

First, the terminal shoots on all branches are pruned off. In four to six weeks time, on each branch the first axillary shoot back down the branch will emerge and a root will develop from axillary shoot. When this root is at least ¼" long the cutting can be taken with approximately 1 inch of original stem above and below the axil.

The cuttings are planted vertically with the bottom segment of the stem and the axil below soil level, and the shoot and the top segment of the old stem above soil level.

Plants are set into loose, well aerated, potting mix and watered regularly until established in six to eight weeks. Do not allow them to dry out.

Four to six weeks after taking the first cutting the next set of axillary buds down the branches will have developed, with the associated roots, and may be cut and planted. The process may be repeated every four to six weeks until eventually there is very little stock plant left. The stock plants may then be left for 12 to 18 months to regenerate.

Impatience is always rewarded with failure. Buds must not be cut until the root has definitely developed to at least ¼", and they need to remain on the plants as terminal buds for at least four to six weeks to initiate this root development.

We have tried most of the possible hormone and nutrient combinations to artificially induce shoot and root development, but to no avail. The system requires time, patience and lots of clean stock plants.

WHY I CAN'T GROW *TEMPLETONIA RETUSA* BUT CAN GROW *BANKSIAS*

ADRIAN G. BOWDEN

Adrian's Nursery

Thomas St , Jandakot, Western Australia

The title of this paper will become clear to you as we proceed. Firstly, *Templetonia retusa* is a very hardy shrub that does best in an exposed position and high alkaline soils; it is known to grown in soils at pH 8.5. It actually does best growing in broken limestone. As I am not about to use that as a soil mix, we then come to the other problems. The water that is used by our nursery has a pH of 5.5 and 13 grains per gallon total dissolved salts, contains hydrogen sulphide gas, and looks like gingerale. Coupled with a well-drained soil mix and excessive summer temperatures necessitating watering up to 3 times a day, you can see what is going to occur when one decides to grow a plant that is on the opposite end of the pH scale, compared to the

water. Definitely not a "dollar plant" under our conditions. Not impossible to grow, but highly unprofitable.

However, on the other hand, we grow a number of banksia's, approximately 25 species, and we can manage to do them very well. Our soil mix is made up of 6 parts sand and 4 parts Jarrah sawdust, making sure that the resulting mix is well drained and on the sandy side.

To the basic mix we add:

- 3lb per cubic yard — 9 mth Osmocote.
- 2lb per cubic yard — I.B.D.U. 31% N.
- 1lb per cubic yard — ferrous sulphate
- 3lb per cubic yard — dried blood.
- 2lb per cubic yard — fine ground limestone.

The whole lot is mixed in a concrete mixer for 5 to 10 minutes, and then the pots are filled by machine. Currently we are doing about 25,000 banksias per year. The filled trays of pots are placed outside under sprinklers on a 3" layer of 1/2" slag. The seeds are then pressed into the surface soil and covered about twice their own thickness. Timing of the planting is when the winter rains are around — in Perth you have to be quick or you can miss them. May until September we find is OK; the plants reached a saleable size by February or March. Supplementary feeding is by I.B.D.U. as a top dressing if they need it and, once a month, with liquid feed through the sprinklers using N150-P30-K70-Mg20.

PROPAGATION OF AVOCADOS IN SUB-TROPICAL COASTAL REGIONS OF QUEENSLAND AND NEW SOUTH WALES

JOHN V. POHLMAN

Redbank Creek
Queensland 4343.

The avocado (*Persea americana* Mill.), family Lauraceae, is a native of Central America and the West Indies. The avocado industry commenced in America about 1910. Prior to this it was only known as a backyard fruit. There are records in Queensland of two trees being planted at Buderim Mountain in 1908. Both trees bore fruit. A few Queensland growers planted trees around 1920 and attempted to market the fruit. I say attempted, because fruit had to be given away to get people to eat them. These early plantings consisted of seedling trees and were established in North Queensland and in the coastal regions of South Queensland.

There are three horticultural races of avocados, namely