

SUNNY SPARKS™

Agastache hybrid









Sunny Sparks[™] Pink Improved

- No vernalization or cooling required (First Year Flowering)
- · Well matched series
- Fast to finish
- Sturdy habit covered with fragrant blooms
- · Pollinator friendly
- Cold Hardiness 7 10
- Mature height and width is
 15 x 16 inches (38 cm x 40 cm)

More varieties in the SUNNY SPARKS™ series:



Sunny Sparks™ Tangerine



Sunny Sparks™ Yellow





SUNNY SPARKS™

Agastache hybrid



PROPAGATION TIPS

• Stick on priority – Number 2 out of 4 categories







Flowering time

Spring / Summer Flowering

Width 40 cm

(15")

Height

38 cm (16")

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 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 - 4 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



Agastache respond to long days for flowering (facultative long day plant). The Sunny Sparks™ series will flower early enough for most regions. Daminozide at 1000 to 1500 ppm week 3.

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.3	0.80	21 / 22 C	50 ppm N in mist			Day of sticking	
Week 2	5.6 to 6.3	.80 to .90	21 / 22 C	50 ppm N in mist	Optional		Second fungicide app	
Week 3	5.6 to 6.3	.90 to 1.0	Cool to 18 – 20 C	Feed 100 ppm to 150 ppm	Optional	Daminozide as needed		
Week 4	5.6 to 6.3	1.0 to 1.2	18 to 20 C	feed 100 to 150 ppm	Optional	Daminozide as needed		Pinch at transplant







SUNNY SPARKS™

Agastache hybrid



FINISHING TIPS

- · Be cautious not to bury liner crown below soil line
- High quality plants are finished with high light and cool temperatures
- May require two or more pinches, depending on production schedule

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator	
6 to 8 wks	Average Day		100, 150 man N	Daminozide spray	
15 cm (1 gallon)	(20° to 21°C)	Pinch –	100 - 150 ppm N	application @ 2000 –	
8 to 10 wks		Suggested day of transplant	Soil EC 1.0 - 1.2	3750 ppm Paclobutrazol 1 to 2	
20 cm (2 gallon)			pH 5.6 to 6.2	ppm drench	

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



- <u>PGR</u> 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
- <u>Maintain good airflow</u> 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 Whiteflies
- <u>Drench</u> after transplant for Rhizoctonia and Pythium / Phytophthora

Finishing	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.6 to 6.2	1.0 to 1.2	20° to 21°C	feed 100 to 150 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 100 to 150 ppm		Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size





PAVILION™

Caryopteris incana





PAVILION™ Pink



- Cold Hardiness 6 10
- Short day plant flowering begins week 36
- No vernalization or cooling required (First Year Flowering)
- Mature height and width is
 51 cm x 41 cm (20 x 16 inches)

More varieties in the PAVILION™ series:



PAVILION™ White



PAVILION™ Blue





PAVILION™

Caryopteris incana



PROPAGATION TIPS

Stick on priority – Number 2 out of 4 categories



Flowering time

Spring / Summer Flowering



Width **41 cm (16")**



Height **51 cm (20")**

Average Time	Temperature Hormon		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)	PAV	ppm N	Day of sticking & Week 2



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 26 for finishing in the fall. Daminozide at 1500 to 2500 ppm week 4 may be required to control stretch in liner stage.

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 / 6.2	0.80	21 / 22 C	50 ppm N in mist			Day of sticking	
Week 2	5.5 / 6.2	.80 to .90	21 / 22 C	50 ppm N in mist	Optional		Second fungicide app	
Week 3	5.5 / 6.2	.90 to 1.0	Cool to 18 – 20 C	Feed 100 ppm to 150 ppm	Optional	Daminozide as needed		
Week 4	5.5 / 6.2	1.0 to 1.2	18 to 20 C	feed 100 to 150 ppm	Optional	Daminozide as needed		Pinch at transplant





PAVILION™

Caryopteris incana



FINISHING TIPS

- · 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 10 wks	Average Day		400 450 N		
15 cm (1 gallon)	(20° to 21°C)	Pinch – Suggested day	100 - 150 ppm N	Daminozide spray application @ 2000 – 2500 ppm	
8 to 10 wks		of transplant	Soil EC 1.0 - 1.2		
20 cm (2 gallon)			pH 5.5 to 6.2		

		Recommended Chemicals
Doots	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS
Pests	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOSAD
	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN
Diseases	Pythium Phytophthora	PROPAMOCARB
	Rhizoctonia	Pentachloronitrobenzene, Triflumizole



- PGR Spray Daminozide at 2000 to 2500 ppm on finished plants early in crop schedule
- <u>Maintain good airflow</u> and allow plants to dry before nightfall. Do not keep consistently wet or root rot problems may develop.
- · Scout for Aphids, Mites and Whiteflies
- <u>Drench</u> after transplant for Pythium / Phytophthora and Rhizoctonia

Finishing	рН	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 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 15	5.6 to 6.2	1.0 to 1.2	20° to 21°C	feed 100 to 150 ppm				

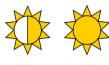




SOLANNA™

Coreopsis grandiflora







SOLANNA™ Sunset Burst Recommended for 15-18 cm and 30-36 cm pots

- Cold Hardiness 4 9
- No vernalization or cooling required (First Year Flowering) however most varieties benefit from 14 days of cool temperatures (10C/50F or less)
- Blooms spring to fall
- · Well branched
- Height and width vary within the series

More varieties in the SOLANNA™ series:



SOLANNA™ Golden Sphere Recommended for 12-18 cm pots



SOLANNA™ Sunshine Recommended for 15-18 /30-36 cm pots



SOLANNA™ Glow Recommended for 15-18 /30-36 cm pots



SOLANNA™ Golden Princess
Recommended for
12-18 cm pots



SOLANNA™ Bright Touch Recommended for 12-18 cm pots



SOLANNA™ Golden Crown Recommended for 15-18 /30-36 cm pots







SOLANNA™

Coreopsis grandiflora



FINISHING TIPS

- · Pinch should not be required unless plants have elongated
- Spray for Powdery Mildew and bacterial leaf spot during production
- · Better production 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		150, 200 nam N	Daminozide spray	
12-15 cm (Qt/1 gallon)	(20° to 21°F)	Pinch –	150- 200 ppm N	application @ 2500 –	
9 to 10 wks		Optional	Soil EC 1.0 - 1.2	3750 ppm Paclobutrazol 1 to 2 ppm drench	
20 cm (2 gallon)			pH 5.6 to 6.2		

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



- <u>PGR</u> 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
- Maintain good airflow and allow plants to dry before nightfall. Spray for Powdery Mildew
- Scout for Aphids, Thrips and Whiteflies
- <u>Drench</u> after transplant for Rhizoctonia and Pythium / Phytophthora

Finishing	рН	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		Paclobutrazol Drench at 1 to 2 ppm		Paclobutrazol 1 to 2 ppm drench when plants reach 85% of desired size

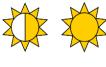




DELIGHTFUL™

Delosperma cooperi







DELIGHTFUL™ Pink

- No vernalization or cooling required (First Year Flowering)
- Strong heat and drought tolerance make these series perfect for summer programs
- More compact mounded habit
- Suitable for a six pack programs
- · Cold Hardiness 5 10
- Mature height and width is
 5 X 3 inches (13 cm x 8 cm)

More varieties in the DELIGHTFUL™ series:



DELIGHTFUL™ White



DELIGHTFUL™ Yellow

DELIGHTFUL™

Delosperma cooperi

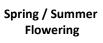


PROPAGATION TIPS

• Stick on priority – Number 2 out of 4 categories









Width





Height

12 cm (5")

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 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 - 4 20° - 21° C (68° - 70° F)		Weeks 3-4 100 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



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

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 / 6.5	0.80	22 / 23 C	50 ppm N in mist			Day of sticking	
Week 2	5.5 to 6.5	.80 to .90	22 / 23 C	50 ppm N in mist			Second fungicide app	
Week 3	5.5 to 6.5	.90 to 1.0	Cool to 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	20 to 21C	feed 100 to 150 ppm		Daminozide as needed		









DELIGHTFUL™

Delosperma cooperi



FINISHING TIPS

- · High quality plants with many more flowers are finished with high light
- Cool temperatures may create stress and develop yellow stems (at tips)/ when temperatures warm, the plants will become green

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 9 wks	Average Day		400, 450 mag N	
15 cm (1 gallon)	(20° to 21°C)	Pinch – Suggested	100 - 150 ppm N	Daminozide spray
9 to 11 wks		week 3 or day of transplant	Soil EC 1.2 - 1.5	application @ 2000 – 3750 ppm
20 cm (2 gallon)		2. 3. 3. 10 10 10 10 10 10 10 10	pH 5.5 to 6.3	

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



- PGR Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule
- <u>Cool temperatures</u> 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

Finishing	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.5 to 6.3	1.0 to 1.2	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	20° to 21°C	feed 100 to 150 ppm				





EARLY BIRD™ & SANDGEM™

Delosperma cooperi









EARLY BIRD™ Purple

- No vernalization or cooling required (First Year Flowering)
- EARLY BIRD™ blooms are the first to open in the morning
- SANDGEM™ has large flowers with a trailing plant habit
- Strong heat and drought tolerance make these series perfect for summer programs
- · Cold Hardiness 5 10
- Mature height and width is
 5 X 14 inches (12 cm x 35 cm)

The SANGDEM™ series:



SANDGEM™ Ember



SANDGEM™ Gold





EARLY BIRD™ & SANDGEM™

Delosperma cooperi



PROPAGATION TIPS

• Stick on priority – Number 2 out of 4 categories





Spring / Summer Flowering



Width

35 cm (14")



Height

12 cm (5")

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 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 - 4 20° - 21° C (68° - 70° F)		Weeks 3-4 100 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



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

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 / 6.5	0.80	22 / 23 C	50 ppm N in mist			Day of sticking	
Week 2	5.5 to 6.5	.80 to .90	22 / 23 C	50 ppm N in mist			Second fungicide app	
Week 3	5.5 to 6.5	.90 to 1.0	Cool to 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	20 to 21C	feed 100 to 150 ppm		Daminozide as needed		





EARLY BIRD™ & SANDGEM™

Delosperma cooperi



FINISHING TIPS

- · High quality plants with many more flowers are finished with high light
- Cool temperatures may create stress and develop yellow stems (at tips)/ when temperatures warm, the plants will become green

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator
7 to 9 wks	Average Day		400, 450 mm N	
15 cm (1 gallon)	(20° to 21°C)	Pinch – Suggested	100 - 150 ppm N	Daminozide spray
9 to 11 wks		week 3 or day of transplant	Soil EC 1.2 - 1.5	application @ 2000 – 3750 ppm
20 cm (2 gallon)		2. 3. 2.70 (0.10.11)	pH 5.5 to 6.3	

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



- PGR Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule
- 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
- <u>Drench</u> after transplant for Rhizoctonia and Pythium / Phytophthora

Finishing	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.5 to 6.3	1.0 to 1.2	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	20° to 21°C	feed 100 to 150 ppm				





DELILAH™

Dianthus plumarius





**

- · Cold Hardiness 4 9
- No vernalization or cooling required (First Year Flowering)
- Abundant semi-double flowers early in spring
- Mature height and width is
 25 cm x 35 cm (10 x 14 inches)

More varieties in the DELILAH™ series:

Bicolor Purple



DELILAH™ Bicolor Magenta



DELILAH™ Magenta



DELILAH™ Purple





DELILAH™

Dianthus plumarius



PROPAGATION TIPS

• Stick on priority – Number 2 out of 4 categories



Flowering time

Early Spring / Spring Flowering



Width

35 cm (14")



Height

25 cm (10")

Average Time	Temperature	Hormone	Fertilization	Fungicide
4 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F)	Optoinal	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 3-5 100 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



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.

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.5 / 6.3	0.80	22 / 23 C	50 ppm N in mist	Day neutral		Day of sticking	
Week 2	5.5 to 6.3	.80 to .90	22 / 23 C	50 ppm N in mist			Second fungicide app	
Week 3	5.5 to 6.3	.80 to 1.0	Cool to 18 C	Feed 100 to 150 ppm				
Week 4	5.5 to 6.3	.80 to 1.0	16 to 18 C	feed 100 to 150 ppm		Daminozide as needed		Pinch Optional







DELILAH™

Dianthus plumarius



FINISHING TIPS

- · High quality plants with many more flowers are finished with high light
- · Cool temperature finishing will create the best quality.

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator	
7 to 9 wks	Average Day	Pinch –Should	100, 150 mm N		
15 cm (1 gallon)	(16° to 18°C)	not be	100 - 150 ppm N	Daminozide spray	
9 to 11 wks		required unless liners	Soil EC 1.0 - 1.2	application @ 2000 – 2500 ppm	
20 cm (2 gallon)		are elongated	pH 5.5 to 6.3		

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



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

Finishing	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 5 Transplant	5.5 to 6.3	1.0 to 1.2	18° C	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Rhizoctonia
Week 6 to 14	5.5 to 6.3	1.0 to 1.2	16° to 18°C	feed 100 to 150 ppm		Daminozide as needed		





GUATEMALA™

Echinacea hybrid









Guatemala[™] **Gold**

- Cold Hardiness 5 9
- No vernalization or cooling required (First Year Flowering)
- Natural June flowering response
- Second vegetative Echinacea available from URC
- Mature height and width is
 20 cm x 36 cm (8 x 14 inches)







GUATEMALATM

Echinacea hybrid



PROPAGATION TIPS

• Stick on priority – Number 2 out of 4 categories







Flowering time

Spring / Summer

Flowering

18 - 26 cm (7 - 10")

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30 - 38 cm (12 - 15")

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 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 response. Echinacea Panama™ are long day flowering with the natural flowering response being June (facultative long day plant). An adequate substrate for young plants with a pH of 5.8 to 6,5 and a EC of 0,8 mS.

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.0	0.80	21 / 22 C	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	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20 / 21 C	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	20 to 21 C	Feed 100 to 150 ppm				
Week 5	5.8 to 6.2	.90 to 1.0	20 to 21 C	Feed 100 to 150 ppm		Daminozide if needed		1500 to 2000 ppm Daminozide





GUATEMALA™

Echinacea hybric



FINISHING TIPS

- 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	100, 150 mm N	
15 cm (1 gallon)	(20° to 21°C)	required/ extend	100 - 150 ppm N	Daminozide spray
8 to 10 wks		daylength to 12 hours for	Soil EC 0.8 – 1.2	application @ 2000 – 2500 ppm
20 cm (2 gallon)	3 plants per container	early flowering	pH 5.8 to 6.2	==== pp

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



- Long Day Flowering Response Natural flowering time is weeks 24 27
- 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
- <u>Drench</u> after transplant for Rhizoctonia and Pythium / Phytophthora

Finishing	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	0.8 to 1.0	20° to 21°C	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to	5.8 to 6.2	0.8 to 1.2	20° to 21°C	feed 150 to 200 ppm			Spray fungicide in finishing protocols	Control of Bacterial Leaf Blights





GUATEMALA™

Echinacea hybrid



Israel November 2022





PANAMATM

Echinacea hybrid







PANAMA[™] Red

- Cold Hardiness 5 9
- No vernalization or cooling required (First Year Flowering)
- Natural June flowering response
- First vegetative Echinacea available from URC
- Mature height and width is
 35 cm x 41 cm (14 x 16 inches)





PANAMA™

Echinacea hybrid



PROPAGATION TIPS

• Stick on priority – Number 2 out of 4 categories







Flowering time

Width

Height

Spring / Summer Flowering

36 - 41 cm (14 - 16") 30 - 36 cm (12 - 14")

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 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 response. Echinacea Panama™ are long day flowering with the natural flowering response being June (facultative long day plant). An adequate substrate for young plants with a pH of 5.8 to 6,5 and a EC of 0,8 mS.

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.0	0.80	21 / 22 C	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	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20 / 21 C	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	20 to 21 C	Feed 100 to 150 ppm				
Week 5	5.8 to 6.2	.90 to 1.0	20 to 21 C	Feed 100 to 150 ppm		Daminozide if needed		1500 to 2000 ppm Daminozide





PANAMA™

Echinacea hybrid



FINISHING TIPS

- 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	100, 150 mm N	
15 cm (1 gallon)	(20° to 21°C)	required/ extend	100 - 150 ppm N	Daminozide spray
8 to 10 wks		daylength to 12 hours for	Soil EC 0.8 – 1.2	application @ 2000 – 2500 ppm
20 cm (2 gallon)	3 plants per container	early flowering	pH 5.8 to 6.2	

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



- Long Day Flowering Response Natural flowering time is weeks 24 27
- 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	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	0.8 to 1.0	20° to 21°C	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° to 21°C	feed 150 to 200 ppm			Spray fungicide in finishing protocols	Control of Bacterial Leaf Blights





SUNSTRONG™

Erysimum linifolium







SUNSTRONG™ Violet

- Cold Hardiness 6 9
- No vernalization or cooling required (First Year Flowering)
- Early spring flower response
- Heat tolerant for continued flowering in summer months
- Mature height and width is
 50 cm x 46 cm (20 x 18 inches)

More varieties in the SUNSTRONG™ series:



SUNSTRONG™ Orange Imp.



SUNSTRONG™ Bicolor Purple





SUNSTRONG™

Erysimum linifolium



PROPAGATION TIPS

• Stick on priority – Number 3 out of 4 categories







Flowering time

wiath

Height

Spring / Summer Flowering 38 - 46 cm (15 - 18") 41 - 51 cm (16 - 20")

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 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



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

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.0	0.80	21 / 22 C	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21 / 22 C	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 to 150 ppm				
Week 4	5.8 to 6.2	.80 to .90	20 to 21 C	Feed 100 to 150 ppm		Daminozide as needed		Pinch recommended
Week 5	5.8 to 6.2	.80 to .90	18 C	Feed 100 to 150 ppm		Daminozide as needed		





SUNSTRONG™

Erysimum linifolium



FINISHING TIPS

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

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator	
8 to 9 wks	Average Day		100, 150 pp. N	Daminozide spray	
15 cm (1 gallon)	(16°C)	Pinch –	100 - 150 ppm N	application @ 2000 – 3750 ppm Paclobutrazol 1 to 2	
9 to 10 wks		Suggested day of transplant	Soil EC 1.0 - 1.2		
20 cm (2 gallon)			pH 5.8 to 6.2	ppm drench	

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



- <u>PGR</u> 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	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	.08 to 1.0	18° to 20°C	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	10° to 16°C	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

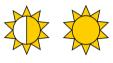




GUSTO™

Gaillardia hybrida







GUSTO™ Paprika GI-17-6066

- Cold Hardiness 4 9
- No vernalization or cooling required (First Year Flowering)
- · Well matched series of 4 colors
- Tested for rooting
- New blooms cover the old ones "buries" its dead
- Mounded habit
- Mature height and width is
 35 cm x 45 cm (14 x 18 inches)

More varieties in the GUSTO™ series:



GUSTO™ Lemon



GUSTO™ Sweet Chili





GUSTO™

Gaillardia hybrida



PROPAGATION TIPS

• Stick on priority – Number 2 out of 4 categories







Flowering time

Width

Height

Spring / Summer Flowering

35 - 45 cm (14 - 18") 35 - 40 cm (14 - 16")

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 - 4 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



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.

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.0	0.80	22° / 23° C	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	22° / 23° C	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20° / 21° C	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	20° to 21° C	Feed 100 to 150 ppm		Daminozide as needed		
Week 5	5.8 to 6.2	1.0 to 1.2	18° C	Feed 100 to 150 ppm		Daminozide as needed		





GUSTO™

Gaillardia hybrida



FINISHING TIPS

- · Low fertility will reduce plant size and hasten flowering
- High quality plants are finished with cool temperatures

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator	
7 to 8 wks	Average Day		100, 150 and N	Daminozide spray	
15 cm (1 gallon)	20° C to 22° C (68° to 70°F)	Pinch – Suggested day	100 - 150 ppm N	application @ 2000 – 3750 ppm Paclobutrazol 1 to 2	
9 to 10 wks		of transplant	Soil EC 1.0 - 1.2		
20 cm (2 gallon)			pH 5.8 to 6.2	ppm drench	

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



- <u>PGR</u> 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	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	1.0 to 1.2	20° to 21°C	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium &
Week 6 to 13	5.8 to 6.2	1.0 to 1.2	20° to 21°C	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





STEFFI™

Gaura lindheimeri











- Cold Hardiness 5 9
- No vernalization or cooling required (First Year Flowering)
- Early spring flower response
- Easy to root
- STEFFI White has consistent and beautiful upright dark green foliage without the red spotting common to older genetics
- Mature height and width is
 46 cm x 51 cm (18 x 20 inches)

More varieties in the STEFFI™ series:



STEFFI™ White



STEFFI™ Blush Pink Imp





STEFFITM

Gaura lindheimeri



PROPAGATION TIPS

• Stick on priority – Number 3 out of 4 categories







Flowering time

Width

Height

Spring / Summer Flowering

46 - 51 cm (18 - 20") 41 - 46 cm (16 - 18")

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. Best to root in high humidity and reduced mist.



Gaura are facultative long day plants/flowering is hastened under long days. Daminozide at 1500 to 2500 ppm week 4. Pinch at transplant.

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.0	0.80	21 / 22 C	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21 / 22 C	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 to 150 ppm				
Week 4	5.8 to 6.2	.80 to .90	20 to 21 C	Feed 100 to 150 ppm		Daminozide as needed		
Week 5	5.8 to 6.2	.80 to .90	18 to 20 C	Feed 100 to 150 ppm		Daminozide as needed		Pinch recommended





STEFFI[™]

Gaura lindheimeri



FINISHING TIPS

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

Average Time (from liners)	lemnerature l		Fertilization	Plant Growth Regulator	
9 to 10 wks	Average Day		100, 150 mars N		
15 cm (1 gallon)	(18°C)	Pinch –	100 - 150 ppm N	Daminozide spray	
9 to 11 wks		Suggested day of transplant	Soil EC 0.8 - 1.0	application @ 2000 – 3750 ppm	
20 cm (2 gallon)			pH 5.8 to 6.2		

		Recommended Chemicals			
	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS			
Pests	Thrips	METHIOCARB, ACRINATHRIN, ABAMECTIN, DICHLORVOS, SPINOS			
	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN			
Diseases	Pythium	PROPAMOCARB			
	Phytophthora	PROPAMOCARB			



- 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
- <u>Drench</u> after transplant for Botrytis and Pythium / Phytophthora

Finishing	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	.08 to 1.0	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	0.8 to 1.0	16° to 18°C	feed 100 to 150 ppm				





FESTIVAL®

Gypsophila paniculata





FESTIVAL® White



- · Cold Hardiness 4 8
- No vernalization or cooling required (First Year Flowering)
- Great summer performer
- Mature height and width is
 35 cm x 45 cm (24 x 12 inches)

More varieties in the FESTIVAL® series:



FESTIVAL® Pink Lady



FESTIVAL®
White Flare





FESTIVAL™

Gypsophila paniculata



PROPAGATION TIPS

Stick on priority – Number 2 out of 4 categories



Flowering time

Summer Flowering



Width 25 - 30 cm (10 - 12") Height

51 - 61 cm (20 - 24")

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



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

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 / 6.5	0.80	21 / 22 C	50 ppm N in mist	Long day flowering		Day of sticking	
Week 2	5.8 to 6.5	.80 to .90	21 / 22 C	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.5	.90 to 1.0	Cool to 20 C	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 4	5.8 to 6.5	.90 to 1.0	18 to 20 C	Feed 100 to 150 ppm		Daminozide as needed		
Week 5	5.8 to 6.5	1.0 to 1.2	16 to 18 C	Feed 100 to 150 ppm		Daminozide as needed		





FESTIVAL™

Gypsophila paniculata



FINISHING TIPS

- · Festival Gypsophila will require daylength greater than 12 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	
8 to 10 wks	Average Day	Pinch –	150 200 nnm N		
15 cm (1 gallon)	(16° to 18°C)	Suggested day of	150 - 200 ppm N	Daminozide spray application @ 2000 –	
9 to 10 wks		transplant with possible	Soil EC 1.2 - 1.5	3750 ppm Paclobutrazol 1 to 2	
20 cm (2 gallon)	second pinch		pH 5.8 to 6.5	ppm drench	

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



- <u>PGR</u> 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 Aphids, Mites and Thrips
- <u>Drench</u> after transplant for Botrytis and Pythium / Phytophthora

Finishing	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.5	1.0 to 1.2	16° to 18°C	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Phytophhtora
Week 6 to 13	5.8 to 6.5	1.2 to 1.5	16° to 18°C	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





KIRATM Heuchera







- Cold Hardiness 4 9
- · Great summer performance
- Ideal for mixed containers
- Mature height and width is
 20 cm x 45 cm (8 x 12 inches)

KIRA™ Arizona

More varieties in the KIRA™ series:



KIRA™ Green Tea



KIRA™ Evergreen Forest



KIRA™ Jersey



KIRA™ Purple Rain Forest Improved







PROPAGATION TIPS

• Stick on priority - Number 2 out of 4 categories



Flowering time Summer

Flowering





Height

	•
30 - 36 cm	20 - 25 cn
(12 - 14")	(8 - 10")

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



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 dry soil conditions are more conducive to uniform rooting.

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.7 / 6.5	0.80	21 / 22 C	50 ppm N in mist			Day of sticking	
Week 2	5.7 to 6.5	.80 to .90	21 / 22 C	50 ppm N in mist			Second fungicide app	
Week 3	5.7 to 6.5	.80 to .90	Cool to 20 C	Feed 100 ppm				
Week 4	5.7 to 6.5	.80 to .90	18 to 20 C	Feed 100 ppm N				
Week 5	5.7 to 6.5	.80 to .90	18 to 20 C	Feed 100 ppm N		Should not be required		









FINISHING TIPS

- Some shade will be required for summer 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		400, 450 aven N	
12 cm (Quart)	(18° to 20°C)	Pinch –not	100 - 150 ppm N	
10 to 12 wks		required	Soil EC 0.8 - 1.0	
15 cm (1 gallon)			pH 5.7 to 6.5	

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



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

Finishing	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.7 to 6.5	0.8 to 1.0	18° to 20°C	feed 100 to 150 ppm			Drench fungicide after transplant	 Control of Pythium & Phytophhtora
Week 6 to 13	5.7 to 6.5	0.8 to 1.0	18° to 20°C	feed 100 to 150 ppm				





KIRELLA™

Heucherella hybrida







KIRELLA™ Fresh Green

- Cold Hardiness 4 9
- Great summer performance
- Ideal for mixed containers
- Mature height and width is 20 cm x 45 cm (8 x 12 inches)



KIRELLA™ Autumn Shades



KIRELLA™

Heucherella hybrida



PROPAGATION TIPS

• Stick on priority – Number 2 out of 4 categories



Flowering time

Summer Flowering



Width

30 - 36 cm (12 - 14")



Height

_	
20 - 25	cm
(8 - 10	")

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	



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 dry soil conditions are more conducive to uniform rooting.

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.7 / 6.5	0.80	21 / 22 C	50 ppm N in mist			Day of sticking	
Week 2	5.7 to 6.5	.80 to .90	21 / 22 C	50 ppm N in mist			Second fungicide app	
Week 3	5.7 to 6.5	.80 to .90	Cool to 20 C	Feed 100 ppm				
Week 4	5.7 to 6.5	.80 to .90	18 to 20 C	Feed 100 ppm N				
Week 5	5.7 to 6.5	.80 to .90	18 to 20 C	Feed 100 ppm N		Should not be required		



KIRELLA™

Heucherella hybrida



FINISHING TIPS

- Some shade will be required for summer 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		400, 450 area N	
12 cm (Quart)	(18° to 20°C)	Pinch –not	100 - 150 ppm N	
10 to 12 wks		required	Soil EC 0.8 - 1.0	
15 cm (1 gallon)			pH 5.7 to 6.5	

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



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

Finishing	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.7 to 6.5	0.8 to 1.0	18° to 20°C	feed 100 to 150 ppm			Drench fungicide after transplant	 Control of Pythium & Phytophhtora
Week 6 to 13	5.7 to 6.5	0.8 to 1.0	18° to 20°C	feed 100 to 150 ppm				





FIRST FLUSH™

Iberis sempervirens







FIRST FLUSH™ Lavender

- Cold Hardiness 5 9
- No vernalization or cooling required (First Year Flowering)
- Covered in light pastel tinted blooms
- Takes the heat which extends the selling season for this typically early spring season crop
- FIRST FLUSH™ Iberis benefits from 14 days of cool temperatures (10C/50F or less) for uniform flowering
- Mature height and width is 20cm x 36 cm (8 x 14 inches)





FIRST FLUSH™

Iberis sempervirens



PROPAGATION TIPS

Stick on priority – Number 2 out of 4 categories







Flowering time

Spring / Summer Flowering

Width 36 cm

(14")

Height

20 cm (8")

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F) Optiona		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. It is best to root under high humidity and reduce misting application. Pinch is recommended week 4 or at transplant. Daminozide spray application at 1500 to 2500 if needed.

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





FIRST FLUSH™

Iberis sempervirens



FINISHING TIPS

- 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		100, 150 mm N	Daminozide spray	
15 cm (1 gallon)	(18° C)	Pinch Week	100 - 150 ppm N	application @ 2000 – 3750 ppm Paclobutrazol at 2 ppm	
9 to 10 wks		4 or day of transplant	Soil EC 1.0 - 1.2		
20 cm (2 gallon)			pH 5.6 to 6.0	drench	

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



- <u>PGR</u> Spray Daminozide at 2000 to 3750 ppm on finished plants early in crop schedule / Paclobutrazol drench application at 2 ppm for finishing if required
- <u>Maintain good airflow</u> 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
- <u>Drench</u> after transplant for Rhizoctonia and Pythium / Phytophthora

Finishing	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.6 to 6.0	1.0 to 1.2	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	18°C	feed 100 to 150 ppm		Paclobutrazol Drench at 2 ppm		Paclobutrazol 2 ppm drench when plants reach 85% of desired size





LAYLATM

Lavandula angustifolia







LAYLA™ Presto Blue



LAYLA™ Blue

- Cold Hardiness 5 9
- No vernalization or cooling required (First Year Flowering)
- Spring flowering response with prolonged flowering into the fall
- Compact upright habit, little to no PGR needed
- · Highly fragrant
- Pollinator magnet
- Mature height and width is
 33 cm x 38 cm (13 x 15 inches)







LAYLATM Lavandula angustifolia



PROPAGATION TIPS

• Stick on priority – Number 1 out of 4 categories







Flowering time

Spring / Summer

Width

Height

ing / Summer 36 - 41 cm 30 - 36 cm Flowering (14 - 16") (12 - 14")

Average Time	Temperature	Hormone	Fertilization	Fungicide
5 weeks	Weeks 1 - 2 21° - 22°C (70°-72° F) Suggest		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. Utilize callused cuttings to shorten propagation schedule.



K IBA spray application will hasten and even rooting. It is best to root under high humidity and reduce misting application. Pinch is recommended week 4 or at transplant.

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.0	0.80	21 / 22 C	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21 / 22 C	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 to 150 ppm				
Week 4	5.8 to 6.2	.80 to .90	20 to 21 C	Feed 100 to 150 ppm				
Week 5	5.8 to 6.2	.80 to .90	18 to 20 C	Feed 100 to 150 ppm				Pinch recommended





LAYLA™

Lavandula angustifolia



FINISHING TIPS

- 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		100, 150 N	
10 cm (Quart)	(18°C)	Pinch –	100 - 150 ppm N	
11 to 12 wks		Suggested day of transplant	Soil EC 0.8 - 1.0	None required
15 cm (1 gallon)			pH 5.8 to 6.2	

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



- PGR None required
- Maintain good airflow and allow plants to dry before nightfall
- Scout for Aphids, Leafminors, Mites and Thrips
- <u>Drench</u> after transplant for Botrytis and Pythium / Phytophthora

Finishing	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	0.8 to 1.0	18° to 20°C	feed 100 to 150 ppm			Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 15	5.8 to 6.2	0.8 to 1.0	16° to 18°C	feed 100 to 150 ppm				Spray fungicide application to control Botrytis during finishing





LUCILLE™

Leucanthemum superbum









LUCILLE™ Grace

Best for 2G / 30-36 cm pots and larger

- Cold Hardiness 4 9
- No vernalization or cooling required (First Year Flowering)
- Early spring flower response
- Lucille Chic has a compact habit,
 Lucille White has a medium habit
 and Lucille Grace has the most vigor
 and largest flowers
- Mature height and width is
 46 cm x 36 cm (18 x 14 inches)

More varieties in the LUCILLE™ series:



LUCILLE ™ White

Best for Gallons / 15-18 cm pots



LUCILLE ™ Chic

Best for Quarts and Gallons / 12-18 cm pots







LUCILLE™

Leucanthemum superbum



PROPAGATION TIPS

• Stick on priority – Number 3 out of 4 categories







Flowering time

Width

Height

Spring / Summer Flowering

36 - 41 cm (14 - 16") 30 - 51 cm (12 - 20")

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. Allow soil to dry slightly between irrigation

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.0	0.80	21 / 22 C	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21 / 22 C	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 to 150 ppm				
Week 4	5.8 to 6.2	.80 to 1.2	20 to 21 C	Feed 100 to 150 ppm		Daminozide as needed		
Week 5	5.8 to 6.2	.80 to 1.2	18 to 20 C	Feed 100 to 150 ppm		Daminozide as needed		Pinch is not required





LUCILLE™

Leucanthemum superbum



FINISHING TIPS

- · Maintain soil moisture evenly
- · High light levels are best for finishing

Average Time (from liners)	Temperature	Pinch/ Daylength Modification	Fertilization	Plant Growth Regulator	
9 to 10 wks	Average Day		100, 150 mm N		
15 cm (1 gallon)	(18°C)	Pinch –None	100 - 150 ppm N	Daminozide spray	
10 to 11 wks		required	Soil EC 1.0 - 1.5	application @ 2500 – 3750 ppm	
20 cm (2 gallon)			pH 5.8 to 6.2		

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



- 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
- <u>Drench</u> after transplant for Botrytis and Pythium / Phytophthora

Finishing	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	1.0 to 1.2	18° to 20°C	feed 150 to 200 ppm			Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 14	5.8 to 6.2	1.0 to 1.5	18° to 20°C	feed 150 to 200 ppm		Daminozide as needed		





AMERICAN GOLD RUSH

Rudbeckia hybrid









AMERICAN GOLD RUSH

- Cold Hardiness 4 9
- No vernalization or cooling required (First Year Flowering)
- Natural late June / early July flowering response
- Mature height and width is
 49 cm x 56 cm (24 x 42 inches)



AMERICAN GOLD RUSHTM

Rudbeckia hybrid PP28498 CPBRAF



PROPAGATION TIPS

- Stick on priority Number 2 out of 4 categories
- Extend the day or night interruption lighting to 12 hours to continue plant growth in short days









Flowering tim
Summer
Flowering

51 -	61	cm
(40	- 4	4")

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



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 (facultative long day plant).

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.0	0.80	21 / 22 C	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	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20 / 21 C	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	20 to 21 C	Feed 100 to 150 ppm				
Week 5	5.8 to 6.2	.90 to 1.0	20 to 21 C	Feed 100 to 150 ppm		Daminozide if needed		





AMERICAN GOLD RUSHTM

Rudbeckia hybrid PP28498 CPBRAF



FINISHING TIPS

- · 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	100, 150 mm N	Damin arida anyay	
15 cm (1 gallon)	68° to 70° F (20° to 21°C)	required/ extend	100 - 150 ppm N	Daminozide spray application @ 2000 – 2500 ppm if needed under low light	
8 to 10 wks		daylength to 12 hours for	Soil EC 1.0- 1.5		
20 cm (2 gallon)	3 plants per container	continued growth	pH 5.8 to 6.2	conditions	

		Recommended Chemicals		
Dooto	Aphids	ACETAMIPRID, FLONICAMID, IMIDACLOPRID, DICHLORVOS		
Pests	Thrips	PYRIPROXYFEN, PRMETROZINE, S-KINOPRENE, AZADIRACHTIN, ACEPHATE		
	Botrytis	CYPRODINIL+FLUDIOXONIL, IPRODIONE, POLYOXIN		
Diseases	Pythium	PROPAMOCARB		
	Phytophthora	PROPAMOCARB		



- 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
- <u>Drench</u> after transplant for Rhizoctonia and Pythium / Phytophthora

Finishing	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	0.8 to 1.0	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	20° to 21°C	feed 150 to 200 ppm		Daminozide as needed	Spray fungicide in finishing protocols	Control of Bacterial Leaf Blights





SALVIA COLLECTION

Salvia nemorosa









- Cold Hardiness 4 9
- No vernalization or cooling required (First Year Flowering)
- Dark Matter is a unique stand-alone variety with large deep blue flowers
- · Strong radial branching
- Mature height and width is 41cm x 41 cm (16 x 16 inches)













SALVIA COLLECTION

Salvia nemorosa



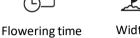
PROPAGATION TIPS

• Stick on priority – Number 3 out of 4 categories



Spring / Summer

Flowering





Width Height

36 - 51 cm (14" - 20")



36 - 46 cm (14" - 18")

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



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



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

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.8 / 6.2	0.80	22 / 23 C	50 ppm N in mist			Day of sticking	
Week 2	5.8 to 6.2	.80 to .90	22 / 23 C	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20 – 21 C	Feed 100 ppm to 150 ppm		Daminozide as needed		
Week 4	5.8 to 6.2	1.0 to 1.2	20 to 21C	feed 100 to 150 ppm	None required	Daminozide as needed		Pinch - Recommended



SALVIA COLLECTION

Salvia nemorosa



FINISHING TIPS

- Cool finishing temperatures will increase quality and longevity of flowers
- Dark Matter™ 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		150, 200 mm N	Daminozide spray		
10 cm (quart)	(16° to 18°C)	Pinch –	150 - 200 ppm N	application @ 2000 – 3750 ppm Paclobutrazol 1 to 2		
9 to 11		Optional	Soil EC 1.2 – 1.5			
15 cm (1 gallon)			pH 5.8 to 6.3	ppm drench		

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



- 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
- <u>Drench</u> after transplant for Botrytis and Pythium / Phytophthora

Finishing	рН	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





RONICATM

Veronica spicata









- No vernalization or cooling required (First Year Flowering)
- Natural June flowering response
- Large and brightly colored flower spikes in summer
- Mature height and width is
 35 cm x 41 cm (14 x 16 inches)



RONICA™ Blue



RONICA™ Fuchsia





RONICA™

Veronica spicata



PROPAGATION TIPS

Stick on priority – Number 3 out of 4 categories







Flowering time

Width

Height

Spring / Summer Flowering

41 - 45 cm (16 - 18") 35 - 41 cm (14 - 16")

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 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 response. Veronica Ronica™ are long day flowering with the natural flowering response being June (facultative long day plant).

Rooting	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 1	5.6 / 6.0	0.80	21 / 22 C	50 ppm N in mist	Not required		Day of sticking	
Week 2	5.6 to 6.0	.80 to .90	21 / 22 C	50 ppm N in mist			Second fungicide app	
Week 3	5.8 to 6.2	.90 to 1.0	Cool to 20 / 21 C	Feed 100 ppm to 150 ppm				
Week 4	5.8 to 6.2	.90 to 1.0	20 to 21 C	Feed 100 to 150 ppm		Daminozide as needed		
Week 5	5.8 to 6.2	.90 to 1.0	20 to 21 C	Feed 100 to 150 ppm		Daminozide as needed		





RONICA™

Veronica spicata



FINISHING TIPS

- 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		100, 150 N	Daminozide spray		
15 cm (1 gallon)	(20° to 21°C)	Pinch –	100 - 150 ppm N	application @ 2000 –		
11 to 12 wks		Suggested day of transplant	Soil EC 0.8 – 1.0	3750 ppm Paclobutrazol 1 to 2 ppm drench		
20 cm (2 gallon)			pH 5.8 to 6.2			

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



- <u>PGR</u> 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	рН	EC	Temp	Feed	Light	PGR	Fungicide	Comments
Week 6 Transplant	5.8 to 6.2	0.8 to 1.0	20° to 21°C	feed 100 to 150 ppm		Daminozide as needed	Drench fungicide after transplant	Control of Pythium & Phytophthora
Week 6 to 15	5.8 to 6.2	0.8 to 1.0	20° to 21°C	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





