



Comhairle Cathrach na Gaillimhe
Galway City Council

Tree Planting Guide– best management practice.



This guide applies to:

(i) Bare-rooted trees – These are young tree saplings such as 'transplants', 'whips' and 'feathered whips' – usually 45cm-2m in height. They have been reared in a tree nursery and dug up or 'lifted' from the ground during the tree dormant season and the roots are free of soil. These trees tend to settle into their surroundings quickly See photos 1 and 2 below.



Photo 1.



Photo 2.

(ii) Pot, container grown and root balled trees – These are young trees grown in a nursery. They are stronger and taller than saplings, whips and feathers and tend to be 2m

plus in height. They come in a container/pot or have their roots and soil wrapped and tied into a ball with a fabric material to form a root-ball. See photo 3 below.



Photo 3.

Timing of Planting

Bare-root trees: The best time to plant bare-root trees is winter and spring as this is the period when trees are somewhat dormant. Avoid planting in frozen ground conditions and just after leaf bud-burst in spring.

Container grown & Root balled trees: These can be planted at any time of the year, thereby extending the growing season.

Choosing a planting site

Depending on your choice of tree species, choose a planting location that will comfortably accommodate your selected tree as in say five, ten, twenty, forty or one hundred years from now. Locate the planting site of your tree well away from houses, man-made infrastructure and features like roads, footpaths, kerbing, walls and foundations, ground services, manholes and overhead aerial utility services lines. Avoid wet and water-logged locations.

Care and handling

All trees must be handled with care. Young bare-root trees are packaged and protected from the elements in a heavy plastic bag. Handle with care as tree roots, bark and branches can be damaged easily by bruising, exposure to wind, sun shine, cold and frost. They can be temporarily stored in a frost free shed for a period before planting. They may also be temporarily stored outside by planting the roots in damp mulch, soil or potting compost. Depending on the bare-root sapling size, they may or may not require a light

tree stake positioned in the planting on the prevailing windward side of the tree and a tree tie at planting time for support against the elements and careful watering in their first few years.

Preparation to planting a tree.

Always handle or carry the new tree carefully by the trunk just above the roots, or a larger tree by supporting both the root ball and lower trunk – see photos 4 and 5 below.

Place a sheet of plywood or cardboard close by the pit edge to store soil while digging tree pit. Soak the new tree roots / root-ball in clean fresh water for **one hour prior to planting**, see photo 6. While out on site and preparing to plant your new tree, protect it at all times from sun and wind.



Photo 4.



Photo 5.



Photo 6.

Tree stake supports.

Amenity trees be they bare-root saplings and stronger pot, container grown and root-balled trees need to be staked at planting time. Staking provides support for the tree's root system in the first two–three years before the stake is removed.

Single stake technique uses an appropriate strength tree stake and rubber tree tie to support the new tree. See photo 7



Photo 7.

Double stake technique is used with a cross bar for strong tree specimens needing additional support. All stake supports are positioned on the prevailing windward side of the tree with a synthetic or rubber tree tie at planting time. The tree stem which is secured against the wooden cross-bar with a cushion block and strapping tape is nailed secure with 30mm clout nails or with hex screws. See photo 8 below.



Photo 8.

Basic Tree Planting - Tools and equipment needed:

- 1 bucket of water - to soak tree roots and gather any stones from the new pit.
- 1 spade and 1 shovel – for cutting and digging grass and soil.
- 1 small lever bar or pick -to loosen any stones.
- 1 mallet or maul hammer to tap in stake.
- 1 sheet of plywood or cardboard – to sore soil while digging tree pit.
- ½-1 bucket of additional local soil if needed.
- 1 tree stake.
- 1 rubber tree tie.
- 1 - 2 sheets of clean brown cardboard- weed barrier.
- 40-60 litres of woodchip / mulch – to place over cardboard weed barrier.

How to Plant a Tree – 9 steps

Step 1 - Once the position for your new tree has been selected, mow or strim a 1m diameter circle of any vegetation growth before to dig.

Step 2 - In the centre of this clean circle, tap the tree stake supplied to support the tree into the ground. This is now the centre of the planting pit. Measure out approximately 500mm from the stake and with your spade cut and clean away the scraw or turf sod to a depth of 50-100mm and place to one side on a plywood or cardboard sheet. See photo 9.

Step 3 – Within this cleaned circle, dig a circular or square planting pit. It will need to be twice the width of the tree roots or root ball. The space within the planting pit will allow the new roots to grow and seek out nutrients in surrounding soil.

Step 4 - The depth of the pit should be approx. 5-10cm lower than the root ends. Please note that when backfilling the tree pit, not to bury the tree stem above the 'water mark'. The 'water' or 'nursery mark' is the depth level at which the tree was grown while in the nursery. It is identifiable as a slight change in colour close to the base of the tree trunk. Burying the tree trunk above this mark will have negative effects on the tree and may lead to tree loss.

Step 5 - Remove the tree from its bag, container pot or wrapped root ball and with your fingers gently loosen the potted soil, teasing out any 'circling' roots from the root ball. If any root is aggressively circling then prune this root. Place the tree into this pit temporarily and eye up its final position in the centre of the pit.



Photo 9.



Photo 10.

Step 6 - Position the tree stake(s) before planting and backfilling. With a suitable mallet or hammer tap the stake into the base of the tree pit on prevailing windward side (south west side).

Step 7 - Return the tree to the centre of the pit and position upright. Allow approx. 50mm space between the trunk and the stake. The original soil dug from the pit may be finely broken up with the spade and mixed with clean soil (if needed) taken from a nearby source and a small amount of compost. While supporting the tree, spread the roots evenly and carefully backfill with fine soil into the pit feeding the fine soil mix into and around the bare-roots or root ball. Firm the soil with your hands as you work around the pit. In larger pits, remaining turf scraw or grass sod can be upturned and buried in the pit and covered with a clean soil mix.

Step 8 -. When completely backfilled, firm the ground gently with the foot, see photo 10 above. Attach the rubber tree tie around the tree stem and secure to the tree stake. The tree is now planted.

Watering the new tree.

Immediately after planting the new tree, gently water around the tree base with a watering-can. See photo 11 below. Continue to water it on a daily basis and not only during warm or dry spells.



Photo 11.

Mulching the tree base.

A mulch barrier around the base of the new tree prevents aggressive grass and competing weed growth around the base of the new tree. It also deters damage from lawnmowers and strimmer machines colliding with the tree trunk and causing injury to the tree. Take some clean brown cardboard, cut it into a generous circle so it will cover the ground and place it on the ground snugly around the base of the tree and stake.



Photo 12

Empty a generous bag of wood chip or mulch onto the cardboard to a depth of 1-200mm and this will act as a weed barrier. With your fingers, pull back any mulch from immediately around the tree stem. Freshen up this barrier seasonally, by replenishing with new cardboard and mulch. See photo 12.

Some tips on aftercare.

- 1.** To avoid collision injuries to the new tree stem, keep grass mowers and strimmer machines outside the mulch circle.
- 2.** Check the tree and base regularly in the first few weeks and firm the ground around the tree base if needed.
- 3.** Continue to water daily throughout the first summer and autumn months until winter, even during our typical mild, damp and misty spells.
- 4.** Check the mulch barrier, remove persistent weeds if any and freshen up this barrier seasonally, by replenishing with new cardboard and mulch / woodchip.
- 5.** Check the tree stake(s) and tree ties, adjust so not overly tight or too loose. Adjust a little in the second year as the tree stem increases in girth as it grows. The tree stake(s) is usually removed in year 3/4, after the tree roots system has established and settled in.

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