

## ITHURIEL'S SPEAR

### *Triteleia laxa* Benth.

Plant Symbol = TRLA16

Contributed by: USDA NRCS National Plant Data Center & East Bay Regional Parks Botanic Garden



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#### Alternate Names

Grass nuts, Indian potato, deer potato, highland potato

#### Uses

*Ethnobotanic:* The corms were gathered with a digging stick and eaten by the Karuk, Pomo, Yuki, Wailaki, Coast Miwok, Maidu, and many other tribes in California. The Maidu, Karuk, and other tribes cooked the corms in an earth oven. The Karuk dug a pit, lined it with rocks, and built a fire in it. As soon as the fire had gone out, the ashes were removed and the cleaned corms were put on a mat of fresh maple leaves and covered with another mat. Madrone leaves were laid over this, then hot rocks. The hot rocks were covered with earth and on this a fire was built. The bulbs were eaten the next day when the pit was opened. The corms are still gathered today by the Kashaya Pomo and individuals of other ethnic affiliations. The Kashaya boil the "potatoes" and eat them. The flowers are showy and have become valued by some horticulturists and gardeners. The plant is propagated for cut flowers and bulbs in Holland. Both small and large mammals including black bears, mule deer, exotic wild pigs, and pocket

gophers eat the corms. The Karuk call this plant "deer potato" because deer eat the blossoms.

#### Status

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

#### Description

*General:* Lily Family (Liliaceae). This perennial herb has flowers that appear in open, large umbels with 8 to 48 flowers per umbel. The funnel form-shaped flowers are narrow at the base and have six petal-like lobes and range in color from blue to blue-purple to white. Six stamens are attached to the perianth wall at two different levels. The ovary is on a long slender stipe. The plants reproduce both through black seeds and fibrous-coated corms. The tan corms have cormlets tightly attached (sessile). The fruit is a capsule. The two or three basal grass-like leaves generally whither at flowering.

*Distribution:* For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site. The plants are found in open forest, woodland, and grassland in clay soil in a wide elevational range from 0 to 1500 m. Ithuriel's spears are distributed from southwestern Oregon, the Cascade Range, northwestern California, central western California, the Sierra Nevada, and the Transverse Ranges.

#### Establishment

If possible, obtain the seed and corms from local sources near where they will be planted, to maintain genetic diversity of Ithuriel's spears and for the best adaptation to local conditions. Some plant nurseries may label their corms and seeds according to geographic source. If planting flowering-size corms, they can be directly planted outside. Plant the corms in the fall in full sun or partial shade. The less crowded the more the corms will offset. Plant them 2 to 4 inches apart and 4 inches deep. A well-drained soil that is light and loose will produce bigger corms. Water and weed the patch regularly and protect it from small and large mammals, insects, and birds. Keep the ground slightly damp. If given too much water the corms will rot. If it rains fairly regularly, don't water the area. When the leaves on the plants have turned yellow and dried up, stop watering.

Plant Materials <<http://plant-materials.nrcs.usda.gov/>>

Plant Fact Sheet/Guide Coordination Page <<http://plant-materials.nrcs.usda.gov/intranet/pfs.html>>

National Plant Data Center <<http://npdc.usda.gov>>

Allow the corms to summer bake. The plants should be well established after one year.

If planting seeds of grass nuts, store the seeds in a paper sack until autumn. Plant the seeds before October 1st in a container and care for them for two years before out-planting. Plant the seeds in six-inch pots because the corms will pull themselves down to the depth they require. Plant about 100 seeds per pot. Place them on top of the soil and sprinkle a little soil over them and put one-quarter inch gravel on top. Set the pots in partial shade so they won't dry out so fast. They can be outside or in a hot house. The seed does not need to be stratified. Start watering the pots right away and keep them slightly damp. Fertilize the pots in late winter and early spring and protect the plants from birds and other animals. If the pots are outside, let the rains naturally water the pots and in a drought year, supplement with hand watering. Stop watering as soon as the foliage of the plants turns yellow. Resume watering the next fall, if rains are insufficient. After the second year, separate the plants and transplant them two inches apart in the fall when the corms are dormant. Then water them. Grow them for one more year or two more years to bloom, repeating this cycle and then out-plant them in the autumn.

### Management

The grass nut area will require regular weeding and the use of a very weak solution of fertilizer twice only during the active growth in the spring. The corms can be kept from overcrowding by thinning them every three years. This involves picking off the cormlets and replanting them elsewhere in the garden.

There are five major types of indigenous management activities conducted in California that were designed to ensure future corm production at traditional gathering sites: 1) conscious breaking off cormlets from the harvested parent corms and replanting them; 2) sparing whole plants; 3) harvesting the corms after plants have gone to seed and dumping the seeds in the hole; 4) burning areas; and 5) irrigation. Periodic digging and thinning of the corms, and popping off the cormlets and replanting them may enhance grass nut numbers and densities. Digging corms may in fact be a form of tillage, which will increase the size of the gathering tract, aerate the soil, lower weed competition, and prepare the seedbed to increase seed germination rates. If grass nut populations require periodic disturbance to maintain and increase their populations, then indigenous harvesting regimes if reenacted, may help maintain populations. At the

very least--populations that become overcrowded and show reduced vigor should be divided and separated.

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

This species is available from selected native plant nurseries within 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."

### References

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Program Web site <<http://Plant-Materials.nrcs.usda.gov>>

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