



Tree Purchase and Planting

The Society promotes the planting of trees to enhance and renew the Conservation Area's treescape. Although this is written with special reference to the purchase and planting of trees funded under the Society's Tree Planting Grant Scheme we hope it will be helpful to anyone who wishes to plant trees.

Description of tree sizes and styles

Nurseries often describe trees in their catalogues as being of a certain height and use terms such as "standard" and "feathered". A standard tree generally means one that has at least 2m (6') of clear stem/trunk below the first branches. A "half-standard" has about 120 - 150cm of bare stem/trunk. Always specify what you want to avoid disappointment and confusion. Standards are the usual choices for a specimen tree in a garden because there is clearance for under-planting with grass or shrubs and maintenance. The classic look of a 'standard' tree is not just an urban phenomenon. In nature this shape is formed by animals feeding on the lower branches!

A feathered tree is one which has branches up the stem and may not have any significant bare stem (i.e. like a feather). These trees take more width at ground level but may be appropriate for trees with distinctive bark.

Tree purchase

Trees are usually purchased in one of three ways: pot grown, bare rooted and root-balled. When buying a tree don't be tempted to buy the biggest. Experience has shown that larger trees take longer to establish than smaller ones ... the smaller ones usually overtake the larger ones in very few years.

Pot grown

These are trees which have been grown in pots or recently transplanted into them. The attraction of using pot grown trees is that can be planted out at any time of the year.

Before purchase always remove the pot and inspect the roots. If they have been very recently potted up then the soil will fall away when the pot is removed and they will have a very bad, if not fatal, start; so don't purchase them if the soil is not firmly associated with the roots. But also check to see if the roots are spirally around the pot. Some roots running along the side of the pot are normal but if there is little soil visible through the circling root growth it means that the tree is 'pot-bound'. Larger trees (i.e. 6' or more) are very prone to being root-bound and should not be purchased.

Some spiralling of roots is to be expected and it is important for these to be teased out when planting to ensure they point outwards when they are planted. This is because roots which start spiralling continue this way even when the tree is in open soil. The tree will not thrive and will be unstable in wind. However, when roots are teased out this causes shock to the tree and for this reason planting out a pot grown tree is best avoided during the growing season.

Bare rooted

As the name implies these trees are lifted from their growing location in a field and must be immediately planted into their growing position. Although bare roots seem to be drastic it is usually very successful if care is taken in their transport and they are quickly planted. Bare rooted trees will not be pot bound and, if supplied by a reputable nursery, should have a lot of small fibrous roots which are essential for the survival of the tree. Bare rooted trees are only to be planted in the dormant season. They must be planted before the buds start to swell. In normal winters this could be as late as mid-March but with current weather conditions the end of February would be more sensible.

Speed of planting must be ensured and arrangements need to be made for collection as soon as they are lifted from the field. Although bare rooted trees establish very well the drying of roots during transport and planting is the biggest hazard. For this reason collection and planting within the shortest period of time are essential while keeping the roots moist (in a plastic bag or wrapped in wet material). If immediate planting is not possible the roots should be carefully covered by damp (never frozen) soil ... this is called "heeling-in" and is, in effect, a temporary planting. Make sure all the roots, even the fibrous ones, are in contact with the soil. Water well, even if the soil is damp – it is a useful precaution.

Installation

The illustration provided with the system when it is delivered [and the illustration in the catalogue] shows how it should be installed. The key points are that:

- It should be located under the soil horizontally so the water does not concentrate in a single portion of the pipe.
- It should be placed just above and just inside the outer edge of the root system so the growing and extending new roots are kept constantly moist.
- During the first growing season large volumes of water are needed - dumped down the pipe so it floods the system fully. The volume needed might seem surprisingly large - **at least 4 gallons per week** for a 2-3 metre tree. Considerably more is needed for larger specimens.
- If the site is generally dry then it would be prudent to continue to use the irrigation system into the second growing season.

If you have any suggestions on how these advice notes could be improved please tell the Society

Appendix

The pit irrigation system

We have been impressed by the Greenleaf pit irrigation system widely used in the arboricultural trade. The inexpensive "Metro" range is suitable for domestic applications.

The supplier is English Woodlands, E.W. Burrow Nursery. Their contact details are English Woodlands,

Tel: 01435 862992, Fax: 01435 867742

www.ewburrownursery.co.uk. select: products/tree planting accessories and sundries

Extracts from their catalogue can be found on the 'download' section of their website. They also stock stakes and tree ties.

Specific reference to the pit irrigation system can be found at:

http://www.ewburrownursery.co.uk/downloads/plantsdownloadfiles/Greenleaf_watering.pdf

Members who don't have access to the internet can get a copy from the Society by contacting the Tree Group Co-ordinator on 0151 652 6089.

We have been informed that for the 2008 planting season the prices will be:

RR1 at about £7.00 each + VAT

RR2 at about £7.00 each + VAT

RR3 at about £8.00 each + VAT

Postage is additional but, within the total grant, this too can be reclaimed from the Oxton Society.

The three versions [RR1, RR2 and RR3] differ only in the length of the pipe that is to encircle the root system. Choose a length sufficient to fully encircle the perimeter of the root system and for the upstanding portion. It would be prudent to get a longer length than you think might be needed as it can be cut shorter on site, if necessary.

Root-balled

This is the most expensive option but planting can take place at any time of the year ... providing the ground is kept moist throughout the year in which it is planted. These are trees lifted from the ground by a machine which retains the original soil in a ball – usually held in place by hessian, a natural material which can be left in place when the ball is lowered into the hole; the hessian rots away. Never plant a tree with the wrapping intact if it is made of a synthetic material. As so much soil arrives with the tree it is usual for root-balled trees to require mechanical lifting. Beware: some less reputable nurseries can make a tree look as though it is root-balled by enclosing the root and loose soil in a bag. When you purchase the tree check that the ball of soil is firm.

What things do you need to purchase before the planting?

(all can be included Oxton Society's grant within the £150 maximum per tree)

Pit irrigation system

This must be ordered in advance as it is not available locally. We recommend the Greenfield Pit Irrigation system. It is low cost and easy to install at the time of planting. See the appendix on the pit irrigation system at the end of this Guidance.

Single plant stake (soft wood is perfect but should be tressed wood to avoid it rotting too quickly)

Can order separately but usually available from the nursery [see also the appendix]

Tree tie

This is a thick plastic strap with buckle arrangement and a plastic spacer. The spacer keeps the trunk away from the stake. Can order separately but usually available from the nursery [see also the appendix]

Soil improver

Your soil may be poor and lacking in organic matter, particularly if you are near where a former tree has lived for many years. A large bag of soil improver (including organic matter) should be mixed into the local soil to improve its texture and drainage. Garden compost, rotted leaves, will do too. Trees do not normally require the addition of fertiliser, unless the soil is very poor and depleted when an all-purpose organic fertilizer. If a non-organic fertilizer is used it should be a 'slow release' type.

A high nitrogen [N] soil will promote rapid and weak growth inappropriate for the formation of a strong branch structure.

Mulch

This is to cover the area around the tree to suppress plant growth for a couple of years until the tree is established. Mulch also reduces evaporation and keeps the soil porous so rain can penetrate. Chippings or shredded bark are preferable to pebbles as they will decompose and make the ground better for later planting when the tree is established.

Preparation of the site and planting

If the tree is bare rooted this should be *in advance* of the arrival of the tree.

- Dig the hole to the required size before the arrival of the tree;
- Drive the stake into the ground slightly off centre from where the trunk will be;
- Prepare soil with improver if necessary;
- Important: getting the soil level correct: Find and note a mark on the trunk showing where the original soil level had been. Fill the hole with a firmed-down mound of soil that will be under the roots and high enough to support the tree so the ground-level mark on the trunk is level with the final soil level. A straight stake astride your planting hole will make it easy to spot where the soil level will be;
- Continue to add soil so that it surrounds each root. As the soil is added press firmly to surround the roots as they lie naturally. If the roots need to be directed outward use small wooden sticks (no preservative) to hold them in position before the soil is added. These stakes will rot away. Exclude all air spaces. Ensure that the trunk will be vertical when the tree tie is installed. Some gardeners find it helpful to loosely tie the tree to the stake before putting in the soil.
- The tree tie should be fixed about 1.5' to 2' above the soil level. Its purpose is to keep the lower trunk and the roots stable while they establish. The trunk above the stake *should* flex in the wind. This movement is important as the trunk grows stronger when it is flexed. At the end of each year loosen the tree tie slightly so the trunk is not restricted. After about two years, or earlier if the roots and lower trunk are stable in the soil, the stake and tie should be removed.

- Install the pit irrigation system as described in the instructions that come with it. However, we recommend that the pipe protrudes higher above the ground than recommended by the supplier. This ensures that surrounding soil does not fall into the pipe. This system will only be used for 1 or 2 years after which the protruding pipe will be redundant and can be cut off.
- Keep the tree moist as soon as it has been planted. Increase the watering when the buds expand and by the time the leaves are open you should be watering a 6' tree with about 4 gallons a week.
- Remember to keep a check on the tightness of the tree tie. It should be firm but not tight and must never be allowed to restrict the girth of the trunk.
- For the first couple of years do not permit ground cover or grass to grow over the roots. These can deprive the tree from a surprising amount of water and nutrients. An organic mulch (leaf mould, chipped bark etc) above the roots helps to keep the soil below moist and free of growth.
- As the new tree grows in your garden, formative pruning can be used to take away the lower branches to create the appropriate bare stem. Always prune back to where the branch joins a larger branch or the trunk, never leave a 'stub'. Pruning is best done in the dormant season.
- It is best not to remove more than 1/3 of a tree in any one season as this can put a strain on the tree's roots which depend on the leaves to create the sugars to sustain the repair of the roots damaged by transplanting. However, within the 1/3 limit, don't be afraid to remove whole small branches to improve the shape of the tree but *never* remove the tree's 'leader' or the branches that will form the future main structure and balance of the crown. At the time of planting the removal of some small branches and leaves can actually reduce the amount of water lost through the leaves and thus reduce the stress on the roots. Just be moderate.

If you would like advice on planting or pruning please contact the Society.