Rooted in Resilience

Presqu'ile's Nursery & Tree Planting Program

Preserving our canopy, one seed at a time

1. What is the Emerald Ashborer and why is it harmful to the forest?

2. What might happen to the forest if natural recruitment continues to fail?

3. Why is it important to collect seeds locally rather than from other regions?

4. What is cold stratification and why is it important for seed germination?

5. How does the nursery help restore biodiversity in the park?

6. What factors determine whether an acorn is viable?

7. What challenges do young trees face in the nursery and in the wild?

8. Why do deer pose such a major threat to saplings?

9. How do different planting methods (buckets vs. in-ground beds) affect tree growth?

10. Why are the saplings planted close together?

11. Why is it important to monitor planted trees over many years?

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Answer Key

1. What is the Emerald Ash Borer and why is it harmful to the forest?

The Emerald Ash Borer is an invasive beetle that lays its eggs in ash trees. The larvae tunnel under the bark and cut off the tree's ability to move water and nutrients, eventually killing the tree. This removes an important native species from the forest and disrupts the ecosystem.

2. What might happen to the forest if natural recruitment continues to fail?

If new young trees do not grow, the existing trees will grow old, die and will not be replaced The forest canopy will thin out, invasive plants will increase, and biodiversity will decrease.

3. Why is it important to collect seeds locally rather than from other regions?

Local seeds are adapted to the specific climate, soil, and conditions of Presqu'ile. Using local seeds increases survival rates and ensures the restored forest contains the same tree species as the original forest.

4. What is cold stratification and why is it important for seed germination?

Cold stratification is a process where seeds are exposed to cold for a period of time. This mimics winter and signals to the seed that it is safe to germinate in spring. Many native species require this step to sprout successfully.

5. How does the nursery help restore biodiversity in the park?

The nursery grows native trees that would not survive on the forest floor due to deer browsing, invasive plants, or poor conditions. By replanting these saplings, the park increases species variety and strengthens the ecosystem.

6. What factors determine whether an acorn is viable?

A viable acorn is:

- fully developed
- free from insect damage (e.g., weevils)
- dense and nutrient-rich
- intact (no holes or cracks)
- healthy acorns sink during the float test.

7. What challenges do young trees face in the nursery and in the wild?

Challenges include:

- drought or lack of water
- competition from weeds
- insect damage
- disease
- poor soil conditions
- deer browsing
- storms or physical damage

8. Why do deer pose such a major threat to saplings?

Deer eat young shoots and leaves, often killing the sapling before it can grow tall enough to survive. High deer populations can eliminate almost all natural regeneration.

9. How do different planting methods (buckets vs. in-ground beds) affect tree growth?

- Buckets protect roots, reduce competition, and make transplanting easier.
- In-ground beds allow more natural root spread but expose seedlings to more environmental stress.
- Each method affects root development, growth rate, and survival.

10. Why are the saplings planted close together?

The young trees are planted close together so they are forced to grow vertically quickly so their new shoots are out of reach of the deer.

11. Why is it important to monitor planted trees over many years?

Monitoring helps track survival, identify problems (like deer damage or disease), and ensure the forest is recovering as planned. Long-term care is essential because ecosystems change over time and young trees remain vulnerable for years.