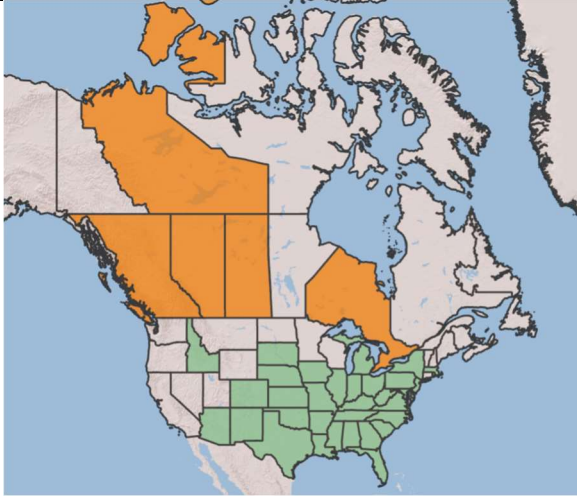


Plant Propagation Protocol for *Viola bicolor*

ESRM 412 – Native Plant Production

URL: <https://courses.washington.edu/esrm412/protocols/2023/VIBI.pdf>

TAXONOMY	
Plant Family	
Scientific Name	<i>Viola bicolor</i>
Common Name	Field Pansy
Species Scientific Name	
Scientific Name	<i>Viola bicolor</i> Pursh
Varieties	n/a
Sub-species	n/a
Cultivar	n/a
Common Synonym(s)	<i>Viola kitaibeliana</i> auct. non Schult. <i>Viola kitaibeliana</i> Schult. var. <i>rafinesquei</i> (Greene) Fernald <i>Viola rafinesquei</i> Greene
Common Name(s)	Field pansy, American field pansy, Johnny Jump Up, Violet, Johnny Jump Up Violet
Species Code (as per USDA Plants database)	VIBI
GENERAL INFORMATION	
Geographical range	 <p>Image: USDA Plants Found across much of North America, although limited to more of the Eastern United States. With respect to the Pacific Northwest, it is found in British Columbia and Idaho (USDA) Closely related to a pansy variety common to Eurasia called <i>Viola tricolor</i> (NC State)</p>
Ecological distribution	Most commonly found in moist sand prairies, fields, edges of sandy paths or roads, waste places, and generally sandy areas with a history of disturbance (NC State)
Climate and elevation range	0m – 3000m in elevation; fairly adaptable to many climates (Flora of North America)

Local habitat and abundance	Attracts many pollinators including bees, butterflies, and birds; Birds are also known to feed on the seeds; high growth rate and will spread fast
Plant strategy type / successional stage	Weedy plant that is fairly adaptable to shade and many types of soils
Plant characteristics	Weedy herb/wildflower; flowers are blue and white with the petals being longer than the sepals (NC State); annual species
PROPAGATION DETAILS	
Ecotype	Based on information from Utah State University on how to grow <i>Viola tricolor</i>
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Bareroot or outdoor container
Stock Type	Bareroot or raised beds with about 7-12 inches of space between and at least 9 inches of depth
Time to Grow	7-8 months
Target Specifications	6 inches tall; flowers about 1-3 inches in diameter
Propagule Collection Instructions	n/a
Propagule Processing/Propagule Characteristics	n/a
Pre-Planting Propagule Treatments	n/a
Growing Area Preparation / Annual Practices for Perennial Crops	Rich well drained soil; a 5-10-5 NPK fertilizer added to the soil; water seed bed before planting and wait for water to drain before seeding
Establishment Phase Details	Place cover (i.e. burlap) over seeds after seeding
Length of Establishment Phase	5 to 8 days
Active Growth Phase	Shade seedling until true leaves develop; water lightly but not too heavily; thin seedlings to about an inch or so apart
Length of Active Growth Phase	Once they have developed 6 to 8 true leaves; for the North states, transplant in early September
Hardening Phase	Move seedlings to permanent location placing them 7-12 inches apart; when ground freezes apply mulch or other cover to minimize fluctuations in ground temperature
Length of Hardening Phase	End of winter when they begin to flower
Harvesting, Storage and Shipping	n/a
Length of Storage	n/a
Guidelines for Outplanting / Performance on Typical Sites	Flowering occurs in early spring and will last into early fall; plants will die back and regrow
Other Comments	n/a

INFORMATION SOURCES

References	<p>Utah State University. "Growing Pansies." Utah State University, Yard and Garden Extension. https://extension.usu.edu/yardandgarden/research/growing-pansies</p> <p>Floras of North America. "Viola bicolor Pursh." Floras of North America. www.eFloras.org.</p> <p>North Carolina State. "Viola Bicolor." NC State Extension Gardener Plant Toolbox. https://plants.ces.ncsu.edu/plants/viola-bicolor/</p> <p>USDA NRCS National Plant Data Team. "Viola bicolor Pursh." USDA. https://plants.usda.gov/home/plantProfile?symbol=VIBI.</p>
Other Sources Consulted	n/a
Protocol Author	Kyle Yasui
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