

When to remove stakes

Once the tree can stand unsupported without bending or shifting in the ground. This usually takes **eighteen months to three years**, but may be longer for semi-mature trees or ones on weak rootstocks, such as dwarf apple trees.

For trees with long or flexible stems

ACS Management would have used long, vertical stake, these can be cut lower in the second year. There should be a gap of 2.5-3cm (about an inch) between the stem and the stake

Problems

Most problems with staking come from ties becoming too tight or from damage after storms.

- Check the ties regularly for rubbing and adjust if necessary. Constriction of the stem by ties happens very quickly, so fast growing trees need frequent checking
- After bad weather, check for abrasion and snapped stakes or ties

Deer, rabbits and other animals may harm newly planted trees. This can be prevented by using tree protectors. These are available from ACS Management open request.

Adjusting ties and removing stakes

Inspect tree ties in spring and autumn and adjust ties to prevent constriction of the stem. After two growing seasons the tree should make sufficient root growth to anchor the tree and the stake can be removed, refer to 'When to remove stakes' section at top of this guide.

Watering

Drought stress is common with newly planted trees and shrubs. It is important to never rely on rainwater, it is never enough water for a newly planted plant. Even in a cool, wet summer, the rain rarely replenishes soil moisture stores fully. The soil may be dry around the roots even when the surface appears moist.

Dry, windy conditions are especially likely to lead to water shortages. You are looking to detect the dull, lifeless foliage indicative of drought stress, this is not easy to spot if you are not sure what you are looking for. A site visit can always be arranged if these concerns have arisen.

Watering aids can assist watering of newly planted trees such as irrigation tubes, biodegradable tree irrigation pipe made from potato starch is available or watering bags such as Treegator®.

Overwatering is also an issue, especially on poor draining soils and with automatic irrigation systems. Over watering leads to rotting roots and symptoms similar to drought. If in doubt dig down with a trowel to the side of the rootball, at least 10-15cm, to see if the soil is beginning to dry before watering. The quantity required will vary with soil type but typically 30-50 litres per square metre (4-6 watering cans) each week in dry weather during the growing season will be necessary.

Weeding and mulching

Weeds, lawns and other vegetation intercept water before it reaches the roots of newly planted trees and shrubs.

- Keep a vegetation-free circle at least 1.2m (4ft) in diameter around the plant for its first three years to help avoid this problem.
- The circle can be kept weed free through hoeing, using a mulching mat, root barriers.

Feeding

Fertilisers can be used a season after planting if the soil is very poor or a boost to growth is required. However, we plant with a mycorrhizal fungi (Rootgrow) so applying any general fertiliser containing phosphorus (found in general fertilisers and superphosphate) can suppress the fungus.

Formative pruning

Corrective pruning on misshapen trees is best carried out while the tree is still young. This may involve shortening or removing any competing leaders and removing damaged, dead or diseased wood. Lower laterals (i.e. sideshoots coming off the main trunk) may also need removing in stages over the first few years if a clear trunk is desirable. This is a service we can provide upon request.

Problems

What are establishment problems?

In most cases, trees and shrubs will establish well, with no problem as long as root health, weather and soil conditions are favorable, and the plants are properly maintained.

If one or more of these factors are inadequate, trees and shrubs may fail to establish within the first two years after planting.

Symptoms

Although they may show some signs of growth, the foliage of trees and shrubs that are struggling to establish may begin to deteriorate, often in early summer, with leaves turning yellow or brown, shrivelling and falling. This can take place over several months or quite suddenly.

Causes and solutions

Poor root systems

Bare-root trees and shrubs have to grow new roots to survive. For these plants to survive, post-planting irrigation and weed control are crucial.

Remedy: Water newly planted trees and shrubs well, remembering that soil may be dry around the roots even when the surface appears moist. Weeds compete with for water, so keep a vegetation-free circle at least 1.2m (4ft) in diameter around the plant for its first three years to help avoid this problem. ACS Management plant with Rootgrow mycorrhizal fungi aid establishment of bare-rooted plants.

Insufficient water

Insufficient watering in the first two years after planting is the main cause of poor establishment. Nearby trees, shrubs and hedges can cast a rain shadow. They also have thirsty, wide-ranging roots, leading to greater watering requirements than expected.

Remedy: Check moisture levels around roots with a trowel. Watering to soak the root zone requires at least the equivalent of four watering cans per square metre.

Weeds, lawns and other vegetation intercept water before it reaches the roots.

Remedy: Keep a circle at least 1.2m (4ft) in diameter around the base of the plant that is vegetation free for three years after planting, using hoeing, mulch.

In hot, dry weather, plants lose moisture very quickly.

Remedy: Cover the bare area around the base of the tree with an organic matter to help retain moisture and suppress weeds. This is a service that can be performed upon request. Thick, coarse organic mulches are ideal, cooling the root systems and improving soil structure over time to create a well aerated but moist area where roots can survive winter waterlogging.

Excessive water

Poorly drained or waterlogged soil will kill many trees. It is important to choose plants that thrive on wet soil types as only certain plants will grow on poorly drained soils.

Remedy: Improve drainage where possible by aerating the soil around the tree with a fork. Before planting incorporate into the soil to aid drainage.

Overwatering is as detrimental to tree establishment as underwatering.

Remedy: After the initial watering-in, check soil moisture frequently (once or twice a week) but only water again if the soil is starting to show signs of drying. Less water is needed in still, dull weather conditions than in hot, windy ones.

Compacted soil

Roots fail to grow outwards into the surrounding soil if the soil is compacted.

Remedy: Fork through a ring of soil just to the outer edge of the rootball. Most new root development of trees and shrubs in the UK is out laterally into the surface layers or soil rather than straight down. It is therefore important that the soil in this zone is sufficiently loose and aerated to allow for easy root development.

Wind rock

Wind rock of unsecured trees and shrubs can damage roots and lead to water collecting in the 'socket' caused by the stem moving at soil level. This can lead to fatal rotting.

Remedy: Staking avoids this, but stakes should be no taller than one-third of the stem height and must be secure. Avoid excessively tight tree ties when adjusting stems to stakes, prevent rubbing of stems against stakes and ties, and remember to progressively slacken the ties as the stems grow.

Plant nutrition

Although a lack of nutrients is seldom involved in establishment problems, it is worth applying a nutrient or fertiliser to the leaves (foliar feeding) in order to get some nutrients into the plant, even though its roots are not fully functional. It is very easy to get foliar feeds wrong, if this is required this services would be performed by ACS Management to ensure all guarantees are not invalidated. We recommend rootball liquid or granular feeds are applied by clients.

Remedy: Use special fertiliser formulated for foliar feeding, and spray in overcast weather to avoid scorching the foliage. Make sure to spray the undersides of the leaves as well. Fertiliser top dressings in late winter or early spring are worth trying where other factors are clearly not to blame for poor growth. If this is your concern, then please book a service visit before any application is made.

Larger specimens

Although larger sized specimen trees and shrubs can be perfect for making instant impact or screening. They will require greater aftercare than smaller plants, especially with attention to watering. We can provide a management service contract to ensure your specimen has the greatest chance of success. Expect it to take two or even three seasons for specimen trees and shrubs to be fully established.