

2013 Ecke Program Guide

To our customers

At the Ecke Ranch and Ecke Geraniums, we have a long history of providing quality, clean cuttings through our CVI® Elite and Production systems for pelargonium spp and our clean stock process for vegetative annuals. These diligent processes allow us to deliver pathogenically clean, genetically superior cuttings to you, our valued customers.

Once the cuttings arrive at your greenhouse, it is up to you to continue with sound sanitation practices to ensure that the cuttings remain disease and insect free. Sound sanitation practices reduce the need for chemical controls and reduce crop loss. Prevention of pathogens and insects is the least expensive measure a grower can take to ensure crop success!

The following tips will help you keep your cuttings clean:

- Disinfect thoroughly before plant material arrives – this means complete disinfection of propagation and growing areas, equipment and tools, and irrigation systems.
- Make sure the greenhouse and areas around the greenhouse are free of insects, weeds, and algae.
- There are various chemical disinfectants available – follow product labels accordingly for the best results.
- Avoid keeping “pet” plants or carrying plants over from crop to crop. These plants may harbor diseases and insects.
- Repair any holes in the greenhouse structures or leaks in irrigation systems.
- Plan greenhouse space accordingly so that material from different suppliers can remain separate – this will avoid issues with cross contamination.
- Once cuttings arrive, unpack in an isolated area of the greenhouse to prevent possible spread of disease. If you suspect there are diseases or insects present, notify your supplier right away and do not plant the cuttings.
- Start with a properly sterilized media. If you are preparing your own media, avoid using soil that has been in contact with the ground. Purchase pre-sterilized media from a reputable supplier.
- Maintain adequate drainage through proper irrigation practices. Avoid standing water or surfaces that are constantly wet which can promote algae growth that can harbor fungus gnats and shore flies.
- Do not recycle irrigation water if you are not properly equipped to adequately treat recycled water.
- Keep hoses, nozzles, and breakers off the ground.
- Routinely inspect the greenhouse for debris and decaying plant material. Remove any debris or plants immediately in sealed plastic bags and place in a container away from the greenhouse. Use containers with sealed lids and do not leave piles of plant material in and around the greenhouse.

- If possible, use insect screening — especially over vents.
- Train workers to routinely wash hands. Gloves should be worn when handling geraniums and disinfectant sprays should also be used when working with plant material. Workers should always spray hands between benches and between varieties. Knives and tools used should be disinfected routinely also to prevent the possible spread of disease.

These simple steps before you receive your cuttings and good housekeeping and cultural practices during crop production will ensure that the cuttings remain in the same condition you received them in – disease and insect free!

In addition to providing quality, clean cuttings we also have a history of providing fast, accurate technical support. We have an extensive list of online offerings to service all your needs. Along with our online resources we also offer this Program Guide as a quick reference for crop scheduling. You’ll find all the important cultural information you need to make decisions regarding your crops.

Paul Ecke Ranch grants the user permission to reproduce and distribute all information available, provided that the user does not modify such information and includes any copyright notice originally included with such information.

Contact Ecke Customer Service for complete list of Terms and Conditions.

The information in this publication is intended for use as a starting point. More complete information is found in documents located at www.ecke.com/techhelp. Use of brand and trade names does not constitute a recommendation. Consult labels and manufacturers recommendations before using chemicals.

TABLE OF CONTENTS

ECKE GERANIUM

Propagation Cycle	2
Cultural Guidelines	3–5
Product Listing & Recommended Substitutions.....	6–7
Freight Rates.....	8–9
Ordering Information.....	10

THE FLOWER FIELDS™

Propagation Cycle	11
Cultural Guidelines	12–13
Deletes & Recommended Substitutions.....	14
Freight Rates.....	14–15
Ordering Information.....	16

Propagation Cycle

Crop	Rooting Time (weeks) Type	Bottom Heat 35 mm	Rooting Required	Cuttings Hormone	Misting Per Cell	Pinch/ Guidelines	Shear	Supplemental PGRs	Lighting
	1	2	3	4	5	6	7	8	
Geranium Ivy Specialty Regal Zonal	Interspecific	4*	Yes IBA spray	Yes - 100 ppm	1 misting	Avoid excess	No needed	Not	No

*except Regals which require 5 weeks to root

- 1. Rooting Time** – Time to root (weeks).
- 2. Bottom Heat Required** – In our opinion, bottom heat enhances rooting of cuttings. Where noted, bottom heating is considered a requirement since it drastically affects rooting time and success. Maintain soil temperatures between 70–75°F/21–24°C.
- 3. Rooting Hormone** – Geraniums root best when using a 1% IBA solution.
- 4. Cuttings Per Cell** – All geraniums should be planted with one cutting per cell.
- 5. Misting Guidelines** – Not all cuttings can be propagated in one environment. Average misting guidelines provide for high humidity, moist foliage and consistently moist media. Drier media is required for other species and is denoted by the term “avoid excessive misting.” A well-drained/aerated media is required for best rooting. Foliar moisture may be best maintained using a surfactant such as Capsil®. Conduct trials to determine best usage. Segregation of species requiring similar conditions is crucial for optimum rooting.
- 6. Pinch or Shear** – Geraniums do not require pinching in propagation.
- 7. PGR** – See specific cultural information provided in individual growing guidelines located at www.ecke.com. Species and cultivars vary in their response to PGRs and application timing. Remove plants from mist as soon as feasible to help control stretch.
- 8. Supplemental Lighting** – Certain species are light accumulators and will benefit from supplemental light to enhance the flowering process.

Crop	Rooting Type	Bottom Heat Time (wks.)	Rooting Required	Cuttings Hormone	Misting Per Cell	Pinch/ Guidelines	Shear	Supplemental PGRs	Lighting
	1	2	3	4	5	6	7		
Begonia	Spectrum™ Solenia	5	Enhances	No	1	Avoid excess misting	Yes weekly 500 ppm	Yes - Florel®	No
Kalanchoe	Forever Other	3	No	No	1 Overhead irrigation twice weekly	No Mist -	No	No to remain vegetative	Yes - 13 hours

- 1. Rooting Time** – Time to root (weeks)
- 2. Bottom Heat Required** – In our opinion, bottom heat enhances rooting of cuttings. Where noted, bottom heating is considered a requirement since it drastically affects rooting time and success. Maintain soil temperatures between 70–75°F/21–24°C.
- 3. Rooting Hormone** – Many commercial rooting hormones for vegetative herbaceous plants can be used. See specific cultural information provided at www.ecke.com.
- 4. Misting Guidelines** – Not all cuttings can be propagated in one environment. Average misting guidelines provide for high humidity, moist foliage and consistently moist media. Drier media is required for other species and is denoted by the term “No Mist – Overhead irrigation twice weekly.” A well-drained/aerated media is required for best rooting. Foliar moisture may be best maintained using a surfactant such as Capsil®. Conduct trials to determine best usage. Segregation of species requiring similar conditions is crucial for optimum rooting.
- 5. Pinch or Shear** – See specific cultural information provided at www.ecke.com.
- 6. PGR** – See specific cultural information provided in individual growing guidelines located at www.ecke.com. Species and cultivars vary in their response to PGRs and application timing. Remove plants from mist as soon as feasible to help control stretch.
- 7. Supplemental Lighting** – Certain species are light accumulators and will benefit from supplemental light to enhance the flowering process.

Cultural Guidelines – Begonia, Kalanchoe

Crop	Early Type	Recommended Growing Season			Crop Scheduling (in weeks) Plants Per Pot				Avg. Temp. 4/pot (°F)	PGR
		Cool	Late, Main	4" Warm	6" Gallon 1/pot	10" Hanging Basket 1-2/pot	12" Hanging Basket 3-4/pot			
		1			2				3	4
Begonia	Spectrum™		✓	✓	8–10	10–14	10–14	✓	68–70	Cycocel®
	Solenia		✓	✓	–	9	10	12	64	Cycocel®, Bonzi®
Kalanchoe	Forever	✓	✓	✓	11–15	15–19	✓	✓	65–68	No
	Other	✓	✓	✓	11–15	15–19	✓	✓	65–68	B-Nine®

Crop	Type	Pinch Interval Florel®	General Fertility After Transplant	Growth Guide	Soil Moisture Habit	Day Length Guide	Supplemental Sensitivity	CO ₂
		5	6	7	8	9	10	11
Begonia	Spectrum™	No	Yes, 10–14 days	L	U, M	Evenly moist	Yes	Yes
	Solenia	No	Yes, 10–14 days	L	U, M	Evenly moist	Yes	Yes
Kalanchoe	Forever	No	No	H	U	Dry, no wilting	Yes	No
	Other	No	No	H	U	Dry, no wilting	Yes	No

- Recommended Growing Season** – Optimum temperatures and light for best growth and sales.
- Crop Scheduling** – Primarily dependent on temperature, light and growing environment. Pinching and use of PGRs delay flowering and influence growth rate.
- Average Temperature** – Suggested average daily temperature ranges. In general, cooler temperatures produce slower plant growth. See detailed cultural information at www.ecke.com for more information.
- PGR** – Plant Growth Regulators like B-Nine®, Cycocel®, and Bonzi® should be trialed by the individual grower before making applications to the entire crop.
- Florel®** – Trial Florel® before applying to entire crop. Make applications only after roots have reached pot edge and new growth is present. Florel® will delay flowering for at least 6 weeks on most crops.
- Pinch** – Soft pinch generally recommended. Pinching usually delays flowering. See Cultural information on www.ecke.com for more complete information.
- General Fertility Guide** – Match fertilizer to water quality. Use low phosphorus inputs. Adjust nitrogen sources to provide less ammonium nitrogen during cold production.
L – Low fertilizer rate. Constant feed of 100–150 ppm N with occasional clear water application to reduce soluble salts.
M – Medium fertilizer rate. Constant feed of 200–250 ppm N with complete micronutrients.
H – High fertilizer rate of 300–350 ppm N.
- Growth Habit** –
U – Upright *M* – Mounding *T* – Trailing
- Soil Moisture Guide** – Evenly moist media is not allowed to dry thoroughly, but is well drained enough to provide constant moisture and aeration. ‘Dry, but no wilting,’ refers to letting the media dry to the touch but not allowing the plant to wilt; a distinct difference from even moisture that discourages root rot.
- Day Length Sensitivity** – Specific cultivars within these species are day length responsive. Supplemental lighting or short-day black cloth required for production.
- CO₂ Supplementation** – “Yes” indicates that CO₂ supplementation will enhance crop quality.

Cultural Guidelines – Geranium

Geraniums	Growth Type	Habit	4" Vigor	Crop Scheduling (in weeks) from rooted material Plants Per Pot				
				5" 1/pot	6" 1 gallon 1/pot	10" Hanging Basket 1/pot pinched	12" Hanging Basket 3/pot	3-4/pot
			1	2				
Interspecific	Fusion™ Flame	Mounded	Semi Compact	6	6	8	10	–
	Sonata™ Mounded	Spreading,	Vigorous	–	–	7-8	8-10	10-12
Ivy	Global™, Global Innovation™	Mounded	Medium	5-6	5-6	7-9	8-10	10-12
	Classic Garden Collection	Mixed	Compact/ Medium	5-6	5-6	7-9	8-12	–
	Minicascade	Mounded	Compact	5-6	5-6	7-9	8-12	–
	Balcon	Trailing	Vigorous	–	6-7	8-10	9-13	–
Regal†	Maiden™	Upright	Compact	10	10	–	–	–
	Elegance™	Upright	Medium	–	8	8-10	8-10	–
Specialty	Brocade	Cultivar Dependent	Cultivar Dependent	5-6	6-7	6-8	–	–
	Pillar	Upright	Vigorous	–	–	–	–	12-16 - Patio pot with trellis
	Scented	Cultivar Dependent	Cultivar Dependent	–	–	7-9	–	–
Zonal	Patriot™	Mounded	Vigorous	8	8	10	–	–
	Candy™	Mounded	Compact	8	8-9	–	–	–
	Euro	Mounded	Compact/ Medium	8	8	10	–	–
	Maestro™	Mounded	Medium	8	8	–	–	–

†All Regal cuttings vernalized and either pinched or non-pinched

1. Vigor –

Compact – best suited for 4" and 5" production/ little need for growth regulating

Medium – best suited for 4", 5", 6" and 1 gallon containers/possible need for growth regulating

Vigorous – best suited for 6", 1 gallon and larger container sizes

2. Crop Scheduling – Primarily dependent on temperature, light and growing environment. Pinching and use of PGRs delay flowering and influence growth rate.

3. General Fertility Guide – Match fertilizer to water quality. Use low phosphorus inputs. Adjust nitrogen sources to provide less ammonium nitrogen during cold production.

M – Medium fertilizer rate. Constant feed of 200–250 ppm N with complete micronutrients.

4. pH – For optimum nutrient uptake maintain soil pH within recommended range.

5. Average Temperature – Suggested average daily temperature ranges. In general, cooler temperatures produce slower plant growth. See detailed cultural information at www.ecke.com for more information.

The information in this publication is intended for use as a starting point. More complete information is found in documents located at www.ecke.com/techhelp. Use of brand and trade names does not constitute a recommendation. Consult labels and manufacturers recommendations before using chemicals.

Geranium	General Fertility Type	Guide	Avg. Temp. pH	Pinch Interval (°F)	After Transplant	Florel®	Soil Moisture PGRs	Day Length Guide	Sensitivity
		3	4	5	6	7	8	9	10
Interspecific	Fusion™ Flame	M	5.8–6.2	64–68	No	No	No	Evenly moist	No
	Sonata™	M	6.0–6.5	64–68	Yes, 3 weeks	No	No	Evenly moist	No
Ivy	Global™, Global Innovation™	M	5.5	64–68	Yes, 3 weeks	Cultivar	No Specific*	Evenly moist*	No
	Classic Garden Collection	M	5.5	64–68	Yes, 3 weeks	No	No	Evenly moist*	No
	Minicascade	M	5.5	64–68	Yes, 3 weeks	No	No	Evenly moist*	No
	Balcon	M	5.5	64–68	Yes, 3 weeks	Yes	No	Evenly moist*	No
Regal†	Maiden™	M	5.6–6.2	56–58	No	No	No	Evenly moist	Yes*
	Elegance™	M	5.6–6.2	56–58	No	No	Cycocel®	Evenly moist	Yes*
Specialty	Brocade	M	5.8–6.2	64–68	Yes, 3 weeks	No	Cycocel®*	Evenly moist	No
	Pillar	M	6.0–6.2	64–68	No	No	No	Evenly moist	No
	Scented	M	5.8–6.2	64–68	As needed to shape	No	Cycocel®	Evenly moist	No
Zonal	Patriot™	M	5.8–6.2	64–68	Yes, 2–3 weeks	No	Cycocel®, Bonzi®	Evenly moist	No
	Candy™	M	5.8–6.2	64–68	No	No	No	Evenly moist	No
	Euro	M	5.8–6.2	64–68	Cultivar Dependent	No	Cycocel®	Evenly moist	No
	Maestro™	M	5.8–6.2	64–68	No	No	Cycocel®	Evenly moist	No

†All Regal cuttings vernalized and either pinched or non-pinched

*See key below for additional information

- Pinch** – Soft pinch generally recommended. Pinching usually delays flowering. See cultural information on www.ecke.com for more complete information.
- Florel®** – Trial Florel® before applying to entire crop. Make applications only after roots have reached pot edge and new growth is present. Florel® will delay flowering for at least 4–6 weeks on most crops. Use on more vigorous Ivy Global Cultivars: Global Neon Cherry, Orchid, Purple, Ruby Red.
- PGR** – Plant Growth Regulators like B-Nine®, Cycocel®, and Bonzi® should be trialed by the individual grower before making applications to the entire crop. The use of Cycocel® may be necessary on Happy Thoughts Brocade cultivars.
- Soil Moisture Guide** – There are two basic categories which rely on the art of the waterer. Do not keep plants saturated all the time. Evenly moist media is not allowed to dry thoroughly, but is well drained enough to provide constant moisture and aeration. ‘Dry, no wilting,’ refers to letting the media dry to the touch but not allowing the plant to wilt; a distinct difference from even moisture that discourages root rot. To avoid problems with edema, water Ivy Geraniums early in the day and use containers with good drainage. Do not allow pots to sit in water.
- Day Length Sensitivity** – Regal Geraniums will benefit from supplemental lighting as a higher daily light integral to produce more flowers at finish.

Product Listing & Recommended Substitutions

Variety Preferred Ecke Substitution

Begonia

Solenia Series

Solenia Apricot	Solenia Orange
Solenia Cherry	Solenia Red Improved
Solenia Dark Pink	Solenia Dusty Rose
Solenia Dusty Rose	Solenia Dark Pink
Solenia Light Pink	Solenia Dusty Rose
Solenia Light Yellow	Solenia Apricot
Solenia Orange	Solenia Salmon Coral
Solenia Red Improved	Solenia Cherry
Solenia Salmon Coral	Solenia Orange
Solenia Velvet Red	Solenia Red Improved

Spectrum™ Series

Britt Dark (Medium Vigor)	Apricot Beauty
Camilla (Full Vigor)	No Recommendation
Hope (Medium Vigor)	No Recommendation
Jutta (Medium Vigor)	Pink Chablis
Kleo (Medium Vigor)	Netja Dark
Koppe Begonia Baladin (Full Vigor)	Koppe Begonia Berseba Red
Koppe Begonia Barkos (Medium Vigor)	Vivian
Koppe Begonia Bellona (Full Vigor)	Koppe Begonia Barkos
Koppe Begonia Berseba (Full Vigor)	Netja Dark
Koppe Begonia Berseba Red (Full Vigor)	Koppe Begonia Baladin
Megan (Medium Vigor)	Netja Dark
Netja Dark (Medium Vigor)	Megan
Pink Chablis (Medium Vigor)	Jutta
Polly (Full Vigor)	Netja Dark
Vivian (Medium Vigor)	Koppe Begonia Barkos

Geranium

ZONAL – Patriot™ Series & Patriot Types

païc Berry Parfait	Patriot Cherry Rose
païc Evening Glow	Euro Coral Glow™
Patriot Bright Pink	païc Melody
Patriot Bright Red	païc Patriot Red Impr.
Patriot Bright Violet	païc Foxy
Patriot Cherry Rose	Maestro Cherry
Patriot Cranberry Red	païc Sassy Dark Red
Patriot Lavender Blue	Maestro Lavender Blue
Patriot Orange	païc Patriot Red Impr.
païc Patriot Red Improved	Patriot Bright Red
Patriot Rose Pink	Patriot Bright Pink
Patriot Salmon	païc Evening Glow
païc Patriot Salmon Chic	Patriot Salmon
Patriot Soft Pink	Patriot Bright Pink
païc Superstar Red	Patriot Bright Red
Patriot Watermelon	Patriot Salmon
païc Patriot White	Maestro White

Variety Preferred Ecke Substitution

ZONAL – Maestro™ Series

païc Maestro Bright Red	Patriot Bright Red
Maestro Bright Scarlet	païc Patriot Red Impr.
païc Maestro Cherry	Patriot Cherry Rose
Maestro Deep Lavender	païc Shocking Violet
Maestro Lavender Blue	Patriot Lavender Blue
païc Maestro Lavender Parfait	Maestro Pink Parfait
païc Maestro Light Pink Parfait	Maestro White Splash
païc Maestro Neon Pink	Maestro Pink Parfait
Maestro Pink	païc Melody
Maestro Pink Parfait	païc Maestro Lavender Parfait
Maestro Rich Red	Patriot Cranberry Red
païc Maestro Rose Pink	païc Maestro Neon Pink
Maestro Salmon	Patriot Salmon
Maestro White	Maestro White Splash
Maestro White Splash	Maestro White

ZONAL – Euro Collection

païc Blue Wonder	Maestro Lavender Blue
Coral Glow™ NEW!	Patriot Type
païc Evening Glow	
païc Foxy	Patriot Bright Violet
païc Melody	Patriot Soft Pink
païc Sassy Dark Red	Maestro Rich Red
païc Shocking Violet	païc Foxy

ZONAL – Candy™ Series

Candy Bright Red Improved	Candy Cardinal
Candy Cardinal	Candy Bright Red Imp.
Candy Cherry	païc Maestro Cherry
Candy Fantasy Kiss	Candy Rose Splash
païc Candy Lavender	Maestro Lavender Blue
Candy Light Salmon	païc Patriot Salmon Chic
Candy Rose Splash	Maestro Pink Parfait
Candy Violet	païc Foxy
Candy White	Candy White Splash
Candy White Splash	Maestro White Splash

INTERSPECIFIC – Fusion™ Flame & Sonata™ Series

Fusion™ Flame NEW!	No Recommendation
Sonata™ Cherry	Sonata™ Red
Sonata™ Coral	Sonata™ Salmon
Sonata™ Deep Lavender	Sonata™ Purple
Sonata™ Orange Bicolor	Sonata™ Coral
Sonata™ Purple	Sonata™ Deep Lavender
Sonata™ Red	Sonata™ Cherry
Sonata™ Salmon	Sonata™ Coral

SPECIALTY

Pillar, Brocade & Scented Var.	No Recommendations
--------------------------------	--------------------

IVY – Balcon Series

Balcon Varieties	Minicascades
------------------	--------------

Variety Preferred Ecke Substitution

IVY – Classics

Sybil Holmes	Global Neon Cherry
White Nicole	No Recommendation

IVY – Minicascade Series

Minicascade Varieties	Balcons
-----------------------	---------

IVY – Global™ Series

Global Light Lavender	Global Orchid
Global Merlot	Global Innovation™ Ruby Twist
Global Neon Cherry	Global Innovation™ Pink Swirl
Global Orchid	Global Innovation™ Pink Swirl
païc Global Purple	Global Orchid
Global Red Stars & Stripes	Global Ruby Red
Global Rose	Global Neon Cherry
Global Ruby Red	Global Merlot
Global Salmon Rose	Global Rose
Global Soft Pink	Global Innovation™ Pink Swirl

IVY – Global Innovation™ Series

Global Innovation™ Pink Swirl	Global Orchid
Global Innovation™ Ruby Twist	Global Innovation™ Stars & Stripes
Global Innovation™ Stars & Stripes	Global Innovation™ Ruby Twist or Global Innovation™ Pink Swirl

REGAL – Elegance™ Series

Elegance Ballet	Maiden Berry Swirl
Elegance Baroness	Regal Elegance Red Velvet
Elegance Bravo	Elegance Purple Majesty
païc Elegance Burgundy	païc Maiden Iced Wine
Elegance Camelot	païc Maiden Iced Wine
Elegance Crystal Rose NEW!	Elegance Rose Bicolor
Elegance Imperial	païc Maiden Iced Wine
Elegance Lilac Sachet	Elegance Purple Majesty
Elegance Lt Lavender Splash	Elegance Lilac Sachet
Elegance Purple Majesty	Elegance Bravo
Elegance Red Velvet NEW!	Elegance Baroness
Elegance Rose Bicolor	Elegance Purple Majesty
Elegance Royalty White	Elegance Sunrise
Elegance Sunrise NEW!	Elegance Royalty White

Variety Preferred Ecke Substitution

REGAL – Maiden™ Series

païc Maiden Iced Wine	païc Elegance Burgundy
Maiden Berry Swirl	Elegance Royalty White
Maiden Red	Elegance Red Velvet
Maiden Deep Lavender	Elegance Purple Majesty
Maiden Rose Pink	Elegance Rose Bicolor

Kalanchoe

Maxi™, Midi™ & Other Varieties

Maxi™, Midi™ & Other Varieties	No Recommendations
--------------------------------	--------------------

DELETED VARIETIES FOR 2011

Spectrum™ Series

Ann (Full Vigor)	Megan
Barbara (Full Vigor)	Netja Dark
Bavaria (Full Vigor)	Kleo (for color)
Koppe Begonia Borias (Full Vigor)	No Recommendation
Susanne (Full Vigor)	Koppe Begonia Barkos
Yellow Anne (Medium Vigor)	Blitz

INTERSPECIFIC – Fusion™ Flame & Sonata™ Series

Sonata™ Bright Pink	Sonata™ Deep Lavender
---------------------	-----------------------

SPECIALTY

païc Melosilver	No Recommendation
------------------------	-------------------

IVY – Classics

païc Red Sybil	Sybil Holmes
-----------------------	--------------

IVY – Minicascade Series

païc Red Evka	Minicascade Red
----------------------	-----------------

IVY – Global™ Series

Global Red Peppermint Stars & Stripes	Global Innovation™
---------------------------------------	--------------------

REGAL – Elegance™ Series

Elegance Jewel	Elegance Rose Bicolor
Elegance Coral Sunset	Elegance Sunrise

Freight Rates: Shipping Weeks October 1, 2012 – September 23, 2013 (W40–W39)

70% of Ecke Unrooted cuttings are delivered by temperature controlled truck. Why not experience what others already know about the advantages of Ecke trucking?



Ecke trucking benefits you by:

- Reducing your freight cost
- DELIVERY ON SUNDAY, MONDAY OR TUESDAY MORNING
- Real-time, web-based truck tracking
- Weekly email notifications on the status of the truck
- Proven reliable delivery, constant temperature = best quality
- Minimum delays for cold weather and no more losses to freeze or heat losses.

Conditions:

- Participation in the Ecke Truck Program requires the customer provide 24-hour access to deliver the product to the customer's dock and coolers
- Truck program dates are from weeks 50–10
- Fuel surcharge is included
- Cuttings must be planted within 24 hours after receipt of shipment.

Call an Ecke Customer Service Representative at (760) 944-4038 for delivery outside of the Unrooted trucking zone and for more details about participation in the trucking program.

REFRIGERATED TRUCK PROGRAM

Unrooted/Callused Cuttings

1 tray = 100 cuttings WK50–WK10

AL, CT, GA, IA, IL, IN, MD, MI, MO, NC, NJ, NY, OH, PA, TN, TX and WV

- **\$4.50** per Unrooted/Callused tray
- 480 trays (approx. 30 boxes) per customer minimum load
- 16 Unrooted (average) or 12 Callused trays = 1 box
- 4,800 trays (approx. 300 boxes) to schedule a truck

Within Florida State

- **\$4.50** per Unrooted tray
- 320 trays (approx. 20 boxes) per customer minimum load
- 16 Unrooted (average) or 12 Callused trays = 1 box
- 1,000 trays (approx. 62 boxes) to schedule a truck

West Coast: California

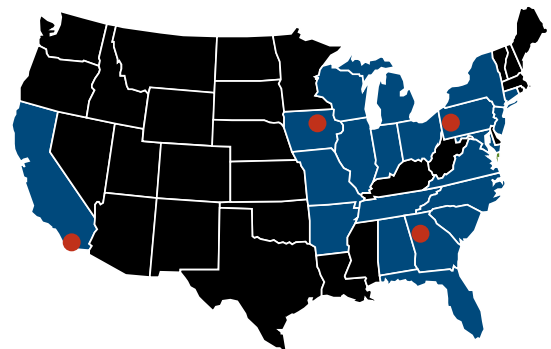
- **\$4.50** per Unrooted/Callused tray
- 480 trays (approx. 30 boxes) per customer minimum load
- 16 Unrooted (average) or 12 Callused trays = 1 box
- 4,800 trays (approx. 300 boxes) to schedule a truck

ES78 Cuttings

1 tray = 78 cuttings WK50–WK10

AL, AR, CA, CT, FL, GA, IA, IL, IN, MD, MI, MO, NC, NJ, NY, OH, PA, SC, TN, VA and WI

- **\$7.80** per ES78 tray (included in landed ES78 price)
- 120 trays (approx. 10 boxes) per customer minimum load
- 1,404 trays (approx. 117 boxes) to schedule a truck
- Orders may also be picked up at one of our cross dock facilities (●): Ecke Connellsville (PA), Ecke McDonough (GA), Plantpeddler (IA) or First Step (SoCal); or shipped by FedEx/UPS at an additional charge



Plant Pak Cuttings

1 tray = 100 cuttings

WK49-W15

From ECKE CONNELLSVILLE or SCHENCH FARMS locations to: CT, DE, IN, MD, MI, MN, NJ, NY, OH, PA, VA, WI and WV



Cutting Types	1+ Per Tray	1-50 Trays Per Tray	51-99 Trays Per Tray	100+ Trays Per Tray
Plant Pak	–	\$9.00	\$7.00	\$6.00
4" Square Prefinished	\$5.00	–	–	–
4.5" Round Prefinished	\$5.00	–	–	–
6" Round Prefinished	\$5.00	–	–	–

- \$75 minimum charge
- Regal multi-shoot budded (Regal 2½): 2 trays per box (quote price per 64 cuttings)
- Climate controlled trucks
- For prefinished products:
 - 1,500 pots per customer minimum load quantity to schedule a truck
 - 5,040 pots (14 carts) minimum to schedule a truck
 - Truck only available 500 miles from zip code 15425



From CLEARVIEW, BC, CANADA location to: AZ, CA, OR and WA

Cutting Type	Delivery Service to OR	Per Tray
Plant Pak	Grower climate-controlled truck	\$7.00

- \$80 minimum charge
- Plant Pak: 3 trays per box

Cutting Type	Delivery Service to WA	Per Tray
Plant Pak	Grower climate-controlled truck	\$6.00

- \$40 minimum charge
- Plant Pak: 3 trays per box

Cutting Type	Delivery Service to AZ, CA, OR and WA	Per Tray
Plant Pak	On Trac (not climate controlled)	\$8.00

- \$24 minimum charge
- Plant Pak: 3 trays per box
- Not available in all zip codes

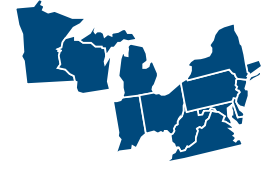
From PLANTPEDDLER, CRESCO, IA location to: IA, IL, KA, MN, MO, ND, NE, SD and WI



Cutting Type	Delivery Service	Per Tray
Plant Pak	Grower climate-controlled truck	\$5.00

- \$70 minimum charge
- Plant Pak: 3 trays per box

From ECKE GEORGIA location to: AL, FL, GA, KY, NC, SC and TN



1+ Cutting Types	1-50 Trays Per Tray	51-99 Trays Per Tray	100+ Trays Per Tray	Per Tray
Plant Pak	–	\$9.00	\$7.00	\$6.00
4" Square Prefinished	\$5.00	–	–	–
4.5" Round Prefinished	\$5.00	–	–	–
6" Round Prefinished	\$5.00	–	–	–

- \$75 minimum charge
- Climate controlled trucks
- For prefinished products:
 - 1,500 pots per customer minimum load quantity to schedule a truck
 - 5,040 pots (14 carts) minimum to schedule a truck
 - Truck only available 500 miles from zip code 30252

From FIRST STEP GREENHOUSES, TEMECULA, CA location to: CA



Cutting Type	Delivery Service	Per Tray
Plant Pak	Grower climate-controlled truck	\$3.00

- \$75 minimum charge
- Plant Pak: 3 trays per box

Cutting Type	Delivery Service	Per Tray
Plant Pak	On Trac (not climate controlled)	\$8.00

- \$24 minimum charge
- Plant Pak: 3 trays per box
- Not available in all zip codes

4" Square Prefinished	4.5" Round Prefinished	6" Round Prefinished
15 pots/tray	15 pots/tray	6 pots/tray
4 trays/shelf	4 trays/shelf	5 trays/shelf
7 shelves/cart	7 shelves/cart	7 shelves/cart
420 pots/cart	420 pots/cart	210 pots/cart

PARCEL EXPRESS (UPS/FEDEX) RATES

Unrooted, Callused, ES78 & Plant Pak Cuttings
1 tray = 100 cuttings WK40–WK39

Continental U.S. Destinations

From Mexico & U.S.

Cutting Types	Trays	Min.	Next Day Morning	Next Day Afternoon	2nd Day Delivery
Unrooted	1+	\$58.00	\$4.50	N/A	N/A
Callused	1+	\$54.00	\$4.50	N/A	N/A
ES78	1+	\$281.00	\$23.41	N/A	N/A
Plant Pak	1+	\$45.00	\$20.00	\$18.00	\$15.00

Canada Destinations

From Mexico & U.S.

Cutting Types	1+ Types Per Tray	Trays	Min.	Next Day Morning
Unrooted	1+	1+	\$63.00	\$4.50
Callused	1+	1+	\$54.00	\$4.50
ES78	1+	1+	\$285.00	\$23.75
Plant Pak	1+	1+	\$65.00	\$23.00

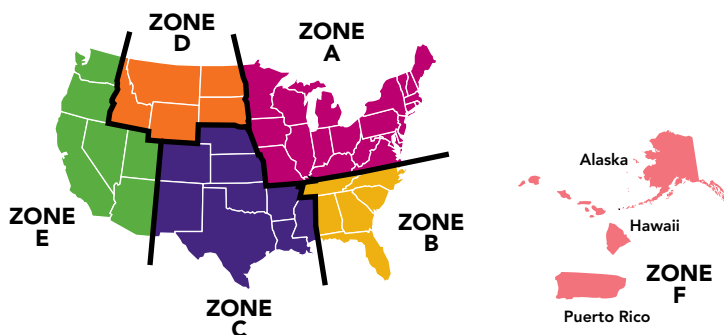
From Canada

Cutting Types	Trays	Min.	Next Day Morning	Next Day Afternoon	2nd Day Delivery
Plant Pak	1+	\$40.00	\$27.00	\$20.00	\$18.00

- Rates do not apply for shipments to Hawaii, Alaska or Puerto Rico.
- The customer is responsible to pay for the duties and taxes for Canadian shipments
- Fuel surcharge is included
- 16 Unrooted trays = 1 box
- 12 Callused trays = 1 box
- 12 ES78 trays = 1 box
- 3 Plant Pak trays = 1 box
- **Cuttings must be planted within 24 hours after receipt**
- **Track your order online at:**
<http://www.ecke.com/EckeTraffic/login.aspx>

AIR FREIGHT RATES

Plant Pak Only
1 tray = 100 cuttings WK40–WK39



Zone	Legend	Cutting Types	Cost Per Tray	Minimum
Zone A		Plant Pak	\$13.00	\$120.00
Zone B		Plant Pak	\$13.00	\$120.00
Zone C		Plant Pak	\$13.00	\$120.00
Zone D		Plant Pak	\$13.00	\$120.00
Zone E		Plant Pak	\$13.00	\$120.00
Zone F		Plant Pak	\$23.00	\$190.00

- For air freight rates to Canada, please contact Ecke Customer Service at (760) 753-1134
- We advise our customers not to ship Unrooted cuttings by air. If this option is chosen anyway, a quote must be obtained by calling Ecke Customer Service. Ecke is not responsible for flight delays or box heating in the airline warehouse. There is no delivery service from the airport to the customer. It is the customer's responsibility to coordinate with the airline for shipment pickup.
- Air freight claims must be made by notifying Ecke Customer Service within 48 hours after receiving the product. In addition, written intent to claim to the airline must be filed within eight (8) days after receiving the product.
- Fuel surcharge is included
- For International shipments to Europe, Asia and Africa, please ask for a quote to: traffic@eckeranch.com.

On Time Information?

Ordering Information

Crop and Cutting Type							
Unrooted Cuttings	Quantity Per Tray	Cuttings Per Full Box	Order* Minimum	Variety Minimum	Order Multiples	Overpack	Lead Time (Weeks)
Begonia – Solenia	100	1,200	1,200	100	100	4%	2
Begonia – Spectrum™	100	1,600	1,400	100	100	4%	2
Geranium – Brocade	100	1,600	1,400	100	100	4%	2
Geranium – Interspecific	100	2,000	1,400	100	100	4%	2
Geranium – Ivy	100	2,000	1,400	100	100	4%	2
Geranium – Regal	100	1,600	1,400	100	100	4%	2
Geranium – Specialty (Pillar Only)	100	1,600	1,400	100	100	4%	2
Geranium – Zonal	100	1,600	1,400	100	100	4%	2
Kalanchoe	100	1,200	1,200	100	100	4%	2

Callused Cuttings	Quantity Per Tray	Cuttings Per Full Box	Order* Minimum	Variety Minimum	Order Multiples	Overpack	Lead Time (Weeks)
Geranium – Brocade, Interspecific, Ivy, Zonal	100	1,200	1,200	100	1,200	4%	3

Plant Pak	Quantity Per Tray	Cuttings Per Full Box	Order* Minimum	Variety Minimum	Order Multiples	Overpack	Lead Time (Weeks)
Begonia – Solenia	100	300	300	100	100	4%	7
Begonia – Spectrum™	100	300	300	100	100	4%	7
Geranium – Brocade, Interspecific, Ivy, Zonal	100	300	300	100	100	4%	6
Geranium – Regal	100	300	300	100	100	4%	8
Geranium – Specialty (Pillar, Scented)	100	300	300	100	100	4%	6
Kalanchoe	100	300	300	100	100	4%	6

Plant Pak Budded	Quantity Per Tray	Cuttings Per Full Box	Order* Minimum	Variety Minimum	Order Multiples	Overpack	Lead Time (Weeks)
Geranium – Regal Single-Shoot Cooled	100	300	300	100	100	4%	12

Multi-Shoot Budded	Quantity Per Tray	Cuttings Per Full Box	Order* Minimum	Variety Minimum	Order Multiples	Overpack	Lead Time (Weeks)
Geranium – Regal Three-Shoot Cooled (2.5")	32	64	64	32	32	0%	16

Prefinished	Quantity Per Tray	Pots Per Full Box	Order* Minimum (Trays/Pots)	Variety Minimum (Trays/Pots)	Order Multiples (Trays/Pots)	Overpack	Lead Time (Weeks)
Begonia – Solenia (4" Square – 1ppp)	15	15	100/1,500	7/105	1/15	0%	10
Begonia – Spectrum™ (4" Step Up – 3ppp)	15	15	100/1,500	7/105	1/15	0%	10
Geranium – Interspecific, Ivy, Zonal (4" Square)	15	15	100/1,500	7/105	1/15	0%	9
Geranium – Regal (4.5" Round)	15	15	100/1,500	7/105	1/15	0%	15
Geranium – Regal (6" Round)	6	6	300/1,500	20/120	1/6	0%	17

* Orders below the stated minimums will be required to pay the MINIMUM FREIGHT CHARGE (see Freight Rates).

Propagation Cycle

Crop	Rooting Time (wks.)	Bottom Heat Required	Rooting Hormone	Cuttings Per Cell	Misting Guidelines	Pinch or Shear	PGR
	1	2	3	4	5	6	7
AGASTACHE	4	Enhances	Yes	1	Avoid excessive misting	Yes	No
ANGELONIA	4	Enhances	No	1	Avoid excessive misting	Yes	Yes
ANTIRRHINUM	5	Enhances	Yes	1	Avoid excessive misting	Yes	Yes
ARGYRANTHEMUM	3–4	Enhances	Yes	1	Avoid excessive misting	No	No
BACOPA SUTERA	4	Yes	No	2	Average	Yes	No
BIDENS	4–5	Enhances	Yes	1	Avoid excessive misting	No	No
BRACHYSCOME (Outback Jumbo Daisy)	4–5	Enhances	Yes	1	Avoid excessive misting	Yes	No
BRACHYSCOME (Outback Mini Daisy)	4–5	Enhances	Yes	2	Avoid excessive misting	Yes	No
BRACTEANTHA	4–5	Enhances	Yes	1	Avoid excessive misting	Yes	No
CALIBRACHOA	4–6	Yes	Yes	1	Avoid excessive misting	Yes	If needed after pinch
CALIBRACHOA (Colorburst PRO™)	6	Enhances	Yes	1	Avoid excessive misting	No	No
COLEUS	3	Enhances	No	1	Average	No	No
CROSSANDRA	5	Enhances	Yes	1	Avoid excessive misting	Optional	Yes
DIASCIA	4–5	Enhances	Yes	2	Average	Yes	If needed, 1 week after pinch
DOUBLE BEGONIA (Fibrous)	5	Enhances	No	1	Avoid excessive misting	No	No
DOUBLE IMPATIENS	3	Yes	No	1	Average	Yes	If needed after pinch
FUCHSIA	5	Enhances	Yes	1	Average	Yes	Yes
GAURA	4–5	Enhances	Yes	1	Avoid excessive misting	Yes	If needed after pinch
GAZANIA	5	Enhances	Yes	1	Avoid excessive misting	No	No
HELICHRYSUM	4–5	Enhances	Yes	1	Average	Yes	No
IPOMEA	3	Enhances	No	1	Avoid excessive misting	No	Yes
LAMIUM	4	Enhances	Yes	1	Avoid excessive misting	Yes	No
LANTANA	5	Enhances	Yes	1	Average	Yes	If needed
LAVENDER	6	Yes	Yes	1	Avoid excessive misting	Yes	No
LOBELIA	3–4	Enhances	Yes	2	Avoid excessive misting	Yes	No
NEMESIA	4	Enhances	Yes	2	Average	Yes	If needed after pinch
NEW GUINEA IMPATIENS	3–4	Yes	Yes	1	Average	No	No
OSTEOSPERMUM (Crescendo™)	4	Yes	Yes	1	Avoid excessive misting	No	If needed weekly after week 2
OSTEOSPERMUM (Cape Daisy™, Side Show™)	4	Yes	Yes	1	Avoid excessive misting	No	If needed weekly after week 2
OXALIS	2–4	Enhances	No	1	Avoid excessive misting	Optional	No
PETUNIA	3–4	Enhances	Yes	1	Avoid excessive misting	No	If needed
SALVIA	4	Enhances	No	1	Avoid excessive misting	Yes	No
SCAEVOLA	4–5	Yes	Yes	1	Avoid excessive misting	Yes	No
SUNPATIENS®	2–3	Enhances	No	1	Avoid excessive misting	No	Yes
TORENIA	3–4	Enhances	Yes	1	Average	No	If needed after week 1 (No Flore®)
VERBENA	4	Enhances	No	1	Average	Yes	If needed weekly after week 1
VINCA	6	Enhances	Yes	1	Avoid excessive misting	No	Yes
VIOLA	4	Enhances	Yes	1	Average	No	Yes

1. **Rooting Time** – Time to root (weeks)

2. **Bottom Heat Required** – In our opinion, bottom heat enhances rooting of cuttings. Where noted, bottom heating is considered a requirement since it drastically affects rooting time and success. Maintain soil temperatures between 70–75°F/21–24°C.

3. **Rooting Hormone** – Many commercial rooting hormones for vegetative herbaceous plants can be used.

4. **Cuttings Per Cell** – 1 or 2 cuttings per cell for best results.

5. **Misting Guidelines** – Not all cuttings can be propagated in one environment. “Average” misting guidelines provide for high

humidity, moist foliage and consistently moist media. Drier media is required for other species and is denoted by the term “Avoid excessive misting.”

6. **Pinch or Shear** – See specific cultural information provided in individual growing guidelines located at www.ecke.com.

7. **PGR** – See specific cultural information provided in individual growing guidelines located at www.ecke.com. Species and cultivars vary in their response to PGRs and application timing. Remove plants from mist as soon as feasible to help control stretch.

Cultural Guidelines

Crop	Recommended Growing Season			Crop Time (weeks/units per pot) Finishing time determined by your location and growing season			Avg. Temp (°F)	PGR	Florel®
	Early, Cool	Main	Late, Warm	4" 1/pot	6"/Gallon 1-2/pot	10" Hanging Basket/Pot 3-4/pot			
AGASTACHE	✓	✓	✓	6-7	8-9	-	60-65°	Possibly	No
ANGELONIA		✓	✓	5-8	7-9	-	66-70°	Likely	No
ANTIRRHINUM	✓	✓		7-10	9-12	-	55-65°	Possibly	No
ARGYRANTHEMUM	✓	✓	Sunlight	8-10	8-10	12-14	50-60°	Likely	No
BACOPA SUTERA	✓	✓	✓	6-8	8-10	10-12	60-70°	No	Yes
BIDENS	✓	✓	✓	6-7	6-8	-	60-68°	No	Yes
BRACHYSCOME (Outback Jumbo Daisy)	✓	✓	✓	6-8	8-10	10-12	50-55°	Possibly	No
BRACHYSCOME (Outback Mini Daisy)	✓	✓	✓	6-8	8-10	10-12	50-55°	No	No
BRACTEANTHA	✓	✓	✓	6-8	8-10	10-12	50-55°	Yes	Yes
CALIBRACHOA	✓	✓	✓	7-11	9-13	12-14	55-65°	Possibly	Yes
CALIBRACHOA (Colorburst PRO™)	✓	✓	✓	6-10	8-12	-	60-70°	No	No
COLEUS		✓	✓	3-5	4-6	6-10	65-70°	Possibly	No
CROSSANDRA		✓	✓	10-11 (south) 13-14 (north)	14-15 (south) 17-18 (north)	-	75°	No	Yes
DIASCIA	✓	✓	✓	7-10	9-12	10-13	50-70°	No	No
DOUBLE BEGONIA (Fibrous)		✓	✓	5-6	6-8	10-14	65-70°	Possibly	No
DOUBLE IMPATIENS		✓	✓	6-8	7-11	10-14	65-70°	Possibly	No
FUCHSIA	✓	✓		6-8	8-10	10-12	65-75°	Yes	Yes
GAURA	✓	✓	✓	10-13	10-13	10-13	55-70°	No	No
GAZANIA		✓	✓	8-9	9-10 (3/pot)	10-12	62-68°	Yes	No
HELICHRYSUM		✓	✓	10-12	12-14	12-14	55-65°	No	No
IPOMEA	✓	✓	✓	4-5	7-8	9-10	65-75°	Possibly	No
LAMIUM		✓	✓	6-8	8-10	10-12	55-65°	No	No
LANTANA		✓	✓	6-7	7-11	10-12	65-75°	Yes	No
LAVENDER	✓	✓	✓	7-10	9-11	-	60-65°	Possibly	No
LOBELIA	✓	✓	✓	7-9	8-10	-	65-70°	No	No
NEMESIA	✓	✓	✓	7-10	9-12	10-13	50-70°	No	Yes
NEW GUINEA IMPATIENS		✓	✓	8-10	10-12	12-14	68-72°	Possibly	No
OSTEOSPERMUM (Crescendo™)	✓	✓	✓	8-10 6-10	10-12 8-10	12-14 10-12	45-55° 50-60°	Yes	No
OSTEOSPERMUM (Cape Daisy™, Side Show™)	✓	✓	✓	11-14	12-15	12-15	45-55°	Yes	No
OXALIS		✓	✓	5-8	6-9	10-13	65-75°	No	No
PETUNIA	✓	✓	✓	4-8	6-11	6-11	50-70°	Yes	Yes
SALVIA	✓	✓	✓	7-9	8-10	-	60-65°	Likely	No
SCAEVOLA		✓	✓	8-10	10-12	12-14	65-70°	No	Yes
SUNPATIENS®	✓	✓	✓	7-9	11	13-14	64-68°	Possibly	No
TORENIA		✓	✓	5-7	6-9	10-14	65-70°	Possibly	No
VERBENA		✓	✓	6-10	9-12	9-12	65-75°	Yes	No
VINCA	✓	✓	✓	4-5	7-8	9-10	65-75°	Possibly	No
VIOLA	✓	✓		6	10	-	60°	Yes	No

Recommended Growing Season – Optimum temperatures and light for best growth and sales.

Crop Time – Primarily dependent on temperature, light and growing environment. Pinching and use of PGRs delay flowering and influence growth rate.

Average Temperature – Suggested night temperature ranges. In general, cooler temperatures produce slower plant growth. See detailed information at www.ecke.com for more information.

PGR – Plant Growth Regulators like B-Nine®, Cycocel®, A-Rest®, Bonzi® and Sumagic® should be trialed by the individual grower before making applications to the entire crop.

Florel® – Trial Florel® before applying to entire crop. Make application only after roots have reached pot edge and new growth is present. Florel® will delay flowering for at least 6 weeks on most crops.

Pinch – Soft pinch generally recommended. Pinching usually delays flowering. See individual growing guidelines on www.ecke.com for more complete information.

Crop	Pinch Interval After Transplant	General Fertility Guide	Growth Habit	Soil Moisture Guide	Day Length Sensitivity
AGASTACHE	Yes, once established	M, acid	U	Dry, but no wilting	No
ANGELONIA	Yes, 1 week	M, acid	U	Dry, but no wilting	No
ANTIRRHINUM	Yes, 2 weeks	M	M	Evenly moist	No
ARGYRANTHEMUM	Yes, 1–2 weeks	M	U, M	Dry, but no wilting	No
BACOPA SUTERA	Yes, 1 week	M, acid	T	Evenly moist	No
BIDENS	Yes, 2–3 weeks	M	M, T	Dry, but no wilting	No
BRACHYSCOME (Outback Jumbo Daisy)	Yes, 2–3 weeks	M, acid	M	Evenly moist	No
BRACHYSCOME (Outback Mini Daisy)	Yes, 2–3 weeks	M, acid	M	Evenly moist	No
BRACTEANTHA	Yes, 2 weeks	M, acid	M	Dry, but no wilting	No
CALIBRACHOA	Yes, 1–2 weeks	H, acid	T	Evenly moist	Yes
CALIBRACHOA (Colorburst PRO™)	Yes, 2 weeks	H, acid	M	Evenly moist	No
COLEUS	Yes, 2 weeks	M	U, some T	Dry, but no wilting	No
CROSSANDRA	Yes, 1–2 weeks	M	U	Dry, but no wilting best for flowering	No, but high light
DIASCIA	Yes, 2–3 weeks	M, acid	M	Evenly moist	No
DOUBLE BEGONIA (Fibrous)	Yes, 1–2 weeks	M	M	Evenly moist	No
DOUBLE IMPATIENS	Yes, 1–2 weeks	M	M	Evenly moist	No
FUCHSIA	Yes, 2–3 weeks	M	U	Evenly moist	No
GAURA	Yes, 2–3 weeks	M	U	Dry, but no wilting	No
GAZANIA	No	M	M	Dry, but not wilting	No
HELICHRYSUM	Yes, 2–3 weeks	M	M	Dry, but no wilting	No
IPOMEA	No	M	T	Dry, but no wilting	No
LAMIUM	As needed to shape	M	M	Dry, but no wilting	No
LANTANA	Yes, 1–2 weeks	M	M, T	Dry, but no wilting	No
LAVENDER	Yes, 1 week	Low	U	Dry, but no wilting	No
LOBELIA	Yes, 1–2 weeks	M, acid	M	Evenly Moist	No
NEMESIA	Yes, 2 weeks	M, acid	U	Evenly moist	No
NEW GUINEA IMPATIENS	No	L	M	Evenly moist	No
OSTEOSPERMUM (Crescendo™) (Warmer temperatures will reduce total crop time)	Yes, 1–2 weeks	M	M	Evenly moist	No
OSTEOSPERMUM (Cape Daisy™, Side Show™)	Yes, 1–2 weeks	M	M	Evenly moist	No
OXALIS	Yes, 2 weeks	M	T	Dry, but no wilting	No
PETUNIA	Yes, 1 week	H, acid	T	Evenly moist	Yes
SALVIA	Yes, once established	M, acid	U	Dry, but no wilting	No
SCAEVOLA	Yes, 2 weeks	M	T	Evenly moist	No
SUNPATIENS®	No	M	M	Dry, but no wilting	No
TORENIA	Yes, 1–2 weeks	M	T	Evenly moist	No
VERBENA	2 weeks and 4 weeks	M	T	Evenly moist	No
VINCA	No	M	T	Dry, but no wilting	No
VIOLA	Yes, 2 weeks	M	U, M	Dry, but no wilting	No

General Fertility Guide – Match fertilizer to water quality. Use low phosphorus inputs. Adjust nitrogen sources to provide less ammonium nitrogen during cold production. Most species benefit from additional iron application.

L – *Low fertilizer rate*. Constant feed of 100–150 ppm N with occasional clear water application to reduce soluble salts.

M – *Medium fertilizer rate*. Constant feed of 200–250 ppm N with complete micronutrients.

H – *High fertilizer rate* of 300–350 ppm N.

Growth Habit – U–upright. M–mounding. T–trailing.

Soil Moisture Guide – There are two basic categories which rely on the art of the waterer. Do not keep plants saturated all the time. “Evenly moist” media is not allowed to dry thoroughly, but is well-drained enough to provide constant moisture and aeration. “Dry, but no wilting,” refers to letting the media dry to the touch but not allowing the plant to wilt; a distinct difference from even moisture that discourages root rot.

Day Length Sensitivity – “Yes” indicates that specific cultivars within these species are daylength responsive. Supplemental lighting required for early spring production.

Freight Rates: Shipping Weeks October 1, 2012 – September 23, 2013 (W40–W39)

70% of Ecke Unrooted cuttings are delivered by temperature controlled truck. Why not experience what others already know about the advantages of Ecke trucking?



Ecke trucking benefits you by:

- Reducing your freight cost
- DELIVERY ON SUNDAY, MONDAY OR TUESDAY MORNING
- Real-time, web-based truck tracking
- Weekly email notifications on the status of the truck
- Proven reliable delivery, constant temperature = best quality
- Minimum delays for cold weather and no more losses to freeze or heat losses.

Conditions:

- Participation in the Ecke Truck Program requires the customer provide 24-hour access to deliver the product to the customer’s dock and coolers
- Truck program dates are from weeks 50–10
- Fuel surcharge is included
- Cuttings must be planted within 24 hours after receipt of shipment.

Call an Ecke Customer Service Representative at (760) 944-4038 for delivery outside of the Unrooted trucking zone and for more details about participation in the trucking program.

REFRIGERATED TRUCK PROGRAM

Unrooted Cuttings

1 tray = 100 cuttings WK50–WK10

AL, CT, GA, IA, IL, IN, MD, MI, MO, NC, NJ, NY, OH, PA, TN, TX and WV

- **\$2.30** per Unrooted tray
- 540 trays (approx. 22 boxes) per customer minimum load
- 24 Unrooted trays (average) = 1 box
- 5,400 trays (approx. 225 boxes) to schedule a truck

Within Florida State

- **\$2.30** per Unrooted tray
- 480 trays (approx. 20 boxes) per customer minimum load
- 24 Unrooted trays (average) = 1 box
- 1,000 trays (approx. 42 boxes) to schedule a truck

West Coast: California

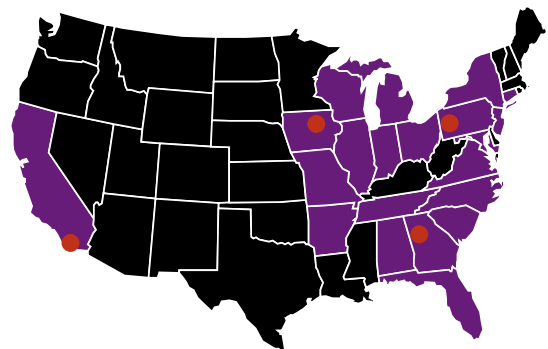
- **\$2.30** per Unrooted tray
- 540 trays (approx. 22 boxes) per customer minimum load
- 24 Unrooted trays (average) = 1 box
- 5,400 trays (approx. 225 boxes) to schedule a truck

ES78 Cuttings

1 tray = 78 cuttings WK50–WK10

AL, AR, CA, CT, FL, GA, IA, IL, IN, MD, MI, MO, NC, NJ, NY, OH, PA, SC, TN, VA and WI

- **\$7.50** per ES78 tray (included in landed ES78 price)
- 120 trays (approx. 10 boxes) per customer minimum load
- 1404 trays (approx. 117 boxes) to schedule a truck
- Orders may also be picked up at one of our cross dock facilities (●): Ecke Connellsville (PA), Ecke McDonough (GA), Plantpeddler (IA) or First Step (SoCal); or shipped by FedEx/UPS at an additional charge



Rooted Cuttings

1 tray = 100 cuttings

WK50–W10

From FIRST STEP GREENHOUSES, TEMECULA, CA location to: CA



Cutting Type	Delivery Service	Per Tray
Rooted	Growers' climate-controlled truck	\$3.00

- \$75 minimum charge
- Rooted: 3 trays per box

Cutting Type	Delivery Service	Per Tray
Rooted	On Trac (not climate controlled)	\$ 7.00
Rooted-72	On Trac (not climate controlled)	\$12.00

- \$21 minimum charge (Rooted); \$30 minimum charge (Rooted-72)
- Rooted and Rooted-72: 3 trays per box
- Not available in all zip codes

PARCEL EXPRESS (UPS/FEDEX) RATES

Unrooted, Rooted & ES78 Cuttings

1 tray = 100 cuttings (78 for ES78)

WK40–WK39

Continental U.S. Destinations

From Mexico & U.S.

Cutting Types	Trays	Min.	Next Day Morning	Next Day Afternoon	2nd Day Delivery
Unrooted	1+	\$45.00	\$2.30	\$2.30	N/A
ES78	1+	\$222.00	\$18.50	N/A	N/A
Rooted	1+	\$42.00	\$20.00	\$18.00	\$14.00

Canada Destinations

From Mexico & U.S.

Cutting Types	Trays	Min.	Next Day Morning
Unrooted	1+	\$48.00	\$2.50
ES78	1+	\$225.00	\$18.75
Rooted	1+	\$50.00	\$20.00

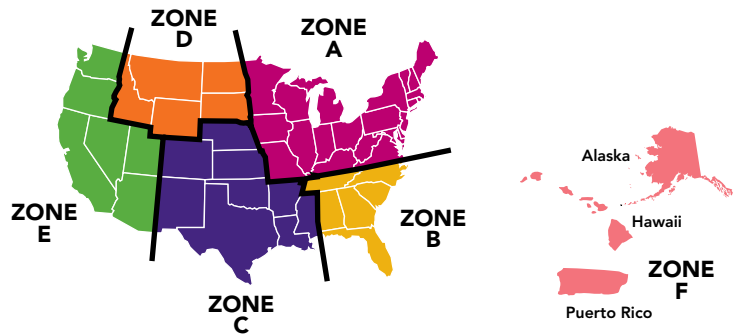
- Rates do not apply for shipments to Hawaii, Alaska or Puerto Rico.
- The customer is responsible to pay for the duties and taxes for Canadian shipments
- Fuel surcharge is included
- 24 Unrooted (average) trays = 1 box
12 ES78 trays = 1 box
3 Rooted trays = 1 box
- **Cuttings must be planted within 24 hours after receipt**
- **Track your order online at:**
<http://www.ecke.com/EckeTraffic/login.aspx>

AIR FREIGHT RATES

Rooted Only

1 tray = 100 cuttings*

WK40–WK39



Zone	Legend	Cutting Types	Cost Per Tray	Minimum
Zone A		Rooted	\$14.00	\$120.00
Zone B		Rooted	\$14.00	\$120.00
Zone C		Rooted	\$14.00	\$120.00
Zone D		Rooted	\$14.00	\$120.00
Zone E		Rooted	\$14.00	\$120.00
Zone F		Rooted	\$24.00	\$190.00

- For air freight rates to Canada, please contact Ecke Customer Service at (760) 753-1134
- We advise our customers not to ship Unrooted cuttings by air. If this option is chosen anyway, a quote must be obtained by calling Ecke Customer Service. Ecke is not responsible for flight delays or box heating in the airline warehouse. There is no delivery service from the airport to the customer. It is the customer's responsibility to coordinate with the airline for shipment pickup.
- Air freight claims must be made by notifying Ecke Customer Service within 48 hours after receiving the product. In addition, written intent to claim to the airline must be filed within eight (8) days after receiving the product.
- Fuel surcharge is included
- For International shipments to Europe, Asia and Africa, please ask for a quote to: traffic@eckeranch.com.

*Rooted Gazanias are sold in trays of 72 cuttings.

Ordering Information

ROOTED

- Overcount: 5% overcount provided (105 plants sold as 100)
Gazania rooted cuttings are sold in trays of 72 plants with no overcount.
- All Rooted product can be combined to make a full box.

UNROOTED

- Overcount: 6% overcount provided (106 plants sold as 100)
- Unrooted Petunias may be combined to make a full box.
- The following Unrooted items from our Guatemala production site can be combined: Agastache, Angelonia, Antirrhinum, Argyanthemum, Bacopa, Bidens, Brachyscome, Bracteantha, Calibrachoa, Coleus, Crossandra, Diascia, Double Impatiens, Fuchsia, Gaura, Gazania, Helichrysum, Lamium, Lantana, Lavender, Lobelia, Nemesia, New Guinea Impatiens, Osteospermum, Oxalis, Petunia, Salvia, Scaevola, Torenia, Verbena, Vinca variegata, Viola

MINIMUM ORDER INFORMATION

Cutting Types	Minimum Order	Multiple Per Cultivar
Rooted	3 trays (1 box)	1 tray (3 per box)
Unrooted	24 trays (average)	1 tray

Deletes & Recommended Substitutions

Deleted Item	Recommended Substitution
Bacopa - Scopia™ Great Pink	Bacopa - Scopia™ Great Pink Ring
Coleus – Stained Glassworks™ Needlepoint	Coleus – Stained Glassworks™ Oompah
Diascia – Sun Chimes™ Rose	Diascia – Sun Chimes™ Red
Double Impatiens – Gemini™ – Rose on White	Double Impatiens – Gemini™ – Red and White
New Guinea Impatiens – Paradise™ Orchid On Blue	New Guinea Impatiens – Paradise™ Orchid On Violet
Osteospermum – Cape Daisy™ – Iringa	Osteospermum – Sunscape® Daisy – Side Show™ Purple
Petunia – Littletonia™ – Red Star	Petunia – Littletonia™ – Bicolor Illusion
Petunia – Littletonia™ – White	Petunia – Littletonia™ – White Grace
Petunia – Petitunia™ – Crystal Violet Dream	Petunia – Petitunia™ – Grape Dream
Verbena – Tropical Breeze™ – Pink with Eye	Verbena – Costa del Sol™ – Pink
Verbena – Tropical Breeze™ – White	Verbena – Costa del Sol™ – White