

Long Stem Planting

Long stem tube stock is an exciting and innovative method of planting and growing native vegetation. Plants are grown with a long stem and planted deeply into the ground. New roots sprout from the leaf nodes that are now below the surface, giving the plant a much better chance of survival with this stronger root system. This method produces a strong, healthy plant that will not need further watering after planting.

Bill Hicks, who developed this method of planting, found there was a need to find an alternative to the willows (*Salix* sp.) that have been used to rehabilitate our waterways. The willows have become a serious problem, as they are displacing the natural vegetation by colonising river and stream banks, causing sandbars to develop resulting in erosion. The long stem tube stock method has also been successful for rehabilitation areas other than waterways such as areas of high salinity, rainforests and sand dunes.

What is long stem tube stock?

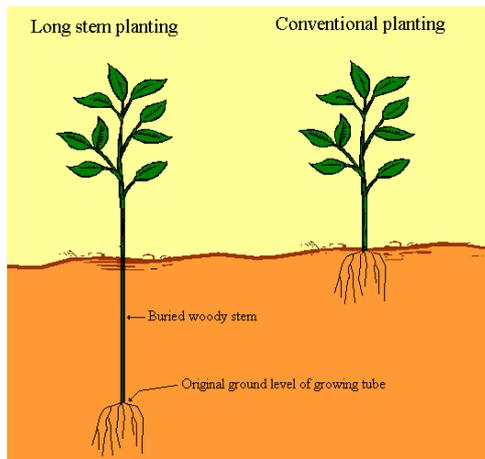
A seedling plant is grown in a small tube and placed on a wire rack off the ground to 'air prune' any roots that grow through the bottom of the pot. This means that all the roots are contained in the pot. It is ready for planting when the plant has reached a height of approximately 1 metre. This usually takes 12-18 months. A good quality potting mix is used with slow release fertilizer that is added when the seedling is placed in the tube.

What are the benefits?

- This growing method produces a more mature and hardier plant. The stronger root system will help the plant to withstand flooding.
- Further watering is not needed as the roots are below the evaporation level of the soil.
- The roots remain moist and do not dry out as happens with traditional planting methods.
- Plants are not subject to root competition from weeds.
- Deep planting protects the roots from a hostile ground surface in extreme weather conditions of heat and cold.

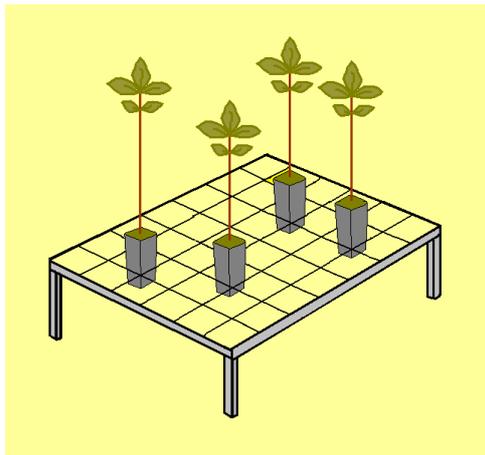
What areas are most suitable for long stem planting?

- Along waterways that are prone to flooding.
- Forests where ongoing maintenance is difficult.
- Stabilising sand dunes.
- Areas of high salinity.
- Areas affected by severe frosts.
- Landscaping on slopes and exposed sites.
- Areas of high wind.



What type of vegetation is suitable?

- Native species with firm bark that will produce a long stem.
- Trees and large shrubs.



Growing notes

Pots and racks

Forestry tubes are best, use only square cornered tubes with ridges down the inside of the tube. A larger forestry tube 6.5cm may be needed for plants with very large leaves. Place the pots on racks off the ground to allow for air pruning.

Using this method the plant does not become root bound in the tube.

Preparing pots for seedlings

- Use a good open potting mix, add micro max trace elements at the rate of 5mls per 7.5 litres of potting mix. **MIX THOROUGHLY.**
- Approximately half fill the tube with potting mix, depending on the length of the roots of each seedling.

- Make a well in the mix with a 1.5mm thick pen or stick. The nutrients are placed in this well using ½ teaspoon 8-9 months slow release fertilizer and ¼ teaspoon 5-6 months slow release fertiliser.
- Place the plant in the pot and fill with potting mix, tapping the bottom of the pot to settle the soil. Never push the soil down with your fingers as you may damage the fine roots. Place the tubes in the rack and water gently.
- ***DON'T FORGET TO LABEL YOUR PLANTS.***

Nursery

- Regular watering is needed.
- Rotate the plants regularly to ensure that each one gets its share of water and light.
- Plants are ready for planting out when approximately 1 metre tall.
- 'Harden off' plants grown in a shade house by placing them in an open position for 1-2 weeks before planting.
- Tube stock must be thoroughly soaked in water before taking them out of the tube to plant.

Planting

- Tools needed are a post-hole digger, soil sampler, auger or long handled shovel.
- The depth of the hole is determined by the height of the plant.
- Roughen the edges of the hole if it has been made smooth by power driven tools.
- Fill the hole with water and allow to drain away. Place the plant in the hole leaving about ⅓ of the foliage above the ground.
- Backfill the hole carefully to make sure that no air pockets are left in the hole.
- Water in well and make a 'dish' in the surface of the soil to catch rain water. No further watering is needed.

Tell us about your results

Home gardeners and bush care groups can benefit from using long stem planting.

Tell us about your results or if you have any questions.

Write to P.O. Box 1604, Gosford. 2250

Produced by the Australian Plants Society, Central Coast Group in conjunction with Gosford City Council and Wyong City Council.