

EXTENSION NOTES



PLANTING AND CARING FOR NUT TREES

Nut trees provide shade, shelter from the wind, fuelwood, valuable timber and delicious nuts for both people and wildlife. But to grow nut trees successfully, you need to

give them special care, particularly when choosing your species sites and planting your trees.

CHOOSING THE RIGHT SITE

Before you plant, consider whether your property provides the conditions that nut trees need to grow.

SOIL pH

Most nut trees prefer neutral-acidic soils. These soils are typically found south of the Canadian shield.

SOIL TYPE

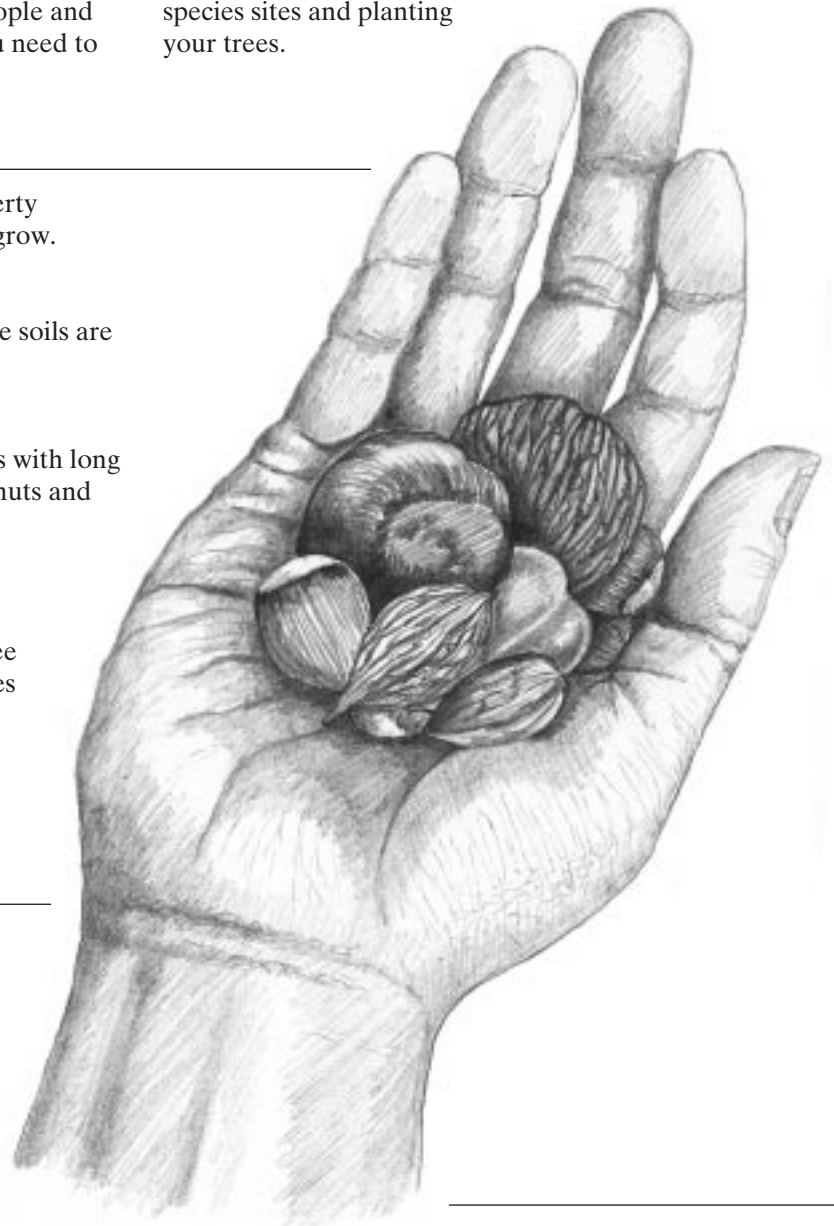
Walnuts, heartnuts, hickories and other species with long tap roots do best in deep clay-loam soil. Chestnuts and hazelnuts thrive in deep sandy-loam soil.

DRAINAGE

Nut trees grow best in elevated, well-drained areas, which have a greater number of frost-free days than low lying sites. You can help nut trees thrive in dry areas by adding composted organic matter. This increases the soil's ability to retain water.

PLANTING TIPS

For best results, we usually plant bare-root, nursery-grown nut trees when they are in the large seedling/sapling stage (0.6 to 1.8 metres tall). At this stage, trees need special care to prevent root damage. Follow these steps to help your nut trees survive.



STEP 1: STORAGE

Store saplings in cool areas away from the sun and the wind.

STEP 2: SOAK THE ROOTS

Just before planting, soak the roots for a few minutes in a mixture of water and transplant solution.

STEP 3: DIG THE HOLE

Dig a hole that is just large enough to hold a sapling's root system without crowding it.

STEP 4: PREPARE THE HOLE

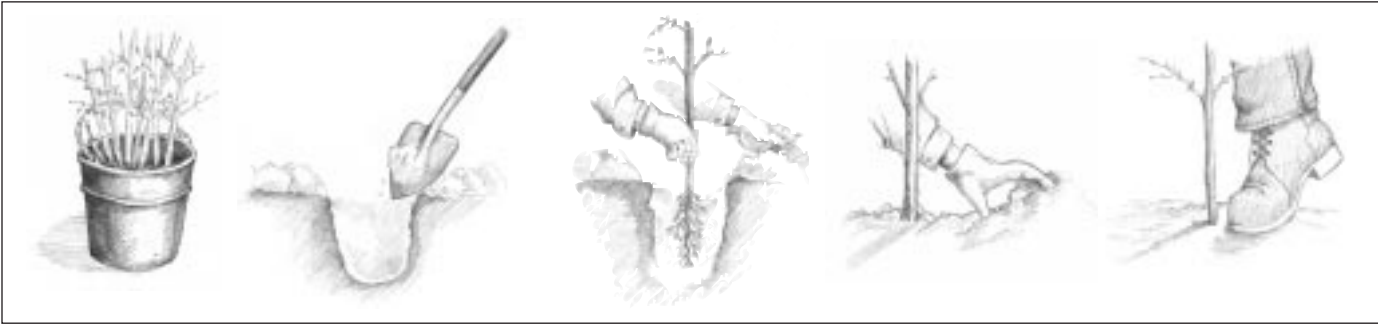
Place a little loose soil and a handful of bone meal in the bottom of the hole.

STEP 5: PLANT THE TREE

Hold the sapling over the centre of the hole with its root collar just below ground level. Add soil until the hole is two-thirds full. At the same time, gently spread the roots and place soil around them.

STEP 6: FILL THE HOLE

Pour a pail of water into the hole. Then add the remaining soil. Gently tap the soil with your foot.



CAREFUL TENDING INCREASES SURVIVAL

You can increase the survival and growth rates of your nut tree saplings by protecting them from wind, drought, frost, animals, insects, machinery, chemicals and diseases.

BEGIN BY MULCHING

Mulches can protect your saplings from competition with other plants for light, water and nutrients. Apply the mulch immediately after you plant the sapling. First, loosen the top few inches of soil. Then, place the mulch around the sapling so that it covers a one-metre circle around the stem. Don't let the mulch touch the stem. Suitable mulches include commercial plastic blankets, straw, bark, wood chips, old carpets, landscaping cloths and newspapers.

REMEMBER TO WATER

Water your saplings frequently, particularly during the first summer when they are most vulnerable to dry conditions.

FERTILIZE WITH CARE

A slow-release, 10-10-10 fertilizer will help your saplings grow. But be careful not to give them too much fertilizer, particularly during the first year. Too much growth in the

first year can reduce a tree's ability to survive the winter. Older saplings (about one to two metres tall), need about 0.5 kilograms of fertilizer. In later years, give your trees about 0.5 kilograms for each inch of tree diameter. Apply the fertilizer no later than early June.

INSTALL TREE SHELTERS OR GUARDS

Tree shelters are plastic tubes that are placed over seedlings to protect them from deer and small mammals, wind, drought and extreme temperatures. Depending on the kind of tree shelters you choose, you may need to open them up in September to give your trees the cool air they need to go dormant before winter.

Tree guards are spiralling plastic sheaths that protect saplings from animals and machinery. They are less expensive than tree shelters, but do not provide support and protection from drought and extreme temperatures. When saplings are in their second or third year, remove the tree guards and protect the trees from animals with wire mesh.

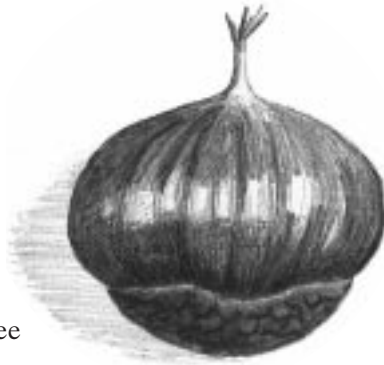
THE SPECIAL NEEDS OF POPULAR NUT TREE SPECIES

To produce nuts, all nut trees need to be fertilized by pollen from other trees. To give your trees sources of pollen, plant several trees of the same species in one area.

You can also plant groups of cross-pollinating species, such as heartnuts, butternuts and buartnuts. These species can pollinate each other to form hybrid varieties.

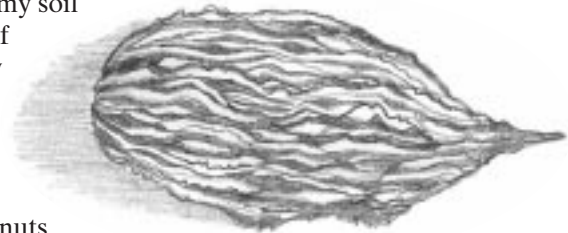
AMERICAN CHESTNUT

Valued for its small nuts and timber, this hardy tree prefers well-drained sandy-loam soils, pH 5.5 to 6.5. American chestnut is susceptible to the chestnut blight causing death to the tree and spreads readily to neighboring trees. Chestnut hybrids are more resistant to the blight and are available through the Society of Ontario Nut Growers.



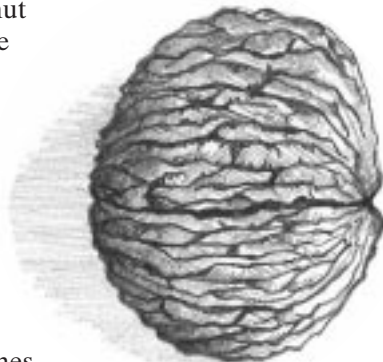
BUTTERNUT

Once considered the hardiest of nut trees, butternuts throughout North America are dying from butternut canker. Butternuts prefer well-drained loamy soil with a pH of seven. They are often found in deep soil along river banks. The nuts are delicious, but the shells can be difficult to crack.



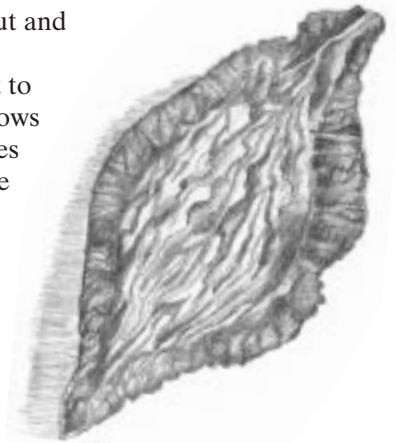
BLACK WALNUT

We use the black walnut wood for fine furniture and the nuts in baked goods and ice cream. Black walnuts prefer deep, rich clay-loam soil with a pH greater than seven. You can help to protect your seedlings from wind by planting them among young pines. Don't plant black walnuts near your garden. The roots secrete a chemical that can inhibit the growth of other plants. During the early years, black walnuts develop a long tap root, but they don't grow quickly above the ground.



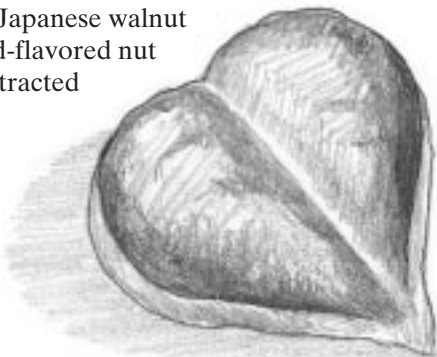
BUARTNUT

This hybrid of butternut and heartnut is as hardy as butternut and resistant to butternut canker. It grows vigorously and produces nuts with shells that are easy to crack. To ensure that you grow the best nut producers, choose grafted stock rather than seedlings. Because buartnut is a hybrid of two other plants, the characteristics of the seedlings are highly variable and you may not get the qualities you are looking for.



HEARTNUT

This variety of Japanese walnut produces a mild-flavored nut that is easily extracted from the shell. Heartnut trees grow best in rich, moist soil and in sheltered areas with high water tables.



HAZELNUT

Hybrid hazelnuts are also known as filberts. These shrubs prefer well-drained, sandy-loam soil with a pH between six and seven. Hazelnuts grow best in areas that are protected from the wind. They can produce crops in three or four years.



SHAGBARK HICKORY

The sweet nuts of this tree were a staple food of aboriginal people and are a high-energy food for wildlife. Shagbark hickories grow best in humid areas with fertile, clay soil. They produce crops of a commercial size when they are about 40 years old. During the early years,

shagbark hickories develop a long tap root, but they don't grow quickly above the ground.



FOR MORE INFORMATION

For more information on growing nut trees, contact your nearest office of the Ministry of Agriculture, Food and Rural Affairs or the Ministry of Natural Resources. Ask for information on growing nut trees and for the address of the nearest chapter of the Society of Ontario Nut Growers.

To view a nut orchard, visit one of the two demonstration areas in southern Ontario.

Demonstration areas:

- **Eastern Ontario** — Fillmore R. Park Nut Grove, located at Baxter Conservation Area. It is a co-operative project of the Eastern Chapter of the Society of Ontario Nut Growers (ECSONG) and the Rideau Valley Conservation Authority. Contact the RVCA at 613-692-3571 or 1 800-267-3504.
- **Southern Ontario** — Island Lake Conservation Area, Orangeville, Ontario. Owned and operated by the Credit Valley Conservation Authority, 1255 Derry Road West, Meadowlands, Ontario, L5N 6R4.

The following Extension Notes will assist you in planting and caring for nut trees:

- *Clearing the Way: Preparing the Site for Tree Planting*
- *Mulches Help Trees Beat Weed Competition*
- *Using a Backpack Herbicide Sprayer to Control Weeds*
- *Protecting Trees from Vole Damage*

Further reading:

- Ministry of Agriculture and Food. 1992. *Nut Culture in Ontario*. Queen's Printer. Publication 494.
- Southern Ontario Nut Growers. 1994. *Growing Nuts Ontario Style*.



Black walnut fruit and leaves

For more information contact:

LandOwner Resource Centre

P.O. Box 599, 5524 Dickinson Street
Manotick, Ontario K4M 1A5

Tel 613 692 2390 or 1 800 387 5304

Fax 613 692 2806

E-mail: lrc@sympatico.ca

Product Ordering: 1 888 571 INFO (4636)

Internet: <http://www3.sympatico.ca/lrc>

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