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GREAT LAKES FOREST RESEARCH CENTRE
P.O. BOX 490
SAULT STE. MARIE, ONTARIO
P6A 5M7

Transplanting trees and shrubs

The transplanting of trees and shrubs is an ancient art. Late in the 15th century B.C. Queen Hatshepsut of Egypt had living myrrh trees uprooted in Somalia and transported 3200 kilometres by ship to be planted in Thebes. More than 700 years ago, Marco Polo reported that the great Mongol emperor, Kublai Khan, had large trees moved by elephant to a huge man-made hill in front of his palace.

Transplanting is a common practice today, both to improve the appearance of property and to increase its market value. Transplanting is not difficult if the correct procedures are used; and observing the growth and development of your trees each year can be a very satisfying experience.

In northern Ontario, transplanting may begin in spring any time after the frost is out of the ground and the soil is dry enough to be worked. It may continue until new growth appears.

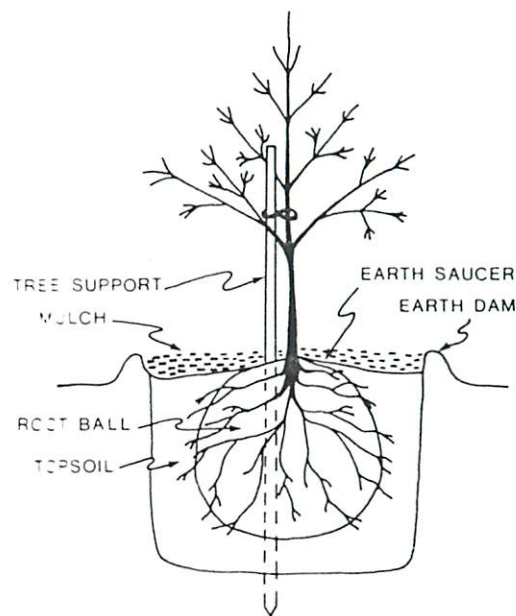
Careful excavation of the plant is the first step in the transplanting procedure: a healthy, good-sized root system is critical to future growth and development. Plant materials may be collected in the wild or purchased from commercial nurseries and garden centres. While commercially produced trees normally have adequate root systems, wild trees must be carefully excavated to obtain as much of the root system as possible.

Start to dig the root ball at least 1 metre away from the tree for each 8-9 centimetres of trunk diameter. Keep most of the soil surrounding the roots intact and cover any exposed roots with wet burlap or newspaper to prevent them from drying out. Place the entire root system in a plastic garbage bag, and do not expose any part of the plant to the drying effects of high winds.

Be sure to select a suitable location for your tree. Try to picture it as it will be when it has attained its full size. Avoid planting it where it may in later years block a view, obstruct a driveway or walkway, or drop unwanted leaves into a swimming pool.

The next step is to dig a planting hole 15-30 centimetres greater in diameter and 15-20 centimetres deeper than the tree's root system. Salvage all the topsoil from the hole and discard the subsoil. Add fertile topsoil to the bottom of the planting hole and pack it firmly with your foot. Remember, the soil will settle in time, so add enough to ensure that the top of the root ball is about 5 centimetres above ground level initially.

When you place the tree in the planting hole be sure that the main stem is straight. Do not deform any of the tree roots by twisting or wedging them into the hole. A properly constructed planting hole allows the tree roots to be laid out in their natural form, which in most instances is horizontal to level ground.



HOW TO PLANT A TREE

If you are planting a commercially produced tree, remove the burlap covering the root ball and the rope used to hold it together, after the tree has been placed in the planting hole and before the hole is filled. Then add enough topsoil to half fill the planting hole. Water gently to allow the soil to settle and to exclude air pockets.

Once the water has drained away, fill the remainder of the hole with topsoil, tramping it firmly with your foot throughout the procedure. Form a circular earth dam, 5-10 centimetres high, around the planting hole at ground level and gently fill the saucer-shaped enclosure with water. This will allow the soil in the top half of the planting hole to settle. The earth saucer is normally left intact during the first growing season to facilitate watering. Generally the tree sinks to its final level by the second year, and the ground around the tree may then be levelled out.

There is normally no need to provide support for small to medium-sized trees, i.e., those less than 2 metres high. However, for large trees, a sturdy wooden stake should be driven into the planting hole after the tree has been straightened in the hole and before the soil is added. Attach the tree to the stake with a piece of rubber hose or strips of cloth. Remember to check the attachment regularly to prevent it from cutting into the growing tree. In any case, remove the support the year after transplanting.

Prune a portion of the crown of the newly transplanted tree to compensate for the roots lost during moving. Deciduous trees, such as maple or birch, can have up to 25% of their crowns removed without any adverse effect on subsequent growth. However, evergreens such as pine or spruce can have very little of their crowns removed without damaging the natural form of the trees.

Cut branches carefully with a sharp, clean knife or a pair of shears. Make all cuts at a point on the branch approximately 1 centimetre above a healthy leaf bud. Do not cut off the leader (the tip of the main stem) or you will destroy the natural shape of the tree.

Fertilization is not required at the time of transplanting, as the fertile soil added to the planting hole should provide sufficient nutrients for the plant's initial growth. In fact, fertilizer added at this time may injure the root system by burning existing small roots. Fertilizer may be applied in the spring following transplanting.

Water a newly planted tree or shrub very carefully every 10-14 days during the growing season if there is no significant rainfall within that period. Do not over-water, however, or the plant may become waterlogged and die. The soil can absorb only so much water, so turn off your hose when the water no longer seeps rapidly into the soil surrounding the plant.

A mulch may be used to reduce the rate of evaporation of moisture from the soil surrounding the tree. Add a layer of well-rotted leaf mold or compost 5-10 centimetres deep to the earth saucer area. A mulch also discourages weed growth and protects the main stem from damage by keeping lawnmowers a safe distance from the tree.

G. D. Huntley

Copies of this leaflet are available from the Centre's Information Office.

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