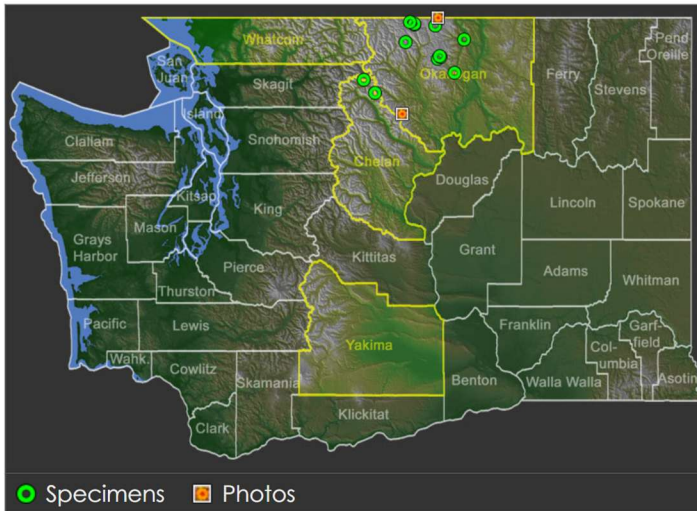


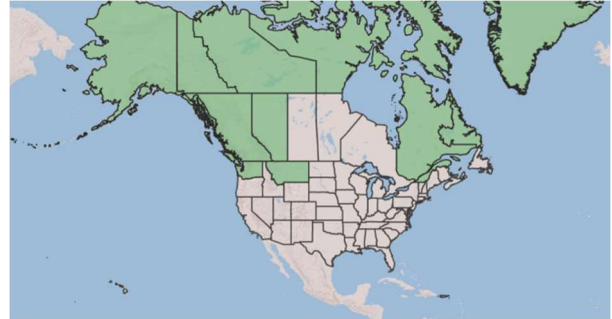
## Plant Propagation Protocol for *Cassiope tetragona*

ESRM 412 – Native Plant Production

URL: [https://courses.washington.edu/esrm412/protocols/\[2025\]/\[CATE11.pdf\]](https://courses.washington.edu/esrm412/protocols/[2025]/[CATE11.pdf])



Source: University of Washington Herbarium



Source: USDA Plants

<b>TAXONOMY</b>	
<b>Plant Family</b>	
Scientific Name	<i>Ericaceae</i> Juss.
Common Name	Heath family <sup>1</sup> , Bilberry family <sup>2</sup>
<b>Species</b>	
<b>Scientific Name</b>	
Scientific Name	<i>Cassiope tetragona</i> (L.) D. Don - white arctic mountain heather <sup>1</sup>
Varieties	<i>Cassiope tetragona</i> (L.) D. Don var. <i>saximontana</i> (Small) C.L. Hitchc. - white arctic mountain heather <sup>1</sup> <i>Cassiope tetragona</i> (L.) D. Don var. <i>tetragona</i> - white arctic mountain heather <sup>1</sup>
Sub-species	N/A
Cultivar	N/A
Common Synonym(s)	French: <i>Cassiope tétragone</i> <sup>2</sup> Inuktitut: Itsutit, plantiksutit, or qijuktaat <sup>2</sup>
Common Name(s)	artic white heather <sup>2</sup> , mountain heather <sup>2</sup> , Artic Bell-heather <sup>4</sup> , white arctic mountain heather <sup>4</sup> , four-angled moss-heather <sup>5</sup>
Species Code (as per USDA Plants database)	CATE11
<b>GENERAL INFORMATION</b>	
Geographical range	This species is found in northern Alaska, the Yukon Territory, the Northwest Territories, northern Quebec, the Pacific Northwest, the Northern Rockies, and

	<p>Eurasia.<sup>6</sup> In the northwest of the United States, it is commonly found on both sides of the Cascades Mountains in Washington.<sup>5</sup></p> <p>It is native to Alaska, Alberta, Amur, British Columbia, Buryatiya, Chita, Finland, Greenland, Iceland, Irkutsk, Kamchatka, Khabarovsk, Krasnoyarsk, Labrador, Magadan, Montana, North European Russia, Northwest Territories, Norway, Nunavut, Svalbard, Sweden, Washington, West Siberia, Yakutiya, Yukon.<sup>7</sup></p>
Ecological distribution	Found in meadows, heath shrubland, and rocky slopes in both subalpine and alpine areas. <sup>6</sup>
Climate and elevation range	Ranges from 34 to 3000 meters. <sup>1</sup>
Local habitat and abundance	Located in open and rocky environments. <sup>5</sup>
Plant strategy type / successional stage	Establishes best in low wind environments, and high pH soils, and is vulnerable to heavy snow. <sup>9</sup>
Plant characteristics	Classified as a perennial shrub or subshrub and a dwarf, evergreen shrub. <sup>1,8</sup>
<b>PROPAGATION DETAILS: SEED</b>	
Ecotype	Propagation protocol derived from RGNR, USDA Plants Protocol Information, and the Alpine Garden Society Plant Encyclopedia. <sup>1,10</sup> No description of seed collections where provided.
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container (plug)
Stock Type	None specified.
Time to Grow	None specified.
Target Specifications	None specified.
Propagule Collection Instructions	Can be propagated from seed, bare root, or bulb. <sup>1</sup> Seeds can be nondormant. <sup>10</sup>
Propagule Processing/Propagation Characteristics	Dry seed capsules. <sup>1</sup>
Pre-Planting Propagule Treatments	Cold stratification is required for germination. <sup>1</sup> Recommended to plant seeds directly in acidic compost that remains wet until germination. <sup>12</sup> Germination occurs at 22C. <sup>10</sup>
Growing Area Preparation / Annual Practices for Perennial Crops	Once established, prefers well-draining sandy to loamy soils. <sup>11</sup> Suitable to nutrient poor soils. <sup>11</sup>
Establishment Phase Details	Around a month depending on <i>Cassiope</i> species. <sup>12</sup>

Length of Establishment Phase	None specified.
Active Growth Phase	Slow growing rate and intolerant to shade. <sup>1</sup>
Length of Active Growth Phase	Duration of Summer. <sup>1</sup>
Hardening Phase	None specified.
Length of Hardening Phase	None specified.
Harvesting, Storage and Shipping	None specified.
Length of Storage	None specified.
Guidelines for Outplanting / Performance on Typical Sites	Flower from June to August. <sup>5</sup>
Other Comments	
<b>INFORMATION SOURCES</b>	
References (full citations)	<p>1 USDA, NRCS. (n.d.). <i>PLANTS database: Cassiope tetragona (L.) D. Don</i>. United States Department of Agriculture. <a href="https://plants.usda.gov/">https://plants.usda.gov/</a></p> <p>2 Aiken, S.G., Dallwitz, M.J., Consaul, L.L., McJannet, C.L., Boles, R.L., Argus, G.W., Gillett, J.M., Scott, P.J., Elven, R., LeBlanc, M.C., Gillespie, L.J., Brysting, A.K., Solstad, H., and Harris, J.G. (2007). <i>Flora of the Canadian Arctic Archipelago: Cassiope tetragona (L.) D. Don</i>. Canadian Museum of Nature. <a href="https://nature.ca">https://nature.ca</a></p> <p>3 Klinkenberg, B. (Ed.). (2021). <i>British Columbia vascular plant occurrence data</i>. E-Flora BC. <a href="https://ibis.geog.ubc.ca/biodiversity/eflora/KlinkenbergBECTable.html">https://ibis.geog.ubc.ca/biodiversity/eflora/KlinkenbergBECTable.html</a></p> <p>4 Klinkenberg, B. (Ed.). (2021). <i>Cassiope tetragona</i>. E-Flora BC Atlas. <a href="https://ibis.geog.ubc.ca/biodiversity/eflora">https://ibis.geog.ubc.ca/biodiversity/eflora</a></p> <p>5 University of Washington Herbarium. (2025). <i>Cassiope tetragona - Burke Herbarium Image Collection</i>. <a href="https://biology.burke.washington.edu/herbarium/imagecollection.php">https://biology.burke.washington.edu/herbarium/imagecollection.php</a></p> <p>6 Britton, N. L., &amp; Brown, A. (1913). <i>An illustrated flora of the northern United States, Canada and the British possessions</i> (Vol. 2). Charles Scribner's Sons.</p> <p>7 Royal Botanic Gardens, Kew. (2023). <i>Cassiope tetragona (L.) D. Don   Plants of the World Online</i>. <a href="https://powo.science.kew.org">https://powo.science.kew.org</a></p> <p>8 International Dendrology Society. (n.d.). <i>Cassiope tetragona</i>. Trees and Shrubs Online. <a href="https://treesandshrubsonline.org">https://treesandshrubsonline.org</a></p>

	<p>9 Murray, D. (n.d.). <i>Cassiope tetragona</i>. Flora of the Yukon – Dempster Country. <a href="https://www.flora.dempstercountry.org/0.Site.Folder/Species.Program/Species.php?species_id=Cassi.tetra">https://www.flora.dempstercountry.org/0.Site.Folder/Species.Program/Species.php?species_id=Cassi.tetra</a></p> <p>10 Baskin, J. M., &amp; Baskin, C. C. (2002). Propagation protocol for production of container (plug) <i>Cassiope tetragona</i> (L.) D. Donn. plants. University of Kentucky, Lexington, KY. In <i>Native Plant Network</i>. US Forest Service, National Center for Reforestation, Nurseries, and Genetic Resources. <a href="https://NativePlantNetwork.org">https://NativePlantNetwork.org</a></p> <p>11 Plants for a Future. (n.d.). <i>Cassiope tetragona</i> - White Arctic Mountain Heather. PFAF Plant Database. <a href="https://pfaf.org">https://pfaf.org</a></p> <p>12 Alpine Garden Society. (n.d.). <i>Cassiope</i>. <a href="https://www.alpinegardensociety.net">https://www.alpinegardensociety.net</a></p>
Other Sources Consulted	<p>Lady Bird Johnson Wildflower Center. (n.d.). <i>Cassiope tetragona</i> (Arctic bell-heather)   <i>Native Plants of North America</i>. University of Texas at Austin. <a href="https://www.wildflower.org/plants/result.php?id_plant=CATE8">https://www.wildflower.org/plants/result.php?id_plant=CATE8</a></p> <p>Consortium of Pacific Northwest Herbaria. (n.d.). <i>CPNWH search results: Cassiope tetragona</i>. <a href="https://pnwherbaria.org">https://pnwherbaria.org</a></p> <p>Wipf, S., Rixen, C., Frei, E. R., Stoeckli, V., &amp; Ertl, S. (2009). Growth and reproductive responses of <i>Cassiope tetragona</i>, a circumpolar evergreen shrub, to experimentally delayed snowmelt. <i>Arctic, Antarctic, and Alpine Research</i>, 41(4), 460–464. <a href="https://doi.org/10.1657/1938-4246-41.4.460">https://doi.org/10.1657/1938-4246-41.4.460</a></p>
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