

## PROPAGATION OF *DIEFFENBACHIA* BY NODE CUTTINGS

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Importing mature *Dieffenbachia* plants from Northern Australia to Victoria was not a profitable operation as the plants arrived in a soft condition and were affected by *Rhizoctonia* and bacterial leaf spot. So I decided to propagate and grow them myself.

I took tip cuttings from healthy plants, making the cuttings as short as possible, 1½" to 2" of stem, with the leaves about 6" to 9" long. All cuttings were dipped in a solution of 83% Captan fungicide at the rate of 1.25 grams in 10 litres of water. I left the cuttings in the solution for two minutes, stirring them gently to avoid bruising.

Cuttings were then lifted out and left to drain for a few minutes; the cut ends were then dried with paper towelling and dipped in Seradix No. 1 cutting powder with 3% Captan fungicide.

I then put the cuttings into individual 2" tubes using a propagating mixture of 50% perlite and 50% German peat moss. As soon as the cuttings rooted, they were potted into 4" plastic pots, using a very open potting mix, namely:

For 1 cu yd, 5 parts pine bark, 2 parts coarse sand, 2 parts ligna peat (brown coal), and 1 part peat loam, plus, as fertilizer:

7 lbs 8 to 9 month Nutricote, 3½ lbs 4 to 5 month Nutricote, 3 lbs gypsum, 3 lbs dolomite lime, and 1½ lbs Micromax.

As soon as the roots reached the side of the 4" pot, I potted 6 plants into one 12" tub, and then grew them on to about 3 ft high. From here I took the tip cuttings to grow more stock plants, using the same method as before.

I then took the stems and cut them into single nodes with a bud on each; nodes were about 1½" to 2" in length. The cuttings were washed in a Captan solution as before and dried; each cut end was powdered with 83% wettable powder Captan. By so doing, I found the cuttings had no rot at all.

Cuttings were placed approximately 50 to a plastic tray, depending on size, into styrene foam chips (Isolite) with each bud facing upwards; cuttings were just covered and placed on bottom heat at 65°F.

As soon as cuttings started to grow and root, liquid feeding was commenced. When the shoots were 3" to 4" long, I cut

them off the node, leaving two base rings on the node. This is where the next lot of cuttings came from — in many cases two cuttings were obtained from each node. This process was repeated each time the cuttings were 3" to 4" long. I have been using the same trays of node cuttings for two years, still without disease.

All cuttings taken from the nodes are rooted individually in 2" tubes in 50% perlite and 50% peat moss; from here they are potted into a 4" pot and then into a 7" pot, being sold when approximately 1 ft high.

All stock plants and cuttings, etc are sprayed every 14 days for fungus and insects. I use the following fungicides and insecticides.

Captan, 83% wettable powder at the rate of 125 grams per 100 litres water for fungus, also Rovral at the rate of 100 grams to 100 litres water, Matical at the rate of 1½ ozs to 9 gallons water for mealy bug, and malathion 50 for aphids, mixing 5 mls in 3 litres water

By the method outlined above, a large area of stock plants is not required. Sixteen trays of nodes are used to produce 1200 plants yearly.

## **PROPAGATION OF *DAPHNE ODORA***

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Kenny Lane Nurseries specialise in the wholesale production of rhododendrons, camellias, azaleas, conifers, and daphnes. Approximately 10% of the total cutting production is in daphnes. This represents an annual production of 50,000 daphne cuttings per year. Of these 20,000 are grown-on at the nursery and the remainder are distributed to other wholesalers.

The stock plants are grown in a red clay loam soil at the nursery at a spacing of 1 foot between the rows and the plants. This is now thought to be inadequate; ideally the spacing should be 2 ft in each case. The stock plants are fertilized each spring with Nitrophoska "slow release" (15·4·12) which is broadcast around the plants at the rate of 1 kg per 4 square metres. In summer the plants are given a further dressing of sodium nitrate at the same rate.

The first cuttings are normally taken at the beginning of December (early summer) according to their hardness. Most of