



Background and Information Sheet for Starting and Growing Native Tree Seeds

- Kathleen Fischer

Many thanks to all those OHS members who offered to plant and to over-winter native tree seeds. Hopefully there will be spring germination so they will be ready for planting at the Native Tree Nursery at [Canadensis](#).

To ensure success for these future saplings, here are some growing instructions to assist you. (Also available on the [GardeningCalendar.ca](#): [Winter Sowing: How to Successfully Germinate Native Tree Seeds](#))



Background

This initiative has been welcomed by OHS members. It involves planting, overwintering, and growing native tree seeds. Once the seeds germinate and grow into young trees, they will be ready to be moved to a native tree nursery established at Canadensis, with funding from the City of Ottawa, located on the planned site of a botanical garden near Dow's Lake.

The Native tree nursery project was originally developed for the Canadensis site at the Central Experimental Farm in 2022, in conjunction with the Ottawa Field Naturalist Club and funding from the City of Ottawa. Earlier this year, a proposal to expand the native tree nursery and to increase the number of rare native tree and shrub species to be grown there received support from the City of Ottawa.

The [Ottawa Horticultural Society \(OHS\)](#) has recently joined the [Canadensis Garden](#) and the [Ottawa Field Naturalists Club](#) in this project and OHS members have begun planting native tree seeds in pots to overwinter in their gardens, and to be moved to the expanded Native Tree Nursery at Canadensis when it is ready in Spring 2025.



Planting Instructions

Winter Sowing ❄️

This is a way to germinate seeds by mimicking the way they would grow in nature. Many native tree seeds need to be cold stratified to germinate. By planting them in pots and placing them outdoors for 90 to 120 days of cold, moist conditions, the seeds are more likely to germinate in spring. Sugar maple and Red oak are typical examples of native tree species which are fairly easy to start this way. Fall and winter are the best times to sow native tree seeds. Not all native seeds require this cold period for germination, but most native tree seeds can be sown outdoors in fall or winter.

To prevent seeds from being eaten by wildlife, it is recommended that once planted in pots and placed outside, that they are covered with screening.



1. Rehydrate and prepare the seeds

To start native tree seeds, a little preparation may be needed to rehydrate or soften the seed coat by soaking them in water before planting. Soaking the seeds in water for 24 hours works for most seeds but native tree seeds with a very hard exterior shell may need to be scarified ahead of planting in order for them to be able to absorb moisture and germinate which means scratching, breaking or nicking the seed coat before planting. Another way to scarify seeds is to pour boiling water over the seed and soak for 24 hours before planting.

Some seeds should not be allowed to dry out and they need to be kept moist or planted immediately. Hickory, Black walnut and acorns are in this category. You can do a “float test” to sort out the dry and damaged nut seeds by placing the acorns and other nuts (including hickory, Black walnut and Ohio buckeye) in a bucket of water. From here, you can discard the floaters and keep the sinkers for planting.

Insect damaged and dehydrated acorns and hickory nuts typically have some air space inside the shell and tend to float. This test will make sure you plant only the tree nut seeds that aren't damaged or didn't get too dry during the storage period.

2. Pots, potting mix and planting

Make sure the pots have drainage holes in the bottom. This is very important to allow rain and melted snow to pass through, so it doesn't accumulate around the seed, freeze and become solid ice. The depth of soil in the container should be at least four inches. The shorter the soil height, the faster the container will dry out. Seeds can be sown in seed flats or plastic pots 4” - 10” in diameter and 4” or more in depth.

Use a compost-based potting soil or Pro-mix, to fill the pot. Triple mix can be used but it can become compacted easily, so try cutting it with perlite or vermiculite.

[Note: Garden soil may contain eggs of invasive jumping worms, so please use a potting mix to plant the native tree seeds. Please do not risk transferring jumping worm cocoons (eggs) to other sites. The jumping worm eggs are tiny and virtually undetectable in soil.]

Next, water the soil and press down firmly on it. Place the native tree seeds into the pot with the potting mix.

A good rule of thumb is to sow the seeds to the depth of one to two times the thickness of the seed. According to experts, it is better to plant too shallow than too deep. After planting, cover the seeds with potting mix and water the pots gently but thoroughly. Do not flood them as the seeds may float to the surface or wash out of the pot.

For very small or “surface sow” seeds (like American sycamore seeds), these can be scattered on the damp soil surface of the pot and the seeds pressed onto the soil surface.

Label with the name of the native tree species. There are at least a few methods to label your planted native tree seeds but it is recommended that you use two types of labeling – for example, write the tree species name with a permanent marker on a piece of tape affixed to the side of the pot, as well as marking the name on a small wooden or plastic stake placed in the pot.

3. Place the pots outside

Make sure to cover the pots to keep squirrels and other animals out. You may wish to cover the pots with an old window screen, chicken wire or netting. Put the pots into a mostly shady area that gets some morning sun, protected from wind. This is often a north or east facing area (never south) until spring. It can be close to a fence or some shrubs, but importantly, shielded from the wind and from drying out.

Once freeze up and snow cover occurs, check the pots planted with native tree seeds to make sure that rodents aren't using them as a nest site.

Example of planted pots outdoors





Allow rain and snow to get into the pots (i.e. do not place under an overhang), ideally in an area where they can get morning sun exposure. No matter the weather– rain, snow, sleet, a January thaw, and then an ice storm followed by more snow– the seeds will be fine. Leave the screening or protection in place through the winter, as it will continue to be needed to protect against wildlife once the snow melts in spring.

Each native seed has its own timetable for germination. Once the seeds have germinated and the seedlings can be seen above the soil, make sure they do not dry out. Keep the native tree seedlings watered until they get to be a few centimeters tall, which usually takes a few weeks.

Very small seedlings can be repotted into larger pots to provide more space for root growth. At this stage, we will be providing further information about moving the native tree seeds that you have grown to the Native Tree Nursery at Canadensis.

About the Author

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Kathleen holds degrees in biology and environmental science from the University of Toronto. She worked for several years in environmental programs, both for the Ontario and Canadian governments. Since her retirement, she has spent a lot of time gardening and more recently, she has been converting her garden to create a native pollinator habitat.

Kathleen is an active member of various garden clubs and horticultural associations, including the Ottawa Horticultural Society.

For further information on growing native tree seeds for this project, please contact Kathleen Fischer at kfischer888@outlook.com or Jean Carr at jcarr@jardincanadensisgarden.ca

References:

Grow It Build IT the blog – growing native trees and shrubs

<https://growitbuildit.com/category/native-plants-info-facts-articles/trees/>

Henry Kock 2016 Growing Trees from Seed : A Practical Guide to Growing Native Trees, Vines and Shrubs. Firefly Books. 288 pp.

Ottawa Wildflower Seed Library – How to Winter Sow <https://wildflowerseedlibrary.ca/catalogue-instructions/>

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