

Tree Improvement Cycle

BREEDING



Selection 1
Select the healthiest and fastest-growing trees in the forest.

Collection 2
Seed and scions collected from selected trees in the forest.

Clonebank/Breeding Arboretum 3
Graft scions for preservation and breeding of selected trees.

Progeny Testing 4
Offspring of selected trees grown and compared in forest environments.

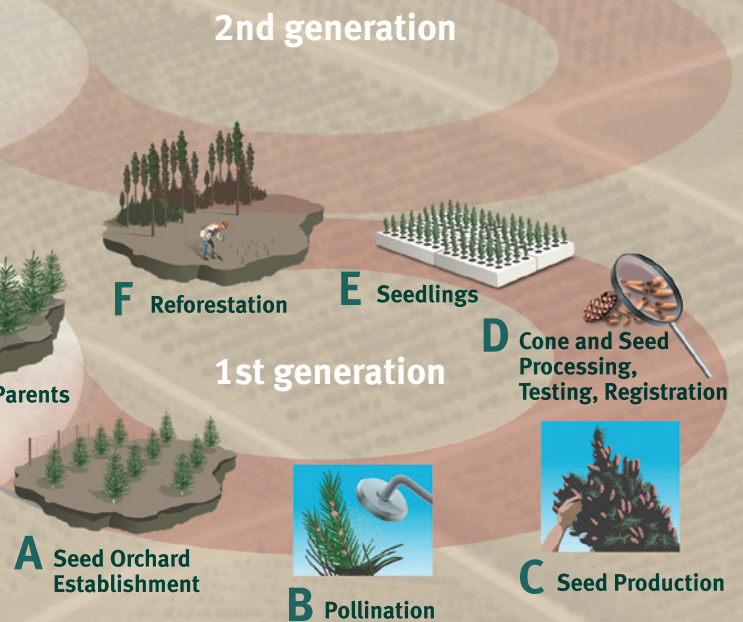
Reselect Parents 5
Best parent trees selected based on offspring performance.

Collect and Graft Scions 6
Best offspring-tested parent trees grafted for seed orchards.

Breeding 7
Intercrossing of best parents for next generation of selection.



PRODUCTION



A Seed Orchard Establishment
Best offspring-tested parent trees grafted and planted in seed orchards.

B Pollination
Natural and supplemental pollination for seed production.

C Seed Production
Mature seed cones are collected.

D Cone and Seed Processing, Testing, Registration
Cone and seed processing, testing, registration, storage, and pretreatment.

E Seedlings
Seedlings produced in forest seedling nurseries.

F Reforestation
Seedlings planted, plantations maintained.

