

Tree ferns are beautiful plants and often take pride of place in a garden design or glasshouse display. However, they are expensive and require care in planting and aftercare.

Dicksonia antarctica is the only tree fern that is widely available for purchase in the UK. Some of these are now grown commercially from spores and are supplied as small trunk-less ferns. However, most people want something more immediately spectacular, and imported specimens are supplied as lengths of unrooted felled trunks or already planted in a pot. Imported specimens should have a license attached to their trunk, meaning they have been collected sustainably. These trunks have been harvested, sterilised and shipped in containers half-way around the world from the southern hemisphere. It is remarkable that these trunks can remain alive with this treatment, but care needs to be taken to ensure that they recover and thrive.

#### Planting your tree fern

If the trunk is bare, then it has had all the roots that were in the ground removed. However, there are many roots that run down the outside of the trunk from the crown, and it is these that will establish a new ground root-system. Before planting, soak the trunk or douse it with water for 24 hours. Choose a site that is not in full sun, especially at midday, and is preferably in dappled shade. The site should also be protected from wind, to avoid both drying out and movement of the trunk. The soil should be moist but not boggy or prone to flooding.

Prepare a hole deep enough to support the tree fern in the event of a storm. For a 1 m trunk, this hole should be at least 30 cm deep. If the trunk has been recently potted, some root-growth may



Roots growing from the surface of the trunk.



Late frost damage to new growth.

have started. These roots may be very delicate. Either careful remove the root ball and compost from the pot for replanting or keep the plant in the pot for a year before planting out. The least damage may be achieved by lying the plant on its side and cutting the pot away with strong secateurs. Line the hole with good compost which is moisture retentive, and water the hole before placing the trunk or root ball. Pack compost around this and water well. If the trunk is large, then it is important to stabilise this against movement in stormy weather. Use non-abrasive tethers and secure them to pegs in the ground for at least a couple of years.

### Watering

Water every few days when first planted, ensuring that the trunk is well-wetted. During colder weather, continue to water the trunk but avoid wetting the crown of the plant. If there is any sign of growth in the plant during the winter, with the fronds remaining green, continue to wet the trunk occasionally on warmer days. In the spring, winds can be very drying, and it is important to increase the watering, which may be before new growth is evident.

Some growers use automatic dripwatering systems into the crown of the plant. This can be very useful, particularly in dry areas or when handwatering is difficult. However, dripwatering should be discontinued in the winter months or crown rot may occur. The roots running down the trunk and growing into the surrounding soil are also a source of water and nutrition and should not be forgotten.

### Aftercare of your tree fern

Tree ferns can also be grown in large pots or half-barrels. This makes winter protection easier as the container can be pulled into a greenhouse or under an awning to protect it from frost and snow. However, if it is grown this way, close attention must be paid to regular watering in the summer as the tree fern may wilt or die if the container dries out completely.

During the growing season tree ferns will benefit from being given fertiliser. This is particularly important if the tree fern is growing in a container. There are proprietary brands of liquid tree fern fertiliser that may be watered into the crown of the plant. Alternatively use a general liquid fertiliser at half or quarter strength every two weeks.

Most growers cut off dead, brown fronds for aesthetic reasons. However, if the planting is to be naturalistic, these can be left to droop down over the trunk, providing greater protection from cold and drying out, and also a home for wildlife.

Tree ferns have very few pests or diseases and, if given the correct care, can grow into a beautiful specimens over several years. Although the annual vertical growth of the trunk is generally about 3 cm, the fronds become larger and more arched year by year.

### Winter protection

Tree ferns should be protected from frost in the winter by filling the crown with dry, insulating material such as dead fronds or horticultural fleece. Do not use straw, unless it is then covered with a waterproof layer, as straw can retain water and rot the crown. In very cold or windy areas, the trunk may be protected by wrapping in straw, hessian, or fleece. and then binding this on with string or chicken wire. Avoid this insulation from getting wet, as roots running down the trunk may be stimulated to grow into the damp insulating layer and make it difficult to remove without damage. Snow may break the fronds if it is allowed to build-up to a heavy layer. This should be gently shaken off. Leave old fronds, if still green, protruding through

the insulation layer. Fronds should only be removed if they are dead. This is best done in late spring. Removal of all the fronds in the autumn will weaken the plant. Occasionally, despite protecting the crown of the plant, new growth can be damaged by late frosts.



Horticultural fleece protecting the crown.

## Other species of tree fern

*Dicksonia antarctica* is the only reliably hardy tree fern. However, other *Dicksonia* species are reported by some growers to have similar cold tolerance including *D. fibrosa* and, possibly, *D. squarrosa. Sphaeropteris cooperi* (*Cyathea*) and *Alsophila australis* (*Cyathea*) are frequently available from specialist growers. They will not tolerate frost, so would need the protection of a frost-free glasshouse over winter. Some tree fern species would only be suitable for a large hothouse, these include *Angiopteris* and *Ptisana* species. Also, some smaller ferns will form tree fern-like trunks over time, these include several *Blechnum* and *Diplazium* species. Most of these will prefer the comfort of a warm greenhouse over winter.

# Hardy tree ferns



**Soft Tree Fern** Dicksonia antarctica



**Golden Tree Fern** Dicksonia fibrosa



Rough Tree Fern Dicksonia squarrosa

## Frost-free conditions over winter



**Woolly Tree Fern** Culcita macrocarpa



Silver Fern Alsophila tricolor



**Lacy Tree Fern** Sphaeropteris cooperi

## Suitable for warm greenhouses or hothouses



**Dwarf Tree Fern** Oceaniopteris gibba



**Giant Fern** Angiopteris evecta



**King Fern** Ptisana salicina

The Exotic Fern Group is a community for enthusiasts of tropical, subtropical and indoor ferns. We bring together individuals who share a passion for these unique plants, offering opportunities to connect, learn and grow together. Members enjoy regular newsletters, social visits to private fern collections and online presentations. We also organise trips to larger public fern collections. Members can also benefit from access to fern and spore swap schemes, to expand and develop their own collections.

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