

Expert tips

PROPER PLANTING AND CARE



LORENZ VON EHREN

THE NURSERY. SINCE 1865



Large trees – great expertise

Woody plants for your projects.

On around 600 hectares of nursery fields in Hamburg and Bad Zwischenahn we produce the plants for your green projects.

In addition to large and avenue trees, solitary specimens and topiaries, shrubs, rhododendrons, hedging elements, fruit trees, bonsais and conifers, we supply the entire range of plants. We also offer many beautiful, characterful tree rarities and unique specimens for plant lovers.

As a full-range supplier, we are your competent partner for all requirements.

*Woody plants
"TO GO".
Cultivated in
containers and
ready to plant
at any time.*



Trees are our passion.

And we are happy to share it with you! Trees – woody plants in general – are more than just a product for us. For almost 160 years, we have dedicated ourselves to these living beings.

There is much to discover! Experience the diversity of our plants on site and join us on a guided tour through our nursery fields.

We cordially invite you to visit us in our nursery so that you can form your own impression of our plants.



Our display gardens



facebook.com/BaumschuleLvE



instagram.com/baumschulevonehren

NEW! The von Ehren Academy

Get to know the fascinating world of the trees and become an expert yourself. Our seminars range from pruning and transportation to the professional handling of plants on the construction site. Please find our current seminar programme at: www.LvE.de

We are also happy to design specific specialist seminars for your company.



Unloading and planting

Rootball dimensions + weight

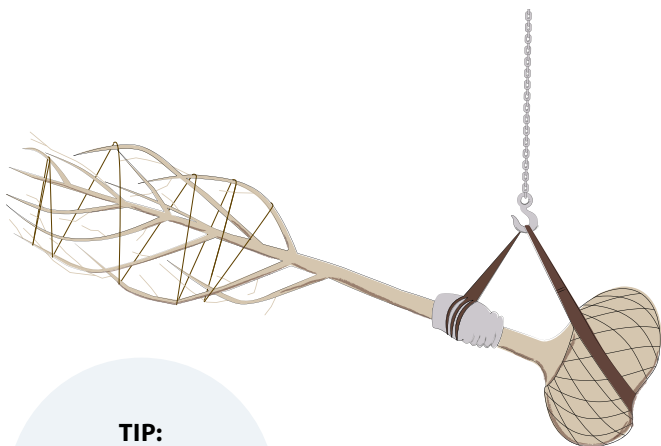
Please ask us in advance! The diameter and the weight determine the size of the tree pit as well as the selection of suitable equipment.

Planting time

Air Pot®/container all year round. Outdoor planting during dormancy from mid October to mid May (depending on the weather) or prepared at the nursery. When planting in summer, please ensure regular care.

Air Pot® versus Container

We recommend trees from Air Pot® culture. No ring roots are formed here.



TIP:

Accessories like tree and lifting straps can be ordered from us.

Tree and lifting strap. Don't forget trunk protection!



Transport and unloading at the construction site

- › When the plants are still on the lorry, check them immediately for damage.
- › Unload plants immediately upon arrival at the construction site.
- › Plants are sensitive – unload carefully!
- › The main weight of heavy (woody) plants must be taken by the rootball only.
- › Use sling for the rootball and the counter strap loosely to support the trunk.
- › Padded slings prevent damage to the trunk.
- › Using a rootball lifter with spikes and a lateral lifting sling to the trunk is the most gentle method, which can also be used to unload containers.
- › Never lift directly at the trunk, only secure with a counter strap.
- › Never push or pull the tree down from the truck.



Rootball lifter support with side-mounted sling – a gentle method for unloading trees and shrubs.



Here you can find a film on how to unload a tree correctly.





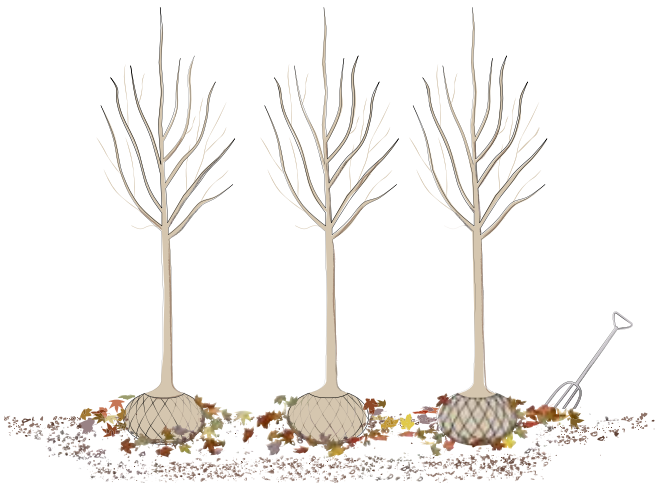
Unloading and planting

Storage of trees and shrubs at the construction site

Plant trees, shrubs and other plants immediately after delivery.

When the plants have to be stored, please proceed as follows:

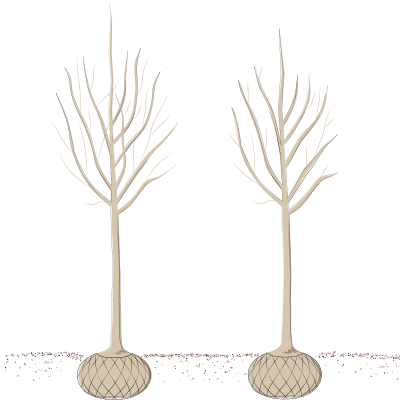
- › Protect the plants from direct sun, wind and frost (especially in the root area)
- › Store plants upright
- › Keep the root area moist and cover the plants with damp jute bags, straw or soil
- › Keep the root area moist during the entire storage period
- › Place bare-rooted plants in the ground, or store them lying down for a short time, root to root, under a damp cover
- › Cut lacings, untie bundles, unpack pallets (especially important for evergreens)
- › Protect stored plants from rodents



Proper storage at the construction site.



Pruning – before planting



Pruning can be done immediately at the planting stage if so desired. The aim of pruning before planting is to create a balanced root/crown ratio and to reduce evaporation via the leaves.

Important recommendation:

- › Formative pruning is repeatedly undertaken during the plants development at our nursery when transplanted. The below points can be carried out for further pruning should you require once on site
- › Remove redundant thin, crossing and abrasive or damaged branches
- › Do not prune back the leader
- › Remove forked branches
- › Cut back upper leading branches more than lower = narrow triangle
- › Do not cut into two- or three-year-old wood

Pruning must take into account the special requirements and characteristics of the woody plants and strongly depends on the tree species.

As a general rule, approx. 20-30% of the crown volume should be reduced. Strong-growing species are cut back a little more. *Aesculus*, *Juglans*, *Liriodendron*, *Magnolia* or topiaries should not be pruned.



Unloading and planting

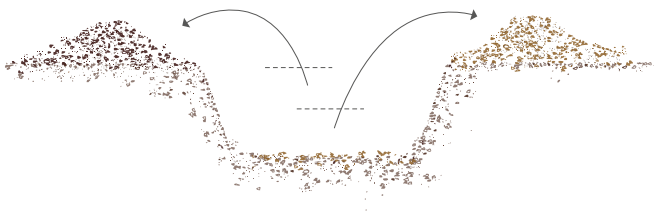
Proper preparation of the soil

The planting hole

The planting hole should be at least 1.5 times the diameter of the rootball/container.

Avoid stagnant water in the planting hole! Thoroughly loosen the soil at the bottom of the hole or drain off excess water by installing a drainage pipe.

When digging the planting hole, the different layers of soil must be stored separately. When filling up the hole, reinstall in layers accordingly.



The planting hole should have a size of 12 m^3 , it can be even bigger.

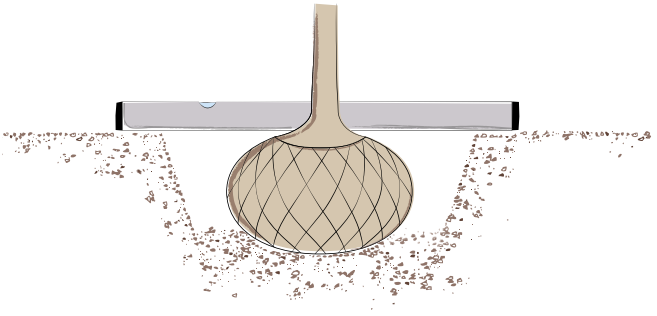
As a nursery, we recommend a planting hole with a base area of 16 m^2 and a depth of 0.8 m or more (better: depth of 1.5 m) for medium to strong-growing tree species.

How deep must be planted?

Plant the tree approx. 5-10 cm higher than it was planted in the nursery, because the loosened soil in the planting hole is still sinking. The top of the root ball should later be flush with the planting hole.



- **It is better to plant the rootball slightly higher than too deep as the roots need oxygen!**



Planting

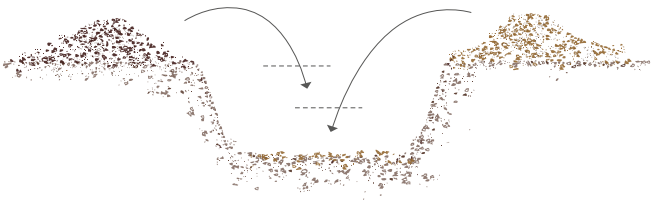
Water the rootball or container intensively before planting.

Container plants: Cut the dense network of the roots at the edge vertically about 1 cm deep with a sharp knife or scissors to encourage root growth.

Trees and shrubs with rootballs: Open the wire mesh close to the trunk and just bend it slightly outwards before reinstalling the layers into the planting hole.

According to DIN 18916 cut the knots of the hessian wrap and fold it to the outside.

The wire mesh is made of non-galvanised wire and can be left in the ground as it will rot (as well as the hessian wrap) after some years. Hence, it should be left at the rootball.



When filling up the planting hole, reinstall the layers of the soil accordingly.



Unloading and planting

If the soil is very poor or of poor quality, improve the excavation with a substrate in a 1:1 ratio or replace it completely.

Attention: Do not apply organic soil additives, such as certified compost, deeper than 30 cm. Under anaerobic conditions, rotting processes could otherwise set in.

The pH value of the soil

... is very important for healthy tree growth. Often substrates and soils have too high a pH value although most woody plants prefer soils in the slightly acidic range, with pH values between 5,5 and 6,5.

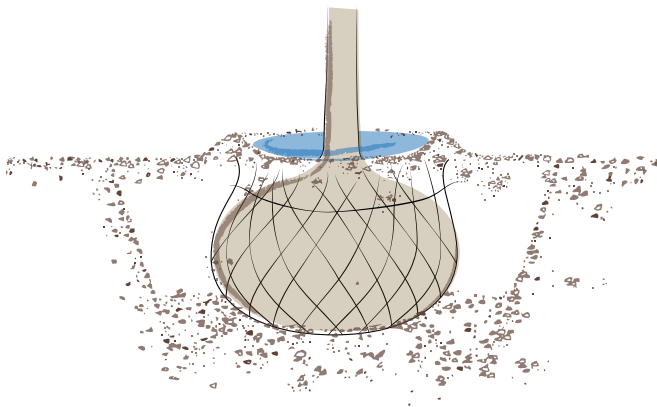
Requirements of the individual tree species => see plant portraits in the Von Ehren Compendium

The watering edge

After planting, make a stable watering edge, ideally from the soil that has not been filled in. A height of 15-30 cm is perfect. Do not use bark mulch.

The inner diameter of the watering edge should correspond with the outer diameter of the rootball. This ensures that the water moistens the rootball and does not seep past.

Plastic watering rings or water bags are also suitable for watering freshly planted trees. Important: The watering ring must be adjusted to the size of the rootball.



Watering right after planting

Depending on the size of the trees, 50-150 l (5-15 buckets of 10 l) should be used for watering. The water ensures that the soil/substrate filled into the planting hole is properly slurred and that cavities between the root ball and the soil can close.

The surrounding soil should also be well moistened after watering.

Fertilisation

The best time to start fertilising is from mid-April. A second fertilisation can be applied in mid-June.

Good organic professional fertilisers are now commercially available; plastic-coated fertilisers are not recommended.



Here you will find a film
on proper planting.





Unloading and planting

Trunk protection and tree anchoring

Cane mats and trunk protection paint are suitable as trunk protection against strong direct sunlight. This protects the bark of the trees and effectively prevents trunk damages.

Trunk protection is recommended for trees with smooth bark such as Acer, Aesculus, Fagus, Tilia and others. It should be renewed every 2 years and provided for 10 years.

The mats are placed loosely around the trunk with an overlap of about 10 cm. The sun protection should extend from the ground to just below the crown.

In order to ensure the stability of freshly planted trees and to prevent the newly formed fine roots from being torn off by movement of the rootball, it is important to anchor the plants in the growing phase.

Depending on the size of the tree, these support systems can be recommended:

- › Staking, double stakes or tree frames (3-trestle support) from a trunk circumference of 16 cm
- › Tree frames (4-trestle support) or underfloor tree anchors, from a trunk circumference of 25-30 cm
- › Belt tensioning
- › Tree anchoring

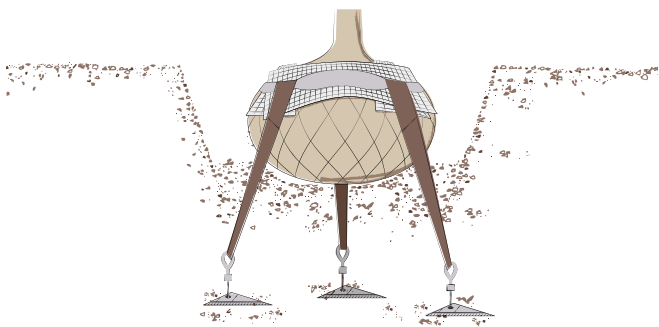
The tree anchors should reach just below the crown and the stakes should be driven sufficiently deep into the grown soil.

The trees are tied down with coir rope or tension belts.

During the finishing care, the stakes should be checked on a regular basis and loosened if necessary to prevent them from growing into the bark. Trees already start to grow in thickness in the 2nd year after planting.



3-trestle



Subsurface anchoring



Finishing care

Watering



Freshly planted trees and shrubs should be watered regularly during the growing season.

The rule is: Every 10-14 days. In case of prolonged dry periods (longer than 10 days), additional watering is required.

The recommended amounts of water depend on the soil type and the size of the trees.

Sandy soils require less water per watering, but in total just as much water as a clay soil (see table).

Reason: In sandy soils, a relatively large amount of water flows immediately into deeper layers or is drained away. It therefore makes sense to apply less water at shorter intervals.

The following applies to clay soils: larger water applications with longer watering intervals.

Avenue tree (size)	Sandy soil	Loamy soil
Circ. 16-18, 18-20 cm	80 l	120 l
Circ. 20-25 cm	100 l	150 l
Circ. 25-30, 30-40, 40-50 cm	200 l	300 l

Reference: modified according to DIN 18916 and "Richtig pflanzen – so klappt's", Landwirtschaftskammer Schleswig-Holstein, 2019

On slopes, install watering rings or irrigation bags.

Damage due to frost dryness

Evergreens evaporate water in winter, so they prefer humid sites protected from east winds. Our nursery recommendation: Water evergreens even in winter if the soil is open, i.e. frost-free.



Regular controls

- › **Circular bed round the tree:** Loosen and keep free of weeds (avoid competition with water); covering with bark mulch can be useful; pay attention to nitrogen fixation!
- › **Fertilisation:** If necessary only, after prior soil analysis; modern fertilisers with mineral and organical components are ideal. The mineral component has an immediate effect, the organic components are released in the vegetation period. This prevents unnecessary nitrogen release in the soil.
- › **Shoots on the trunk:** Strip off
- › **Diseases and pests:** Control and treat if necessary
- › **Tree support:** Check and prevent ingrowing into the bark

Nitrogen fixation

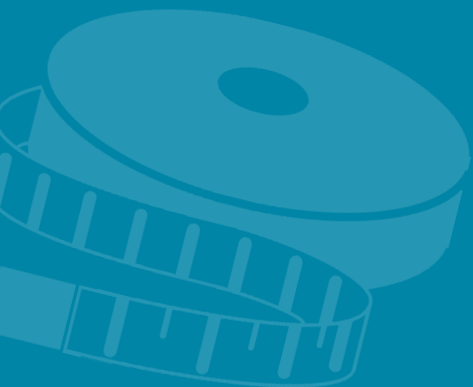
A lot of organic matter in the soil means that also a lot of nitrogen is fixed by microorganisms during the decomposition process. Therefore, when mulching with bark or straw, please be aware of regular care in order to provide sufficient amounts of nitrogen, otherwise the trees will “starve”.

References: Baumschule Lorenz von Ehren (Ed.): Baumpflege, Behandlung von Gehölzen, Hamburg, 2018

FLL (Ed.), Empfehlungen für Baumpflanzungen – Teil 2, Bonn, 2010

Schönfeld, P.: Pflanz- und Pflegeanleitung, Deutsche Baumschule, S. 30-31, Braunschweig, 2022

Wrede, A., Averdick, H., Ufer, T.: Richtig pflanzen - so klappt's, Landwirtschaftskammer Schleswig-Holstein, Abteilung Gartenbau, Ellerhoop, 2019



Any questions left?

If you have any questions, our team
of experts will be happy to help:

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