



# Floresta™

## Technical Pages

# AGLAONEMA

## PROPAGATION TIPS



Flowering time

All year round



Width

(12 - 20")  
30 - 51cm



Height

(12" - 24")  
30 - 61cm

- A high humidity is suggested to keep leaves from falling during propagation. 80-90%
- Cuttings should be sprayed to prevent Erwinia
- Temp.- high temperature of 77-86F to speed rooting (25° - 30°C)
- Calcium sprays are useful for increasing leaf thickness and strength
- IBA rate of 500ppm suggested to encourage rooting

Average Time	Temperature	Radiation	Humidity Level	Fungicide
6 weeks	Weeks 1 - 2 77°-86° F (25° - 30°C)	1000-2500 fc	80-90%	Spray fungicide to control Botrytis and bacteria day of sticking

**Irrigation specification** – Keep humidity high to maintain leaf turgidity, but avoid leaves staying wet as this can lead to spotting

Too high of light causes upright growth and pale leaves

Rooting	pH	EC	Temp	Feed	Light (fc)	PGR	Fungicide	Comments
Week 1	5.8 / 6.0	0.80	76/ 80 F	50 ppm N in mist	1000-2000		Day of sticking	Erwinia
Week 2	5.8 to 6.0	.80 to .90	76/ 80 F	50 ppm N in mist	1000-2000		Second fungicide app	Water Molds
Week 3	5.8 to 6.0	.90 to 1.0	76/84 F	Feed 100 ppm to 150 ppm	1000-2000			
Week 4 to TP	5.8 to 6.0	1.0 to 1.2	76/84F	feed 150 to 200 ppm	1000-2500			

## FINISHING TIPS

- A relatively high level of humidity is required - 50-70 % for optimal growth
- Radiation – 1500fc-2500fc is ideal, but intensity can go up to 3500fc
- If the light intensity is too high, then leaves will become paler
- Despite their slow rate of growth, Aglaonema requires higher rates of fertilizer. Try to maintain EC between 1.5-2.0
- Calcium sprays are suggested to maintain leaf strength
- Aglaonema are monocots and sensitive to fluoride and chloride tip burn. pH can be raised to help prevent damage

Average Time (from liners)	Temperature	Pinch/ Day length Modification	Fertility	Plant Growth Regulator
24 to 30 wks 3 plants per pot (12 cm) 5" pot	Average Day 77° to 86°F (25° to 30°C)	Not Required	Soil EC 1.5 – 2.0 pH 5.5 to 6.5	
30 to 40 wks 3 plants per pot (20 cm) 8"				

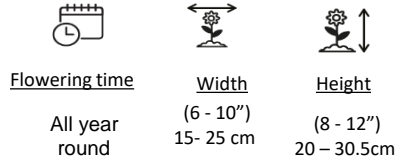
<b>Pests</b>	Mealybugs	
	Aphids	
<b>Diseases</b>	Erwinia	Moisture control is best prevention
	Water Molds	Group 1 Fungicides
	Fusarium	

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
<b>Transplant to Finish</b>	5.5 to 6.5	1.5 to 2.0	70 to 85 f	feed 150 to 200 ppm	1500-3500fc		Drench to prevent water molds	
			Min of 60F				Watch for Erwinia	Moisture control is best Erwinia Prevention

# APHELANDRA

## PROPAGATION TIPS

- IBA spray of 100ppm is beneficial to speed rooting
- Radiation – 1000-2500fc
- Media – an aerated media
- Flowers should be manually removed if occurring in propagation.



Average Time	Temperature	Radiation	Humidity Level	Fungicide
4 to 6 weeks	70°-80° F (21 to 26.7C)	1500fc	50-70%	Spray fungicide to control Botrytis and bacteria day of sticking
	Maintain above 60F (15.5C)			



**Irrigation specification** - Remove from mist as soon as possible



Light- Levels above 3000fc can result in deformed leaves of Dania.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide
Week 1	5.5 / 6.0	0.80	75F / 24 C	50 ppm N in mist			Day of sticking
Week 2	5.5 to 6.0	.80 to .90	75F / 24 C	50 ppm N in mist			Second fungicide app
Week 3	5.5 to 6.0	.90 to 1.0	75F / 24 C	Feed 100 ppm to 150 ppm			
Week 4	5.5 to 6.0	1.0 to 1.2	75F / 24 C	feed 100 to 150 ppm		A-rest 0.5mg a.i. if stretch occurs	

## FINISHING TIPS

- The most important aspects of Aphelandra production are light and moisture control
- Blanca Nieves is much more sensitive to high light than Dania and care should be taken during summer production to avoid deformed leaves
- If plants are allowed to dry down, then leaf drop is likely to occur
- Temperatures below 60F (15.5C) result in deformed leaves

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertility	Plant Growth Regulator
10 to 12 wks 1 plant per pot (12 cm) 5" pot	Average Day 70° to 80°F (21 to 26.7C)	Pinch –Can be pinched if plants become stretched	Soil EC 1.5 - 2.0 pH 5.5 to 6.0	A-rest at 0.5 mg a.i.
12 to 14 wks 1 plant per pot (15 cm) 6 ½"	Avoid temperatures below 60F	Night interruption or extended day- Not Needed	Leaf drop can occur if EC becomes too high	

<b>Pests</b>	Aphids	Avoid Spirotetramat due to risk of Phytotoxicity
	Fungus Gnats	Bacillus thuringiensis or Azadiracthin
<b>Diseases</b>	Botrytis	Group 7/11
	Phytophthora	Group 4
	Pythium	Group 4

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
	5.7 to 6.0	1.0 to 1.2	70 to 80F (21 to 26.7 C)	feed 100 to 150 ppm	Day Neutral		Spray fungicide after transplant	

# BEGONIA TROPICAL

## PROPAGATION TIPS

- A relatively high level of humidity is required - 60-90 % for optimal growth
- Best rooting success comes from ambient humidity being as high as possible, so minimal overhead mist is required
- Leaf cuttings need to be stuck so the leaf is making contact with the soil.
- Leaf cuttings root out of Axil
- Tip cuttings root out of the bottom of the stem
- Temp.- high temperature of 77-86F (25 to 30C)
- Media – an aerated media



All year round



(10 - 20")  
25 to 50cm



(10 - 24")  
25 to 61 cm

Average Time	Temperature	Radiation	Humidity Level	Fungicide
6 to 8 weeks	Weeks 1 - 4 77°-86° F (25° - 30°C)	60-70%	70-90%	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 4-TP 70-76F (21 to 24.4C)	60-70%	60-80%	

Rooting	pH	EC	Temp	Feed	PGR	Fungicide
Week 1	5.8 / 6.0	0.80	77 / 80 F	50 ppm N in mist		Day of sticking
Week 2	5.8 to 6.0	.80 to .90	77 / 80 F	50 ppm N in mist		Second fungicide app
Week 3	5.8 to 6.0	.90 to 1.0	70 / 75 F	Feed 100 ppm to 150 ppm		
Week 4 to TP	5.8 to 6.0	1.0 to 1.2	70/75 68 F	feed 100 to 150 ppm	Daminozide as needed	

## FINISHING TIPS

- A relatively high level of humidity is required - 50-70 % for optimal growth
- Radiation – shading net of 500-1500 f(in summer)
- Too intense of light will stunt growth
- Optimal temperature of 77F-86F (25-30 Celsius) is best
- Maculata and Pink spot can be pinched if stretch occurs

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertility	Plant Growth Regulator
8 to 10 wks 1 plant per (12 cm) 5" pot	Average Day 77° to 86°F (25° to 30°C)	Night interruption or extended day- Not needed	Soil EC 1.0 – 2.0 pH 5.5 to 6.0	2500 B9 to slow growth if needed
10 to 14 3 plants per (20 cm) 8"	Temperature is primary factor driving begonia growth		Soil EC 1.0 - 1.2 pH 5.8 to 6.2	

<b>Pests</b>	Aphids	Grower Choice
	Spider Mites	Grower Choice
<b>Diseases</b>	Pythium	Group 4
	Phytophthora	Group 4
	Powdery Mildew	Group 3

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide
<b>Summer and Winter</b>	5.8 to 6.2	1.0 to 2.0	77F to 86F (25 to 30C)	feed 100 to 150 ppm	Day Neutral	2500B9 to hold	Spray fungicide after transplant

# CALATHEA

## PROPAGATION TIPS

- A relatively high level of humidity is required 60-80 % for optimal growth
- Radiation – 500 to 1500 fc
- Temp.- 70 to 80F (21 to 26.7C) is ideal
- Media – an aerated media
- Sensitive to Fluoride and Chloride Tip Burn



Flowering time

All year round



Width

(8 - 20")  
20- 51 cm



Height

(14 - 30")  
36 - 76 cm

Average Time	Temperature	Radiation	Humidity Level	Fungicide
6 weeks	70°-80° F (21° - 26.7°C)	1000 fc	60-80%	Spray fungicide to control Botrytis and bacteria day of sticking

**Irrigation specification –**  
Avoid excess moisture going into the night to avoid leaf spotting

Rooting	pH	EC	Temp	Feed	Light	Fungicide	Comments
Week 1	5.5 / 6.5	0.80	75F / 24C	50 ppm N in mist	500fc	Day of sticking	Bacteria
Week 2	5.5 to 6.5	.80 to .90	72 / 74 F	50 ppm N in mist	500fc	Second fungicide app	Leaf Spot
Week 3	5.5 to 6.5	.90 to 1.0	72 / 74 F	50ppm N in mist	750fc		
Week 4 to TP	5.5 to 6.5	1.0 to 1.2		feed 100 to 150 ppm	1000fc		

## FINISHING TIPS

- A relatively high level of humidity is required - 50-70 % for optimal growth
- Radiation – 1000 to 1500 fc. Growing in lower conditions reduces chance of stress and results in better crop for consumer
- Optimal temperature of 77F-86F (25-30 Celsius) is best
- Calathea is sensitive to Fluoride tip burn. Avoid using water containing fluoride and maintain a higher pH to reduce uptake
- Avoid fertilizer resting on leaves as this can lead to spotting
- Maintain moisture at a 3 or 4 out of 5. Dry down will result in leaf burn
- Less than ideal growing conditions, especially improper temperature and fertility will result in leaf burn on Calathea

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertility	Plant Growth Regulator
12 wks (12 cm) 1 plant per 5" pot	Average Day 77° to 86°F (25° to 30°C)	Not Needed	Soil EC 1.0 - 1.5 pH 5.5 to 6.0	Not needed
14 to 16 wks (15 cm) 1 plant per 6 1/2"	Avoid below 50F (10C)			


Pests	Diseases
Spider Mites	Botrytis
Mealy Bugs	Pythium
Avoid Chlorfenapyr due to risk of phytotoxicity	Chlorothalonil
Avoid Spirotetramat due to risk of Phytotoxicity	Mefenoxam


Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1 to 10	5.7 to 6.0	1.0 to 1.2	65 to 68 f	feed 100 ppm	Day Neutral	Not Required		
Week 10 to finish	5.7 to 6.5	1.0 to 1.2	65 to 68 f	feed 100 to 125 ppm	Not Required	Not Required		

# CHLOROPHYTUM

## PROPAGATION TIPS

- Spider Plants are most commonly directly stuck into the finished pot
- May require light misting during first few days if light and temperatures are high
- Number of cuttings per pot 5 inches (12cm) : 1 to 3
- Number of cuttings per 8-inch (20cm): 3 to 5
- Sensitive to Fluoride and Chloride

  
Flowering time  
 Long days encourage Pup production

  
Width  
 (12 - 24")  
 30 - 61 cm

  
Height  
 (12 - 24")  
 30 - 61 cm

Average Time	Temperature	Radiation	Humidity Level	Fungicide
3 weeks in tray	70°-80° F (21 to 26.7C)	500-3500Fc	50-70%	Relatively disease free. Leaf drop may occur due to excess moisture
		Lower light preferred in prop		

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 / 6.0	0.80	72 / 74 F	50 ppm N in mist			Day of sticking	
Week 2	5.8 to 6.0	.80 to .90	72 / 74 F	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.0	.90 to 1.0	Cool to 70 – 68 F	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.0	1.0 to 1.2	65 to 68 F	feed 100 to 150 ppm				

## FINISHING TIPS

- Radiation—Plants can handle higher light intensities but must be properly adjusted. If the average intensity increases more than 1000fc within one week, red burning can occur.
- Burn from light appears as red streaks on white variegation
- Burn from fluoride or chloride appears on the tips of leaves
- Optimal temperature of 70F-80F (21 to 26.7C) is best

Average Time (Direct Stick)	Temperature	Pinch/ Daylength Modification	Fertility	Plant Growth Regulator
10 wks 1 plant per (12 cm) 5" pot	Average Day 70° to 80°F (21 to 26.7C)	Long days encourage upright growth. Short days result in downward leaves	Soil EC 1.5- 2.0 pH 5.5 to 6.0	Moisture management is best PGR for spiders.
12 weeks 5 plant per (20 cm) 8"			pH can be raised to reduce fluoride toxicity	

Pests	Diseases	Comments
Spider Mites		Low risk of phytotoxicity to various products
Aphids		Low risk of phytotoxicity to various products
Pythium		Spider Plants rarely develop disease
Tip Burn		Fluoride Toxicity
Margin Burn		Light is too intense

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Direct Stick Week 1 to 4	5.7 to 6.0	1.0 to 1.2	70 to 75 f	feed 100 to 150 ppm		Sprencn with KIBA at 100ppm		Mist occasionally to help rooting
Week 5 to Finish	5.7 to 6.0	1.5 to 2.0	75 to 80 f	feed 100 to 150 ppm	Not Required			

# CORDYLINE

## PROPAGATION TIPS

- Maintain high humidity in propagation to keep leaves from falling
- Attempt to minimize overhead mist to reduce leaf spotting
- Preventatively spray for Leaf Spots in propagation. Daconil, Group 3 (Eagle), and 7/11 (Mural, Pageant, etc.) make a good preventative rotation.
- Temp.- Try to maintain root zone temperature of at least 75F during rooting
- Media – an aerated media
- Number of cuttings per pot – 1 cutting for 4 inches and 3 cuttings for 6 inches and above



Flowering time

N/A



Width

(10 - 24")  
25-61cm



Height

(12 - 36")  
30 - 91cm

Average Time	Temperature	Radiation	Humidity Level	Fungicide
6 weeks	Weeks 1 - 2 77°-86° F (25° - 30°C)	3500 fc	50-70%	Spray fungicide to control leaf spot day of sticking

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 / 6.0	0.80	72 / 74 F	50 ppm N in mist	2500Fc		Day of sticking	Leaf Spot/Bacteria
Week 2	5.8 to 6.0	.80 to .90	72 / 74 F	50 ppm N in mist	2500 Fc		Second fungicide app	Leaf Spot, Different FRAC
Week 3	5.8 to 6.0	.90 to 1.0	72/74F	Feed 100 ppm to 150 ppm	3000			
Week 4 to TP	5.8 to 6.0	1.0 to 1.2	72/74F	feed 100 to 150 ppm	3500			

## FINISHING TIPS

- Cordyline is sensitive to Fluoride and Chloride tip burn. Use water with low levels of Fluoride or raise pH of media above 6.3 to reduce severity.
- Radiation – 3500 fc is ideal for Cordyline production. The lower the light levels get the less color the leaves will have.
- Color will also be decreased if night temperatures are too high. (Above 85F, 29.4C)
- Optimal temperature of 77F-86F (25-30 Celsius) is best but can be grown at temperatures ranging from 65F to 95F (18.3 to 35C)
- Regularly scout and preventatively spray for Spider Mites and Broad Mites
- Coffee Compacta and Chocolate Queen varieties make good options for small pot production

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertility	Plant Growth Regulator
7 to 8 wks (12 cm) 3 plants 5" pot	Average Day 77° to 86°F (25° to 30°C)	Night interruption or extended day- Not needed	Soil EC 1.5 – 2.0 pH 5.5 to 6.5	
8 to 10 (15 cm) 6 ½"	Finishing with lower temperature can increase color			
			Increase pH to reduce tip burn from Fluoride	

<b>Pests</b>	Spider Mites	Hide on underside center of leaves. Grower Choice for Spray
	Mealybugs	Grower Choice
<b>Diseases</b>	Leaf Spots	Phyllosticta, Fusarium, Phytophthora
	Erwinia	Moisture control is best prevention
	Southern Blight	Azoxystrobin

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
	5.5 to 6.5	1.5 to 2.0	70 to 80 f (21 to 26.7C)	feed 100 to 150 ppm	Day Neutral		Spray fungicide after transplant	Leaf spot most likely to occur in propagation. Avoid leaves being wet into night

# CTENANTHE

## PROPAGATION TIPS

- A relatively high level of humidity is required - 60-80 % for optimal growth
- Radiation – 500 to 1500 fc
- Temp.- 70 to 80F (21 to 26.7C) is ideal
- Media – an aerated media
- Sensitive to Fluoride and Chloride Tip Burn



Flowering time

All year round



Width

(8 - 20")  
20- 51 cm



Height

(14 - 30")  
36 - 76 cm

Average Time	Temperature	Radiation	Humidity Level	Fungicide
6 weeks	70°-80° F (21° - 26.7°C)	1000 fc	60-80%	Spray fungicide to control Botrytis and bacteria day of sticking



### Irrigation specification –

Avoid excess moisture going into the night to avoid leaf spotting

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 / 6.5	0.80	75F / 24C	50 ppm N in mist	500fc		Day of sticking	Bacteria
Week 2	5.5 to 6.5	.80 to .90	72 / 74 F	50 ppm N in mist	500fc		Second fungicide app	Leaf Spot
Week 3	5.5 to 6.5	.90 to 1.0	72 / 74 F	50ppm N in mist	750fc			
Week 4 to TP	5.5 to 6.5	1.0 to 1.2		feed 100 to 150 ppm	1000fc			

## FINISHING TIPS

- A relatively high level of humidity is required - 50-70 % for optimal growth
- Radiation – 1000 to 1500 fc. Growing in lower conditions reduces the chance of stress and results in better crops for consumer
- Optimal temperature of 77F-86F (25-30 Celsius) is best
- Ctenanthe is sensitive to Fluoride tip burn. Avoid using water containing fluoride and maintain a higher pH to reduce uptake
- Avoid fertilizer resting on leaves as this can lead to spotting
- Maintain moisture at a 3 or 4 out of 5. Dry down will result in leaf burn
- Less than ideal growing conditions, especially improper temperature and fertility will result in leaf burn on Ctenanthe

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertility	Plant Growth Regulator
12 wks (12 cm) 1 plant per 5" pot	Average Day 77° to 86°F (25° to 30°C)	Not Needed	Soil EC 1.0 - 1.5 pH 5.5 to 6.0	Not needed
14 to 16 wks (15 cm) 1 plant per 6 ½"	Avoid below 50F (10C)		pH can be raised to reduce risk of Fluoride toxicity	

Pests	Control
Spider Mites	Avoid Chlorfenapyr due to risk of phytotoxicity
Mealy Bugs	Avoid Spirotetramat due to risk of Phytotoxicity
Diseases	Control
Botrytis	Chlorothalonil
Pythium	Mefenoxam

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
<b>Week 1 to 10</b>	5.7 to 6.0	1.0 to 1.2	65 to 68 f	feed 100 ppm	Day Neutral	Not Required		
<b>Week 10 to finish</b>	5.7 to 6.5	1.0 to 1.2	65 to 68 f	feed 100 to 125 ppm	Not Required	Not Required		



# DIEFFENBACHIA

## PROPAGATION TIPS

- Keep ambient humidity high to maintain leaf turgidity. Avoid excess moisture resting on leaves
- Radiation – shading net of 80% (in summer)
- 1,500 to 3,000 fc is ideal
- Temp.- Can grow in a wide range. 75F to 80F (24C to 26.7C is ideal for propagation)
- Media – an aerated media
- IBA rate of 500ppm suggested to encourage rooting



Flowering time

Not grown  
For flower



Width

(10 - 24")  
25- 61 cm



Height

(20 - 48")  
51-117  
cm

Average Time	Temperature	Radiation	Humidity Level	Fungicide
6 weeks	75°-80° F (24° - 26.7°C)	1500 fc	50-70%	Copper fungicide for bacteria prevention
	Avoid temps below 60F (15.5C)	Above 3000fc can result in burn		Moisture control is also important

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 / 6.0	0.80	75F / 24C	50 ppm N in mist	1000fc		Day of sticking	Chlorothalonil/Copper
Week 2	5.5 to 6.0	.80 to .90	75F / 24C	50 ppm N in mist	1500fc		Second fungicide app	Group 7/11
Week 3	5.5 to 6.0	.90 to 1.0	75F / 24C	Feed 100 ppm to 150 ppm	1500fc			
Week 4 to TP	5.5 to 6.0	1.0 to 1.2	75F / 24C	feed 100 to 150 ppm	2000fc			

## FINISHING TIPS

- Plant in aerated media to avoid excess moisture. Dieffenbachia prefers to be grown dryer rather than wetter. (3 out of 5 on the moisture scale)
- Radiation – 1500fc to 3500fc results in best quality
- Optimal temperature of 75F-80F (24-26.7 Celsius) is best
- Crop is relatively carefree as long as moisture is properly controlled
- Preventative drench with Cyantraniliprole can help prevent aphids
- Excess salts result in downward curling leaves and leaf drop

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertility	Plant Growth Regulator
8 to 10 wks (12 cm) 1 plant per 5" pot	Average Day 75° to 80°F (24° to 26.7°C)	Pinch –Optional  Night interruption or extended day-Optional	Soil EC 1.0 - 1.5 pH 5.5 to 6.0  Sensitive to high salts	
8 to 10 wks (15 cm) 3 plants per 6 ½"	Can grow in temperatures from 60F to 95F (15.5C to 35C)			




<b>Pests</b>	Aphids	Cyantraniliprole Drench, Many spray options
	Mealy Bugs	Flupyradaifurone
<b>Diseases</b>	Erwinia	Avoiding too much moisture is best prevention
	Xanthomonas	Copper
	Fungal Leaf Spots	Group 3 Triazoles

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
<b>Summer</b>	5.5 to 6.0	1.0 to 1.5	Avoid above 95F	feed 100 to 150 ppm	Shade if above 3500fc		Copper	Increase humidity if temperatures are high
<b>Winter</b>	5.5 to 6.0	1.0 to 1.2	Avoid below 60F	feed 100 to 125 ppm	Supplement if below 1000fc		Copper	Avoid prolonged periods of media wetness

# FITTONIA


## PROPAGATION TIPS

- A relatively high level of humidity is preferred - 60-80 % for optimal growth
- Too high of light will stunt the plant and increase rooting time
- Low rates of IBA (100 ppm) can be beneficial to speed rooting

 <u>Flowering time</u>	 <u>Width</u>	 <u>Height</u>
May flower under Long days	6-12" (15 to 30cm)	3-8" (7.5 to 18cm)

Average Time	Temperature	Radiation	Humidity Level	Fungicide
4 to 6 weeks	Weeks 1 - 2 77°-86° F (25° - 30°C)	60-70%	60-80%	Spray fungicide to control Botrytis and bacteria day of sticking
				Xanthomonas can occur if leaves are kept consistently wet

 **Irrigation specification** – Fittonia prefers to be kept moist

 Fittonia are sensitive to ethylene and should be stuck as soon as possible

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 / 6.0	0.80	77F/25C	50 ppm N in mist	500-1500		Day of sticking	
Week 2	5.8 to 6.0	.80 to .90	77F/25C	50 ppm N in mist	500-1500		Second fungicide app	
Week 3	5.8 to 6.0	.90 to 1.0	77F/25C	Feed 100 ppm to 125 ppm	500-2000			
Week 4 to TP	5.8 to 6.0	1.0 to 1.2	77F/25C	feed 100 to 125 ppm	500-2500			

## FINISHING TIPS

- A relatively high level of humidity is required - 50-70% for optimal growth
- Radiation – Too intense of light will stunt growth
- Optimal temperature of 70F-86F is best
- Temperatures Below 70F greatly increase crop time
- Too high of temperatures (Above 90F) will reduce color

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertility	Plant Growth Regulator
8 wks	Average Day	Pinch –Not needed Night interruption or extended day-Optional	Soil EC 1.0 - 1.5 pH 5.5 to 6.0	10ppm Fascination spray can be used if plants are stunted from too much light. Rates should be trialed
5 plants per 4" (10 cm) pot	70° to 75°F (21.1 to 24C)			
10wks	Avoid below 60F (15.5C)	Soil EC 1.0 - 1.5 pH 5.5 to 6.0		
5 plants per 5" (12cm) pot				

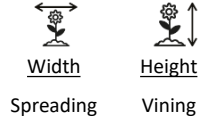
Pests	Aphids	Growers Choice
	Fungus Gnats	Bti or Azadirachtin
Diseases	Rhizoctonia	Group 12
	Xanthomonas	Copper

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
4" Pot (10cm)	5.5 to 6.0	1.0 to 1.5	70 to 75 f (21.1 to 24C)	feed 100 to 150 ppm	1500 fc	Fascination if stunting occurs		Keep moist to speed growth


# IVY (HEDERA)

## PROPAGATION TIPS

- Cuttings can be double, or triple-stuck into 50 or 72 cells to increase the fullness of the finished pot
- Radiation –1500 to 2500 fc in propagation  
Temp - high temperature of 77-86F (25c to 30c) speeds rooting
- Media – an aerated media
- Sprech of 100 ppm KIBA speeds rooting
- Cuttings can be dipped in 26 oz/100 gallons of Quaternary ammonium to reduce the risk of bacterial leaf spots during rooting



Average Time	Temperature	Radiation	Humidity Level	Fungicide
5 weeks	77°-86° F (25° - 30°C)	60-70%	50-70%	Spray fungicide to control Botrytis and bacteria day of sticking

 **Irrigation specification** - Remove from mist as soon as possible to reduce chance of bacterial leaf spot

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 / 6.0	0.80	77F / 25C F	50 ppm N in mist			Day of sticking	
Week 2	5.8 to 6.0	.80 to .90	77F / 25C F	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.0	.90 to 1.0	77F / 25C F	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.0	1.0 to 1.2	77F / 25C F	feed 100 to 150 ppm				

## FINISHING TIPS

- The biggest issue during production of Hedera is spider mites and broad mites
- Excess moisture and humidity will result in bacterial leaf spots. Reduce the risk of splashing water if BLS is present
- Radiation – shading net of 1500 to 3000 fc
- Levels below 1000 fc can result in loss of variegation
- Optimal temperature of 77F-86F (25-30 Celsius) is best
- Pinch is optional but will increase branching

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertility	Plant Growth Regulator
7 to 8 wks (12 cm) 3 plugs per 5" pot	Average Day 77° to 86°F (25° to 30°C)	Pinch – Optional to increase branching	Soil EC 1.0 - 1.2 pH 5.5 to 6.0	2500 Daminozide+500 Ethephon to increase branching and reduce internode length
12 to 14 wks (20 cm) 5 plugs per 8"	Temp can be reduced to 60F (15.5F) to slow growth		Soil EC 1.0 – 2.0 pH 5.5 to 6.0	

Pests	Spider Mites	Begin rotation early in production to reduce pressure
	Broad Mites	
Diseases	Bacterial Leaf Spot	Reduce moisture on leaves. Copper Sprays  Group 7/11
	Rhizoctonia	
	Botrytis	


# MARANTA

## PROPAGATION TIPS


- A relatively high level of humidity is required 60-80 % for optimal growth
- Radiation – 500 to 1500 fc
- Temp.- 70 to 80F (21 to 26.7C) is ideal
- Media – an aerated media
- Sensitive to Fluoride and Chloride Tip Burn

  
Flowering time  
All year round

  
Width  
(14 - 30")  
36 - 76 cm

  
Height  
(8 - 20")  
20- 51 cm

Average Time	Temperature	Radiation	Humidity Level	Fungicide
6 weeks	70°-80° F (21° - 26.7°C)	1000 fc	60-80%	Spray fungicide to control Botrytis and bacteria day of sticking

 Irrigation specification – Avoid excess moisture going into night to avoid leaf spotting

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 / 6.5	0.80	75F / 24C	50 ppm N in mist	500fc		Day of sticking	Bacteria
Week 2	5.5 to 6.5	.80 to .90	72 / 74 F	50 ppm N in mist	500fc		Second fungicide app	Leaf Spot
Week 3	5.5 to 6.5	.90 to 1.0	72 / 74 F	50ppm N in mist	750fc			
Week 4 to TP	5.5 to 6.5	1.0 to 1.2		feed 100 to 150 ppm	1000fc			

## FINISHING TIPS

- A relatively high level of humidity is required - 50-70 % for optimal growth
- Radiation – 1000 to 1500 fc. Growing in lower conditions reduces the chance of stress and results in better crops for consumer
- Optimal temperature of 77F-86F (25-30 Celsius) is best
- Maranta is sensitive to Fluoride tip burn. Avoid using water containing fluoride and maintain a higher pH to reduce uptake
- Avoid fertilizer resting on leaves as this can lead to spotting
- Maintain moisture at a 3 or 4 out of 5. Dry down will result in leaf burn

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertility	Plant Growth Regulator
12 wks (12 cm) 1 plant per 5" pot	Average Day 77° to 86°F (25° to 30°C)	Not Needed	Soil EC 1.0 - 1.5 pH 5.5 to 6.0	Not needed
16 to 20 wks (20 cm) 3 plants per 8 inch	Avoid below 50F (10C)		pH can be raised to reduce risk of Fluoride toxicity	

Pests	Spider Mites	Avoid Chlorfenapyr due to risk of phytotoxicity
	Mealy Bugs	Avoid Spirotetramat due to risk of Phytotoxicity
Diseases	Botrytis	Chlorothalonil
	Pythium	Mefenoxam


Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1 to 10	5.7 to 6.0	1.0 to 1.2	65 to 68 f	feed 100 ppm	Day Neutral	Not Required		
Week 10 to finish	5.7 to 6.5	1.0 to 1.2	65 to 68 f	feed 100 to 125 ppm	Not Required	Not Required		


# PEPEROMIA CAPERTA

## PROPAGATION TIPS

- Can be rooted with minimal mist, but don't allow it to fully dry
- Radiation – 1,000 to 2,000 fc
- Temp.- 65-85 F (18-29C). Cold Damage under 50F (10C)
- Media – an aerated media
- Number of cuttings per 50 cell or 72 cell – 1 cutting

Average Time	Temperature	Radiation	Humidity Level	Fungicide
4-6 weeks for tip cuttings	65°-85° F (18° - 29°C)	1000-2,000 fc	50-70%	Spray fungicide to control fungal and bacterial leaf spots
6-8 weeks for leaf cuttings				

 **Irrigation specification** - Remove from mist as soon as possible. Do not allow the medium to dry out fully.

 Too much overhead mist can result in leaf spot. Preventative sprays of fungicide in propagation are suggested

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.5	0.80	72 / 74 F	50 ppm N in mist			Day of sticking	
Week 2	5.6 to 6.5	.80 to .90	72 / 74 F	50 ppm N in mist			Second fungicide app	
Week 3	5.6 to 6.5	.80 to 1.0	70/74 F	Feed 100 ppm to 125 ppm				
Week 4	5.6 to 6.5	0.8 to 1.2	70 to 74 F	feed 100 to 125 ppm				



Flowering time  
May flower, but not known why



Width  
4-10"  
(10 to 25 cm)




Height  
6-12"  
(15 to 30 cm)

## FINISHING TIPS

- Grow on the dry side while avoiding full dry down. Maintain moisture for 2 to 3
- Radiation – shading net of 60-70% (in summer)
- Optimal temperature of 77F-86F (25-30 Celsius) is best
- If flowering occurs it is suggested to manually remove. Florel has not been shown to be effective

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertility	Plant Growth Regulator
8to 12 wks (1ppp)	Average Day	Day Neutral	Soil EC 0.8 - 1.2 pH 5.5 to 6.2	Florel rates up to 1000ppm have been trialed and had no effect
(12 cm) 4" pot	70° to 76°F (21° to 24°C)			
8 to 12 wks				

-  Sensitive to high salts
- Peperomia Caperta can be pinched if excessive stretch occurs
- Maintain good airflow and allow plants to dry before nightfall to avoid Edema
- Avoid temperatures below 50 F (10C)


<b>Diseases</b>	Broad Mites, Cyclamen Mites	Growers Choice
	Thrips	Growers Choice
	Leaf Spots	Phyllostica, Cercospora, Rhizoctonia
	Root Rots	Pythium and Phytophthora


Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
	5.5 to 6.2	0.8 to 1.2	65 to 85 f (18.3 to 29C)	feed 100 to 120 ppm	Day Neutral		Spray or Drench fungicide after transplant	Root and Stem rot can occur if kept too wet after transplant


# PEPEROMIA OBTUSIFOLIA

## PROPAGATION TIPS


- Can be rooted with minimal mist, but don't allow it to fully dry put
- Radiation – 1,000 to 2,000 fc
- Temp.- 65-85 F (18-29C). Cold Damage under 50F (10C)
- Media – an aerated media
- Number of cuttings per cell 50 or 72 cell – 1 cutting


 Flowering time  
All year round

 Width  
4-8"  
(10 to 20 cm)

 Height  
8-14"  
(20 to 25 cm)

Average Time	Temperature	Radiation	Humidity Level	Fungicide
4-6 weeks for tip cuttings	65°-85° F (18° - 29°C)	1000-2,000 fc	50-70%	Spray fungicide to control fungal and bacterial leaf spots

 **Irrigation specification** - Remove from mist as soon as possible. Do not allow the medium to fully dry out


 Too much overhead mist can result in leaf spots. Preventative sprays of a group 7/11 fungicide in propagation are suggested. Follow up with group 3

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.5	0.80	72 / 74 F	50 ppm N in mist			Day of sticking	Daconil or group 7/11
Week 2	5.6 to 6.5	.80 to .90	72 / 74 F	50 ppm N in mist			Second fungicide app	Group 3
Week 3	5.6 to 6.5	.80 to 1.0	70/74 F	Feed 100 ppm to 125 ppm				
Week 4-TP	5.6 to 6.5	0.8 to 1.2	70 to 74 F	feed 100 to 125 ppm				

## FINISHING TIPS

- Grow on the dry side while avoiding full dry down. Maintain moisture 2 to 3
- Radiation – shading net of 60-70% (in summer)
- Optimal temperature of 77F-86F (25-30 Celsius) is best
- If flowering occurs it is suggested to manually remove. Florel has not been shown to be effective

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertility	Plant Growth Regulator
8 to 12 wks (3ppp) (12 cm) Direct stick 4" pot	Average Day 70° to 76°F (21° to 24°C)	Day Neutral	Soil EC 0.8 - 1.2 pH 5.5 to 6.2	Florel rates up to 1000ppm have been trialed and had no effect on flower removal
8 to 12 wks (From liner) (20 cm) 8" (3ppp)				

-  Sensitive to high salts
- Peperomia Obtusifolia can be pinched if excessive stretch occurs
- Maintain good airflow and allow plants to dry before nightfall to avoid Edema
- Avoid temperatures below 50 F

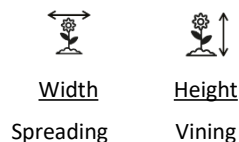
<b>Pests</b>	Broad Mites, Cyclamen Mites	Growers Choice
	Thrips	Growers Choice
<b>Diseases</b>	Leaf Spots	Phyllostica, Cercospora, Rhizoctonia Group 3 or 7/11 FRAC
	Root Rots	Pythium and Phytophthora. Group 4 FRAC

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
	5.5 to 6.2	0.8 to 1.2	77-86F 25-30C	feed 100 to 120 ppm	Day Neutral		Spray or Drench fungicide after transplant	Root and Stem rot can occur if kept too wet after transplant

# PHILODENDRON HEDERACEUM

## PROPAGATION TIPS

- A relatively high level of humidity is required 60-80 % for optimal growth
- Radiation – shading net of 70-80% (in summer)
- Temp.- high temperature of 77-86F encourages faster rooting (25 to 30C)
- Number of cuttings per cell – 1-2 cuttings
- Can be direct stuck into finish pots if humidity is high



Average Time	Temperature	Radiation	Humidity Level	Fungicide
4 to 6 weeks	70°-90° F (21° - 32°C)	70-80% 1000-3000 fc	60-80%	Spray fungicide to control Rhizoctonia and bacteria day of sticking. Do not apply Mefenoxan
	Minimum Temperature of 60F (15.5C)			

**Irrigation specification** – Philodendron prefer slightly higher humidity than Pothos.

The primary driver of growth of Philodendron is temperature. Temperatures up to 86F (30C) will hasten production time.

Philodendron are sensitive to ethylene. Boxes should immediately be opened upon arrival and cuttings should be stuck as soon as possible.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80 to 1.5	77F / 25 C	50 ppm N in mist			Day of sticking	Avoid Mefenoxan and Iprodine
Week 2	5.8 to 6.2	.80 to .1.5	77F / 25 C	50 ppm N in mist			Second fungicide app	Avoid Mefenoxan and Iprodine
Week 3	5.8 to 6.2	80 to 1.5	77F / 25 C	Feed 100 ppm to 150 ppm				
Week 4-6	5.8 to 6.2	1.0 to 1.5	77F / 25 C	feed 100 to 150 ppm		2500 Daminozide as needed to reduce leaf size		

## FINISHING TIPS

- Radiation – of 1000 to 3,500 fc is ideal
- The optimal temperature is 70F-90F (21-32 Celsius). Temperature is the most important driver of growth.
- Sensitive to low pH, which results in Manganese toxicity. Identified by spotting on leaves
- Philodendron cordatum will finish 1 to 2 weeks faster than Brasil.
- Water early in the day to avoid moisture staying in the leaf sheath during the night. This can result in damaged leaves as they unfurl
- PGR - Spray Daminozide at 2500 to 5000 ppm to reduce the size of leaves and shorten vines
- If using Subdue Maxx ,be sure to read the label and use the suggested rate.)
- Brown burns will appear on variegated areas of Brazil if the light intensity is too high

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertility	Plant Growth Regulator
10 to 14 wks (12 cm) 6 cuttings direct stuck 5” pot	Average Day 70° to 90°F (21° to 32°C)	Not required	Soil EC 1.5 – 2.0 pH 5.5 to 6.0	2500 to 5000ppm Daminozide reduces area of leaves
12 to 16 wks (20 cm)10 pp 8”	Minimum temperature of 55F (12.8C)			

<b>Pests</b>	Mealy Bugs	Growers Choice
	Spider Mites	Growers Choice
<b>Diseases</b>	Rhizoctonia	Group 7/11
	Pythium	If using Subdue Maxx read label for special Philodendron rate Moisture management is best prevention
	Erwinia	

# POTHOS (EPIPREMNUM)

## PROPAGATION TIPS

- A relatively high level of humidity is required - 50-70 % for optimal growth
- Radiation – shading net of 70-80% (in summer)
- Temp.- high temperature of 77-86F encourages faster rooting (25 to 30C)
- Number of cuttings per cell – 1-2 cuttings
- Can be direct stuck into finish pots if humidity is high



Average Time	Temperature	Radiation	Humidity Level	Fungicide
4 to 6 weeks	70°-90° F (21° - 32°C)	<u>70-80%</u> 1500-3000 fc	50-70%	<u>Spray fungicide to control Rhizoctonia and bacteria day of sticking. Do not apply Mefenoxan or Iprodine</u>
	Minimum Temperature of 60F 15.5C)	Neon is especially sensitive to high light		

💧 **Irrigation specification** – Pothos prefer to be kept evenly moist. Reduce mist after two weeks.

! The primary driver of growth of Pothos is temperature. Temperatures up to 86F (30C) will hasten production time. Pothos Neon is most susceptible to burn from too much light.

! Pothos are sensitive to ethylene. Upon arrival, boxes should be immediately opened, and cuttings should be stuck as soon as possible.

Rooting	pH	EC	Temp	Feed	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80 to 1.5	77F / 25C	50 ppm N in mist		Day of sticking	Avoid Mefonoxan and Iprodine
Week 2	5.8 to 6.2	.80 to .1.5	77F / 25C	50 ppm N in mist		Second fungicide app	Avoid Mefenoxan and Iprodine
Week 3	5.8 to 6.2	.80 to 1.5	77F / 25C	Feed 100 ppm to 150 ppm			
Week 4-6	5.8 to 6.2	1.0 to 1.5	77F / 25C	feed 100 to 150 ppm	2500 Daminozide as needed to reduce leaf size		

## FINISHING TIPS

- Radiation – of 1,500 to 3,500 fc is ideal
- Optimal temperature of 70F-90F (21-32 Celsius) is best. Temperature is the most important driver for growth.
- Sensitive to low pH which results in Manganese toxicity. Identified by spotting on leaves
- The fastest varieties of Pothos are Jade, Golden, and Hawaiian. Add 1 to two weeks to schedule for Marble Queen. Add 3 weeks for Neon
- Neon Pothos is especially sensitive to high light. As much shade as possible should be applied when producing Neon, especially in propagation.
- Low pH can result in Manganese toxicity. Appears as spotting on leaves
- Calcium sprays are beneficial in encouraging stronger leaves
- PGR – Spray Daminozide at 2500 to 5000 ppm to reduce the size of leaves and shorten vines
- If using Subdue Maxx, be sure to read the label and use the suggested rate. (0.3-0.38 fl oz per 100 gallons)
- Brown burns will appear on variegated areas of Pothos if the light intensity is too high

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertility	Plant Growth Regulator
8 to 12 wks	Average Day	Not required	Soil EC 1.5 – 1.8 pH 5.5 to 6.0	2500 to 5000ppm Daminozide reduces area of leaves
(12 cm) 6 cuttings direct stuck 5" pot	70° to 90°F (21° to 32°C)			
10 to 14 wks	Minimum temperature of 55F (12.8C)			
(20 cm)10 pp 8"				


<b>Pests</b>	Mealy Bugs	Growers Choice
	Spider Mites	Growers Choice
<b>Diseases</b>	Rhizoctonia	Do not use OHP Chipco 26019 as a soil drench on Pothos (From Label)
	Pythium	If using Subdue Maxx read label for special Pothos rate
	Pseudomonas	Copper





# RHOEO

## PROPAGATION TIPS

- Can be direct stuck. Lightly mist for the first few days to speed up rooting
- If using a tray, a 50 or 72 cell is suggested due to the thickness of stems and roots of Rhoeo
- Radiation – 2000 fc is ideal for propagation, but can be grown in conditions ranging from 500 to 5000 fc.
- Temp.- high temperature of 77-86F
- Media – an aerated media
- When grown properly, Rhoeo has thick brown roots

  
Flowering time  
All year round

  
Width  
12-24"  
(30 to 61 cm)

  
Height  
12-24"  
(30 to 61 cm)

Average Time	Temperature	Radiation	Humidity Level	Fungicide
4 weeks	77°-86° F (25° - 30°C)	1500-2500fc	50-70%	Disease pressure is rare
In Liner	Avoid temps below 60F (15.5C)		Mist first few days	Pythium can occur if excessively wet

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 / 6.0	0.80	77F / 25C	50 ppm N in mist				
Week 2	5.8 to 6.0	.80 to .90	77F / 25C	50 ppm N in mist				
Week 3	5.8 to 6.0	.90 to 1.0	77F / 25C	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.0	1.0 to 1.2	77F / 25C	feed 100 to 150 ppm				

## FINISHING TIPS

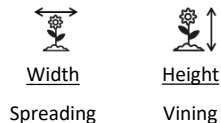
- Keep evenly moist. Moisture extremes can result in brown spots on leaves
- Radiation – Will grow in light ranging from 500 fc to 5000 fc.
- Bicolor will finish about one week earlier than Rhoeo
- Rhoeo can be susceptible to Alternanthera Mosaic Virus. Symptoms appear similar to streaking from thrips
- Optimal temperature of 77F-86F (25-30 Celsius) is best

Average Time (from liners)	Temperature	Pinch/	Fertility	Plant Growth Regulator
7 to 8 wks (12 cm) 1 plant per 5" pot	Average Day 77° to 86°F (25° to 30°C)	Pinch is not needed	Soil EC 1.0 - 1.5 pH 5.5 to 6.2	2500 Daminozide+ 500 ethephon spray Or 0.1 to 0.3ppm Paclobutrazol drench (rate varies by condition)
8 to 10 wks (20 cm) 3 plants per 8"	Avoid temperatures below 50F (10C)			

<b>Pests</b>	Mealybug	Many options available and low chance of phytotoxicity
	Aphids	Many options available and low chance of phytotoxicity
<b>Diseases</b>	Pythium	Mefenoxam, but Pythium is rare.
	AltMv	Dispose of diseased plants. Stock plants are tested to ensure clean material
	Brown Spots	Occurs from extreme dryness and wetness.

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
<b>Weeks 1 to 6</b>	5.5 to 6.2	1.0 to 1.5	65 to 68 f	feed 100 to 150 ppm	Day Neutral	2500 Daminozide	Mefenoxam	Mefonxam only needed if pythium is found
<b>Weeks 6 to finish</b>	5.7 to 6.0	1.0 to 1.2	65 to 68 f	feed 100 to 150 ppm		Paclobutrazol drench		Drench at 0.2ppm will stall growth making better product for consumer

# SCINDAPSUS POTHOS



## PROPAGATION TIPS

- A relatively high level of humidity is required - 50-70 % for optimal growth
- Radiation – shading net of 70-80% (in summer)
- Temp.- A high temperature of 77-86F encourages faster rooting (25 to C)
- Number of cuttings per cell – 1-2 cuttings
- Can be directly stuck into finish pots if humidity is high

Average Time	Temperature	Radiation	Humidity Level	Fungicide
5 to 7 weeks	<u>Weeks 1 - 2</u> 70°-90° F (21° - 32°C)	<u>70-80%</u> 1500-3000 fc	50-70%	<u>Spray fungicide to control Rhizoctonia and bacteria day of sticking. Do not apply Mefenoxan or Iprodione</u>
	Minimum Temperature of 60F (15.5C)	Neon is especially sensitive to high light		

**Irrigation specification** – Pothos prefer to be kept evenly moist. Reduce mist after two weeks.

- The primary driver of growth of Pothos is temperature. Temperatures up to 86F (30C) will hasten production time. Pothos Neon is most susceptible to burn from too much light.
- Scindapsus Pothos are sensitive to ethylene. Boxes should immediately be opened upon arrival and cuttings should be stuck as soon as possible.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80 to 1.5	77F / 25C	50 ppm N in mist			Day of sticking	Avoid Mefenoxan and Iprodione
Week 2	5.8 to 6.2	.80 to .1.5	77F / 25C	50 ppm N in mist			Second fungicide app	Avoid Mefenoxan and Iprodione
Week 3	5.8 to 6.2	.80 to 1.5	77F / 25C	Feed 100 ppm to 150 ppm				
Week 4-6	5.8 to 6.2	1.0 to 1.5	77F / 25C	feed 100 to 150 ppm		Should not be needed		

## FINISHING TIPS

- Radiation – of 1,500 to 3,500 fc is ideal
- Optimal temperature of 70F-90F (21-32 Celsius) is best. Temperature most important driver for growth.
- Sensitive to low pH which results in Manganese toxicity. Identified by spotting on leaves

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertility	Plant Growth Regulator
9 to 13 wks (12 cm) 6 cuttings direct stuck 5” pot	Average Day 70° to 90°F (21° to 32°C)	Not required	Soil EC 1.5 – 1.8 pH 5.5 to 6.0	Naturally more compact than Epipremnum. 2500 ppm B9 if stretch occurs
12 to 16 wks	Minimum temperature of 55F (12.8C)			
(20 cm)10 pp 8”				

<b>Pests</b>	Mealy Bugs	Growers Choice
	Spider Mites	Growers Choice
<b>Diseases</b>	Rhizoctonia	Do not use OHP Chipco 26019 as a soil drench on Pothos (From Label)
	Pythium	If using Subdue Maxx read label for special Pothos rate
	Pseudomonas	

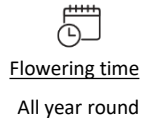
- Low pH can result in Manganese toxicity. Appears as spotting on leaves
- Calcium sprays are beneficial to encourage stronger leaves
- PGR – Spray Daminozide at 2500 to 5000 ppm to reduce the size of leaves and shorten vines
- If using Subdue Maxx, be sure to read the label and use the suggested rate. (0.3-0.38 fl oz per 100 gallons)
- Brown burns will appear on variegated areas of Pothos if the light intensity is too high

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
	5.8 to 6.2	1.0 to 1.5	70 to 90 f (21 to 32C)	feed 100 to 150 ppm	Day Neutral		Spray fungicide after transplant	

# TRADESCANTIA

## PROPAGATION TIPS

- Can be direct stuck. Lightly mist for the first few days to speed up rooting
- Sillamontana is one to two weeks slower to root so is better suited for liner propagation
- Radiation – 2000 fc is ideal for propagation but can be grown in conditions ranging from 500 to 5000 fc.
- Temp.- high temperature of 77-86F
- Media – an aerated media



Average Time	Temperature	Radiation	Humidity Level	Fungicide
4 weeks	77°-86° F (25° - 30°C)	1500-2500fc	50-70%	Disease pressure is rare
In Liner	Avoid temps below 60F (15.5C)		Mist first few days	Pythium can occur if excessively wet

Rooting	pH	EC	Temp	Feed	PGR	Comments
Week 1	5.8 / 6.0	0.80	72 / 74 F	50 ppm N in mist		
Week 2	5.8 to 6.0	.80 to .90	72 / 74 F	50 ppm N in mist		
Week 3	5.8 to 6.0	.90 to 1.0	Cool to 70 – 68 F	Feed 100 ppm to 150 ppm		
Week 4	5.8 to 6.0	1.0 to 1.2	65 to 68 F	feed 100 to 150 ppm	2500 Daminozide as needed	Pinch or mow

## FINISHING TIPS

- Keep evenly moist. Moisture extremes can result in brown spots on leaves
- Radiation – Will grow in light ranging from 500 fc to 5000 fc.
- Tricolor and Sillamontana are more sensitive to light and should be kept below 3500 fc.
- Sillamontana does not spread and vine-like other Tradescantia. More suited for small upright pots.
- Optimal temperature of 77F-86F (25-30 Celsius) is best
- Pinch is suggested. Ethephon will also help remove flowers and encourage branching

Average Time (from liners)	Temperature	Pinch/	Fertility	Plant Growth Regulator
7 to 8 wks (12 cm) 3 plants per 5" pot	Average Day 77° to 86°F (25° to 30°C)	Pinch – Suggested to encourage branching. Can be mowed	Soil EC 1.0 - 1.5 pH 5.5 to 6.2	2500 Daminozide+ 500 ethephon spray Or 0.1 to 0.3ppm Paclobutrazol drench (rate varies by condition)
8 to 10 wks (20 cm) 5 plants per 8"	Avoid temperatures below 50F (10C)		Soil EC 1.0 - 1.5 pH 5.5 to 6.2	

Pests	Mealybug	Many options available and low chance of phytotoxicity
	Aphids	Many options available and low chance of phytotoxicity
Diseases	Pythium	Mefenoxam, but Pythium is rare.
	Potyvirus	Dispose of diseased plants. Stock plants are tested to ensure clean material
	Brown Spots	Occurs from extreme dryness and wetness.

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Weeks 1 to 6	5.5 to 6.2	1.0 to 1.5	65 to 68 f	feed 100 to 150 ppm	Day Neutral	2500 Daminozide	Mefenoxam	Mefonxam only needed if pythium is found
Weeks 6 to finish	5.7 to 6.0	1.0 to 1.2	65 to 68 f	feed 100 to 150 ppm		Paclobutrazol drench		Drench at 0.2ppm will stall growth making better product for consumer