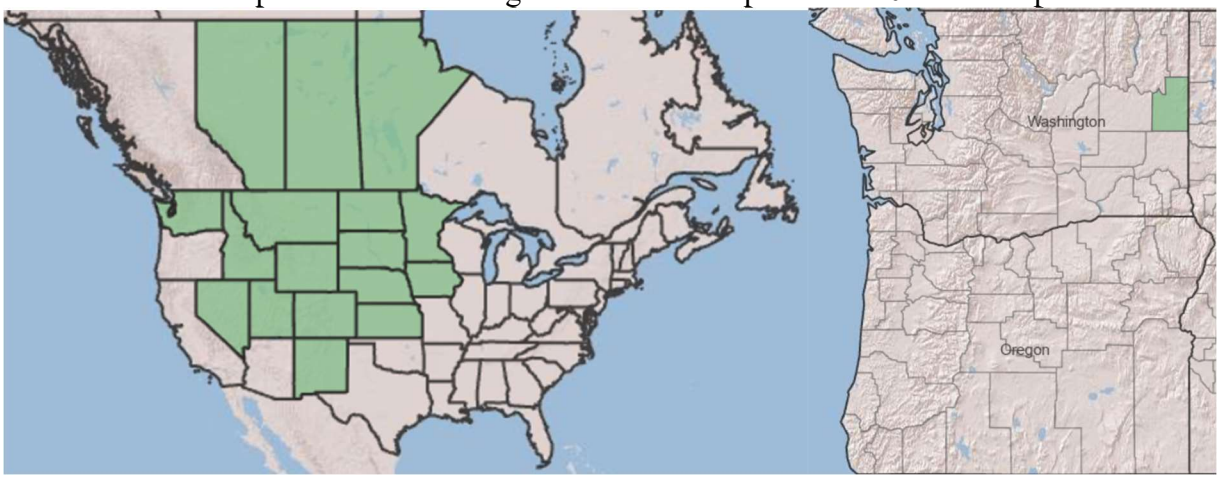
**Plant Propagation Protocol for *Allium textile***
ESRM 412 – Native Plant Production
URL: https://courses.washington.edu/esrm412/protocols/2024/ALTE.pdf



State and county level maps of the range of *Allium textile* from the USDA PLANTS database(5)

| TAXONOMY | |
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| Plant Family | |
| Scientific Name | liliaceae |
| Common Name | Lily family |
| Species Scientific Name | |
| Scientific Name | *Allium textile* A. Nelson & J.F. Macbr. |
| Varieties | N/A |
| Sub-species | N/A |
| Cultivar | N/A |
| Common Synonym(s) | *Allium aridum* Rydb.<br>*Allium geyeri* S. Watson var. textile (A. Nelson & J.F. Macbr.) B. Boivin<br>*Allium reticulatum* G. Don<br>*Allium reticulatum* G. Don var. playanum M.E. Jones |
| Common Name(s) | Textile Onion(5), White Wild Onion(1) |
| Species Code (as per USDA Plants database) | ALTE |
| **GENERAL INFORMATION** | |
| Geographical range | Present but rare in eastern Washington and Oregon. Primarily found from Idaho east to Minnesota and from New Mexico and Arizona north to the Canadian border(7) |
| Ecological distribution | Common in meadows, sagebrush steppe, open pine forests, clearings, and meadows(3). |
| Climate and elevation range | 1000-7900ft(6) |

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| Local habitat and abundance | Found in a variety of dry open habitats throughout it's range(3) and requires a late summer/early fall dry season(2) |
| Plant strategy type / successional stage | Adaptable to a variety of open arid conditions tolerating drought and grazing(3) |
| Plant characteristics | Small perennial forb with 1-2 leaves 1/16" wide and up to 16" tall(1,6). Leaves emerge from 1-3 underground bulbs with a fibrous mesh like outer layer(1,6). Flower stalks grow to 16" tall producing a hemispherical cluster of 15-30 flowers may through June, usually white with red midribs and occasionally pink (6). |
| **PROPAGATION DETAILS** | |
| Ecotype | |
| Propagation Goal | Bulb |
| Propagation Method | Seed |
| Product Type | Bareroot bulbs |
| Stock Type | |
| Time to Grow | 1-2 years |
| Target Specifications | Bulbs up to 1" long, likely smaller if planted out within the first year(3) |
| Propagule Collection Instructions | Seed containing capsules can be collected June through July(3). |
| Propagule Processing/Propagule Characteristics | There is a lack of Published seed characteristics for *Allium textile*, but seed density can be estimated at 169,250 seeds/lb based on the closely related closely *Allium geyeri*(9). Seeds should be removed from their pods and separated from chaff prior to planting. Seeds of the closely related *Allium geyeri* can be cleaned by brushing the pods against a wire screen and chaff can be removed via air screening(9) |
| Pre-Planting Propagule Treatments | Scarification nis reported to break dormancy, however exact methods are not described(3). Alternatively seeds can be sown outdoors in the fall and seeds will break dormancy by spring(3). Based on this cold moist stratification may also be effective but is up until now untested. If spring seeding is desired scarification and/or cold moist stratification should be used and results should be documented and published |
| Growing Area Preparation / Annual Practices for Perennial Crops | An outdoor plot should be prepared and planted in the fall(3). A 1-2" layer of seeding media on the surface may be beneficial to prevent rot while seeds break dormancy over winter. |
| Establishment Phase Details | During winter seeds should be protected from animals that may disturb or eat them and beds should be kept weed free. |
| Length of Establishment Phase | 3+ months |
| Active Growth Phase | Plants |
| Length of Active Growth Phase | Approximately 6 months depending on spring sprouting time and dry season onset |
| Hardening Phase | Water should be reduced in mid to late summer to prepare plants to enter dormancy and prevent rot(2) |

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| Length of Hardening Phase | 1-2 months of reduced to no watering at the end of summer(2) |
| Harvesting, Storage and Shipping | Bulbs should be harvested and transplanted in spring prior to emerging(3). Data doesn't exist for long term storage conditions for *Allium textile*, but given it's need for different moisture regimes throughout different seasons(2) harvest prior to late winter or early spring isn't recommended. If bulbs are prior to late winter or early spring it should occur after bulbs have entered dormancy with humidity and temperature of storage changing to match the seasons. If early harvest and long-term storage are attempted the longevity and storage conditions of bulbs should be recorded and published. |
| Length of Storage | Bulbs often go 3-6 months between flowering and resprouting in the spring(3), so it's likely they can be stored for 3-6 months but this is not recommended. |
| Guidelines for Outplanting / Performance on Typical Sites | Sites should experience moderate to low moisture in spring and early summer and dryness in the late summer and early fall(2). Requires moderate to full sun and thrives a variety of soil types(3). Sites should have sufficient space |
| Other Comments | All parts of the plant are mildly toxic in large quantities but are edible in small quantities(4). |
| **INFORMATION SOURCES** | |
| References | 1. Minnesota Wildflowers. 2023. Allium textile (White Wild Onion). https://www.minnesotawildflowers.info/flower/white-wild-onion (accessed 2024/05/22). Minnesota Wildflowers<br>2.Dilys Davies. 1992. Alliums The Ornamental Onions. B.T. Batsford Ltd.<br>3. Open PRAIRIE. Liliaceae : Allium textile. https://openprairie.sdstate.edu/nativeplant/129/ (accessed 2024/05/22). South Dakota State University<br>4. Lady Bird Johnson Wildflower Center. 2023. *Allium textile*. https://www.wildflower.org/plants/result.php?id_plant=ALTE (accessed 2024/05/22). The University of Texas at Austin<br>5.PLANTS Database. 2024. Textile Onion. https://plants.sc.egov.usda.gov/home/plantProfile?symbol=ALTE (accessed 2024/05/22). USDA Natural Resources Conservation Service<br>6. Flora of North America. 2020. Allium Textile. http://floranorthamerica.org/Allium_textile (accessed 2024/05/22).<br>7. Kartesz, J.T., 2015. The Biota of North America Program (BONAP). North American Plant Atlas. (http://bonap.net/napa). (accessed 2024/05/22). Chapel Hill, N.C. [maps generated from Kartesz, J.T. 2015. Floristic Synthesis of North America, Version 1.0. Biota of North America Program (BONAP). (in press)].<br>8.Arches National Park. 2021.Liliaceae Allium textile. https://www.nps.gov/arch/learn/nature/liliaceae_allium_textile.htm |

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| | (accessed 2024/05/22). National Park Service U.S. Department of the Interior<br>9.Barner, Jim. 2008. Propagation protocol for production of Propagules (seeds, cuttings, poles, etc.) Allium geyeri S. Watson seeds USDA FS - R6 Bend Seed Extractory Bend, Oregon. In: Native Plant Network. URL: https://NativePlantNetwork.org (accessed 2024/05/22). US Department of Agriculture, Forest Service, National Center for Reforestation, Nurseries, and Genetic Resources. |
| Other Sources Consulted | Plants for a Future. Allium textile - Nels.&MacBr. https://pfaf.org/User/Plant.aspx?LatinName=Allium+textile (accessed 2024/05/20). Plants for a Future |
| Protocol Author | Raphie Drabek |
| Date Protocol Created or Updated | 5/22/2024 |