

Plant Propagation Protocol for *Sisyrinchium montanum*

ESRM 412 – Native Plant Production

Protocol URL: <https://courses.washington.edu/esrm412/protocols/SIMO2.pdf>

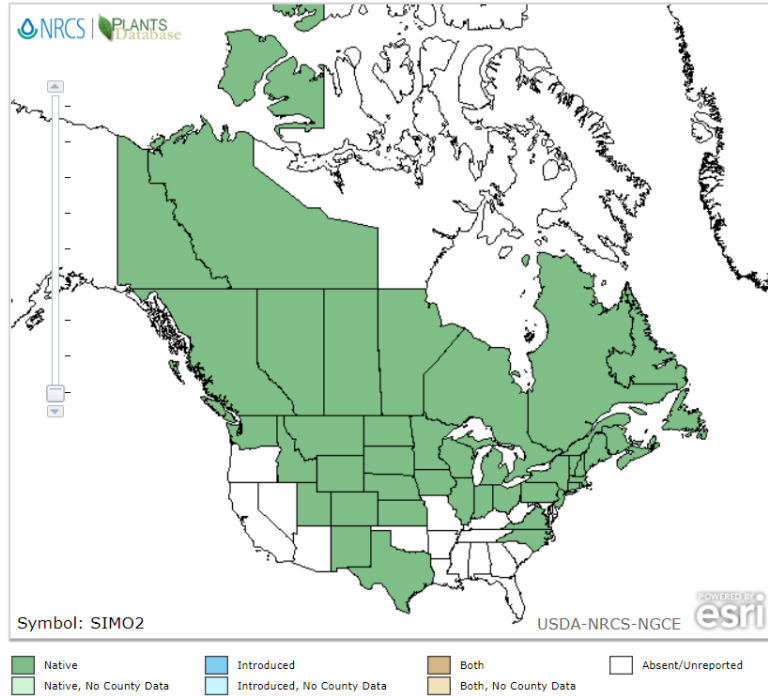


[USDA] plants database (1)

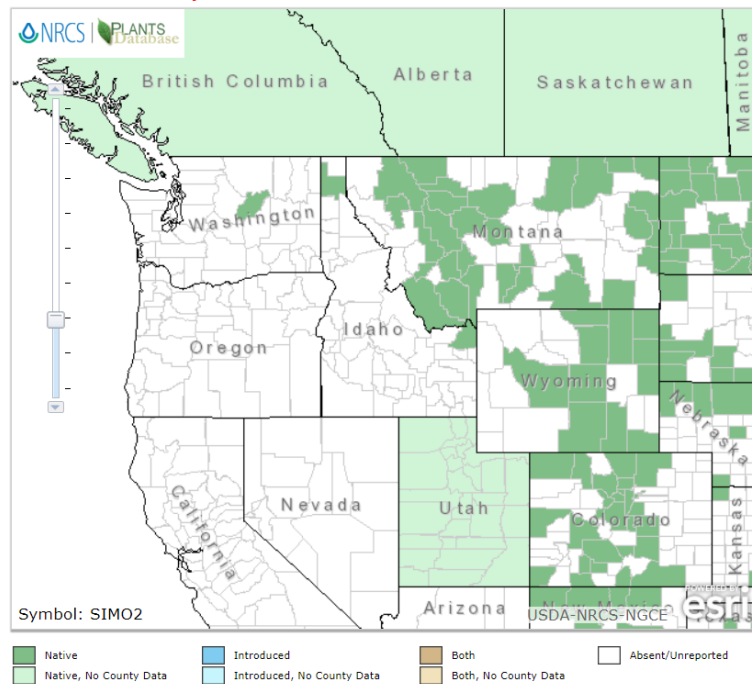
TAXONOMY	
Plant Family	
Scientific Name	Iridaceae
Common Name	Iris family
Species Scientific Name	
Scientific Name	<i>Sisyrinchium montanum</i> Greene
Varieties	Varieties of <i>Sisyrinchium montanum</i> include: var. <i>crebrum</i> Fernald, var. <i>montanum</i>
Sub-species	Sub-species of <i>Sisyrinchium montanum</i> include: ssp. <i>crebrum</i> (Fernald) Böcher
Cultivar	N/A
Common Synonym(s)	<i>Sisyrinchium montanum</i> subsp. <i>crebrum</i> (Fernald) Böcher <i>Sisyrinchium montanum</i> var. <i>montanum</i> Greene <i>Sisyrinchium angustifolium</i> auct. <i>Sisyrinchium alpestre</i> E.P.Bicknell <i>Sisyrinchium bermudiana</i> var. <i>crebrum</i> (Fernald) B. Boivin <i>Sisyrinchium bermudianum</i> L. <i>Sisyrinchium heterocarpum</i> E.P.Bicknell (2) (6)
Common Name(s)	Mountain Blue-eyed Grass, Strict Blue-eyed Grass, American Blue-eyed Grass
Species Code	SIMO2
GENERAL INFORMATION	
Geographical range	<i>Sisyrinchium montanum</i> Greene is native to the Northern America (Southern Canada and Northern U.S.) and natueralized in Europe. This species is found in all states of

the United States except Oregon, California, Nevada, Arizona, Oklahoma, Missouri, Arkansas, Louisiana, Kentucky, Tennessee, Alabama, West Virginia, Maryland, Delaware, Georgia, South Carolina, Florida, Alaska, and Hawaii.

North America Distribution: (1)



Washington/Oregon Distribution: (1)



Ecological distribution	<i>Sisyrinchium montanum</i> occurs in terrestrial and wetland ecosystems, especially in moist meadows and streambanks of montane zones.
Climate and elevation range	<i>Sisyrinchium montanum</i> is suitable in USDA Hardiness Zone: 3-10. This species is often found in lower elevations.
Local habitat and abundance	<i>Sisyrinchium montanum</i> is often found in moist prairies/grasslands, moist-to-wet meadows, stream banks, and open woods in plains, valleys, and montane zones. (9) This species is associated with ponderosa pine (<i>Pinus ponderosa</i>), alfalfa (<i>Medicago sativa</i>), white sagebrush (<i>Artemisia ludoviciana</i>), and Baltic rush (<i>Juncus balticus</i>). (8)
Plant strategy type /successional stage	Early Seral; this species may become invasive. (10)
Plant characteristics	Life Form: forb Growth Habit: herb Duration: perennial Foliage Color: green Fruit/Seed Color: red Bloom Color: violet, blue Boom Time: May-June Sun/Shade: full sun, shade-part shade (3)
PROPAGATION DETAILS	
Ecotype	N/A
Propagation Goal	Plants; seed germinates
Propagation Method	From seeds or division; Seed#1: sow the seeds into outdoor flats and covered by partial shade in Autumn; Seed#2: sow into vented containers in greenhouse that is not heated in Winter. (10)
Product Type	Container plants that can later be outplanted (plug).
Stock Type	Containers (plug); rootball divisions
Time to Grow	7 months
Target Specifications	Height: 6~12 inches Root System: roots firmly plugged into containers
Propagule Collection Instructions	Seeds should be hand-collected by breaking the dried pods from the healthy plant into sealed paper bags.
Propagule Processing/Propagule Characteristics	Seeds: 0.125 inches Propagule Spacing: 4~16 inches Propagule Depth: 0.2 inches (10)
Pre-Planting Propagule Treatments	Water regularly for average water needs. (10) Seeds receive natural outdoor stratification in Oregon.
Growing Area Preparation / Annual Practices for Perennial Crops	Soil PH of 5~6.5 is suitable the growth of <i>Sisyrinchium montanum</i> . Provide partial shade or full sun for the best propagation result in different phases. (11)

Establishment Phase Details	Seed#1: after the first germination, the flats should be transplanted to full sun outdoor, and the soil should be retained fertile, moist, and relatively acid (a PH of 5~6.5). (10)
Length of Establishment Phase	Seeds establish by 1~6 months.
Active Growth Phase	No data found
Length of Active Growth Phase	7 months
Hardening Phase	Provide full-sun exposure before outplanting.
Length of Hardening Phase	2~4 weeks
Harvesting, Storage and Shipping	Storage: 33~38° F, cold storage.
Length of Storage	Check the planting date to determine.
Guidelines for Outplanting / Performance on Typical Sites	Plants may become invasive: remove unwanted plants as soon as possible when outplanting. Keep regular watering of the plants. (11)
Other Comments	No data found

INFORMATION SOURCES

References	<p>(1) [USDA] plants database. <i>Plants Profile for Sisyrinchium montanum</i> [Internet]. [Cited 2019 May 28th] available from https://plants.sc.gov.usda.gov/core/profile?symbol=SIMO2</p> <p>(2) The Plant List. <i>Sisyrinchium montanum</i> Greene. [Internet]. [Cited 2019 May 28th] available from http://www.theplantlist.org/tpl1.1/record/kew-325079</p> <p>(3) Minnesota Wildflowers. <i>Sisyrinchium montanum</i> (<i>Mountain Blue-eyed Grass</i>). [Internet]. [Cited 2019 May 28th] Available from https://www.minnesotawildflowers.info/flower/mountain-blue-eyed-grass</p> <p>(4) USDA, Agricultural Research Service, National Plant Germplasm System. (2019). [Internet]. [Cited 2019 May 28th] available from https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=456270</p> <p>(5) Flora of North America. <i>Sisyrinchium montanum</i> Greene, <i>Pittonia</i>. 4: 33. 1899. [Internet]. [Cited 2019 May 28th] available from http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=242101914</p> <p>(6) In Klinkenberg, Brian. (2017). <i>Electronic Atlas of the Plants of British Columbia</i>. Lab for Advanced Spatial Analysis, Department of Geography, University of British Columbia, Vancouver. [Internet]. [Cited 2019 May 28th] available from http://linnet.geog.ubc.ca/Atlas/Atlas.aspx?sciname=Sisyrinchium+montanum</p>
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	<p>(7) Lady Bird Johnson Wildflower Center. <i>Sisyrinchium montanum</i>. [Internet]. [Cited 2019 May 28th] Available from https://www.wildflower.org/plants/result.php?id_plant=SIMO2</p> <p>(7) IT IS Report. <i>Sisyrinchium montanum</i> Greene. [Internet]. [Cited 2019 May 28th]</p> <p>(9) Popescu, G., & Boruz, V. (2008). <i>Taxonomy, ecology and coenology data on the species Sisyrinchium montanum</i>. <i>Contributii Botanice</i>, 43, <i>Contributii Botanice</i>, 2008, Vol.43. [Article]. [Cited 2019 May 28th]</p> <p>(10) Dave’s Garden. <i>American Blue-eyed Grass, Common Blue-eyed Grass</i>. [Internet]. [Cited 2019 May 28th] Available from https://davesgarden.com/guides/pf/go/72207/#b</p> <p>(11) Gardeners HQ. <i>How to Grow Sisyrinchium Plants</i>. [Internet]. [Cited 2019 May 28th] Available from https://www.gardenershq.com/Sisyrinchium-Blue-eyed-Grass.php</p>
Other Sources Consulted	<p>(12) Kimberly A. Moore, Luci E. Fisher, Carl J. Della Torre III, and Lyn A. Gettys. (2015). <i>Native Aquatic and Wetland Plants: Blue-Eyed Grass, Sisyrinchium angustifolium</i>. U.S. Department of Agriculture, UF/IFAS Extension Service, University of Florida, IFAS, Florida A & M University Cooperative Extension Program, and Boards of County Commissioners Cooperating. Nick T. Place, dean for UF/IFAS Extension. [Internet]. [Cited 2019 May 28th] Available from http://edis.ifas.ufl.edu/pdffiles/ag/ag40100.pdf</p>
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