

How to grow willows



Most trees are cultivated using seeds. For instance when a forester plants a stand of oaks they would have originated from individual acorns each with its own genetic make up. Some will grow to become majestic trees whilst others will form puny runts that will be thinned out at the first opportunity. Once a large oak has been identified acorns will be taken from that tree to provide planting material for future forests but again these will include that same distribution of good, bad and mediocre. It is possible to clone an oak but this involves complex and costly propagation techniques on selective media in controlled conditions.



There are no such problems with willows. Virtually every species can be propagated vegetatively by simply pushing a length of shoot known as a cutting into the soil. This makes life very simple for horticulturalists. Once a preferred variety has been identified one needs only to take a cutting and plant it to create an identical plant.

This means that willows are extremely easy to multiply. For instance, if you start off with one cutting and plant it in a pot, by the end of the year you will probably

have produced a shoot of about 1.5m in height. If you cut this down you will have enough material for seven cuttings. If you plant these up as before, by the end of year two you will have produced another seven cuttings from each new plant plus any produced by your original plant. This will give you about 60 cuttings at the beginning of year three and by the end of that year you will have well over 500 cuttings which will in turn lead to over 4000 by the end of the next year. But imagine you started in year one with 100 cuttings: by the end of year four you could theoretically produce 400,000 cuttings all exactly the same!

This ability to multiply identical material, very quickly are just some of the reasons why willows are used for commercial basketmaking and as an energy crop.

Below are three methods of growing willows: from cuttings, as pollards and from standard pot grown plants.

What you will need

Cuttings	Pollards	Standards
Freshly harvested willow rods	Freshly harvested willow rods	Good quality container grown plants
Secateurs	Secateurs	Spade
Spade	Spade	Bonemeal
Plastic mulch mat (optional)	Crow bar or stake	Mallet
Wood chips for mulch	Mulch	Stakes
Peat	Bow saw	Rubber ties and spacers
Sharp sand & grit	Pruning saw	Expandable tree guards

Cuttings

Most species will achieve a success rate of over 90% but one or two species such as the goat willow (*S. caprea*) and *S. redheriana* are more sporadic achieving perhaps 40-50%.

Tree and shrubby willows

This activity should be done in the dormant season. Best results are achieved in January-March. Cut your willow rods into 30 cm lengths. The ends of the cutting can be square and you needn't worry about the position of the buds.

For a commercial willow plantation the soil would be ploughed and power harrowed. If you are planting just a few cuttings then it is best to turn the soil over with a spade. If you want to keep weeds down you can put a layer of plastic mulch matting down on the soil and dig the ends in. Cut a hole where you want your cutting to go and push it in to the soil making sure the buds are facing up. Leave the top 2-3 cm (1 inch) proud of the soil. Firm up by gently healing in.

Dwarf and alpine willows

Best results are achieved by taking cuttings in the autumn and growing in small pots containing a mixture of one part peat to two parts sharp sand. Cuttings will generally be about 5cm long. Push this into the pot so that over half its length is submerged. Firm up and cover the top of the pot with a thin layer of grit to guard against stem rot. Label and place in a cold frame over the winter months.

Willow fact

Willows that inhabit the banks of rivers and streams such as the Crack willow (*S. fragilis*) use their ability to grow from cuttings as an ingenious method of dispersal. Their brittle stems frequently break in the wind and are transported downstream by the running water. When the twig comes to a suitable resting place it will root into the muddy substrate and a new tree will develop. In Australia introduced willows have used this colonizing method so adeptly that they are now regarded as a pest with a major project aimed at their eradication.

Pollards

Willows are pollarded at a height of 2 metres (about 6 feet) in order to stop hungry livestock from eating the fresh growth after each harvest. The trees were often used as landscape features to determine boundaries as well as to maintain riverbanks. The wood produced was used for basketry, hurdles, tool handles, charcoal and firewood.



When pollards become ancient they become hollow inside and support hundreds of species of plants and animals.

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There are two methods that can be followed in planting pollards, the “feather” method and the “instant pollard” method.

Feather Method

In this method you use a whole feathered whip, 1-2 metres in length that tapers to a fine point. Before you plant you should prepare your soil. This is best done by digging a hole in the ground with a spade and removing any weeds. Break the soil into a fine tilth. Make a hole with a crow bar or similar metal stake and place the whip into the hole and push against the resistance of the soil until secure.

Firm up the soil around the whip with your heel or better still use the crow bar by pushing it into the soil about 15-20cm from the whip and then lever towards it. This provides better contact between the sides of the whip and the soil and promotes rapid root development. Water thoroughly.

Add mulch around the whip to a diameter of 1m using wood chips or polythene.

Allow the whip to grow for five or so years making sure to remove small side shoots below 2m. Either “rub” these off with finger or thumb when small or with secateurs if they have become woody. After 5 years you can make your first cut at the pollard height of 2-3 metres. Use a bow saw for the thickest limbs and a pruning saw for smaller shoots. The pollard will look unsightly at first but don't

worry it will soon begin to grow back with the benefit of demonstrating its winter stem colour.

Instant Pollard Method

This uses thicker rods similar to cricket bat cultivation methods but instead of having a feathered tip the rod is butt ended. Try to get 2-3 m rods and if you wish you can cut the base end to a point to help drive it in to the soil.

Follow the feather method for land preparation and weed control. If you plant a three metre rod and there is 2 m exposed above ground remove side shoots as they appear below a height of 1.75 m. After 5 years cut the top growth and manage at regular rotations thereafter.

Willow tip

A lollipop effect can be achieved by using varieties with different coloured stems.

Pot grown standards

Back in the 1950s and 60s it was very popular to plant weeping willows in city gardens. By the 1970s and 80s these large trees had begun to engulf their surroundings and they were blamed for many problems associated with blocked drains and subsidence. This unfortunately led to a widely held view that all willows are unsuitable for garden planting.

It is true that many weeping willows can attain an enormous size and these should only be

planted in the largest gardens or park locations. There are however, several more modest alternatives for the small to medium garden that produce a pleasing weeping effect but will not completely dominate the entire space.

Tree and larger shrub varieties normally come as 1.5 metre tall plants with lower side shoots removed. You can also get feathered stock which are 1.2-2.4 m tall with a well defined straight leader but also are well endowed with lateral shoots. You should aim for a top quality plant that has a symmetrical shape and a good root system but is not pot bound. Container grown trees can be planted at anytime of year but try to avoid frost or drought.

It is best to water your tree well before planting. You could even place it in a bucket of water as you prepare your planting pit. In your chosen planting area remove all vegetation that will compete for water and nutrients and dig a hole 3-4 times the diameter of your container and 1.5 times as deep. Fork over the bottom of your pit to a fine tilth and dig in well rotted organic matter such as home produced vegetable compost. You can also add a handful of organic fertiliser such as bone meal and dig this in as well.

Remove your tree from its container and root prune any circulating roots. Place the root ball in the pit and make sure the top is level with the soil surface. Using a mallet drive a stake just off centre

of the pit facing into prevailing wind. For whippy trees use a tall stake reaching to just below the crown. This can be cut to 50cm in the second year and removed in third. (The smaller willow varieties will only need staking if placed in an exposed area.)

Backfill the pit with soil and firm in gently with your foot. Break down the sides of planting hole with a fork to encourage root spread. The idea is to be firm enough to exclude air pockets but not so firm that you compact the soil.

Attach the tree to the stake with a rubber tree tie and place the plastic tree guard around the base of the trunk. Water thoroughly and apply a 5-10 cm (2-4 inch) layer of well rotted organic matter to retain water and act as a weed suppressant. You should water your tree at least once a week during its first two summers and keep an eye on weeds hoeing as necessary.

