

FERNALD'S IRIS

Iris fernaldii R.C. Foster

Plant Symbol = IRFE

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Uses

Warning: Fresh iris roots may be toxic.

Ethnobotanic: Flour was made from iris seed by the Monache and the Southern Yokuts in California. The Pomo placed acorn meal in a shallow pit and covered the meal with iris leaves before pouring water over the meal to leach out tannic acid.

Iris makes some of the finest cordage. The fibers are particularly strong and flexible. Only two fibers can be taken from each iris leaf margin. Huge numbers of leaves were harvested in the fall and stored until needed. Iris cordage was used for fishing nets, string, rope, snares, hairnets, camping bags, and regalia. The fibers are fine like silk, but surprisingly strong. The iris leaves were gathered in large bundles and a single silky fiber was taken from each margin of the leaf. None of the other fibers were used. In spite of the tremendous labor of preparing this material, the iris fiber was one of the most generally employed in northwestern California. Since iris is fine and can be bent at sharp angles, it also makes an excellent starting knot in coiled baskets.

Using a mussel-shell or abalone "thumbnail," the women stripped the fibers from the leaves. The fibers are detached from the leaves and scraped clean of all tissues. The threads were twisted on the bare

thigh by the men, mostly while sitting around in their sweatshouses. The men knotted the material into fishing nets. To catch deer, a rope was made of about 20 feet in length with lasso at one end and about half an inch in diameter. This loop was set over a deer trail to catch the head or antlers. Within the set loop over the trail was spread a delicate network of the same material to draw in the loop. One Indian stated that "it takes nearly six weeks to make a rope twelve feet long."

A poultice of the raw rhizome is especially effective against staph sores. Externally, iris is successfully used in infected wounds, ulcers, fistulas and to take away freckles. Only the dry root should be used internally. Iris is active as a cathartic, has a stimulating effect on the production of both pancreatic enzymes and bile, is a strong diuretic, and will stimulate both saliva and sweat. This is a useful drug plant but should be used with care and preferably in combinations where less energetic plants form the bulk of a medicinal formula.

Tea from iris roots was used for kidney trouble by several California Indian peoples (Murphey 1959). The Yana chewed iris roots to cure coughs. The Modoc used an Iris root decoction to soothe sore eyes. A piece of iris root was inserted in a tooth cavity to kill the nerve, so the tooth would come out. Roots were burned and the smoke inhaled to alleviate dizziness. A root decoction was used as a cathartic and emetic, but large doses could cause severe digestive problems.

Landscaping & Wildlife: The beautiful and variable blossoms lend themselves to landscaping, where they require minimal maintenance. Native irises are free flowering, most are long lived, require very little attention, and provide an abundance of seeds. In some situations, such as pastures, iris can be invasive. Iris flowers attract insects and birds while providing both nectar and insects to hummingbirds.

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: Iris Family (Iridaceae). *Iris fernaldii* has narrowed; dark gray-green leaves with beet red

staining at the base and often up the broad stems and even into the spathes. It has cream-yellowish flowers with lavender to red-brown veining and blooms from April-May. This perennial, evergreen iris has two flowers to a stem. The rhizomes average 6 mm in diameter.

Distribution

For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site. Fernald's iris grows in woods from Santa Cruz north to Sonoma, Solano, and Lake Counties in California.

Establishment

Adaptation: It is able to tolerate sun to high shade, and requires moderate moisture. In the wild, Fernald's iris grows in shady places from 50 to 2000 m in elevation. This iris is native to shady sloped in the mixed evergreen forest. Horticulturally, it is used for borders, among trees and shrubs. This iris is not a clumping form; it will reseed densely in good conditions. *Iris fernaldii* hybridizes with *Iris macrosiphon* and the hybrid populations threaten the pure strains.

The native irises are excellent in shade situations, even dense shade of walls and fences (Schmidt 1980). They will tolerate sun for most of the day in mild areas, and should have afternoon shade and ample water in the interior regions. These plants are intolerant of frequent summer water; they should not be planted near lawns or other moisture-loving plants. These plants require excellent drainage. Compacted or other water-holding soils may need to be modified. Fertilization increases biomass and seed production.

When allowed to increase freely, plants will naturalize and eventually form extensive ground cover. Unless the seed vessels are removed there will be many volunteer plants, but if inferior flower size or color appears it should be culled immediately.

Irises start growing with the first cool weather and rains in fall, reaching the height of their growth in spring and early summer.

Propagation by Plant Division: Iris species are clonal, radiating in their growth outward from the center. The best propagation method for these is division, in fall or winter after the first new roots are established but before the flowers form.

Native irises in the wild tend to produce only a small, dry rhizome with stringy roots which is difficult to dig. Vigorous garden or greenhouse plants produce firm, white, growing roots especially in winter and spring growing seasons, and clumps are easily divided at those time. Remove a new fan with fleshy roots set in a prepared site, water it, and provide shade for a few days if the plant is placed in full sun. Frequent division appears to keep the plants vigorous, as well as being the best method of increasing the supply of superior forms.

Propagation by Seed: Iris seed is easily collected from the large capsules. The capsules turn from green to brown and open at the top when they are ripe. You have to watch them closely, they split very rapidly, then two days later the seed is spilled out. Collect capsules carefully to avoid spilling seeds. Each capsule contains from 20 to 80 seeds.

Seeds should be stored in paper envelopes at room temperature until they are planted. The seeds of all species will keep up to 10 years at room temperature.

Plant seeds in 6-inch pots, using a combination of leaf mold and peat moss. Cover seeds with 1/2 inch of same material. Any good potting soil that's acidic is good for seed germination.

After planting, over-winter the pots outdoors in November or December. They will come up in 2-3 months, depending on the weather. Germination increases the second year, because there's always a percentage of a hard seed that won't germinate the first year. Part of the seed waits for the next year, to increase the probability for good weather conditions and optimize germination success.

Plant the seedlings in May, when the young plants are usually 3 to 6 inches tall or even taller. Plants are likely to require watering the first year while roots are being established. Plant from 6 inches to one-foot when spacing. If a natural look is desired, scatter and clump the plantings. Plants will begin to bloom by their second year if growth has been continuous.

Direct seeding is possible in places that can be left undisturbed, as among shrubs, or among low perennials where the seedlings can be sheltered. If planting seeds in the ground, autumn is the best time for seeding; germination begins in two or three months and often continues beyond that time. A friable seed mixture of sand, loam, and either peat or screened leaf mold is best, covering the seed with

sphagnum moss to aid in preventing damping-off of seedlings.

Management

In autumn old leaves should be removed from the center of large clumps, the foliage cut back, and a mulch applied, especially if the irises are being naturalized in a semi-dry area. Traditional resource management included harvesting huge bunches of iris leaves in the fall, and storing these leaves until needed. The fibers are then harvested from the leaves. This naturally accomplished the pruning and mulching that modern horticulturists practice to maintain iris beds.

The PCI borer (*Amphipoea americana* var. *pacifica*) and iris borer are serious pests of iris. The iris borer stays in the rhizome through the winter then metamorphose, coming out sometime in the spring as a nocturnal moth. Controlling the moth when its flying, to prevent it from laying its eggs on the Iris, would control the borer. At this time, it is recommended to dig the infected plant out entirely, put it a plastic bag, and put them in the garbage can to avoid contamination of other plants.

Milkweed (*Asclepias* species) and dogbane (*Apocynum cannabinum*) were traditionally burned by native people in the fall to maintain vigorous plant production, to stimulate plant growth, to optimize long and abundant fiber production from leaves and stalks, and to stimulate seed production. It is probable that iris was burned for the same reasons.

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

IRFE is widely 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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Prepared By

Michelle Stevens

formerly USDA, NRCS, National Plant Data Center

Species Coordinator

M. Kat Anderson

USDA, NRCS, National Plant Data Center
c/o Environmental Horticulture Department,
University of California, Davis, California

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