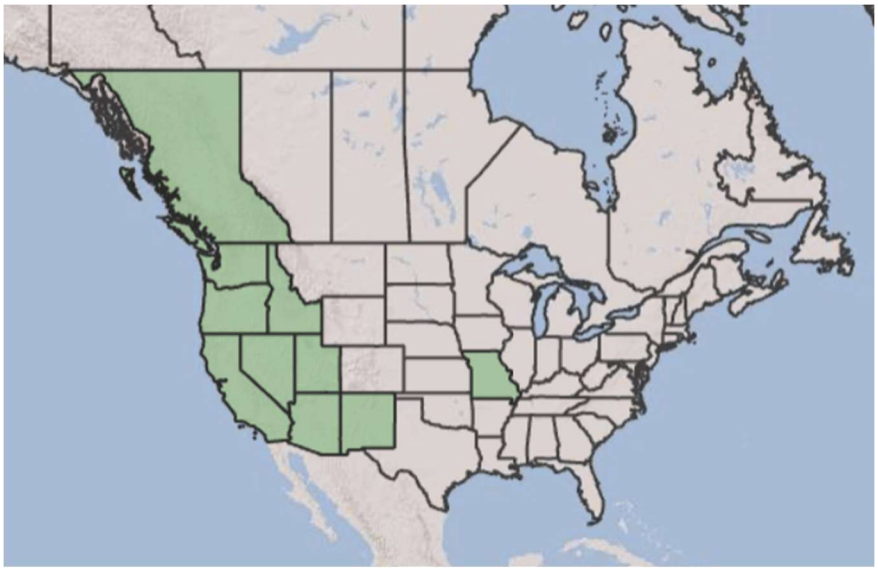
Plant Propagation Protocol for *Amsinckia tessellata*
ESRM 412 – Native Plant Production
URL: https://courses.washington.edu/esrm412/protocols/*2025*/*AMTE3.pdf*

Bristly fiddleneck Photo Source

TAXONOMY	
Plant Family	
Scientific Name	*Boraginaceae* Juss.
Common Name	Borage family
Species Scientific Name	
Scientific Name	*Amsinckia tessellate* A. Gray
Varieties	n/a
Sub-species	*Amsinckia tessellata* A. Gray var. *gloriosa* (Eastw. ex Suksd) Hoover *Amsinckia tessellate* A. Gray var. *tessellata*
Cultivar	n/a
Common Synonym(s)	*Amsinckia densirugosa*, *Amsinckia hendersonii*, *Amsinckia tessellate* var. elegans, *Amsinckia washingtonensis*[1]

Common Name(s)	Bristly fiddleneck, Checker Fiddleneck, Devil's Lettuce, Tesselate Fiddleneck.[2,3]
Species Code (as per USDA Plants database)	AMTE3
GENERAL INFORMATION	
Geographical range	  https://plants.sc.egov.usda.gov/plant-profile/AMTE3
Ecological distribution	Found on grassy slopes, valley floors, rocky to gravelly soil, slopes, flats, and arroyo beds. Found from WA to AZ & CA. It can also be seen in Argentina and Chile.[4]
Climate and elevation range	50-2280m.[5] Grows primarily in the temperate biome.[6] Found primarily in semi-arid regions in western N. America.[7]

Local habitat and abundance	Associated with mixed warm desert shrub, creosote bush, sagebrush steppe, and pinyon-juniper communities in low valleys and foothills. Found in semi-arid rangeland plant communities receiving approximately 200 to 500+ mm mean annual precipitation. In drier areas, they are found in areas that would accumulate additional soil moisture. [8]
Plant strategy type / successional stage	Early seral strategy type.[9]
Plant characteristics	Annual dicot forb/herb that gets up to about 4 feet tall with flowers that bloom from Mar - Jun. Flowers are usually yellow-orange, with 5 petals and red markings on the throat.[10] The leaves and stems are covered with bristly to finely appressed hairs. The presence of two or more fused calyx lobes gives the appearance of 2 to 4 sepals compared to five in other similar species. Bristly fiddleneck is self-pollinated, but they do favor more pollinator habitat plantings.[8] Fruit is 2.5 – 4 mm, gray, dull, rough, and bumpy. [11]
PROPAGATION DETAILS	
Ecotype	n/a
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container (plug)
Stock Type	
Time to Grow	6-8 months, typically takes from winter to summer time for growth period.
Target Specifications	Either established enough to survive a new site or to the point of further seed maturity, the plant is flowering.
Propagule Collection Instructions	Wear protective gear got minimize or prevent eye, skin, and inhalation. Seed collection can happen by clipping stems below the inflorescence or using a racquet and hopper (which can allow for multiple harvests).[8] Seed collection can happen 4-6 weeks after the bristly fiddleneck flowers, between July to September. [12] It happens primarily with wildland flowering fiddlenecks
Propagule Processing/Propagule Characteristics	246,000 to 270,000 seeds/lb.[8]
Pre-Planting Propagule Treatments	Seed cleaning requires brushing, milling, or other methods to dislodge the seeds from the flowers. Seed can be hand-screened if it is obtained by the inflorescence methods, and the first step would be to crush the material to dislodge the seeds. The racquet and hopper method does not need to be pre-screened. [8] Sources also conclude that a season of cold stratification increases the chances of success.
Growing Area Preparation / Annual	No significant difference in germination in three different soil types (fine sandy loam, loam, and clay loam), but one of those media is recommended. Surface-sown seeds have higher viability success

Practices for Perennial Crops	rates than 1-2 cm depth-sown seeds. Additionally, seeds can be germinated by using a water aerated environment with an aquarium bubbler. [8]
Establishment Phase Details	More seeds germinate at 18 °C (64 °F). Rapid, synchronous germination can be achieved by having an aerated water environment reach 100% germination within 7 days after starting the treatment.[8]
Length of Establishment Phase	7 - 14 days.[13]
Active Growth Phase	Active growth starts around late winter, and full active growth is during the springtime if seeds are established during the early winter-late fall period. Stem growth is the biggest indicator of this time frame, and then with the full leaf and flowering structure to end it.[13]
Length of Active Growth Phase	2-3 months.
Hardening Phase	Plants can survive during the cold temperatures of the winter, and plants in the same genus have had no problems with hardening off and it affects their success.[13]
Length of Hardening Phase	Expected to be only 2 months, but there is no determined data that describes the length of hardening.
Harvesting, Storage, and Shipping	No available data on how long the seeds can be stored, harvested, or shipped.
Length of Storage	No issues predicted with storage or how long they can be stored for. However, an abundant amount of plant growth makes it easy to seed the following year. Flowers self-pollinate, resulting in more growth and seed production before out planting.[13]
Guidelines for Outplanting / Performance on Typical Sites	For out planting, this species is recommended to be used at sites receiving 250 to 500 mm annual precipitation. Should be done so that these seedlings are planted at least ¼" deep. [8] Additionally, as *Amsinckia tessellata* is an annual forb and is weedier in its nature, the performance at the sites is high.
Other Comments	This plant is a weedy, highly self-colonizing species that has broad tolerances.[14] *Amsinckia tessellata* has a somewhat toxic nature and is recommended not to be planted in grasslands or livestock grazing pastures.[8]
INFORMATION SOURCES	
References	See below.
Other Sources Consulted	See below.
Protocol Author	Kylie Gates
Date Protocol Created or Updated	05/26/2025

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