

# cut flowers

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PanAmerican Seed®

# cut flowers

## Confidence in Cuts

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...help florists create better arrangements...and ultimately put a smile on the face of the end consumer.

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Front Cover: NEW Tosca Blue Sea Matthiola  
Photo Left: Katz Matthiola  
Back Cover: Potomac Snapdragon





**NEW**

**Mona Lisa Deep Blue Improved Anemone**



**Mona Lisa Pink Anemone**



**Mona Lisa Mixture Anemone**



**Mona Lisa Scarlet Eye Anemone**



**Mona Lisa Wine White Bicolor Anemone**



**Mona Lisa White Anemone**



**Mona Lisa Bicolor Red Anemone**



**Grenade Orange Carthamus**



**Silky Gold Asclepias**  
Fleuroselect Quality Mark



**Silky Deep Red Asclepias**

**ANEMONE** 🌻  
*Anemone coronaria*

**Mona Lisa® Series F1**

**Height:** 18 in./46 cm

**Seed supplied as:** Raw

**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

- 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.

- 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.

**2020 New Deep Blue Improved**  
Offers improved germination for more reliable supply. More uniform hybrid than the original for improved efficiencies in cut flower production.

**ASCLEPIAS** 🌻  
*Asclepias curassavica*

**Silky Series**

**Height:** 24 to 28 in./61 to 71 cm

**Seed supplied as:** Raw

**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

- High-quality series is bred for greenhouse and outdoor Summer production and prefers a warm, rather dry location.

Also available: **Mixture**

**CARTHAMUS** 🌻  
*Carthamus tinctorius*

**Grenade Orange**

**Height:** 32 to 40 in./81 to 102 cm

**Seed supplied as:** Coated

**Direct sow to finish:** 10 to 16 weeks

- Features round, thornless leaves and round flower buds atop stems of uniform length.
- Best grown as a direct-sown crop.
- Useful for indoor and outdoor professional cut flower production programs for fresh and dried use; can also be used green when harvested young.





NEW

Campana Deep Blue Improved Campanula

## CAMPANULA 🌞

*Campanula medium*

## Campana Series F1

Height: 30 to 34 in./76 to 86 cm

Seed supplied as: Pelleted

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

Best for: Greenhouse

Plug crop time: 7 to 8 weeks

Transplant to finish: 10 to 14 weeks

- Top-quality professional cut flower series is a low-energy crop, suitable for Summer or Winter production. See the Product Information Guide at panamseed.com for daylength requirements.

- Well-matched across the series for timing and habit, Campana delivers excellent uniformity.

- 100% top-flowering with strong stems and good foliage.

**2020 New Deep Blue Improved** Large-flowered, deep blue campanula fits the series for timing, but is the best-quality variety in the series, and it features good vase life.

## Focal

These are the largest blooms in the arrangement...the varieties that make customers go "aah!" Be sure to check out our centre-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 and trachelium.

## Line

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

## Volume

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



Campana Pink Campanula



Campana White Campanula



Campana Lilac Campanula

## FLORAL SELECTION GUIDE FOR BOUQUETS

Class/Variety	Page	Focal	Filler	Line	Volume
ANEMONE					
Mona Lisa Series	4	X			
ASCLEPIAS					
Silky Series	4		X		
CAMPANULA					
Campana Series	5		X		X
CARTHAMUS					
Grenade Orange	4		X		X
CELOSIA					
Bombay Series	6	X			
Celway Series	8		X		
Neo Series	7	X			
Spring Green	6	X			
Sunday Series	8		X	X	X
DELPHINIUM					
Blue Donna	9			X	
Guardian Series	9			X	
DIANTHUS					
Amazon Series	11		X		X
Sweet Series	10		X		X
GOMPHRENA					
Fireworks	12		X		
QIS Series	12		X		
LIMONIUM					
QIS Series	13		X		
LISIANTHUS, DOUBLE					
ABC Series	14	X			
Flare Series	13	X			X
MATRICARIA					
Vegmo Series	16		X		X
MATTHIOLA					
Aida Series	16			X	X
Column Stock	17			X	X
Figaro Series	16			X	X
Katz Series	19			X	X
2020 New Katz Hi Double White	18			X	X
Mathilda Series	16			X	X
Opera Series	16			X	X
2020 New Tosca Series	18			X	X
SNAPDRAGON					
Cool Series	24			X	
Early Potomac Series	22			X	
Maryland Series	20			X	
Monaco Series	21			X	
Potomac Series	22			X	
Purple Twist	24			X	
Red Delilah	24			X	
SUNFLOWER					
Jua Series	25	X			
TRACHELIUM					
Lake Forest Purple	26		X		
Lake Michigan Series	26		X		





**Bombay Bronze**



**Bombay Pink**



**Bombay Cherry**



**Bombay Green** EU37645



**Bombay Fidor**



**Bombay Figo**



**Bombay Fire**



**Bombay Purple** Fleuroselect Gold Medal



**Bombay Fiora**



**Bombay Firosa**



**Bombay Fivio** EU 28164



**Spring Green** EU 18737

**CELOSIA**

*Celosia cristata* (Cockscomb)

**Bombay® Series**

Height: 28 to 40 in./71 to 102 cm

Seed supplied as: Coated

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

- Full colour assortment with programmable production - good for economical, high-density programs.
- High yields, strong stems and few off-shoot flowers.
- Flowers hold colour well and are well-suited to dried use.

**Spring Green**

Height: 40 to 48 in./102 to 122 cm

Seed supplied as: Coated

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

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

## Grow your margin, grow your sales

Neo lets you grow over a longer period through the year... harvest more usable stems from every ft<sup>2</sup>/m<sup>2</sup>...ship out better-quality *C. cristata*...and give florists a product that's easier to arrange and easier to sell.



**Gold** EU 46508



**Orange** EU 44055



**Pink** EU 43694



**Red** EU 46509



**Rose** EU 43693



**Neo Orange** EU 44055

### Neo Series 🌞

**Height:** 28 to 40 in./71 to 102 cm

**Seed supplied as:** Coated

**Planting density:** 6 to 8 plants/ft<sup>2</sup>  
(65 to 86 plants/m<sup>2</sup>)

**Best for:** Greenhouse

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

**Transplant to finish:** 8 to 12 weeks

- Less long day sensitive, making it easier to produce over a longer period during the year for most growers.
- Features new, unique colours and a much better leaf habit.
- Produces larger flowers with a thicker comb than Bombay.
- Easier to work with for bouquets or flower arrangements due to smaller leaves.

**Gold** Deepest yellow colour available on the market. NOTE: More sensitive to Fusarium compared to the rest of the series.

**Orange** Unique colour to the market will stir up interest for growers, retailers and florists.

**Pink** The fastest to flower of the series and the only dark-stemmed variety, with a slightly smaller bloom.

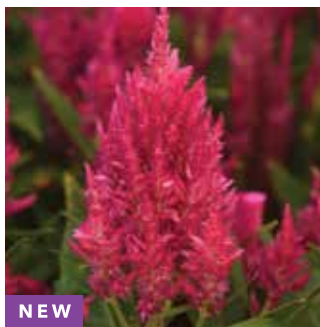
**Red** The slowest to flower and also a bit shorter compared to the rest of the series.

**Rose** The tallest of the series, with a more rose colour, bigger flower heads and lighter green stems than Pink. Also slower to flower than Pink.

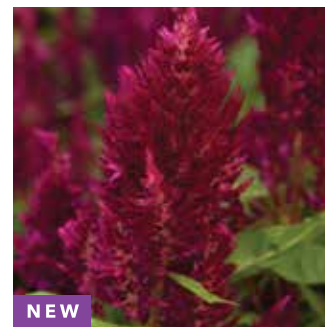




**NEW**  
Sunday Mixture Improved



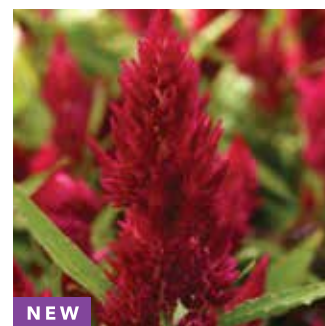
**NEW**  
Sunday Bright Pink



**NEW**  
Sunday Purple



**NEW**  
Sunday Orange Improved



**NEW**  
Sunday Cherry



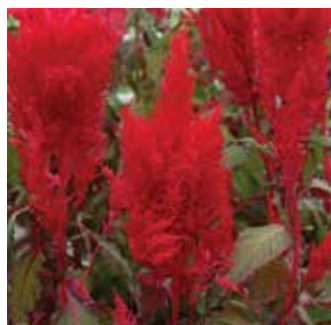
Sunday Dark Pink



Sunday Wine Red    Sunday Gold



Sunday Yellow



Sunday Red  
EU 28165

**CELOSIA**   
*Celosia plumosa*

**Sunday® Series**

**Height:** 28 to 40 in./71 to 102 cm

**Seed supplied as:** Coated

**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

- First professional cut version of the popular plume-shaped celosia.
- Full plumes and long, strong stems enhance high-end retail mixed bouquets.
- Short programmable production time and high yield - ideal for high-density programs.
- Excellent shippability and vase life.

**2019 New Bright Pink** Slightly shorter plumes compared to other Sunday varieties.

**2019 New Cherry** Bright cherry colour. Slightly larger leaves than other Sunday varieties.

**2019 New Orange Improved** More stem length, less daylength sensitivity and darker orange colour than previous Orange.

**2019 New Purple** Unique colour.

**2020 New Mixture Improved** Contains all new and improved colours: Dark Pink, Orange Improved, Bright Pink, Cherry, Purple and Gold.

SUNDAY is a trademark of Celex B.V.

**CELOSIA**   
*Celosia spicata*

**Celway® Series**

**Height:** 40 to 48 in./102 to 122 cm

**Seed supplied as:** Coated

**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

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

Also available: **Mixture**

CELWAY is a trademark of Celex B.V.





Celway Purple Celosia



Celway Red Celosia



Celway Orange Celosia



Celway White Celosia



Celway Lemon Celosia



Celway Salmon Celosia



Celway Terracotta Celosia



Guardian White Delphinium



Guardian Mixture Delphinium



Guardian Lavender Delphinium



Blue Donna Delphinium



Guardian Blue Delphinium

**DELPHINIUM** ☀️  
*Delphinium elatum*

**Guardian Series F1**

**Height:** 30 to 39 in./76 to 99 cm

**Seed supplied as:** Raw

**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:** 6 to 7 weeks

**Transplant to finish:** 16 weeks

- Breeding breakthrough makes it easy to program your crop to meet shipping dates.
- Very uniform blooming within each variety, especially under short days.
- Works well as a tall landscape/perennial variety, as a commercial cut flower, and in potted plant programs.
- Up to 6 weeks faster from transplant to bloom than O.P. types for more turns per sq. ft./metre of greenhouse space.
- Also suitable as a greenhouse cut flower or for garden cut flower production.
- As a greenhouse cut flower, Guardian can be grown under the same conditions as dianthus and snapdragons.
- Produces excellent stem quality for good cut flower shippability.

**DELPHINIUM** ☀️  
*Delphinium x belladonna*

**Blue Donna**

**Height:** 32 to 40 in./81 to 102 cm

**Seed supplied as:** Raw

**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

- True blue Delphinium has improved uniformity and colour, increased productivity and more stems per sq. ft./sq. m.
- Heat tolerant with low disease sensitivity.





**NEW**  
Sweet Purple Improved



White



Pink Magic



Pink



Deep Pink Maxine



**Coral**  
RHS Award of Garden Merit



**Scarlet**  
RHS Award of Garden Merit



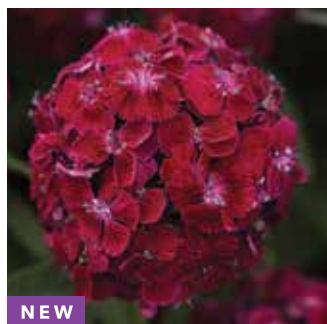
Purple White Bicolor



Magenta Bicolor



Red



**NEW**  
Purple Improved



Mixture



Black Cherry

**DIANTHUS** ☀️  
*Dianthus barbatus*

**Sweet Series F1**

**Height:** 18 to 36 in./46 to 91 cm

**Seed supplied as:** Pelleted

**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

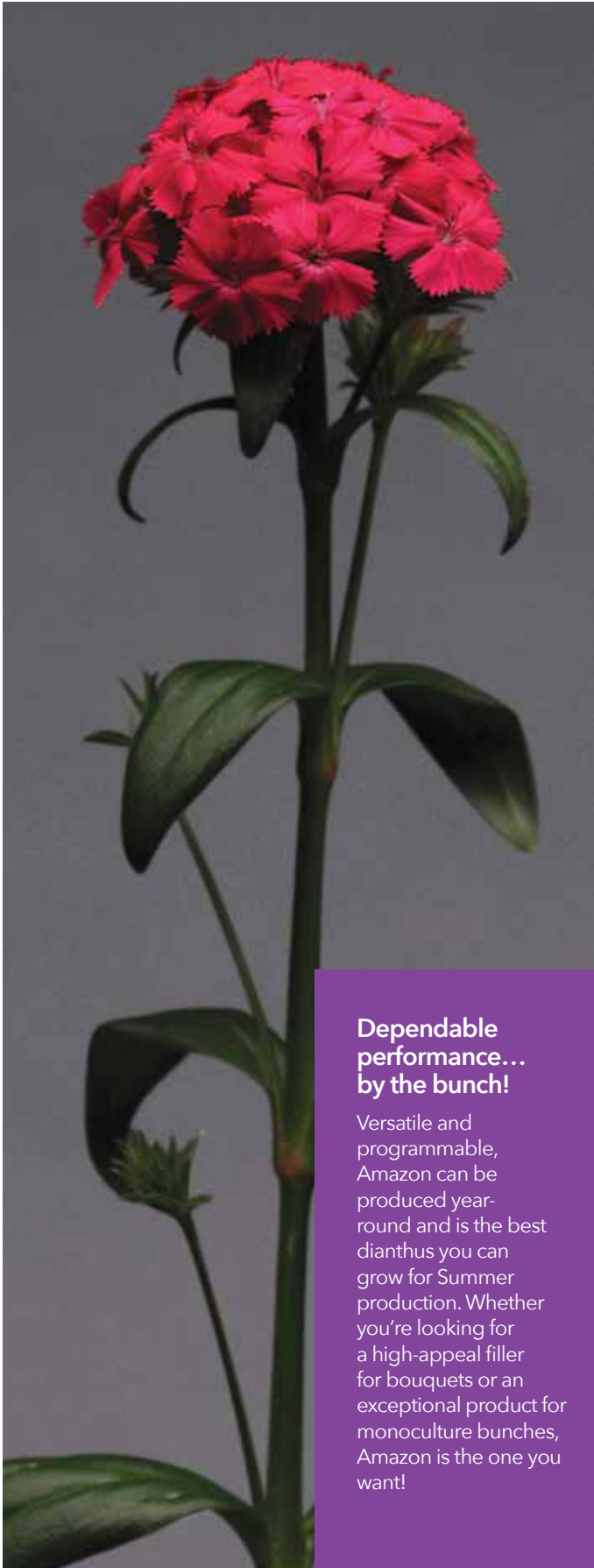
- Top-notch filler series features large, fragrant and long-lasting blooms on strong, straight stems.
- Produces high yields of saleable stems.
- Taller growth comes from early, Autumn-transplanted, greenhouse-grown plants.

**Deep Pink Maxine** More intense colour than Sweet Pink. A top-selling colour in most markets.

**2019 New Purple Improved** Richer colour and improved uniformity.

**White** Pure white with no grey anthers.





Amazon Neon Cherry

### Dependable performance... by the bunch!

Versatile and programmable, Amazon can be produced year-round and is the best dianthus you can grow for Summer production. Whether you're looking for a high-appeal filler for bouquets or an exceptional product for monoculture bunches, Amazon is the one you want!



Neon Duo



**Rose Magic**  
RHS Award of Garden Merit



**Neon Purple**  
RHS Award of Garden Merit

**DIANTHUS** ☀️  
*Dianthus barbatus interspecific*

### Amazon Series F1

**Height:** 18 to 36 in./46 to 91 cm

**Seed supplied as:** Pelleted

**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

- High yields of saleable stems.
- No vernalization is needed for flowering.
- As a Winter greenhouse crop, height is up to 36 in./91 cm, with tallest growth from early Autumn-transplanted plants.

**Neon Duo** Mix of Neon Cherry and Neon Purple.

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



QIS Orange



QIS Red



QIS Carmine *Fleuroselect Quality Mark*



Fireworks



Fireworks

**GOMPHRENA** 🌻  
*Gomphrena haageana*

**QIS Series**

**Height:** 24 to 26 in./61 to 66 cm

**Seed supplied as:** Raw

**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

- Vivid colour range makes these a Summer-long standout.
- Also as a first-class professional cut flower for greenhouse and outdoor production; suited to fresh and dried use.

Also available: **Purple, Mixture**

**GOMPHRENA** 🌻  
*Gomphrena pulchella*

**Fireworks**

**Height:** 48 in./122 cm

**Seed supplied as:** Coated

**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

- Unique "scaffolding" habit and more blooms per plant create an explosion of colour.
  - Vigorous, "tough as nails" plants are drought tolerant, low maintenance.
  - Excellent for mixed cut flower bouquets.
  - Easy to produce - stays compact as a plug.
  - Well-suited to high-margin gallon programs; suitable for field or garden cut flower production.
- Mississippi Medallion Award*





**QIS Mixture Limonium**



**QIS White Limonium**



**QIS Yellow Limonium**



**QIS Apricot Limonium**



**QIS Rose Limonium**



**QIS Pastel Limonium**



**QIS Lavender Limonium**



**QIS Pale Blue Limonium**



**QIS Dark Blue Limonium**



**QIS Purple Limonium**

**SEASONALITY NUMBER GUIDE FOR FLARE SERIES**

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

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). 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.

**LIMONIUM (STATICE) 🌞**

*Limonium sinuatum*

**QIS Series**

**Height:** 30 to 35 in./76 to 89 cm

**Seed supplied as:** Raw

**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)

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

**F<sub>1</sub> DOUBLE-FLOWERED LISIANTHUS 🌞**

*Eustoma grandiflorum*

**Flare Series**

**Height:** 36 to 45 in./91 to 114 cm

**Seed supplied as:** Pelleted

**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/Autumn, 12 to 14 weeks; Summer, 10 to 12 weeks

- The best spray-type Lisianthus series - Flare produces a spray of flowers on the top of each stem that opens within a short window, giving a bouquet effect to every stem.
- Labour savings, thanks to no pinching needed.
- Full spray effect may reduce the number of stems needed for floral arrangements.



**Flare Deep Rose Lisianthus**



**Flare Deep Blue Lisianthus**



**Flare White Lisianthus**



ABC 1 Purple



1 White



1 Rose Rim



1 Yellow



1 Green



1 Deep Rose



1 Misty Blue



1 Purple

**F<sub>1</sub> DOUBLE-FLOWERED LISIANTHUS** 🌻

*Eustoma grandiflorum*

**ABC Series**

**Height:** 36 to 45 in./91 to 114 cm

**Seed supplied as:** Pelleted

**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/Autumn, 12 to 14 weeks; Summer, 10 to 12 weeks

- Best-in-class genetics have proven reduced sensitivity to rosetting in the plug and after transplant. You get more saleable plants and stems, plus reduced or no need for gibberellic acid (GA) spraying.
- Uniform vigour 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 colour 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.





2 Yellow



2 Misty Pink



2 Rose



2 Misty Blue



2 Lavender



2 Blue Rim



2 Blue



2 Purple



3 White



3 Rose



3 Purple

SEASONALITY NUMBER GUIDE FOR ABC SERIES

Speed Guide	ABC Varieties	Optimum Flowering Period			
		Winter (Cool Temp.)	Spring (Warm Temp.)	Summer (Hot Temp.)	Autumn (Warm Temp.)
Speed 1 Early Flowering	1 Rose Rim	X			
	1 Deep Rose	X	X		X - For Late Autumn
	1 Green	X	X		X - For Late Autumn
	1 Misty Blue	X	X		X - For Late Autumn
	1 Purple	X	X		X - For Late Autumn
	1 White	X	X		X - For Late Autumn
	1 Yellow	X	X		X - For Late Autumn
Speed 2 Mid Flowering	2 Purple	X	X		X - For Late Autumn
	2 Blue	X	X	X	X - For Mid to Late Autumn
	2 Blue Rim	X	X	X	X - For Mid to Late Autumn
	2 Lavender	X	X	X	X - For Mid to Late Autumn
	2 Misty Blue	X	X	X	X - For Mid to Late Autumn
	2 Misty Pink	X	X	X	X - For Mid to Late Autumn
	2 Rose	X	X	X	X - For Mid to Late Autumn
	2 Yellow	X	X	X	X - For Mid to Late Autumn
Speed 3 Late Flowering	3 Purple		X	X	X
	3 Rose		X	X	X
	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, 4 - Very 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.



Aida White Matthiola



Aida Apricot Matthiola



**NEW**  
Mathilda Lavender Matthiola



Mathilda White Matthiola



Mathilda Pink Matthiola



Mathilda Yellow Matthiola



Figaro Light Rose Matthiola



Figaro Lavender Matthiola



Opera Fedora Matthiola



Opera Francesca Matthiola



Opera Debora Matthiola



Vegmo Single Matricaria



Vegmo Snowball Extra Matricaria



Vegmo Sunny Ball Matricaria

**MATRICARIA (TANACETUM)** ☀️  
*Tanacetum parthenium*

### Vegmo Series

**Height:** 28 to 36 in./71 to 91 cm

**Seed supplied as:** Pelleted

**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/Autumn, 10 to 14 weeks;

Summer, 7 to 10 weeks

- Excellent, fast year-round crop.
- Good post-harvest life.

Also available: **Single Yellow**

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

*Matthiola incana*

**Seed supplied as:** Raw

**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, 6 to 8 weeks;

Autumn, 4 to 7 weeks

Bred for specific seasonal performance, the Aida, Figaro and Opera series offer an outstanding lineup of greenhouse-grown selectable matthiola for year-round production. These matthiola 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 for details.

### Aida Series

(Spring Flowering, Group 2)

**Stem length:** 32 in./80 cm

### Figaro Series

(Winter Flowering, Group 1,2)

**Stem length:** 30 in./75 cm

### Opera Series

(Spring Flowering, Group 2)

**Stem length:** 32 in./80 cm

- Recommended for Autumn to late Spring flowering.
- Production is possible year-round if cool Summer temperatures are maintained in the greenhouse.

**Mathilda Series**  
(Spring Flowering, Group 2)

**Stem length:** 32 in./81 cm

**Seed supplied as:** Raw

**Planting density:** 6 plants/ft.<sup>2</sup>

(65 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, 6 to 8 weeks;

Autumn, 4 to 7 weeks

- Mathilda delivers the most uniform series on the market for habit and timing, with the best seed quality of any selectable matthiola.
  - Important upgrade assures more programmable production, higher production per sq. ft./m in the greenhouse and fewer losses.
- 2020 New Lavender** Intense lavender colour.

**Pink** Slightly taller than White and Yellow.

**Yellow** Offers the best selectable yellow variety, with consistent, uniform colour.





Column Stock Apricot



Avalanche



White Goddess



Miracle Yellow



Apricot



Appleblossom



Malmaison Pink



Pink Sweetheart



Ball Pink



Rose Pink



Pacific Crimson



American Beauty



Lilac Lavender

**TRADITIONAL FIELD-GROWN MATTHIOLA (STOCK)** 🌻

*Matthiola incana*

**Column Stock**

**Height:** 24 to 30 in./61 to 76 cm

**Seed supplied as:** Raw

**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

- Single-stemmed florist types have dense, showy spikes of scented, large, 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: **Formula Mixture**



Pacific Blue



Miracle Mid-Blue



Purple Heart



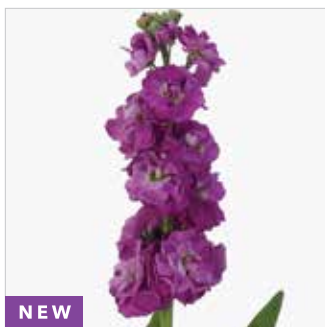
NEW

Tosca Blue Sea



NEW

Tosca Blue Sea



NEW

Tosca Rose



NEW

Katz Hi Double White

**NORTHERN GREENHOUSE  
SELECTABLE MATTHIOLA  
(STOCK)**

*Matthiola incana*

**2020 New Tosca Series**

(Spring Flowering, Group 2,3)

**Stem length:** 24 to 32 in./  
61 to 81 cm

**Seed supplied as:** Raw

**Planting density:** 6 to 7 plants/ft<sup>2</sup>  
(65 to 75 plants/m<sup>2</sup>)

**Best for:** Greenhouse

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

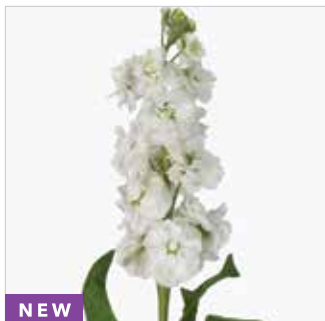
**Transplant to finish:** Autumn: 8 to  
10 weeks, Spring: 10 to 11 weeks,  
Summer: 6 to 8 weeks, Winter: 12  
to 14 weeks

- A good series to grow in Summer with higher light levels and temperatures.



NEW

Tosca Yellow



NEW

Tosca White



**More Usable Stems**

**NEW Katz Hi Double White** provides greater than 90% yield of usable double-flowered stems, and this top-selling colour also has flower quality to match current Katz White.





Katz White



Katz Yellow



Katz Apricot



Katz Cherry Blossom



Katz Pink



Katz Bright Rose



Katz Crimson



Katz Light Lavender



Katz Lavender Blue



Katz Blue



Katz Purple



Katz Ruby  
US PVP 201200438



Katz Pink

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

*Matthiola incana*

**2020 New Katz  
Hi Double White**

Stem length: 32 in./80 cm

Seed supplied as: Raw

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

- Offers all the same great features as the Katz Series.
- Provides greater than 90% yield of double-flowered stems in this top-selling colour.

**Katz Series**

Stem length: 32 in./80 cm

Seed supplied as: Raw

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

- Delivers shorter crop time, uniform stem length and timing between colours, and better heat tolerance than European or traditional field types.
- 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.
- Katz matthiola will produce approximately 50% double-flowering types.

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



**The power of caring & sharing**

We are proud to support PANCAN for pancreatic cancer research by donating 5% of our net seed sales of Katz Matthiola in honor of Philip Katz.

PanAmerican Seed was honored to have Philip Katz as our Cut Flower Product Manager for 13 years. Philip spearheaded the drive to grow our business in this important market into one that is

now supplying commercial growers around the globe with outstanding, high-quality cut flower varieties. After a valiant battle, the disease took Philip from all of us. The debut of a new matthiola series was timely and let us honor Philip in a way he would have truly appreciated.



Maryland Orange (1,2)



Bright Yellow (2)



White (2)



Ivory White (1,2)



Appleblossom (2)



Shell Pink (1,2)



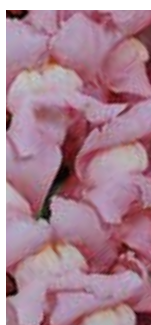
Yosemite Pink (1,2)

**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 and early Spring harvest	Cool, Maryland, Purple Twist, Red Delilah
2,3	52 to 57°F/11 to 14°C for Autumn and Spring harvest	Monaco
3,4	60°F/15°C for late Spring, Summer and early Autumn harvest	Potomac, Early Potomac



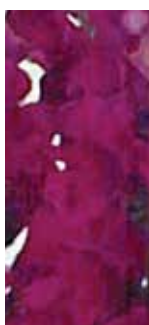
Lavender (1,2)



True Pink (1,2)



Plumblossom (2)



Royal (1,2)



Dark Orange (2)



Orange (1,2)



Red (1,2)

**F1 SNAPDRAGON** ☀

*Antirrhinum majus*

All cut flower snapdragons are supplied as raw seed.

**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

**Maryland Series**

(Group 1,2)

- Energy-efficient series is your best choice for cool-season, low-light and low-temperature conditions.
- Group with other Group 1,2 varieties (Cool, Purple Twist and Red Delilah) for Autumn, Winter and Spring programs.
- Well-defined flower spikes are produced on sturdy, clean stems.

Also available: **Flamingo (1,2)**





Monaco Rose (2,3)



Baltimore Rose (2,3)



Red (2,3)



Orange (2,3)



Violet (2,3)



White (2,3)



Yellow (2,3)



Rose (2,3)

### Monaco Series

(Group 2,3)

- The "go-to" snaps for difficult transition harvest periods - late Summer to early Autumn and late Winter to early Spring.
- Monaco tolerates warm Autumn conditions without flowering too quickly, and produces high-quality flower spikes when Autumn weather is unusually cool and dark.
- Performs well all year in areas with moderate temperatures and little daylength fluctuation.

**2020 New Orange** Important colour addition to this transitional season series.





Early Potomac Pink (3)



Early Potomac White (3)



Early Potomac Yellow (3)



Early Potomac Orange (3)



Early Potomac Rose (3)



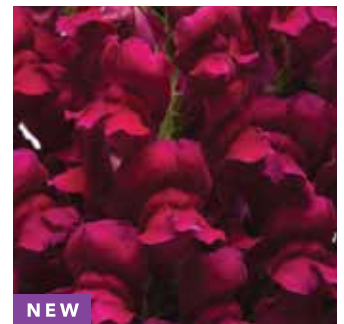
NEW

Potomac White Improved (3,4)



NEW

Potomac White Improved (3,4)



NEW

Potomac Royal Improved (3,4)

F1 SNAPDRAGON CONTINUED

**Early Potomac® Series**

(Group 3)

- Can be grown under medium to long days and moderate to high light levels.
- Ideal for Spring and Autumn programs, producing very high-quality, long stems with excellent taper.

**Potomac® Series**

(Group 3,4)

- Tops for production during periods of high light, long days and warm temperatures.
- Plants produce tall, strong stems and long spikes with good flower quality.
- Can be grown year-round with supplemental high-intensity light.

**2020 New Royal Improved** Offers more vivid colour saturation and better flower spike quality.

**2020 New White Improved** Offers more reliable germination and improved flower spike quality.



**Snaps second to none**

PanAmerican Seed is the world leading supplier of F1 forcing snaps, with an unsurpassed choice of top-producing varieties selected for stem and flower quality, photoperiodic response and earliness to flower. With selections streamlined into 4 flowering response groups - including our popular Potomac family - you'll find it a "snap" to build an all-year program of successful growing.



**Potomac Rose (3,4)**



**Potomac Ivory White (3,4)**



**Potomac Appleblossom (3,4)**



**NEW**  
**Potomac Royal Improved (3,4)**



**Potomac Lavender (3,4)**



**Potomac Dark Orange (3,4)**



**Potomac Cherry Rose (3,4)**



**Potomac Red (3,4)**



**Potomac Orange (3,4)**



**Potomac Yellow (3,4)**



**Potomac Crimson (3,4)**



**Potomac Pink (3,4)**







Cool Orange (1,2)



Cool White (1,2)



Cool Pink (1,2)



Cool Yellow (1,2)



Cool Rose (1,2)



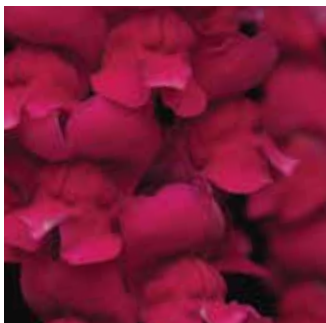
Purple Twist (2)



Red Delilah (2)



Cool Orange Bicolor (1,2)



Cool Crimson (1,2)

F1 SNAPDRAGON CONTINUED

**Cool Series**

(Group 1,2)

- Best, most uniform Winter-flowering snapdragon has genetically matched varieties with uniformity across the series and within each colour for timing, height and spike quality.
- Strong, 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.

**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.

**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.





Jua Maya Sunflower



Jua Inca Sunflower

## F1 SUNFLOWER

*Helianthus annuus*

### Jua Series

**Height:** 36 to 60 in./91 to 152 cm

**Seed supplied as:** Treated

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

**Best for:** High tunnel, field

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

- Jua varieties are bred to be less sensitive to cultural variations than traditional sunflowers.
- 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.
- Height is dependent on culture.

**Inca** Mahogany and gold bicolor petals with dark centre.

**Maya** Golden yellow petals with dark black centre.





Lake Michigan Purple



Lake Michigan White



Lake Michigan Blue



Lake Michigan Violet



Lake Forest Purple

**TRACHELIUM** 🌻  
*Trachelium caeruleum*

**Lake Collection**

**Stem length:** 30 to 42 in./76 to 107 cm

**Seed supplied as:** Pelleted

**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

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 shippability. Foliage is medium green unless noted.

**Lake Michigan Series**

(Spring and Autumn-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 Autumn for Autumn to early Winter flowering.

**Lake Forest Purple**

(Winter-Flowering)

- Transplant in Autumn to early Winter for flowering in mid-Winter to early Spring.





Jua Sunflower



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

PRODUCTION GUIDE				
Class/Variety	Page	Greenhouse	High Tunnel	Field
<b>ANEMONE</b>				
Mona Lisa Series	4	X	X	
<b>ASCLEPIAS</b>				
Silky Series	4	X	X	X
<b>CAMPANULA</b>				
Campana Series	5	X	X	
<b>CARTHAMUS</b>				
Grenade Orange	4		X	X
<b>CELOSIA</b>				
Bombay Series	6	X		
Celway Series	8	X	X	X (3 colors)
Neo Series	7	X		
Spring Green	6	X		
Sunday Series	8	X	X	
<b>DELPHINIUM</b>				
Blue Donna	9	X	X	X
Guardian Series	9	X	X	X
<b>DIANTHUS</b>				
Amazon Series	11	X	X	X
Sweet Series	10	X	X	X
<b>GOMPHRENA</b>				
Fireworks	12	X	X	X
QIS Series	12	X	X	
<b>LIMONIUM</b>				
QIS Series	13		X	X
<b>LISIANTHUS, DOUBLE</b>				
ABC Series	14	X	X	
Flare Series	13	X	X	
<b>MATRICARIA</b>				
Vegmo Series	16	X	X	
<b>MATTHIOLA</b>				
Aida Series	16	X		
Column Stock	17			X
Figaro Series	16	X		
Katz Series	19		X	X
2020 New Katz Hi Double White	18		X	X
Mathilda Series	16	X		
Opera Series	16	X		
2020 New Tosca Series	18	X		
<b>SNAPDRAGON</b>				
Cool Series	24	X	X	
Early Potomac Series	22	X	X	
Maryland Series	20	X	X	
Monaco Series	21	X	X	
Potomac Series	22	X	X	
Purple Twist	24	X	X	
Red Delilah	24	X	X	
<b>SUNFLOWER</b>				
Jua Series	25		X	X
<b>TRACHELIUM</b>				
Lake Forest Purple	26	X		
Lake Michigan Series	26	X		

# PanAmerican Seed®

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