



Tapteal Native Plants



Native Seed
Collection and Germination

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Outline

- Introduction
- Collecting Seed
- Seed Development
- Seed Diversity
- Germination Inhibitors
- Scarification
- Stratification
- Soil Mix
- Conclusion

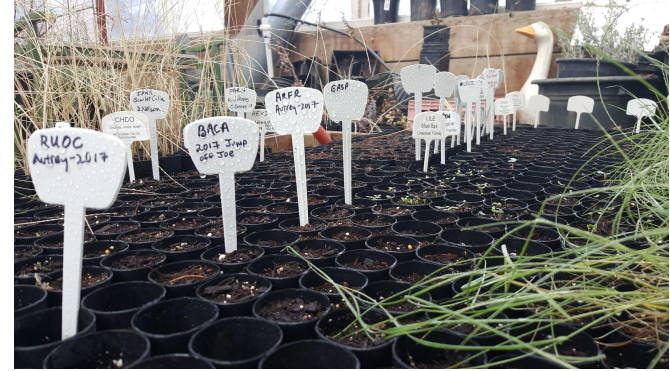


Native sweat bee on fireweed flower

Introduction: Adventures in Growing Native Plants

How did it start?

1. Heritage Garden in 2014
2. Tapteal Native Plants, 2017
3. Tapteal Native Plants, 2019



Collecting Wild Seed

What's the right way to collect seed

- Take only what you need, leave some seed
- Don't hurt the plant
- Select seed from different plants to get more genetic diversity

Where to collect

- Public vs Private Land
 - Ask landowner permission before harvesting seed

Supplies

- Paper bags
- Sharpie
- Snips or scissors
- Camera



Lewis' Blue Flax Seed Pod



Oregon Grape Berries



Native Blanket Flower Seed Heads

Seed Pod Morphology



Fragrant Evening
Primrose



Penstemon



Indian Ricegrass



Mock Orange

Seed Development: Gray Rabbitbrush



1. Unripe, flower still present
2. Still immature, seed is white or green, and soft
3. Mature, seed is black and easily separates from the mother plant

Seed Development: Rock Buckwheat



Collecting rock buckwheat on Candy Mountain



Rock buckwheat seeds and flowers, immature on top, mature below. Both specimens collected on Candy Mountain, immature in July 2019 and mature in September 2019

Buckwheat Seed Diversity



1. Thyme-leaved Buckwheat
 2. Douglas' Buckwheat
 3. Sulfur Buckwheat
 4. Arrowleaf Buckwheat
 5. Tall Buckwheat
 6. Wyeth Buckwheat
- Sesame Seed

Buckwheat Seed Diversity



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Wildflower Seed Diversity



1. Rocky Mountain Penstemon
2. Munro's Globemallow
3. Native Blanket Flower
4. Lewis' Blue Flax
5. Sulfur Lupine

Shrub Seed Diversity



1. Purple sage
2. Fringed Sagebrush
3. Antelope
Bitterbrush
4. Gray Rabbitbrush

Grass Seed Diversity



1. Little Bluestem
2. Indian Ricegrass
3. Bluebunch Wheatgrass
4. Needle and Thread Grass

A field of yellow flowers, likely Gaillardia, with a semi-transparent text overlay. The flowers are in various stages of bloom, with some showing bright yellow petals and others appearing as buds. The background is a soft-focus green field.

Native Seed Germination

Pre-Treatment and Sowing

Pre-Treatment Methods

- No pre-treatment - Seeds can be sown directly into/onto soil without any treatment before sowing.
- Stratification – Seeds must have some cold moist conditions before sowing
- Scarification – Seed coats must be nicked, scratched, or softened before sowing



Velvet Lupine needs a combination scarification/stratification pretreatment

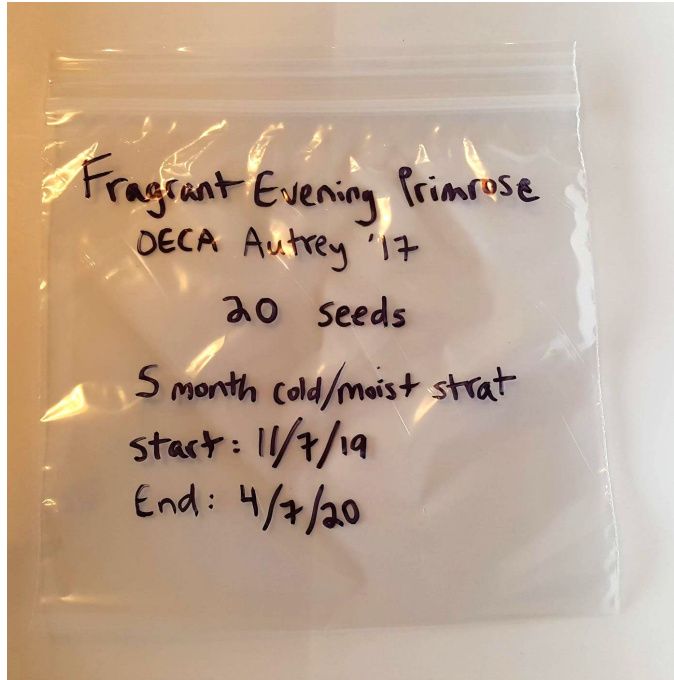
Scarification: Bigleaf Lupine and Sandpaper

Bigleaf Lupine seeds

Left seed is whole, right seed has been scarified with sandpaper, removing part of the seed coat, allowing water to permeate the endosperm and trigger germination.



Stratification: Breaking Dormancy with Cold/Moist Conditions

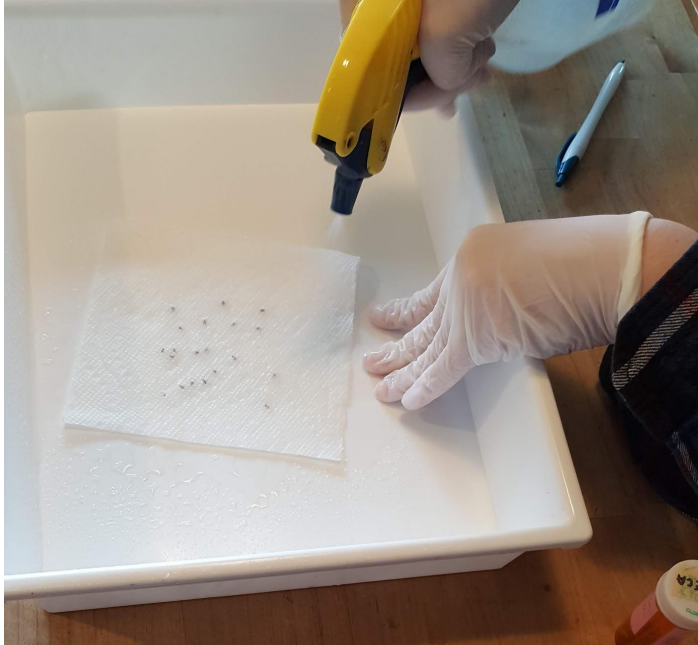


Labelled sandwich bag

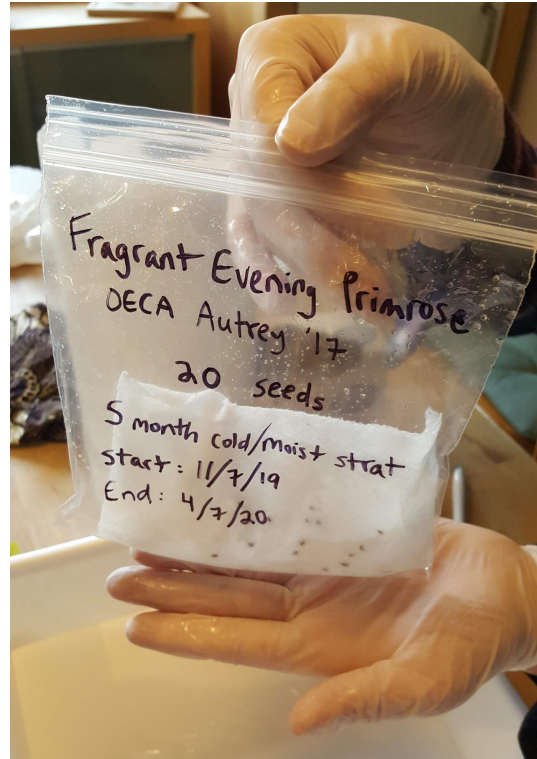


Laying seeds on a paper towel,
spacing them out

Stratification: Breaking Dormancy with Cold/Moist Conditions



Folding up paper towel and heavily misting with water



Folding the towel again and sealing in bag.

Refrigerate and check weekly for mold.

If sprouting occurs before end date, pull and plant immediately.

Germination Soil Recipe

9 parts sand

5 parts soil mix like Sunshine
Mix #4 (Home Depot) or
coconut coir

4 parts pumice or chicken grit
(large)

2-3 parts native soil



Munro's Globemallow. Native plants like sandy, quick draining soils. This globemallow thrives in rocky soils and needs less than 10" of water per year!

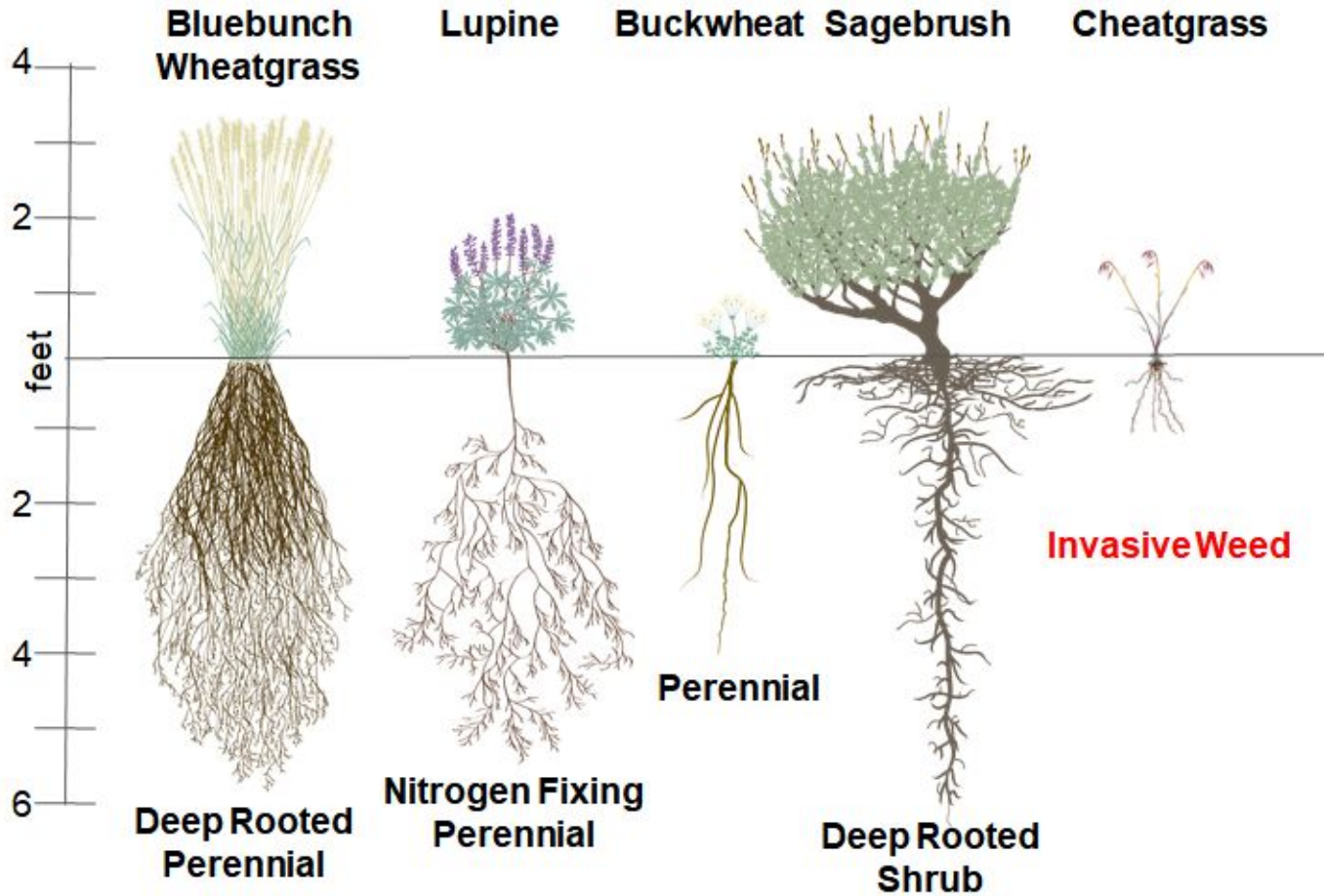


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Conclusion

What's Next?

1. Germinate and grow native plants to supply Tri-Cities' gardens.
2. To sell local seed to people interested in sowing and raising drought tolerant plants.





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