they can out-compete other species which are desired by such animals. The manzanitas are either sprouters or non-sprouters, the former being the most difficult to control because they can quickly occupy an area after a fire. Greenleaf manzanita is one of the important sprouting forms. The discussion on this species applies generally to the others which also sprout, and control measures are similar.

Greenleaf manzanita is an erect, much-branched shrub, 3 to 7 feet high, with several stout stems arising from a swollen base. The bark is reddish-brown on old stems and branches and may become shreddy with age. The branchlets are finely glandular-puberulent with yellowish-green glands or with a white downy covering. The leaves are fairly thick, rigid, ovate or nearly round, 1 to 1¾ inches long, bright green or yellow-green and smooth, with petioles about ½ inch long. The small deep pink flowers are about ¼ inch long, in dense terminal clusters, and bloom from April through June. The fruit is globose or depressed, ¼ to ½ inch in diameter, dark chestnut-brown to nearly black, and glabrous. They were, incidentally, commonly ground by the Indians for use as a porridge or drink.

This species usually occurs in the open yellow pine and red fir forests of the northern Coast Ranges, Sierra Nevada, Cascade mountains of California and southern Oregon, and east to Nevada and Utah, at elevations from 2000 to 9000 feet. It forms an enlarged burl or root-crown just below the ground surface which sends up new shoots after fires or cutting, thus enabling it to occupy areas following forest fires. Consequently, extensive brushfields occupied by Greenleaf manzanita will occur in some areas.

This plant is most easily killed when its sprouts are sprayed following a fire. The best time to make the applications varies with the objective. If the land is to be planted to pine, it is important to make the applications as soon as possible after the fire to stop the invasion of grasses which are highly detrimental to young pine. If the land has not been planted to pine, spraying should commence in July of the year following the fire. Although Greenleaf manzanita is more sensitive to 2,4-D than to 2,4,5-T, mixed species usually require the use of brush killer mixtures of 2,4-D and 2,4,5-T applied at 4 pounds per acre. After the area has been planted, the spraying should be delayed until late August or September, using only 2,4,5-T. In order to achieve good control, 2 or 3 applications applied at yearly intervals are required.

On rights-of-way and non-forest sites, kills can be improved by adding picloram to the phenoxy sprays. Picloram generally enhances the kill obtained on old, unburned bushes but has less effect on young resprouts.