

**your framework for  
the best bouquets**



**cut flowers**

PanAmerican Seed® KieftSeed™





## Confidence in cuts

Commercial cut flower growers around the globe count on the *outstanding, high-quality Value Varieties* from PanAmerican Seed. Respected for over 50 years for our innovative breeding and ability to consistently supply professional seed quality, we partner with you to lower your production costs, increase your yield, and successfully grow hundreds of cut flower varieties that ship and store exceptionally...create better arrangements...and ultimately put a smile on the face of the end consumer.

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*Our cover bouquet: Jua Maya sunflower, Guardian Blue delphinium, Amazon Neon Cherry dianthus and Maryland Shell Pink snapdragon.*



Orange

High-end retail mixed bouquets come to life with Sunday's full plumes and long, strong stems.



NEW Yellow



Bronze



Orange



Salmon



Dark Pink



Wine Red



Red

**CELOSIA** 🌻  
*Celosia plumosa*

### Sunday™ Series

**Height:** 28 to 40 in. (70 cm to 1 m)

**Planting density:** 6 to 8 plants/ft.<sup>2</sup>  
(64 to 80 plants/m<sup>2</sup>)

**Best for:** Greenhouse, high tunnel

**Plug crop time:** 2 to 3 weeks

**Transplant to finish:** 12 to 16 weeks

**Supplied as coated seed.**

- First professional cut version of the popular plume-shape celosia.
- Short, programmable production time and high yield - ideal for high-density programs.
- Similar production to the widely-used *C. cristata* varieties.
- Excellent shipability and vase life.

Orange and Wine Red are slightly later to flower.





Bordeaux

The industry standard for *C. cristata*:  
3 to 4-week shorter production  
period, more durable to transport,  
better stress tolerance and longer  
vase life than the competition.



Yellow Gold



NEW Green



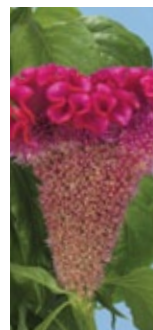
NEW Bronze



Pink



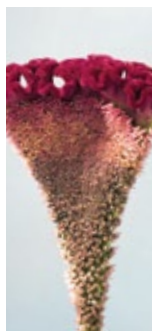
Rose



Candy



Purple



Velvet



Bordeaux



Figo



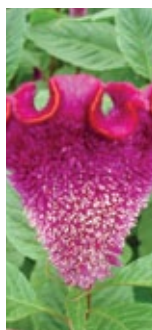
Fidor



Fisal



Flora



Fivio



Fire

**CELOSIA**   
*Celosia cristata* (Cockscomb)

## Bombay Series

**Height:** 28 to 40 in. (70 cm to 1 m)

**Planting density:** 6 to 8 plants/ft.<sup>2</sup>  
(64 to 80 plants/m<sup>2</sup>)

**Best for:** Greenhouse

**Plug crop time:** 2 to 3 weeks

**Transplant to finish:** 10 to 14 weeks

**Supplied as coated seed.**

- Full color assortment with short, programmable production time – good for economical, high-density programs.
- High yields, strong stems and few off-shoot flowers.
- Flowers hold color well – well-suited to dried use.
- The 6 Bombay “Fire” colors are narrow and small-leaved, of good length and well-matched for easy production planning.



**Celway Purple**



**Celway Red**



**Celway Purple**



**Celway White**



**Celway Lemon**



**Celway  
Terracotta**



**Celway Orange**



**Spring Green**

**CELOSIA** 🌻

*Celosia cristata* (Cockscomb)

### Spring Green

**Height:** 40 to 48 in. (1 to 1.2 m)

**Planting density:** 6 to 8 plants/ft.<sup>2</sup>  
(64 to 80 plants/m<sup>2</sup>)

**Best for:** Greenhouse

**Plug crop time:** 2 to 3 weeks

**Transplant to finish:** 12 to 16 weeks

**Supplied as coated seed.**

- High percentage of saleable stems.
- Easy to program for year-round sales.
- Uniform plant habit with strong, round stems for easy harvesting and good shipability.

**CELOSIA** 🌻

*Celosia spicata*

### Celway™ Series

**Height:** 40 to 48 in. (1 to 1.2 m)

**Planting density:** 6 to 8 plants/ft.<sup>2</sup>  
(64 to 80 plants/m<sup>2</sup>)

**Best for:** Greenhouse, high tunnel; Purple, Terracotta and White are also suitable for field production

**Plug crop time:** 2 to 3 weeks

**Transplant to finish:** 10 to 14 weeks

**Supplied as coated seed.**

- One central spiky plume is surrounded by several smaller spikes for a well-filled look.
- Short, programmable production time is comparable to the Bombay series.
- Suitable for high-density production.
- Strong stems with good small top leaves allow for good sleeving and shipability.





Coral

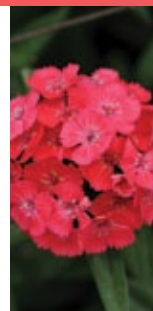
**How Sweet it is!** This is the best commercial *D. barbatus* series you can grow: year-round production... no vernalization needed... 7 separate bright colors.



White



Purple White  
Bicolor



Coral



Scarlet



Red



Purple



Black Cherry

## F<sub>1</sub> SINGLE DIANTHUS 🌞

*Dianthus barbatus*

### Sweet F<sub>1</sub> Series

**Height:** 18 to 36 in. (45 to 90 cm)

**Planting density:** 4 to 6 plants/ft.<sup>2</sup>  
(42 to 64 plants/m<sup>2</sup>)

**Best for:** Greenhouse, high tunnel;  
also suitable for field

**Plug crop time:** 4 to 5 weeks

**Transplant to finish:** Late Spring/  
Summer greenhouse/field, 8 to  
9 weeks; Late Summer/Winter  
greenhouse, 9 to 13 weeks; Field,  
15 to 18 weeks

### Supplied as pelleted seed.

- Top-notch filler series features large, very fragrant and long-lasting blooms on strong, straight stems.
- Produces high yields of saleable stems.
- Very uniform for height and flowering time.
- Excellent retail holdability.
- Taller growth comes from early, Fall-transplanted, greenhouse-grown plants.



Amazon Neon Cherry

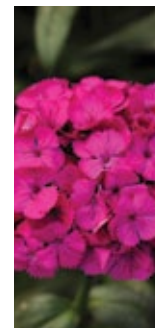
**Versatile and programmable**  
Amazon can be produced year-round and is the best dianthus for Summer production.



Amazon Rose Magic



Amazon Neon Cherry



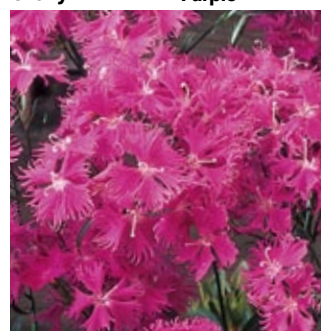
Amazon Neon Purple



Bouquet Rose Magic



Bouquet Rose



Bouquet Purple

## F1 SINGLE DIANTHUS

*Dianthus barbatus interspecific*

### Amazon F1 Series

**Height:** 18 to 36 in. (45 to 90 cm)

**Planting density:** 3 to 4 plants/ft.<sup>2</sup> (30 to 40 plants/m<sup>2</sup>) for Non-Pinched crop; 1.5 plants/ft.<sup>2</sup> (15 plants/m<sup>2</sup>) for Pinched crop

**Best for:** Greenhouse, high tunnel, field

**Plug crop time:** 4 to 5 weeks

**Transplant to finish:** Late Spring/Summer greenhouse/field, 11 to 14 weeks; Late Summer/Winter greenhouse, 12 to 18 weeks; Field, 18 to 23 weeks

#### Supplied as pelleted seed.

- High-appeal filler for bouquets; also makes exceptional monoculture bunches.
- No vernalization is needed for flowering.
- High yields of saleable stems.
- As a Winter greenhouse crop, height is up to 36 in. (90 cm), with tallest growth from early Fall-transplanted plants.

Rose Magic blooms start white and age to pink, then to deep rose; all colors show on individual flower heads.

### Bouquet™ F1 Series

**Height:** 18 to 24 in. (45 to 60 cm)

**Planting density:** 3 to 4 plants/ft.<sup>2</sup> (30 to 40 plants/m<sup>2</sup>)

**Best for:** Greenhouse, high tunnel; also suitable for field

**Plug crop time:** 4 to 5 weeks

**Transplant to finish:** Late Spring/Summer greenhouse/field, 11 to 14 weeks; Late Summer/Winter greenhouse, 12 to 18 weeks; Field, 18 to 23 weeks

#### Supplied as pelleted seed.

- Lacy, slightly scented flowers top strong, well-branched stems.
- Excellent bouquet filler with high yields of saleable stems.
- Greenhouse-grown plants produce longer stems, with finished heights up to 36 in. (90 cm).
- Good heat tolerance.

Rose Magic blooms open white and mature to light pink, then deep rose color; most color variation in high light and cool temperatures of outdoor production.

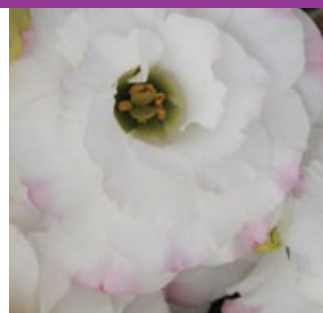


1 Purple

Best-in-class genetics deliver seedling vigor and proven reduced sensitivity to rosetting. You get more saleable plants and stems, no GA spray, faster finish and short harvest window.



1 White



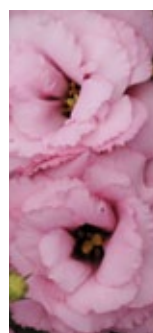
1 Rose Rim



1 Yellow



1 Green



1 Deep Rose



1 Misty Blue



1 Purple

## F1 DOUBLE-FLOWERED LISIANTHUS 🌻

*Eustoma grandiflorum*

### ABC Series

**Height:** 36 to 45 in. (90 cm to 1.1 m)  
in the greenhouse

**Planting density:** 8 plants/ft.<sup>2</sup>  
(84 plants/m<sup>2</sup>) Summer; 6 plants/  
ft.<sup>2</sup> (64 plants/m<sup>2</sup>) Winter

**Best for:** Greenhouse, high tunnel

**Plug crop time:** 8 to 10 weeks

**Transplant to finish:** Winter, 14 to  
18 weeks; Spring/Fall, 12 to 14  
weeks; Summer, 10 to 12 weeks

### Supplied as pelleted seed.

- Less rosetting in the plug and after transplant increases the number of saleable plants and stems, and reduces or eliminates the need for gibberellic acid (GA) spraying.
- Uniform vigor in plug and finish stages and faster finish times assure a short harvest window.
- Produces a high-quality finished crop year-round in a comprehensive color range.
- Outstanding double flower form with high petal count on strong stems.
- Quickly becoming the wedding flower of choice, and an essential for bouquets, corsages and other arrangements.
- Exceptional vase life.





## Seasonality Number Guide for ABC F1 Series

Speed Guide		ABC Varieties				Optimum Flowering Period			
				Winter (Cool Temp.)	Spring (Warm Temp.)	Summer (Hot Temp.)	Fall (Warm Temp.)		
<b>Speed 1</b> Early Flowering	ABC 1 Rose Rim			X					
	ABC 1 Deep Rose			X	X		X - For Late Fall		
	ABC 1 Green			X	X		X - For Late Fall		
	ABC 1 Misty Blue			X	X		X - For Late Fall		
	ABC 1 Purple			X	X		X - For Late Fall		
	ABC 1 White			X	X		X - For Late Fall		
	ABC 1 Yellow			X	X		X - For Late Fall		
<b>Speed 2</b> Mid Flowering	ABC 2 Purple			X	X		X - For Late Fall		
	ABC 2 Blue			X	X		X - For Mid to Late Fall		
	ABC 2 Blue Blush			X	X	X	X - For Mid to Late Fall		
	ABC 2 Blue Rim			X	X	X	X - For Mid to Late Fall		
	ABC 2 Lavender			X	X	X	X - For Mid to Late Fall		
	ABC 2 Misty Blue			X	X	X	X - For Mid to Late Fall		
	ABC 2 Misty Pink			X	X	X	X - For Mid to Late Fall		
	ABC 2 Rose			X	X	X	X - For Mid to Late Fall		
	ABC 2 Yellow			X	X	X	X - For Mid to Late Fall		
<b>Speed 3</b> Late Flowering	ABC 3 Purple				X	X	X		
	ABC 3 Rose				X	X	X		
	ABC 3 White				X	X	X		

Note - The number in variety name is the "Speed Guide". It tells whether the variety is faster or slower to flower (1 - Early, 2 - Mid, 3 - Late). Lisianthus flowering speed and quality is influenced by temperature, day length and light intensity during production. They will flower fastest under high temperatures, long days and high light intensities. Early-flowering varieties will flower relatively early and short with thin stems during periods of high temperatures, high light intensities and long day conditions; hence late flowering varieties will be best suited under these conditions.



NEW Deep Rose

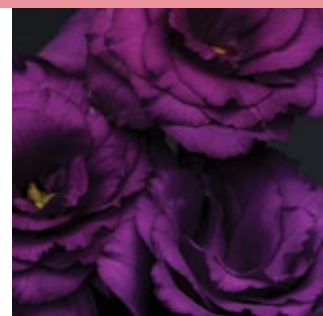
Grow the best spray-type Lisi series - every Flare stem looks like a bouquet without any pinching.



NEW White



NEW Deep Rose



NEW Deep Blue



ABC 1 Purple (left) vs. NEW Flare Deep Blue (right)

## F1 DOUBLE-FLOWERED LISIANTHUS

*Eustoma grandiflorum*

### New Flare Series

**Height:** 36 to 45 in. (90 cm to 1.1 m)

**Planting density:** 8 plants/ft.<sup>2</sup> (84 plants/m<sup>2</sup>) Summer; 6 plants/ft.<sup>2</sup> (64 plants/m<sup>2</sup>) Winter

**Best for:** Greenhouse, high tunnel

**Plug crop time:** 8 to 10 weeks

**Transplant to finish:** Winter, 14 to 18 weeks; Spring/Fall, 12 to 14 weeks; Summer, 10 to 12 weeks

**Supplied as pelleted seed.**

- Produces a spray of flowers on the top of each stem that opens within a short window, giving a bouquet effect to every stem.
- Labor savings thanks to no pinching needed.
- Flare's full spray effect may reduce the number of stems needed for floral arrangements.

## Seasonality Number Guide for Flare F1 Series

Speed Guide	Flare Varieties	Optimum Flowering Period			
		Winter (Cool Temp.)	Spring (Warm Temp.)	Summer (Hot Temp.)	Fall (Warm Temp.)
Speed 2 Mid Flowering	Flare Deep Blue	X	X	X	X- For Mid to Late Fall
	Flare Deep Rose	X	X	X	X- For Mid to Late Fall
	Flare White	X	X	X	X- For Mid to Late Fall

Note - The number in variety name is the "Speed Guide". It tells whether the variety is faster or slower to flower (1 - Early, 2 - Mid, 3 - Late, 4 - Very late flowering). Lisianthus flowering speed and quality is influenced by temperature, day length and light intensity during production. They will flower fastest under high temperatures, long days and high light intensities. Early-flowering varieties will flower relatively early and short with thin stems during periods of high temperatures, high light intensities and long day conditions; hence late flowering varieties will be best suited under these conditions.





2 White

Produce a high-quality finished crop year-round in a comprehensive color range.



2 White



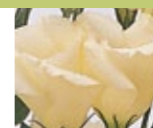
2 Green



2 Rose Rim



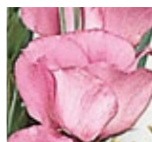
2 Blue Rim



2 Yellow



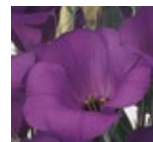
2 Buttercream Blush



2 Lilac



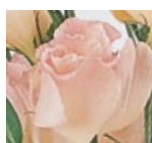
2 Deep Rose



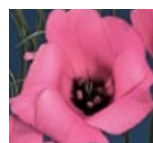
2 Purple



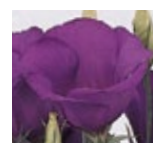
3 Blue Blush



3 Peach



4 Deep Rose



4 Deep Blue



3 Blue Rim

## F1 SINGLE-FLOWERED LISIANTHUS

*Eustoma grandiflorum*

### Laguna Series

**Height:** 33 to 45 in. (85 cm to 1.1 m)

**Planting density:** 8 plants/ft.<sup>2</sup> (84 plants/m<sup>2</sup>) Summer; 6 plants/ft.<sup>2</sup> (64 plants/m<sup>2</sup>) Winter

**Best for:** Greenhouse, high tunnel

**Plug crop time:** 8 to 10 weeks

**Transplant to finish:** Winter, 14 to 18 weeks; Spring/Fall, 12 to 14 weeks; Summer, 10 to 12 weeks

**Supplied as pelleted seed.**

- Uniform seedling vigor and less rosetting sensitivity in plug and finish stages increase the number of saleable plants and stems.
- Varieties are selected for outstanding stem strength, stem caliper and flower quality.

### Seasonality Number Guide for Laguna F1 Series

Speed Guide	Laguna Varieties	Optimum Flowering Period			
		Winter (Cool Temp.)	Spring (Warm Temp.)	Summer (Hot Temp.)	Fall (Warm Temp.)
<b>Speed 2 Mid Flowering</b>	Laguna 2 Lilac	X	X		X - For Late Fall
	Laguna 2 Buttercream Blush	X	X	X	X - For Mid to Late Fall
	Laguna 2 Deep Rose	X	X	X	X - For Mid to Late Fall
	Laguna 2 Rose Rim	X	X	X	X - For Mid to Late Fall
	Laguna 2 Blue Rim	X	X	X	X - For Mid to Late Fall
	Laguna 2 Green	X	X	X	X - For Mid to Late Fall
	Laguna 2 Purple	X	X	X	X - For Mid to Late Fall
	Laguna 2 White	X	X	X	X - For Mid to Late Fall
	Laguna 2 Yellow	X	X	X	X - For Mid to Late Fall
<b>Speed 3 Late Flowering</b>	Laguna 3 Blue Blush		X	X	X
	Laguna 3 Blue Rim		X	X	X
	Laguna 3 Peach		X	X	X
<b>Speed 4 Very Late Flowering</b>	Laguna 4 Deep Blue		X - For Late Spring	X	X - For Early Fall
	Laguna 4 Deep Rose		X - For Late Spring	X	X - For Early Fall

Note - The number in variety name is the "Speed Guide". It tells whether the variety is faster or slower to flower (1 - Early, 2 - Mid, 3 - Late, 4 - Very late flowering). Lisianthus flowering speed and quality is influenced by temperature, day length and light intensity during production. They will flower fastest under high temperatures, long days and high light intensities. Early-flowering varieties will flower relatively early and short with thin stems during periods of high temperatures, high light intensities and long day conditions; hence late flowering varieties will be best suited under these conditions.



Apricot

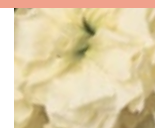
**Florists and consumers alike appreciate these dense, showy spikes of scented flowers in our popular Column Stock collection.**



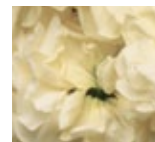
Avalanche



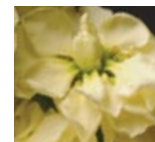
White Goddess



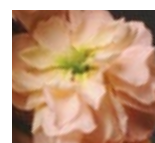
Yellow Goddess



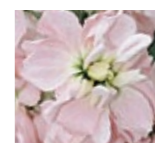
Miracle Yellow



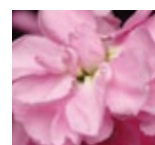
Miracle Gold



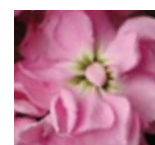
Apricot



Malmaison Pink



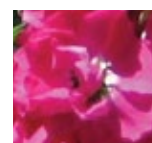
Rose Pink



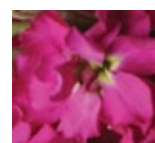
Ball Pink



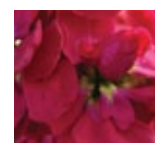
Miracle Crimson



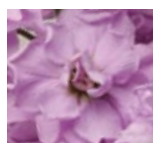
American Beauty Select



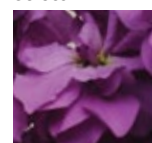
Pacific Crimson



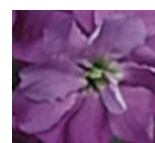
Ruby



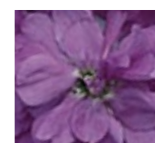
Lilac Lavender



Purple Heart



Pacific Blue



Miracle Mid-Blue

## TRADITIONAL FIELD-GROWN MATTHIOLA (STOCK) 🌞

*Matthiola incana*

### Column Stock

**Height:** 24 to 30 in. (60 to 75 cm)

**Planting density:** 2.2 lbs./acre  
(1 kg/4,000 m<sup>2</sup>)

**Best for:** Field

**Direct sow to finish:** 20 to 22 weeks

**Supplied as raw seed.**

- Single-stemmed florist types have large and attractive double flowers, closely spaced on the stems.
- Optimum stem length is achieved during cool growing periods; high heat can stunt plants or prevent flower spikes from developing.
- Non-selectable for doubleness.

Also available: Appleblossom and Sweetheart Pink.

American Beauty Select is fairly early to flower; unique color.

Appleblossom is a unique color.

Avalanche is a mid-season white.

Lilac Lavender is early to flower.

Malmaison Pink has unique antique apricot-pink flowers, closely spaced on light gray-leaved stems.

Miracle Gold has deeper color and is later to flower than Miracle Yellow.

Miracle Mid-Blue is a popular color in floral displays. Timing is similar to Apricot and Miracle Yellow.

Pacific Blue is early to flower; color is similar to Miracle Mid-Blue.

Pacific Crimson is early to flower.

White Goddess is slightly later to flower and thicker-stemmed than Avalanche.





Yellow



White



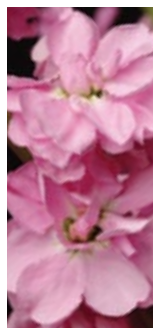
Yellow



Apricot



Cherry Blossom



Pink



Bright Rose



Crimson



Ruby



Light Lavender



Lavender Blue



Blue



Purple

**EXTRA-EARLY FLOWERING  
TUNNEL OR FIELD-GROWN  
MATTHIOLA (STOCK) 🌻**

*Matthiola incana*

**Katz Series**

**Stem length:** 32 in. (80 cm)

**Planting density:** 12 plants/ft.<sup>2</sup>  
(126 plants/m<sup>2</sup>)

**Best for:** High tunnel, field

**Plug crop time:** 4 weeks

**Transplant to finish:** 8 to 13 weeks

**Supplied as raw seed.**

- Can be grown earlier and later in the season, and even year-round in some climates, allowing for programmable Christmas through Valentine's Day flowering.
- About 55 to 60% double-flowering, with some selectability possible.
- 5% of PanAmerican Seed net seed sales of Katz are donated to PanCan for Pancreatic Cancer research in honor of Philip Katz, former PanAmerican Seed Product Manager.

Cherry Blossom was the ASCFG 2013 Fresh Cut Flower of the Year.

**Count on shorter crop time, uniform stem length and timing between colors, and better heat tolerance than European or traditional field types.**



**Aida White**



**Aida White**



**Aida Apricot**



**Aida Cherry Blossom**



**Aida Lavender**



**Aida Deep Rose**



**Aida Blueberry**



**Aida Blue**

#### **NORTHERN GREENHOUSE SELECTABLE MATTHIOLA (STOCK)**

*Matthiola incana*

**Planting density:** 6 plants/ft.<sup>2</sup>  
(64 plants/m<sup>2</sup>)

**Best for:** Greenhouse

**Plug crop time:** 5 to 6 weeks  
**Transplant to finish:** Winter, 11 to 12 weeks; Spring, 8 to 9 weeks; Summer, 3 to 5 weeks; Fall, 4 to 7 weeks

**Supplied as raw seed.**

Bred for specific seasonal performance, the Aida, Carmen and Figaro series team up with the Opera series to offer an outstanding lineup of greenhouse-grown selectable matthiola for year-round production. Aida, Carmen and Figaro are well-matched for timing and deliver very uniform plant performance. Transplanting for seasons earlier than listed will result in later flowering.

Greenhouse-grown matthiola are distinguished from field-grown types by the softer green leaves. NOTE: Selectable matthiola will produce approximately 50% double-flowering types, but it is easy to select out the single-flowered types at the young plant stage. Refer to the PanAmerican Seed Product Information Guide at [panamseed.com](http://panamseed.com) for details.

#### **Aida Series**

(Spring Flowering, Group 2)

**Stem length:** 32 in. (80 cm)

#### **Carmen Series**

(Summer Flowering, Group 3)

**Stem length:** 32 in. (80 cm)

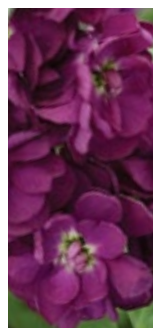
#### **Figaro Series**

(Winter Flowering, Group 1)

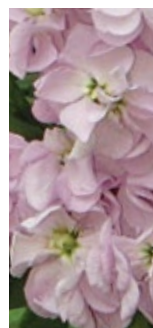
**Stem length:** 30 in. (75 cm)



**Carmen Yellow**



**Carmen Purple**



**Figaro Light Rose**



**Figaro Lavender**





**Opera Francesca**



**Opera Francesca**



**Lucinda White**



**Lucinda Cream**



**Lucinda  
Lavender**



**Lucinda Dark  
Rose**



**Lucinda Red**



**Lucinda Purple  
Violet**



**Lucinda Deep  
Blue**

### **Opera Series**

(Spring Flowering, Group 2)

**Stem length:** 32 in. (80 cm)

- Bred for optimal performance in cooler greenhouse conditions.
- Recommended for Fall to late Spring flowering.
- Production is possible year-round if cool Summer temperatures are maintained in the greenhouse.

Also available: Fedora (deep rose).

### **Lucinda Series**

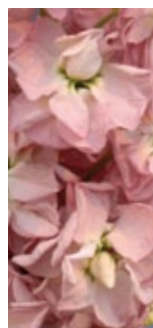
(Spring Flowering, Group 2)

**Stem length:** 27 to 30 in. (65 to 75 cm)

- Strong-stemmed mid-early type is also suitable for Fall flowering.



**Opera Aida**



**Opera Daphne**



**Opera Leonora**



**Opera Debora**

# early potomac



Early Yellow (3)

Early Potomac can be grown under medium to long days and moderate to high light levels.



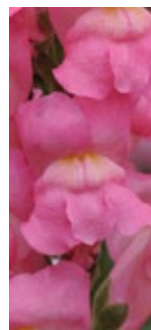
Early White (3)



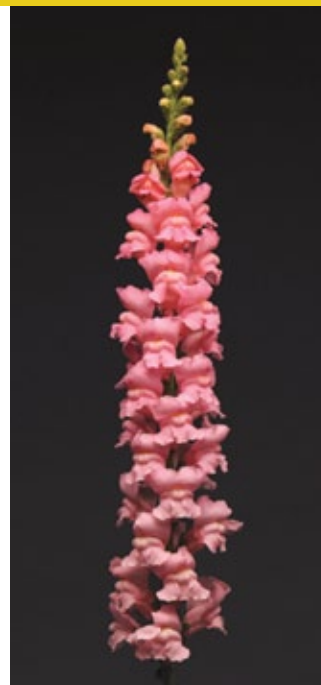
Early Yellow (3)



Early Orange (3)



Early Rose (3)



Early Pink (3)

## **SNAPDRAGON** 🌻 *Antirrhinum majus*

**Stem length:** 39 to 60 in. (1 to 1.5 m)  
**Planting density:** 6 to 10 plants/ft<sup>2</sup> (64 to 106 plants/m<sup>2</sup>); high-density planting under high-light or field situation

**Best for:** Greenhouse, high tunnel

**Plug crop time:** 4 to 5 weeks

**Transplant to finish:** 8 to 18 weeks

**All cut flower snapdragons are supplied as raw seed.**

PanAmerican Seed is the world's leading supplier of F<sub>1</sub> hybrid forcing snaps, with an unsurpassed choice of top-producing varieties selected for stem and flower quality, photoperiodic response and earliness to flower.

Forcing snaps are classified into four groups based on flowering response to a combination of daylength, light intensity and temperature. When the four groups are combined, they let growers produce a high-quality crop year-round.

## **Early Potomac Series (Group 3)**

- Ideal for Spring and Fall programs, producing very high-quality, long stems with excellent taper.

Early Orange (3) is the best bronze for Group 3 to Group 2 transition in Fall.

Early Pink (3) has consistent performance for Group 3, and Group 2 to Group 3 transition. Timing is similar to Early White and Monaco Rose.

## **Series Selection for Creating a High-Quality Year-Round Snapdragon Program**

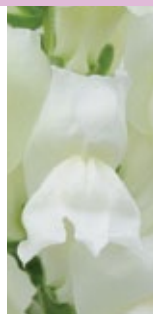
Group	Growing-On Night Temperatures	Series
1,2	45 to 55°F (7 to 13°C) for late Fall and early Spring harvest	Cool, Maryland, Purple Twist, Red Delilah, Trumpet
2,3	52 to 57°F (11 to 14°C) for Fall and Spring harvest	Apollo, Monaco, Paxia
3,4	60°F (15°C) for late Spring, Summer and early Fall harvest	Axiom, Potomac, Early Potomac





Lavender (3,4)

**Potomac is tops for production during periods of high light, long days and warm temperatures.**



White (3,4)



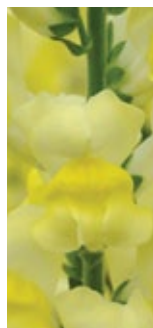
Ivory White (3,4)



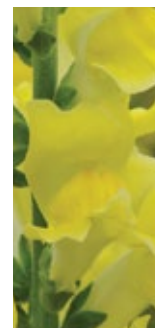
Appleblossom (3,4)



Plumblossom (3,4)



Soft Yellow (3)



Yellow (3,4)



Orange (3,4)



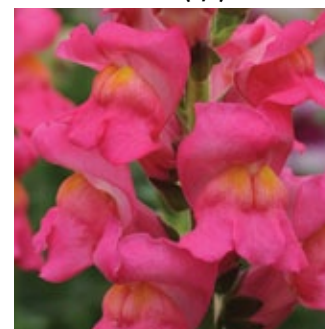
Dark Orange (3,4)



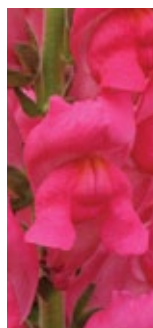
Lavender (3,4)



Pink (3,4)



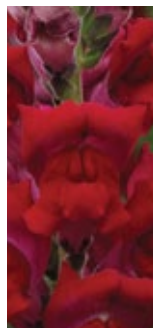
Rose (3,4)



Cherry Rose (3,4)



Crimson (3,4)



Red (3,4)



Royal (3,4)

## Potomac Series (Group 3,4)

- Plants produce tall, strong stems and long spikes with good flower quality.
- Can be grown year-round with supplemental high-intensity light.

Appleblossom (3,4) times with Ivory White and Pink.

Ivory White (3,4) is the best white for high light/warm nights.

Plumblossom (3,4) has Group 3 timing. Can be harvested later into Fall than Appleblossom.

Royal (3,4) has timing similar to Pink. Can be late in Fall - best sown before July 4 in cooler climates.

Yellow (3,4) matches Pink and Appleblossom for timing.



Orange (1,2)

**Energy-efficient Maryland is your best choice for cool-season, low-light and low-temperature conditions.**



White (2)



Ivory White (1,2)



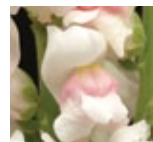
White & Yellow Bicolor (2)



Flame (1,2)



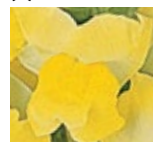
Lavender (1,2)



Appleblossom (2)



Plumblossom (2)



Bright Yellow (2)



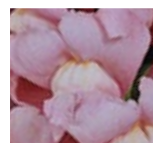
Golden Bronze (1,2)



Shell Pink (2)



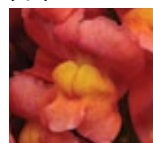
Yosemite Pink (1,2)



True Pink (1,2)



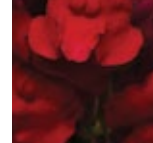
Orange (1,2)



Dark Orange (2)



Royal (1,2)



Red (2)

## SNAPDRAGON continued

### Maryland Series (Group 1,2)

- Group with other Group 1,2 varieties (Cool, Purple Twist, Red Delilah and Trumpet) for Fall, Winter and Spring programs.
- Well-defined flower spikes are produced on sturdy, clean stems.

Also available: Flamingo (1,2)

Appleblossom (2) is a late Group 2, last to bloom of the series.

Bright Yellow (2) has dependable height and quality as Fall Group 2. Best yellow for a smooth transition from Group 3 to Group 2.

Ivory White (1,2) is early as a Fall Group 2.

Plumblossom (2) matches average timing for Bright Yellow and Royal.

Shell Pink (2) matches White for crop timing.

True Pink (1,2) matches Ivory White for crop time.

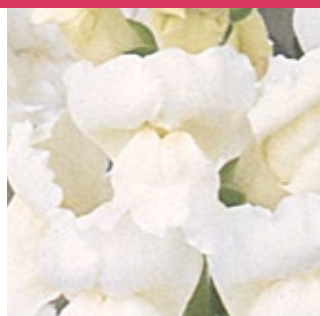
White & Yellow Bicolor (2) matches Bright Yellow and Plumblossom for crop time.



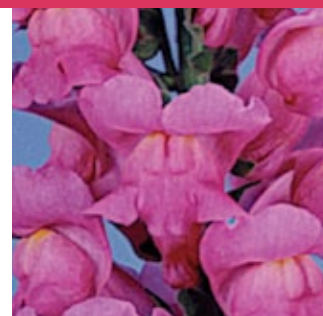


Rose (2,3)

**Make Monaco your “go-to” snap for difficult transition harvest periods – late Summer to early Fall and late Winter to early Spring.**



White (2,3)



Baltimore Rose (2,3)



Yellow (2,3)



Rose (2,3)



Violet (2,3)



Red (2,3)

## Monaco Series (Group 2,3)

- Monaco tolerates warm Fall conditions without flowering too quickly, and produces high-quality flower spikes when Fall weather is unusually cool and dark.
- Performs well all year in areas with moderate temperatures and little daylength fluctuation.

Baltimore Rose (2,3) is early as Group 3, and very reliable for Group 3 to Group 2 transition.

Red (2,3) has timing similar to or slightly earlier than Rose. Essentially a Group 2, with extended use into Group 3 periods.

Rose (2,3) is an excellent Group 2; also blooms well as an early Group 3, extending its usefulness. Times close to Early Potomac Pink as Group 3.

Violet (2,3) has timing similar to Rose.

White (2,3) is a good match to Rose and Violet.

Yellow (2,3) is a perfect transition between Potomac Yellow and Maryland Bright Yellow in the Spring and Fall. Slightly earlier than Monaco Rose or Violet, and later than Monaco Red.





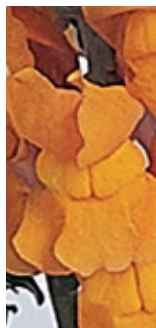
**Cool Yellow (1,2)**



**Cool White (1,2)**



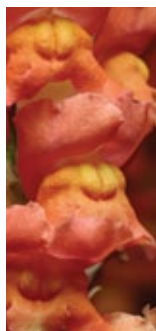
**Cool Yellow (1,2)**



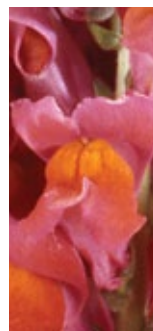
**Cool Bronze (1,2)**



**Cool Salmon (1,2)**



**Cool Orange Bicolor (1,2)**



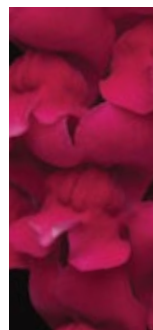
**Cool Coral (1,2)**



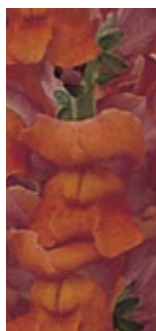
**Cool Rose (1,2)**



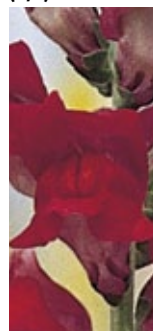
**Cool Pink (1,2)**



**Cool Crimson (1,2)**



**Paxia Bronze (2,3)**



**Paxia Scarlet (2,3)**



**Red Delilah (2)**

#### SNAPDRAGON continued

##### Cool Series (Group 1,2)

- The best, most uniform Winter-flowering snapdragon.
- Genetically matched varieties offer uniformity across the series and within each color for timing, height and spike quality.
- Strong and sturdy stems have long, tight spikes with long tapers.
- Best produced under cool conditions; also the best series for dependable harvest during cool months.
- Well-suited to outdoor growing or under tunnels in California Winter conditions.
- Excellent production companion to delphiniums.

Orange Bicolor (1,2) matches Bronze for timing and height.

##### Red Delilah (Group 2)

- Fun and first-of-its-kind snap produces unique red and white tube-patterned flower spikes on strong, sturdy stems – a great choice to make top-quality bouquets.
- Can be scheduled and grown along with the Maryland series.

##### Paxia Series (Group 2,3)

- Suited to Fall and Spring harvest.





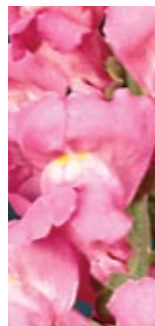
**Purple Twist (2)**



**Axiom Paper White (4)**



**Axiom Pink (3,4)**



**Axiom Deep Rose (3,4)**



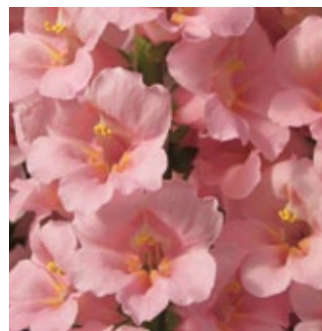
**Axiom Deep Orange (3,4)**



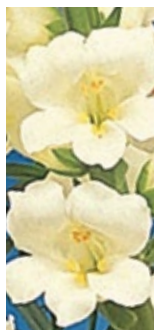
**Purple Twist (2)**



**Trumpet Tangerine (1,2)**



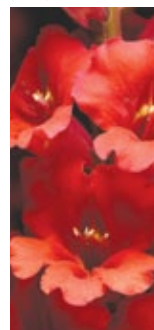
**Trumpet Pink (1,2)**



**Apollo Ivory (2,3)**



**Apollo Yellow (2,3)**



**Apollo Cinnamon (2,3)**



**Apollo Purple (2,3)**

### **Axiom Series (Group 3,4)**

- Suited to Fall and late Spring-flowering programs.

#### **Purple Twist (Group 2)**

- Unique standalone variety adds novelty to your snap program.
- Can be produced under short days/moderate light conditions with night temperatures of 50 to 55°F (10 to 13°C) during production.
- Can be scheduled and grown along with the Maryland series.
- Striped pattern varies depending on the growing environment – when grown in warmer greenhouse conditions, the white stripes are more dense/prominent, and when grown under cool outside/tunnel conditions, the purple is more dense/prominent.

### **Trumpet Series (Group 1,2)**

- Produces some of the largest florets of any snapdragon, with a unique open-faced “trumpet” form.
- Slightly fragrant blooms are perfectly arranged along medium-long spikes.
- Stems are thicker and taller with more blooms than comparable varieties, making this a top-quality florist product.
- Good flower retention assures excellent shipability.
- Well-timed with the Maryland series.

Pink (1,2) is a nice novelty variety along with Purple Twist and Red Delilah.

### **Apollo Series (Group 2,3)**

- Peloric (open-faced) varieties offer excellent flower quality, with some of the largest florets of any snapdragons.
- Flowers are perfectly arranged along medium-long spikes, on thicker stems with taller height and more blooms than comparable series.
- Well-timed with Monaco for Fall and Spring harvest.

Cinnamon (2,3) is well-timed with Ivory and Purple.

Yellow (2,3) is ready for harvest 4 to 5 days earlier than Ivory in Spring and 10 to 14 days earlier in Fall.



NEW Jua Inca

**Jua Inca and Jua Maya are bred to be less sensitive to cultural variations than traditional sunflowers.**



NEW Jua Maya



NEW Jua Inca



Double Shine



Prado Gold



Prado Red Shades

**SUNFLOWER**   
*Helianthus annuus*

### New Jua F1 Series

**Height:** 3 to 5 ft. (90 cm to 1.5 m) depending on culture

**Planting density:** 6 to 9 days after seedlings emerge, thin to 4 to 5 plants/ft.<sup>2</sup> (42 to 52 plants/m<sup>2</sup>)

**Best for:** High tunnel, field

**Direct sow to finish (200-cell):** 8.5 to 10.5 weeks

**Supplied as treated seed.**

- Pollenless, fast-growing plants produce 3.5 to 4.75-in. (9 to 14-cm) flowers, complemented by smaller, deep green top leaves.
- Very good vase life.

*Check out more photos of Jua on our front, inside front and back covers - this is one amazing duo!*

### Double Shine F1

**Height:** 3 to 5 ft. (90 cm to 1.5 m)

**Planting density:** 6 to 9 days after seedlings emerge, thin to 4 to 5 plants/ft.<sup>2</sup> (42 to 52 plants/m<sup>2</sup>)

**Best for:** High tunnel, field

**Plug crop time:** 3 weeks

**Transplant to finish:** 9 to 10 weeks

**Supplied as treated seed.**

- Fully double, 8-in. (20-cm) golden yellow flowers on strong stems.
- Stem length will vary according to light and culture conditions.
- Preferable: 12 to 13-week production period when direct-sown in May/June.

### Prado™ Series

**Height:** 4 to 5.5 ft. (1.2 to 1.65 m)

**Planting density:** 0.75 plants/ft.<sup>2</sup> (8 plants/m<sup>2</sup>)

**Best for:** High tunnel, field

**Plug crop time:** 2 to 3 weeks

**Transplant to finish:** 10 to 12 weeks (from sowing)

**Supplied as treated seed.**

- Very early, multi-flowering varieties.
- May harvest approximately 7 to 10 stems per plant when the main stem is pinched at the fifth set of true leaves.
- Flowers are 6 in. (15 cm) in diameter.
- Very low humidity or very high light levels can reduce stem length.

Red Shades may produce almost-black ray petals at high elevations (5,000 ft.+/1,500 m+) and high light levels.

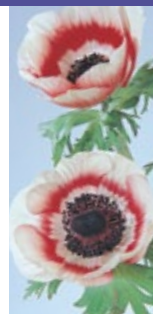




**A masterpiece among anemones!**  
**Mona Lisa puts out up to 18 flowers**  
**per plant...flowers under lower**  
**Winter light levels...doesn't need**  
**staking, netting or disbudding.**



**White**



**Bicolor Red**



**Orchid Shades**



**Pink**



**Scarlet Eye**



**Solid Scarlet**



**Deep Red**



**Wine Shades**



**Bicolor Blue  
Shades**



**Lavender Shades**



**Deep Blue**

## **ANEMONE** 🌸

*Anemone coronaria*

### **Mona Lisa® Series**

**Height:** 18 in. (45 cm)

**Planting density:** 2 to 4 plants/ft.<sup>2</sup>  
 (22 to 44 plants/m<sup>2</sup>)

**Best for:** Greenhouse, high tunnel

**Plug crop time:** 8 weeks

**Transplant to finish:** 12 weeks

**Supplied as raw seed.**

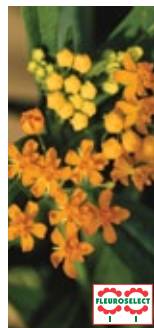
- 4 to 4.5-in. (10 to 12-cm) blooms top sturdy 18-in. (45-cm) stems that are ideal for cutting and design work.
- Well-suited for young plant production from March to April sowing.
- Low temperatures (46 to 54°F/8 to 12°C) promote optimum stem length for cut flower production.



**Everest Blue Ageratum**



**Everest Blue Ageratum**



**Silky Gold Asclepias**



**Silky Scarlet Asclepias**



**Silky Deep Red Asclepias**



**Graceland Ammi**

**AGERATUM** ☀️  
*Ageratum houstonianum*

### Everest Blue

**Height:** 26 in. (65 cm)  
**Planting density:** 3 plants/ft.<sup>2</sup> (32 plants/m<sup>2</sup>) in Summer and 2 plants/ft.<sup>2</sup> (24 plants/m<sup>2</sup>) in Fall for Pinched crop. For Non-Pinched crop can use 6 plants/ft.<sup>2</sup> (64 plants/m<sup>2</sup>)  
**Best for:** Greenhouse, high tunnel, field

**Plug crop time:** 4 to 5 weeks  
**Transplant to finish:** 12 to 15 weeks

#### Supplied as pelleted seed.

- Low-energy crop delivers strong, true blue color.
- Can be pinched to produce uniform, sturdy stems and wider plant spread.

**AMMI** ☀️  
*Ammi majus*

### Graceland

**Height:** 40 to 55 in. (1 to 1.4 m)  
**Planting density:** 3 plants/ft.<sup>2</sup> (32 plants/m<sup>2</sup>)  
**Best for:** High tunnel, field

**Plug crop time:** 4 to 6 weeks  
**Transplant to finish:** 8 to 10 weeks

#### Supplied as raw seed.

- Produces more quality stems, an easier harvest and a better return per square ft.<sup>2</sup>/m<sup>2</sup>.
- Healthy, dark green foliage means less cleaning during harvest.
- Uniform growth prevents side shoots overgrowing the main umbel, resulting in a more manageable height.



**Casablanca Ammi**

**AMMI** ☀️  
*Ammi visnaga*

### Casablanca

**Height:** 40 to 50 in. (1 to 1.25 m)  
**Planting density:** 1 to 2 plants/ft.<sup>2</sup> (16 to 24 plants/m<sup>2</sup>)  
**Best for:** High tunnel, field

**Plug crop time:** 4 to 6 weeks  
**Transplant to finish:** 10 to 12 weeks

#### Supplied as raw seed.

- Larger, more mounded umbels than *Ammi majus*, with clear white flowers.
- Strong, straight stems with no side shoots for easier harvest and better return per ft.<sup>2</sup>/m<sup>2</sup>.
- Very uniform, low-energy crop can be grown indoors and outdoors.

**ASCLEPIAS** ☀️  
*Asclepias curassavica*

### Silky Series

**Height:** 24 to 28 in. (60 to 70 cm)  
**Planting density:** 3 to 4 plants/ft.<sup>2</sup> (32 to 40 plants/m<sup>2</sup>)  
**Best for:** Greenhouse, high tunnel, field

**Plug crop time:** 4 to 5 weeks  
**Transplant to finish:** 11 to 12 weeks

#### Supplied as raw seed.

- High-quality series is bred for greenhouse and outdoor Summer production and prefers a warm, rather dry location.
- Produces beautiful flower umbels in intense colors on strong stems for an exotic look.





Griffithi Bupleurum



Meteor Carmine Red Aster



Meteor Rose Pink Aster



Meteor Yellow Aster



Meteor Violet Blue Aster



Griffithi Bupleurum



Blue Donna Delphinium



Guardian White Delphinium



Guardian Blue Delphinium



Guardian Lavender Delphinium

#### ASTER

*Callistephus chinensis*

#### Meteor™ Series

**Height:** 30 to 40 in. (80 cm to 1 m)

**Planting density:** 7 plants/ft.<sup>2</sup> (78 plants/m<sup>2</sup>)

**Best for:** Greenhouse, high tunnel

**Plug crop time:** 4 to 5 weeks  
**Transplant to finish:** 13 to 16 weeks

**Supplied as raw seed.**

- Large, 3.5 to 4-in. (9 to 10-cm) flowers top thicker, longer stems than small-flowered varieties.
- Excellent vigor plus well-matched timing and height.
- Harvest when 2 to 3 flowers per stem have developed color.

#### BUPLEURUM

*Bupleurum rotundifolium*

#### Griffithi

**Height:** Direct-sown: 36 to 48 in. (90 cm to 1 m)

**Planting density:** 4 to 6 plants/ft.<sup>2</sup> (48 to 64 plants/m<sup>2</sup>)

**Best for:** High tunnel, field

**Direct sow to finish:** 12 to 16 weeks

**Supplied as raw seed.**

- Uniform greenish-yellow filler for fresh bouquets.
- Graded seed ensures uniform germination, culture and harvest for programmable production cycles.

#### DELPHINIUM

*Delphinium x belladonna*

#### Blue Donna

**Height:** 32 to 40 in. (80 cm to 1 m)

**Planting density:** 2 to 4 plants/ft.<sup>2</sup> (22 to 44 plants/m<sup>2</sup>)

**Best for:** Greenhouse, high tunnel; also suitable for field

**Plug crop time:** 5 to 6 weeks  
**Transplant to finish:** 12 to 16 weeks

**Supplied as raw seed.**

- True blue delphinium has improved uniformity, increased productivity, more stems per ft.<sup>2</sup>/m<sup>2</sup>.
- Heat tolerant with low disease sensitivity.

#### DELPHINIUM

*Delphinium elatum*

#### Guardian F1 Series

**Height:** 30 to 39 in. (75 to 100 cm)

**Planting density:** 2 to 4 plants/ft.<sup>2</sup> (22 to 44 plants/m<sup>2</sup>)

**Best for:** Greenhouse, high tunnel; also suitable for field

**Plug crop time:** 5 to 6 weeks  
**Transplant to finish:** Fall greenhouse, 13 weeks; Fall field, 16 weeks; Spring greenhouse, 11 weeks; Spring field, 13 weeks

**Supplied as raw seed.**

- Very uniform blooming within each variety, especially under short days.
- Up to 6 weeks faster from transplant to bloom than O.P. types for more turns.
- Programmable to meet ship dates.
- Excellent stem quality for good shipability.
- As a greenhouse crop, Guardian can be grown like cut flower dianthus and snaps.



**QIS Dark Blue Limonium**



**QIS Lavender Limonium**



**QIS Pale Blue Limonium**



**QIS Dark Blue Limonium**



**QIS Pastel Limonium**

#### **LIMONIUM (STATICE) ☀**

*Limonium sinuatum*

#### **QIS Series**

**Height:** 30 to 35 in. (75 to 90 cm)

**Planting density:** 1 to 2 plants/ft.<sup>2</sup> (10 to 20 plants/m<sup>2</sup>)

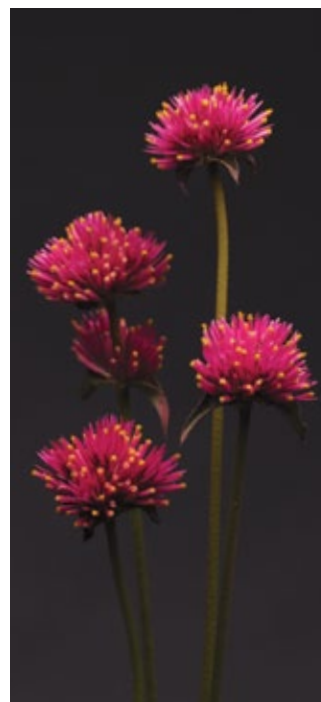
**Best for:** High tunnel, field

**Plug crop time:** 4 to 5 weeks

**Transplant to finish:** 18 to 22 weeks (12 to 13 with vernalization or direct sowing)

#### **Supplied as raw seed.**

- Widely recommended by professional cut flower growers in the world, QIS ('Quality in Standard') is a considerable improvement over standard varieties in uniformity, color, flower size and stem quality.
- Produces clouds of tiny, non-shattering flowers.
- Delivers shipability and long vase life.
- Popular for both fresh and preserved cut flower production.
- Stiff stems do not require netting.



#### **Fireworks Gomphrena**

#### **GOMPHRENA ☀**

*Gomphrena pulchella*

#### **Fireworks**

**Height:** 48 in. (1.2 m)

**Planting density:** 0.75 plants/ft.<sup>2</sup> (8 plants/m<sup>2</sup>)

**Best for:** Greenhouse, high tunnel, field

**Plug crop time:** 5 to 6 weeks

**Transplant to finish:** 8 to 9 weeks

#### **Supplied as coated seed.**

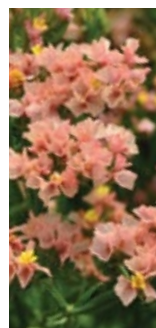
- Unique "scaffolding" habit and more blooms per plant create an explosion of color.
- Excellent in mixed cut flower bouquets.
- Vigorous, tough-as-nails plants are drought tolerant and low maintenance.
- Easy to produce on the bench, stays compact as a plug.



**QIS White Limonium**



**QIS Yellow Limonium**



**QIS Apricot Limonium**



**QIS Rose Limonium**





**QIS Orange Gomphrena**



**QIS Orange Gomphrena**



**QIS Carmine Gomphrena**



**QIS Red Gomphrena**



**Bells of Ireland Moluccella**

**GOMPHRENA** ☀️  
*Gomphrena haageana*

#### QIS Series

**Height:** 24 to 26 in. (60 to 65 cm)

**Planting density:** 1.5 plants/ft.<sup>2</sup>  
(16 plants/m<sup>2</sup>)

**Best for:** Greenhouse, high tunnel

**Plug crop time:** 5 to 6 weeks

**Transplant to finish:** 10 to 12 weeks

**Supplied as clean seed.**

- First-class professional series produces 1 to 1.5-in. (2.5 to 3.5-cm) flowers on stems with good uniform length.
- Suitable for fresh and dried use.
- Long vase life – over 14 days.

#### HELIANTHUS

See Sunflower, page 22.

**MATRICARIA (TANECETUM)** ☀️  
*Tanacetum parthenium*

#### Vegmo Series

**Height:** 28 to 36 in. (70 to 90 cm)

**Planting density:** 8 plants/ft.<sup>2</sup>  
(80 plants/m<sup>2</sup>) in Summer; 7 plants/ft.<sup>2</sup> (70 plants/m<sup>2</sup>) in Winter

**Best for:** Greenhouse, high tunnel

**Plug crop time:** 4 to 5 weeks

**Transplant to finish:** Winter, 14 to 16 weeks; Spring/Fall, 10 to 14 weeks; Summer, 7 to 10 weeks

**Supplied as pelleted seed.**

- Excellent, fast year-round crop.
- Double flowers are held above lacy, fragrant foliage, with nice stem quality plus good flower range and bud count.
- Good post-harvest life.

Also available: Yellow



**Vegmo Snowball Extra Matricaria**



**Vegmo Single Matricaria**



**Vegmo Sunny Ball Gold Matricaria**

**MOLUCCELLA** ☀️  
*Moluccella laevis*

#### Bells of Ireland

**Height:** 24 to 32 in. (60 to 80 cm)

**Planting density:** 3 to 4 plants/ft.<sup>2</sup>  
(32 to 40 plants/m<sup>2</sup>)

**Best for:** High tunnel, field

**Direct sow to finish:** 14 to 19 weeks

**Supplied as coated seed.**

- Unusual spires of green, bell-formed blooms can be used fresh or dried and add interest to mixed bouquets.
- Small, hand-shaped leaves on the flower spikes are removed after cutting for optimum ornamental value.
- NOTE: The seed coating aids in visibility during sowing and holds a Thiram fungicidal addition to protect young plants in early emergence stage.





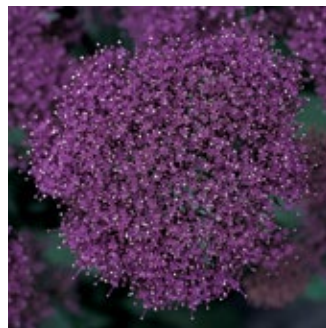
**Lake Michigan Purple**



**Lake Forest White**



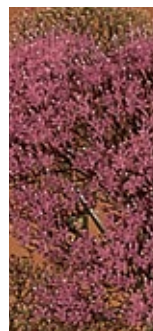
**Lake Forest Pink**



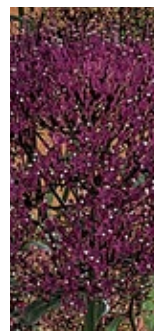
**Lake Forest Purple**



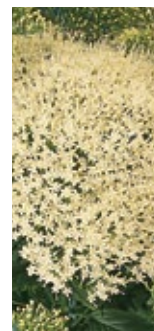
**Lake Louise White**



**Lake Louise Blue**



**Lake Louise Purple**



**Lake Michigan White**



**Lake Michigan Wine Red**



**Lake Michigan Purple**



**Lake Michigan Blue**



**Lake Michigan Violet**

**TRACHELIUM** 🌞 🌱  
*Trachelium caeruleum*

### Lake Collection

**Stem length:** 30 to 42 in. (75 cm to 1 m)

**Planting density:** 6 to 8 plants/ft.<sup>2</sup> (64 to 84 plants/m<sup>2</sup>)

**Best for:** Greenhouse

**Plug crop time:** 7 to 9 weeks

**Transplant to finish:** 10 to 18 weeks

**Supplied as** pelleted seed.

Three distinct series offer simplified ordering and production to fill year-round orders. Long-day flowering varieties need 16 to 18 hours of daylength to flower and produce the large central umbel with smaller side umbels or "satellites." Excellent vase life and good shipability. Foliage is medium green unless noted.

### Lake Forest Series (Winter-Flowering)

- Bred to flower more easily under conditions of shortening daylength. Long days are still needed to flower, but due to breeding, flowers are initiated more easily, uniformly and quickly.
- Transplant in Fall to early Winter for flowering in mid-Winter to early Spring.

Purple has dark green foliage and is the fastest to flower in the series.

### Lake Louise Series (Summer-Flowering)

- Latest to flower, this Group 4 series has the greatest potential for high heat and high light of the collection.
- Transplant in late Spring through Summer for Summer through early Fall flowering.

Purple has dark foliage.

### Lake Michigan Series (Spring & Fall-Flowering)

- The greatest potential for year-round production in mild climates.
- Mid-season flowering (transitional Group 3), for mid-Winter to early Spring transplants to yield late Spring to early Summer flowers. May also be transplanted late Summer to early Fall for Fall to early Winter flowering.

Purple has dark green foliage and stems.

Violet has dark reddish foliage and stems.



# floral selection guide



## Focal

These are the largest blooms in the arrangement... the varieties that make customers go "aah!" Be sure to check out our center-of-attention Jua sunflowers and lisianthus.

## Filler

These transitional varieties have clusters of individual flowers on a single stem or flower head, and are used to fill in spaces between the Focal and Line flowers. Examples include dianthus, aster and bupleurum.

## Line

These showy flowers add height and width to the arrangements, and are used to define the shape and direction. Many – like snapdragons, matthiola and delphinium – feature flowers held close to the stem.

## Volume

Secondary to the focal flowers, blooms like matthiola and dianthus provide a dense burst of color and add mass to the bouquet.

Class/Variety	Page	Focal	Filler	Line	Volume
<b>AGERATUM</b>					
Everest Blue	24		X		
<b>AMMI</b>					
Graceland	24		X		
Casablanca	24		X		
<b>ANEMONE</b>					
Mona Lisa Series	23	X			
<b>ASCLEPIAS</b>					
Silky Series	24		X		
<b>ASTER</b>					
Meteor Series	25		X		X
<b>BUPLEURUM</b>					
Griffiti	25		X		
<b>CELOSIA</b>					
Bombay Series	4	X			
Celway Series	5		X		
Spring Green	5	X			
Sunday Series	3		X	X	X
<b>DELPHINIUM</b>					
Blue Donna	25			X	X
Guardian F1 Series	25			X	
<b>DIANTHUS</b>					
Amazon F1 Series	7		X		X
Bouquet F1 Series	7		X		
Sweet F1 Series	6		X		X
<b>GOMPHRENA</b>					
Fireworks	26		X		
QIS Series	27		X		
<b>LIMONIUM</b>					
QIS Series	26		X		
<b>LISIANTHUS, DOUBLE</b>					
ABC Series	8	X			
NEW Flare Series	10	X			X
<b>LISIANTHUS, SINGLE</b>					
Laguna Series	11	X			
<b>MATRICARIA (TANACETUM)</b>					
Vegmo Series	27		X		X
<b>MATTHIOLA</b>					
Aida Series	14			X	X
Carmen Series	14			X	X
Column Stock	12			X	
Figaro Series	14			X	X
Katz Series	13			X	
Lucinda Series	15			X	X
Opera Series	15			X	X
<b>MOLUCCELLA</b>					
Bells of Ireland	27			X	
<b>SNAPDRAGON</b>					
Apollo Series	21			X	
Axiom Series	21			X	
Cool Series	20			X	
Early Potomac Series	16			X	
Maryland Series	18			X	
Monaco Series	19			X	
Paxia Series	20			X	
Potomac Series	17			X	
Purple Twist	21			X	
Red Delilah	20			X	
Trumpet Series	21			X	
<b>SUNFLOWER</b>					
Double Shine F1	22	X			
NEW Jua F1 Series	22	X			
Prado Series	22	X			
<b>TRACHELIUM</b>					
Lake Forest Series	28		X		
Lake Louise Series	28		X		
Lake Michigan Series	28		X		

# production guide



Our product development team pays careful attention to detail so that the best selections are made in our trials. (Blair Winner with Guardian delphiniums)



PanAmerican Seed breeders constantly create new plants as well as genetic improvements on already-popular varieties (Bombay Yellow celosia)

Class/Variety	Page	Greenhouse	High Tunnel	Field
<b>AGERATUM</b>				
Everest Blue	24	X	X	X
<b>AMMI</b>				
Graceland	24		X	X
Casablanca	24		X	X
<b>ANEMONE</b>				
Mona Lisa Series	23	X	X	
<b>ASCLEPIAS</b>				
Silky Series	24	X	X	X
<b>ASTER</b>				
Meteor Series	25	X	X	
<b>BUPLEURUM</b>				
Griffiti	25		X	X
<b>CELOSIA</b>				
Bombay Series	4	X		
Celway Series	5	X	X	X (3 colors)
Spring Green	5	X		
Sunday Series	3	X	X	
<b>DELPHINIUM</b>				
Blue Donna	25	X	X	X
Guardian F1 Series	25	X	X	X
<b>DIANTHUS</b>				
Amazon F1 Series	7	X	X	X
Bouquet F1 Series	7	X	X	X
Sweet F1 Series	6	X	X	X
<b>GOMPHRENA</b>				
Fireworks	26	X	X	X
QIS Series	27	X	X	
<b>LIMONIUM</b>				
QIS Series	26		X	X
<b>LISIANTHUS, DOUBLE</b>				
ABC Series	8	X	X	
NEW Flare Series	10	X	X	
<b>LISIANTHUS, SINGLE</b>				
Laguna Series	11	X	X	
<b>MATRICARIA (TANACETUM)</b>				
Vegmo Series	27	X	X	
<b>MATTHIOLA</b>				
Aida Series	14	X		
Carmen Series	14	X		
Column Stock	12			X
Figaro Series	14	X		
Katz Series	13		X	X
Lucinda Series	15	X		
Opera Series	15	X		
<b>MOLUCELLA</b>				
Bells of Ireland	27		X	X
<b>SNAPDRAGON</b>				
Apollo Series	21	X	X	
Axiom Series	21	X	X	
Cool Series	20	X	X	
Early Potomac Series	16	X	X	
Maryland Series	18	X	X	
Monaco Series	19	X	X	
Paxia Series	20	X	X	
Potomac Series	17	X	X	
Purple Twist	21	X	X	
Red Delilah	20	X	X	
Trumpet Series	21	X	X	
<b>SUNFLOWER</b>				
Double Shine F1	22		X	X
NEW Jua F1 Series	22		X	X
Prado Series	22		X	X
<b>TRACHELIUM</b>				
Lake Forest Series	28	X		
Lake Louise Series	28	X		
Lake Michigan Series	28	X		



# variety index



ABC 2 Blue and ABC 2 Misty Blue

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NOTE: Growers should use the information presented here as a starting point. Crop times, plant density, growing location and suggested use will vary depending on the climate, location, time of year, greenhouse environmental conditions and grower's own experience.



## Always Shining

All-new Jua Maya (featured here) and its cheery partner Jua Inca are bred to be less sensitive to cultural variations than traditional varieties...your crop won't stress and neither will you! For over 50 years, PanAmerican Seed has been developing, testing and selecting cut flower varieties like this sunny duo...so that you can *grow and sell with confidence*.

**Order PanAmerican Seed cut flower seed and plugs from your preferred distributor or call PanAmerican Seed.**

Variety info, detailed growing tips and more at [panamseed.com](http://panamseed.com)

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[panamseed.com](http://panamseed.com)

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