



SUNTEC HYDROPONIC CONSULTANTS

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CLONEX MIST TRIAL

Aim: To compare 5 mist treatments (Clonex) against an untreated control (water mist) for general performance, vigour, health of cuttings and root formation to determine the most efficacious formulation.

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 19 April 12 cuttings of *Dianthus* and 11 of *Ficus* were prepared for each treatment. All cuttings were treated with Clonex rooting gel before being placed into pre soaked rockwool (Grodan) rooting medium. 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 10 April 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

21 March – no visible differences
24 March – control treatment has slight yellowing on lower dianthus leaves
26 March – control slight wilting, all other treatments similar
28 March – treatments similar
30 March – Treatment 3 slight yellowing on ficus
1 April – First roots seen on Ficus in treatment 5 and 4.
3 April – Control ficus dropping some leaves, treatment 5 ficus darkest green
5 April – Treatment 3 ficus becoming paler and yellowed,
7 April – treatment 2 dianthus showing wilting on some cuttings
9 April – Most dianthus have roots, some dead cuttings in treatments 1, 2, 3 noted. Dead cuttings in control ficus (4) noted (defoliated cuttings)

RESULTS - Final Assessment

1. *Dianthus*

Appearance of cutting foliage:

Dianthus ranking from best to worst - foliage

Treatment	Comments
4 & 5 equal	Green, healthy, turgid with slight regrowth
3	Very slight yellowing and paler lower leaves on some cuttings
Control	Pale colour, but healthy no wilting
1	Some yellowing of lower leaves and slight wilt on a few cuttings
2	Greater yellowing and some loss of lower leaves, not as bright and turgid.

Dianthus root formation – from best to worst

Treatment	Comments – number of rooted cuttings out of 12
5	Cuttings rooted 11. Average root length 8-10mm, plentiful roots
4	Cuttings rooted 10. Average root length 8-10 mm, plentiful roots
1	Cuttings rooted 8. Average root length 6-8 mm, stubbier roots
3	Cuttings rooted 8. Average root length 5 mm, sparse
Control	Cuttings rooted 8. Average root length 5 mm, sparse
2	Cuttings rooted 8. Average root length 3-4 mm, 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
4 & 1 equal	Medium green, no leaves lost, reasonable healthy
2	Some loss of greenness, 3 leaves lost
3	Lighter green more noticeable, 4 leaves lost
Control	Pale colour, many leaves dropped, some dead cuttings.

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	27.7	18-20 mm
1	11	27.4	15-18 mm
3	11	24	15-18 mm
2	9	19.7	15-18 mm
4	7	13.9	12-14 mm
Control	7	10.8	12-14 mm



PHOTOGRAPHS



Photographs – Dianthus



PHOTOGRAPHS – FICUS



