Plant Propagation Protocol for *Iris innominata*

ESRM 412 – Native Plant Production

URL: https://courses.washington.edu/esrm412/protocols/2023/IRIN.pdf

Fig. 1

North American Distribution

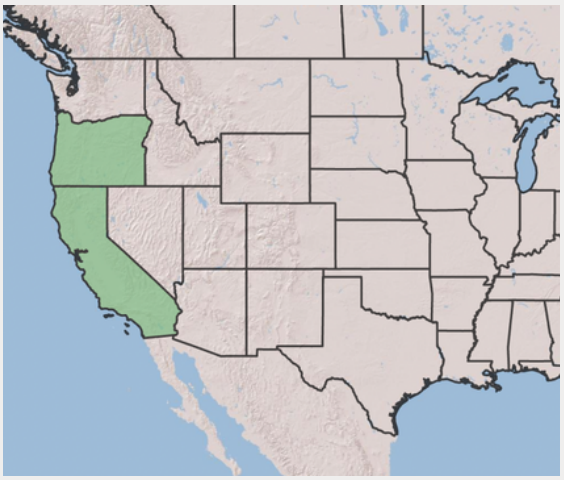

Fig. 2

Pacific Northwest Distribution

Fig. 3

TAXONOMY	
Plant Family	
Scientific Name	Iridaceae
Common Name	Iris family
Species Scientific Name	
Scientific Name	*Iris innominata* L.F. Hend
Varieties	N/A
Sub-species	N/A
Cultivar	N/A
Common Synonyms	*Iris tenax* Douglas ex Lindl. ssp. *innominata* (L.F. Hend.) Q. Clarkson
Common Names	Del Norte County iris, Pacific Coast iris,
Species Code	IRIN

GENERAL INFORMATION	
Geographical Range	Native to the southern regions of Oregon and California's north coast and Klamath Ranges in Del Norte County, California.
Ecological Distribution	Found in woodlands and lower montane coniferous forests in open areas with serpentine soils[3].
Climate and Elevation Range	*Iris innominata* thrives in environments with cool, wet winters and warm, dry summers, neutral or slightly acidic soil, good drainage, and sun or partial shade. It can be found growing at elevations ranging between 400 and 2000m[8].
Local Habitat and Abundance	They are distributed along across the coastal regions of southwest Oregon and northwestern California, with populations in the Klamath Mountains of southwestern Oregon being locally abundant[2].
Plant Strategy Type / Successional Stage	*Iris innominata* has a colonizing growth form and a rapid growth rate, indicating that the strategy type/successional stage is weedy/colonizer[7].
Plant Characteristics	*Iris innominata* is an herbaceous monocot[1] characterized by its diverse range of flower colors, including shades of golden yellow, light cream, apricot, orange, light pink, and purple. The sepals have prominent veins, and the petals, which are slightly wider and shorter and narrower than the sepals, are a similar color. The inflorescence is made up of solitary flowers, and the leaves are dark green, dense, and glossy, with reddish-purple spots near the base caused by branching rhizomes and fibrous roots. Blooms from May through June, and stems are typically 8-12 inches tall[5].

PROPAGATION DETAILS While vegetative propagation of Iris innominata is possible, its use is less common than seed propagation. Therefore, there is a notable scarcity of information regarding this method.	
Ecotype	Rogue River-Siskiyou National Forest, Oregon[6]
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container (plug)
Stock Type	262 ml (16 in^3) container

Time to Grow	25 to 26 weeks
Target Specifications	Stock Type: Container seedling Root System: Firm plug in container
Propagule Collection Instructions	Seeds are easily collected from the large capsules
Propagule Processing/Propagule Characteristics	N/A
Pre-Planting Propagule Treatments	The seeds are carefully placed inside fine mesh bags and immersed in a solution consisting of 1% hydrogen peroxide (a mixture of 3 parts water and 1 part 3% hydrogen peroxide). They are allowed to soak for a period of 24 hours, after which they are rinsed and transferred to a water-filled container for an additional 48 hours. Next, the seeds are placed in a sealed container and subjected to warm stratification at a temperature of 10 °C for a duration of 14 days. After the warm stratification period, the seeds undergo a subsequent cold stratification process at temperatures ranging from 1 to 3 °C for an additional 14 days. It is crucial to regularly inspect the seeds during both the warm and cold stratification phases, preferably on a weekly basis. In the event of mold growth, the seeds should be treated with a 1% hydrogen peroxide solution.
Growing Area Preparation / Annual Practices for Perennial Crops	Plants are housed in a greenhouse growing facility. Seeds are sown directly into containers and slightly covered with nursery grit. The growing medium used is 40:20:20:20 peat:composted fir bark:perlite:pumice with Nutricote controlled release fertilizer, at the rate of 1.5 gram Nutricote per 262 ml container.
Establishment Phase Details	Germination is uniform yet slow. Seeds can take up to three weeks to germinate. Following germination, plants are fertilized for one week with a soluble 12-2-14-6Ca-3Mg solution at 75 ppm.
Length of Establishment Phase	4 weeks
Active Growth Phase	During the active growth phase, seedlings grow somewhat slowly. If sowed in late winter/early spring, seedlings typically fill the the container. Throughout the growing season, soluble 20-9-20 NPK, 20-18-18 NPK, or 17-5-24 NPK fertilizer solutions are applied weekly at a rate of 100 ppm.
Length of Active Growth Phase	20 weeks

Hardening Phase	There is no dry-down to induce dormancy. In early to mid September, seedlings are transferred to an outdoor growth space.
Length of Hardening Phase	2 weeks
Harvesting, Storage, and Shipping	Harvest Date: Mid to late October Storage Conditions: Seedlings are usually outplanted in the fall. No storage except in outdoor growing area. Plants are well irrigated prior to shipping and shipped in containers.
Length of Storage	N/A
Guidelines for Outplanting / Performance on Typical Sites	N/A
Other Comments	N/A

INFORMATION SOURCES

References	See below
Other Sources Consulted	Fig 1: *Iris innominata*. (n.d.). California Flora Nursery. https://www.calfloranursery.com/plants/iris-innominata Fig 2 and 3: Iris innominata L.F. Hend. (2019, May 7). United States Department of Agriculture. https://plants.usda.gov/home/plantProfile?symbol=IRIN
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Date Protocol Updated	May 24, 2023

1.Henderson, L. (n.d.). Iris innominata • New Zealand Plant Conservation Network. New Zealand Plant Conservation Network. https://www.nzpcn.org.nz/flora/species/iris-innominata/

2. Henderson, L. F. (n.d.). SPCNI - Golden Iris -Iris innominata description. Society for Pacific Coast Native Iris. https://www.pacificcoastiris.org/wildiris_irisinnominata.php

3. Iris innominata. (2019, May 7). CNPS Rare Plant Inventory. https://rareplants.cnps.org/Plants/Details/631

4. Iris innominata - Native Plant Database. (2010, April 14). Theodore Payne Foundation. https://theodorepayne.org/nativeplantdatabase/index.php?title=Iris_innominata

5. Pacific Coast Irises - Iris innominata. (n.d.). USDA Forest Service. https://www.fs.usda.gov/wildflowers/beauty/iris/Pacific_Coast/iris_innominata.shtml

6. Riley, L. E., & Klocke, A. (2019, May 7). Iris (innominata). REFORESTATION, NURSERIES, & GENETIC RESOURCES. https://npn.rngr.net/npn/propagation/protocols/iridaceae-iris/?searchterm=iris%20innominata

7. Species Iris (Iris innominata) in the Irises Database - Garden.org. (n.d.). The National Gardening Association. https://garden.org/plants/view/82661/Species-Iris-Iris-innominata/

8. Wilson, C. A. (n.d.). Iris innominata. Jepson Herbarium. https://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=29284
National Center for Reforestation, Nurseries, and Genetic Resources.

9. Plant Strategies - Rain Forests. (2023, March 3). Ecology Center. https://www.ecologycenter.us/rain-forests/plant-strategies.html