



SUNTEC HYDROPONIC CONSULTANTS

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CLONEX MIST TRIAL No. 2 (Mist treatments without Clonex rooting gel)

Aim: To compare 5 mist treatments against an untreated control (water mist) for general performance, vigour, health of cuttings and root formation to determine the most efficacious formulation. This trial is without the application of Clonex rooting gel to the stem cuttings.

Methods;

Treatments consisted of 5 mist formulations labeled 1, 2, 3, 4, 5 and control (water mist)
Species tested: *Ficus benjamina* (weeping fig) and *Dianthus* (cultivar 'Counterpart')

On 18 April 12 cuttings of *Dianthus* and 11 of *Ficus* were prepared for each treatment. Each treatment was isolated from the others and misted to run off with the labeled Clonex mist solutions. All cuttings were placed into a heated propagation unit and covered with frost cloth to maintain humidity. Cuttings were misted daily with the assigned clonex misting treatments and monitored for colour, turgor and overall health.

On 11 May 2012, all cuttings were assessed for root formation, shoot health and foliage colour. The number of rooted vs unrooted cuttings were recorded and photographs taken.



RESULTS

Observations

19 April – no visible differences

22 April – no visible differences

26 April – Ficus no visible differences, Dianthus – treatment 3 has slight wilt.

30 April – Dianthus, best treatments are 2 and 5,
Ficus no difference, however small roots have formed on most treatments.

6 May – Dianthus, best treatment is 5, followed by 1, worst is 3 (yellowing)
Ficus – Best is 5, 2, worst is 4 with loss of colour, pale and slight leaf browning.

RESULTS - Final Assessment (day 25)

1. *Dianthus*

Appearance of cutting foliage:

Dianthus ranking from best to worst - foliage

Treatment	Comments
5	Green, healthy, turgid with slight regrowth
1	Green and healthy some slight browning of older leaves
2	Slightly paler colour, some older leaf die back
Control	Some cuttings paler
4	Some cuttings paler and grayish with brown older leaves
3	Many cuttings withered to some degree, some dieback.

Dianthus root formation – from best to worst

Treatment	Comments – number of rooted cuttings out of 12
5	Cuttings rooted 9. Average root length 8-10mm, plentiful roots
1	Cuttings rooted 8. Average root length 8-10mm, roots healthy but sparse
2	Cuttings rooted 7. Average root length 7-8mm, 4-5 roots per cutting
Control	Cuttings rooted 7. Average root length 8-10mm, sparse roots brownish
3	Cuttings rooted 4. Average root length 1-3 mm, thin and brown, sparse
4	Cuttings rooted 4. Average root length 1-2 mm thin, brown, short/sparse

2. *Ficus*

Appearance of cutting foliage;

Ficus ranking from best to worst – foliage

Treatment	Comments
5	Darkest green, no leaf drop, healthiest looking cuttings
2	Dark green, no foliage lost
1	Some slight loss of green colouration, no leaves lost
Control	Paler colour, one dead stem, 5+ leaves lost
3	Dull green, 5+ leaves lost, some dark spots on foliage
4	Pale green on top leaves, leaves lost, brown spots.

Ficus root formation – from best to worst

Treatment	Comments – number of rooted cuttings out of 11		
	Rooted	Average root number	Average root length*
5	11	5.27	30-35mm
2	11	5.18	20-25 mm
3	11	4.18	35 mm
1	11	3	20-25 mm
4	11	4.73	10-25 mm
Control	8	2.55	20 mm

- Note – all roots on ficus cuttings were extremely brittle and fragile with many breaking during extraction and remaining in the rockwool propagation medium.

PHOTOGRAPHS





PHOTOGRAPHS – FICUS



Photographs – Dianthus



