

SEED COLLECTION FOR GENETIC DIVERSITY

COLLECTING FROM FOREST STANDS

GENETIC ASPECTS LINKED TO PRODUCTION AND USE OF FOREST REPRODUCTIVE MATERIALS

FOCUS ON FOREST GENETIC DIVERSITY
PUBLICATION SERIES / THEME 5



EUROPEAN FOREST GENETIC RESOURCES PROGRAMME

When collecting seed, try to keep the species-specific gene pool as close as possible to the original seed stand to preserve this genetic diversity.
How can this be done?

Genetic diversity is vital for the continued survival of species and ecosystems in the changing environment.

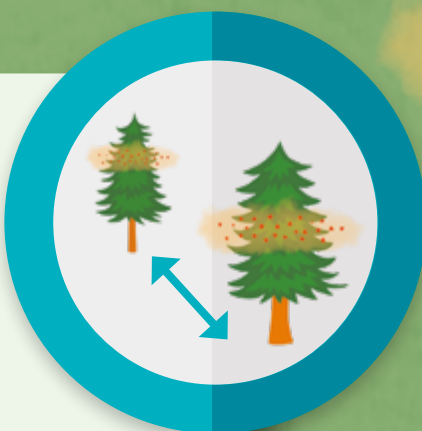
01 COLLECT FROM A LARGE ENOUGH FOREST STAND WITH ENOUGH ADULT TREES TAKING PART IN THE REPRODUCTIVE PROCESS



02 COLLECT SEEDS IN THE PAST YEAR



03 CHOOSE MATERNAL TREES WHICH ARE FAR ENOUGH AWAY FROM EACH OTHER



04 CHOOSE TREES WHICH ARE RANDOMLY DISTRIBUTED ACROSS THE STAND



05 COLLECT FROM 25 – 50 MATERNAL TREES (10 – 30 TREES MAY BE ENOUGH FOR SCATTERED SPECIES!)



06 WHAT IF THERE AREN'T ENOUGH MATERNAL TREES IN THE STAND?



Make sure most of the trees are in flower!

This minimises the possibility of collecting from clones and related individuals.

Collect a similar number of seeds from each tree!

It also ensures seeds from trees with rare variant forms are collected.

This means that most of forest tree population's genetic diversity can be captured.



STAND A

STAND B

Remember! To enrich genetic diversity, it's more important to collect a few seeds from different maternal trees than many seeds from one maternal plant!

Include seeds from other stands in the same provenance region.

Mix seeds from previous years' harvest from the same stand.

Now there are enough seeds while doing the best to conserve their diversity!



European Forest Genetic Resources Programme (EUFORGEN) is funded by its member countries and is an implementation mechanism of the FOREST EUROPE process



Hosted by European Forest Institute **EFI**

These guidelines and more are explained in the EUFORGEN publication Seed harvesting, treatment, storage and nursery practices (2023)

