

SHADE TREES *for* SCHOOLS

*suited to
South Island conditions*



Portugese Oak (*Quercus faginea*)



Deciduous. Small, upright tree. Deep-green leathery, dense foliage which trims well into hedge. Hardy.

5yr Height: 3
Max Height: 20
Max Spread: 8

Preferred conditions:

Dry or moist soil.
Tolerates dry, heat and exposure.



European Ash (*Fraxinus excelsior*)



Deciduous. Great autumn foliage. Hardy.

5yr Height: 5
Max Height: 30
Max Spread: 10

Preferred conditions:

Dry and moist soil.



Copper Beech (*Fagus sylvatica* 'Purpurea')

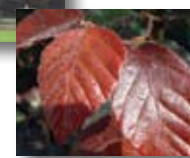


Deciduous. A broadly-spreading tree, leaf colour ranges from red to dark-purple. Fantastic formal hedge with vibrant colours spring and summer. Hardy.

5yr Height: 4
Max Height: 25
Max Spread: 15

Preferred conditions:

Dry or moist soil.



Chinese Elm (*Ulmus parviflora*)



Deciduous. Elegant open growth habit and beautiful barked tree. Hardy.

5yr Height: 4
Max Height: 15
Max Spread: 12

Preferred conditions:

Will tolerate cold and wind. Dry, moist or wet soil.



Ribbonwood (*Plagianthus regius*)



Native. Semi-deciduous. Medium to large, spreading tree with showy flowers. Fast-growing on dry exposed sites. Separate male and female trees. Good as shelter specimen. Hardy.

5yr Height: 4
Max Height: 12
Max Spread: 3

Preferred conditions:

Tolerates dry, moist or wet soil.



Tulip Tree (*Liriodendron tulipifera*)



Deciduous. Handsome tree, forming a tall pyramidal crown. Large saddle-shaped leaves bright green turning yellow in autumn. Hardy.

5yr Height: 3
Max Height: 20
Max Spread: 6

Preferred conditions:

Moist soil.



Maidenhair Tree (*Ginkgo biloba*)



Deciduous. Attractive tree with unusually shaped lime green leaves and bright-yellow autumn colour. Large kernel on the female tree is edible but very smelly. Hardy.

5yr Height: 3
Max Height: 15
Max Spread: 10

Preferred conditions:

Moist soil.



Pin Oak (*Quercus palustris*)

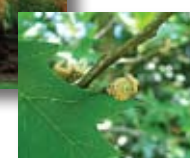


Large broadly-spreading handsome tree with a strong central leader and green leaves turning bright scarlet in autumn. Shallow root system. Hardy.

5yr Height: 4
Max Height: 20
Max Spread: 12

Preferred conditions:

Requires a damp site. Moist or wet soil.



English Oak (*Quercus robur*)



Deciduous. The classic oak tree of NZ parks and large gardens. Hardy.

5yr Height: 4
Max Height: 35
Max Spread: 15

Preferred conditions:

Tolerant of a wide range of sites, including heavy clays and strong exposure. Dry, moist or wet soil.



Linden Lime (*Tilia platyphyllos*)



Deciduous. A broadly-columnar tree. Great shade, with leaves turning yellow in autumn. Small, fragrant flowers attractive to bees. Hardy.

5yr Height: 4
Max Height: 25
Max Spread: 13

Preferred conditions:

Moist soil.



London Plane (*Platanus acerfolia*)



Deciduous. A large, fast-growing, round-headed noble tree with large palmate leaves and an attractive mottled trunk. Hardy.

5 yr Height: 4
Max Height: 15
Max Spread: 11

Preferred conditions:

Moist soil.



Red Beech (*Nothofagus fusca*)

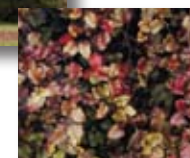


Native. Evergreen. Handsome tree with rapid early growth. Young trees have bright-red foliage during winter. Can clip to formal hedge. Hardy.

5yr Height: 4
Max Height: 30
Max Spread: 5

Preferred conditions:

Suits a cool, moist, sheltered site with deep, fertile well-drained soil.



Planting shade-giving trees is an effective way of protecting people from the harsh radiation from the sun.

Sunburn in childhood increases the risk of developing melanoma later in life, so it is important that shade is available in the school grounds. Natural shade, through the provision of shade-trees can be cost-effective and attractive; providing part of your long-term solution for shade.

Involving students:

Getting students involved in the planting and initial care of the newly planted tree can be a great way to raise awareness among students and encourage ownership of the natural environment in the school.

Potential ways to do this include getting students to do a shade audit, decide on where the trees should go, hold a tree planting ceremony, or allocate 'carers' of the trees.

Southern Woods Tree Nursery
Sales Manager 0800 800 352
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Southern Woods Frost Care Recipe:

Apply liquid seaweed fertilizer after the first frost at 2.5 to 3 times the label strength with a watering can or sprayer.

Apply again 10 – 14 days later.

In cold areas, apply a third time.

If no more frost is expected, prune out any damaged growth, cutting to an undamaged side-shoot or bud. Otherwise delay pruning until weather is more settled. After pruning, apply a top dressing of a general-purpose fertiliser at the manufacturer's recommended rates to encourage strong re-growth.

Which tree?

The trees in this brochure are recommended for schools and are ideally suited for South Island conditions. These trees provide superior shade, have low breakages and low allergens, and are considered to be most suitable for schools. Local conditions may influence which will be the most suitable tree so it is best to discuss your choice with the experts at the nursery.

Plan your planting:

- Consider the shape of the tree and the shadow cast.
- Broad canopies and dense foliage provide the best shade.
- Deciduous trees have the advantage of allowing sun through in winter but drop leaves in autumn. These are best planted in winter while dormant.
- Evergreen trees drop some leaves all year round. This may be a problem for sand-pits, sports facilities or swimming pools. Spring and autumn are ideal months for planting evergreen trees, when the soil is moist and rain can be expected.
- Avoid planting in hot, dry conditions, or just prior to school holidays when additional watering will be problematic.
- Plant trees to the north and west of the area to be shaded. Avoid underground and above ground cables, pipes, roadways and easements. Root barriers and subsoil drainage will help to ensure that pavements and sealed play areas are not damaged by tree roots.



Planting your tree

1



Water the tree in its container well and let the water drain away before planting. Good preparation of the site will help the tree get established and encourage rapid growth.

4



At the time of planting, secure two vertical stakes 30cm either side of the tree without damaging the roots. Firm the mixture around the tree and water well. Use hessian webbing to twist around and staple to the first stake, twist again, run either side of the trunk, twist again and then staple to the second stake. The aim of the stakes securing the tree is to stop the root ball from moving in high winds.

2



Dig a hole about twice as big as the plant container. If you are planting small specimens, use a commercial tree planting mixture. Otherwise mix compost with the soil, more for heavy or light soils.

5



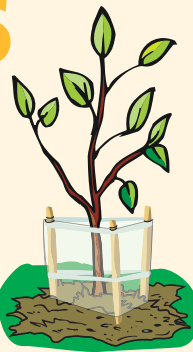
Once the tree is in place and securely firmed in, place a mulch-mat around the base. This will help with water retention and weed control. Depending on the size of the tree, you may also want to add a tree-sleeve, which helps keep rabbits and hares away from the base of the trunk.

3



Plant the tree at the same level that it was in its container. Be sure to add 1 to 3 grotabs beside the rootball before back-filling.

6



If required, shelter or shade cloth can be secured to the stakes (you will need to add a third stake) which will provide protection against lawnmowers, balls and children. As trees grow, an octagonal seat surround offers practical protection and is an encouragement for children to utilise the shade.