

DANZIGER

Technical
Product Pages

Annuals | Perennials | Foliage



ANNUALS

Propagation & Finishing

AGUILERA™

Ageratum houstonianum

- Pinch is optional
- Ageratum is a long day plant so extending the day or night interruption will hasten flowering
- Cool temperature finishing for best quality

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
5 to 7 wks (12 cm) 5" pot 1 ppp	Average Day 65° - 68° (18° - 20° C)	Pinch –Optional Night interruption or extended day- Optional	150 - 200 ppm N	In liner and finish stages as required
6 to 8 wks (15 cm) 6 ½" 1 ppp			Soil EC 1.0 - 1.2 pH 5.8 to 6.2	

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	optional	Daminozide as needed	Spray fungicide after transplant	
Week 5 to 12	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm		Paclobutrazol Drench at 1 ppm		Paclobutrazol 1 ppm drench when plants reach 85% of desired size

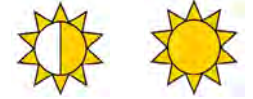
Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- PGR - Spray Daminozide at 1500 to 2500 ppm early on finished plants - Paclobutrazol drench application at 1 ppm for finishing if required
- Maintain good airflow and allow plants to dry before nightfall
- Scout for Thrip on regular basis

AGUILERA™


Ageratum houstonianum




Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72° / 74° F (22° / 23° C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° F (18° - 20° C)		Weeks 3-4 100 to 125 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 / 6.2	0.80	72° / 74° F (22° / 23° C)	50 ppm N in mist			Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	72° / 74° F (22° / 23° C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 65° - 68° F (18° - 20° C)	Feed 100 ppm to 125 ppm N		Daminozide as needed		
Week 4	5.8 to 6.2	1.0 to 1.2	65° - 68° F (18° - 20° C)	feed 100 to 125 ppm N				

 - **Irrigation specification** - Remove from mist as soon as possible. Scout specifically for Botrytis

 - Daminozide at 1500 ppm week 3.

ALONIA™

Angelonia Angustifolia

- Pinch week 4 in liner or at transplant
- Plant liners below new soil to support plants at maturity

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 9 wks (12 cm) 5" pot 1 ppp	Average Day 65°-68° F (18°-20° C)	Pinch – Yes Night interruption or extended day- Optional	100 - 150 ppm N	In liner and finish stages
8 to 10 wks (15 cm) 6 ½" 1 ppp	65°-68° F (18°-20° C)		Soil EC 1.0 - 1.2 pH 5.8 to 6.2	

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm		B-9 as needed	Spray fungicide after transplant	
Week 6 to 13	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm		Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench if required

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- **PGR** - Spray Daminozide at 2500 to 3750 ppm for finishing plants
Paclobutrazol drench application at 1 to 2 ppm for finishing if required
- **Spray** broad spectrum fungicide after transplant
- **Scout** for Aphids and Thrip on regular basis

ALONIA™

Angelonia Angustifolia



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 3 72°/74°F (22°/23°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 4 - 5 68° - 70° (20° - 21° C)		Weeks 3-5 100 to 150 ppm N	Apply broad spectrum Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8/6.2	0.80	72°/74°F (22°/23°C)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.8/6.2	.80 to .90	72°/74°F (22°/23°C)	50 ppm N in mist	Not required		Second fungicide app	
Week 3	5.8/6.2	.90 to 1.0	72°/74°F (22°/23°C)	Feed 100 ppm to 150 ppm	Not required			
Week 4	5.8/6.2	.90 to 1.0	Cool to 68°/70°F (20°/21°C)	Feed 100 to 150 ppm	Not required	Daminozide as needed		
Week 5	5.8/6.2	1.0 to 1.2	68°F (20°C)	Feed 100 to 150 ppm	Not required	Daminozide as needed		



- Misting specification: Remove from mist as soon as possible
Spray adjuvant at sticking



- Maintain warm temperatures allowing plants to develop.
- Spray Daminozide at 1200 to 1500 ppm
- Pinch is recommended week 4 or at transplant

ANGELIC™

Argyranthemum frutescens

- Pinch is optional
- Cool temperature finishing for best quality

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks (12 cm) 5" pot 1 ppp	Average Day 68° to 72°F (20° to 22°C)	Pinch –Optional Night interruption or extended day- Optional	100 - 150 ppm N	In liner and finish stages
8 to 9 wks (15 cm) 6 ½" 1 ppp	65° - 68° (18° - 20° C)		Soil EC 1.0 - 1.2 pH 5.5 to 6.0	

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.7 to 6.0	1.0 to 1.2	68° to 72°F (20° to 22°C)	feed 100 to 150 ppm	Day Neutral	Daminozide as needed	Spray fungicide after transplant	
Week 5 to 13	5.7 to 6.0	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm	Not Required	Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size

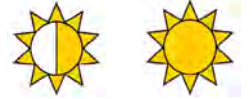
Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- PGR - Spray Daminozide at 750 to 2000 ppm on young finished plants Paclobutrazol drench application at 1 ppm for finishing if required
- Maintain good airflow and allow plants to dry before nightfall
- Scout for Thrip on regular basis

ANGELIC™


Argyranthemum frutescens




Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72° / 74° F (22° / 23° C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 / 6.0	0.80	72° / 74° F (22° / 23° C)	50 ppm N in mist			Day of sticking	
Week 2	5.8 to 6.0	.80 to .90	72° / 74° F (22° / 23° C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.0	.90 to 1.0	Cool to 68° / 70° F (20° / 21° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 4	5.8 to 6.0	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm		Daminozide as needed		

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

 – Light in propagation for optimal growth and to hasten crop time. *Argyranthemum* respond to long days for flowering. Daminozide at 750 ppm week 3.

LOLLIES™

Argyranthemum frutescens

- Pinch is optional
- Cool temperature finishing for best quality

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks (12 cm) 5" pot 1 ppp	Average Day 65°-68° F (18°-20° C)	Pinch- Optional Night interruption or extended day- Optional	100 - 150 ppm N	In liner and finish stages
8 to 9 wks (15 cm) 6 ½" 1 ppp			Soil EC 1.0-1.2 pH 5.7 to 6.0	

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

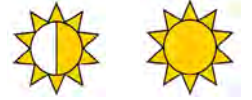


- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- PGR - Spray Daminozide at 750 to 2000 ppm on young finished plants
Paclbutrazol drench application at 1 ppm for finishing if required
- Maintain good airflow and allow plants to dry before nightfall
- Scout for Thrip on regular basis

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.7 to 6.0	1.0 to 1.2	65°-68° F (18°-20° C)	feed 100 to 150 ppm	Day Neutral	Daminozide as needed	Spray fungicide after transplant	
Week 5 to 13	5.7 to 6.0	1.0 to 1.2	65°-68° F (18°-20° C)	feed 100 to 150 ppm	Not Required	Paclbutrazol Drench at 1 to 2 ppm		Paclbutrazol 1 to 2 ppm drench when plants reach 85% of desired size

LOLLIES™

Argyranthemum frutescens



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°-74° F (22°-23° C)	NO	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65°-68° (18°-20° C)		Weeks 3-5 100 to 125 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.0	0.80	72°-74° F (22°-23° C)	50 ppm N in mist			Day of sticking	
Week 2	5.8 to 6.0	.80 to .90	72°-74° F (22°-23° C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.0	.90 to 1.0	Cool to 68°- 70° F (20°-21° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 4	5.8 to 6.0	1.0 to 1.2	65°-68° F (18°-20° C)	feed 100 to 150 ppm		Daminozide as needed		



Irrigation specification - Remove from mist as soon as possible



Argyranthemum respond to long days for flowering. Light in propagation to 12-hour daylength for optimal growth and to hasten crop time. Daminozide at 750 ppm week 3.

SCOPIA® GULLIVER™

Bacopa / Sutera

- Maintain lower pH levels for optimal Iron (Fe) and Manganese (Mn) availability to plants
- Consistent soil moisture is best to maximize root structure and plant health
- Cool temperature is best for high quality finishing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks	Average Day	Pinch / Optional	100 - 150 ppm N	Spray application of Daminozide if required
(12 cm) 5" pot 1 ppp	65°-68° F (18°-20° C)			
8 to 9 wks		No lighting necessary	Soil EC 0.8 - 1.0 pH 5.6 to 6.0	
(15 cm) 6 ½" 1 ppp				
8 to 9 wks				
(20 cm) 8" 3 ppp				
8 to 9 wks				
(25 cm) 10" 3 ppp				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB / MEFENOXAM
	Phytophthora	
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

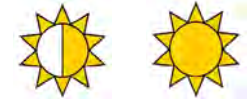
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.6 to 6.0	0.8 to 1.0	65° to 68° F (18° to 20° C)	Feed 100 to 150 ppm	Day Neutral	Daminozide spray application if needed	Spray fungicide after transplant	
Week 6 to 12	5.6 to 6.0	0.8 to 1.0	65° to 68° F (18° to 20° C)	Feed 100 to 150 ppm	Not Required			



- Consistent soil moisture levels are best – allow soil to dry slightly between irrigations
- Fungicide applications and good air movement to reduce disease pressures
- Scout for Aphids on regular basis

SCOPIA® GULLIVER™


Bacopa / Sutera




Stick on priority – Number 1 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.2	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist		Day of sticking	Day of sticking	
Week 2	5.6 to 6.2	.80 to .90	70°-72° F (21° - 22°C))	50 ppm N in mist			Second fungicide app	
Week 3	5.6 to 6.2	.90 to 1.0	Cool to 65° - 68° (18° - 20° C)	Feed 100 ppm to 150 ppm				
Week 4	5.6 to 6.2	1.0 to 1.2	65° - 68° (18° - 20° C)	Feed 100 ppm to 150 ppm		Daminozide if needed		

 - **Irrigation specification** - Remove from mist as soon as possible to avoid leaf disease issues. Elevated humidity at the table level is better than misting on the foliage.

 - The Scopia Gulliver™ Series is well branched so no pinch should be required. Spray fungicide to control leaf diseases.

SCOPIA® GULLIVER™ COMPACT

Bacopa / Sutera

- Maintain lower pH levels for optimal Iron (Fe) and Manganese (Mn) availability to plants
- Maintain soil moisture at medium level to maximize root structure
- Cool temperature is best for high quality finishing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot 1 ppp	Average Day 65°-68° F (18°-20° C)	Pinch / Optional No lighting necessary	100 - 150 ppm N	Spray application of Daminozide if required
8 to 9 wks (15 cm) 6 ½" pot 1 ppp	65°-68° F (18°-20° C)		Soil EC 0.8 - 1.0 pH 5.6 to 6.0	
8 to 9 wks (20 cm) 8" pot 3 ppp				
8 to 9 wks (25 cm) 10" pot 3 ppp				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium	PROPAMOCARB / MEFENOXAM
	Phytophthora	
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

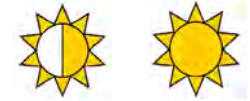
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.6 to 6.0	0.8 to 1.0	65° to 68° F (18° to 20° C)	Feed 100 to 150 ppm	Day Neutral	Daminozide spray application if needed	Spray fungicide after transplant	
Week 6 to 12	5.6 to 6.0	0.8 to 1.0	65° to 68° F (18° to 20° C)	Feed 100 to 150 ppm	Not Required			



- Consistent soil moisture levels are best – allow soil to dry slightly between irrigations
- Fungicide applications and good air movement to reduce disease pressures
- Scout for Aphids on regular basis

SCOPIA® GULLIVER™ COMPACT


Bacopa / Sutura




Stick on priority – Number 1 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°/74°F (22°/23°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6/6.2	0.80	72°/74°F (22°/23°C)	50 ppm N in mist			Day of sticking	
Week 2	5.6/6.2	.80 to .90	72°/74°F (22°/23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.6/6.2	.90 to 1.0	Cool to 68°/70°F (20°/21°C)	Feed 100 ppm to 150 ppm				
Week 4	5.6/6.2	1.0 to 1.2	65°/68°F (18°/20°C)	Feed 100 ppm to 150 ppm		Daminozide if needed		

 Irrigation specification - Remove from mist as soon as possible to avoid leaf disease issues. Elevated humidity at the table level is better than misting on the foliage.

 - The Scopia Gulliver™ Compact Series is well branched. Spray fungicide to control leaf diseases.

DOUBLET™

Begonia semperflorens

- Do not pinch Begonia Doublets
- PGR for height control is Chlormequat

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
5 to 7 wks	Average Day	No pinch should be required	100 - 150 ppm N	chlormequat at 750 to 1,500 PPM
(12 cm) 5" pot	68° to 72°F (20° to 22°C)			
6 to 8 wks			Soil EC 1.0 - 1.2	
(15 cm) 6 ½"			pH 5.7 to 6.2	

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.7 to 6.2	1.0 to 1.2	68° to 72°F (20° to 22°C)	feed 100 to 150 ppm	Day Neutral	chlormequat at 750 to 1,500 PPM	Spray fungicide after transplant	
Week 5 to 12	5.7 to 6.2	1.0 to 1.2	68° to 72°F (20° to 22°C)	Feed 100 to 150 ppm	Not Required			

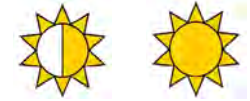
Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- Plant growth is based on moisture levels, temperatures and feed rates. Lower temperatures, lower soil moisture levels and lower feed rates will slow growth and finish a more compact plant.
- Drench fungicide to prevent Rhizoctonia and other water mold diseases - Maintain good airflow and allow plants to dry before nightfall
- Scout for Whitefly, Thrips and Mealybug

DOUBLET™


Begonia semperflorens




Stick on priority Number 3 out of 4 categories . **Do not store below 10° C (50° F)**

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72° / 74° F (22° / 23° C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 68° / 70° F (20° / 21° C)		Weeks 3-4 100 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 / 6.2	0.80	72° / 74° F (22° / 23° C)	50 ppm N in mist			Day of sticking	
Week 2	5.5 to 6.2	.80 to .90	72° / 74° F (22° / 23° C)	50 ppm N in mist			Second fungicide app	
Week 3	5.7 to 6.2	.90 to 1.0	Cool to 68° / 70° F (20° / 21° C)	Feed 100 ppm N				
Week 4	5.7 to 6.2	0.9 to 1.0	68° F (20° C)	feed 100 ppm N				

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

 - Drying of cuttings during rooting will extend days to fully rooted liner. In propagation, maintain uniform moisture levels on plants and in the soil. Extremely high light conditions and excessive drying will damage leaves during propagation opening the plant system for Botrytis

TIMELESS™ COLLECTION

Bidens ferulifolia

- Pinch is optional, possibly on more vigorous varieties
- Cool temperature finishing for best quality and optimum flower color

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 8 wks (12 cm) 5" pot 1 ppp	Average Day 65° - 68° (18° - 20° C)	Pinch – Recommended	100 - 200 ppm N	Daminozide at 1500 to 2500 ppm on more vigorous varieties
7 to 9 wks (15 cm) 6 ½" 1 ppp			Soil EC 1.0 - 1.2 pH 5.8 to 6.2	
7 to 9 wks (20 cm) 8" 3 ppp	Not Required – Day Neutral			



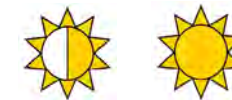
- **PGR** - Spray Daminozide at 1500 to 2500 ppm on young finished plants - Paclobutrazol drench application at 1 ppm for finishing if required for the more vigorous varieties
- **Maintain good airflow** and allow plants to dry before nightfall. Drench for protection against Rhizoctonia after transplant and again during finishing stage.
- Scout for Aphids & Thrip on regular basis

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB / MEFENOXAM
	Phytophthora	
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20° C)	Feed 100 to 150 ppm	Not required	Daminozide as needed 1500 to 2500 ppm	Spray fungicide after transplant	
Week 6 to 12	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20° C)	Feed 100 to 200 ppm	Not required	Paclobutrazol Drench at 1 ppm if needed		Paclobutrazol 1 ppm drench when plants reach 85% of desired size

TIMELESS™ COLLECTION

Bidens ferulifolia




Stick on priority – Number 4 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°/74°F (22°/23°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8/6.2	0.80	72°/74°F (22°/23°C)	50 ppm N in mist			Day of sticking	
Week 2	5.8/6.2	.80 to .90	72°/74°F (22°/23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8/6.2	.90 to 1.0	Cool to 68°/70°F (20°/21°C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 4	5.8/6.2	1.0 to 1.2	65°/68°F (18°/20°C)	Feed 100 ppm to 150 ppm		Daminozide as needed		

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

 – Apply broad spectrum fungicide the day of sticking to control leaf disease. For the more vigorous varieties, apply Daminozide spray at 1500 ppm week 3.

– Pinch week 4 in the liner.

FRESCO™ & BRASCO

Brachyscome angustifolia

- Pinch week 3/4 in the liner or at transplant
- Monitor EC levels so they are not elevated
- Do not over irrigate in the early stages of plant growing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 8 wks (12 cm) 5" pot	Average Day 65° to 68° F (18° to 20° C)	Pinch No lighting required for flowering	100 - 150 ppm N	In liner and finish stages
8 to 10 wks (15 cm) 6 ½"			Soil EC 0.8 - 1.0 pH 5.6 to 6.2	

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.6 to 6.2	0.8 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm	Day Neutral	Daminozide as needed	Spray fungicide after transplant	
Week 5 to 13	5.6 to 6.2	0.8 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm	Not Required			

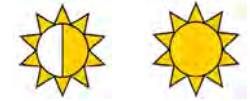
Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB



- Avoid covering plant meristem at transplant
- Additional Iron (Fe) or Manganese (Mn) may be required, depending on water quality
- PGR - Spray Daminozide at 750 to 2000 ppm on young & finished plants
- Maintain good airflow and allow plants to dry before nightfall

FRESCO™ & BRASCO

Brachyscome angustifolia




Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72° / 74° F (22° / 23° C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° to 68° F (18° to 20° C)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.2	0.80	72° / 74° F (22° / 23° C)	50 ppm N in mist			Day of sticking	
Week 2	5.6 to 6.2	.80 to .90	72° / 74° F (22° / 23° C)	50 ppm N in mist		750 ppm Daminozide	Second fungicide app	
Week 3	5.6 to 6.2	.90 to 1.0	Cool to 68° / 70° F (20° / 21° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 4	5.6 to 6.2	.90 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm		Daminozide as needed		

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

 High light and warm temperatures will maintain a good proportion of flowers to foliage.

- Maintain lower EC levels for best growth and flower size since higher EC will hinder plant quality.

CHEERS™

Calendula hybrida

- Pinch is not required
- Cool temperature finishing 50° to 55° F (10° to 13° C) nights for best quality

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks (12 cm) 5" pot	Average Day 60° - 65° (15° - 18° C)	No pinch necessary No lighting necessary	150 - 200 ppm N	Daminozide at 2,000 to 2,500 ppm spray applications
8 to 9 wks (15 cm) 6 ½"	1 plant per pot		Soil EC 1.0 - 1.5 pH 5.7 to 6.3	
8 to 9 wks (20 cm) 8"	3 plants per container			



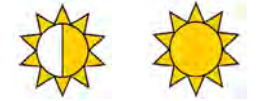
- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- Scout for Aphids and Thrips on a regular basis
- Maintain even moisture level of soil – extreme dry-down will develop yellow lower leaves

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.7 to 6.3	1.0 to 1.2	60° - 65° F (15° - 18° C)	feed 100 to 150 ppm	Day Neutral	Daminozide as needed	Spray fungicide after transplant	
Week 6 to 12	5.7 to 6.3	1.0 to 1.5	60° - 65° F (15° - 18° C)	feed 150 to 200 ppm	Not Required	Paclobutrazol Drench at 1 ppm		Paclobutrazol 1 ppm drench when plants reach 85% of desired size

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

CHEERS™


Calendula hybrida




Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 72°-74°F (22°-23°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 70°-72°F (21°-22°C)		Weeks 3-5 80 ppm N	Apply broad spectrum Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.7 to 6.3	0.80	72°-74°F (22°-23°C)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.7 to 6.3	.80 to .90	72°-74°F (22°-23°C)	50 ppm N in mist	Not required		Second fungicide app	
Week 3	5.7 to 6.3	.90 to 1.0	Cool to 70°-72°F (21°-22°C)	80 ppm N in mist	Not required			
Week 4	5.7 to 6.3	1.0 to 1.2	70°-72°F (21°-22°C)	80 ppm N in mist	Not required			
Week 5	5.7 to 6.3	1.0 to 1.2	70°-72°F (21°-22°C)	80 ppm N in mist	Not required			Pinching is not needed

 – **Irrigation specification** - Remove from mist as soon as possible. Reduce mist heading into evening conditions to reduce the risk for disease.

 – Application of K-IBA can hasten rooting. Daminozide at 1200 ppm day of sticking.

COLIBRI™

Calibrachoa hybrida

- Pinch is optional
- Quality improves when finished with cool temperatures

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks (12 cm) 5" pot 1 ppp	Average Day 65° - 68° (18° - 20° C)	Pinch - Optional	100 - 150 ppm N	In liner and finish stages
8 to 9 wks (15 cm) 6 ½" 1 ppp		No lighting necessary	Soil EC 1.0 - 1.2 pH 5.6 to 6.0	
8 to 10 wks (20 cm) 8" 3 ppp				
8 to 10 wks (25 cm) 10" 3 ppp				



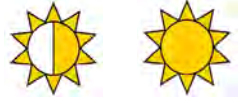
- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- Scout for Aphids and Thrip on regular basis

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.6 to 6.0	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm	Day Neutral	Daminozide as needed	Spray fungicide after transplant	
Week 6 to 12	5.6 to 6.0	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm	Not Required	Paclobutrazol Drench at 1 ppm		Paclobutrazol 1 ppm drench when plants reach 85% of desired size

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

COLIBRI™

Calibrachoa hybrida



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° (18° - 20° C)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2



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



- Application of K-IBA can hasten rooting.
- Light in propagation (extension to 12 hours total) for optimal growth and to hasten crop time- as Calibrachoa can be slower to root and develop a plant structure under short days and more-over under low light conditions.
- Daminozide at 1200 ppm day of sticking.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.2 to 5.8	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist		Day of sticking 1200 ppm Daminozide	Day of sticking	Feeding through Mist
Week 2	5.2 to 5.8	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.2 to 5.8	.90 to 1.0	Cool to 68° / 70° F (20° / 21° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 4	5.2 to 5.8	1.0 to 1.2	65° to 68° F (18° to 20° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 5	5.2 to 5.8	1.0 to 1.2	65° to 68° F (18° to 20° C)	Feed 100 ppm to 150 ppm	Optional	Daminozide as needed		

EYECONIC™

Calibrachoa hybrida

- Pinch is optional
- Quality improves when finished with cool temperatures

Average Time (from liners)	Temperature	Pinch/Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks (12 cm) 5" pot 1 ppp	Average Day 65° - 68° (18° - 20° C)	No pinch necessary	100 - 150 ppm N	In liner and finish stages
8 to 9 wks (15 cm) 6 ½" pot 1 ppp		No lighting necessary	Soil EC 1.0 - 1.2 pH 5.5 to 6.0	
8 to 9 wks (20 cm) 8" pot 3 ppp				
8 to 9 wks (25 cm) 10" pot 3 ppp				



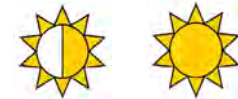
- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- Scout for Aphids and Thrip on regular basis

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.6 to 6.0	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm	Day Neutral	Daminozide as needed	Spray fungicide after transplant	
Week 6 to 12	5.6 to 6.0	1.0 to 1.2	65° to 68° f (18° to 20° C)	feed 100 to 150 ppm	Not Required	Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

EYECONIC™

Calibrachoa hybrida



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° (18° - 20° C)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.2 / 5.8	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist			Day of sticking	
Week 2	5.2 to 5.8	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.2 to 5.8	.90 to 1.0	Cool to 68° / 70° F (20° / 21° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 4	5.2 to 5.8	1.0 to 1.2	65° to 68° F (18° to 20° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 5	5.2 to 5.8	1.0 to 1.2	65° to 68° F (18° to 20° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		



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



- Application of K-IBA can hasten rooting.
- Light in propagation (extension to 12 hours total) for optimal growth and to hasten crop time- as Calibrachoa can be slower to root and develop a plant structure under short days and more-over under low light conditions.
- Daminozide at 1200 to 1500 ppm day of sticking.

Calibrachoa hybrida

- Pinch is optional
- Quality improves when finished with cool temperatures

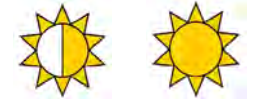
Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks (12 cm) 5" pot 1 ppp	Average Day 65° to 68° F (18° to 20° C)	No pinch necessary	100 - 150 ppm N	In liner and finish stages
8 to 9 wks (15 cm) 6 ½" pot 1 ppp		No lighting necessary	Soil EC 1.0 - 1.2 pH 5.6 to 6.0	
8 to 9 wks (20 cm) 8" pot 3 ppp				
8 to 9 wks (25 cm) 10" pot 3 ppp				



- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- Scout for Aphids and Thrips on regular basis

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.6 to 6.0	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm	Day Neutral	Daminozide as needed	Spray fungicide after transplant	
Week 6 to 12	5.6 to 6.0	1.0 to 1.2	65° to 68° f (18° to 20° C)	feed 100 to 150 ppm	Not Required	Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° (18° - 20° C)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2



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



- Application of K-IBA can hasten rooting.
- Light in propagation (extension to 12 hours total) for optimal growth and to hasten crop time- as Calibrachoa can be slower to root and develop a plant structure under short days and more-over under low light conditions.
- Daminozide at 1200 to 1500 ppm day of sticking. Daminozide plus Uniconazole-P tank mix week 3 to control stretch if needed.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.2 to 5.8	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist			Day of sticking	Feeding through Mist
Week 2	5.2 to 5.8	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.2 to 5.8	.90 to 1.0	Cool to 68° / 70° F (20° / 21° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 4	5.2 to 5.8	1.0 to 1.2	65° to 68° F (18° to 20° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 5	5.2 to 5.8	1.0 to 1.2	65° to 68° F (18° to 20° C)	Feed 100 ppm to 150 ppm	Optional	Daminozide as needed	Week 5	

OMBRE™

Calibrachoa hybrida

- Pinch is optional
- Quality improves when finished with cool temperatures

Average Time (from liners)	Temperature	Pinch/Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks (12 cm) 5" pot 1 ppp	Average Day 65° - 68° (18° - 20° C)	Pinch - Optional	100 - 150 ppm N	In liner and finish stages
8 to 9 wks (15 cm) 6 ½" 1 ppp		No lighting necessary	Soil EC 1.0 - 1.2 pH 5.6 to 6.0	
8 to 9 wks (20 cm) 8" 3 ppp	3 plants per container			
8 to 9 wks (25 cm) 10" 3 ppp	3 plants per container			



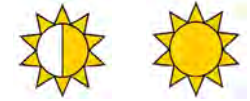
- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- Scout for Aphids and Thrips on regular basis

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.6 to 6.0	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm	Day Neutral	Daminozide as needed	Spray fungicide after transplant	
Week 6 to 12	5.6 to 6.0	1.0 to 1.2	65° to 68° f (18° to 20° C)	feed 100 to 150 ppm	Not Required	Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

OMBRE™

Calibrachoa hybrida



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° (18° - 20° C)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.2 / 5.8	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist			Day of sticking	Feeding through Mist
Week 2	5.2 to 5.8	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.2 to 5.8	.90 to 1.0	Cool to 68° / 70° F (20° / 21° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 4	5.2 to 5.8	1.0 to 1.2	65° to 68° F (18° to 20° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 5	5.2 to 5.8	1.0 to 1.2	65° to 68° F (18° to 20° C)	Feed 100 ppm to 150 ppm	Optional	Daminozide as needed		



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



- Application of K-IBA can hasten rooting.
- Light in propagation (extension to 12 hours total) for optimal growth and to hasten crop time- as Calibrachoa can be slower to root and develop a plant structure under short days and more-over under low light conditions.
- Daminozide at 1200 to 1500 ppm day of sticking.

Cleome hybrida

- Maintain soil evenly moist
- High light levels best for finishing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch –Suggested day of transplant	150-200 ppm N	Daminozide spray application @ 2000 – 3750 ppm
15 cm (1 gallon) 1 ppp	61° to 65° F (16° to 18°C)			
10-12 wks			Soil EC 1.2 to 1.5	
17-19 cm (6.5-7.5 inch) 1 ppp			pH 5.8 to 6.2	

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

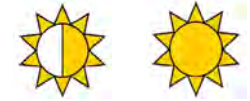
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
transplant to week 6	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20°C)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 14	5.8 to 6.2	1.2 to 1.5	61° to 65° F (16° to 18°C)	feed 150 to 200 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size		



- PGR - Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule
- Maintain good airflow and allow plants to dry before nightfall. The foliage is susceptible to Oedema.
- Scout for Aphids, Mites, Thrips and Whitefly
- Drench after transplant for Botrytis and Pythium / Phytophthora. Scout for Powdery Mildew


CLIO™


Cleome hybrida



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2

 - **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible.

 - Evenly moist soil is best for rooting. Daminozide at 1500 to 2500 ppm week 4. Pinch at transplant.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.80 to .90	Cool to 20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.80 to .90	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Daminozide as needed		
Week 5	5.8 to 6.2	.80 to .90	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Daminozide as needed		Pinch recommended

Craspedia spp

- Pinch week 3 in liner or at transplant (according the plant development)
- Plant liners into new soil to support plants at maturity
- **Don't store cuttings and liners in cold store (below 10 C/ 50 F)**

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks (12 cm) 5" pot 1 ppp	Average Day 65° - 68° (18° - 20° C)	Pinch –Yes Additional lighting not required	100 - 150 ppm N	In liner and finish stages
10 to 12 wks (15 cm) 6 ½" 1 ppp			Soil EC 1.0 - 1.2 pH 5.8 to 6.4	

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm		B-9 as needed	Spray fungicide after transplant	
Week 6 to 14	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm		Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench if required

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB



- **PGR** - Spray Daminozide at 2000 to 2500 ppm for finishing plants
- Paclobutrazol drench application at 1 to 2 ppm for finishing if required
- **Drench** broad spectrum fungicide after transplant
- **Scout** for Aphids on regular basis

Craspedia spp



Stick on priority Number 1 out of 4 categories

Don't store cuttings and plugs in cold store (below 10 C/ 50 F)

Foliage shall be kept dry as possible – see misting guidelines in the next slide

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 / 6 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 – 5/6 65° - 68° F (18° - 20° C)		Weeks 3-5 100 to 150 ppm N	Spray fungicide to control Botrytis and bacteria Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 / 6.4	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist	Optional		Day of sticking	Additional lighting will hasten flowering
Week 2	5.8 to 6.4	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist	Optional		Second fungicide app	Fungicide to control Botrytis!
Week 3	5.8 to 6.4	.90 to 1.0	Cool to 68° / 70° F (20° / 21° C)	Feed 100 ppm to 150 ppm	Optional	Daminozide as needed		
Week 4	5.8 to 6.4	1.0 to 1.2	65° to 68° F (18° / 20° C)	Feed 100 ppm to 150 ppm	Optional	Daminozide as needed		
Week 5	5.8 to 6.4	1.0 to 1.2	65° to 68° F (18° / 20° C)	Feed 100 ppm to 150 ppm	Optional	Daminozide as needed		



- Irrigation specification – Reduce mist shortly after sticking the cuttings (day 2 or 3).



- Dip cut ends of cuttings in rooting hormone prior to sticking or Spray application of K-IBA- This will enable more uniform rooting.

- Daminozide at 1200 to 1500 ppm day of sticking. Pinch plants when they begin to elongate to create branching at base of plant.

CUBANO™

Cuphea

- Pinch is required, at transplant is preferred
- Cuphea flowering is hastened with warm temperatures and long days

Average Time (from liners)	Temperature	Pinch/Daylength Modification	Fertilization	Plant Growth Regulator
6 to 8 wks (12 cm) 5" pot 1 ppp	Average Day 65° - 68° (18° - 20° C)	Pinch – Recommended	150 – 200 ppm N	Daminozide at 2500 to 3750 ppm on more vigorous varieties
7 to 9 wks (15 cm) 6 ½"				
7 to 10 wks (20 cm) 8"	1 ppp	Long days hastens flowering	Soil EC 1.0 - 1.2 pH 5.6 to 6.1	Paclobutrazol 1 to 2 ppm drench to finish high quality plants
	3 ppp			



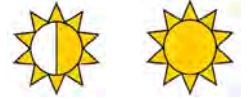
- PGR - Spray Daminozide at 1500 to 2500 ppm on young finished plants - Paclobutrazol drench application at 1 ppm for finishing if required for the more vigorous varieties
- Maintain good airflow and allow plants to dry before nightfall
- Calcium sprays increase stem strength and reduce botrytis
- Not susceptible to Oedema

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.6 to 6.1	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm	Not required	Daminozide as needed 1500 to 2500 ppm	Spray fungicide after transplant	
Week 6 to 12	5.6 to 6.1	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	Not required	Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench to finish high quality plants

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

CUBANO™


Cuphea




Stick on priority – Number 4 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72° - 74° F (22° - 23° C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.1	0.80	72° - 74° F (22° - 23° C)	50 ppm N in mist			Day of sticking	
Week 2	5.6 to 6.1	.80 to .90	72° - 74° F (22° - 23° C)	50 ppm N in mist			Second fungicide app	
Week 3	5.6 to 6.1	.90 to 1.0	Cool to 68° - 70° F (20° - 21° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 4	5.6 to 6.1	1.0 to 1.2	65° - 68° F (18° - 20° C)	feed 100 to 150 ppm		Daminozide as needed		

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

 - Apply broad spectrum fungicide the day of sticking to control leaf disease. Proper air movement is required to control disease issues during propagation.

- Allow some drying of soil between irrigations in weeks 3 and 4.
- Calcium sprays increase stem strength

Dahlia variabilis

- Pinch is optional, but not required
- Continue Night Interruption or 14 hour days after transplant – extended day

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 To 9 wks (12 cm) 5" pot	Average Day 67° - 69° (19° - 20° C)	Long days required for uniform flowering	150 – 200 ppm N	Daminozide as needed 750 ppm in two applications
8 to 10 wks (15 cm) 6 ½"	1 ppp		Soil EC 1.0 - 1.2 pH 5.8 to 6.2	
8 to 10 wks			Extend the day to 14 hours	
(25 cm) 10"	3 ppp			



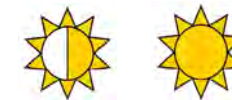
- Spray to control Powdery Mildew after transplant
- **PGR** - Spray Daminozide at 750 ppm in 2 applications on young finished.
- Scout for Aphids, Thrips, Spider Mites and Leaf Minors

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 5	5.8 to 6.2	1.0 to 1.2	67° to 69° F (19° to 20° C)	Feed 150 to 200 ppm	Required	Daminozide as needed 750 ppm in two applications	Spray fungicide after transplant	
Week 6 to 12	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20° C)	Feed 150 to 200 ppm	Required		Include Powdery Mildew control	

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

CHÉRIE™



Dahlia variabilis



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist	Yes		Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist	Yes		Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 65° - 68° F (18° - 20° C)	Feed 100 ppm to 150 ppm	Yes	Daminozide as needed at 1500 ppm		
Week 4	5.8 to 6.2	1.0 to 1.2	65° - 68° F (18° - 20° C)	feed 100 to 150 ppm	Yes			

-  - **Irrigation specification** - Remove from mist as soon as possible
-  - Apply broad spectrum fungicide the day of sticking to control leaf disease including control of Powdery Mildew
 - Proper air movement is required to control disease issues during propagation
 - Night interruption 10pm to 2am or day length extension of 18 hours day started day of sticking at least 10 foot candles (2 uMol), This must be done the full life of the liner/plug. 2 week longer for large pots 10 inch or larger.

Dahlia variabilis

- Pinch is optional but not required
- Continue night interruption lighting or 14 hour days after transplant – extended day

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 9 wks (12 cm) 5" pot	Average Day 67° - 69° (19° - 20° C)	Long days required for uniform flowering	150 – 200 ppm N	Daminozide as needed 750 ppm in two applications
8 to 10 wks (15 cm) 6 ½"	1 ppp		Soil EC 1.0 - 1.2 pH 5.8 to 6.2	
8 to 10 wks (25cm) 10"	3 ppp		Extend the day to 14 hours	



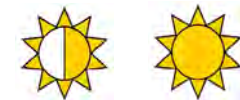
- Spray to control Powdery Mildew after transplant
- **PGR** - Spray Daminozide at 750 ppm in 2 applications on young finished.
- Scout for Aphids, Thrips, Spider Mites and Leaf Miners

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.8 to 6.2	1.0 to 1.2	67° to 69° F (19° to 20° C)	Feed 150 to 200 ppm	Required	Daminozide as needed 750 ppm in two applications	Spray fungicide after transplant	
Week 6 to 10	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	Required		Include Powdery Mildew control	

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

DARLINTM



Dahlia variabilis



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist	Yes		Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist	Yes		Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 65° - 68° F (18° - 20° C)	Feed 100 ppm to 150 ppm	Yes	Daminozide as needed at 1500 ppm		
Week 4	5.8 to 6.2	1.0 to 1.2	65° - 68° F (18° - 20° C)	feed 100 to 150 ppm	Yes			

-  - **Irrigation specification** - Remove from mist as soon as possible
-  - Apply broad spectrum fungicide the day of sticking to control leaf disease including control of Powdery Mildew
 - Proper air movement is required to control disease issues during propagation
 - Night interruption 10pm to 2am or day length extension of 24 hours day started day of sticking at least 10 foot candles , This must be done the full life of the liner/plug. 2 week longer for large pots 10 inch or larger.

TRINITY™

Diascia barberae

- Pinch week 4 in liner or at transplant
- Plant liners above new soil – not to bury plant meristem

Average Time (from liners)	Temperature	Pinch/Daylength Modification	Fertilization	Plant Growth Regulator
8 to 9 wks (12 cm) 5" pot 1 ppp	Average Day 65° - 68° (18° - 20° C)	Pinch –Yes Day Neutral	100 – 150 ppm N	In liner and finish stages
8 to 10 wks (15 cm) 6 ½" pot 1 ppp	Soil EC 1.0 - 1.2 pH 5.8 to 6.2			



- PGR - Spray Daminozide at 2500 to 3750 ppm for finishing plants
- Paclobutrazol – Do no apply
- Spray broad spectrum fungicide after transplant
- Scout for Aphids and Thrip on regular basis

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm		Daminozide as needed	Spray fungicide after transplant	
Week 6 to 12	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm				Do not apply Paclobutrazol

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB


TRINITY™


Diascia barberae

Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 68° - 70° (20° - 21° C)		Weeks 3-5 100 to 150 ppm N	Apply broad spectrum Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 / 6.2	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist	Not required		Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	70°-72° F (21° - 22°C)	Feed 100 ppm to 150 ppm	Not required			
Week 4	5.8 to 6.2	.90 to 1.0	Cool to 68° / 70° F (20° / 21° C)	Feed 100 to 150 ppm	Not required	Daminozide as needed		Pinch
Week 5	5.8 to 6.2	0.9 to 1.0	68° - 70° (20° - 21° C)	Feed 100 to 150 ppm	Not required	Daminozide as needed		

-  - **Misting specification** - Remove from mist as soon as possible
- Spray adjuvant at sticking

-  - Maintain warm temperatures allowing plants to develop.
- Spray Daminozide at 1500 to 2000 ppm
- Pinch is recommended week 4 or at transplant

DIWALI SHOWER™

Euphorbia hypericifolia

- Pinch is not recommended
- Over wet soil in low light conditions can develop root disease issues, allow soil to dry between irrigations

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot 1 ppp	Average Day 60° - 68° (16° - 20° C)	Pinch not recommended	150 - 200 ppm N	
7 to 8 wks (15 cm) 6 ½" 1 ppp		No lighting necessary	Soil EC 1.0 - 1.2 pH 5.8 to 6.2	
7 to 8 wks (20 cm) 8"	3 plants per container			
7 to 8 wks (25 cm) 10"	3 plants per container			

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 150 - 200 ppm		Daminozide as needed	Spray fungicide after transplant	
Week 6 to 12	5.8 to 6.2	1.0 to 1.2	60° to 68° F (16° to 20° C)	feed 150 - 200 ppm	Not Required	Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- Consistent soil moisture levels are best – allow soil to dry slightly between irrigations
- Scout for Aphids, Thrips and Whiteflies

DIWALI SHOWER™



Euphorbia hypericifolia



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 72° - 74° F (22° - 23° C)	Recommended	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° (18° - 20° C)		Weeks 3-5 100 to 150 ppm N	Spray fungicide to control Botrytis and bacteria Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	72° - 74° F (22° - 23° C)	50 ppm N in mist			Day of sticking	Feeding through Mist
Week 2	5.8 to 6.2	.80 to .90	72° - 74° F (22° - 23° C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 68° - 70° F (20° - 21° C)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	65° - 68° F (18° - 20° C)	Feed 100 ppm to 150 ppm				
Week 5	5.8 to 6.2	1.0 to 1.2	65° - 68° F (18° - 20° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		

-  – **Irrigation specification** – Spray adjuvant after sticking.
-  – Application of hormone as dip or K-IBA spray can hasten rooting
- Pinch is not recommended / very sensitive to ethephon applications
- Maintain moderate damp soil during rooting

FELICITY™

Felicia amelloides

- Soil should remain evenly moist and do not run soil too wet during cooler growing conditions. Root system and foliage will develop problems under continuous wet soil conditions
- Cool temperature finishing for best quality

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 65° - 68° (18° - 20° C)	No Pinch Required	150-200 ppm N	Daminozide spray application at 2500 to 3750 ppm for finishing
7 to 8 wks (15 cm) 6 ½"	1 ppp	Not Required	Soil EC 0.9 - 1.1 pH 5.6 to 6.2	
8 to 9 wks		Day Neutral		
(20 cm) 8"	3 ppp			

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

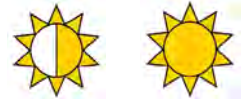
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.6 to 6.2	0.9 to 1.1	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	Not required	Daminozide as needed 2500 ppm	Drench fungicide after transplant	
Week 6 to 10	5.6 to 6.2	0.9 to 1.1	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	Not required			



- PGR – If needed, spray Daminozide at 2500 ppm on young finished plants
- Maintain good airflow and allow plants to dry before nightfall
- Scout for Aphids, Thrips and Whitefly

FELICITY™


Felicia amelloides




Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72° / 74° F (22° / 23° C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.2	0.80	72° / 74° F (22° / 23° C)	50 ppm N in mist	No required		Day of sticking	
Week 2	5.6 to 6.2	.80 to .90	72° / 74° F (22° / 23° C)	50 ppm N in mist			Second fungicide app	
Week 3	5.6 to 6.2	.90 to 1.0	Cool to 68° / 70° F (20° / 21° C)	Feed 100 ppm to 150 ppm				
Week 4	5.6 to 6.2	.90 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm		Daminozide as needed		

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

 – Apply broad spectrum fungicide the day of sticking to control leaf disease.

CORABELLS™

Fuchsia hybrida

- Pinch at transplant
- Well branched and naturally compact plant habit
- Scout for Aphids, Thrips and Whitefly

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks	Average Day	Pinch required/ possible a second pinch if grown in larger containers	150 - 200 ppm N	Should not be required
15 cm (1 gallon) 1 ppp	(16° to 18°C)			
8 to 10 wks	3 plants per container		Soil EC 0.8 – 1.2 pH 5.8 to 6.5	
28 cm (HB) 3 ppp				



- Maintain good airflow and allow plants to dry between irrigations
- High quality plants are grown with moderate/cool temperatures and high light
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	0.8 to 1.0	18° - 20° C (65° - 68° F)	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 13	5.8 to 6.2	0.8 to 1.2	16° - 18° C (61° - 65° F)	feed 150 to 200 ppm			Spray fungicide in finishing protocols	Control of Bacterial Leaf Blights

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

CORABELLS™

Fuchsia hybrida



Stick on priority – Number 4 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2

– **Irrigation specification** – Remove from mist as soon as root emerges

– Spray adjuvant the day of sticking. Spray broad spectrum fungicide to prevent Botrytis day of sticking and week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.2	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist			Day of sticking	
Week 2	5.6 to 6.2	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.6 to 6.2	.90 to 1.0	Cool to 20° - 21°C (68°-70° F)	Feed 100 ppm N				
Week 4	5.6 to 6.2	.90 to 1.0	18° - 20° C (65° - 68° F)	Feed 100 ppm N				
Week 5	5.6 to 6.2	.90 to 1.0	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Should not be required		

SOL SEEKER™

Helianthus hybrid

- Pinch at transplant or week after transplant
- Under short days and low radiation - Keep night temperatures above 65° F (18° C). Lower temperatures will stall plant growth. Longer daylength and warm temperatures will hasten growth development

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 8 wks (12 cm) 5" pot	Average Day 65° (18° C)	Extended day lighting 12 to 14 hours if day length is below 12 hours	150 - 200 ppm N	Daminozide at 2,000 to 2,500 ppm spray applications
8 to 9 wks (15 cm) 6 ½"	65° (18° C) 1 plant per container		Soil EC 1.0 - 1.5 pH 5.7 to 6.3	
8 to 9 wks (20 cm) 8"	3 plants per container			



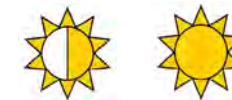
- Spray for Powdery Mildew control
- Temperature is key to maintain proper growth. Temperatures above 65° F (18° C) is required
- Daylength extension to 12-14 hours if under short day conditions
- Scout for Aphids and Thrips on regular basis
- Paclobutrazol soil drench is effective if needed at 1 to 2ppm for finishing

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.7 to 6.3	1.0 to 1.2	65° F (18° C)	feed 100 to 150 ppm	See above	Daminozide as needed	Spray fungicide after transplant	
Week 6 to 13	5.7 to 6.3	1.0 to 1.5	65° F (18° C)	feed 150 to 200 ppm		Paclobutrazol Drench at 1 ppm		Paclobutrazol 1 ppm drench when plants reach 85% of desired size

SOL SEEKER™


Helianthus hybrid




Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°-74°F (22°/23°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 68°-70° (20° - 21° C)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 / 6.2	0.80	72°/74°F (22°/23°C)	50 ppm N in mist	Extend Day		Day of sticking	Extend day to 12-14 hours
Week 2	5.8 to 6.2	.80 to .90	72°/74°F (22°/23°C)	50 ppm N in mist	Extend Day			
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 68°/70°F (20°/21°C)	Feed 100 ppm to 150 ppm	Extend Day		Second fungicide app	
Week 4	5.8 to 6.2	1.0 to 1.2	65°/68°F (18°/20°C)	Feed 100 ppm to 150 ppm	Extend Day	Daminozide as needed		Pinch at transplant

 - **Irrigation specification** – Reduce mist heading into evening conditions to reduce disease pressures. Spray broad spectrum fungicide application day after sticking and at week 3 (include for control of Powdery Mildew)

-  - Application of K-IBA can hasten rooting.
- Daminozide at 1200 ppm week 4 or just before transplant might be required under long days and for the vigorous varieties like SOL SEEKER™ Bronze Burst and Honey
- Light in propagation when in short days - Extend day to 12 hours with high intensity light. Pinch in liner when roots are established or at transplant.

MUSICA®

Impatiens walleriana

- Shade will be required for later spring/summer production
- Maintain a low EC level for proper growth and sizing of plant
- Transplant liners when plants are rooted and actively growing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot 1 ppp	Average Day 65° to 68° F (18° to 20° C)	Pinch –No Daylength Neutral	100 – 125 ppm N	Paclobutrazol at 0.5 ppm drench within 3 weeks of finishing. Allowing soil to dry between irrigations and modest fertility will keep plants more compact
8 to 9 wks (15 cm) 6 ½" pot 1 ppp	65° to 68° F (18° to 20° C)		Soil EC 0.8 - 1.0 pH 5.8 to 6.2	



- Spray broad spectrum fungicide after transplant
- Scout and spray for Powdery Mildew
- Scout for Aphids, Leaf Miners and Thrips on regular basis

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.8 to 6.2	0.8 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 125 ppm	Day neutral	Paclobutrazol at 0.5 ppm drench within 3 weeks of finishing	Drench fungicide at transplant	
Week 6 to 13	5.8 to 6.2	0.8 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 125 ppm				

MUSICA®

Impatiens walleriana



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°-74°F (22°-23°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 68° - 70° (20° - 21° C)		Weeks 3-4 100 ppm N	Apply broad spectrum Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	72°-74°F (22°-23°C)	50 ppm N in mist			Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	72°-74°F (22°-23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.80 to .90	Cool to 68° - 70° (20° - 21° C)	Feed 100 ppm N				
Week 4	5.8 to 6.2	.80 to .90	68° - 70° (20° - 21° C)	Feed 100 ppm N		Should not be required		



– Spray adjuvant at sticking. Remove from mist as soon as possible



- Shade will be required for later spring/summer production
- Maintain warm temperatures allowing plants to develop
- Average daily temperature of 70° F/ 20° C
- Spray fungicide to control botrytis

SOL LUNA™

Impatiens hybrida

- Maintain a low EC level for proper growth and sizing of plant
- Transplant liners when plants are rooted and actively growing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks (12 cm) 5" pot 1 ppp	Average Day 68° - 70° (20° - 21° C)	Pinch –No	100 - 125 ppm N	If required, Uniconazole at 5 to 7 ppm spray application early in crop- Paclobutrazol at 0.5 ppm drench within 3 weeks of finishing
8 to 9 wks (15 cm) 6 ½" pot 1 ppp	68° - 70° (20° - 21° C)			

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB



- **PGR** - Spray Uniconazole 5 to 7 ppm or 1250 Daminozide early in crop
Paclobutrazol drench application at 0.5 ppm for finishing
- **Spray** broad spectrum fungicide after transplant
- **Scout** for Thrips and Mites on regular basis

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	6.0 to 6.5	0.8 to 1.0	68° - 70° (20° - 21° C)	feed 100 to 150 ppm		Uniconazole spray	Drench fungicide at transplant	
Week 6 to 13	6.0 to 6.5	0.8 to 1.0	68° - 70° (20° - 21° C)	feed 100 to 150 ppm		Paclobutrazol Drench at 0.5 ppm		Allow plants to reach 85% of required size before PGR application


SOL LUNA™


Impatiens hybrida

Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 3 72°-74° F (22° - 23°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 4 - 5 70° - 72° (21° - 22° C)		Weeks 3-5 80 ppm N	Apply broad spectrum Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	6.0 / 6.5	0.50	72° / 74° F (22° / 23° C)		Not required		Day of sticking	
Week 2	6.0 / 6.5	.80 to .90	72° / 74° F (22° / 23° C)	50 ppm N in mist	Not required		Second fungicide app	
Week 3	6.0 / 6.5	.80 to .90	72° / 74° F (22° / 23° C)	80 ppm N in mist	Not required			
Week 4	6.0 / 6.5	.80 to .90	70° / 72° F (21° / 22° C)	80 ppm N in mist	Not required			
Week 5	6.0 / 6.5	.80 to .90	70° / 72° F (21° / 22° C)	80 ppm N in mist	Not required			Pinch is not recommended

 – Spray adjuvant at sticking

 – Spray Ethephon at 300 ppm the day after stick. This will reset flowering response. One hour of Ethephon on the leaves will be sufficient time while mist if off.

- Maintain warm temperatures allowing plants to develop and flower
- Average daily temperature of 70° F / 21° C

SOL LUNA PRIME™

Impatiens hybrida

- Maintain an EC level 0.8 to 1.2 for proper growth and sizing of plant
- Transplant liners when plants are rooted and actively growing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
5 to 7 wks (12 cm) 5" pot	Average Day 68°-70° F (20°-21° C)	Pinch –No Daylength Neutral	100 - 150 ppm N	If required, Uniconazole at 5 to 7 ppm spray application early in crop- Paclobutrazol at 0.5 ppm drench within 3 weeks of finishing
7 to 8 wks (15 cm) 6 ½"	68°-70° F (20°-21° C)		Soil EC 1.0 to 1.2 pH 5.8 to 6.2	

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.8 to 6.2	1.0 to 1.2	68°-70° F (20°-21° C)	feed 100 to 150 ppm		Uniconazole spray	Drench fungicide at transplant	
Week 6 to 13	5.8 to 6.2	1.0 to 1.2	68°-70° F (20°-21° C)	feed 100 to 150 ppm		Paclobutrazol Drench at 0.5 ppm		Allow plants to reach 85% of required size before PGR application

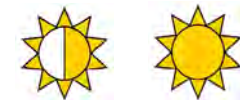
Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB



- PGR - Spray Uniconazole 5 to 7 ppm, or Daminozide 1250 to 2500ppm early in crop
- Paclobutrazol drench application at 0.5 ppm for finishing
- Spray broad spectrum fungicide after transplant
- Scout for Thrips, Broad Mites, and Spider Mites on regular basis

SOL LUNA PRIME™

Impatiens hybrida



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 3 72°-74° F (22° - 23°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 4 - 5 70° - 72° (21° - 22° C)		Weeks 3-5 80 ppm N	Apply broad spectrum Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	6.0/6.5	0.50	72°/74°F (22°/23°C)		Not required		Day of sticking	300 ppm Ethephon Day After Stick
Week 2	6.0/6.5	.80 to .90	72°/74°F (22°/23°C)	50 ppm N in mist	Not required		Second fungicide app	
Week 3	6.0/6.5	.80 to .90	72°/74°F (22°/23°C)	80 ppm N in mist	Not required			
Week 4	6.0/6.5	.80 to .90	70°/72°F (21°/22°C)	80 ppm N in mist	Not required			
Week 5	6.0/6.5	.80 to .90	70°/72°F (21°/22°C)	80 ppm N in mist	Not required			Pinch is not recommended



– Spray adjuvant at sticking



– Spray Ethepon at 300 ppm the day after stick. This will reset flowering response. One hour of Ethepon on the leaves will be sufficient time while mist if off.

- Maintain warm temperatures allowing plants to develop and flower
- Average daily temperature of 70° F / 21° C

SUN HARMONY™

Impatiens hybrida

- Maintain a low EC level for proper growth and sizing of plant
- Transplant liners when plants are rooted and actively growing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks (12 cm) 5" pot	Average Day 68°-70° F (20°-21° C)	Pinch –No Daylength Neutral	100 - 150 ppm N	If required, Uniconazole at 5 to 7 ppm spray application early in crop- Paclobutrazol at 0.5 ppm drench within 3 weeks of finishing
8 to 9 wks (15 cm) 6 ½" pot	68°-70° F (20°-21° C)		Soil EC 0.8 to 1.0 pH 5.8 to 6.2	



- PGR - Spray Uniconazole 5 to 7 ppm early in crop
- Paclobutrazol drench application at 0.5 ppm for finishing
- Spray broad spectrum fungicide after transplant
- Scout for Aphids and Thrips on regular basis

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.8 to 6.2	0.8 to 1.0	68°-70° F (20°-21° C)	feed 100 to 150 ppm		Uniconazole spray	Drench fungicide at transplant	
Week 6 to 13	5.8 to 6.2	0.8 to 1.0	68°-70° F (20°-21° C)	feed 100 to 150 ppm		Paclobutrazol Drench at 0.5 ppm		Allow plants to reach 85% of required size before PGR application

SUN HARMONY™

Impatiens hybrida

Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 3 72°-74° F (22° - 23°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 4 - 5 70° - 72° (21° - 22° C)		Weeks 3-5 80 ppm N	Apply broad spectrum Week 2



– Spray adjuvant at sticking



- Optional to spray Ethephon at 300 ppm the day after stick. This will reset flowering response. One hour of Ethephon on the leaves will be sufficient time while mist is off.
- Maintain warm temperatures allowing plants to develop and flower
- Average daily temperature of 70 F / 20 C

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	6.0/6.5	0.50	72°/74°F (22°/23°C)		Not required		Day of sticking	
Week 2	6.0/6.5	.80 to .90	72°/74°F (22°/23°C)	50 ppm N in mist	Not required		Second fungicide app	
Week 3	6.0/6.5	.80 to .90	72°/74°F (22°/23°C)	80 ppm N in mist	Not required			
Week 4	6.0/6.5	.80 to .90	70°/72°F (21°/22°C)	80 ppm N in mist	Not required			
Week 5	6.0/6.5	.80 to .90	70°/72°F (21°/22°C)	80 ppm N in mist	Not required			Pinch is not recommended

HARMONY®

New Guinea Impatiens

- Maintain a low EC level for proper growth and sizing of plant
- Transplant liners when plants are rooted and actively growing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks (12 cm) 5" pot	Average Day 68°-70° F (20°-21° C)	Pinch –No Daylength Neutral	100 - 150 ppm N	If required, Uniconazole at 5 to 7 ppm spray application early in crop- Paclobutrazol at 0.5 ppm drench within 3 weeks of finishing
8 to 9 wks (15 cm) 6 ½" pot	1 plant per pot		Soil EC 0.8 - 1.0 pH 5.8 to 6.2	



- PGR - Spray Uniconazole 5 to 7 ppm early in crop
- Paclobutrazol drench application at 0.5 ppm for finishing
- Spray broad spectrum fungicide after transplant
- Scout for Aphids and Thrips on regular basis

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.8 to 6.2	0.8 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm		Uniconazole spray	Drench fungicide at transplant	
Week 6 to 13	5.8 to 6.2	0.8 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm		Paclobutrazol Drench at 0.5 ppm		Allow plants to reach 85% of required size before PGR application

HARMONY®

New Guinea Impatiens



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 3 72°-74° F (22° - 23°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 4 - 5 70° - 72° (21° - 22° C)		Weeks 3-5 80 ppm N	Apply broad spectrum Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	6.0/6.5	0.50	72°/74°F (22°/23°C)		Not required		Day of sticking	
Week 2	6.0/6.5	.80 to .90	72°/74°F (22°/23°C)	50 ppm N in mist	Not required		Second fungicide app	
Week 3	6.0/6.5	.80 to .90	72°/74°F (22°/23°C)	80 ppm N in mist	Not required			
Week 4	6.0/6.5	.80 to .90	70°/72°F (21°/22°C)	80 ppm N in mist	Not required			
Week 5	6.0/6.5	.80 to .90	70°/72°F (21°/22°C)	80 ppm N in mist	Not required			Pinch is not recommended



– Spray adjuvant at sticking



- Spray Ethephon at 300 ppm the day after stick. This will reset flowering response. One hour of Ethephon on the leaves will be sufficient time while mist if off.
- Maintain warm temperatures allowing plants to develop and flower
- Average daily temperature of 70 F

HARMONY® COLORFALL™

New Guinea Impatiens

- Maintain a low EC level for proper growth and sizing of plant
- Transplant liners when plants are rooted and actively growing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks (12 cm) 5" pot 1 ppp	Average Day 68° - 70° (20° - 21° C)	Pinch –No Daylength Neutral	100 - 150 ppm N	If required, Uniconazole at 5 to 7 ppm spray application early in crop- Paclobutrazol at 0.5 ppm drench within 3 weeks of finishing
8 to 9 wks (15 cm) 6 ½" pot 1 ppp	1 plant per pot		Soil EC 1.0 - 1.2 pH 5.8 to 6.2	
8 to 10 wks				
(24 cm) 11" pot 3 ppp				

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm		Uniconazole spray	Drench fungicide at transplant	
Week 6 to 13	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm		Paclobutrazol Drench at 0.5 ppm		Allow plants to reach 85% of required size before PGR application

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB



- **PGR** - Spray Uniconazole 5 to 7 ppm early in crop
Paclobutrazol drench application at 0.5 ppm for finishing
- **Spray** broad spectrum fungicide after transplant
- **Scout** for Thrip on regular basis

HARMONY® COLORFALL™

New Guinea Impatiens



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 70° - 72° (21° - 22° C)		Weeks 3-5 80 ppm N	Apply broad spectrum Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	6.0 / 6.5	0.50	72° / 74° F (22° / 23° C)		Not required		Day of sticking	
Week 2	6.0 / 6.5	.80 to .90	72° / 74° F (22° / 23° C)	50 ppm N in mist	Not required		Second fungicide app	
Week 3	6.0 / 6.5	.80 to .90	72° / 74° F (22° / 23° C)	80 ppm N in mist	Not required			
Week 4	6.0 / 6.5	.80 to .90	70° / 72° F (21° / 22° C)	80 ppm N in mist	Not required			
Week 5	6.0 / 6.5	.80 to .90	70° / 72° F (21° / 22° C)	80 ppm N in mist	Not required			Pinch is not recommended



– Spray adjuvant at sticking



– Spray Ethephon at 300 ppm the day after stick. This will reset flowering response. One hour of Ethephon on the leaves will be sufficient time while mist if off.

- Maintain warm temperatures allowing plants to develop and flower
- Average daily temperature of 70 F (21° C)

STARDOM™

Jamesbrittenia

- Maintain consistent soil moisture –plants should not dry to severe wilt
- Cool temperature finishing for best quality and optimum flower color

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 65°-68° F (18°-20° C)	Pinch – Recommended	100 - 200 ppm N	Daminozide at 1500 to 2500 ppm on more vigorous varieties
7 to 8 wks (15 cm) 6 ½"	1 ppp		Soil EC 0.8 - 1.0 pH 5.8 to 6.5	Paclobutrazol Drench at 1 - 2 ppm to finish
7 to 8 wks (20 cm) 8"	3 ppp	Not Required – Day Neutral		



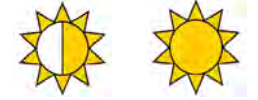
- PGR - Spray Daminozide at 1500 to 2500 ppm on young finished plants - Paclobutrazol drench application at 1 to 2 ppm for finishing if required for the more vigorous varieties
- Maintain good airflow and allow plants to dry before nightfall
- Scout for Aphids & Thrips on regular basis

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium	PROPAMOCARB / MEFENOXAM
	Phytophthora	
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB / Triflumizole

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.8 to 6.5	0.8 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm	Not required	Daminozide as needed 1500 to 2500 ppm	Spray fungicide after transplant	
Week 6 to 12	5.8 to 6.5	0.8 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 200 ppm	Not required	Paclobutrazol Drench at 1 - 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size

STARDOM™


Jamesbrittenia




Stick on priority – Number 1 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8/6.5	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist		Daminozide day after sticking	Day of sticking	
Week 2	5.8 to 6.5	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.5	.90 to 1.0	Cool to 68°/70°F (20°/21°C)	Feed 100 ppm				
Week 4	5.8 to 6.5	.90 to 1.0	65° to 68°F (18°/20°C)	Feed 100 ppm		Daminozide as needed		

-  – **Irrigation specification** - Remove from mist as soon as possible.
- Mist enough to maintain turgid cuttings – keep on dry side.

-  Apply broad spectrum fungicide the day of sticking to control leaf disease.
- Stardom may require Daminaozide in propagation @ 1500 -2000 ppm if grown warm and under low light.

Lantana camara

- Keep the temperatures moderately warm to allow plants to continue to develop (average daily temperature at 73° to 75° F (23° to 24° C)
- High light levels best for finishing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks	Average Day	Pinch –Yes Night interruption or extended day-Optional	150 - 200 ppm N	In liner and finish stages
(12 cm) 5” pot 1 ppp	73° - 75° (23° - 24° C)			
8 to 9 wks	73° - 75° (23° - 24° C)		Soil EC 1.0 - 1.2 pH 5.8 to 6.2	
(15 cm) 6 ½” 1 ppp				



- **PGR** - Spray Daminozide at 2500 to 3750 ppm for finishing plants
- Paclobutrazol drench application at 1 to 2 ppm for finishing if required
- **Spray** broad spectrum fungicide after transplant
- **Scout** for Leaf Miners, Thrips and Whiteflies on regular basis

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 5	5.8 to 6.2	1.0 to 1.2	73° to 75° F (23° to 24° C)	feed 100 to 150 ppm		B-9 as needed	Spray fungicide after transplant	
Week 6 to 13	5.8 to 6.2	1.0 to 1.2	73° to 75° F (23° to 24° C)	feed 100 to 150 ppm		Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench if required

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
	Whiteflies	PYMETROZINE, PYRIPROXYFEN, PYRIFLUQUINAZON
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

Stick on priority – Number 1 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 3 72°-74° F (22° - 23°C)	Recommended	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 4 - 5 68° - 70° (20° - 21° C)		Weeks 3-5 100 to 150 ppm N	Apply broad spectrum Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist	Not required		Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	72°-74° F (22° - 23°C)	Feed 100 ppm to 150 ppm	Not required			
Week 4	5.8 to 6.2	1.0 to 1.2	68° - 70° (20° - 21° C)	Feed 100 to 150 ppm	Not required			Pinch is optional
Week 5	5.8 to 6.2	1.0 to 1.2	68° - 70° (20° - 21° C)	Feed 100 to 150 ppm	Not required	Daminozide as needed		



Misting specification - Remove from mist as soon as possible -

- Spray adjuvant at sticking



- Maintain warm temperatures allowing plants to develop

- Spray Daminozide at 2000 to 2500 ppm

- Pinch is recommended week 4 or at transplant

GEM™ Compact

Lantana camara

- Keep the temperatures moderately warm to allow plants to continue to develop (average daily temperature at 73 to 75 F (23 to 24 C))
- High light levels best for finishing
- Gem Compact may be too compact for cooler growing regions

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks	Average Day	Pinch –Yes Night interruption or extended day-Optional	150 - 200 ppm N	During finishing stage
(12 cm) 5" pot 1 ppp	73° - 75° (23° - 24° C)			
8 to 9 wks	73° - 75° (23° - 24° C)		Soil EC 1.0 - 1.2 pH 5.8 to 6.2	
(15 cm) 6 ½" pot 1 ppp				

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 5	5.8 to 6.2	1.0 to 1.2	73° to 75° F (23° to 24° C)	feed 100 to 150 ppm		B-9 as needed	Spray fungicide after transplant	
Week 6 to 12	5.8 to 6.2	1.0 to 1.2	73° to 75° F (23° to 24° C)	feed 100 to 150 ppm		Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench if required

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
	Whiteflies	PYMETROZINE, PYRIPROXYFEN, PYRIFLUQUINAZON
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB



- **PGR** - Spray Daminozide at 2500 to 3750 ppm for finishing plants
- Paclobutrazol drench application at 1 to 2 ppm for finishing if required
- **Spray** broad spectrum fungicide after transplant
- **Scout** for Leaf Miners, Thrips and Whiteflies on regular basis

GEM™ Compact

Lantana camara

Stick on priority – Number 1 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 3 72°-74° F (22° - 23°C)	Recommended	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 4 - 5 68° - 70° (20° - 21° C)		Weeks 3-5 100 to 150 ppm N	Apply broad spectrum Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist	Not required		Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	72°-74° F (22° - 23°C)	Feed 100 ppm to 150 ppm	Not required			
Week 4	5.8 to 6.2	1.0 to 1.2	68° - 70° (20° - 21° C)	Feed 100 to 150 ppm	Not required			
Week 5	5.8 to 6.2	1.0 to 1.2	68° - 70° (20° - 21° C)	Feed 100 to 150 ppm	Not required			



Misting specification - Remove from mist as soon as possible -

- Spray adjuvant at sticking



- Maintain warm temperatures allowing plants to develop

- Spray Daminozide at 2000 to 2500 ppm

- Pinch is recommended week 4 or at transplant

LAVEANNA™

Lavendula stoechas

- Maintain soil on drier side
- Cool temperature finishing for best quality

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks	Average Day	Pinch optional	100 - 150 ppm N	In liner and finish stages
(12 cm) 5" pot	62° - 68° (16° - 20° C)			
8 to 9 wks	1 ppp	No lighting necessary	Soil EC 1.0 - 1.2 pH 5.8 to 6.2	
(15 cm) 6 ½"				
8 to 9 wks				
(20 cm) 8"	3 plants per container			



- Consistent soil moisture levels are best – allow soil to dry slightly between irrigations
- Scout for Aphids and Spider Mites

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	1.0 to 1.2	62° - 68° (16° - 20° C)	feed 100 to 150 ppm		Daminozide as needed early in crop	Drench fungicide after transplant	
Week 8 to 10	5.8 to 6.2	1.0 to 1.2	62° - 68° (16° - 20° C)	feed 100 to 150 ppm	Not Required			Paclobutrazol @ 2 ppm drench when buds showing if growing in warm conditions

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

LAVEANNA™


Lavendula stoechas




Stick on priority – Number 1 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Recom mended	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 70° (18° - 21° C)		Weeks 3-5 100 ppm N	Spray fungicide to control Botrytis and bacteria Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist			Day of sticking	Feeding through Mist
Week 2	5.6 to 6.0	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.6 to 6.0	.90 to 1.0	Cool to 65° - 70° (18° - 21° C)	Feed 100 ppm				
Week 4	5.6 to 6.0	1.0 to 1.2	65° - 70° (18° - 21° C)	Feed 100 ppm				
Week 5	5.6 to 6.0	0.80	65° - 70° (18° - 21° C)	Feed 100 ppm				

 - Irrigation specification – Lavender responds best if tented to increase humidity around cuttings versus misting. Do not over-saturate foliage or soil. Remove tenting once roots emerge. Spray adjuvant after sticking. Proper air-movement will help prevent foliage issues.

 - Application of IBA can hasten rooting. Daminozide spray application @1500 to 2000 ppm if required. Spray broad spectrum fungicide to prevent foliage diseases.

Lobelia erinus

- Facultative long day plant so extended day lighting is optional
- Cool temperature is best for high quality finishing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 65° to 68° F (18° to 20° C)	No pinch necessary Additional lighting is optional depending on region	150 - 200 ppm N	In liner and finish stages. Daminozide @ 2500 ppm
8 to 9 wks (15 cm) 6 ½"	1 planer per pot		Soil EC 1.2 to 1.5 pH 5.6 to 6.0	
8 to 10 wks (20 cm) 8"	3 plants per container			
8 to 10 wks (25 cm) 10"	3 plants per container			

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 5	5.6 to 6.0	1.2 to 1.5	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm		Daminozide at 2,000 to 2,500 ppm	Spray fungicide after transplant	
Week 6 to 12	5.6 to 6.0	1.2 to 1.5	60° to 68° F (18° to 20° C)	feed 100 to 150 ppm		Paclobutrazol Drench at 1 ppm		Paclobutrazol 1 ppm drench when plants reach 85% of desired size

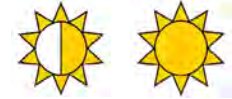
Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB



- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- Maintain soil evenly moist – do not allow plants to dry completely

GLOW™

Lobelia erinus



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 70°-72° F (21° - 22°C)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2



– **Irrigation specification** – Reduce mist as soon as possible



– The series is well branched, so pinching is not needed for a quality finish. Daminozide at 1500 to 2000 ppm on week 4 or 5 if needed.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Additional lighting is optional depending on region		Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	72°-74° F (22° - 23°C)	Feed 100 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	70°-72° F (21° - 22°C)	Feed 100 ppm				
Week 5	5.8 to 6.2	1.0 to 1.2	70°-72° F (21° - 22°C)	Feed 100 to 150 ppm				

STREAM™

Lobularia hybrida

- Pinch is optional
- Cool temperature finishing for best quality

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 65° - 68° (18° - 20° C)	Pinch - Optional	100 - 150 ppm N	In liner and finish stages
8 to 9 wks (15 cm) 6 ½"	1 plant per pot	No lighting necessary	Soil EC 0.8 - 1.0 pH 5.6 to 6.0	
8 to 9 wks (20 cm) 8"	3 plants per container			
8 to 9 wks (25 cm) 10"	3 plants per container			



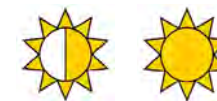
- Consistent soil moisture levels are best – allow soil to dry slightly between irrigations
- Do not apply chemicals with high tendency to create leaf damage
- Scout for Aphids on regular basis

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.6 to 6.0	0.8 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm	Day Neutral	Daminozide as needed	Spray fungicide after transplant	
Week 6 to 12	5.6 to 6.0	0.8 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm	Not Required	Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

STREAM™


Lobularia hybrida




Stick on priority – Number 1 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° (18° - 20° C)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.2 to 5.8	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist			Day of sticking	Feeding through Mist
Week 2	5.2 to 5.8	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.2 to 5.8	.90 to 1.0	Cool to 68° - 70° F (20° - 21° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 4	5.2 to 5.8	1.0 to 1.2	65° to 68° F (18° to 20° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 5	5.2 to 5.8	1.0 to 1.2	65° to 68° F (18° to 20° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		

 - **Irrigation specification** – Reduce from mist as soon as possible

 - Application of K-IBA can hasten rooting. Daminozide at 1500 to 2500 ppm day of sticking. Lighting in propagation is not necessary. The Lobularia Stream™ Series is well branched, and a pinch would only be necessary if grown under lower light levels.

STREAM™ Compact

Lobularia hybrida

- Pinch is optional
- Cool temperature finishing for best quality

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 65° - 68° (18° - 20° C)	Pinch / Optional	100 - 150 ppm N	In liner and finish stages
8 to 9 wks (15 cm) 6 ½"	1 plant per pot	No lighting necessary	Soil EC 0.8 - 1.0 pH 5.6 to 6.0	
8 to 9 wks (20 cm) 8"	3 plants per container			
8 to 9 wks (25 cm) 10"	3 plants per container			



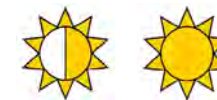
- Consistent soil moisture levels are best – allow soil to dry slightly between irrigations
- Do not apply chemicals with high tendency to create leaf damage
- Scout for Aphids on regular basis

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.6 to 6.0	0.8 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm	Day Neutral	Daminozide as needed	Spray fungicide after transplant	
Week 6 to 12	5.6 to 6.0	0.8 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm	Not Required	Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

STREAM™ Compact


Lobularia hybrida




Stick on priority – Number 1 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° (18° - 20° C)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.2 to 5.8	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist			Day of sticking	Feeding through Mist
Week 2	5.2 to 5.8	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.2 to 5.8	.90 to 1.0	Cool to 68° - 70° F (20° - 21° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 4	5.2 to 5.8	1.0 to 1.2	65° to 68° F (18° to 20° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 5	5.2 to 5.8	1.0 to 1.2	65° to 68° F (18° to 20° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		

 – **Irrigation specification** – Reduce from mist as soon as possible

 – Application of K-IBA can hasten rooting. Daminozide at 1500 to 2500 ppm day of sticking. Lighting in propagation is not necessary. The Lobularia Stream™ Series is well branched and a pinch would only be necessary if grown under lower light levels.

GARDEN FRECKLES™

Marcadonia grandiflora

- Finish under high light for quality plants
- Cool temperatures may create stress and develop yellow stems or at the meristems.
When the temperatures warm, the plants will return to a green color

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
5 to 7 wks	Average Day	Pinch – should not be required	100-125 ppm N	Should not be required
10 cm (quart)	68°-70° F (20°-21° C)		Soil EC 1.0 - 1.2 pH 5.8 to 6.2	
6 to 8 wks	1 plant per pot			
(15 cm) 6"				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB / MEFENOXAM
	Phytophthora	
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB / Triflumizole

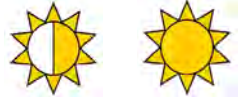
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.2	1.0 to 1.2	68° to 70° F (20° to 21° C)	feed 100 ppm N	None	Only under low light conditions	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 12	5.8 to 6.2	1.2 to 1.5	68° to 70° F (20° to 21° C)	feed 100 to 125 ppm N				



- Cool temperatures may create yellowing at the end of plant stems
- Do not allow soil to become oversaturated
- Scout for Aphids, Mites and Thrips
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

GARDEN FRECKLES™


Marcadonia grandiflora




Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 3 70°-72° F (21° - 22°C)	No	Weeks 1-3 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 4- 5 68° - 70° (20° - 21° C)		Weeks 4-5 100 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8/6.2	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	70°-72° F (21° - 22°C)	Feed 100 ppm N				
Week 4	5.8 to 6.2	.90 to 1.0	Cool to 68° - 70° (20° - 21° C)	Feed 100 ppm N		Daminozide as needed		
Week 5	5.8 to 6.2	.90 to 1.0	68° - 70° (20° - 21° C)	Feed 100 ppm N				

 - **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible

 Marcadonia Golden Freckles is day neutral and prefers bright light conditions for maximum flowering. Moderate moisture levels for the media in propagation.

MAI TAI™

Mimulus aurantiacus

- Pinch will be required (leave 4 to 5 nodes)
- Mimulus prefers long days and warm temperatures to flower

Average Time (from liners)	Temperature	Pinch/Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 65° to 68° F (18° to 20° C)	Pinch week 4 or at transplant	100 - 150 ppm N	In liner and finish stages
8 to 9 wks (15 cm) 6 ½"	1 plant per pot	No lighting necessary	Soil EC 1.0 - 1.2 pH 5.5 to 5.8	
8 to 9 wks (20 cm) 8"		3 plants per container		
8 to 9 wks (25 cm) 10"	3 plants per container	8 to 9 wks		

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.5 to 5.8	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm	Prefers long days	Daminozide as needed	Drench fungicide after transplant	
Week 6 to 12	5.5 to 5.8	1.0 to 1.2	65° to 68° (18° to 20° C)	feed 100 to 150 ppm				

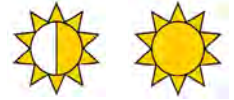
Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
	Whiteflies	PYMETROZINE, PYRIPROXYFEN, PYRIFLUQUINAZON
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB



- Scout for Aphids and Whiteflies
- Botrytis and Rhizoctonia – fungicide drench after transplant to control root and stem diseases

MAI TAI™


Mimulus aurantiacus




Stick on priority – Number 1 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 68° - 70° (20° - 21° C)		Weeks 3-5 100 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 to 5.8	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist			Day of sticking	Feeding through Mist
Week 2	5.5 to 5.8	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.5 to 5.8	.90 to 1.0	Cool to 68° - 70° (20° - 21° C)	Feed 100 ppm				
Week 4	5.5 to 5.8	1.0 to 1.2	68° - 70° (20° - 21° C)	Feed 100 ppm				Pinch
Week 5	5.5 to 5.8	1.0 to 1.2	68° - 70° (20° - 21° C)	Feed 100 ppm				

 - **Irrigation specification** - Remove from mist as soon as possible. Limit misting in propagation. Do not saturate soil

 - Application of K-IBA can hasten rooting. Maintain warm temperatures in propagation.

- When pinching make sure to leave 4 to 6 nodes below the cut

Nemesia Hybrida

- Keep the soil evenly moist, avoiding overly wet conditions, especially during cooler growing periods. Prolonged wet soil can lead to root and foliage issues.
- Finish plants at cool temperatures for the best quality and vibrant flower color.

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 65°-68 F (18°-20° C)	Pinch – Recommended	100 - 200 ppm N	Daminozide spray application at 2500 to 3750 ppm
8 to 9 wks (15 cm) 6 ½"	1 ppp		Soil EC 1.0 - 1.2 pH 5.6 to 6.0	
8 to 9 wks (20 cm) 8"	3 ppp	Not Required – Day Neutral		Paclobutrazol drench application at 2 ppm



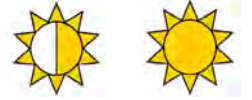
- **PGR** – Menor series is naturally compact, therefore PGR application is optional. If needed Daminozide application of up to 2500 ppm on young finished plants is possible.
- **Maintain good airflow** and allow plants to dry before nightfall
- **Scout** for Aphids, Thrips, Mites and Whitefly

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.6 to 6.0	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	Not required	Daminozide as needed 2500 ppm	Drench fungicide after transplant	
Week 6 to 12	5.6 to 6.0	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	Not required	Paclobutrazol Drench at 2 ppm		Paclobutrazol 2 ppm drench when plants reach 85% of desired size

MENOR™

Nemesia Hybrida



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist		Daminozide as needed	Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.6 to 6.0	.90 to 1.0	Cool to 65° - 68° (18° - 20° C)	Feed 100 ppm to 150 ppm				
Week 4	5.6 to 6.0	1.0 to 1.2	65° - 68° (18° - 20° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		



– **Irrigation specification** – Reduce mist as soon as possible



Apply broad spectrum fungicide the day of sticking to control leaf disease. For the more vigorous varieties, apply Daminozide spray at 2000 ppm week 3.

Nemesia Hybrida

- Keep the soil evenly moist, avoiding saturated soil conditions, especially during cooler growing periods. Prolonged wet soil can lead to root and foliage issues.
- Finish plants at cool temperatures for the best quality and vibrant flower color.
- Areas of high radiation/warm temperatures – spray PGR's to control plant height.

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 8 wks (12 cm) 5" pot	Average Day 65°-68 F (18°-20° C)	Pinch – Recommended	100 - 200 ppm N	Daminozide spray application at 2500 to 3750 ppm
8 to 9 wks (15 cm) 6 ½"	1 ppp		Soil EC 1.0 - 1.2 pH 5.6 to 6.0	
8 to 9 wks (20 cm) 8 "	3 ppp		Paclobutrazol drench application at 2 ppm	

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

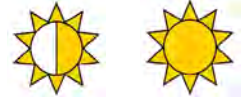
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 5	5.6 to 6.0	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	Not required	Daminozide as needed 2500 ppm	Drench fungicide after transplant	
Week 6 to 12	5.6 to 6.0	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	Not required	Paclobutrazol Drench at 2 ppm		Paclobutrazol 2 ppm drench when plants reach 85% of desired size



- **PGR** - Spray Daminozide at 2500 ppm on young finished plants - Paclobutrazol drench application at 2 ppm for finishing if required for the more vigorous varieties
- **Maintain good airflow** and allow plants to dry before nightfall
- **Scout** for Aphids, Thrips, Mites and Whitefly

NESIA™

Nemesia Hybrida



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6/6.0	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist		Daminozide as needed	Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.6 to 6.0	.90 to 1.0	Cool to 68° - 70°F (20°-21°C)	Feed 100 ppm to 150 ppm				
Week 4	5.6 to 6.0	1.0 to 1.2	65° - 68° (18° - 20° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		



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



Apply broad spectrum fungicide the day of sticking to control leaf disease.
For the more vigorous varieties, apply Daminozide spray at 2000 ppm week 3.

BESTIES™

Osteospermum ecklonis

- Cool temperature finishing will create the best quality.
- Pinch is optional in warm countries above 5-6 pair of leaves.

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks (12 cm) 5" pot	Average Day 65° - 68° (18° - 20° C)	Pinch not recommended when the plants are well compact and in low radiation countries	100 - 150 ppm N	In liner and finish stages
8 to 9 wks (15 cm) 6 ½"	1 plant per pot		Soil EC 1.0 - 1.2 pH 5.8 to 6.2	
8 to 9 wks (20 cm) 8"		No lighting necessary		
8 to 9 wks (25 cm) 10"	3 plants per container			



- Consistent soil moisture levels are best – allow soil to dry slightly between irrigations
- Maintain dry foliage when entering night temperatures
- When pinch is needed – above 5-7 pair of leaves and at transplant

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.2	1.0 to 1.2	65° - 68° (18° - 20° C)	feed 100 to 150 ppm		Daminozide as needed	Spray fungicide after transplant	
Week 6 to 12	5.8 to 6.2	1.0 to 1.2	65° - 68° (18° - 20° C)	65° - 68° (18° - 20° C)		Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

BESTIES™

Osteospermum ecklonis



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Recommended	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° (18° - 20° C)		Weeks 3-5 100 to 150 ppm N	Spray fungicide to control Botrytis and bacteria Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.2	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist		Daminozide day of sticking	Day of sticking	Feeding through Mist
Week 2	5.8 to 6.2	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 65° - 68° (18° - 20° C)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	65° - 68° (18° - 20° C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 5	5.8 to 6.2	1.0 to 1.2	65° - 68° (18° - 20° C)	Feed 100 ppm to 150 ppm				



– **Irrigation specification** – Spray adjuvant after sticking.



– Application of IBA or K-IBA can hasten rooting. Daminozide at 2500 ppm day of sticking. Lighting in propagation will hasten flowering response - Night interruption or extended day. Pinch is not recommended.

OSTICA™

Osteospermum ecklonis

- Pinch is optional in warm countries above 5-6 pair of leaves.
- Cool temperature finishing for best quality

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks (12 cm) 5" pot	Average Day 65° to 68° F (18° to 20° C)	Pinch not recommended when the plants are well compact and in low radiation countries No lighting necessary	100 - 150 ppm N	In liner and finish stages
8 to 9 wks (15 cm) 6 ½"	60° to 68° F (15° to 20° C)		Soil EC 1.0 - 1.2 pH 5.8 to 6.2	
8 to 9 wks (20 cm) 8"	1 plant per pot 3 plants per container			
8 to 9 wks (25 cm) 10"	3 plants per container			

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm		Daminozide as needed	Spray fungicide after transplant	
Week 6 to 12	5.8 to 6.2	1.2 to 1.5	60° to 68° F (15° to 20° C)	feed 100 to 150 ppm	Not Required	Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size



- Consistent soil moisture levels are best – allow soil to dry slightly between irrigations
- Scout for Aphids and Whiteflies

OSTICA™

Osteospermum ecklonis



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	Recommended	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° (18° - 20° C)		Weeks 3-5 100 to 150 ppm N	Spray fungicide to control Botrytis and bacteria Week 2



– **Irrigation specification** – Spray adjuvant after sticking.



Application of IBA or K-IBA can hasten rooting. Daminozide at 2500 ppm week 3 or 4 if stretching occurs . Pinch is optional in warm countries above 5-6 pair of leaves.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist		Daminozide day after sticking	Day of sticking	Feeding through Mist
Week 2	5.8 to 6.2	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 68°F (20°C)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	65° to 68°F (18° to 20°C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 5	5.8 to 6.2	1.0 to 1.2	65° to 68°F (18° to 20°C)	Feed 100 ppm to 150 ppm		Daminozide as needed		

OSTICADE™

Osteospermum ecklonis

- Pinch is optional in warm countries above 5-6 pair of leaves.
- Cool temperature finishing for best quality

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks (12 cm) 5" pot	Average Day 65° to 68° F (18° to 20° C)	Pinch not recommended when the plants are well compact and in low radiation countries	100 - 150 ppm N	In liner and finish stages
8 to 9 wks (15 cm) 6 ½"	60° to 68° F (15° to 20° C)		Soil EC 1.0 - 1.2 pH 5.8 to 6.2	
	1 plant per pot	No lighting necessary		
8 to 9 wks (20 cm) 8"	3 plants per container			
8 to 9 wks (25 cm) 10"	3 plants per container			

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.2	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm		Daminozide as needed	Spray fungicide after transplant	
Week 6 to 12	5.8 to 6.2	1.2 to 1.5	60° to 68° F (15° to 20° C)	feed 100 to 150 ppm	Not Required	Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size



- Consistent soil moisture levels are best – allow soil to dry slightly between irrigations
- Scout for Aphids and Whiteflies

OSTICADE™

Osteospermum ecklonis



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	Recommended	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° (18° - 20° C)		Weeks 3-5 100-150 ppm	Spray fungicide to control Botrytis and bacteria Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist		Daminozide day after sticking	Day of sticking	Feeding through Mist
Week 2	5.8 to 6.2	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 68°F (20°C)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	65° to 68°F (18° to 20°C)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 5	5.8 to 6.2	1.0 to 1.2	65° to 68°F (18° to 20°C)	Feed 100 ppm to 150 ppm		Daminozide as needed		



– **Irrigation specification** – Spray adjuvant after sticking.



Application of IBA or K-IBA can hasten rooting. Daminozide at 2500 ppm week 3 if stretching occurs . Pinch is optional in warm countries above 5-6 pair of leaves.

PRIMAVERA™

Pericallis hybrida

- Spray fungicide to protect against Powdery Mildew – Supply adequate airflow
- Cool temperature finishing for best quality – 55 to 60 F (13°-16° C) average daily temperature

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks (12 cm) 5" pot	Average Day 55°-60° F (13°-16° C)	Pinch week before transplant or at transplant Day Neutral	100-150 ppm N	In liner and finish stages
8 to 9 wks (15 cm) 6 ½"	1 plant per container		Soil EC 1.0 - 1.2 pH 5.8 to 6.2	
8 to 9 wks (20 cm) 8"	3 plants per container			

Pests	Diseases
Aphids	Botrytis
Thrips	Pythium
	Phytophthora
	Rhizoctonia

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	1.0 to 1.2	55° to 60° F (13° to 15° C)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	
Week 6 to 12	5.8 to 6.2	1.0 to 1.2	55° to 60° F (13° to 15° C)	feed 100 to 150 ppm	Not Required	Paclobutrazol Drench at 1 to 2 ppm	Control of water molds and Thielaviopsis	Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size



- Allow soil to dry between irrigations / For southern regions, some shade may be necessary
- Best to feed with Nitrate forms of Nitrogen
- Daminozide at 2500 to 3750 ppm / Paclobutrazol at 1 to 2 ppm to finish crop
- Fuchsia, Navy Blue and Violet are the earliest to flower and most vigorous
- Scout for Aphids, Mites and Whiteflies

PRIMAVERA™

Pericallis Hybrida



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	Recommended	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° (18° - 20° C)		Weeks 3-5 100 ppm N	Spray fungicide to control Botrytis and bacteria Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6/6.2	0.80	72° to 74° F (22° - 23°C)	50 ppm N in mist		Daminozide day after sticking	Day of sticking	Feeding through Mist
Week 2	5.6 to 6.2	.80 to .90	72° to 74° F (22° - 23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.6 to 6.2	.90 to 1.0	Cool to 68°F (20°C)	Feed 100 ppm				
Week 4	5.6 to 6.2	1.0 to 1.2	65° to 68°F (18° to 20°C)	Feed 100 ppm		Daminozide as needed		
Week 5	5.6 to 6.2	1.0 to 1.2	65° to 68°F (18° to 20°C)	Feed 100 ppm		Daminozide as needed		

- **Irrigation specification** – Spray adjuvant after sticking. Do not over-mist or saturate soil.

Drench plants with fungicide to protect against root and stem pathogens.
 • Daminozide at 2500 ppm if required week 4 / 5. Pinch the week before transplant or at transplant.
 Provide adequate air-movement and allow plants to dry going into the evening.

AMAZONAS™

Petunia

- Maintain lower pH levels for optimal Iron (Fe) and Manganese (Mn) availability to plants
- Cool temperature is best for high quality finishing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 65° to 68° F (18° to 20° C)	No pinch necessary	150 - 200 ppm N	Finish stage Daminozide @ 1500 to 2500 ppm /
8 to 9 wks (15 cm) 6 ½"	1 plant per pot	Additional lighting is optional depending on region (complete 12 -14 h daylength)	Soil EC 1.2 - 1.5 pH 5.6 to 6.0	
8 to 10 wks (20 cm) 8"				
8 to 10 wks (25 cm) 10"	3 plants per container			

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

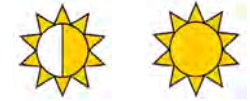
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 4	5.6 to 6.0	1.2 to 1.5	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	N/A	Daminozide spray applications	Spray fungicide after transplant	
Week 5 to 10	5.6 to 6.0	1.2 to 1.5	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	N/A	Paclobutrazol Drench at 1 ppm if needed		



- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- PGR – Amazonas genetics are naturally more compact. Spray Daminozide at lower rates if needed.

AMAZONAS™

Petunia



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-5 100 to 150 ppm	Day of sticking & Week 2



– **Irrigation specification** – Reduce mist as soon as possible



The series is well branched, so pinching is not required for a quality finish. Daminozide at 1500 ppm the day after sticking. Week 4 – Daminozide @ 2500 ppm / Uniconazole @ 10 ppm tank mix if plants are aggressively growing.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Additional lighting is optional depending on region(complete 12 -14 h daylength)	Daminozide day after sticking	Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist				Second fungicide app
Week 3	5.6 to 6.0	.90 to 1.0	Cool to 68°F (20°C)	Feed 100 ppm to 150 ppm				
Week 4	5.6 to 6.0	1.0 to 1.2	65° to 68°F (18° to 20°C)	Feed 100 ppm to 150 ppm				

AMORE®

Petunia Hybrida

- Maintain lower pH levels for optimal Iron (Fe) and Manganese (Mn) availability to plants
- Cool temperature is best for high quality finishing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 65° to 68° F (18° to 20° C)	No pinch necessary	100 – 150 ppm N	Finish stages Daminozide @ 2500 to 3200 ppm
8 to 9 wks (15 cm) 6 ½"	1 plant per pot	Additional lighting is optional depending on region (complete 12 -14 h daylength)	Soil EC 1.2 - 1.5 pH 5.6 to 6.0	
8 to 10 wks (20 cm) 8"				
8 to 10 wks (25 cm) 10"	3 plants per container			

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIACARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

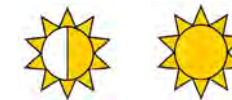
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 4	5.6 to 6.0	1.2 to 1.5	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	N/A	Daminozide spray	Spray fungicide after transplant	
Week 5 to 10	5.6 to 6.0	1.2 to 1.5	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	N/A	Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size



- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- PGR - Spray Daminozide at 2,500 to 3,200 ppm and / or Paclobutrazol drench application at 1 to 2 ppm for finishing if required

AMORE®

Petunia Hybrida



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 150 ppm	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Additional lighting is optional depending on region (complete 12 -14 h daylength)	Daminozide day after sticking	Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist		Second fungicide app		
Week 3	5.6 to 6.0	.90 to 1.0	Cool to 68°F (20°C)	Feed 100 ppm to 150 ppm				
Week 4	5.6 to 6.0	1.0 to 1.2	65° to 68°F (18° to 20°C)	Feed 100 ppm to 150 ppm		Daminozide @ 2500 ppm		



– **Irrigation specification** – Reduce mist as soon as possible



The series is well branched, so pinching is not required for a quality finish. Daminozide at 1500 ppm the day after sticking. Week 4 – Daminozide @ 2500 ppm / Uniconazole @ 10 ppm tank mix if plants are aggressively growing. Amore® Fiesta, Heart & Soul and Queen of Heart are most vigorous varieties within the series.

BLUE DIAMOND™

Petunia Hybrida

- Maintain lower pH levels for optimal Iron (Fe) and Manganese (Mn) availability to plants
- Cool temperature is best for high quality finishing
- Slightly less vigorous than Capella petunias

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (10 cm) 5" pot	Average Day 65° to 68° F (18° to 20° C)	No pinch necessary	150 - 200 ppm N	Finish stages Daminozide @ 2000 to 2500 ppm if required
8 to 9 wks (15 cm) 6"	1 plants per container	Additional lighting is optional depending on region (complete 12 -14 h daylength)	Soil EC 1.2 - 1.5 pH 5.6 to 6.0	
8 to 9 wks (20 cm) 8"				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

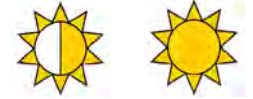
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 4	5.6 to 6.0	1.2 to 1.5	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	N/A	Daminozide	Spray fungicide after transplant	
Week 5 to 10	5.6 to 6.0	1.2 to 1.5	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	N/A	Paclobutrazol Drench at 1 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size



- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- PGR - Spray Daminozide 2,500 to 3,200 ppm and/or Paclobutrazol drench application at 1 to 2 ppm for finishing if required

BLUE DIAMOND™

Petunia Hybrida



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 150 ppm	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Additional lighting is optional depending on region (complete 12 - 14 h daylength)		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist		Second fungicide app		
Week 3	5.6 to 6.0	.90 to 1.0	Cool to 68°F (20°C)	Feed 100 ppm to 150 ppm				
Week 4	5.6 to 6.0	1.0 to 1.2	65° to 68°F (18° to 20°C)	Feed 100 ppm to 150 ppm				



– **Irrigation specification** – Reduce mist as soon as possible



Daminozide spray application at 1500 ppm week 3 or 4 if required only if the plants are too mature/elongated. Blue Diamond™ is a standalone variety since it's slightly more compact than the Danziger Capella™ series.

CAPELLA™

Petunia Hybrida

- Maintain lower pH levels for optimal Iron (Fe) and Manganese (Mn) availability to plants
- Cool temperature is best for high quality finishing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 65° to 68° F (18° to 20° C)	No pinch necessary	150 - 200 ppm N	In liner and finish stages. Daminozide @ 2000 to 2500 ppm
8 to 9 wks (15 cm) 6 ½"	1 plant per pot	Additional lighting is not required	Soil EC 1.2 - 1.5 pH 5.6 to 6.0	
8 to 10 wks (20 cm) 8"				
8 to 10 wks (25 cm) 10"	3 plants per container			

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

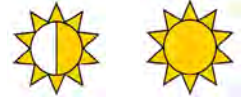
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 4	5.6 to 6.0	1.2 to 1.5	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	N/A	Daminozide spray application	Spray fungicide after transplant	
Week 5 to 10	5.6 to 6.0	1.2 to 1.5	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	N/A	Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size



- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- PGR - Spray Daminozide 2,000 to 2,500 ppm and / or Paclobutrazol drench application at 1 to 2 ppm for finishing if required

CAPELLA™

Petunia Hybrida



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 150 ppm	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Additional lighting is not required	Daminozide day after sticking	Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.6 to 6.0	.90 to 1.0	Cool to 68°F (20°C)	Feed 100 ppm to 150 ppm				
Week 4	5.6 to 6.0	1.0 to 1.2	65° to 68°F (18° to 20°C)	Feed 100 ppm to 150 ppm		Daminozide spray application @ 2000 to 2500 ppm		



– **Irrigation specification** – Reduce mist as soon as possible



The series is well branched, so pinching is not required for a quality finish. Daminozide at 1500 ppm the day after sticking. Week 4 – Daminozide @ 2000 to 2500 ppm

CASCADIAS™

Petunia Hybrida

- Maintain lower pH levels for optimal Iron (Fe) and Manganese (Mn) availability to plants
- Cool temperature is best for high quality finishing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 68°-72° F (20°-22° C)	No pinch necessary	150 - 200 ppm N	finish stage - Daminozide @ 2500 ppm
8 to 9 wks (15 cm) 6 ½"	1 plant per pot	Additional lighting is optional depending on region (complete 12 -14 h daylength)	Soil EC 1.2 - 1.5 pH 5.6 to 6.0	
8 to 10 wks (20 cm) 8"				
8 to 10 wks (25 cm) 10"	3 plants per container			

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

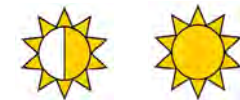
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 4	5.6 to 6.0	1.2 to 1.5	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	N/A	Daminozide/ Uniconazole tank mix if required	Spray fungicide after transplant	
Week 5 to 10	5.6 to 6.0	1.2 to 1.5	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	N/A	Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size



- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- PGR - Spray Daminozide at 2,500 to 3,000 ppm and/or Paclobutrazol drench application at 1 to 2 ppm for finishing if required

CASCADIAS™

Petunia Hybrida



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 150 ppm	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Additional lighting is optional depending on region (complete 12 -14 h daylength)	Daminozide day after sticking	Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist				
Week 3	5.6 to 6.0	.90 to 1.0	Cool to 68°F (20°C)	Feed 100 ppm to 150 ppm				
Week 4	5.6 to 6.0	1.0 to 1.2	65° to 68°F (18° to 20°C)	Feed 100 ppm to 150 ppm		Daminozide spray application at 2500 ppm		



– **Irrigation specification** – Reduce mist as soon as possible



The series is well branched, so pinching is not required for a quality finish. Daminozide at 1500 ppm the day after sticking. Week 4 – Daminozide @ 2500 ppm mix if plants are aggressively growing.

LITTLETUNIA®

Petunia Hybrida

- Maintain lower pH levels for optimal Iron (Fe) and Manganese (Mn) availability to plants
- Cool temperature is best for high quality finishing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 65° to 68° F (18° to 20° C)	No pinch necessary	150 - 200 ppm N	In liner and finish stages. Daminozide @ 1500 to 2000 ppm
7 to 8 wks (15 cm) 6 ½"	1 plant per pot	Additional lighting is not required	Soil EC 1.2 - 1.5 pH 5.6 to 6.0	
8 to 9 wks (20 cm) 8"				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

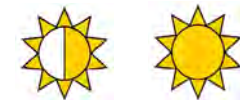
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 4	5.6 to 6.0	1.2 to 1.5	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	N/A	Daminozide	Spray fungicide after transplant	
Week 5 to 10	5.6 to 6.0	1.2 to 1.5	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	N/A			



- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- PGR - Spray Daminozide at 1500 to 2000 ppm for height control

LITTLETONIA®

Petunia Hybrida



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 150 ppm	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Additional lighting is optional depending on region (complete 12 -14 h daylength)	Daminozide day after sticking	Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist				
Week 3	5.6 to 6.0	.90 to 1.0	Cool to 68°F (20°C)	Feed 100 ppm to 150 ppm				
Week 4	5.6 to 6.0	1.0 to 1.2	65° to 68°F (18° to 20°C)	Feed 100 ppm to 150 ppm		Daminozide as required		



Irrigation specification – Reduce mist as soon as possible



The series is well branched, so pinching is not required for a quality finish. Daminozide at 1500 ppm the day after sticking. Week 4 – Daminozide @ 1500 to 2000 ppm should be sufficient to control growth on Littletonia™ series.

Petunia Hybrida

- Maintain lower pH levels for optimal Iron (Fe) and Manganese (Mn) availability to plants
- Cool temperature is best for high quality finishing

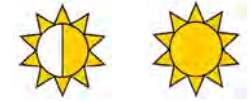
Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 65° to 68° F (18° to 20° C)	No pinch necessary	150 - 200 ppm N	Finish stages Daminozide @ 2500 to 3200 ppm
8 to 9 wks (15 cm) 6 ½"	1 plant per pot	Additional lighting is optional depending on region (complete 12 -14 h daylength)	Soil EC 1.2 - 1.5 pH 5.6 to 6.0	
8 to 10 wks (20 cm) 8"				
8 to 10 wks (25 cm) 10"	3 plants per container			

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 4	5.6 to 6.0	1.2 to 1.5	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	N/A	Daminozide	Spray fungicide after transplant	
Week 5 to 10	5.6 to 6.0	1.2 to 1.5	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	N/A	Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size



- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- PGR - Spray Daminozide at 2,500 to 3,200 ppm and / or Paclobutrazol drench application at 1 to 2 ppm for finishing if required



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 150 ppm	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Additional lighting is optional depending on region (complete 12 -14 h daylength)	Daminozide day after sticking	Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.6 to 6.0	.90 to 1.0	Cool to 68°F (20°C)	Feed 100 ppm to 150 ppm				
Week 4	5.6 to 6.0	1.0 to 1.2	65° to 68°F (18° to 20°C)	Feed 100 ppm to 150 ppm		Daminozide spray application at 2500 ppm		



Irrigation specification – Reduce mist as soon as possible



The series is well branched, so pinching is not required for a quality finish.
 Daminozide at 1500 ppm the day after sticking.
 Week 4 – Daminozide @ 2500 ppm / Uniconazole @ 10 ppm tank mix if plants are aggressively growing.

SPLASH DANCE®

Petunia Hybrida

- Maintain lower pH levels for optimal Iron (Fe) and Manganese (Mn) availability to plants
- Cool temperature is best for high quality finishing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 65° to 68° F (18° to 20° C)	No pinch necessary	150 - 200 ppm N	Finish stages Daminozide @ 2500 to 3200 ppm
8 to 9 wks (15 cm) 6 ½"	1 plant per pot	Additional lighting is optional depending on region (complete 12 -14 h daylength)	Soil EC 1.2 - 1.5 pH 5.6 to 6.0	
8 to 10 wks (20 cm) 8"				
8 to 10 wks (25 cm) 10"	3 plants per container			

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

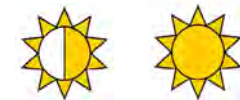
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 4	5.6 to 6.0	1.2 to 1.5	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	N/A	Daminozide/ Uniconazole tank mix if required	Spray fungicide after transplant	
Week 5 to 10	5.6 to 6.0	1.2 to 1.5	65° to 68° F (18° to 20° C)	feed 150 to 200 ppm	N/A	Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size



- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- PGR - Spray Daminozide at 2,500 to 3,200 ppm and / or Paclobutrazol drench application at 1 to 2 ppm for finishing if required. The most vigorous varieties are Bolero Blue, Purple Polka and Violet Vogue

SPLASH DANCE®

Petunia Hybrida



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 150 ppm	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Additional lighting is optional depending on region (complete 12 -14 h daylength)	Daminozide day after sticking	Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist				
Week 3	5.6 to 6.0	.90 to 1.0	Cool to 68°F (20°C)	Feed 100 ppm to 150 ppm				
Week 4	5.6 to 6.0	1.0 to 1.2	65° to 68°F (18° to 20°C)	Feed 100 ppm to 150 ppm		Daminozide @ 2500 ppm		



Irrigation specification – Reduce mist as soon as possible



The series is well branched so pinching is not need for a quality finish.
 Daminozide at 1500 ppm the day after sticking.
 Week 4 – Daminozide @ 2500 ppm spray application

PHLOXSTAR™

Phlox drummondii

- Allow soil to dry between irrigations (avoid saturated soil)
- Pinch at transplant or shortly after transplant
- Best when grown under high light with cool temperatures

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 8 wks (12 cm) 5" pot	Average Day 65° to 68° F (18° to 20° C)	Pinch is recommended	100 - 150 ppm N	In liner and finish stages
8 to 9 wks (15 cm) 6 ½"	60° to 68° F (15° to 20° C)	Phlox d. responds to long days to hasten flowering	Soil EC 0.9 - 1.2 pH 6.0 to 6.5	
8 to 9 wks (20 cm) 8"	1 plant per pot			



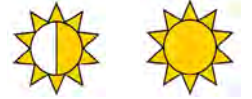
- PGR - Spray Daminozide at 2000 to 2500 ppm on finished plants early in crop schedule / Paclobutrazol drench application at 1 ppm for finishing if required
- Pinch at transplant or shortly after transplant
- Scout for Aphids, Mites and Thrips
- Drench after transplant for Pythium / Phytophthora – Spray for Powdery Mildew control

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium	PROPAMOCARB / MEFENOXAM
	Phytophthora	
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB / Triflumizole

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	6.0 to 6.5	0.9 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm		Daminozide as needed	Spray fungicide after transplant	Daminozide @ 2000 to 2500 ppm
Week 6 to 12	6.0 to 6.5	0.9 to 1.2	60° to 68° F (15° to 20° C)	feed 100 to 150 ppm	Optional	Paclobutrazol Drench	Spray for Powdery Mildew	If plants are growing under warm conditions, Paclobutrazol drench application at 0.25 to 0.5 ppm


PHLOXSTAR™


Phlox drummondii



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	Recommended	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° (18° - 20° C)		Weeks 3-5 150 ppm N	Spray fungicide to control Botrytis and bacteria Week 2

 - **Irrigation specification** – Spray adjuvant after sticking and remove from mist as soon as possible

 Phlox drummondii prefer humidity from tenting vs misting foliage and soil. Dry soil conditions are conducive to uniform rooting. Spray for control of Powdery Mildew.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	6.0/6.5	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Beneficial		Day of sticking	Feeding through Mist
Week 2	6.0/6.5	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist			Second fungicide app	
Week 3	6.0/6.5	.80 to .90	Cool to 68°-70°F (20°-21°C)	Feed 100 ppm to 150 ppm				
Week 4	6.0/6.5	.80 to .90	65° to 68°F (18°/20°C)	Feed 100 ppm to 150 ppm				
Week 5	6.0/6.5	0.9 to 1.0	65° to 68°F (18°/20°C)	Feed 100 ppm to 150 ppm		Daminozide as needed @ 1500 ppm	Spray for Powdery Mildew	

MEGA PAZZAZ™

Portulaca oleracea

- Allow plants to dry completely between irrigations
- Maintain warm temperatures allowing plants to develop

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
5 to 6 wks (12 cm) 5" pot	Average Day 68°-72° F (20°-22° C)	Pinch 1 to 2 times Additional lighting will hasten flowering under short days	100 to 150 ppm N	Daminozide @ 2500 ppm or tank mix of Daminozide / Uniconazole for finishing
6 to 7 wks (15 cm) 6 ½"	1 plant per pot		Soil EC 1.0 - 1.5 pH 5.8 to 6.2	
7 to 9 wks (20 cm) 8"	3 plants per container			



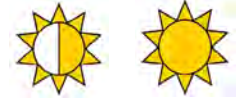
- **PGR** - Spray Daminozide / Uniconazole tank mix to control height
- Scout for Aphids, Thrips and Whiteflies

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRONEDIONE, POLYOXIN
	Pythium	PROPAMOCARB / MEFENOXAM
	Phytophthora	
	Rhizoctonia	AZOXYSTROBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB / Triflumizole

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 4	5.8 to 6.2	1.0 to 1.2	68° to 72° F (20° to 22° C)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	
Week 5 to 12	5.8 to 6.2	1.2 to 1.5	68° to 72° F (20° to 22° C)	feed 100 to 150 ppm		Daminozide @ 2500 ppm or tank mix of Daminozide / Uniconazole for finishing		

MEGA PAZZAZ™


Portulaca oleracea




Stick on priority – Number 1 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 68° - 70° (20° - 21° C)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Additional lighting is not required	Daminozide day after sticking	Day of sticking	Feeding through Mist
Week 2	5.8 to 6.2	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 68° - 70° (20° - 21° C)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	68° - 70° (20° - 21° C)	Feed 100 to 150 ppm		Daminozide as required		

 - **Irrigation specification** – Reduce mist as soon as possible/excess misting will create uneven rooting and delay rooting

 This genera is top priority for sticking. Remove plants from box upon receiving allowing air-movement around bags. Daminozide at 1500 ppm the day after sticking. Depending on growth, pinch week 3 or at transplant to allow improved branching.

PAZZAZ NANO™

Portulaca oleracea

- Allow plants to dry completely between irrigations
- Maintain warm temperatures allowing plants to develop

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
5 to 6 wks (12 cm) 5" pot	Average Day 68°-72° F (20°-22° C)	Pinch Additional lighting will hasten flowering under short days	100 to 150 N ppm	Daminozide @ 2500 ppm for finishing if required
6 to 7 wks (15 cm) 6 ½"	1 plant per pot		Soil EC 1.0 - 1.5 pH 5.8 to 6.2	
7 to 9 wks (20 cm) 8"	3 plants per container			



- PGR - Spray Daminozide control height
- Scout for Aphids, Thrips and Whiteflies

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRONONE, POLYOXIN
	Pythium	PROPAMOCARB / MEFENOXAM
	Phytophthora	
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB / Triflumizole

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 4	5.8 to 6.2	1.0 to 1.2	68° to 72° F (20° to 22° C)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	
Week 5 to 12	5.8 to 6.2	1.2 to 1.5	68° to 72° F (20° to 22° C)	feed 100 to 150 ppm		Daminozide @ 2500 ppm for finishing		

PAZZAZ NANO™

Portulaca oleracea



Stick on priority – Number 1 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 68° - 70° (20° - 21° C)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Additional lighting is not required	Daminozide day after sticking	Day of sticking	Feeding through Mist
Week 2	5.8 to 6.2	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 68° - 70° (20° - 21° C)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	68° - 70° (20° - 21° C)	Feed 100 to 150 ppm		Daminozide as required		

- **Irrigation specification** – Reduce mist as soon as possible/excess misting will create uneven rooting and delay rooting

This genera is top priority for sticking. Remove plants from box upon receiving allowing air-movement around bags. Daminozide at 1500 ppm the day after sticking. Depending on growth, pinch week 3 or at transplant to allow improved branching.

Portulaca oleracea

- Allow plants to dry completely between irrigations
- Maintain warm temperatures allowing plants to develop

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
5 to 6 wks (12 cm) 5" pot	Average Day 68°-72° F (20°-22° C)	Pinch	100 to 150 N ppm	Daminozide @ 2500 ppm for finishing
6 to 7 wks (15 cm) 6 ½"		Additional lighting will hasten flowering under short days	Soil EC 1.0 - 1.5 pH 5.8 to 6.2	
7 to 9 wks				
(20 cm) 8"	3 plants per container			



- PGR - Spray Daminozide control height
- Scout for Aphids, Thrips and Whiteflies

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB / MEFENOXAM
	Phytophthora	
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB / Triflumizole

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 4	5.8 to 6.2	1.0 to 1.2	68° to 72° F (20° to 22° C)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide at transplant	
Week 5 to 12	5.8 to 6.2	1.2 to 1.5	68° to 72° F (20° to 22° C)	feed 100 to 150 ppm		Daminozide @ 2500 ppm for finishing		

PAZZAZ™

Portulaca oleracea



Stick on priority – Number 1 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 68° - 70° (20° - 21° C)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Additional lighting is not required	Daminozide day after sticking	Day of sticking	Feeding through Mist
Week 2	5.8 to 6.2	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 68° - 70° (20° - 21° C)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	68° - 70° (20° - 21° C)	Feed 100 to 150 ppm		Daminozide as required		

- **Irrigation specification** – Reduce mist as soon as possible/excess misting will create uneven rooting and delay rooting

This genera is top priority for sticking. Remove plants from box upon receiving allowing air-movement around bags. Daminozide at 1500 ppm the day after sticking. Depending on growth, pinch week 3 or at transplant to allow improved branching.

SALLYFUN™

Salvia farinacea

- Allow plants to dry between irrigations
- Sallyfun Salvia will flower easily for early season requirements

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
5 to 6 wks	Average Day	Pinch Day Natural	150 - 200 ppm N	Daminozide @ 2500 ppm for finishing
(12 cm) 5" pot	68° to 72°F (20° to 22°C)			
6 to 7 wks	1 plant per pot		Soil EC 1.0 - 1.5 pH 5.8 to 6.2	Paclobutrazol 1 to 2 ppm drench to hold plants
(15 cm) 6 ½"				
7 to 10 wks				
(20 cm) 8"	3 plants per container			
7 to 9 wks				
(25 cm) 10"	3 plants per container			

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

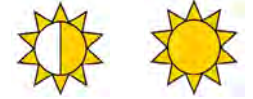
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 4	5.8 to 6.2	1.0 to 1.2	68° to 72°F (20° to 22°C)	feed 100 to 150 ppm		Daminozide @ 2500 ppm as needed	Drench fungicide after transplant	
Week 5 to 12	5.8 to 6.2	1.2 to 1.5	68° to 72°F (20° to 22°C)	feed 100 to 150 ppm		Paclobutrazol @ 1 to 2 ppm drench to finish		Paclobutrazol drench when flower bud emerge



- **PGR** - Spray Daminozide for height control / Paclobutrazol drench for holding
- Scout for Aphids, Leafminors and Whiteflies

SALLYFUN™

Salvia farinacea



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 18° - 20° C (65° - 68° F)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2



– **Irrigation specification** – Reduce mist as soon as possible



- Spray adjuvant at sticking . Daminozide at 2000 ppm the day after sticking.
- Depending on growth, pinch week 3 or at transplant to allow improved branching.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Netural		Day of sticking	Feeding through Mist
Week 2	5.8 to 6.2	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20° - 21°C (68°- 70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Daminozide as required		

Sanvitalia speciosa

- Allow soil to dry between irrigations
- Maintain a low EC level for proper growth and sizing of plant
- Transplant liners when plants are rooted and actively growing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 65° to 68° F (18° to 20° C)	Pinch –No Daylength Neutral	100 - 125 ppm N	Daminozide @ 2000 to 2500 ppm
8 to 10 wks (15 cm) 6 ½"	1 plant per pot		Soil EC 0.8 - 1.0 pH 5.5 to 6.2	

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 5	5.5 to 6.2	0.8 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 125 ppm	Day neutral	Daminozide @ 2000 to 2500 ppm	Drench fungicide at transplant	
Week 6 to 12	5.5 to 6.2	0.8 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 125 ppm			Spray for Powdery Mildew	

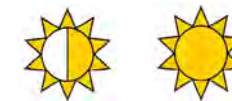
Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB



- Saturated soil conditions will increase disease pressure. Keep the soil moderately moist
- Spray broad spectrum fungicide after transplant
- Scout and spray for Powdery Mildew
- Scout for Aphids, Fungus Gnats and Shore Flies on regular basis

TALYA™

Sanvitalia speciosa



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 68° - 70° (20° - 21° C)		Weeks 3-5 100 ppm N	Apply broad spectrum Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 to 6.2	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist			Day of sticking	
Week 2	5.5 to 6.2	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.5 to 6.2	.80 to .90	Cool to 68° - 70° (20° - 21° C)	Feed 100 ppm N				
Week 4	5.5 to 6.2	.80 to .90	68° - 70° (20° - 21° C)	Feed 100 ppm N		Should not be required		



- Spray adjuvant at sticking. Remove from mist as soon as possible
- Sanvitalia is sensitive to overmisting



- Maintain warm temperatures allowing plants to develop
- Average daily temperature of 70 F / 20 C
- Spray fungicide to control botrytis

BALI™ Blue

Scaevola aemula

- Keep the temperatures moderately warm to allow plants to continue to have a good development (average daily temperature at 68 to 70 F (20 to 21 C).

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 68°-70° F (20°-21° C)	pinch for better branching and uniformity - suggested	100-150 ppm N	Spray Daminozide @ 2500 to 3750 ppm
8 to 9 wks (15 cm) 6 ½"	1 plant per pot		Soil EC 1.0 - 1.2 pH 5.8 to 6.2	Paclobutrazol drench @ 1 to 2 ppm
8 to 9 wks (20 cm) 8 "	3 plants per container	Night interruption or extended day- Optional		

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRONONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

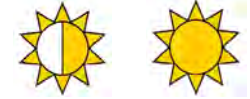
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.8 to 6.2	1.0 to 1.2	68° to 70° F (20° to 21° C)	feed 100 to 150 ppm		B-9 as needed	Spray fungicide after transplant	Spray Daminozide @ 2500 to 3750 ppm
Week 6 to 13	5.8 to 6.2	1.0 to 1.2	68° to 70° F (20° to 21° C)	feed 100 to 150 ppm		Uniconazole I if required		Paclobutrazol drench @ 1 to 2 ppm



- PGR - Spray Daminozide at 2500 to 3750 ppm for finishing plants
- Uniconazole 2-5 ppm if required for finishing.
- Drench a broad spectrum fungicide after transplant
- Scout for Aphids and Fungus Gnats and Mites

BALI™ Blue



Scaevola aemula



Stick on priority – Number 4 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 3 72°-74° F (22° - 23°C)	Recommended	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 4 - 5 68° - 70° (20° - 21° C)		Weeks 3-5 100-150 ppm N	Apply broad spectrum Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8/6.2	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Not required			Day of sticking
Week 2	5.8 to 6.2	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist				Second fungicide app
Week 3	5.8 to 6.2	.90 to 1.0	72°-74° F (22° - 23°C)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	68° - 70° (20° - 21° C)	Feed 100 ppm to 150 ppm				
Week 5	5.8 to 6.2	1.0 to 1.2	68° - 70° (20° - 21° C)	Feed 100 ppm to 150 ppm		Daminozide/ uniconazole I as needed		Daminozide @ 2000 to 2500 ppm

-  - **Misting specification** - Remove from mist as soon as possible
- Do not over-mist or saturate soil - Spray adjuvant at sticking
-  - Maintain warm temperatures allowing plants to develop.
- Spray Daminozide at 2000 to 2500 ppm or apply Uniconazole 2-5 ppm if required
- Pinch is optional recommended week 4 or at transplant

BLESSING™

Scaevola aemula

- Keep the temperatures moderately warm to allow plants to continue to have a good development (average daily temperature at 68 to 70 F (20 to 21 C).

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 68°-70° F (20°-21° C)	pinch for better branching and uniformity - suggested Night interruption or extended day-Optional	100 - 150 ppm N	Spray Daminozide @ 2500 to 3750 ppm
8 to 9 wks (15 cm) 6 ½"	1 plant per pot		Soil EC 1.0 - 1.2 pH 5.8 to 6.2	Paclobutrazol drench @ 1 to 2 ppm
8 to 9 wks (20 cm) 8"	3 plants per container			

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.8 to 6.2	1.0 to 1.2	68° to 70° F (20° to 21° C)	feed 100 to 150 ppm		B-9 as needed	Spray fungicide after transplant	Spray Daminozide @ 2500 to 3750 ppm
Week 6 to 13	5.8 to 6.2	1.0 to 1.2	68° to 70° F (20° to 21° C)	feed 100 to 150 ppm		Uniconzole if required		Paclobutrazol drench @ 1 to 2 ppm



- PGR** - Spray Daminozide at 2500 to 3750 ppm for finishing plants
- Uniconzole 2-5 ppm if required for finishing.
- Drench** a broad spectrum fungicide after transplant
- Scout** for Aphids and Fungus Gnats and Mites

BLESSING™



Scaevola aemula



Stick on priority – Number 4 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 3 72°-74° F (22° - 23°C)	Recommended	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 68° - 70° (20° - 21° C)		Weeks 3-5 100 to 150 ppm N	Apply broad spectrum Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	72°-74° F (22° - 23°C)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	68° - 70° (20° - 21° C)	Feed 100 ppm to 150 ppm				
Week 5	5.8 to 6.2	1.0 to 1.2	68° - 70° (20° - 21° C)	Feed 100 ppm to 150 ppm		Daminozide/ uniconzole l as needed		Daminozide @ 2000 to 2500 ppm

-  - **Misting specification** - Remove from mist as soon as possible
- Do not over-mist or saturate soil - Spray adjuvant at sticking
-  - Maintain warm temperatures allowing plants to develop.
- Spray Daminozide at 2000 to 2500 ppm or apply Uniconzole 2-5 ppm if required
- Pinch is recommended week 4 or at transplant

TOUCH™

Scaevola aemula

- Keep the temperatures moderately warm to allow plants to continue to have a good development (average daily temperature at 68 to 70 F (20 to 21 C).

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 7 wks (12 cm) 5" pot	Average Day 68°-70° F (20°-21° C)	pinch for better branching and uniformity - suggested Night interruption or extended day- Optional	150 - 200 ppm N	Spray Daminozide @ 2500 to 3750 ppm
8 to 9 wks (15 cm) 6 ½"	1 plant per pot		Soil EC 1.0 - 1.2 pH 5.8 to 6.2	Paclobutrazol drench @ 1 to 2 ppm
8 to 9 wks (20 cm) 8"	3 plants per container			

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRONEDIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

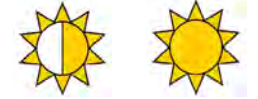
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.8 to 6.2	1.0 to 1.2	68° to 70° F (20° to 21° C)	feed 100 to 150 ppm		B-9 as needed	Spray fungicide after transplant	Spray Daminozide @ 2500 to 3750 ppm
Week 6 to 13	5.8 to 6.2	1.0 to 1.2	68° to 70° F (20° to 21° C)	feed 100 to 150 ppm		Uniconazole I if required		Paclobutrazol drench @ 1 to 2 ppm



- PGR** **PGR** - Spray Daminozide at 2500 to 3750 ppm for finishing plants
- Uniconazole 2-5 ppm if required for finishing.
- Drench** a broad spectrum fungicide after transplant
- Scout** for Aphids and Fungus Gnats and Mites

TOUCH™



Scaevola aemula



Stick on priority – Number 4 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 3 72°-74° F (22° - 23°C)	Recommended	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 4 - 5 68° - 70° (20° - 21° C)		Weeks 3-5 100-150 ppm N	Apply broad spectrum Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	72°-74° F (22° - 23°C)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	68° - 70° (20° - 21° C)	Feed 100 ppm to 150 ppm				
Week 5	5.8 to 6.2	1.0 to 1.2	68° - 70° (20° - 21° C)	Feed 100 ppm to 150 ppm		Daminozide/uniconzole l as needed		Daminozide @ 2000 to 2500 ppm

-  - **Misting specification** - Remove from mist as soon as possible
- Do not over-mist or saturate soil - Spray adjuvant at sticking
-  - Maintain warm temperatures allowing plants to develop.
- Spray Daminozide at 2000 to 2500 ppm or apply Uniconzole 2-5 ppm if required
- Pinch is recommended week 4 or at transplant

VANESSA™

Verbena x hortensis

- Verbena respond well to Negative DIF to control height (day temps are cooler than night temps)
- Verbena Vanessa™ will flower easily for early season requirements

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
5 to 6 wks (12 cm) 5" pot	Average Day 60° to 68° F (16°-20° C)	Pinch – optional under high radiation conditions (above 3-4 pair of leaves) Day Neutral	150- 200 ppm N	Daminozide @ 2500 ppm for finishing
6 to 7 wks (15 cm) 6 ½"	1 plant per pot		Soil EC 1.0 - 1.5 pH 5.8 to 6.2	Paclobutrazol @ 1 to 2 ppm drench to finish
7 to 8 wks (20 cm) 8"	3 plants per container			
7 to 8 wks (25cm) 10"	3 plants per container			

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

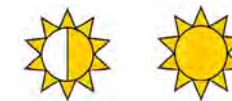
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 4 Transplant	5.8 to 6.2	1.0 to 1.2	60° to 68° F (16° to 20° C)	feed 100 to 150 ppm		Daminozide @ 2500 ppm as needed	Drench fungicide after transplant	
Week 5 to 12	5.8 to 6.2	1.2 to 1.5	60° to 68° F (6 to 20° C)	feed 100 to 150 ppm		Paclobutrazol @ 1 to 2 ppm drench		Paclobutrazol drench when plants reach 85% of desired size



- PGR - Spray Daminozide for height control / Paclobutrazol drench for finishing
- Scout for Aphids, Leafminors, Thrips and Whiteflies

VANESSA™


Verbena x hortensis




Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	Not required	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 70° (18° - 21° C)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Neutral	Daminozide day after sticking	Day of sticking	Feeding through Mist
Week 2	5.8 to 6.2	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 68°-70°F (20°-21°C)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	65° - 68°F (18°-20°C)	Feed 100 ppm to 150 ppm		Daminozide as required		

 – **Irrigation specification** – Reduce mist as soon as possible

 – Spray adjuvant at sticking . Daminozide at 2000 ppm the day after sticking
No pinch is necessary for producing an excellent liner

VANESSA™ COMPACT

Verbena x hortensis

- Verbena respond well to Negative DIF to control height (day temps are cooler than night temps)
- Verbena Vanessa™ Compact will flower easily for early season requirements

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
5 to 6 wks (12 cm) 5" pot	Average Day 60°-68° F (16° to 20° C)	Pinch – optional under high radiation conditions (above 3-4 pair of leaves) Day Neutral	150 - 200 ppm N	Daminozide @ 2500 ppm for finishing
6 to 7 wks (15 cm) 6 ½"	1 plant per pot		Soil EC 1.0 - 1.5 pH 5.8 to 6.2	Paclobutrazol @ 1 to 2 ppm drench to finish
7 to 8 wks (20 cm) 8"	3 plants per container			
7 to 8 wks (25 cm) 10"	3 plants per container			

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRONEDIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

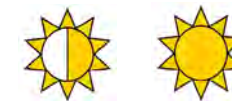
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 4 Transplant	5.8 to 6.2	1.0 to 1.2	60° to 68° F (16° to 20° C)	feed 100 to 150 ppm		Daminozide @ 2500 ppm as needed	Drench fungicide after transplant	
Week 6 to 13	5.8 to 6.2	1.0 to 1.2	60° to 68° F (16° to 20° C)	feed 100 to 150 ppm		Paclobutrazol @ 1 to 2 ppm drench		Paclobutrazol drench when plants reach 85% of desired size



- PGR - Spray Daminozide for height control / Paclobutrazol drench for finishing
- Scout for Aphids, Leafminors, Thrips and Whiteflies

VANESSA™ COMPACT

Verbena x hortensis




Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°-74° F (22° - 23°C)	Not required	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 65° - 70° (18° - 21° C)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	72°-74° F (22° - 23°C)	50 ppm N in mist	Netural	Daminozide day after sticking	Day of sticking	Feeding through Mist
Week 2	5.8 to 6.2	.80 to .90	72°-74° F (22° - 23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 68°-70°F (20°-21°C)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	65° - 68°F (18°-20°C)	Feed 100 ppm to 150 ppm		Daminozide as required		

 – **Irrigation specification** – Reduce mist as soon as possible

 – Spray adjuvant at sticking . Daminozide at 2000 ppm the day after sticking No pinch is necessary for producing an excellent liner

PERENNIALS

Propagation & Finishing



CELESTIA™

Agastache foeniculum

- High quality plants are finished with high light and cool temperatures
- May require two pinches, depending on production schedule and container size

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch –Suggested day of transplant	150 - 200 ppm N	Daminozide spray application @ 2000 – 2500 ppm
15 cm (1 gallon) 1 ppp	(16° to 18° C)			
10 to 12 wks			Soil EC 1.0 - 1.2 pH 5.6 to 6.5	
20 cm (2 gallon) 1 ppp				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

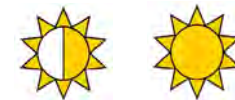


- **PGR** - Spray Daminozide at 2000 to 2500 ppm on finished plants early in crop schedule / Maintain good airflow and allow plants to dry before nightfall. Do not keep consistently wet or root rot problems may develop. The first signal of damp conditions would be yellowing of foliage and weak growth
- **Scout** for Aphids, Mites and Whitefly
- **Drench** after transplant for Pythium / Phytophthora and Rhizoctonia

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.5 to 6.3	1.0 to 1.2	16° to 18° C	feed 150 to 200 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 12	5.5 to 6.3	1.0 to 1.2	16° to 18° C	feed 150 to 200 ppm				

CELESTIA™


Agastache foeniculum




Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 18° - 20° C (65° - 68° F)		Weeks 3-4 100 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.3	0.80	21° / 22° C (70°-72° F)	50 ppm N in mist			Day of sticking	
Week 2	5.6 / 6.3	.80 to .90	21 / 22 C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.6 / 6.3	.90 to 1.0	Cool to 18° - 20° C (65° - 68° F)	Feed 100 ppm to 150 ppm				
Week 4	5.6 / 6.3	1.0 to 1.2	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Daminozide as needed		Pinch at transplant

 – **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible. Avoid saturated soil conditions during propagation.

 – Daminozide spray application @ 1500 ppm week 4 may be required to control stretch in liner stage. Once rooted, allow soil to dry slightly between irrigations.

PEACH PEARL, PINK PEARL, PRINCE'S PLUME & PARADE OF PARROTS

Agastache Hybrida

- High quality plants are finished with high light and cool temperatures
- Pinch at transplant
- Allow some growth under short days to 'bulk plants before initiation

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch required/ long day flowering response	100 - 150 ppm N	Daminozide spray at 2,000 to 2,500 ppm
15 cm (1 gallon)	(16°-18° C)		Soil EC 0.8 - 1.0 pH 5.6 to 6.5	
10 to 12 wks	1-2 plants per container			
20 cm (2 gallon)				



- Facultative Long Day Flowering Response – June through September
- Natural foliar disease tolerance
- Maintain good airflow and allow plants to dry between irrigations
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRONEDIONE, POLYOXIN
	Pythium	PROPAMOCARB / MEFENOXAM
	Phytophthora	
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB / Triflumizole

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.6 to 6.2	0.8 to 1.0	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 12	5.6 to 6.2	0.8 to 1.0	60° to 65° F (16° to 18° C)	feed 150 to 200 ppm		Daminozide spray at 2,000 to 2,500 ppm	Spray fungicide in finishing protocols	Control of Bacterial Leaf Blights

PEACH PEARL, PINK PEARL, PRINCE'S PLUME & PARADE OF PARROTS

Agastache Hybrida

Stick on priority – Number 2 out of 4 categories



Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° (18° - 20° C)		Weeks 3-4 100 to 125 ppm	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6/6.2	0.80	70°/72°F (21°/22°C)	50 ppm N in mist	Optional		Day of sticking	
Week 2	5.6 to 6.2	.80 to .90	70°/72°F (21°/22°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.6 to 6.2	.90 to 1.0	Cool to 68°/70°F (20°/21°C)	Feed 100 ppm N				
Week 4	5.6 to 6.2	.90 to 1.0	68° to 70°F (20° to 21°C)	Feed 100 ppm N				
Week 5	5.6 to 6.2	.90 to 1.0	68° to 70°F (20° to 21°C)	Feed 100 ppm N		Optional		

- **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible. Avoid saturated soil conditions.

Daminozide spray application @ 1500 ppm week 4 may be required to control stretch in liner stage. Once rooted, allow soil to dry slightly between irrigations

SUNNY SPARKS™

Agastache aurantiace

- High quality plants are finished with high light and cool temperatures
- May require two pinches, depending on production schedule and container size

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch –Suggested day of transplant	150 - 200 ppm N	Daminozide spray application @ 2000 – 2500 ppm
15 cm (1 gallon) 1 ppp	61° to 65° F (16° to 18° C)			
10 to 12 wks			Soil EC 1.0 - 1.2 pH 5.5 to 6.3	
20 cm (2 gallon) 1 ppp				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

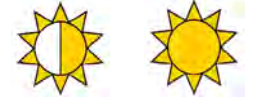


- **PGR** - Spray Daminozide at 2000 to 2500 ppm on finished plants early in crop schedule / Maintain good airflow and allow plants to dry before nightfall. Do not keep consistently wet or root rot problems may develop. The first signal of damp conditions would be yellowing of foliage and weak growth
- **Scout** for Aphids, Mites and Whitefly
- **Drench** after transplant for Pythium / Phytophthora and Rhizoctonia

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 5	5.5 to 6.3	1.0 to 1.2	61° to 65° F (16° to 18° C)	feed 150 to 200 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 13	5.5 to 6.3	1.0 to 1.2	61° to 65° F (16° to 18° C)	feed 150 to 200 ppm				


SUNNY SPARKS™


Agastache aurantiace



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 18° - 20° C (65° - 68° F)		Weeks 3-4 100 ppm N	Day of sticking & Week 2

 – **Irrigation specification** – Spray with adjuvant the day of sticking. Remove from mist as soon as possible. Avoid saturated soil conditions.

 – Daminozide spray application @ 1500 ppm week 4 may be required to control stretch in liner stage. Once rooted, allow soil to dry slightly between irrigations.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 / 6.3	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist			Day of sticking	
Week 2	5.5 to 6.3	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.5 to 6.3	.90 to 1.0	Cool to 18° - 20° C (65° - 68° F)	Feed 100 ppm to 150 ppm				
Week 4	5.5 to 6.3	1.0 to 1.2	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Daminozide as needed		Pinch at transplant

PAVILION™

Caryopteris incana

- Pinching is required for branching and controlling height
- High quality plants will finish in all regions / hot and cool regions

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
6 to 8 wks	Average Day	Pinch – Suggested day of transplant	150 - 200 ppm N	Daminozide spray application @ 2000 – 2500 ppm
15 cm (1 gallon) 1 ppp	(20° to 21° C)			
7 to 9 wks			Soil EC 1.0 - 1.2 pH 5.5 to 6.2	
20 cm (2 gallon) 1 ppp				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

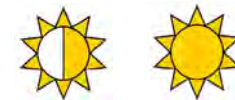
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.6 to 6.2	1.0 to 1.2	20° to 21° C	feed 150 to 200 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 13	5.6 to 6.2	1.0 to 1.2	20° to 21° C	feed 150 to 200 ppm				



- PGR - Spray Daminozide at 2000 to 2500 ppm on finished plants early in crop schedule
- Maintain good airflow and allow plants to dry before nightfall. Do not keep consistently wet or root rot problems may develop and will show as yellow green leaf color
- Scout for Aphids, Mites and Whiteflies
- Drench after transplant for Pythium / Phytophthora and Rhizoctonia.
- Optimal planting period – May-June for fall programs.

PAVILION™

Caryopteris incana




Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 -4 18° - 20° C (65° - 68° F)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 / 6.2	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist			Day of sticking	
Week 2	5.5 / 6.2	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist	Optional		Second fungicide app	
Week 3	5.5 / 6.2	.90 to 1.0	Cool to 18° - 20° C (65°- 68° F)	Feed 100 ppm to 150 ppm	Optional	Daminozide as needed		
Week 4	5.5 / 6.2	1.0 to 1.2	18° - 20° C (65°- 68° F)	Feed 100 to 150 ppm	Optional	Daminozide as needed		Pinch at transplant

 – **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible

 – **Caryopteris incana** respond to short days for flowering. Stick roughly week 24 to 26 for finishing week 36. Daminozide at 1500 to 2500 ppm week 4 may be required to control stretch in liner stage.

SOLANNA™

Coreopsis grandiflora

- Pinching should not be required unless plants have elongated.
Pinching of SOLANNA™ Sunset Burst and SOLANNA™ Sunset Bright enhance good branching after pinching.
- Spray for Powdery Mildew and bacterial leaf spot during production
- High quality plants are finished with high light and cool temperatures

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 9 wks	Average Day	Pinch – optional see above	150 - 200 ppm N	Daminozide spray application @ 2500 – 3750 ppm Paclobutrazol 1 to 2 ppm drench
15 cm (1 gallon) 1 ppp	20° to 21° C (68°- 70° F)			
9 to 10 wks			Soil EC 1.0 - 1.2 pH 5.6 to 6.2	
20 cm (2 gallon) 1 ppp				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

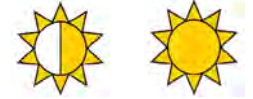


- PGR - Spray Daminozide at 2500 to 3750 ppm on finished plants early in crop schedule / Paclobutrazol drench application at 1 to 2 ppm for finishing if required to hold plants
- Maintain good airflow and allow plants to dry before nightfall. Spray for Powdery Mildew
- Scout for Aphids, Thrips and Whiteflies
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.6 to 6.2	1.0 to 1.2	20° to 21° C (68°- 70° F)	feed 150 to 200 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 13	5.6 to 6.2	1.0 to 1.2	20° to 21° C (68°- 70° F)	feed 150 to 200 ppm		Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size

SOLANNA™

Coreopsis grandiflora



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2



– **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



– Coreopsis respond to long days for flowering (obligate long day plant). The Solanna™ series flower response is late May / early June. Daminozide at 1000 to 1500 ppm week 4.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 / 6.2	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.2	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 18° - 20° C (65° - 68° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	18° - 20° C (65°- 68° F)	Feed 100 to 150 ppm		Daminozide as needed		
Week 5	5.8 to 6.2	1.0 to 1.2	18° C (65° F)	Feed 100 to 150 ppm		Daminozide as needed		

COREOPSIS

Verticillate, grandiflora & hybrida

- Pinch required for quality finishing (pinch leaving 4 to 5 nodes)
- Daminozide spray application @ 2000 to 2500 ppm
- Cold beneficial (weeks of night temperatures below 55 F / 13 C)

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch required/ Obligate long day	150-200 ppm N	Daminozide spray application @ 2000 to 2500 ppm
15 cm (1 gallon) 1 ppp	18° - 20° C (65° - 68° F)			
8 to 10 wks			Soil EC 0.8 - 1.0 pH 5.8 to 6.5	
20 cm (2 gallon) 3 plants per container				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.5	0.8 to 1.0	18° - 20° C (65° - 68° F)	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 13	5.8 to 6.5	0.8 to 1.0	18° - 20° C (65° - 68° F)	feed 150 to 200 ppm			Spray fungicide in finishing protocols	Control of Bacterial Leaf Blights



- Long Day Flowering Response – June through October
- Natural foliar disease resistance
- Maintain good airflow and allow plants to dry between irrigations
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

COREOPSIS

Verticillate, grandiflora & hybrida



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 ppm N	Day of sticking & Week 2

- **Irrigation specification** – Remove from mist as soon as root emerges

- Spray adjuvant the day of sticking. Moderate moisture for the rooting media.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.5	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Required 12 hours daylength		Day of sticking	
Week 2	5.8 to 6.5	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.5	.90 to 1.0	Cool to 20° - 21°C (68°-70° F)	Feed 100 ppm N				
Week 4	5.8 to 6.5	.90 to 1.0	20° - 21°C (68°-70° F)	Feed 100 ppm N				
Week 5	5.8 to 6.5	.90 to 1.0	18° - 20° C (65° - 68° F)	Feed 100 ppm N		Optional		

Delosperma cooperi

- High quality plants and increased flowering are obtained with high light
- Cool temperatures may create stress and develop yellow stems (at tips)/when temperatures are warm, the plants will remain green
- Maintain soil on drier side

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 9 wks (12 cm) 5" pot 1 ppp	Average Day 68° to 70° F (20° to 21° C)	Pinch –Suggested week 3 or day of transplant	100 - 150 ppm N	Daminozide spray application @ 2000 – 3750 ppm
8 to 10 wks				
20 cm (2 gallon) 3 ppp			Soil EC 1.2 - 1.5 pH 5.5 to 6.3	



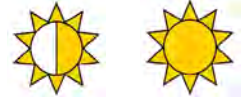
- PGR - Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule
- Maintain good airflow and allow plants to dry before nightfall.
- Scout for Aphids, Mites and Scale
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.5 to 6.3	1.0 to 1.2	68° to 70° F (20° to 21° C)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 14	5.5 to 6.3	1.2 to 1.5	68° to 70° F (20° to 21° C)	feed 100 to 150 ppm				

DELIGHTFUL™


Delosperma cooperi




Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 72°/74°F (22°/23°C)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 68° - 70° (20° - 21° C)		Weeks 3-4 100 to 150 ppm	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 to 6.5	0.80	72°/74°F (22°/23°C)	50 ppm N in mist			Day of sticking	
Week 2	5.5 to 6.5	.80 to .90	72°/74°F (22°/23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.5 to 6.5	.90 to 1.0	Cool to 68°/70°F (20°/21°C)	Feed 100 ppm to 150 ppm		Daminozide as needed		Pinch week 3 or at transplant
Week 4	5.5 to 6.5	1.0 to 1.2	68° to 70°F (20° to 21°C)	Feed 100 ppm to 150 ppm		Daminozide as needed		

 - **Irrigation specification** –As a succulent plant, it requires minimal water. Maintain a microclimate with high humidity while keeping the leaves as dry as possible. Remove from mist as soon as possible

 Delosperma are day neutral and prefers bright light conditions for maximum flowering. Daminozide at 1500 to 2000 ppm week 3 if required.

EARLY BIRD™, SANDGEM™ & SPLENDID™

Delosperma cooperi

- High quality plants and increased flowering are obtained with high light
- Cool temperatures may create stress and develop yellow stems (at tips)/when temperatures are warm, the plants will remain green
- Maintain soil on drier side

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 9 wks	Average Day	Pinch –Suggested week 3 or day of transplant	100 - 150 ppm N	Daminozide spray application @ 2000 – 3750 ppm
15 cm (1 gallon) 1 ppp	20° - 21° C (68° - 70° F)			
9 to 11 wks			Soil EC 1.2- 1.5 pH 5.5 to 6.3	
20 cm (2 gallon) 1 ppp				
8 to 10 wks				
20 cm (2 gallon) 3 ppp				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.5 to 6.3	1.0 to 1.2	20° - 21° C (68° - 70° F)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 14	5.5 to 6.3	1.2 to 1.5	20° - 21° C (68° - 70° F)	feed 100 to 150 ppm				

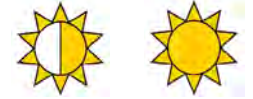


- Cool temperatures may create yellowing at the end of plant stems
- Maintain good airflow and allow plants to dry before nightfall.
- Scout for Aphids, Mites and Scale
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

EARLY BIRD™, SANDGEM™ & SPLENDID™


Delosperma cooperi


Stick on priority – Number 2 out of 4 categories



Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 22° - 23°C (72°-74° F)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 20° - 21° C (68° - 70° F)		Weeks 3-4 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 to 6.5	0.80	22° - 23°C (72°-74° F)	50 ppm N in mist			Day of sticking	
Week 2	5.5 to 6.5	.80 to .90	22° - 23°C (72°-74° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.5 to 6.5	.90 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm				Pinch week 3 or at transplant
Week 4	5.5 to 6.5	1.0 to 1.2	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm		Daminozide as needed		

 - **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible. As a succulent plant, it requires minimal water. Maintain a microclimate with high humidity while keeping the leaves as dry as possible.

 - Delosperma are day neutral and prefers bright light conditions for maximum flowering. Daminozide at 1500 to 2000 ppm week 3 if required. Pinch in liner tray week 3 to increase branching.

DELILAH™

Dianthus plumarius

- Plants are best finished with high light intensity
- Cool temperature finishing will create the best quality.

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch –Should not be required unless liners are elongated	100 - 150 ppm N	Daminozide spray application @ 2000 – 2500 ppm
15 cm (1 gallon) 1 ppp	59° to 64°F (15° to 18°C)		Soil EC 1.0 - 1.2 pH 5.5 to 6.3	
9 to 11 wks	Larger containers 3 ppp			
20 cm (2 gallon)				



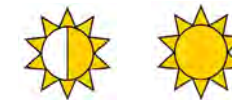
- PGR - Spray Daminozide at 2000 to 2500 ppm on finished plants early in crop schedule if required
- Cool temperatures will finish highest quality plants
- Scout for Aphids, Mites and Thrips
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.5 to 6.3	1.0 to 1.2	64°F 18°C	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 12	5.5 to 6.3	1.0 to 1.2	59° to 64°F (15° to 18°C)	feed 100 to 150 ppm		Daminozide as needed		

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

DELILAH™

Dianthus plumarius



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 20° - 21° C (68° - 70° F)		Weeks 3-4 100 to 125 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 to 6.3	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Day neutral		Day of sticking	
Week 2	5.5 to 6.3	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.5 to 6.3	.80 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 to 125 ppm				
Week 4	5.5 to 6.3	.80 to 1.0	20° - 21° C (68° - 70° F)	feed 100 to 125 ppm		Daminozide as needed		Pinch Optional



– **Irrigation specification** – Spray with adjuvant the day of sticking - Remove from mist as soon as possible



– KIBA rooting hormone spray applications will hasten and improve uniformity of rooting. Daminozide at 1500 to 2000 ppm week 3 if required in warm greenhouse conditions.

– Pinch –Should not be required unless liners are elongated.

GUATEMALA™ & PANAMA™

Echinacea hybrid

- No pinch should be needed
- Spray for bacterial leaf blights

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
10 to 12 wks	Average Day	Pinch not required/ extend daylength to 12 hours for early flowering	100 - 150 ppm N	Daminozide spray application @ 2000 – 2500 ppm
15 cm (1 gallon) 1 ppp	(20°C)			
10 to 12 wks	3 plants per container		Soil EC 0.8 - 1.2 pH 5.8 to 6.2	
19 cm (2 gallon) 1 ppp				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

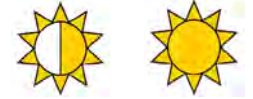
Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	0.8 to 1.0	20° - 21°C (68°- 70° F)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 13	5.8 to 6.2	0.8 to 1.2	20° - 21°C (68°- 70° F)	feed 100 to 150 ppm			Spray fungicide in finishing protocols	Control of Bacterial Leaf Blights



- Long Day Flowering Response Natural flowering time is weeks 22 – 24
- Maintain warm temperatures during finishing at 20° C (68° F) average daily temperature to allow continued growth and progression of new leaves
- PGR - Spray Daminozide at 2000 to 2500 ppm if needed
- Maintain good airflow and allow plants to dry before nightfall/spray for bacterial leaf blights
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

GUATEMALA™ & PANAMA™

Echinacea hybrid



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2



– **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



– K-IBA spray application will hasten and even rooting response. Echinacea Panama™ are long day flowering with the natural flowering response being June (facultative long day plant).

– 12-14 hour daylength and warm temperatures are required during propagation

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.0	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Required 12 hr daylength		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 18° - 20° C (65° - 68° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm				
Week 5	5.8 to 6.2	.90 to 1.0	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Daminozide as needed		1500 to 2000 ppm Daminozide

SUNSTRONG™

Erysimum linifolium

- A second pinch will shape plants and promote more uniform flower response
- Allow soil to dry between irrigations

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch – Suggested week 4 or day of transplant	100 - 150 ppm N	Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol 1 to 2 ppm drench
15 cm (1 gallon) 1 ppp	(16°C / 60°F)			
9 to 11 wks	3 plants per container for 20 cm or larger			
20 cm (2 gallon) 3 ppp				
			Soil EC 0.8 - 1.2 pH 5.8 to 6.2	

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.2	.08 to 1.0	18° - 20° C (65° - 68° F)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 12	5.8 to 6.2	1.0 to 1.4	10° to 16° C (50° - 60° F)	feed 100 to 150 ppm		Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size

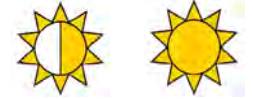


- PGR - Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule / Paclobutrazol drench application at 1 to 2 ppm for finishing if required
- Maintain good airflow and allow plants to dry before nightfall
- Scout for Aphids, Mites and Thrips
- Drench after transplant for Botrytis and Pythium / Phytophthora

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

SUNSTRONG™

Erysimum linifolium



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional - (0.4% IBA)	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.6 to 6.0	.80 to .90	Cool to 18° - 20° C (65° - 68° F)	Feed 100 ppm to 150 ppm				
Week 4	5.6 to 6.0	.80 to .90	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Daminozide as needed		Pinch recommended
Week 5	5.6 to 6.0	.80 to .90	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Daminozide as needed		



– **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



– Erysimum is day neutral. The SunStrong™ series will flower early enough for most regions. Daminozide at 1500 to 2500 ppm week 4. Pinch week 4 or at transplant.

Gaillardia hybrida

- Low fertility will reduce plant size and hasten flowering
- Allow soil to dry between irrigations

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 9 wks	Average Day	Pinch –Suggested day of transplant	100 - 150 ppm N	Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol 1 to 2 ppm drench
15 cm (1 gallon) 1 ppp	20° - 21°C (68°-70° F)		Soil EC 1.0 - 1.2 pH 5.8 to 6.2	
9 to 10 wks				
20 cm (2 gallon) 1 ppp				
7 to 9 wks				
20 cm (2 gallon) 3 ppp				



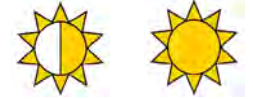
- **PGR** - Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule / Paclobutrazol drench application at 1 to 2 ppm for finishing if required
- Maintain good airflow and allow plants to dry before nightfall
- Scout for Aphids, Mites and Thrips
- Drench after transplant for Botrytis and Pythium / Phytophthora

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	1.0 to 1.2	20° - 21°C (68° - 70° F)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 13	5.8 to 6.2	1.0 to 1.2	20° - 21°C (68° - 70° F)	feed 100 to 150 ppm		Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

GUSTO™

Gaillardia hybrida



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 21° C (65°- 70° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20° - 21°C (68°-70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	20° - 21°C (68°-70° F)	Feed 100 to 150 ppm		Daminozide as needed		
Week 5	5.8 to 6.2	1.0 to 1.2	18° C (65° F)	Feed 100 to 150 ppm		Daminozide as needed		



- **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible.
- Over wet soil will delay rooting and non-uniform callusing.



- Gaillardia respond to long days for flowering (obligate long day plant). The Gusto™ series will flower early enough for most regions. Daminozide at 1000 to 1500 ppm week 3.

STEFFI™

Gaura lindheimeri

- Maintain soil evenly moist
- High light levels best for finishing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch –Suggested day of transplant	100 - 150 ppm N	Daminozide spray application @ 2000 – 3750 ppm
15 cm (1 gallon) 1 ppp	(18°C/65°F)		Soil EC 0.8 - 1.0 pH 5.8 to 6.2	
9 to 11 wks				
20 cm (2 gallon) 1 ppp				
8 to 10 wks				
20 cm (2 gallon) 3 ppp				

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	0.8 to 1.0	18° - 20° C (65° - 68° F)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 14	5.8 to 6.2	0.8 to 1.0	16° to 18°C (61° - 65° F)	feed 100 to 150 ppm				

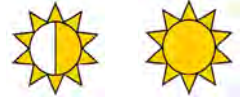
Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- PGR - Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule
- Maintain good airflow and allow plants to dry before nightfall
- Scout for Aphids, Leafminors, Mites and Thrips
- Drench after transplant for Botrytis and Pythium / Phytophthora

STEFFI™


Gaura lindheimeri




Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.80 to .90	Cool to 20° - 21°C (68°-70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.80 to .90	20° - 21°C (68°-70° F)	Feed 100 to 150 ppm		Daminozide as needed		
Week 5	5.8 to 6.2	.80 to .90	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Daminozide as needed		Pinch recommended

 - **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible.

- Best to root in high humidity and reduced mist limiting the amount of moisture in soil.

 - Gaura are facultative long day plants/flowering is hastened under long days. Daminozide at 1500 to 2500 ppm week 4. Pinch at transplant leaving 5 to 6 nodes below pinch.

FESTIVAL™

Gypsophila paniculata

- Festival Gypsophila will require daylength longer than 12/13 hours to flower
- Allow soil to dry between irrigations
- Best when grown under high light with cool temperatures

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
9 to 12 wks	Average Day	Pinch –Suggested day of transplant with possible second pinch	150 - 200 ppm N	Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol 1 to 2 ppm drench
15 cm (1 gallon) 1 ppp	16° to 18°C (61° - 65° F)			
9 to 12 wks				
20 cm (2 gallon) 1 ppp				
			Soil EC 1.2 - 1.5 pH 5.8 to 6.5	

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.5	1.0 to 1.2	16° to 18°C (61° - 65° F)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 13	5.8 to 6.5	1.2 to 1.5	16° to 18°C (61° - 65° F)	feed 150 to 200 ppm		Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- **PGR** - Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule / Paclobutrazol drench application at 1 to 2 ppm for finishing if required
- Pinch leaving 4 to 6 nodes on stem
- **Scout** for Caterpillar, Mites and Thrips
- **Drench** after transplant for Botrytis and Pythium / Phytophthora
- Avoid oil based insecticides such as Neem

FESTIVAL™

Gypsophila paniculata



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
6 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 20° - 21° C (68° - 70° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.5	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.8 to 6.5	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.5	.90 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.5	.90 to 1.0	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm				
Week 5	5.8 to 6.5	1.0 to 1.2	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm		Daminozide as needed		
Week 6	5.8 to 6.5	1.0 to 1.2	20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm		Daminozide as needed		



– **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



– Gypsophila prefer humidity from tenting vs misting foliage and soil. Rooting hormone and dry soil conditions are more conducive to uniform rooting.

– A basal KIBA application of 200 to 800 ppm is recommended. Overhead application will result in leaf curling and disease issues

Heuchera hybrida

- Some shade will be required during periods of high light production
- Allow soil to dry between irrigations
- No pinch or PGR should be required

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch –not required	100 - 150 ppm N	
12 cm (Quart) 1 ppp	18° - 20° C (65° - 68° F)			
10 to 12 wks			Soil EC 0.8 - 1.0 pH 5.7 to 6.5	
15 cm (1 gallon) 1 ppp				

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.7 to 6.5	0.8 to 1.0	18° - 20° C (65° - 68° F)	feed 100 to 150 ppm			Drench fungicide after transplant	•Control of Pythium & Phytophthora
Week 6 to 13	5.7 to 6.5	0.8 to 1.0	18° - 20° C (65° - 68° F)	feed 100 to 150 ppm				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- A reduction in light will be needed for summer production
- Scout for Aphids, Mites and Whitefly
- Allow soil to dry between irrigations
- Drench after transplant for Botrytis and Pythium / Phytophthora

KIRA™

Heuchera hybrida



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.7 to 6.5	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist			Day of sticking	
Week 2	5.7 to 6.5	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.7 to 6.5	.80 to .90	Cool to 20° C (68° F)	Feed 100 ppm				
Week 4	5.7 to 6.5	.80 to .90	18° - 20° C (65° - 68° F)	Feed 100 ppm N				
Week 5	5.7 to 6.5	.80 to .90	18° - 20° C (65° - 68° F)	Feed 100 ppm N		Should not be required		



– **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



– Heuchera & Heucherella prefer humidity from tenting vs misting foliage and soil. Rooting hormone and drier soil conditions are more conducive to uniform rooting.

FIRST FLUSH™

Iberis sempervirens

- Evenly moist soil conditions is best
- High quality plants are finished with high light and cool temperatures
- May require two pinches, depending on production schedule for larger containers

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 9 wks	Average Day	Pinch Week 4 or day of transplant	100 - 150 ppm N	Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol at 2 ppm drench
15 cm (1 gallon)	65°F (18°C)			
9 to 10 wks			Soil EC 1.0 - 1.2	
20 cm (2 gallon)			pH 5.6 to 6.0	

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.6 to 6.0	1.0 to 1.2	65°F (18°C)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 7 to 13	5.6 to 6.0	1.0 to 1.2	65°F (18°C)	feed 100 to 150 ppm		Paclobutrazol Drench at 2 ppm		Paclobutrazol 2 ppm drench when plants reach 85% of desired size

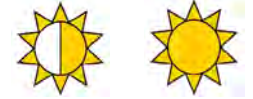
Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- **PGR** - Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule / Paclobutrazol drench application at 2 ppm for finishing if required
- Maintain good airflow and allow plants to dry before nightfall. Do not keep consistently wet or root rot problems may develop. The first signal of damp conditions would be yellowing of foliage and weak growth
- Scout for Aphids and Thrips
- **Drench** after transplant for Rhizoctonia and Pythium / Phytophthora

FIRST FLUSH™

Iberis sempervirens



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 72°/74°F (22°/23°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° F (18° - 20° C)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.0	0.80	72°/74°F (22°/23°C)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	72°/74°F (22°/23°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.6 to 6.0	.90 to 1.0	Cool to 68°-70° (20° - 21° C)	Feed 100 ppm to 150 ppm				
Week 4	5.6 to 6.0	.90 to 1.0	68°-70° (20° - 21° C)	Feed 100 to 150 ppm				Pinch optional
Week 5	5.6 to 6.0	1.0 to 1.2	65° - 68° F (18° - 20° C)	Feed 100 to 150 ppm		Daminozide as needed		



– **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



– K - IBA spray application will hasten and even rooting. It is best to root under high humidity and reduce misting application. Allow soil to become moderately dry. Pinch is recommended week 4 or at transplant. Daminozide spray application at 1500 to 2500 if needed.

LAMI™ Dark Purple

Lamium maculatum

- Pinch at transplant or soon after transplant
- Moderate moist soils will avoid marginal browning of leaves from drying
- Avoid bright direct light
- Cool temperature finishing for best quality

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
5 to 7 wks	Average Day	Pinch –Required	150 - 200 ppm N	To control stretch if finishing warm
(12 cm) 5” pot 1 ppp	68° to 72°F (20° to 22°C) early in crop			
6 to 8 wks	65° - 68° (18° - 20° C) finishing temperatures		Soil EC 0.9 to 1.0	
(15 cm) 6 ½” 1 ppp		pH 5.8 to 6.2		

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.2	0.9 to 1.0	65° - 68° (18° - 20° C)	feed 150 to 200 ppm		Daminozide as needed	Spray fungicide after transplant	
Week 6 to 10	5.8 to 6.2	0.9 to 1.0	65° - 68° (18° - 20° C)	feed 150 to 200 ppm				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- PGR - Spray Daminozide at 1500 to 2500 ppm early on finished plants
- Maintain good airflow and allow plants to dry before nightfall
- Scout for Aphid and Slugs/Snail on regular basis

LAMI™ Dark Purple

Lamium maculatum



Stick on priority – Number 2 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 65° - 68° (18° - 20° C)		Weeks 3-5 100 to 125 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist			Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 65° - 68° (18° - 20° C)	Feed 100 ppm to 125 ppm N		Daminozide as needed		
Week 4	5.8 to 6.2	.90 to 1.0	65° - 68° (18° - 20° C)	feed 100 to 125 ppm N				
Week 5	5.8 to 6.2	.90 to 1.0	65° - 68° (18° - 20° C)	feed 100 to 125 ppm N	None required	Daminozide as needed		Pinch at transplant



– **Irrigation specification** - Remove from mist as soon as possible. Scout specifically for Botrytis



- Daminozide at 1500 – 2000 ppm week 3 and/or 5 as required
- Pinch at transplant

LAYLA™

Lavandula angustifolia

- Maintain evenly moist soil conditions
- Facultative long day plant / long days will hasten flower response
- High light levels and cool temperatures are best for finishing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
10 to 11 wks	Average Day	Pinch – Suggested day of transplant and 2 nd pinch might be required	100 - 150 ppm N	None required
10 cm (Quart)	18°C /65° F			
11 to 12 wks	1 plant per pot		Soil EC 0.8 - 1.0 pH 5.8 to 6.2	
15 cm (1 gallon)				

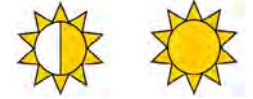


- PGR – None required when growing in warmer period, it might be required – Spray Daminozide at 2000 to 2500 ppm .
- Maintain good airflow and allow plants to dry before nightfall
- Scout for Aphids, Leaf Minors, Mites and Thrips
- Drench after transplant for Botrytis and Pythium / Phytophthora

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.2	.08 to 1.0	18° - 20° C (65° - 68° F)	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 13	5.8 to 6.2	0.8 to 1.0	16° - 18° C (61° - 65° F)	feed 100 to 150 ppm				Spray fungicide application to control Botrytis during finishing

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Lavandula angustifolia



Stick on priority – Number 1 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 to 125 ppm N	Day of sticking & Week 2

Irrigation specification – Spray with adjuvant the day of sticking/Remove from mist as soon as possible. It is best to root under high humidity and reduce misting application. Tenting is a great alternative to misting, allowing for drier foliage during propagation. Possibly utilize callused cuttings to shorten propagation schedule.

! IBA spray application or IBA dip will hasten and even off rooting. Pinch is recommended week 4 or at transplant.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.80 to .90	Cool to 20° - 21°C (68°-70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.80 to .90	20° - 21°C (68°-70° F)	Feed 100 to 150 ppm				
Week 5	5.8 to 6.2	.80 to .90	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm				Pinch recommended

LUCILLE™

Leucanthemum x superbum

- Maintain soil evenly moisture
- Facultative Long Day flowering response
- High light levels best for finishing

LUCILLE™ Chic – most compact & earliest to flower

LUCILLE™ White – medium vigor & medium response to flower

LUCILLE™ Grace – largest vigor & later to flower

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
9 to 10 wks	Average Day	Pinch –None required	150 to 200 ppm	Daminozide spray application @ 2500 – 3750 ppm
15 cm (1 gallon)	18° - 20° C (65° - 68° F)			
10 to 11 wks	1 plant per pot		Soil EC 1.0 - 1.5 pH 5.8 to 6.2	
20 cm (2 gallon)				

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.2	1.0 to 1.2	18° - 20° C (65° - 68° F)	feed 150 to 200 ppm			Drench fungicide after transplant	
Week 6 to 12	5.8 to 6.2	1.0 to 1.5	18° - 20° C (65° - 68° F)	feed 150 to 200 ppm		Daminozide as needed	Control of Pythium & Phytophthora	

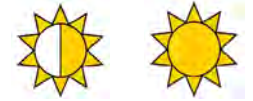


- **PGR** - Spray Uniconazole 5 to 7 ppm early in crop
Paclbutrazol drench application at 0.5 ppm for finishing
- **Spray** broad spectrum fungicide after transplant
- **Scout** for Thrip on regular basis
- Do not spray Abamectin (Avid) on Leucanthemum - test spray any pesticide

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRADIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

LUCILLE™

Leucanthemum x superbum



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 18° - 20° C (65° - 68° F)		Weeks 3-5 100 to 125 ppm N	Day of sticking & Week 2



– **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible.



– K IBA spray application will hasten and even rooting. Do not over saturate media during propagation.

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.80 to .90	Cool to 20 / 21 C	Feed 100 ppm				
Week 4	5.8 to 6.2	.80 to 1.2	20 to 21 C	Feed 100 ppm				
Week 5	5.8 to 6.2	.80 to 1.2	18° - 20° C (65° - 68° F)	Feed 100 to 150 ppm		Daminozide as needed		Pinch is not required

American Gold Rush™ PP28498 CPBRAf

Rudbeckia hybrid

- No pinch should be needed
- Naturally compact plant habit
- Spray for bacterial leaf blights

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch not required/ extend daylength to 12 hours for continued growth	100 - 150 ppm N	Daminozide spray application @ 2000 – 2500 ppm if needed under low light conditions
15 cm (1 gallon) 1 ppp	68° to 70° F (20° to 21°C)		Soil EC 1.0– 1.5 pH 5.8 to 6.2	
8 to 10 wks	3 plants per container		100 - 200 ppm N	Daminozide spray application @ 2000 – 2500 ppm if needed under low light conditions



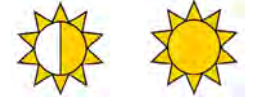
- Long Day Flowering Response Natural flowering time is weeks 26 - 28
- PGR - Spray Daminozide at 2000 to 2500 ppm on finished plants early in crop schedule if needed
- Maintain good airflow and allow plants to dry before nightfall/spray for bacterial leaf blights
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.2	0.9 to 1.0	68° to 70° F (20° to 21°C)	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 13	5.8 to 6.2	1.0 to 1.5	68° to 70° F (20° to 21°C)	feed 150 to 200 ppm		Daminozide as needed	Spray fungicide in finishing protocols	Control of Bacterial Leaf Blights

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

American Gold Rush™ PP28498 CPBRAf

Rudbeckia hybrid



Stick on priority – Number 2 out of 4 categories

Extend the day or night interruption lighting to 12 hours to continue plant growth during short day conditions

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 20° - 21° C (68° - 70° F)		Weeks 3-5 100-150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 to 6.0	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Required 12 hr daylength		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm				
Week 5	5.8 to 6.2	.90 to 1.0	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm		Daminozide if needed		



– Spray **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



– Spray adjuvant at sticking
– K-IBA spray application will hasten and even rooting response. American Gold Rush™ is long day flowering with the natural flowering response being late June / early July (obligatory long day plant).

Early Bird Gold™

Rudbeckia hybrid

- Long days are not required for flowering
- Spray for bacterial leaf blights

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 10 wks	Average Day	Pinch is suggested 4 weeks after sticking.	100 - 150 ppm N	Daminozide spray application @ 2000–2500 ppm if needed under low light conditions
15 cm (1 gallon) 1 ppp	68° to 70° F (20° to 21°C)		Soil EC 1.0– 1.5 pH 5.8 to 6.2	
3 plants per pot suggested for size greater than 15cm (1 gallon)		Optional to extend daylength to 12 hours for faster flowering and increased branching	150-200 ppm N	Daminozide spray application @ 2000–2500 ppm if needed under low light conditions



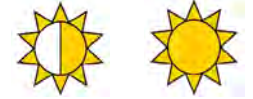
- Under short day conditions and average daily temperature of 68F (20C) plants finish approximately 16 weeks after stick. Daylength over 12 hours results in flowering 2 weeks faster than short days.
- PGR - Spray Daminozide at 2000 to 2500 ppm on finished plants early in crop schedule if needed
- Maintain good airflow and allow plants to dry before nightfall/spray for bacterial leaf blights
- Drench after transplant for Rhizoctonia and Pythium / Phytophthora

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	0.8 to 1.0	68° to 70° F (20° to 21°C)	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 13	5.8 to 6.2	1.0 to 1.5	68° to 70° F (20° to 21°C)	feed 150 to 200 ppm		Daminozide as needed	Spray fungicide in finishing protocols	Control of Bacterial Leaf Blights

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Early Bird Gold™

Rudbeckia hybrid



Stick on priority – Number 2 out of 4 categories

Extended daylength is not required. However, long days result in quicker flowering and better branching

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 20° - 21° C (68° - 70° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	optional 12 hr daylength		Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm				
Week 5	5.8 to 6.2	.90 to 1.0	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm		Daminozide if needed		



– Spray **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



– K-IBA spray application is beneficial to hasten rooting, but is not required.

– Early Bird™ is a facultative long day flowering plant. This means long day will result in quicker flowering, but the plants will finish under short days. (facultative long day plant).

APEX™

Salvia nemorosa

- Cool finishing temperatures will increase quality and longevity of flowers
- Apex™ will rebloom throughout the summer without cutting back plants

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 9 wks	Average Day	Pinch – Optional	150 - 200 ppm N	Spray at 1500 to 2500 ppm Daminozide
10 cm (quart) 1 ppp	16° to 18°C (61°-65° F)		Soil EC 1.2 – 1.5 pH 5.8 to 6.3	
9 to 11				
15 cm (1 gallon) 1 ppp				

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 5	5.8 to 6.3	1.0 to 1.2	16° to 18°C (61°-65° F)	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Botrytis
Week 6 to 12	5.8 to 6.3	1.2 to 1.5	16° to 18°C (61°-65° F)	feed 150 to 200 ppm				

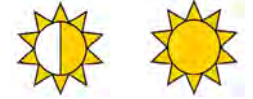
Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- Cool temperatures during finishing will develop high quality plants
- Maintain good airflow and allow plants to dry before nightfall.
- Scout for Aphids, Spider Mites and Whiteflies
- Drench after transplant for Botrytis and Pythium / Phytophthora

APEX™

Salvia nemorosa



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 22° - 23°C (72°-74° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 20° - 21° C (68° - 70° F)		Weeks 3-4 100 to 125 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	22° - 23°C (72°-74° F)	50 ppm N in mist			Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	22° - 23°C (72°-74° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	20° - 21° C (68° - 70° F)	feed 100 to 150 ppm	None required	Daminozide as needed		Spray at 1500 to 2500 ppm Daminozide



– Irrigation specification – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



– Salvia nemorosa APEX™ are day neutral. K-IBA spray application will hasten and even rooting response. Soft pinch will increase branching but is not necessary.

Dark Matter™ & Pink Nebula™

Salvia nemorosa

- Cool finishing temperatures will increase quality and longevity of flowers
- Dark Matter™ & Pink Nebula™ may require additional PGR applications for quality finishing/it is a larger growing variety.

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 9 wks	Average Day	Pinch – suggested	150 - 200 ppm N	Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol 1 to 2 ppm drench
10 cm (quart) 1 ppp	16° to 18°C (61°-65° F)			
9 to 11	Soil EC 1.2 – 1.5 pH 5.8 to 6.3			
15 cm (1 gallon) 1 ppp				



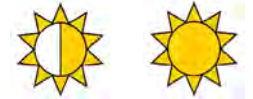
- Cool temperatures during finishing will develop high quality plants
- Maintain good airflow and allow plants to dry before nightfall.
- Scout for Aphids, Spider Mites and Whiteflies
- Drench after transplant for Botrytis and Pythium / Phytophthora

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 5	5.8 to 6.3	1.0 to 1.2	16° to 18°C (61°-65° F)	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Botrytis
Week 6 to 12	5.8 to 6.3	1.2 to 1.5	16° to 18°C (61°-65° F)	feed 150 to 200 ppm		May require additional applications		Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol 1 to 2 ppm drench

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRONIDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

Dark Matter™ & Pink Nebula™

Salvia nemorosa





Stick on priority number 3 out of 4 categories

FINISHING TIPS

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 22° - 23°C (72°-74° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 20° - 21° C (68° - 70° F)		Weeks 3-4 100 to 125 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	22° - 23°C (72°-74° F)	50 ppm N in mist	None required		Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	22° - 23°C (72°-74° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	1.0 to 1.2	20° - 21° C (68° - 70° F)	feed 100 to 150 ppm		Daminozide as needed		Spray at 1500 to 2500 ppm Daminozide

 Irrigation specification – Spray with adjuvant the day of sticking/Remove from mist as soon as possible.

 *Salvia nemorosa* Dark Matter™ & Pink Nebula™ are day neutral. K-IBA spray application will hasten and even rooting response. Pinch in liner stage or at transplant to increase branching

SALLYROSA™ April Night

Salvia nemorosa

- Cool finishing temperatures will increase quality and longevity of flowers

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
8 to 9 wks	Average Day	Pinch –Optional	150 - 200 ppm N	Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol 1 to 2 ppm drench
10 cm (quart) 1 ppp	(16° to 18°C)			
9 to 11			Soil EC 1.2 – 1.5 pH 5.8 to 6.3	
15 cm (1 gallon) 1 ppp				

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.8 to 6.3	1.0 to 1.2	16° to 18°C	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Botrytis
Week 6 to 13	5.8 to 6.3	1.2 to 1.5	16° to 18°C	feed 150 to 200 ppm		Dark Matter may require additional applications		Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol 1 to 2 ppm drench



- PGR - Spray Uniconazole 5 to 7 ppm early in crop
Paclobutrazol drench application at 0.5 ppm for finishing
- Spray broad spectrum fungicide after transplant
- Scout for Thrip on regular basis

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

SALLYROSA™ April Night

Salvia nemorosa

Stick on priority Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 20° - 21° C (68° - 70° F)		Weeks 3-4 100 to 125 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 / 6.2	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist			Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 4	5.8 to 6.2	1.0 to 1.2	20° - 21° C (68° - 70° F)	feed 100 to 150 ppm	None required	Daminozide as needed		Pinch - Recommended
Week 5	5.8 / 6.2	0.80	20° - 21° C (68° - 70° F)	50 ppm N in mist				



– **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



– *Salvia nemorosa* Sallyrosa™ are day neutral. K-IBA spray application will hasten and even rooting response. Pinch in liner stage or at transplant to increase branching.

- Low fertility will reduce plant size and hasten flowering
- Allow soil to dry between irrigations

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
9 to 10 wks	Average Day	Pinch –Suggested day of transplan	100 - 150 ppm N	Daminozide spray application @ 2000 – 3750 ppm Paclobutrazol 1 to 2 ppm drench
15 cm (1 gallon) 1 ppp	20° - 21° C (68° - 70° F)			
11 to 12 wks			Soil EC 0.8 - 1.0 pH 5.8 to 6.2	
20 cm (2 gallon) 1 ppp				

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB

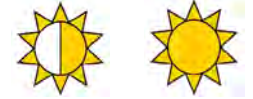


- **PGR** - Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule / Paclobutrazol drench application at 1 to 2 ppm for finishing if required
- **Maintain good airflow** and allow plants to dry before nightfall/spray for Powdery Mildew
- **Scout** for Aphids, Mites and Whiteflies
- **Drench** after transplant for Rhizoctonia and Pythium / Phytophthora

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Transplant to Week 6	5.8 to 6.2	0.8 to 1.0	20° - 21° C (68° - 70° F)	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 13	5.8 to 6.2	0.8 to 1.0	20° - 21° C (68° - 70° F)	feed 100 to 150 ppm		Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size

RONICA™

Veronica longifolia



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	No	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 20° - 21° C (68° - 70° F)		Weeks 3-5 100 to 150 ppm N	Day of sticking & Week 2



– **Irrigation specification** – Spray with adjuvant the day of sticking/Remove from mist as soon as possible



– K-IBA spray application will hasten and even rooting response. Veronica Ronica™ are long day flowering with the natural flowering response being June (facultative long day plant).

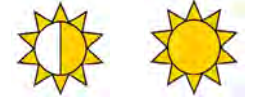
Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	21° - 22°C (70°-72° F)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	21° - 22°C (70°-72° F)	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20° - 21° C (68° - 70° F)	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm		Daminozide as needed		
Week 5	5.8 to 6.2	1.0 to 1.2	20° - 21° C (68° - 70° F)	Feed 100 to 150 ppm		Daminozide as needed		

FOLIAGE

Propagation & Finishing

ENDLESSLILY™

Heemerocallis hybrid



- Transplant into finish pot upon receipt of product
- Keep night temperatures above 62° F (17° C). Lower temperatures will stall plant growth and development when establishing plants
- Allow plants to dry between irrigation once plant is established
- When planting, cover the crown with soil
- Finish under high light

Average Time (from bare root)		Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
10 to 12 wks				
(15 cm) 1 gallon	Medium size division			
(20 cm) 2 gallon	Large division with multiple eyes			



- Cool, wet weather may bring on Fusarium or Rhizoctonia. There are also a few leaf spot diseases which may develop under damp, low light conditions
- Establish with evenly moist soil, then allow soil to dry between irrigations when roots are develop
- Scout for Aphids, Spider Mites and Thrips on regular basis along with Leaf Minors.

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrip	METHIOCARB, ACINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
	Pythium	PROPAMOCARB
	Phytophthora	PROPAMOCARB

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	6.0 to 6.5	1.0 to 1.2	ADT 65° F (18° C)	feed 100 to 150 ppm		Grow under high light and cool temperatures	Spray fungicide after transplant	Establish roots under warmer temperatures
Week 6 to 12	6.0 to 6.5	1.0 to 1.5	ADT 65° F (18° C)	feed 150 to 200 ppm				Finish under cooler temperatures

Emerald Charm™

Asarum

- Quality improves when finished with cool temperatures
- Will flower second year around week 8, needs outdoor cold temperatures to flower

Average Time (from liners)	Temperature	Pinch/Daylength Modification	Fertilization	Plant Growth Regulator
10 to 11 wks (12 cm) 5" pot 1 ppp	Average Day 65° - 68° (18° - 20° C)	No pinch necessary	100 - 150 ppm N	Not needed
10 to 12 wks (15 cm) 6 ½" pot 1 ppp	1 plant per pot	No lighting necessary	Soil EC 1.0 - 1.2 pH 5.5 to 6.0	
10 to 11 wks (20 cm) 8" pot 3 ppp	3 plants per container			
10 to 12 wks (25 cm) 10" pot 3 ppp	3 plants per container			

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.6 to 6.0	1.0 to 1.2	65° to 68° F (18° to 20° C)	feed 100 to 150 ppm	Day Neutral	Not needed	Spray fungicide after transplant	
Week 6 to 12	5.6 to 6.0	1.0 to 1.2	59° to 64° f (16° to 18° C)	feed 100 to 150 ppm	Not Required			

Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRDIONE, POLYOXIN
	Pythium Phytophthora	PROPAMOCARB / MEFENOXAM
	Rhizoctonia	AZOXYSTRONBIN / ETRIDIAZOLE / FLUDIOXONIL / PCNB



- Additional Iron (Fe) or Manganese (Mn) may be required depending on water quality and alkalinity
- Scout for Aphids and Thrips on regular basis

Emerald Charm™

Asarum

Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 70°-72° F (21° - 22°C)	Optional	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 4 68° - 70° (20° - 21° C)		Weeks 3-4 100 to 150 ppm N	Apply broad spectrum Week 2



- **Misting specification** - Remove from mist as soon as possible
- Spray adjuvant at sticking



- Pinching is not needed

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 to 6.2	0.80	70°-72° F (21° - 22°C)	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	70°-72° F (21° - 22°C)	50 ppm N in mist	Not required		Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	68° - 70° (20° - 21° C)	Feed 100 ppm to 150 ppm	Not required			
Week 4	5.8 to 6.2	.90 to 1.0	68° - 70° (20° - 21° C)	Feed 100 to 150 ppm	Not required	Not required		

Nematanthus

Nematanthus gregarius

- Pinch is beneficial to increase rooting
- Nematanthus prefers long days and warm temperatures to flower

Average Time (from liners)	Temperature	Pinch/Daylength Modification	Fertilization	Plant Growth Regulator
7 to 9 wks (12 cm) 5" pot	Average Day 65° - 68° (18° - 20° C)	Pinch week 4 or at transplant No lighting necessary	100 - 150 ppm N	Daminozide spray when plants have reached 85% finish size
8 to 10 wks (15 cm) 6 ½"	3 plants per container for 5" 4 plants per container for 6 ½"		Soil EC 1.0 - 1.2 pH 5.5 to 5.8	
10 to 14 wks				
(20 cm) 8"	6 plants per container			

Finishing	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.5 to 5.8	1.0 to 1.2	70°-72° F (21° - 22°C)	feed 100 to 150 ppm	Prefers long days	Daminozide as needed	Drench fungicide after transplant	
Week 6 to 14	5.6 to 6.0	1.0 to 1.2	68° to 72° (21° to 22° C)	feed 100 to 150 ppm				

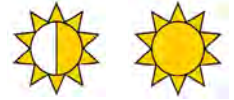
Pests	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS	
	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD	
	Whiteflies	PYMETROZINE, PYRIPROXYFEN, PYRIFLUQUINAZON	
Diseases	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN	
	Pythium	PROPAMOCARB	
	Phytophthora	PROPAMOCARB	



- Avoid overhead watering with cold water
- In addition to Thrips and Aphids scout for Mealybugs, Spider Mites, and Whiteflies
- Botrytis and Rhizoctonia – fungicide drench after transplant to control root and stem diseases

Nematanthus

Nematanthus gregarius



Stick on priority – Number 3 out of 4 categories

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 72° / 74° F (22° / 23° C)	Suggested	Weeks 1-2 50 ppm N	Spray fungicide to control Botrytis and bacteria day of sticking
	Weeks 3 - 5 70°-72° F (21° - 22°C)		Weeks 3-5 100 ppm N	Day of sticking & Week 2

Rooting	pH	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 / 5.8	0.80	72° / 74° F (22° / 23° C)	50 ppm N in mist			Day of sticking	Feeding through Mist
Week 2	5.5 to 5.8	.80 to .90	72° / 74° F (22° / 23° C)	50 ppm N in mist			Second fungicide app	
Week 3	5.5 to 5.8	.90 to 1.0	72° / 74° F (22° / 23° C)	Feed 100 ppm				If callused remove from Mist
Week 4	5.5 to 5.8	1.0 to 1.2	70°-72° F (21° - 22°C)	Feed 100 ppm				
Week 5	5.5 to 5.8	1.0 to 1.2	70°-72° F (21° - 22°C)	Feed 100 ppm				Pinch



– **Irrigation specification** - Remove from mist as soon as possible. Limit misting in propagation.

– Sensitive to cold water. Overhead watering with water under 50F (10C) can result in leaf damage



– Application of K-IBA can hasten rooting. Maintain warm temperatures in propagation.

– Pinching before transplant results in better finished product.

Danziger's varieties, as well as varieties of other breeders presented in this table, are all proprietary, and protected by Utility Patents, Plant Patents and/or Plant Breeders Rights (PBR).

Name of Utility Patent	Number of Patent	Variety
Impatiens Hawkeri Having Reduced Apical Dominance	United States Patent 11,324,176	Harmony® Colorfall™ Light Coral
		Harmony® Colorfall™ Neon Red
		Harmony® Colorfall™ Pink
		Harmony® Colorfall™ White
		Harmony® Colorfall™ Flamingo
Craspedia Plant Named `DCRAGLFBIM`	United States Patent 11,690,338	Golf™ Beauty Imp.
Calibrachoa plant with radially symmetric coloration	United States Patent 9,313,959	Colibri™ Abstract Guava
		Colibri™ Exotic Red Bling
		Colibri™ Pink Bling
		Colibri™ Purple Bling
		Colibri™ Spark Purple
		Lia™ Abstract Pink
		Lia™ Spark Pink
		Petunia mutant allele
Amore® Heart & Soul		
Amore® Queen of Hearts		
Capella™ Hello Yellow		
Capella™ Hello Sunshine		
Capella™ Mulberry		
Capella™ Sangria		
Cascadias™ Arizona Sky		
Cascadias™ Autumn Mystery		
Cascadias™ Indian Summer		
Cascadias™ Rim Magenta		
Cascadias™ Romancero		
Ray™ Black		
Ray™ Shadow		
Ray™ Sunflower Imp.		
Petunia plants having a unique flower color pattern	United States Patent 9,913,438	Splash Dance® Bolero Blue
		Splash Dance® Fuchsia Flamenco
		Splash Dance® Rumba Rose
		Splash Dance® Moon Walk
		Splash Dance® Purple Polka
Petunia mutant allele & Petunia plants having a unique flower color pattern	United States Patent 7,642,436	Splash Dance® Magenta Mambo
	United States Patent 9,913,438	Splash Dance® Violet Vogue

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