

## SOAPROOT

*Chlorogalum pomeridianum*

(D.C.) Kunth

Plant Symbol = CHPO3

Contributed By: USDA NRCS National Plant Data Center



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Sliced bulb of soaproot.

### Alternate Names

Amole, soap plant

### Uses

*Ethnobotanic:* This plant has multiple uses among many California Indian tribes. The bulb was gathered historically in large quantities with a digging stick and it is still harvested today by various cultural groups. Traditionally the bulbs were highly valued for soap for washing the body, hair, baskets, and utensils among the Luiseno, Pomo, Miwok, Yuki, Western Mono, Karuk, Wiyot, Western Mono, Tubatulabal, Foothill Yokuts, Cahuilla, and most other cultural groups. It also served as an important fish poison--the bulb being mashed and placed into quiet pools of water to cause fish to become immobilized and float to the water surface. The bulb contains saponin--which may contribute to its effectiveness as a soap and fish poison.

If the bulb is boiled or roasted, and mashed, the paste is a good adhesive and is used as a glue for soaproot brush handles, and attaching feathers to arrows. The brushes are made by using the coarse "horsehair-like" fibrous coats for the brush bristles and the mucilaginous bulb makes the handle. These brushes are used to sweep acorn meal into the mortar or

basket hopper when acorns are pounded and for brushing the hair.

The bulb, if baked in an earth oven for a lengthy period, usually overnight, becomes caramelized and sweet-tasting and was a significant food to the Karuk, Coast Miwok, Washoe, Foothill Yokuts and other indigenous societies. The young shoots were traditionally harvested by many tribes including the Costanoan and Sierra Miwok, before flowering, roasted, and eaten. The bulb was also used medicinally by the Wailaki. They rubbed the fresh bulb on the body for cramps and for rheumatism. They also used a decoction of the bulb as a diuretic and laxative, and for stomachache. The leaves were used to make dolls by the Sierra Miwok.

### Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status and wetland indicator values.

### Description

*General:* Lily Family (Liliaceae). This perennial herbaceous plant reproduces both by black, rounded seeds and bulbs. The bulb has a brown fibrous outer coat and the bulb can become quite large--from 7-15 cm across. The leaves are linear and basal with strongly wavy margins. The leaves are 2-7 dm. long and shrink to scarios bracts in the flowering stage. The flowers open in the evening and the inflorescence is highly branched and can grow up to 3 m in height. The flowers are white with green or purple midveins, recurved at flowering. They have 6 stamens and a style that is 3-cleft at the apex.

### Distribution

For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site. Populations of this species are found in multiple habitats including bluffs, grassland, chaparral, coastal sage scrub, and dry open oak woodland below 1500 m elevation. The plant is found throughout the western California floristic province and up into southwestern Oregon.

### Establishment

Soaproot is a weedy species and can become easily established in the garden or wildland. Dig up the bulbs in the summer when the plants have gone to seed and the bulbs are dormant or purchase bulbs from local sources to maintain genetic diversity and

plants adapted to local conditions. Make sure the bulbs have healthy roots. Plant the bulbs in the fall (by October 1st) in the ground. Plant them with their fibrous coats in any soil type and in full sun. If you are planting the bulbs and plan to use them in the future, then plant them in a loose soil (not clay). Plant the bulbs shallowly with their tops showing. Do not water them and let the rains come.

If establishing the plants by seed, plant them in the fall by October 1st and place the seeds in a deep 1-gallon container (six inches deep). Water the container thoroughly and let it drain. Plant the seed the next day. Scatter the seed on top of sandy soil. Sprinkle a light layer of soil over the top of the seeds. Place one-quarter inch gravel on top of this soil. Set the pots outside and let the rains come. If it is a drought year, supplement with hand watering. The containers should get early morning and late afternoon sun, but shade in the middle of the day. After the plants are a year-old during dormancy, divide them to give them more space. Plant them two inches or more apart. At the end of the second year, in the summer or fall, plant them out.

### Management

The Pomo periodically burned areas where soaproot grew, probably to recycle nutrients and keep vegetation from encroaching into collection areas. Many tribes spare plants, never taking more than they need, leaving some for wildlife and future production. Some tribes harvest soaproot bulbs after seeding and dump the seeds in the holes to perpetuate the plants. Another potentially sustainable harvesting strategy practiced by the Sierra Miwok is to break the bulbs off, purposefully leaving some bulb and root tissue behind to regenerate.

### Cultivars, Improved and Selected Materials (and area of origin)

CHPO3 is somewhat available through native plant nurseries throughout its range. Contact your local Natural Resources Conservation Service (formerly Soil Conservation Service) office for more information. Look in the phone book under "United States Government." The Natural Resources Conservation Service will be listed under the subheading "Department of Agriculture."

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Edited: 05dec00 jsp; 01may03 ahv; 01jun06 jsp

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