



Gardennote

Growing bamboos in the home garden

Soils

Although loamy soils are optimum, bamboos will grow on a wide range of soils provided they are well drained. They grow well on the Perth sandy soils, with good irrigation and fertilising, and where there is good use of organic material to improve the soil. All of the photographs in this garden note were taken of bamboos growing on sandy soils.

However, bamboo plants grow poorly in heavy clays or where there is high salinity or extended water-logging. The optimal soil pH (by the water system of measurement) is between 5 and 6.5. Apply lime if the pH is too acidic (low pH).

Description

Bamboos can be shrubs, or ground covers, or grow to 30 m tall. Bamboo stems can vary from just pencil thickness up to a diameter of 20 to 30 cm.

The underground swollen, woody, rhizome is the foundation of the plant; it produces beautiful arching stems and graceful leaves. Flowering is rare, and plants that flower and set seed soon die.

Several plants are falsely called bamboos. The 'lucky bamboo' (*Dracaena sanderiana*) is a popular indoors pot-plant and the small bushy panda bamboo (*Pogonotherum paniceum*) is a true grass. The sacred bamboo (*Nandina domestica*) is a small garden shrub, with reddish leaves. The giant reed (*Arundo donax*) is a grass, but resembles a bamboo, because it has cane-like stems to 6 m high. Unlike bamboo, it flowers readily at the top of the stems. It is often found in waste areas and chicken-runs, but may be useful for stakes.

Varieties

There are two distinct types of bamboo which are known as clumpers or runners.

The invasive nature of runner bamboos has resulted in a bad name for bamboos generally. Some Local Government authorities are unaware of the two types of bamboos and may state that bamboos cannot be planted in their areas. Clumpers are the main varieties that should be planted in home gardens. However, running types are suitable in home gardens if planted more than 15 m from neighbouring properties, if planted in pots, or if provision is made to keep the runners in a confined space.

Bamboos are related to the grass family (Graminaceae) and include more than 1250 species. They are mainly from the warm-temperate to hot areas of the world (latitudes 39° North to 47° South). Australia has three native bamboo species in the tropical areas of the Northern Territory. In Japan, bamboos are revered for their beauty, elasticity and strength.

Good bamboo varieties can be seen in Western Australia at the Perth Zoo, Whiteman Park, Supreme Court Gardens, at specialised bamboo nurseries and in many private gardens.

Uses

The bamboo has been described as one of the most useful and beautiful plants in the world. With good management, the bamboo is an excellent ornamental plant for landscaping, for use as a windbreak or as a screen plant. It is widely used for many purposes including production of edible shoots, furniture, chipboard, baskets, crafts, wall cladding, weaving, fences, stakes and props.

Bamboo shoots are common in Asian cooking. All bamboo varieties have edible shoots, but species with large and sweet shoots are mainly used for this purpose. These have good supplies of carbohydrates, proteins, minerals and vitamins. They are harvested in spring and summer when

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they are less than 60 cm tall. The shoots are boiled for 15 to 30 minutes in salty water.

Poles from stems which are about three years old and are more than 5 cm in diameter, have a good retail value for crafts and furniture.

Climate

Bamboos grow well in most areas of Western Australia, and on a wide range of well drained soils. Temperate bamboos and most tropical bamboos will grow in the South West of Western Australia. There are many varieties of both types, especially in the Denmark and Perth areas. The temperate species have excellent tolerance to frost, but many of the tropical species will also tolerate low temperatures and slight frosts. Bamboo plants are hardy and will tolerate cyclones, temporary flooding and short-term droughts. Their stems are not snapped by strong winds.

Clumpers

Clumpers produce new shoots close to the old shoots and the plants grow in clumps that can be easily managed. Growth is fast and can be more than 30 cm per day. The stems reach their full height in 40 to 90 days. There are many clumping varieties; some of the best varieties for home gardens are as follows:

The hedge bamboo (*Bambusa multiplex*), has attractive slender, arching, stems. These grow to 3 to 8 m high and are good for screening and stakes. There are about 10 types and the yellow-stemmed Alphonse-Karr (yellow stem with green stripes) and 'Silverstripe' are especially good ornamental varieties.



Hedge bamboo growing at Perth Zoo.

Oldham's Sweet Shoot bamboo (*Bambusa oldhamii*) is a tall (to 15 m), but compact, clumping variety with large stems. It is suitable as a windbreak, as a screen plant, for landscaping, for timber, and for harvesting its sweet edible shoots.



Oldham's Sweet Shoot bamboo is suitable as a windbreak, as a screen plant, and for its timber and edible shoots.

The weavers' bamboo (*Bambusa textilis*) has several types. These produce graceful plants with medium-sized stems that are suitable for weaving, or for stakes.

Barcode bamboo (*Bambusa vulgaris vittata*) is a tall variety with large golden stems with green stripes and edible, slightly bitter shoots, which are a popular food with Vietnamese people.

The small Mexican weeping bamboo (*Otatea acuminata acuminata*) has graceful, weeping foliage with narrow leaves and medium-sized stems and grows to 6 m.



Weavers' bamboo is a graceful plant.



Barcode bamboo has beautiful stems and is a good screen plant.

Timor black bamboo (*Bambusa lako*) and Indonesian black bamboo (*Gigantochloa atroviolacea*), have attractive tall, large, black

stems (especially in warmer areas); the Timor variety also has attractive green stripes.

Bambusa vulgaris 'Wamin' and *Bambusa ventricosa* produce swollen stems when stressed and are known as Buddha's Belly varieties.

Shoots of clumping bamboos are harvested when they are 600 mm above the ground, with a sharp, straight blade. The cut is made close to the join of the fibrous rhizome and the soft tender new shoot. *Bambusa oldhamii* is an excellent variety for producing edible shoots and also timber for most home gardens. The *Dendrocalamus* species *asper* and *latiflorus* are also excellent, but should be planted only in large home gardens.



Bambusa oldhamii clumper shoots ready for harvesting.



Indonesian black bamboo has beautiful black stems.



Buddha's Belly clumper with swollen stems growing in a large pot.

Runners

Runners have long, slender underground stems (rhizomes). They are slow to produce shoots as they send out long rhizomes to colonise the whole of the surrounding soil. These bamboos can form large forests and can be a menace in a garden and for neighbours, as new shoots may emerge up to 10 m from the parent plant.

The *Phyllostachys* genus has many varieties that produce runners, all of which have a notch on their stems. The common black bamboo (*Phyllostachys nigra*) is popular, but has extensive marginal leaf burn in Perth and is best grown in the southern coastal area. *Phyllostachys bambusoides Castillonis* is a good ornamental pot plant, with attractive yellow stems with green lines. It has runners that can travel 10 m and must be confined. Other common genera with many species include *Pleioblastis*, *Pseudo-sasa*, *Sasa* and *Semiarundinaria*.

Running types may be planted in a home garden in large pots up to 100 L and 60 cm in diameter. They should be divided every five years. Only a few shoots should be left in each pot, otherwise the plants will 'choke'. However, they will grow better if they are grown in soil and planted within a 900 mm-deep, rubber, concrete or other impenetrable barrier that is sealed at the edges. It is also possible to dig a trench about 30 cm deep and 35 cm wide around the plants. The runners should be removed in spring and summer when they emerge at the sides of the trench.



With good pruning, running types can be controlled with a surrounding trench.

Obtaining plants

Bamboos are more expensive than most plants, as cheap seedling plants are not available. Plants cost between \$20 and \$100 in Western Australia. Cheaper plants (\$20 to \$40) may be obtained from the Eastern States, but these are smaller. Check for quarantine requirements from the eastern States with the Inspection Service of Quarantine WA on 9334 1800.

With good management, more plants can be propagated in the home garden from cuttings (clumpers), or from plant division (clumpers or runners).

Planting

Bamboo may be planted at any time into a soil enriched with compost and animal manures.

Fertiliser

Bamboo is a heavy feeder and requires regular applications of animal manures and NPK fertilisers for good growth.

Irrigation

Bamboo plants need regular irrigation with good quality water for good growth, but are fairly hardy and can grow successfully with irrigation after a period of water stress.

Pests and diseases

Bamboo has few pests and diseases, but scales, mealy bug and grasshoppers may occasionally feed on the plants. Grazing animals and rabbits enjoy the shoots and leaves.

Mulching

Mulching with compost, hay, straw or other organic materials is desirable for bamboo and these provide nutrients, suppress weeds and retain moisture.



Large bamboos kept bushy by pruning at the Supreme Court gardens.

Pruning

Bamboos can be maintained as living screens and hedges. Even the tall-growing species can be cut annually to about 1.5 to 2.0 m tall and can be maintained in a bushy shape, if required.

For good appearance, remove the oldest stems of clumping types every year. An uncultivated bamboo clump can look unsightly. Ideally, clumpers should have six to 10 main stems.

Maintain them by annually removing the three oldest stems for timbers, or the young shoots of the species which have good quality edible shoots. Some clumpers such as the barcode bamboo are more spreading than compact clumpers such as Oldham's bamboo and, in a small garden, they require good pruning to ensure they do not encroach on other plants.

Removing unsuitable running bamboos in the home garden

Bamboo roots are usually less than 20 to 40 cm deep and are not large. Remove the plants by digging, or with a backhoe, but with runner varieties every piece of rhizome must be removed.

Herbicides with the active ingredient glyphosate may be used to kill bamboos. Cut back the bamboos to 30 cm above ground level and water and fertilise the area well. Dilute glyphosate by half and pour onto the cut-off canes. If there is any re-growth, spray the young shoots with one part glyphosate to 20 to 50 parts of water, plus wetting agent. It may take from two months to two years before the bamboo is finally killed.

If bamboo from the neighbour's property is causing a problem it will be necessary to obtain the cooperation of that neighbour in removing the plant. If the neighbour will not cooperate, it may be necessary to seek the assistance of the local council and to request that the unsuitable runner variety should be replaced with a suitable clumping variety. Another alternative is to dig down to 80 cm at the fence-line and install an impenetrable barrier.

For more information phone 1800 084 881